HARDWARE REFERENCE MANUAL

VERSION: V1.0.4

JPK-1300

Jetpack 3x1 Switching, Transport, and Control Solution

UA Version

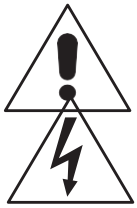
EK Version

AV FOR AN IT WORLD®

IMPORTANT SAFETY INSTRUCTIONS

1. READ these instructions.
2. KEEP these instructions.
3. HEED all warnings.
4. FOLLOW all instructions.
5. DO NOT use this apparatus near water.
6. CLEAN ONLY with dry cloth.
7. DO NOT block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. DO NOT defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. PROTECT the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. ONLY USE attachments/accessories specified by the manufacturer.
12. USE ONLY with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. UNPLUG this apparatus during lightning storms or when unused for long periods of time.
14. REFER all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. DO NOT expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.
16. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
17. Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
18. DO NOT overload wall outlets or extension cords beyond their rated capacity as this can cause electric shock or fire.
19. Please use the HDMI cable with magnetic ring.



The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.
The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

ESD Warning: The icon to the left indicates text regarding potential danger associated with the discharge of static electricity from an outside source (such as human hands) into an integrated circuit, often resulting in damage to the circuit.

WARNING: To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.
WARNING: No naked flame sources - such as candles - should be placed on the product.
WARNING: Equipment shall be connected to a MAINS socket outlet with a protective earthing connection.
WARNING: To reduce the risk of electric shock, grounding of the center pin of this plug must be maintained.

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LIABILITY NOTICE

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ESD WARNING

To avoid ESD (Electrostatic Discharge) damage to sensitive components, make sure you are properly grounded before touching any internal materials.

When working with any equipment manufactured with electronic devices, proper ESD grounding procedures must be followed to make sure people, products, and tools are as free of static charges as possible. Grounding straps, conductive smocks, and conductive work mats are specifically designed for this purpose. These items should not be manufactured locally, since they are generally composed of highly resistive conductive materials to safely drain static discharges, with- out increasing an electrocution risk in the event of an accident.

Anyone performing field maintenance on AMX equipment should use an appropriate ESD field service kit complete with at least a dissipative work mat with a ground cord and a UL listed adjustable wrist strap with another ground cord.

WARNING: Do Not Open! Risk of Electrical Shock. Voltages in this equipmentare hazardous to life. No user-serviceable parts inside. Refer all servicing to qualified service personnel.
Place the equipment near a main power supply outlet and make sure that youcan easily access the power breaker switch.

WARNING: This product is intended to be operated ONLY from the voltages listed on the back panel or the recommended, or included, power supply of the product. Operation from other voltages other than those indicated may cause irreversible damage to the product and void the products warranty. The use of AC Plug Adapters is cautioned because it can allow the product to be plugged into voltages in which the product was not designed to operate. If the product is equipped with a detachable power cord, use only the type provided with your product or by your local distributor and/or retailer. If you are unsure of the correct operational voltage, please contact your local distributor and/or retailer.

FCC AND CANADA EMC COMPLIANCE INFORMATION:

This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. 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.

Approved under the verification provision of FCC Part 15 as a Class A Digital Device.
Caution
Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this device. CAN ICES-3 (B)/NMB-3(B)

EU COMPLIANCE INFORMATION:

Eligible to bear the CE mark; Conforms to European Union Low Voltage Directive 2006/95/EC; European Union EMC Directive 2004/108/EC; European Union Restriction of Hazardous Substances Recast (RoHS2) Directive 2011/65/EU; European Union WEEE (recast) Directive 2012/19/EU; European Union Radio and Telecommunications Terminal Equipment (R&TTE) Directive 1999/5/EC

WEEE NOTICE:

This appliance is labeled in accordance with European Directive 2012/19/EU concerning waste of electrical andelectronic equipment (WEEE). This label indicates that this product should not be disposed of with householdwaste. It should be deposited at an appropriate facility to enable recovery and recycling.

Table of Contents

Overview

The JPK-1300 is designed for multi-function AV intelligent education system. It consists of a Keypad, a Wall-plate Transmitter and an All-in-one Receiver. It offers 2 HDMI and USB Type-C video extension, video switching and system control. Uncompressed video and audio can be transmitted up to 70m/230ft at 1080P or 40m/131ft at 4K2K@30 (YUV 4:4:4) over a shielded Cat 6/6A/7 cable. The product supports USB signal pass-through, RS-232 control, Relay, IR (IR pass-through & IR learning), audio de-embedding, USB-AUDIO, ARC function and CEC control. This design of HDBaseT™ technology allows for full usage of HDMI and controls over Cat 6/6A/7 cable. The product can be controlled through panel buttons, Web GUI and PC tool.

Keypad contains a volume knob (with MUTE function) and six control keys. It supports two HDMI and one USB-C input selection.

Wall-plate Transmitter contains one USB-C input (without charging function), two HDMI inputs, one USB-B input, an IR learning window and an input selection button.

Receiver supports MIC input, mixing and 2x25W 4/8 Ohms audio amplifier output, IR output, CEC control, Relay control, RS-232 control, MUTE control, HDMI and USB output.

The same hardware design can meet different specifications and market demands of US/EU/UK only by replacing the front panel of the Wall-plate (Video Panel).

Features

- HDMI 2.0 and HDCP 2.2 compliant
- Supports video resolution up to 4K2K@50/60Hz 4:2:0, 10.2Gbps video bandwidth
- HDMI audio formats: LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD MA, DSD
- Supports HDR, Dolby Vision and HLG
- HDBT transmits lossless and zero-delay video & audio up to 230ft/70m for 1080P or 131ft/40m for 4K via a Shielded Cat 6/6A/7 cable
- Supports audio de-embedding and ARC function (the audio will be output through the Linear audio output port)
- Supports IR pass-through, RS-232 control and CEC control
- Supports controlling the external devices through IR/CEC/RS-232
- Supports unbalanced and balanced MIC inputs
- Supports mono unbalanced and balanced LINE inputs
- One-way 24V PoC function (Receiver → Wall-plate →Keypad)
- Wall-plate Transmitter supports IR learning
- USB-C port supports **DP Alt Mode** for audio and video transmission
- USB-C port supports USB 2.0 sound card, which can independently transmit audio to the Receiver
- Control via panel buttons, RS-232, TCP/IP, REST API, Web GUI and PC tool

Package Contents (UA Version)

- 1 x JPK-1300 Wall-plate Transmitter (with Screws)
- 1 x JPK-1300 Keypad (with Screws)
- 1 x JPK-1300 Receiver
- 1 x Phoenix Connector (3.81mm, 2 Pins)
- 4 x Phoenix Connector (3.81mm, 3 Pins)
- 1 x Phoenix Connector (5.08mm, 4 Pins)
- 1 x IR Wideband Emitter Cable (1.5 meters)
- 2 x Mounting Bracket (with Screws)
- 1 x DC 24V/3.75A Power Adapter
- 2 x Power Cord (IEC Type B & IEC Type I for UA version)
- 1 x Quick Start Guide

Package Contents (EK Version)

- 1 x JPK-1300 Wall-plate Transmitter (with Screws)
- 1 x JPK-1300 Keypad (with Screws)
- 1 x JPK-1300 Receiver
- 1 x Phoenix Connector (3.81mm, 2 Pins)
- 4 x Phoenix Connector (3.81mm, 3 Pins)
- 1 x Phoenix Connector (5.08mm, 4 Pins)
- 1 x IR Wideband Emitter Cable (1.5 meters)
- 2 x Mounting Bracket (with Screws)
- 1 x DC 24V/3.75A Power Adapter
- 2 x Power Cord (IEC Type G and IEC Type E/F (CEE 7/7 Plug) for EK version)
- 1 x Quick Start Guide

Specifications

Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2
Video Bandwidth	297MHz/10.2Gbps
Video Network Bandwidth	10G
Video Resolution	480i ~1080p50/60Hz, 4Kx2K@24/30Hz, 4k2k@50Hz/60Hz 4:2:0
Color Depth	8/10/12-bit (1080P60Hz) 8-bit (4K30Hz 4:4:4)
Color Space	RGB, YCbCr 4:4:4 / 4:2:2. YUV 4:2:0
HDR	HDR, Dolby Vision, HLG
IR Level	12Vp-p
IR Frequency	Wideband 20 k - 60 KHZ
Audio Formats	• HDMI: LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-ES,DTS-96/24, DTS High Res, DTS-HD MA, DSD • Linear audio out: PCM 2.0
Control Method	• Front panel buttons • AMX Jetpack Manager (Mac/PC software) available at AMX.com • Web UI • Telnet / RS-232 control (API Commands)
PC Requirements	• Memory: 8GB • Graphic: Intel HD graphics 4000 or above • OS Compatibility: Windows 7 (64-bit), Windows 10, Windows 11 Mac OS 10.12 or newer • Storage: >= 300MB
Connections	
Keypad	INPUT: 1 × CONTROL (RJ45) 1 × MICRO USB (Update port)
Wall-plate Transmitter	INPUT: 2 × HDMI IN (Type A, 19-pin port) 1 × USB-C IN (24-pin port) 1 × USB HOST (USB Type B) 1 × IR Receive Window 1 × MICRO USB (Update port) OUTPUT: 1 × AV LINK (RJ45) 1 × CONTROL (RJ45)
Receiver	INPUT: 1 × AV LINK (RJ45) 1 × LAN 10/100 (RJ45) 1 × REMOTE MUTE (2pin-3.81mm Phoenix Conn) 1 × MIC/LINE IN (3pin-3.81mm Phoenix Conn) 1 × DC 24V 1 × MICRO USB (Update port) OUTPUT: 1 × HDMI OUT (Type A, 19-pin port) 1 × IR OUT (3.5mm Stereo Mini-jack) 1 × USB DEVICE (USB Type A) 1 × RS-232 (3pin-3.81mm Phoenix Connector) 1 × RELAY (3pin-3.81mm Phoenix Connector) 1 × AUDIO OUT(3pin-3.81mm Phoenix Connector) 1 × AMP OUT (4pin-5.08mm Phoenix Connector)

Specifications

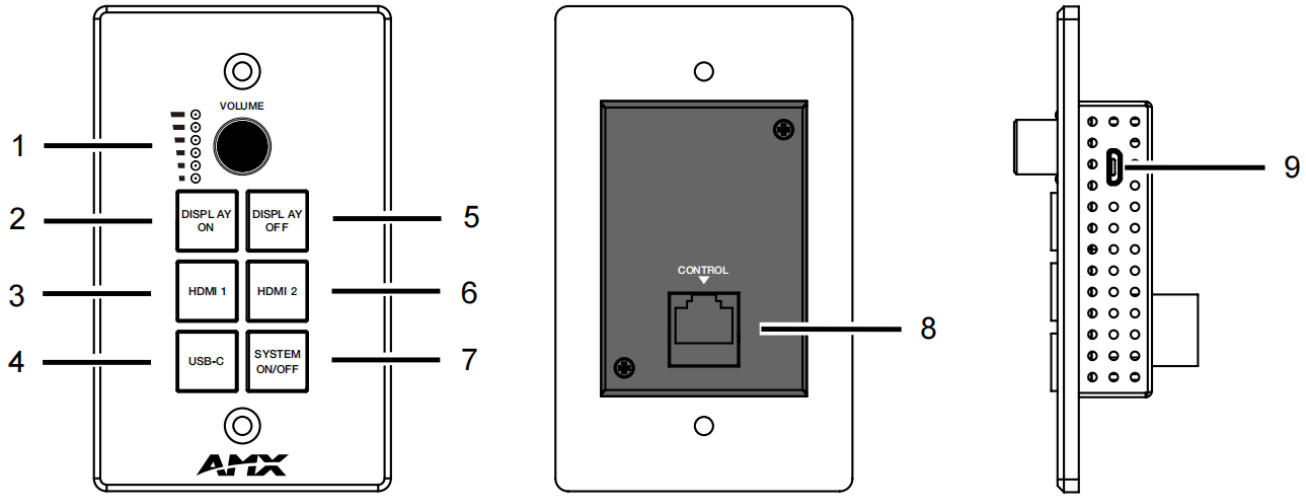
General	
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Humidity	20% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV (Air-gap discharge)/±4kV (Contact discharge)
Power Supply	Input: AC100 - 240V 50/60Hz Output: DC 24V/3.75A (US/EU standards, CE/FCC/UL certified)
Power Consumption (Max)	80W (TX + RX + Keypad)
Device Dimension (W x H x D)	UA Version: • Keypad: Front panel: 70mm x 114mm x 22.2mm / 2.76” x 4.49” x 0.87” Rear case: 69.4mm x 48.4mm x 17.2mm / 2.73” x 1.91” x 0.68” • Wall-plate Transmitter: Front panel: 116mm x 114mm x 39.2mm / 4.57” x 4.49” x 1.54” Rear case: 85.8mm x 52.6mm x 34.2mm / 3.38” x 2.07” x 1.35” • Receiver: 250mm x 30mm x 104mm / 9.84” x 1.18” x 4.09” EK Version: • Keypad: Front panel: 146mm x 85mm x 22.2mm / 5.75” x 3.35” x 0.87” Rear case: 69.4mm x 48.4mm x 17.2mm / 2.73” x 1.91” x 0.68” • Wall-plate Transmitter: Front panel: 146mm x 85mm x 39.2mm / 5.75” x 3.35” x 1.54” Rear case: 85.8mm x 52.6mm x 34.2mm / 3.38” x 2.07” x 1.35” • Receiver: 250mm x 30mm x 104mm / 9.84” x 1.18” x 4.09”
Product Weight	UA Version: • Keypad: 0.19kg/0.42lb • Wall-plate Transmitter: 0.35kg/0.77lb • Receiver: 0.81kg/1.79lb EK Version: • Keypad: 0.23kg/0.51lb • Wall-plate Transmitter: 0.33kg/0.73lb • Receiver: 0.81kg/1.79lb
Certification	CE, FCC, ETL, PSE, RCM

Transmission Distance

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

Cable Type	Range	Supported Video
Shielded Cat 6/6A/7	70m/230ft	1080P
	40m/131ft	4K2K@30 (YUV 4:4:4)
HDMI	Input: 12m/39ft Output: 12m/39ft	1080P@60Hz
	Input: 10m/33ft Output: 10m/33ft	4K@60Hz 4:2:0
USB	Input: 1.5m/4.9ft	4K@60Hz 4:2:0

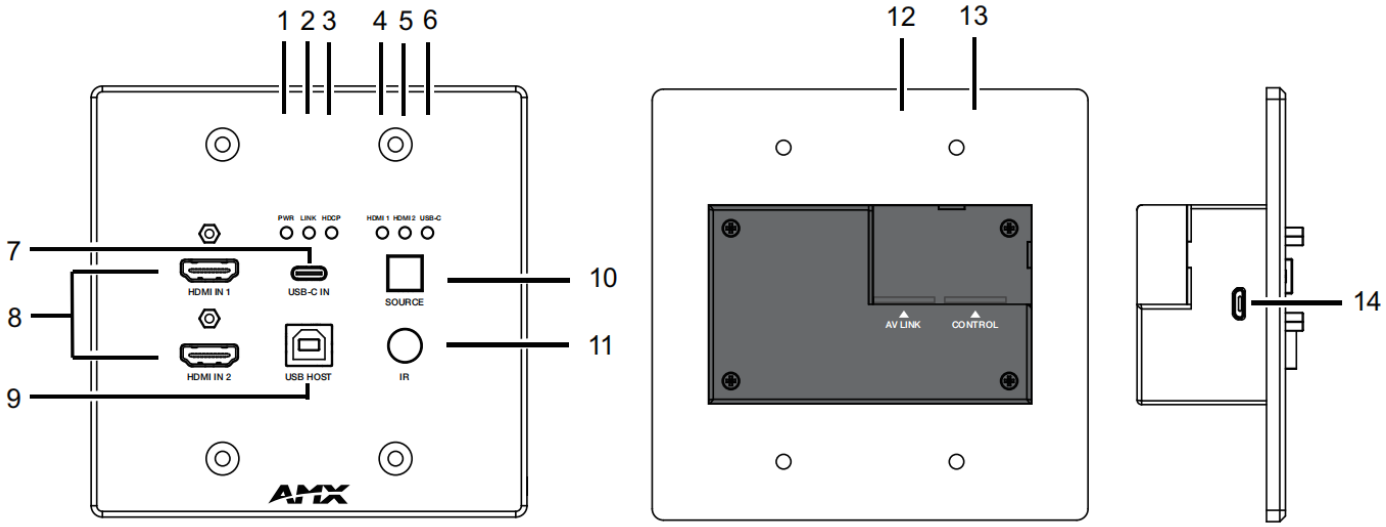
Keypad Description (UA Version)



No.	Name	Description
1	Volume Knob and Volume Level Indicator	Use the volume knob to adjust the audio output volume of the amplifier, the corresponding volume level indicator will be on. • Rotate clockwise to increase the audio volume. • Rotate counterclockwise to decrease the audio volume. • Press/Release the Volume knob to Mute the audio. Press/Release again to Unmute the audio.
2	DISPLAY ON Button	Press this button to send power on command to turn on display device. For details, please refer to the System Control setting instructions in the Control page of Web UI Control section
3	HDMI 1 Button	Press this button to select the HDMI IN 1 port of TX as the signal input channel. * *Press and hold for 3 seconds to Mute Video. Press again to Unmute.*
4	USB-C Button	Press this button to select the USB-C port of TX as the signal input channel. * *Press and hold for 3 seconds to Mute Video. Press again to Unmute.*
5	DISPLAY OFF Button	Press this button to turn off display devices. For details, please refer to the System Control setting instructions in the Control page of Web UI Control.
6	HDMI 2 Button	Press this button to select the HDMI IN 2 port of TX as the signal input channel. * *Press and hold for 3 seconds to Mute Video. Press again to Unmute.*
7	SYSTEM ON/ OFF Button	When System is OFF, **ALL LEDS will be OFF**. Press this button to turn ON the System *Press and hold for 3 seconds to turn OFF the System from the Keypad.*
8	CONTROL port	Connect to the CONTROL port of TX via a Cat 6/6A/7 cable.
9	MICRO USB port	Used for Software upgrade.

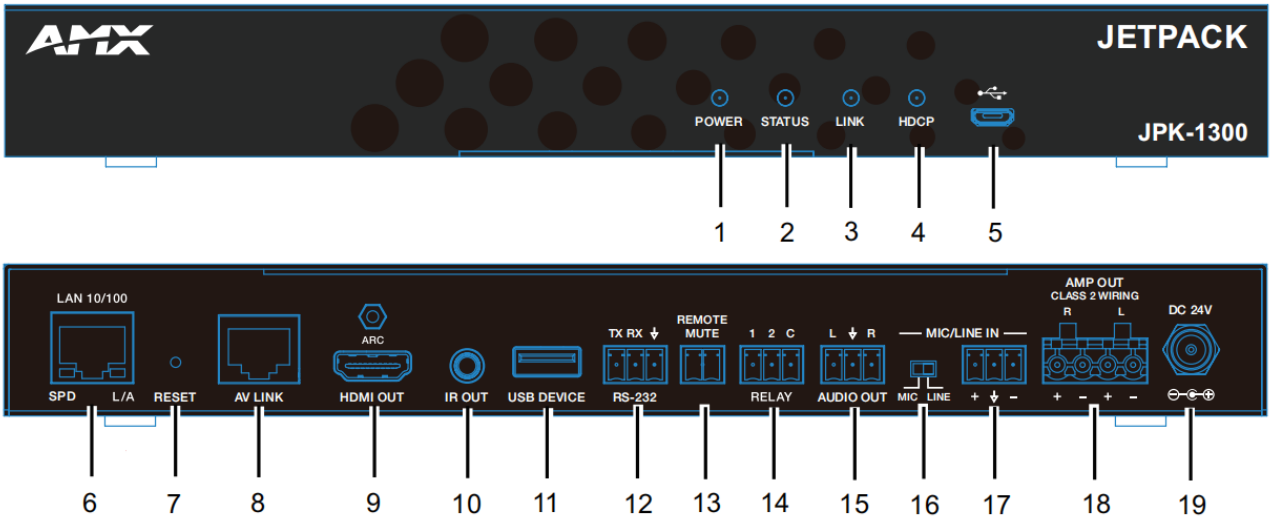
*** NOTE:** When using Video Mute in the Web UI or Muting the video by pressing the source input button for 3 seconds, the source LED will turn off while muted and the *output video signal* will be **turned off.** The connected display may go to sleep (due to no signal) but the DISPLAY ON will still be illuminated. Pressing any source input button again (or connecting another source with active video and Auto Switching enabled) will restore the output video. While video is muted, the audio from that source will still be audible through the Line out/Amp out connections.

Wall-plate Transmitter Panel Description (UA Version)



No.	Name	Description
1	PWR LED (Green)	**On:** JPK-1300 TX is powered on. **Off:** JPK-1300 TX is powered off or in standby/System OFF. ***Important:*** *ALL Jetpack LEDs are turned off when in standby/System OFF*
2	LINK LED (Green)	**LED indicates the connection status of the TX and RX.** **On:** JPK-1300 TX and RX are linked. **Blinking:** Link error. **Off:** No link
3	HDCP LED (Green)	**On:** Signal is being transmitted with HDCP. **Off:** Signal is being transmitted without HDCP or no signal is being transmitted.
4	HDMI 1 LED (Green)	**On:** The HDMI IN 1 port is selected as the signal input channel. **Off:** The HDMI IN 1 port is not selected as the signal input channel.
5	HDMI 2 LED (Green)	**On:** The HDMI IN 2 port is selected as the signal input channel. **Off:** The HDMI IN 2 port is not selected as the signal input channel.
6	USB-C LED (Green)	**On:** The USB-C port is selected as the signal input channel. **Off:** The USB-C port is not selected as the signal input channel.
7	USB-C IN Port	USB-C signal input port. Connect to USB-C source device (eg. PC) with a USB-C cable that supports **DP Alt Mode.**
8	HDMI IN 1 Port HDMI IN 2 Port	HDMI signal input port. Connect to the HDMI source device (i.e. DVD, PC) with HDMI cable.
9	USB HOST	Connect to the PC or Notebook with USB cable.
10	SOURCE Button	Press this button to cycle through the video inputs, and the corresponding HDMI 1/ HDMI 2/ USB-C LED will be selected and LED turned on.
11	IR Window	Used for IR pass-through or IR learning.
12	AV LINK Port	HDBaseT output port. Connect to the AV LINK port of RX with Cat 6/6A/7 cable.
13	CONTROL Port	Connect to the CONTROL port of Keypad with Cat 6/6A/7 cable.
14	MICRO USB Port	Used for Software upgrade.

Receiver Panel Description (UA Version)



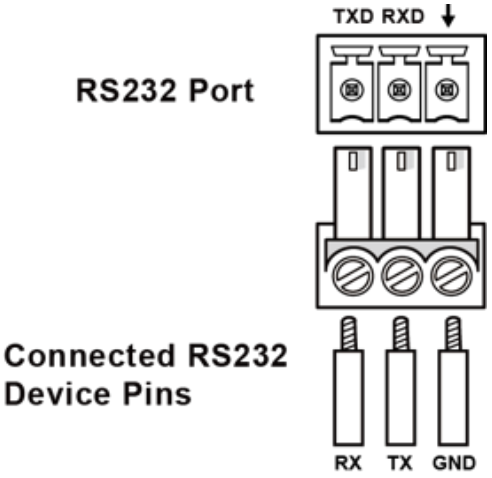
No.	Name	Description
1	POWER LED (Green)	**On:** JPK-1300 RX is powered on. **Off:** JPK-1300 RX is powered off or in standby/System OFF. ***Important:*** *ALL Jetpack LEDs are turned off when in standby/System OFF*
2	STATUS LED (Green)	**On:** JPK-1300 RX is working properly. **Blinking:** JPK-1300 RX is not working properly.
3	LINK LED (Green)	**LED indicates the connection status of the TX and RX.** **On:** JPK-1300 TX and RX are linked. **Blinking:** Link error. **Off:** No link
4	HDCP LED (Green)	**On:** Signal is being transmitted with HDCP. **Off:** Signal is being transmitted without HDCP or no signal is being transmitted.
5	MICRO USB Port	Used for Software upgrade.
6	LAN 10/100	Connect to network/PC for Web UI or Telnet control.
7	RESET	With JPK-1300 RX powered on, use a pointed stylus to press and hold the RESET button for five seconds, and then release it, it will reboot and restore to its factory defaults. (Takes about 10 seconds)
8	AV LINK Port	HDBaseT input port. Connect to the AV LINK port of TX with Cat 6/6A/7 cable.
9	HDMI OUT Port	HDMI signal output port. Connect to the HDMI display device (such as TV or Projector). ***Note:*** *There is no scaler in JPK-1300 RX so the display device must be able to support the input signal resolution.*
10	IR OUT Port	IR signal output port. Connect with IR Blaster cable.
11	USB DEVICE Port	USB Type A port. Connect to USB devices such as electronic whiteboard, USB camera, mouse or keyboard.
12	RS-232 Port	RS-232 control port. Used to control devices with RS-232 port, such as Projector.
13	REMOTE MUTE Port	Fire alarm trigger port. Used to mute the audio output function when there is a fire.
14	RELAY Port	RELAY control port. Used to control projection screen rise and fall.
15	AUDIO OUT Port	Linear audio output port. Connect to amplifier or other audio LINE IN input devices.
16	MIC/LINE Selection Switch	When selecting “MIC” with the switch, connect the MIC/LINE IN port to a dynamic microphone; When selecting “LINE” with the switch, connect the MIC/LINE IN port to a wire-level audio source or wireless microphone. There are two connection methods: 1. Unbalanced connection: Connect “+” to MIC signal, and connect “⏚” to the ground. 2. Balanced connection: Connect “+” to the positive signal of the microphone balance, and connect “-” to the negative signal of the microphone balance.
17	MIC/LINE IN port	Connect a dynamic microphone or a wireless microphone compatible with linear audio.
18	AMP OUT Port	4pin Phoenix Connector. Connect to speakers for audio mixing output.
19	DC 24V Port	DC 24V power input port.

Pinout Information

The following figures show the pinouts of the Phoenix Connectors.

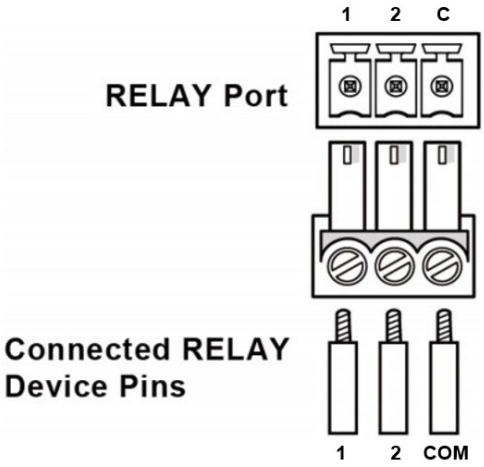
RS232

Connects to an RS232-enabled device with the 3-pole, 3.81mm captive screw connectors. Wire as shown below:



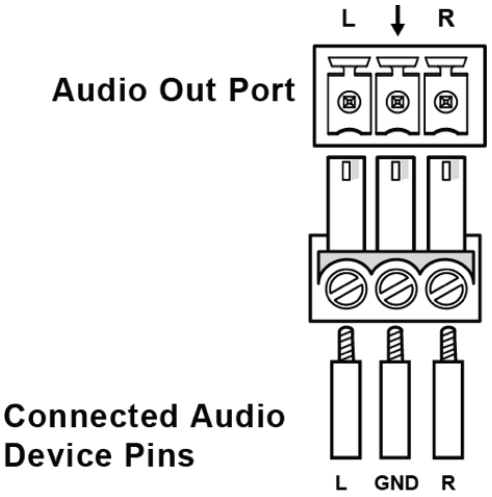
RELAY

Connects to a projector screen with the 3-pole, 3.81mm captive screw connectors. Wire as shown below:



Audio Out

Connect to an audio device with the 3-pole, 3.81mm captive screw connector. Wire as shown below:



Installation and Connection

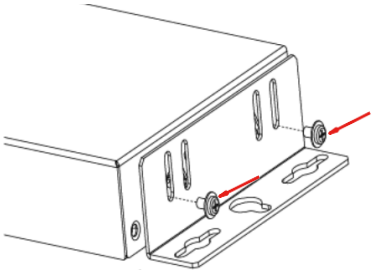
Cable Requirements

1. CONTROL port connection distance is up to 164ft/50m via a Shielded Cat 6/6A/7 cable. The CONTROL cable must be pre- run from the Wall-plate Transmitter backbox to the Keypad backbox.
2. AV LINK port connection distance is up to 230ft/70m for 1080P video or 131ft/40m for 4K video via a Shielded Cat 6/6A/7 cable. The AV LINK cable must be pre-run from the Receiver installation location to the Wall-plate Transmitter backbox.

Install Jetpack Receiver

1. Position and install the mounting brackets of JPK-1300 RX with the 4 mounting screws provided, as shown below.

JPK-1300 RX



2. Mount and secure the JPK-1300 to a surface or a suitable location using appropriate mounting screws.

Connect Jetpack Receiver

1. Connect the pre-run AV LINK cable to the AV LINK port on the JPK-1300 RX.
2. Connect the power adapter provided to the JPK-1300 RX.
3. Connect HDMI OUT
   Connect JPK-1300 RX HDMI OUT to an HDMI display device (such as a TV or projector). See **Transmission Distance** section for maximum cable lengths and resolution support.
4. Connect USB DEVICE
   Connect an USB device (such as a Smart Board) to the USB DEVICE port of the JPK-1300 RX.
5. Connect MICROPHONE or OTHER ROOM AUDIO SOURCE
   Connect an audio source (such as a microphone) to the MIC/LINE IN port of the JPK-1300 RX. (Make sure the MIC/LINE switch is turned to MIC when connecting a microphone to the MIC/LINE IN port.).
6. Connect AUDIO OUT
   Connect the AUDIO OUT port to an amplifier or powered speakers and/or connect the AMP OUT port to 4/8 Ohm speakers using appropriate speaker cables.
7. Connections for additional control options:
   - LAN control (Web UI/PC tool/Telnet/SSH): Connect the JPK-1300 RX to the same network of the PC or control system via the LAN.
   - RS-232/IR/RELAY control: Connect the RS-232 or IR OUT port of the JPK-1300 RX to the display device such as a projector via an RS-232 cable or the IR emitter cable provided, and connect the RELAY port (1-2) to the projection screen motor relay.
   - Remote mute control: Connect the REMOTE MUTE port of the JPK-1300 RX to the contact closure of the fire alarm system.

Note: Please refer to the appropriate sections in this manual for the configuration of RS-232/IR/RELAY control and REMOTE MUTE.

Connect Jetpack Devices

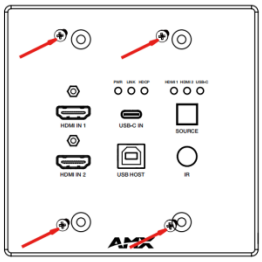
1. Connect one end of the pre-run CONTROL cable to the CONTROL port on the JPK-1300 Wall-plate TX and the other end to the CONTROL port on the JPK-1300 keypad.
2. Connect the free end of the pre-run AV LINK cable to the AV LINK port on the JPK-1300 Wall-plate TX.

Installing Jetpack Wall-plate Transmitter and Keypad

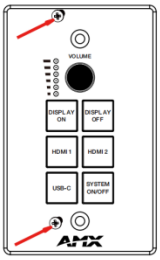
To install the UA version JPK-1300 Wall-plate TX and Keypad:

1. Place the wall-plate TX and keypad into US standard back box.
2. Secure the wall-plate TX and keypad with the white screws provided, as shown below.

JPK-1300-UA TX



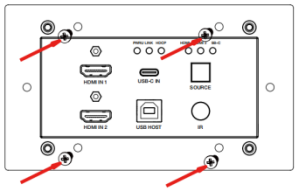
JPK-1300-UA Keypad



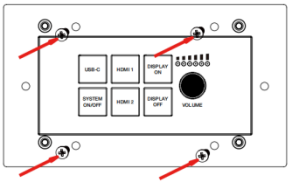
To install the EK version JPK-1300 Wall-plate TX and Keypad:

1. Remove the white screws on the cover of the wall-plate TX and keypad and remove the cover.
2. Place the wall-plate TX and keypad into an EU standard back box, and secure with the screws provided, as shown below.

JPK-1300-EK TX



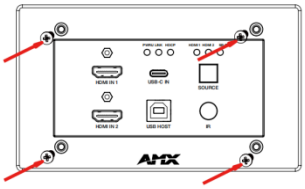
JPK-1300-EK Keypad



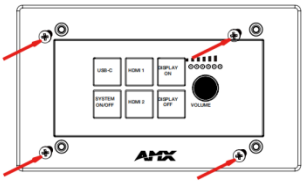
Note: Use the two screw holes on the left and right ends to install the EK version wall-plate TX and keypad into UK standard back boxes.

3. Secure the cover back to the wall-plate TX and keypad with the white screws provided, as shown below.

JPK-1300-EK TX



JPK-1300-EK Keypad



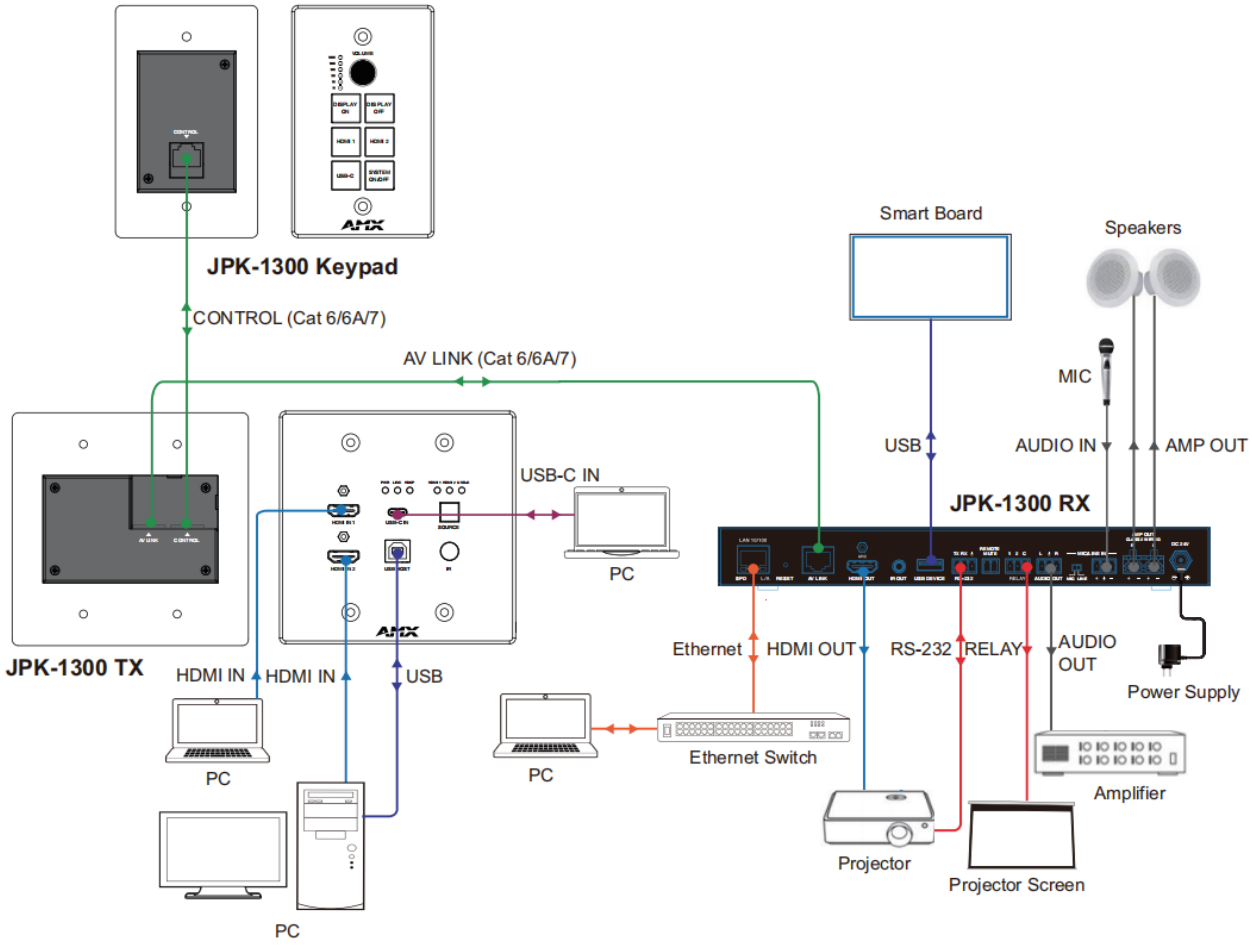
Connecting Jetpack TX to Source Equipment

1. Connect HDMI / USB-C IN
   Connect the HDMI and/or USB-C video sources to the HDMI IN 1, 2, or USB-C port of the JPK-1300 TX.
2. Connect USB HOST
   If using an HDMI input, connect the USB HOST port on the JPK-1300 TX wall-plate to the USB port of the PC.

Basic Operations

1. Power on all the attached devices: When all are powered on, check all LED indicators on the JPK-1300 TX and RX to ensure the installation is successful.
2. Use the SYSTEM ON/OFF button on the JPK-1300 Keypad to turn the system on/off.
   • When the system is off, ALL LEDs will be OFF. Press to turn on the system.
   • When the system is on, press and hold for 3 seconds to turn off the system.
3. When the system is on, press DISPLAY ON or DISPLAY OFF button on the JPK-1300 Keypad to turn the display device on or off by RS-232/IR/CEC and raise or lower the projection screen by relays.
4. When the system is on, press the HDMI IN 1, HDMI IN 2, or USB-C buttons on the JPK-1300 Keypad or the SOURCE button on the JPK-1300 TX to switch the video source. Press and hold the currently selected video source button for three seconds to mute the video output, press again to unmute. Check the video output on the display device.
5. Connect MICROPHONE or OTHER ROOM AUDIO SOURCE to MIC/LINE IN port
   • Set MIC/LINE select switch to appropriate setting for the connected source.
6. Connect AMP OUT port to 4/8 Ohm speakers using appropriate speaker cables.
   • The correct speaker impedance loading must be observed. By default, the amplifier is configured for use with 8 Ohm speakers. The Web UI or Telnet/SSH commands can be used to configure the amplifier for 4 Ohm loads if 4 Ohm speakers are required.
7. When the system is on, turn the knob on the JPK-1300 Keypad to adjust the volume, or press the knob to mute and unmute the volume.

Typical Connection Diagram



Input Source Switching

The JPK-1300 Kit supports Auto and Manual Switching between the HDMI and USB-C inputs.

Auto Switching

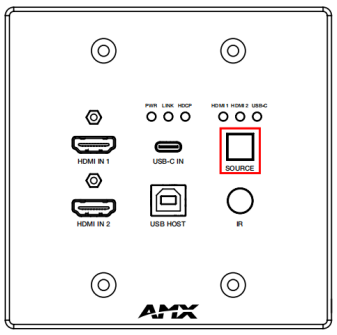
1. When multiple sources are inserted, and power is ON for all devices, the input will be switched to the last selected input port of the last operation.
2. When a new source is inserted, the input will be switched to it automatically, following the Last-In-First-Out rule.
3. When the currently selected source is removed, the input will first be switched to the most recently selected port.

Note:

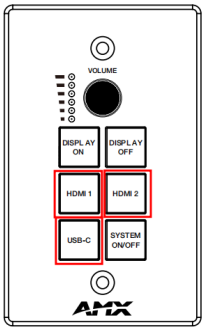
- The Auto Switching function is enabled by default once all devices are powered on.
- Auto Switching can be set to Enabled or Disabled through PC tool and Web UI control.

Manual Switching

JPK-1300-UA TX



JPK-1300-UA Keypad



The JPK-1300 Kit supports Manual Switching between the HDMI and USB-C inputs in four methods.

Method 1: Through the JPK-1300 Keypad

Press the HDMI 1/HDMI 2/USB-C button on the JPK-1300 Keypad to directly select the HDMI 1/HDMI 2/USB-C input source.

Method 2: Through the SOURCE button of JPK-1300 TX

Press the SOURCE button on the front panel of JPK-1300 TX to cycle through the HDMI 1/HDMI 2/USB-C input source selections.

Method 3: Through the PC tool control (AMX Jetpack Manager)

For details, please refer to the Control setting of “PC Tool Control”.

Method 4: Through the Web UI control

For details, please refer to the Video Switching operation in the Video setting of “Web UI Control”.

Note:

- The Manual Switching function is enabled by default once all devices are powered on.
- Auto and Manual Switching functions exist simultaneously.

PC Tool Control

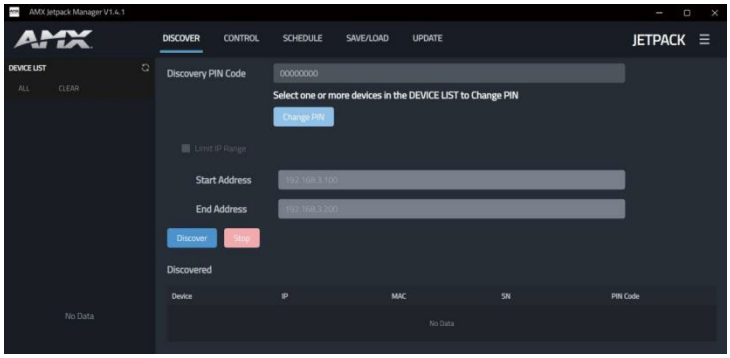
Controlling the JPK-1300 through the PC tool.
Download the “AMX Jetpack Manager” from amx.com and install this application tool on the PC. Before launching this tool, connect all the JPK-1300 kits and the PC into the same network.

The default IP mode of JPK-1300 is DHCP. If there is no DHCP server in the network, the default IP of JPK-1300 is 192.168.1.2. The IP addresses of all the kits in the same network can be discovered by the PC tool.

Launch AMX Jetpack Manager and select “DISCOVER” in the menu on the top.

Discover

The Discover page is used to discover devices and set device PIN code.
The PIN code is a string of 8 digits. (The default PIN code is 00000000.)
New PIN code can be applied on each device. To discover devices with multiple PIN codes, please separate multiple PIN codes with spaces (for example: 00000000 00000001 00000002…).

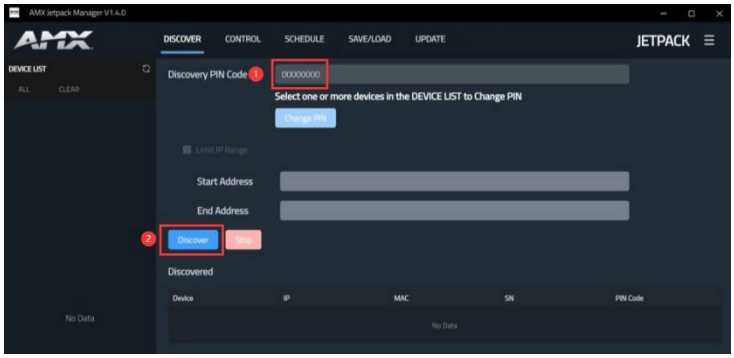


1. Discovering devices

There are two methods to discover devices:

Method 1: Auto Discover

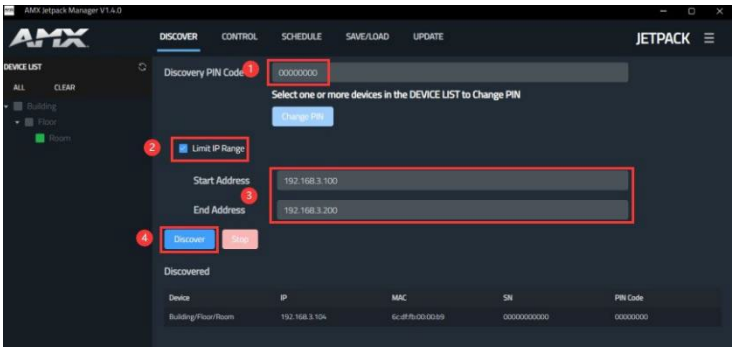
Click DISCOVER, and then enter the PIN code in the Discovery PIN Code box, click the “Discover” button to start searching for devices. The discovered devices will be displayed in the Discovered list and shown in the DEVICE LIST. Finally, click the “Stop” button to stop searching.



Method 2: Discover by IP

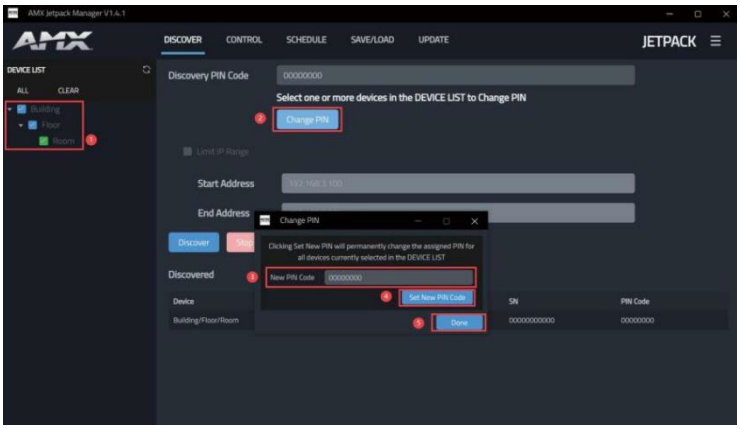
Enter the PIN code in the Discovery PIN Code box, select “Limit IP Range” and enter the IP address range with “Start Address” and “End Address”. Click the “Discover” button to start searching. The discovered devices will be displayed in the Discovered list and shown in the DEVICE LIST. Finally, click the “Stop” button to stop searching.

Note: “Start Address” and “End Address” must be in the same Network segment. (The subnet mask is 255.255.255.0.)



2. Set device PIN code in batches

Click the checkbox at the DEVICE LIST to select at least one device, for which the PIN code is to be set. Then click “Change PIN” to pop up the “Change PIN“ window, as shown in the figure below. Enter an 8-digit PIN code in “New PIN Code”. Finally click “Set New PIN Code” to complete setting, and click “Done” to close the window.



Control

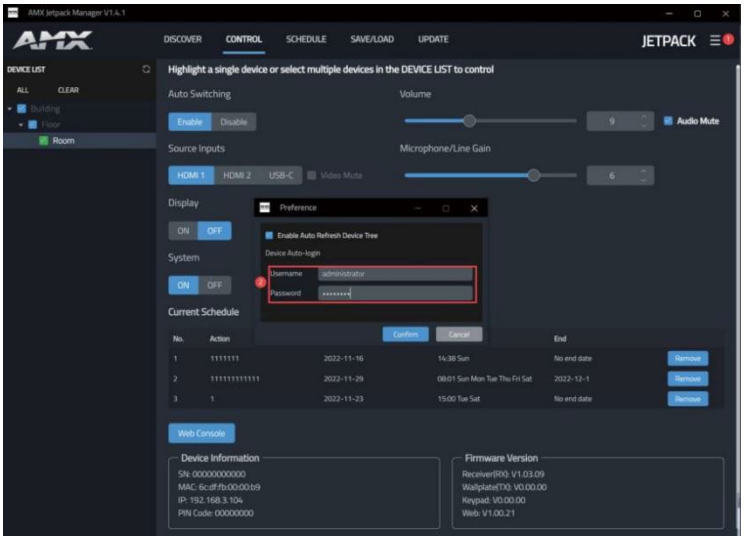
1. Control devices

Click the device to be set at the DEVICE LIST, and the background of the selected device will turn gray. The information and Schedule list of the current device will be displayed. Then click the corresponding function on the right to set the Auto Switching, Volume, Audio Mute, Source Inputs, Microphone/Line Gain, Display, System function.

2. Web Console

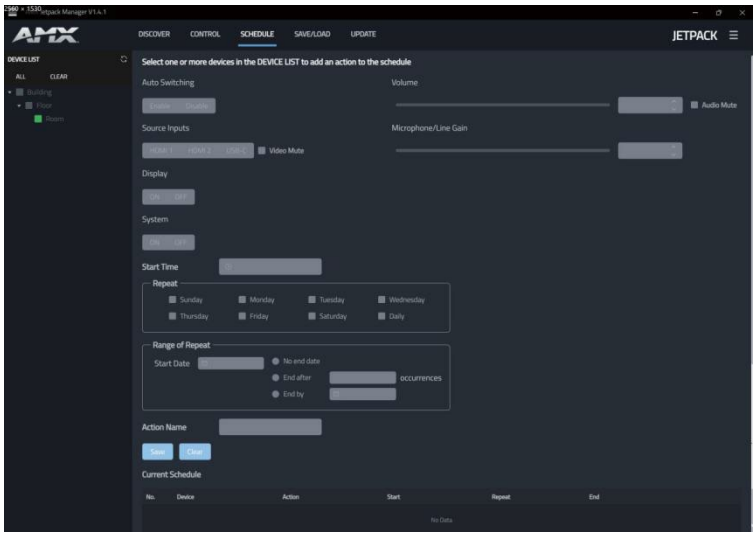
Click the icon in the upper right corner to open the Preference window. Enter the Username and Password in Device Auto-login. Finally click Web Console to open the Web of the current selected device.

Note: Make sure that the password can pass verification no matter how you set the Username and Password, otherwise, it will not login automatically.



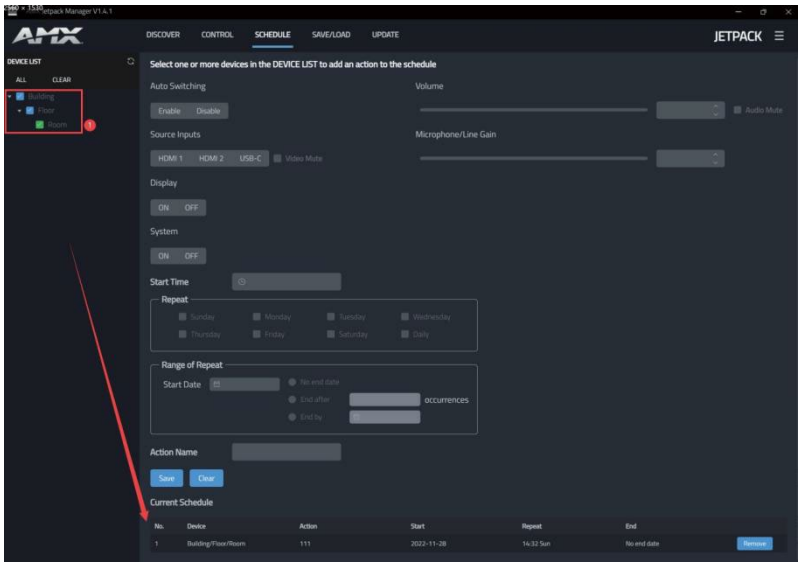
Schedule

On the PC Tool select the SCHEDULE tab



1. Get device Schedule information

Click the checkbox to select the device from the DEVICE LIST, the corresponding Schedule information will be displayed at the bottom of the page. Scroll down to see Current Schedule list.



2. Add Scheduled events to single or multiple devices

Follow the steps below to add a Schedule to multiple selected devices at the same time:

Step 1 - Click the checkboxes in the DEVICE LIST to select the device(s).

Step 2 - Select the available actions to be triggered by the schedule - Auto Switching, Volume, Audio Mute, Source Inputs, Microphone/Line Gain, Display and System. Please note that the value of Volume and Microphone/Line Gain must be larger than 0.

Step 3 - Set the Start Time for the event to occur.

Step 4 - Select the day(s) for the event to repeat in Repeat section. You must select at least one day for Weekly OR select Daily for all days.

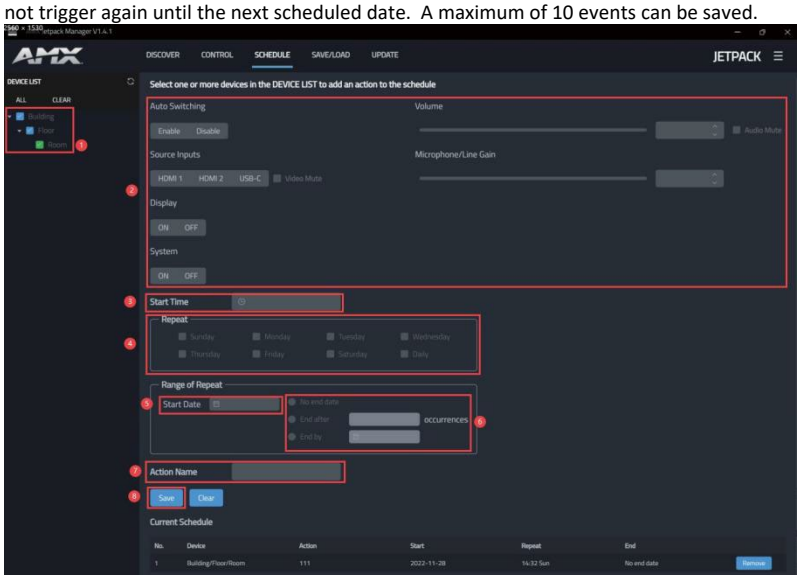
Step 5 - Set the start date in "Range of Repeat".

Step 6 - Set the end date in "Range of Repeat".

Step 7 - Enter the "Action Name".

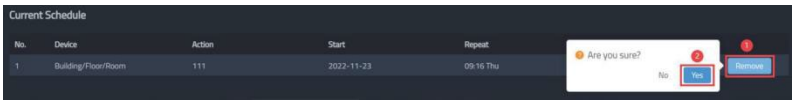
Step 8 - Click "Save" to complete schedule setup.

Setup Tip: A scheduled event can only occur once per day. If an event has already triggered and the same scheduled event is then modified, it will not trigger again until the next scheduled date. A maximum of 10 events can be saved.



3. Remove Schedule

Click the "Remove" button in the Current Schedule list, and then click "Yes" to complete removal.

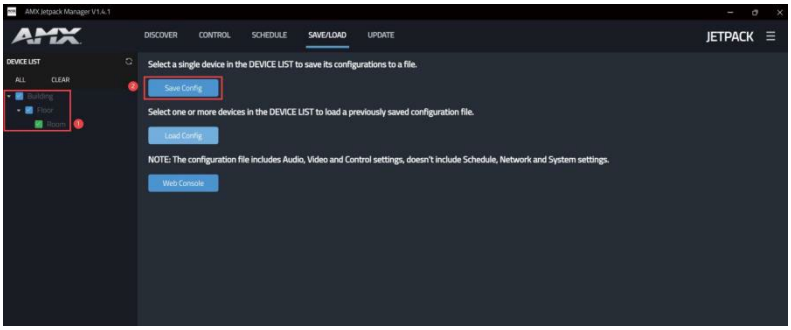


Settings

1. Export Configuration Files

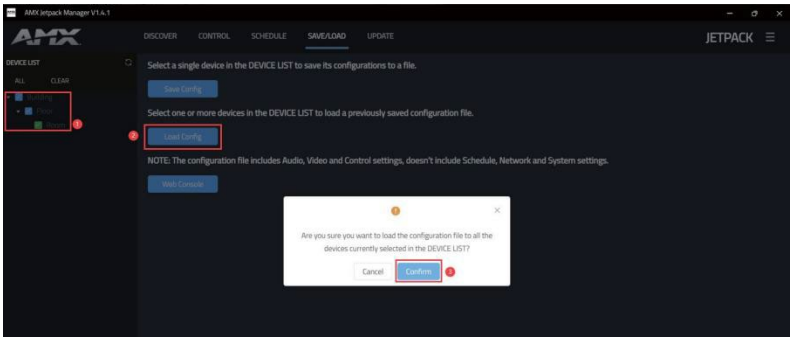
Click the checkbox at the DEVICE LIST to select the device. Please note that, you can only choose one device at one time. Then click "Save Config", select the file path, and click "Confirm" to save the file and complete exporting.

Note: The Config file does not store Security, Network or Schedule information. It is mainly for Video, Audio and certain System settings.



2. Import Configuration Files in batches

Click the checkbox at the DEVICE LIST to select at least one device, then click "Load Config" to select the configuration file to be imported. Finally, click "Confirm" to complete batch importing.



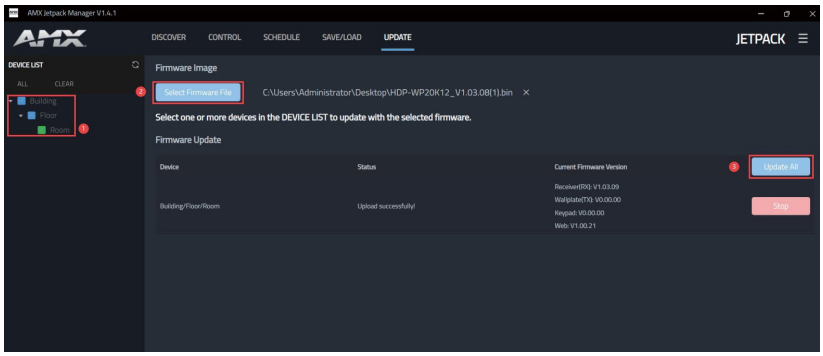
3. Access Web UI Console

Select a device and then click the Web Console button to launch the Web UI Console for that device.

Update

1. Update devices in batches

Click the checkbox at the DEVICE LIST to select devices. Then click “Select Firmware File” to select the files to be updated, and click “Update All” to start batch updating.



2. Update stages

The update is divided into several stages:
Stage 1. Upload the update file to the device. (In this state, clicking Stop on the right can stop the upgrade.)
Stage 2. Start to update.
Stage 3. Updating.
Stage 4. Update is complete or failed. At this time, the system displays the number of devices that have been successfully updated or failed to be updated.

Note: When updating a duplicate version, it will prompt that the upgrade cannot be repeated.

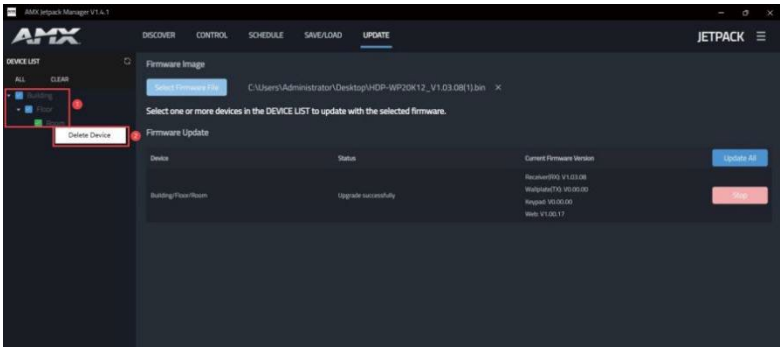
Device List

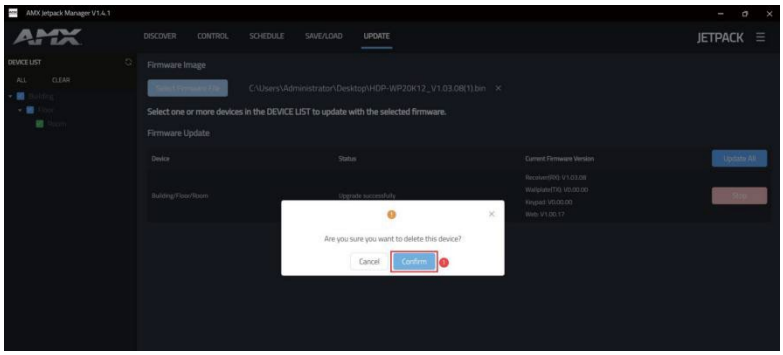
1. Device Status Description

The color of device at the DEVICE LIST indicates the status of the device as following.
Green: The device is online and powered on.
Orange: The device is online but powered off.
Red: The device has been added into the system before, but it cannot be detected during searching.

2. Remove devices

Right click the device at the DEVICE LIST, select “Delete Device”, click “Confirm” in the pop-up window to remove the device.





Web UI Control

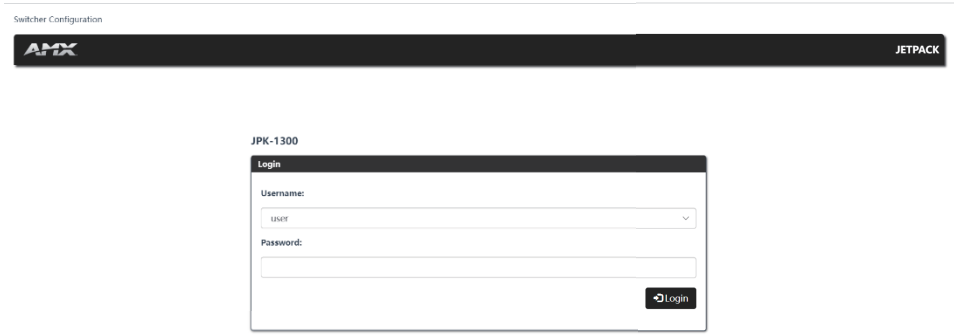
The Web UI designed for the JPK-1300 allows basic controls and advanced settings of the device.
To access the JPK-1300 Web UI **without** using a DHCP router:

1. Connect your PC to the LAN port of the JPK-1300 RX and set the PC ethernet port to a 192.168.1.x address.
2. Then put the default IP address (192.168.1.2) of the JPK-1300 kit into your browser on the PC to enter Web UI.

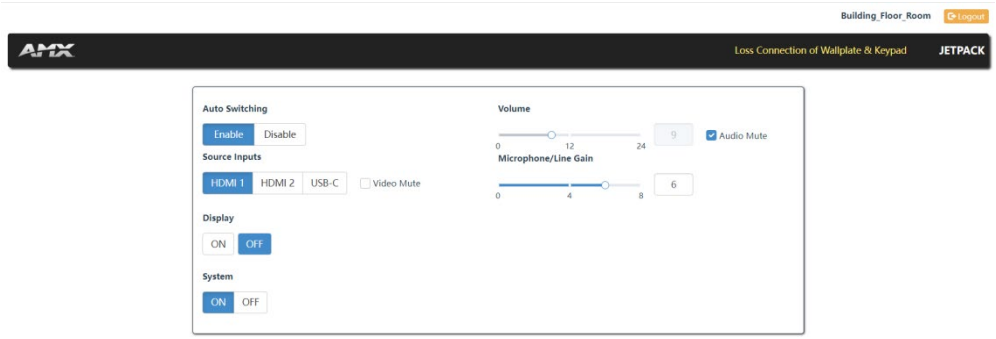
To access the JPK-1300 Web UI **with** a DHCP router:

1. Connect your PC and the LAN port of the JPK-1300 RX to the same local area network.
2. Use the AMX Jetpack Manager Discover tab or an IP scanner tool to find the Jetpack device IP.
3. Launch the Web UI from Jetpack Manager or put the IP address of the JPK-1300 device into your PC browser to launch the Web UI.

Note: When first connecting to the IP of the JPK-1300, a certificate warning page may show in the browser. Proceed to the IP and the following Web UI page will pop up.



For User Web UI (with limited control options)
Enter the default Username “user” and Password “password”, then click “Login” to access the User Web UI.



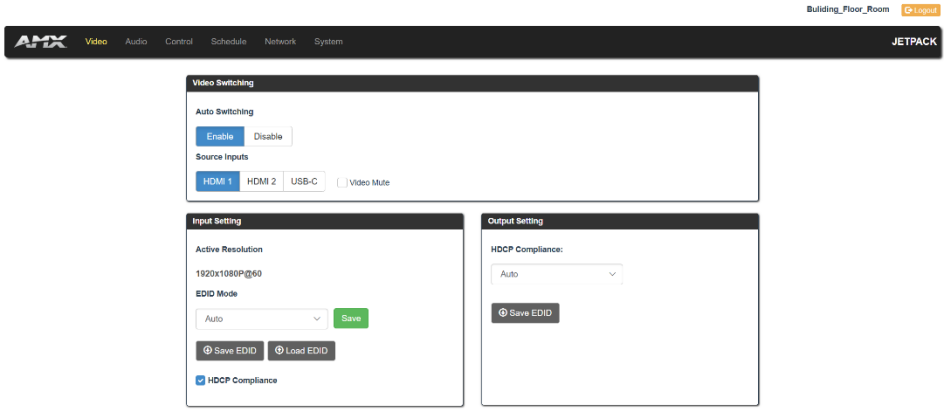
Available User Web UI options:

1. Logout: Click to logout from the Web UI.
2. Auto Switching: Click to enable/disable the Auto Switching mode.
3. Source Inputs: Click to select the HDMI 1/HDMI 2/USB-C input signal source.
   - Check/Uncheck “Video Mute” to disable/enable the HDMI output video signal
4. Volume: Move the slider to adjust the output audio volume of the AMP OUT and AUDIO OUT port on JPK-1300 RX.
   - Check/Uncheck “Audio Mute” to mute/unmute audio output.
5. Microphone/Line Gain: Move the slider to adjust the output audio volume of the MIC/LINE IN port on JPK-1300 RX.
6. Display: Click to power on/off display device.
   - For details on Display On/Off control, please refer to the Control Settings page on the Administrator Web UI.
7. System: Click to turn on/off the system.

For Administrator Web UI (full control)
Enter the default Username “administrator” and Password “password”, then click “Login” to enter the Administrator Web UI.

The Administrator Web UI page consists of six sections: Video, Audio, Control, Schedule, Network, System.

Video



Video Switching:

1. Auto Switching: Click to enable/disable the Auto Switching mode which automatically switches to last connected active source.
2. Source Inputs: Click to select the HDMI 1/HDMI 2/USB-C input signal source.
   - Check/Uncheck “Video Mute” to disable/enable the HDMI output video signal

Input Setting:

3. Active Resolution: Displays the resolution of the current video output.
4. EDID Mode: Click the drop-down menu to select the desired EDID Mode / Preferred EDID. Click **Save** to make the EDID selection active. The EDID Mode and Preferred EDID resolution list are as follows:

   Auto – This mode copies the EDID from the connected display and presents it to the inputs.

   Custom – This mode uses a custom edid bin file

   Preferred EDID resolution options:

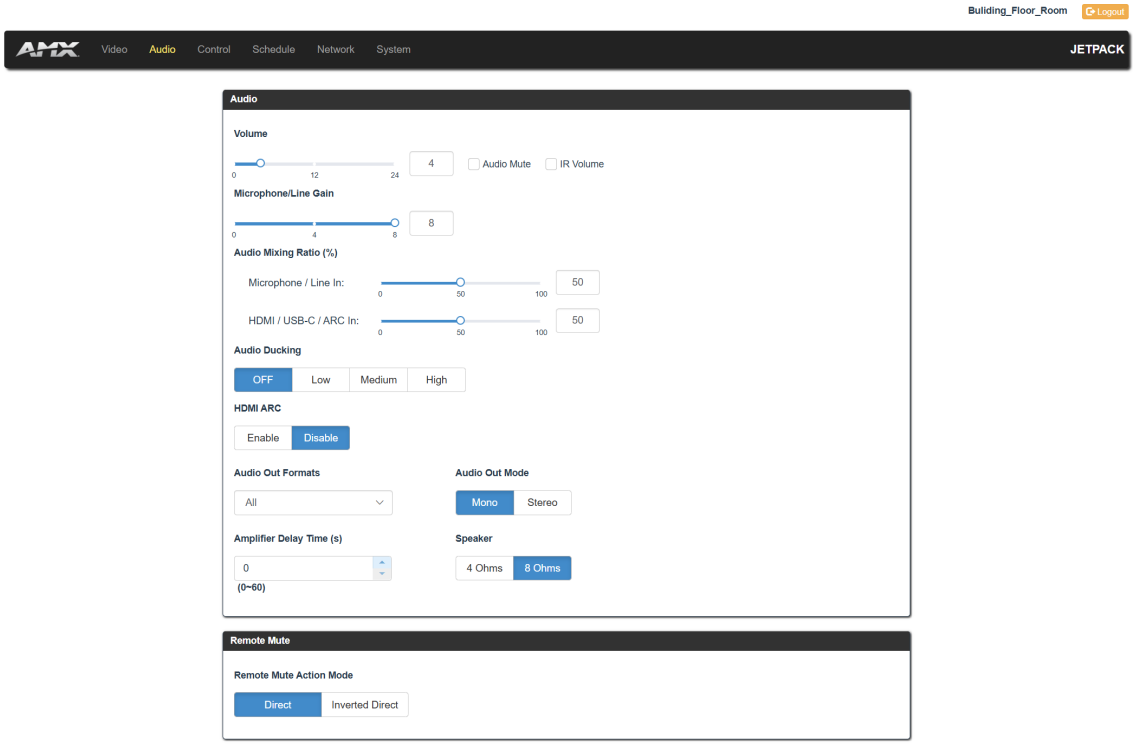
800x600_60	1280x768_74	1400x1050_75	(4K Resolutions)
800x600_72	1280x768_75	1600x1200_60	3840x2160p_24
800x600_75	1280x768_85	1680x1050_60	3840x2160p_25
800x600_85	1280x800_60	1920x1080i_50	3840x2160p_30
1024x768_60	1280x960_60	1920x1080i_60	4096x2160p_24
1024x768_70	1280x960_85	1920x1080p_24	4096x2160p_25
1024x768_75	1280x1024_60	1920x1080p_25	4096x2160p_30
1024x768_85	1280x1024_75	1920x1080p_30	3840x2160p_50
1152x864_75	1280x1024_85	1920x1080p_50	3840x2160_50
1280x720_50	1360x768_60	1920x1080_60	3840x2160p_60
1280x720_60	1440x900_60	1920x1080p_60	3840x2160p_60CVR
1280x720p_60	1440x900_75	1920x1200_59	4096x2160p_50
1280x768_59	1440x900_85	1920x1200_60	4096x2160p_60
1280x768_60	1400x1050_60		

5. Save EDID: Saves the current selected EDID Mode. ***IMPORTANT: This is required to make the selected EDID take effect.***
6. Load EDID: Loads an edid bin file to the “Custom” EDID location. Select “Custom” from EDID Mode list and “Save” to make it active.
7. HDCP Compliance: Check box to enable HDCP compatibility for the inputs to allow HDCP protected content (default setting). Uncheck the box to disable HDCP compatibility for the inputs to allow only non-HDCP protected content. **This HDCP setting applies to ALL inputs.**

Output Setting:

8. HDCP Compliance: Click the drop-down menu to select Auto/HDCP1.4/HDCP2.2/NO according to what the HDMI output supports.
9. Save EDID: Saves the downstream EDID information of the connected display device to an edid.bin file.

Audio

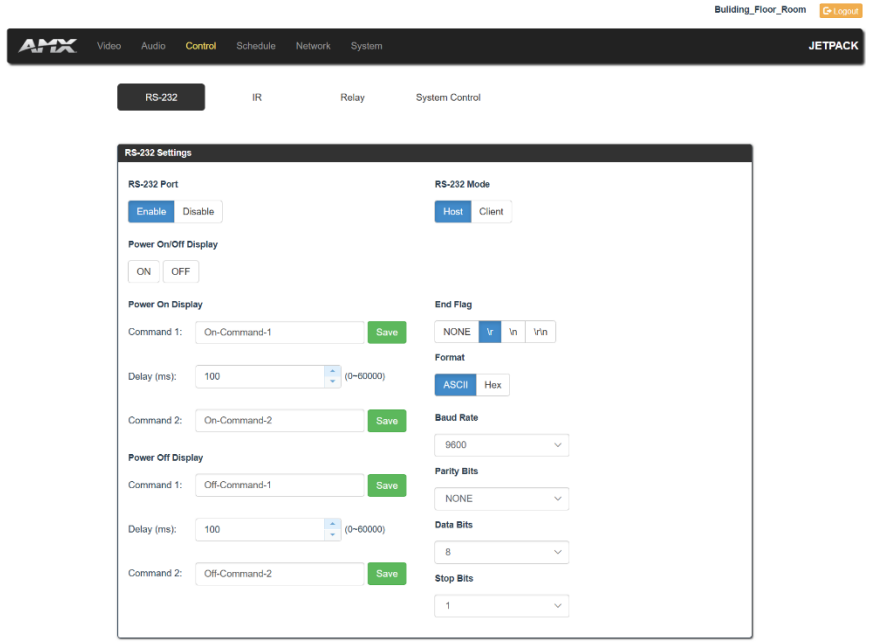


1. Volume: Move the slider to adjust the output audio volume of the AMP OUT and AUDIO OUT port on JPK-1300 RX.
   - Check/Uncheck “Audio Mute” to mute/unmute the audio output.
   - Check “IR Volume” to enable the IR control of the display volume via IR output port.
2. Microphone/Line Gain: Move the slider to adjust the output audio volume of the MIC/LINE IN port on JPK-1300 RX.
3. Audio Mixing Ratio (%): Move the slider to adjust the audio mixing ratio of Microphone/Line In to HDMI/USB-C/ARC-In (Ratio range: ~100%).
4. Audio Ducking: Select option to disable the audio ducking functionality or set the volume of the digital background sound during ducking.
5. HDMI ARC: Click to enable/disable the HDMI ARC function.
6. Audio Out Formats: Click the drop-down menu to select the audio output port.
7. Audio Out Mode: Click to select the audio output mode (Mono/Stereo).
8. Amplifier Delay Time (s): Click the up/down arrow to set the time for amplifier delay output (Time range: 0~60s).
9. Speaker: Click to select the speaker impedance (4 Ohms/8 Ohms).
10. Remote Mute: Click to select the Remote Mute Action Mode.
    - Direct: The REMOTE MUTE 2PIN is closed, the audio will be mute.
    - Inverted Direct: The REMOTE MUTE 2PIN is open, the audio will be mute.

Control

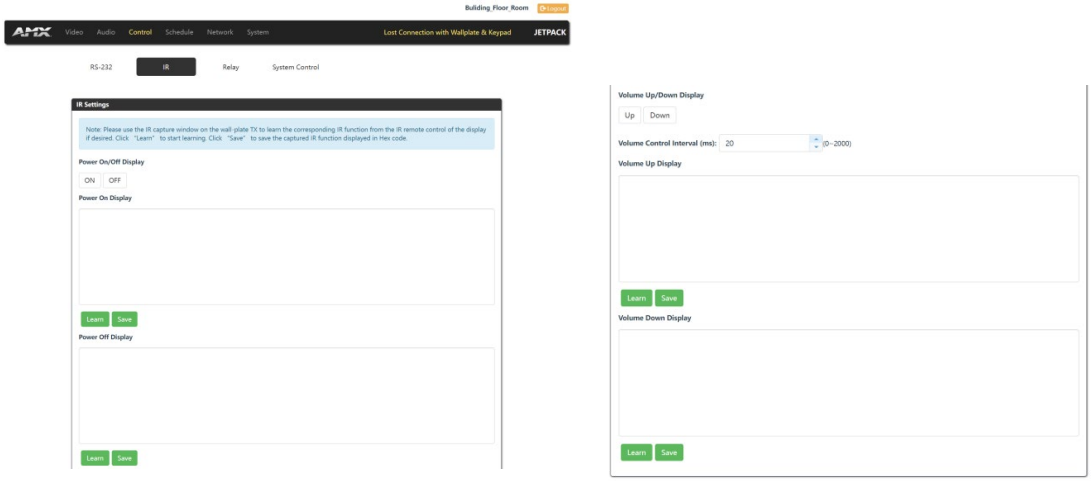
RS-232 Settings:

1. RS-232 Port: Click to enable/disable the RS-232 serial port.
2. RS-232 Mode: Click to select the RS-232 serial mode (Host/Client).
   - ***Host*** mode allows Jetpack to control an external display/projector using the saved RS-232 commands for Power On/Off.
     Note: The JPK-1300 RX will ignore any peripheral feedback received from the externally controlled device.
   - ***Client*** mode allows an external controller/PC to control the JPK-1300 using available RS-232 API commands for A/V/Control only.
     Note: Security/Network/System related API are not available over RS-232
3. Power On/Off Display:
   - Click “ON” to send the "Power On Display" RS-232 command sequence
   - Click “OFF” to send the "Power Off Display" RS-232 command sequence.
4. Power On/Off Display commands: Enter the RS-232 command to power on/off the display (supports two commands)
   - ***Important:*** Click “Save” after entering **each** command. Each command is unique and must be saved before entering another.
5. Delay (ms): Type in a number or use the up/down arrows to set the Delay time between commands (range: 0~60000ms).
6. End Flag: Click to select the ending flag after each RS-232 command (NONE - \r - \n - \r\n).
7. Format: Click to select the RS-232 command Format (ASCII/Hex).
8. Serial Port output settings: Click the down arrow to respectively set the Baud Rate, Parity Bits, Date Bits, Stop Bits.



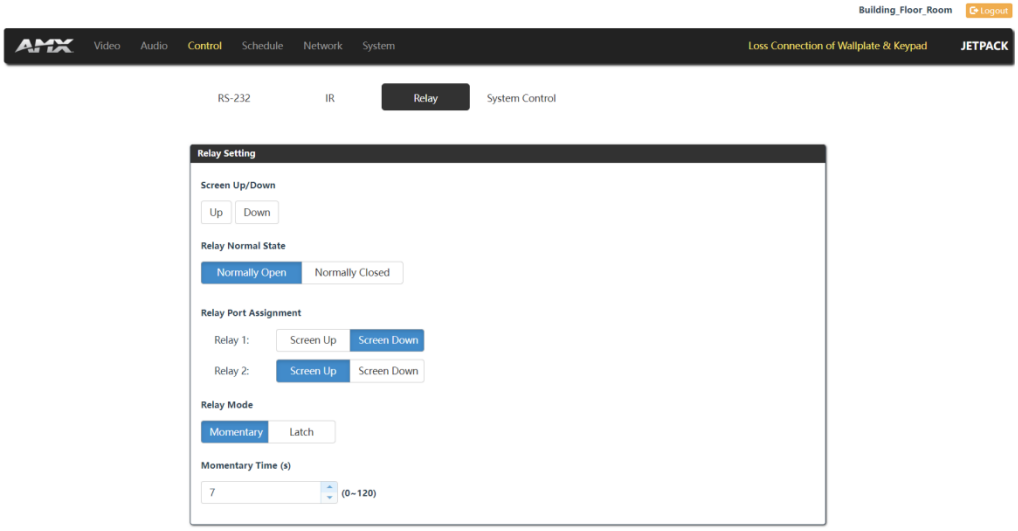
IR Settings:

1. Power On/Off Display: Click “ON” to send the "Power On Display" IR code; Click “OFF” to send the "Power Off Display" IR code.
2. Learn: Click to put JPK-1300 in IR Learning mode. Aim the remote control at the JPK-1300 TX IR window and **press the remote button once**.
   - Repeat this process for each button (Power On, Power Off, Volume Up, Volume Down) and press Save after each learned command.
   - TIP: If the learned command is not working, try an IR learner such as AMX IRIS2 and convert the Hex code to Pronto and then paste
   - that into the Jetpack IR window for the specified command.
3. Save: After Learning a command or pasting in the IR CCF code to the blank window, click "Save" to save this code.
4. Volume Up/Down Display: Click “Up” to send the "Volume Up Display" IR code; Click “Down” to send the "Volume Down Display" IR code.
5. Volume Control Interval (ms): Click the up/down arrow to set the interval time of IR code used for volume control (range: 0~60000ms).



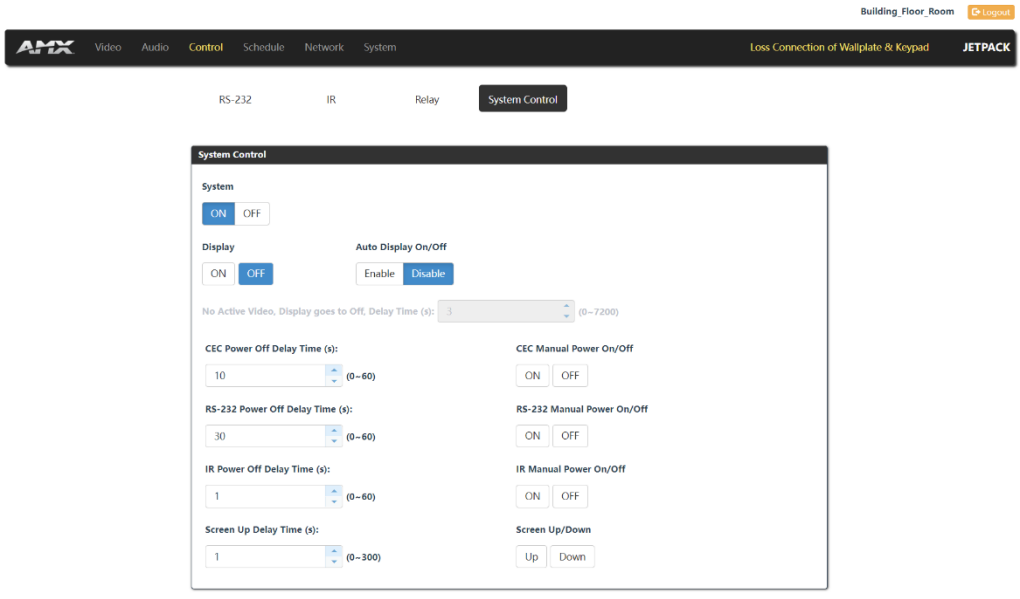
Relay Settings:

1. Screen Up/Down: Click “Up” to trigger Relay 1 open/closed; Click “Down” to trigger Relay 2 open/closed.
2. Relay Normal State: Click to select the Relay state (Normally Open/Normally Closed).
3. Relay Port Assignment: Click to select Screen Up/Screen Down for Relay 1 and Relay 2 respectively.
4. Relay Mode: Click to select Momentary (To be open/closed briefly) or Latch (To be open/closed for a long time).
5. Momentary Time (s): Click the up/down arrow to set the time for Momentary (Time range: 0~120s).



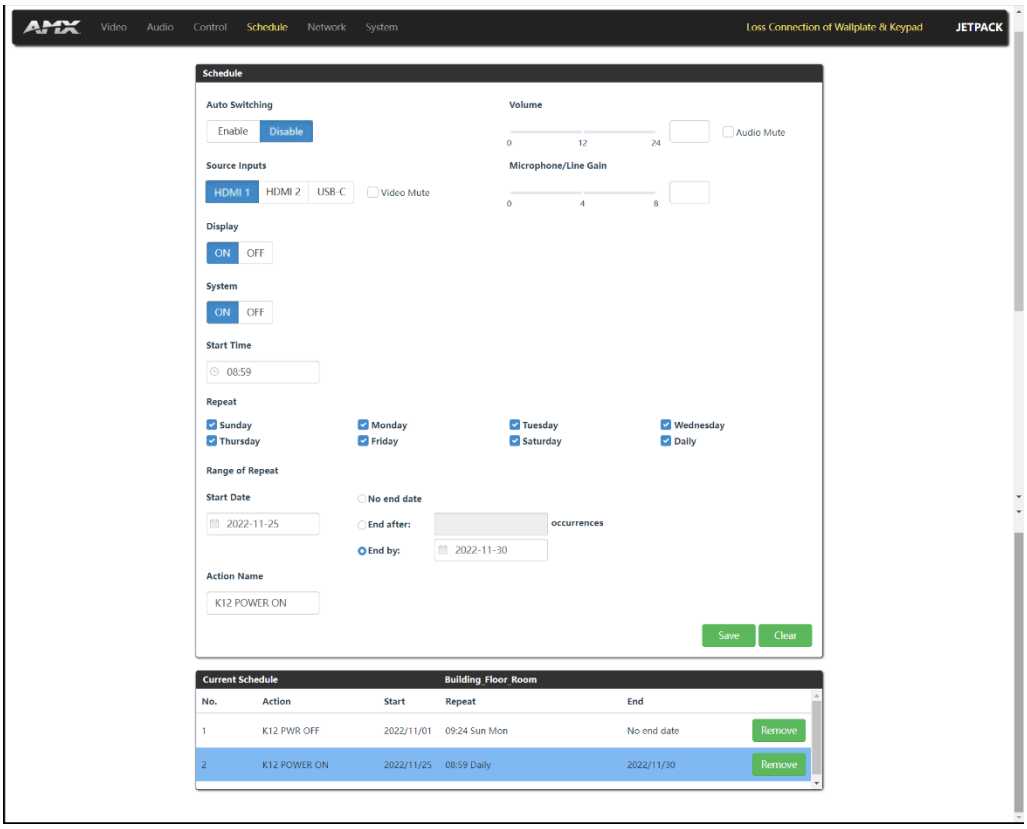
System Control:

1. System: Click “ON” to power on the system; Click “OFF” to power off the system.
   - System On allows audio to be played while the Display can remain Off.
   - System ON will turn the Display ON **IF** Auto Display and Auto Switching are Enabled **AND** there is an active input signal
   - If a selected input has no valid signal then the Display ON commands will NOT be sent when using System ON
2. Display: Click “ON” to execute the CEC/RS-232/IR Power On or Screen Up action; Click “OFF” to execute the CEC/RS-232/IR Power Off or Screen Down action.
3. Auto Display On/Off: Click to Enable/Disable Auto Display function. When “Enable” is selected, the system will detect the **loss** of an active video signal. Once there is no video signal, JPK-1300 will execute the individual CEC/Serial/IR Power Off or Screen Up actions.
4. Set the **main** Display Off Delay Time countdown once no active video is detected. (Time range: 0 ~ 7200 seconds).
   Note: There is about 15-20s of signal loss detection time that occurs prior to this Delay Time countdown starting.
5. Set the **individual** Delay Times for the CEC/RS-232/IR Power Off or Screen Up actions to be executed after the main Delay has completed.
6. Use the respective Manual Power On/Off and Screen Up/Down buttons to control the manual CEC/Serial/IR/Relay options.



Schedule

The Schedule page is used to make presets.



To Schedule an event using the Web UI Schedule page:

Step 1 - Press Clear to reset the schedule options if needed.

Step 2 - Select the available actions to be triggered by the schedule - Auto Switching, Volume, Audio Mute, Source Inputs, Microphone/Line Gain, Display and System. Please note that the value of Volume and Microphone/Line Gain must be larger than 0.

Step 3 - Set the Start Time for the event to occur.

Step 4 - Select the day(s) for the event to repeat in Repeat section. You must select at least one day for Weekly OR select Daily for all days.

Step 5 - Set the Start Date in “Range of Repeat”.

Step 6 - Set the end date in “Range of Repeat”.

Step 7 - Enter the “Action Name”.

Step 8 - Click “Save” to complete schedule setup.

Setup Tip: A scheduled event can only occur once per day. If an event has already triggered and the same scheduled event is then modified, it will not trigger again until the next scheduled date. A maximum of 10 events can be saved.

Example

For the preset of JPK-1300 POWER ON function, set parameters as shown in the above figure:

Select Disable for Auto Switching, set the Volume to 8, set Microphone/Line GAIN to 0, select “HDMI 1” as the input source, set Display and System to “ON”; Set the start time to “08:59”, set the repeat operation (select “Daily”); Set the start date to “2022-11-25” and end date to “2022-11-30”. Finally, name the preset function to be JPK-1300 POWER ON. The above Settings mean that JPK-1300 POWER ON will be performed at 8:59 every day from November 25, 2022 to November 30, 2022.

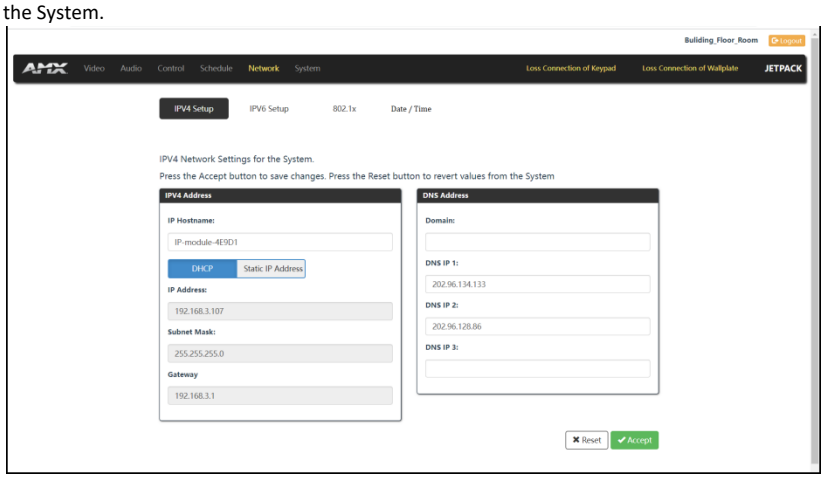
Selecting one of the scheduled events will display all of the scheduled event actions.

Network

The Network page is accessed by clicking Network on the page's main heading. This page allows you to view and configure various aspects of the device's network.

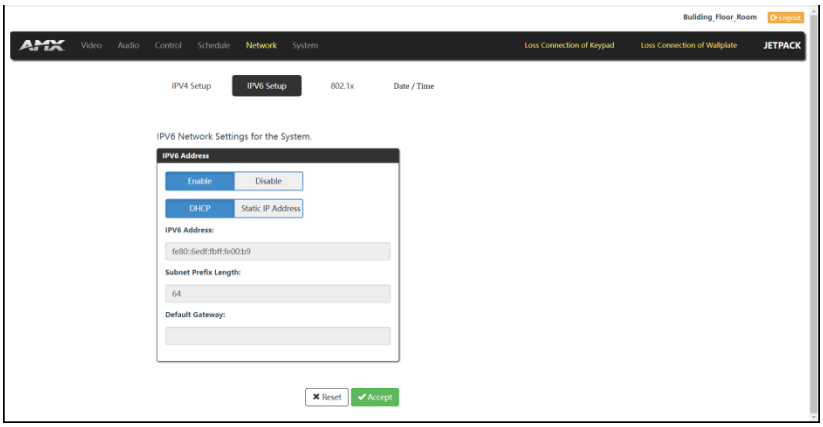
Network - IPV4 Setup

Click "IPV4 Setup" to access the IPV4 page (as shown below), view and configure IP and DNS addresses for the device. A user can only modify the information on this page if it is assigned a Role that includes the Network Configuration permission. Without the proper permission, a user can only view the information on this page. After setting, press the "Accept" button to save changes, or press the "Reset" button to revert values from the System.



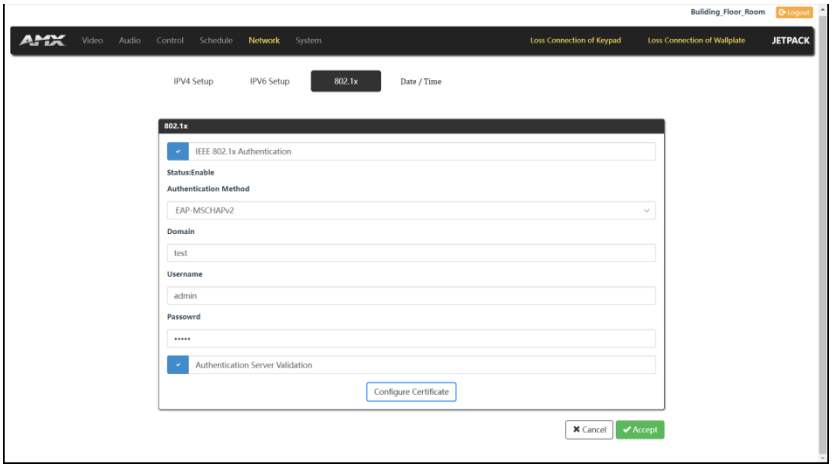
Network - IPV6 Setup

Click "IPV6 Setup" to access the IPV6 page (as shown below), view/change the IPV6 address, Subnet Prefix length, and Default gateway for the device. After setting, press the "Accept" button to save changes, or press the "Reset" button to revert values from the System.



Network - 802.1X

Click "802.1X" to access the 802.1X page (as shown below). This page allows you to configure authentication for the device. After setting, press the "Accept" button to save changes, or press the "Reset" button to revert values from the System.

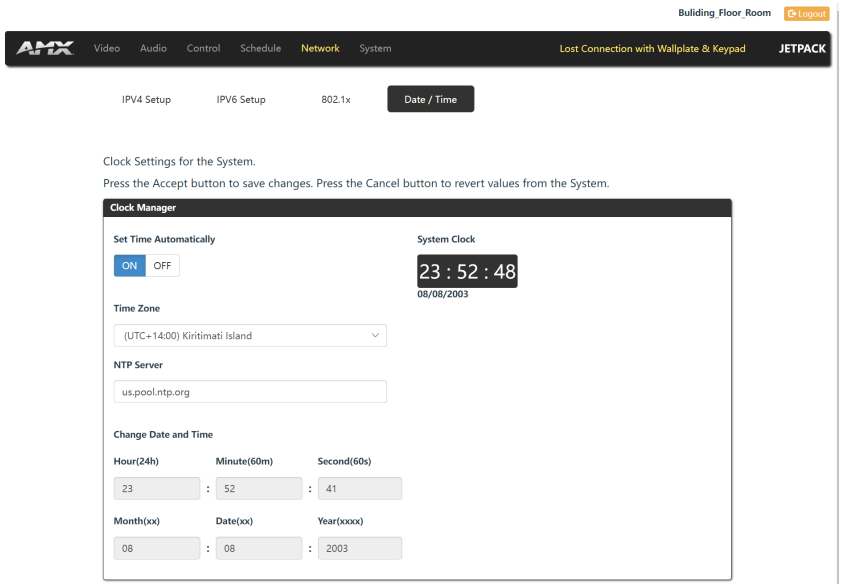


Network - Date / Time

Click “Date / Time” to access the Date / Time page (as shown below). Options on this page allow you to enable/disable using and setting a network time source and provide access to Daylight Saving configuration.

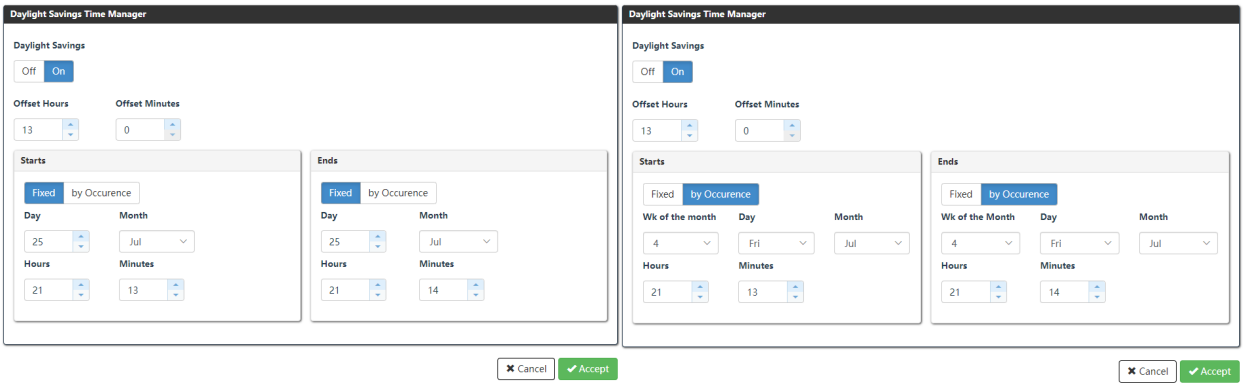
Clock Manager

The Clock Manager allows you to set the Clock Manager Mode. Select “ON” for “Set Time Automatically”, then the Daylight Savings Time Manager section will pop up below, which allows you to specify how and when to implement Daylight Savings rules on the clock.



Setting Daylight Savings Rules

Clicking “On” in the **Daylight Savings Time Manager** section will enable Daylight Savings mode and reveal additional Daylight Savings options.

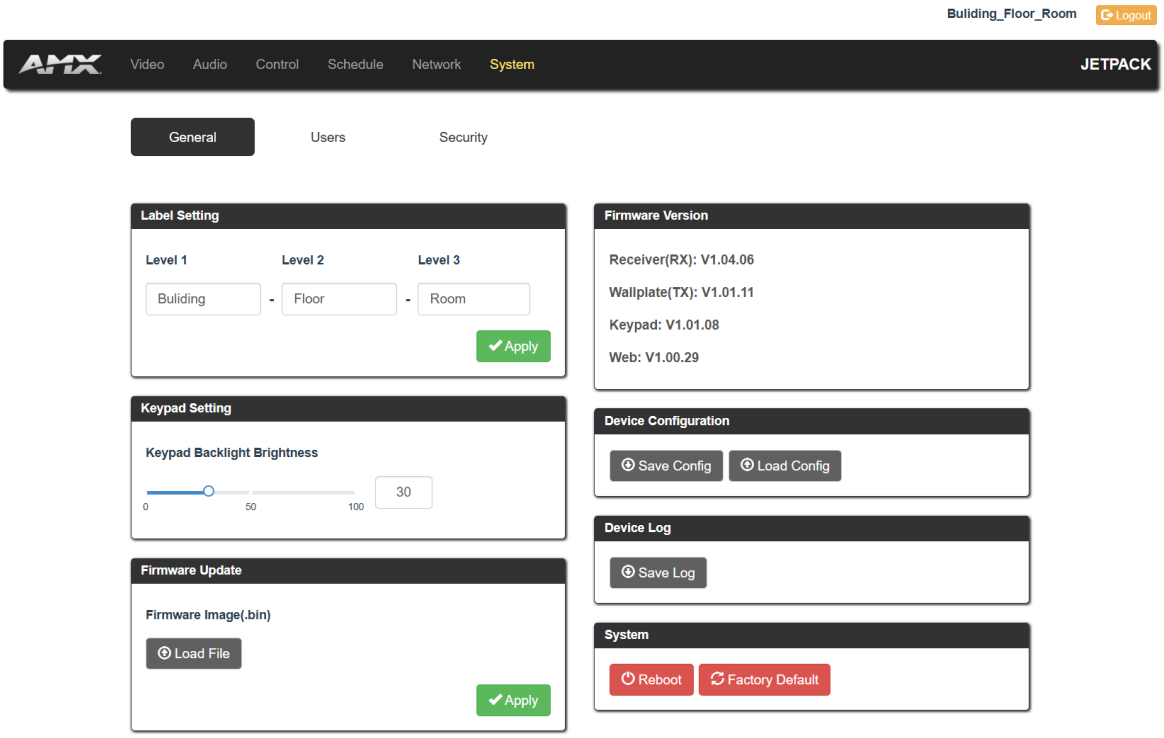


1. Use the Offset Hours/Minutes drop-down menus to adjust the amount of time to offset Daylight Savings. By default, the offset is 1 hour. NOTE: Although most places that support Daylight Savings usually adjust the local time by one hour this doesn't cover all locations. To provide flexibility for such locations it is possible to configure a different daylight savings time offset.
2. Use the Starts fields to specify when Daylight Savings should start. The Starts rules include options for:
   - Fixed: Select Fixed to specify the calendar date when the rule applies as a specific date ("March 21"). When Fixed is selected, use the Day, Month, Hours, and Minutes fields to specify the date and time (hh:mm) to start Daylight Savings time.
   - By Occurrence: to specify the calendar date when the rule applies as a heuristic, ("the 3rd Sunday in March"). When by Occurrence is selected, use the Wk of the Month, Day, Month, Hours, and Minutes fields to specify the occurrence to start Daylight Savings time.
3. The range for Wk of the Month is 1 through Last, where Last indicates the last occurrence of a particular day of the month. This is to accommodate months that include four weeks as well as those that include five.
4. Use the Ends fields to specify when Daylight Savings should end. The Ends rules match the Start rules, and follow the same logic. Select Fixed or by Occurrence, and specify the End date/time information accordingly.
5. After setting up the times, press the “Accept” button to save changes, or press the “Cancel” button to revert values from the System.

System

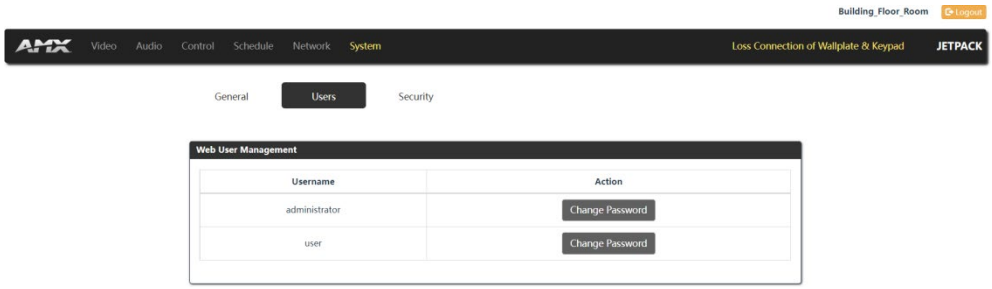
General Settings:

1. Label Setting: Setup the Level 1,2,3 labels for this device. This also will be visible in the DEVICE LISTS hierarchy in the PC Tool
2. Keypad Setting: Move the slider to adjust the Keypad backlight brightness (Range: 0~100).
3. Firmware Update: Click "Load File" to load the firmware file to be updated, and then click “Apply” to update.
   IMPORTANT: Do not power off during update.
4. Firmware Version: Displays the firmware versions of JPK-1300 RX/TX/Keypad/Web.
5. Device Configuration: Click to Save or Load the Web page configurations.
6. Device Log: Click to save log files. This downloads 2 log files to the browser’s download location and can be sent to Tech Support if needed.
7. System: Click "Reboot" to reboot the system; click “Factory Default” to restore the system default settings.



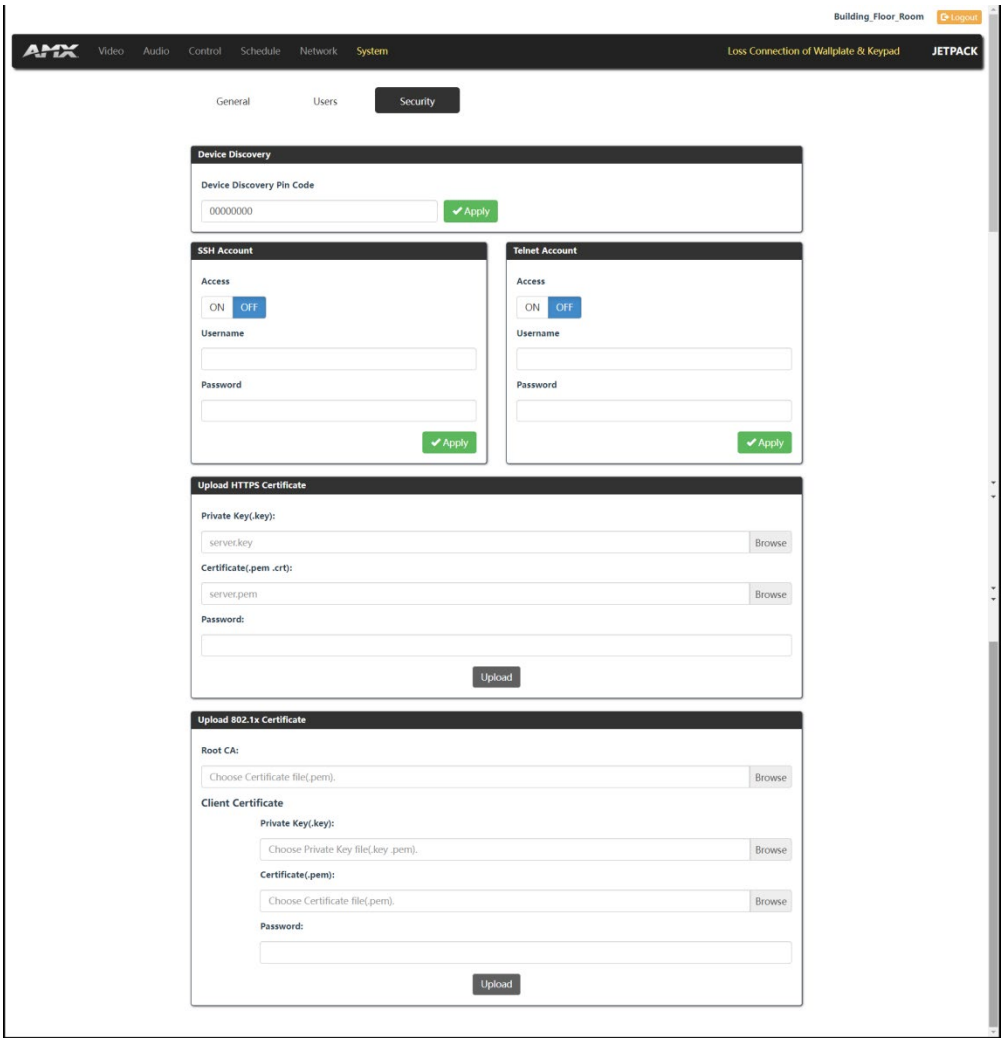
Users Settings:

The Users section is used to change and set the Web login passwords for the user and administrator accounts.



Security Settings:

The Security section is used for Network security settings.



Firmware Upgrade

JPK-1300 supports upgrade the firmware through the PC tool and Web UI control.

Before Starting

1. Verify that you have the latest version of PC tool and Web UI on your PC.
2. Download the latest firmware file to your PC. (Place firmware files on a local drive for the fastest throughput.)

Verify the following:

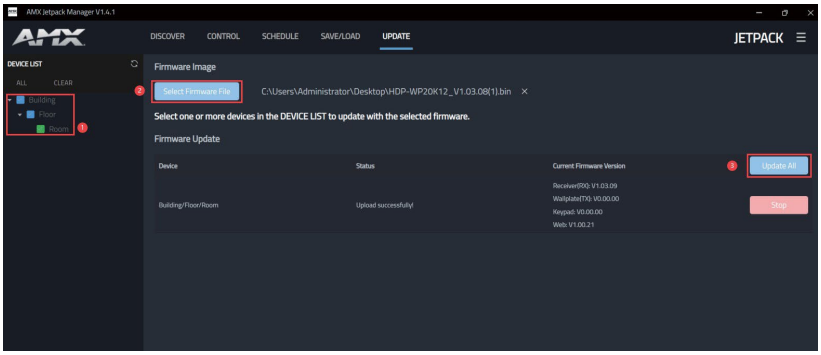
a) Verify that an Ethernet/RJ-45 cable is connected from the JPK-1300 RX to the same network as the control system.
b) Verify the JPK-1300 unit is powered ON.

Upgrade Operation via PC Tool

Please follow the steps below to upgrade the firmware <u>through the PC tool</u>:

Step 1. Launch the PC tool “AMX Jetpack Manager” and select the UPDATE tab.

Step 2. Click the checkbox at the DEVICE LIST to select devices.
Note: You can select certain device or one Floor devices or one Building devices to upgrade in batches at the same time.
Step 3. Click “Select Firmware File” to select the firmware files to be upgraded, and then click “Update All” to start upgrading.



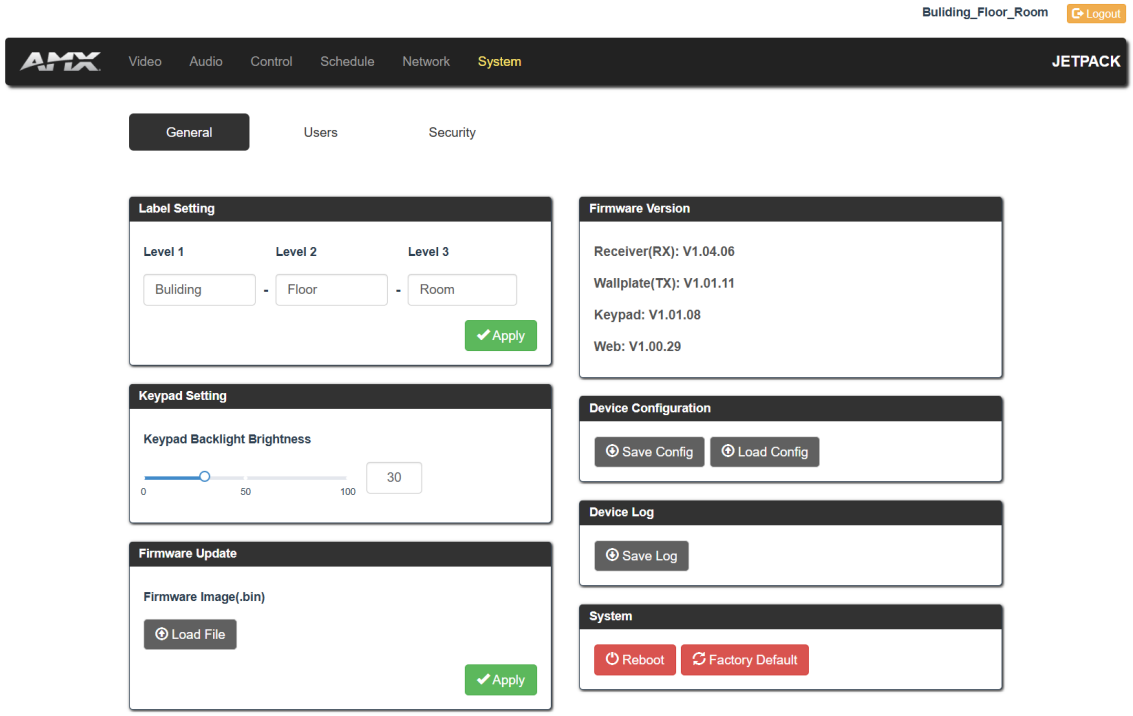
The upgrade is divided into several stages:
Stage 1. Upload the firmware file to the device. (In this state, clicking Stop on the right can stop the upgrade.)
Stage 2. Start to upgrade.
Stage 3. Upgrading.
Stage 4. Upgrade is complete or failed. At this time, the system displays the number of devices that have been successfully upgraded or failed to be upgraded.
Note: When upgrading a duplicate version, it will prompt that the upgrade cannot be repeated.

Upgrade Operation via Web UI

Please follow the steps below to upgrade the firmware through the Web UI control:

Step 1. Login the Web UI and select the General page of the System tab.
Step 2. Click “Load File” in “Firmware Update” to load the firmware file to be upgraded, and then click “Apply” to start upgrading.

Note: Do not power off the device until it has been successfully upgraded.



Troubleshooting

1. **Power**: Ensure all devices are powered on.
2. **Indicator:** Ensure all LED indicators of the JPK-1300 are normal according to the Hardware Reference Manual.
   - If LEDs are all off on the RX/Wallplate/Keypad:
     - Press System On button or Check Web UI to see if system is OFF
     - Check System page to see if Keypad Backlight Brightness has been dimmed to 0.
   - If RX LEDs are on but the Wallplate & Keypad LEDs are off OR if Web UI indicates the connection has been lost OR if Wallplate Link LED is not lit
     - Check the AV Link cable at each end

3. **External Devices:** If no video through JPK-1300, ensure video passes normally when directly connecting a source to a display device.
4. **Cable:** Plug the HDMI/Cat X cable in and out or connect a different HDMI/Cat X cable. Ensure the specific cable length is within the available transmission range according to the Specifications Section.
5. **Compatibility:** Test other source and display devices to determine correct compatibility.
6. **Control:** If RS-232 control is not working to the device, confirm baud rate and parity settings. If IR control is not working from LEARNED IR code, then possibly use another IR learning device to see if it can learn the code and convert it to Pronto for use in JPK-1300
7. **Schedules:** If scheduled events are not working, confirm the date/time is set correctly on the device and check the Scheduled event settings to confirm if Auto Switching or Auto Display On is needed.

API Command Set

The API Command Set is available via TCP/IP interface (Telnet and SSH) and by Serial port for JPK-1300 Kit.

NOTE: The API Command Set for the Serial port is a **limited set** which does not include Network, Security and certain System API commands.

Command Format Notes:

1. In the Command Example sections of this document, <CR> indicates a carriage return as defined by your control method (e.g., \ x0d, $0d, 00x0d, 0x0d, 0dH). <CRLF> is also supported, but not required.
2. In the Command Example sections of this document, ":" indicates the following are command variants as defined by the command "<null>" is also supported.
3. In the Command Example sections of this document, "," distinguish between two variables as defined by the command.
4. When issuing commands, it is best practice to wait for the command response before sending another. Otherwise, you must allow at least half a second between commands (when sending them back-to-back).

Welcome Banner with and without Security Enabled:

1. Without Telnet security enabled, a session will begin with a welcome banner similar to the following:

   Welcome to JPK-1300 Kit v1.0.0 Copyright AMX LLC 2022
   >
2. If Telnet security is enabled, user credentials are required:

   Enter username: admin
   Enter protected password: ****
   Welcome to JPK-1300 Kit v1.0.0 Copyright AMX LLC 2022
   >

Note: When security is enabled, a user can retry logging in three times before being disconnected.

Telnet Username and Password

The following commands are used to set the Telnet username and password for a Telnet connection: Set Telnet Username
Set Telnet Password

By default, both the username and password are blank (empty strings). Performing a factory reset on the device with the Rest ID Push button will return these values to that default.

Username – Setting the Username will have no effect if the password remains blank (empty string). That is, defining the username alone will not result in Telnet prompting for a user login.

Password – Setting the Password will cause Telnet to prompt for a user login, whether the username has been defined or not. If the username has been defined, this value must be entered.

However, since the password can be set independently of the username, it's possible to have a password defined, but the username still at its default (blank, empty string). In this case do not enter anything for the username when prompted. Simply press Enter, which will then present the password prompt. Here, the defined password must be entered in order to successfully open the Telnet session.

Additional Notes:

1. Both the Telnet username and password are case-sensitive.
2. Three consecutive, unsuccessful attempts to log in to Telnet will cause the Telnet window to close.
3. Re-launching Telnet will again present the login prompt, with a fresh "batch" of login attempts.
4. If a Telnet login fails because of an incorrect username, an "Invalid Password" message will appear (as opposed to an "Invalid Username" message).
5. The username and password are saved after reboot or power cycle.
6. The username and password are deleted/removed after a factory reset.

System Commands

No.	Command	Function Description	Example
1	? Or help	Display the commands listed in the table	>?<CR> ping -6 Ping to specified IPv6 address ping Ping to specified IP address fwversion Request the firmware version of the reboot Reboot the device . . .
2	?<command> **Variables:** <command> = "JPK-1300 API commands in the list"	Show details about the specified command function	>?set vidin hdcp<CR> --- Description: Set the HDCP mode for input Example: Command send: set vidin hdcp:off response: set hdcp compliance off for device input >>
3	ping <ipv4 address> ping -6 <ipv6 address> **Variables:** <ipv4 address>= ipv4 address <ipv6 address>= ipv6 address	Ping to specified IP address	>ping 192.168.1.250<CR> PING 192.168.1.250 (192.168.1.250): 56 data bytes 64 bytes from 192.168.1.250: seq=0 ttl=64 time=0.625 ms 64 bytes from 192.168.1.250: seq=1 ttl=64 time=0.587 ms 64 bytes from 192.168.1.250: seq=2 ttl=64 time=0.580 ms 64 bytes from 192.168.1.250: seq=3 ttl=64 time=1.388 ms 64 bytes from 192.168.1.250: seq=4 ttl=64 time=0.593 ms --- 192.168.1.250 ping statistics --- 5 packets transmitted, 5 packets received, 0% packet loss round-trip min/avg/max = 0.580/0.754/1.388 ms >ping -6 2022:a:b:c::b2<CR> PING 2022:a:b:c::b2 (2022:a:b:c::b2): 56 data bytes 64 bytes from 2022:a:b:c::b2: seq=0 ttl=63 time=2.093 ms 64 bytes from 2022:a:b:c::b2: seq=1 ttl=64 time=2.083 ms 64 bytes from 2022:a:b:c::b2: seq=2 ttl=64 time=2.057 ms 64 bytes from 2022:a:b:c::b2: seq=3 ttl=64 time=1.960 ms 64 bytes from 2022:a:b:c::b2: seq=4 ttl=64 time=1.962 ms --- 2022:a:b:c::b2 ping statistics --- 5 packets transmitted, 5 packets received, 0% packet loss round-trip min/avg/max = 1.960/2.031/2.093 ms
4	fwversion	Request the firmware version of the device	>fwversion<CR> Receiver: V1.00 Wallplate: V1.01 Keypad:V1.11 Web:V2.0 >
5	reboot	Reboot the device	>reboot<CR> Rebooting…… >
6	reset factory	Forces the unit to a factory state (except for IP Settings)	>reset factory<CR> Resetting device to factory default parameters. Device will automatically reboot shortly. Do NOT power off. >
7	get sn **Default Value:** As set in factory	Get device serial number	>get sn<CR> Serial Number:123456789 >

System Commands

No.	Command	Function Description	Example
8	set serial <on | off> **Default Value:** on	Set serial port on or off	>set serial on<CR> Serial port is set to on > >set serial off<CR> --Notice: Serial port cannot response to serial command when serial off.-- Would you like to set serial port to off? Y/N ->y<CR> Serial port is off >
9	get serial mode **Variables:** <mode>={host, client} **Default Value:** host	Set serial control mode	>get serial mode <CR> Serial port is set to host mode to control external device >
10	set serial mode **Variables:** <mode>= {host, client} **Default Value:** host	Set serial control mode	>set serial mode<CR> Notice: Serial port cannot control external device when set to client mode, which is used for control of the JPK-1300 by an external controller/PC Enter serial mode (host or client): host -> client<CR> Serial port is set to be client mode >
11	get baud **Variables:** <baud> = 115200 | 57600 | 38400 | 19200 | 9600(default) | 4800 | 2400 <data> = 7 | 8(default) <parity> = even | odd | none(default) <stop> = 1(default) | 2 **Default Value:** 9600,n,8,1	Get serial port current communicate parameters	>get baud<CR> --Current serial setting-- baud rate:9600 data bit:8 parity:none stop bit:1 >
12	set baud **Variables:** <baud> = 115200 | 57600 | 38400 | 19200 | 9600(default) | 4800 | 2400 <data> = 7 | 8(default) <parity> = even | odd | none(default) <stop> = 1(default) | 2 **Default Value:** 9600,n,8,1	Sets serial port communicate parameters	>set baud<CR> --Serial port setting-- Enter baud rate(115200,57600,38400,19200, 9600,4800,2400):9600->115200<CR> Enter data bit(8 or 7):8 ->7<CR> Enter parity (E for Even, O for Odd, N for none): N->O<CR> Enter stop bit (1 or 2):1->2<CR> --You have entered: Baud rate:115200 Data bit:7 Parity:odd Stop bit:2 Would you like to save the new settings? Y/N -> y<CR> New settings were saved >
13	set time auto <on | off> **Default Value:** on	Set time automatically on or off	>set time auto on<CR> Time auto is set to on > >set time auto off<CR> --Notice: Device time cannot synchronize with network when set time auto off.-- Would you like to set time auto to off? Y/N ->y<CR> Time auto is set to off >

System Commands

No.	Command	Function Description	Example
14	get ntp **Default Value:** us.pool.ntp.org	Get ntp server setting	>get ntp<CR> --Current ntp server: us.pool.ntp.org >
15	set ntp **Default Value:** us.pool.ntp.org	Set ntp server	>set ntp<CR> Please input ntp server: current ntp server: us.pool.ntp.org New ntp server: asia.pool.ntp.org<CR> Would you like to save this setting(Y/N) y<CR> Setting is ok >
16	get time zone **Variables:** UTC-11:00 UTC-10:00 UTC-09:30 UTC-09:00 UTC-08:00 UTC-07:00 UTC-06:00 UTC-05:00 UTC-04:00 UTC-03:30 UTC-03:00 UTC-02:30 UTC-02:00 UTC-01:00 UTC+00:00 UTC+01:00 UTC+02:00 UTC+03:00 UTC+03:30 UTC+04:00 UTC+04:30 UTC+05:00 UTC+05:30 UTC+05:45 UTC+06:00 UTC+06:30 UTC+07:00 UTC+08:00 UTC+08:30 UTC+08:45 UTC+09:00 UTC+09:30 UTC+10:00 UTC+10:30 UTC+11:00 UTC+12:00 UTC+12:45 UTC+13:00 UTC+13:45 UTC+14:00 **Default Value:** UTC-05:00	Get time zone setting	>get time zone<CR> --Current time zone: UTC-05:00 >
17	set time zone **Variables:** UTC-11:00 UTC-10:00 UTC-09:30 UTC-09:00 UTC-08:00 UTC-07:00 UTC-06:00 UTC-05:00 UTC-04:00 UTC-03:30 UTC-03:00 UTC-02:30 UTC-02:00 UTC-01:00 UTC+00:00 UTC+01:00 UTC+02:00 UTC+03:00 UTC+03:30 UTC+04:00 UTC+04:30 UTC+05:00 UTC+05:30 UTC+05:45 UTC+06:00 UTC+06:30 UTC+07:00 UTC+08:00 UTC+08:30 UTC+08:45 UTC+09:00 UTC+09:30 UTC+10:00	Set device time zone	>set time zone<CR> Please input time zone: current time zone: UTC-05:00 New time zone: UTC+08:00<CR> Would you like to save this setting(Y/N) y<CR> Setting is ok >

System Commands

	UTC+10:30 UTC+11:00 UTC+12:00 UTC+12:45 UTC+13:00 UTC+13:45 UTC+14:00 **Default Value:** UTC-05:00		
18	get system **Default Value:** on	Set device system state	>get system <CR> The device is system on > >get system<CR> The device is system off Notice: device cannot receive signal when system off, it need send system on command to enter normal working mode >
19	set system <on | off> **Default Value:** on	Set device system on or off. NOTICE: Device need be recalled from System off by System on command or press SYSTEM button on Keypad, cannot auto recall by active input signal.	>set system on<CR> set device system on > >set system off<CR> Notice: device cannot receive signal when system off, it need send system on command to enter normal working mode Would you like to set device system off? Y/N ->y<CR> The device is system off >
20	get label **Variables:** level 1 = Maximum 20 character length level 2 = Maximum 20 character length level 3 = Maximum 20 character length **Default Value:** level 1= Building level 2= Floor level 3= Room	Get device's label	>get label<CR> --Current device label-- Level 1: Building Level 2: Floor Level 3: Room >
21	set label **Variables:** level 1 = Maximum 20 character length level 2 = Maximum 20 character length level 3 = Maximum 20 character length **Default Value:** level 1= Building level 2= Floor level 3= Room	Set device's label	>set label<CR> Enter level 1:AMX ->Building<CR> Enter level 2:JPK-1300 ->Floor<CR> Enter level 3:12345678901->Room<CR> --You have entered: Level 1:Building Level 2:Floor Level 3:Room Would you like to save the new label? Y/N -> y<CR> New settings were saved >
22	get button brightness **Variables:** <brightness> = 0~100 **Default Value:** 50 (TBD)	Get device's key button brightness	>get button brightness<CR> Current button brightness is 50 >
23	set button brightness **Variables:** <brightness> = 0~100 **Default Value:** 50 (TBD)	Set device's key button brightness	>set button brightness<CR> Enter brightness:50 -> 100<CR> Would you like to save the new brightness? Y/N -> y<CR> New setting was set >
24	exit	Close telnet/ssh window session NOTE: Don't support the command send by Serial port	>exit<CR>

Network Commands

No.	Command	Function Description	Example
1	get friendly **Variables:** friendly name = maximum 20 character length **Default Value:** model with last 7 digits of serial # in Capital Letters (e.g. JPK-1300-0050425)	Get device's IP hostname	>get friendly<CR> --Current device friendly name: JPK-1300-0050425 >
2	set friendly **Variables:** friendly name = maximum 20 character length **Default Value:** model with last 7 digits of serial # in Capital Letters (e.g. JPK-1300-0050425)	Set device's IP hostname	>set friendly<CR> Please input friendly name: Old friendly name: JPK-1300-0050425 New friendly name: 111<CR> Would you like to save this setting(Y/N) y<CR> Setting is ok , you should reboot to make it effective >
3	get ip **Variables:** host name = maximum 20 character length ip type = dhcp | static ip netmask gateway **Default Value:** IP Address Mode: DHCP IP Address(for static mode):192.168.1.2 Netmask(for static mode):255.255.255.0 Gateway(for static mode):192.168.1.1 MAC Address: as set in factory	Show the IP configuration of this device.	>get ip<CR> IP Settings --- Hostname: JPK-1300-0050425 Type: Static IP Address: 192.168.1.3 Subnet Mask: 255.255.255.0 Gateway IP: 0.0.0.0 MAC Address: 00:60:9f:a4:46:f3 >
4	set ip **Variables:** host name = maximum 20 character length ip type = dhcp | static ip netmask gateway **Default Value:** IP Address Mode: DHCP IP Address(for static mode):192.168.1.2 Netmask(for static mode):255.255.255.0 Gateway(for static mode):192.168.1.1 MAC Address: as set in factory	Setup the IP configuration of this device.	>set ip<CR> --Enter New Values or just hit Enter to keep current settings-- Enter Host Name: JPK-1300-0050425 -> ROOM1<CR> Enter IP type. Type D for DHCP, or S for Static IP and then Enter: DHCP ->s<CR> Enter IP Address: 192.168.1.2 ->192.168.1.3<CR> Enter Subnet Mask: 255.255.255.0 -><CR> Enter Gateway IP: 192.168.1.1 ->0.0.0.0<CR> --You have entered: Host Name ROOM1 Type Static IP IP Address 192.168.1.3 Subnet Mask 255.255.255.0 Gateway IP 0.0.0.0 Is this correct? Type Y or N and Enter -> Y<CR> Settings written. Device must be rebooted to enable new settings. >

Network Commands

No.	Command	Function Description	Example
5	get dns **Variables:** dns1 dns2 dns3 **Default Value:** Domain Name: amx.com DNS1(for static mode):8.8.8.8 DNS2(for static mode):8.8.4.4 DNS3(for static mode):9.9.9.9	Get device's DNS address	>get dns DNS Servers ---------- Domain suffix: amx.com Entry 1: 192.168.1.1 Entry 2: 192.168.1.1 Entry 3: 192.168.1.1 >
6	set dns **Variables:** dns1 dns2 dns3 **Default Value:** Domain Name: amx.com DNS1(for static mode):8.8.8.8 DNS2(for static mode):8.8.4.4 DNS3(for static mode):9.9.9.9	Set device's DNS address	>set dns<CR> -- Enter New Values or just hit Enter to keep current settings -- Enter Domain Suffix: amx.com -><CR> Enter DNS Entry 1 : 192.168.20.5 ->8.8.8.8<CR> Enter DNS Entry 2 : 12.18.110.8 -><CR> Enter DNS Entry 3 : 12.18.110.7 -><CR> You have entered: Domain Name: amx.com DNS Entry 1: 8.8.8.8 DNS Entry 2: 12.18.110.8 DNS Entry 3: 12.18.110.7 Is this correct? Type Y or N and Enter -> Y<CR> Settings written. Device must be rebooted to enable new settings >
7	renew dhcp	Renews the DHCP lease (may cause telnet disconnection)	>renew dhcp<CR> You may need to re-establish the telnet session since the device will re-acquire an IP address lease. >
8	get ipv6 **Variables:** pv6 = enable | disable ipv6 type = dhcp | static ip static ipv6 address subnet mask prefix length ipv6 gateway **Default Value:** IPv6 Enabled/Disabled: Disable IPv6 Type: DHCP Address: 0:0:0:0:0:0:0:0 Mask Prefix: 128 Gateway: none	Show the IPV6 configuration of this device.	>get ipv6<CR> IPV6 Settings ---------- IPv6 Enabled/Disabled: Enabled IPv6 Type: DHCP Address: 2001:0DB8:ABCD:0012:1234:: Mask Prefix: 80 Gateway: none >
9	set ipv6 **Variables:** pv6 = enable | disable ipv6 type = dhcp | static ip static ipv6 address subnet mask prefix length ipv6 gateway **Default Value:** IPv6 Enabled/Disabled: Disable IPv6 Type: DHCP Address: 0:0:0:0:0:0:0:0 Mask Prefix: 128 Gateway: none	Setup the IPV6 configuration of this device.	>set ipv6<CR> --- Enter New Values or just hit Enter to keep current settings IPv6 (E)nable/(D)isable: Disabled ->E<CR> IPv6 Type: D for DHCP, S for Static: DHCP ->S<CR> Enter Static IPv6 Address: 0:0:0:0:0:0:0:0 -> 2001:0DB8:ABCD:0012::<CR> Enter Subnet Prefix Length 128 -> 64<CR> Enter Static IPv6 Default Gateway (or N for NONE): <none> ->N<CR> You have entered: IPv6 Enabled/Disabled: Enabled IPv6 Type: Static Address: 2001:0DB8:ABCD:0012:: Mask Prefix: 64 Gateway: none Is this correct? Type Y or N and Enter -> Y<CR> Settings written. Device must be cold rebooted to enable new settings.>

Security Commands

No.	Command	Function Description	Example
1	set telnet port **Variables:** 0 = disable telnet 23 = enable telnet **Default Value:** 23	Sets the device's IP port listened to for Telnet connections. NOTE: This command requires a reboot to enable new settings. IMPORTANT: If you set the Telnet port to "0" to disable it, you will need to reset it in WebGUI	>set telnet port<CR> Current telnet port number = 23 Enter new telnet port number(0 = disable telnet) ->25<CR> Setting telnet port number to 25 New telnet port number set, reboot the device for the change to take effect. >
2	set telnet username **Variables:** username = maximum 20 character length **Default Value:** " "(blank,no username)	Sets the Username for a secure Telnet session. Default = blank (no username required)	>set telnet username<CR> Enter Telnet new username ->123<CR> Would you like to set this username (y/n) ->y<CR> (please set telnet password) Changed && Saved >
3	set telnet password **Variables:** password = maximum 10 character length **Default Value:** " "(blank,no password)	Sets the password for a secure Telnet session. Default = blank (no password required)	>set telnet password<CR> Enter Telnet new password ->456<CR> Would you like to set this password (y/n) ->y<CR> Changed && Saved >
4	set ssh port **Variables:** 0 = disable SSH 22 = enable SSH **Default Value:** 22	Sets the device's IP port listened to for SSH connections. NOTE: This command requires a reboot to enable new settings. IMPORTANT: If you set the SSH port to "0" to disable it, you will need to reset it in WebGUI NOTE: This command is supported by SSH only, don't support by telnet	>set ssh port<CR> Current ssh port number = 22 Enter new ssh port number(0 = disable ssh) ->26<CR> Setting ssh port number to 26 New ssh port number set, reboot the device for the change to take effect. >
5	set ssh username **Variables:** username = maximum 20 character length **Default Value:** admin	Sets the Username for a secure SSH session. NOTE: This command is supported by SSH only, don't support by telnet	>set ssh username<CR> Enter SSH new username ->123<CR> Would you like to set this username (y/n) ->y<CR> (please set ssh password) Changed && Saved >
6	set ssh password **Variables:** password = maximum 10 character length **Default Value:** admin	Sets the password for a secure SSH session. NOTE: This command is supported by SSH only, don't support by telnet	>set ssh password<CR> Enter SSH new password ->456<CR> Would you like to set this password (y/n) ->y<CR> Changed && Saved >

Video and Audio Commands (Direct Control)

No.	Command	Function Description	Example
1	get auto switch mode **Variables:** <state> = enable | disable **Default Value:** enable	Get auto switch mode state for video output	**Command:** get auto switch mode **Return**: get auto switch mode enable
2	set auto switch mode:<state> **Variables:** <state> = enable | disable **Default Value:** enable	Set auto switch mode state for video output	**Command:** set auto switch mode:disable **Return**: set auto switch mode manual
3	get switch CO **Default Value:** default auto switch input video priority: HDMI1 > HDMI2 > USB-C	Get audio/video output are switched from which input	**Command:** get switch CO **Possible response message include:** ▪get switch audio and video from hdmi 1 for output ▪get switch audio and video from no usb-c for output ▪get switch audio from usb-c for output ▪get switch audio from hdmi-arc for output

4	set switch CI<input channel>
	Variables:
	<input channel>=
	{
	1=hdmi1,
	2=hdmi2,
	3=usb-c
	}
	Default Value:
	default auto switch video priority:
	HDMI1 > HDMI2 > USB-C
	(If all of them have no active video in)
		Set switch audio and/or video input to the output port.	**Possible command send:**
			▪set switch CI1
			▪set switch CI3
			▪set switch CI3
			▪set switch CI4
			Possible response message include:
			▪set switch audio and video from hdmi 1 for output
			▪set switch audio and video from usb-c for output
			▪set switch audio from usb-c for output
			▪invalid switch

5	get vidin res **Variables:** <resolution> = <H> x <V> <i |p>,<Rate><Specific Info> **Default Value:** “ “ (blank for no active input signal)	Get active input video resolution	**Command:** get vidin res **Possible response message include:** ▪ get 1920x1080p,60 ▪ get no active video ▪ get unknown format
6	get vidin hdcp **Variables:** <hdcp_compliance>= on | off **Default Value:** on	Get hdcp mode for device input	**Command:** get vidin hdcp **Return**: get hdcp compliance on for device input
7	set vidin hdcp:<hdcp_ compliance> **Variables:** <hdcp_compliance>= on | off **Default Value:** on	Set hdcp mode for device input	**Command:** set vidin hdcp:off **Return**: set hdcp compliance off for device input

Video and Audio Commands (Direct Control)

No.	Command	Function Description	Example
8	get vidin edidmode **Default Value:** auto	Get edid mode for the device input	**Command:** get vidin edidmode **Return**: get device input edid mode set to auto

9	set vidin edidmode:<edid_ mode>
	Variables:
	<edid_mode> =
	{
	Auto
	Custom
	800x600,60
	800x600,72
	800x600,75
	800x600,85
	848x480,60
	848x480,75
	848x480,85
	1024x640,60
	1024x768,60
	1024x768,70
	1024x768,75
	1024x768,85
	1152x864,75
	1280x720,50
	1280x720,60
	1280x720p,60
	1280x720p,100
	1280x720p,120
	1280x768,59
	1280x768,60
	1280x768,74
	1280x768,75
	1280x768,85
	1280x768,85
	1280x800,60
	1280x960,60
	1280x960,85
	1280x1024,60
	1280x1024,75
	1280x1024,85
	1360x764,60
	1360x768,60
	1440x900,60
	1440x900,75
	1440x900,85
	1400x1050,60
	1400x1050,75
	1600x1200,60
	1680x1050,60
	1920x1080i,50
	1920x1080i,60
	1920x1080p,24
	1920x1080p,25
	1920x1080p,30
	1920x1080p,50
	1920x1080,60
	1920x1080p,60
	1920x1200,59
	1920x1200,60
	3840x2160p,24
	3840x2160p,25
	3840x2160p,30
	4096x2160p,24
	4096x2160p,25
	4096x2160p,30
	3840x2160p,50
	3840x2160,50
	3840x2160p,60
	3840x2160p,60CVR
	4096x2160p,50
	4096x2160p,60
	}
	Default Value:
	auto
		Set edid mode for the device input	**Command:**
			set vidin edidmode: 1920x1200,60
			Return:
			set device input to 1920x1200,60

Video and Audio Commands (Direct Control)

No.	Command	Function Description	Example
10	get ediddata:<edid_ channel> **Variables:** <edid_channel > = {native, sink} native = current active edid on device sink = sink display edid attached on output	Get edid data used from specified channel	**Command:** get ediddata:native **Return**: get native ediddata is: 00 FF FF FF FF FF FF 00 05 B8 00 11 04 00 00 00 1C 19 01 03 80 00 00 78 0E EE 95 A3 54 4C 99 26 0F 50 54 FF FF 80 D1 00 B3 00 A9 40 81 00 81 C0 81 80 8B C0 95 00 02 3A 80 18 71 38 2D 40 58 2C 45 00 40 84 63 00 00 1E 00 00 00 FC 00 41 4D 58 5F 48 44 4D 49 31 76 34 0A 20 00 00 00 FD 00 17 78 0F 66 11 00 0A 20 20 20 20 20 20 00 00 00 FA 00 D1 C0 A9 C0 90 40 81 40 01 01 01 01 0A 01 5F 02 03 30 70 67 03 0C 00 11 00 80 22 5F 10 20 22 1F 21 05 14 04 03 13 02 0E 0F 11 06 07 12 15 16 1D 1E 27 29 2A 2B 2C 2D 2F 30 31 01 23 09 07 07 1A 36 80 A0 70 38 1F 40 30 20 35 00 40 84 63 00 00 1A 46 37 80 70 72 38 22 40 70 C8 35 00 40 84 63 00 00 1C D1 3D 80 80 72 B0 26 40 78 C8 36 00 40 E8 63 00 00 1C 28 3C 80 A0 70 B0 23 40 30 20 36 00 40 E8 63 00 00 1A 00 00 00 00 00 00 00 45
11	set ediddata:<edid_data> **Variables:** <edid_data> = 256byte EDID Data **Default Value:** " " (blank for no loaded custom edid data)	Set edid data for custom edid	**Command:** set ediddata:00 FF FF FF FF FF FF 00 05 B8 00 11 04 00 00 00 1C 19 01 03 80 00 00 78 0E EE 95 A3 54 4C 99 26 0F 50 54 FF FF 80 D1 00 B3 00 A9 40 81 00 81 C0 81 80 8B C0 95 00 02 3A 80 18 71 38 2D 40 58 2C 45 00 40 84 63 00 00 1E 00 00 00 FC 00 41 4D 58 5F 48 44 4D 49 31 76 34 0A 20 00 00 00 FD 00 17 78 0F 66 11 00 0A 20 20 20 20 20 20 00 00 00 FA 00 D1 C0 A9 C0 90 40 81 40 01 01 01 01 0A 01 5F 02 03 30 70 67 03 0C 00 11 00 80 22 5F 10 20 22 1F 21 05 14 04 03 13 02 0E 0F 11 06 07 12 15 16 1D 1E 27 29 2A 2B 2C 2D 2F 30 31 01 23 09 07 07 1A 36 80 A0 70 38 1F 40 30 20 35 00 40 84 63 00 00 1A 46 37 80 70 72 38 22 40 70 C8 35 00 40 84 63 00 00 1C D1 3D 80 80 72 B0 26 40 78 C8 36 00 40 E8 63 00 00 1C 28 3C 80 A0 70 B0 23 40 30 20 36 00 40 E8 63 00 00 1A 00 00 00 00 00 00 00 45 **Return**: set custom edid data to be: 00 FF FF FF FF FF FF 00 05 B8 00 11 04 00 00 00 1C 19 01 03 80 00 00 78 0E EE 95 A3 54 4C 99 26 0F 50 54 FF FF 80 D1 00 B3 00 A9 40 81 00 81 C0 81 80 8B C0 95 00 02 3A 80 18 71 38 2D 40 58 2C 45 00 40 84 63 00 00 1E 00 00 00 FC 00 41 4D 58 5F 48 44 4D 49 31 76 34 0A 20 00 00 00 FD 00 17 78 0F 66 11 00 0A 20 20 20 20 20 20 00 00 00 FA 00 D1 C0 A9 C0 90 40 81 40 01 01 01 01 0A 01 5F 02 03 30 70 67 03 0C 00 11 00 80 22 5F 10 20 22 1F 21 05 14 04 03 13 02 0E 0F 11 06 07 12 15 16 1D 1E 27 29 2A 2B 2C 2D 2F 30 31 01 23 09 07 07 1A 36 80 A0 70 38 1F 40 30 20 35 00 40 84 63 00 00 1A 46 37 80 70 72 38 22 40 70 C8 35 00 40 84 63 00 00 1C D1 3D 80 80 72 B0 26 40 78 C8 36 00 40 E8 63 00 00 1C 28 3C 80 A0 70 B0 23 40 30 20 36 00 40 E8 63 00 00 1A 00 00 00 00 00 00 00 45
12	get vidout hdcp **Default Value:** auto	Get HDCP mode for output	**Command:** get vidout hdcp **Return**: output is set to AUTO HDCP mode

Video and Audio Commands (Direct Control)

No.	Command	Function Description	Example

13	set vidout hdcp:<hdcp_ mode>
	Variables:
	<hdcp_mode> =
	{
	AUTO, HDCP2.2,
	HDCP1.4, NO-HDCP
	}
	Default Value:
	Auto
		Set HDCP mode for output	**Command:**
			set vidout hdcp:hdcp2.2
			Return:
			output is set to HDCP2.2 mode

14	get vidout mute **Variables:** <state>= on | off **Default Value:** Off	Get video mute state	**Command:** get vidout mute **Return:** get video mute set to off for output
15	set vidout mute:<state> **Variables:** <state>= on | off **Default Value:** Off	Set video mute for output	**Command:** set vidout mute:on **Return:** set video mute to on for output
16	get audin mic gain **Variables:** <input_gain>= 0 ~ 8 **Default Value:** 8	Get microphone audio gain for input	**Command:** get audin mic gain **Return:** get microphone audio gain 8 for output
17	set audin mic gain:<input_gain> **Variables:** <input_gain>= 0 ~ 8 **Default Value:** 8	Set microphone audio gain for input	**Command:** set audin mic gain:8 **Return:** set microphone audio gain 8 for output
18	get audout volume **Variables:** <output_volume>= 0 ~ 24 **Default Value:** 12	Get amplifier and line audio volume for output	**Command:** get audout volume **Return:** get audio out volume 12 for output
19	set audout volume:<output_ volume> **Variables:** <output_volume>= 0 ~ 24 **Default Value:** 12	Set amplifier and line audio volume for output	**Command:** set audout volume:14 **Return:** set audio out volume 14 for output
20	get audout amp delay **Variables:** <output_delay>= 0 ~ 60 second (1 second/stage) **Default Value:** 0 second	Get amplifier audio delay for output	**Command:** get audout amp delay **Return:** get amplifier audio delay 0s for output
21	set audout amp delay:<output delay> **Variables:** <output_delay>= 0 ~ 60 second (1 second/stage) **Default Value:** 0 second	Set amplifier audio delay for output	**Command:** set audout amp delay:30 **Return:** set amplifier audio delay 30s for output

Video and Audio Commands (Direct Control)

No.	Command	Function Description	Example
22	get audout mute **Variables:** <state>= on | off **Default Value:** off	Get audio mute state	**Command:** get audout mute **Return**: get audio mute set to off for output
23	set audout mute:<state> **Variables:** <state>= on | off **Default Value:** off	Set audio mute for output	**Command:** set audout mute:on **Return**: set audio mute to on for output
24	get audout format **Default Value:** all	Get audio output format	**Command:** get audout format **Return**: get audio format amp and line for output

25	set audout format:<format>
	Variables:
	<format>=
	{
	all hdmi
	amp
	line
	hdmi,amp
	hdmi,line
	amp,line
	}
	Default Value:
	all
		Set audio output format
		
		NOTE:
		When Input HDMI embedded audio is not PCM audio (such as compressed Dolby/DTS audio), auto MUTE line out and Amp out, even ALL, line or Amp format is selected,
			Command:
			set audout format:amp,line
			Return:
			set audio format amp and line for output

26	get hdmi arc mode **Variables:** <state> = enable | disable **Default Value:** enable	Get hdmi arc mode state for audio output	**Command:** get hdmi arc mode **Return**: get hdmi arc mode enable
27	set hdmi arc mode:<state> **Variables:** <state> = enable | disable **Default Value:** enable	Set hdmi arc mode state for audio output	**Command:** set hdmi arc mode:disable **Return**: set hdmi arc mode disable
28	get remote mute mode **Variables:** <action_mode> = direct | inverted direct **Default Value:** direct	Get remote mute action mode	**Command:** get remote mute mode **Return**: get remote mute action mode direct
29	set remote mute mode:<action_mode> **Variables:** <action_mode> = direct | inverted direct **Default Value:** direct	Set remote mute action mode	**Command:** set remote mute mode:inverted direct **Return**: set remote mute action mode inverted direct

Video and Audio Commands (Direct Control)

No.	Command	Function Description	Example
30	get audin mic mix **Variables:** <ratio>= 0 ~ 100 **Default Value:** 50	Get microphone audio in mix ratio	**Command:** get audin mic mix **Return**: get microphone audio mix ratio 60
31	set audin mic mix:<ratio> **Variables:** <ratio>= 0 ~ 100 **Default Value:** 50	Set microphone audio in mix ratio	**Command:** set audin mic mix:60 **Return**: set microphone audio mix ratio 60

32	get audout ducking
	Variables:
	<state> =
	{
	off
	low
	medium
	high
	}
	Default Value:
	off
		Get audio output ducking state	**Command:**
			get audout ducking
			Return:
			get audio output ducking is off

33	set audout ducking:<state>
	Variables:
	<state> =
	{
	off
	low
	medium
	high
	}
	Default Value:
	off
		Set audio output ducking state	**Command:**
			set audout ducking:low
			Return:
			set audio output ducking to low

34	get audout mode **Variables:** <state> = mono | stereo **Default Value:** mono	Get audio output mode state	**Command:** get audout mode **Return**: get audio output mode is mono
35	set audout mode:<mode> **Variables:** <state> = mono | stereo **Default Value:** mono	Set audio output mode	**Command:** set audout mode:stereo **Return**: set audio output mode to stereo
36	get audout speaker **Variables:** <resistance> = 4 | 8 Ohms **Default Value:** 8	Get audio output speaker load	**Command:** get audout speaker **Return**: get audio output speaker load is 8 Ohms
37	set audout speaker:<resistance> **Variables:** <resistance> = 4 | 8 Ohms **Default Value:** 8	Set audio output speaker load	**Command:** set audout amp load:4 **Return**: set audio output speaker load to 4 Ohms

Control Commands (Direct Control)

No.	Command	Function Description	Example

1	get serial cmd format
	Variables:
	<format>= ASCII | HEX
	<end_flag>=
	{
	none
	r (for \r, Line Feed) n (for \n, Carriage Return)
	rn (for \r\n, Line Feed and Carriage Return)
	}
	Default Value:
	format = ASCII
	End_flag = r
		Get serial command format	**Command:**
			get serial cmd format
			Return:
			get serial command format to be ascii and end with LF

2	set serial cmd format:<format>,<end flag>
	Variables:
	<format>= ASCII | HEX
	<end_flag>=
	{
	none
	r (for \r, Line Feed) n (for \n, Carriage Return)
	rn (for \r\n, Line Feed and Carriage Return)
	}
	Default Value:
	format = ASCII
	End_flag = r
		Set serial command format	**Command:**
			set serial cmd format:hex,rn
			Return:
			set serial command format to be hex and end with LF and CR

3	get serial disp on cmd	Get serial control display on commands and delay	**Command:** get serial disp on cmd **Return**: get serial display control on command:POWER ON, delay 100ms,HDMI IN1

4	set serial disp on cmd:<cmd1>,<delay_time>,<cmd2>
	Variables:
	<cmd1>=
	{
	none (for clear saved command)
	ascii or hex command string
	}
	<delay_time>= 0 ~ 60000 ms
	<cmd2>=
	{
	none (for clear saved command)
	ascii or hex command string
	}
	Default Value: cmd1 = none delay_time = 100 cmd2= none
		Set serial control display on commands and delay	**Command:**
			set serial disp on cmd:33 44 AA BB,100,none
			Return:
			set serial display control on command:33 44 AA BB, delay 100ms,none

Control Commands (Direct Control)

No.	Command	Function Description	Example
5	get serial disp off cmd	Get serial control display off Commands and delay	**Command:** get serial disp off cmd **Return**: get serial display control off command:POWER OFF, delay 100ms, none

6	set serial disp off cmd:<cmd1>,<delay_ time>,<cmd2>
	Variables:
	<cmd1>=
	{
	none (for clear saved command)
	ascii or hex command string
	}
	<delay_time>= 0 ~ 60000 ms
	<cmd2>=
	{
	none (for clear saved command)
	ascii or hex command string
	}
	Default Value: cmd1 = none delay_time = 100 cmd2= none
		Set serial control display off Commands and delay	**Command:**
			set serial disp off cmd:33 44 AA BB,1000,55 66 CC DD
			Return:
			set serial display control off command:33 44 AA BB, delay 1000ms,55 66 CC DD

7	get serial disp off delay **Variables:** <time>= 0 ~ 60 s **Default Value:** 0 s	Get serial control display off delay time	**Command:** get serial disp off delay **Return**: get serial control display off delay 30s
8	set serial disp off delay:<time> **Variables:** <time>= 0 ~ 60 s **Default Value:** 0 s	Set serial control display off delay time	**Command:** set serial disp off delay:60 **Return**: set serial control display off delay 60s
9	set serial disp manual:<state> **Variables:** <state>= on | off	Set serial control display manual on or off	**Command:** set serial disp manual:on **Return**: set serial control display manual on
10	send serial cmd:<cmd> **Variables:** <cmd>= ascii or hex command string	Send serial command out over serial port NOTE: the sent out command string will not be saved in device	**Command:** send serial cmd:Standby **Return**: sent serial command:Standby

Control Commands (Direct Control)

No.	Command	Function Description	Example

11	get ir disp on cmd
	Variables:
	<cmd_content>=
	{
	none (for clear saved command)
	IR HEX Code
	}
		Get ir control display on command	**Command:**
			get ir disp on cmd
			Return:
			get ir display control on command:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f

12	set ir disp on cmd:<cmd_content>
	Variables:
	<cmd_content>=
	{
	none (for clear saved command)
	IR HEX Code
	}
	Default Value:
	cmd_content = none
		Set ir control display on command	**Command:**
			set serial disp on cmd:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0016 0040 0016 0040 0015 0015 0016 0040 0015 0016 0015 0015 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f
			Return:
			set ir display control on command:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f

13	get ir disp off cmd
	Variables:
	<cmd_content>=
	{
	none (for clear saved command)
	IR HEX Code
	}
		Get ir control display off command	**Command:**
			get ir disp off cmd
			Return:
			get ir display control off command:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f

14	set ir disp off cmd:<cmd_content>
	Variables:
	<cmd_content>=
	{
	none (for clear saved command)
	IR HEX Code
	}
	Default Value:
	cmd_content = none
		Set ir control display off command	**Command:**
			set ir disp off cmd:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f
			Return:
			set ir display control on command:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f

Control Commands (Direct Control)

No.	Command	Function Description	Example
15	get ir disp off delay **Variables:** <time>= 0 ~ 60 s **Default Value:** 0 s	Get ir control display off delay time	**Command:** get ir disp off delay **Return**: get ir control display off delay 30s
16	set ir disp off delay:<time> **Variables:** <time>= 0 ~ 60 s **Default Value:** 0 s	Set ir control display off delay time	**Command:** set ir disp off delay:60 **Return**: set ir control display off delay 60s
17	set ir disp manual:<state> **Variables:** <state>= on | off	Set ir control display manual on/off	**Command:** set ir disp manual:on **Return**: set ir control display manual on

18	get ir volume up cmd
	Variables:
	<cmd_content>=
	{
	none (for clear saved command)
	IR HEX Code
	}
		Get ir volume up command	**Command:**
			get ir volume up cmd
			Return:
			get ir volume up command: 0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f

19	set ir volume up cmd:<cmd_content>
	Variables:
	<cmd_content>=
	{
	none (for clear saved command)
	IR HEX Code
	}
	Default Value:
	cmd_content = none
		Set ir volume up command	**Command:**
			set ir volume up cmd:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f
			Return:
			set ir volume up command:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f

20	get ir volume down cmd
	Variables:
	<cmd_content>=
	{
	none (for clear saved command)
	IR HEX Code
	}
		Get ir volume down command	**Command:**
			get ir volume down cmd
			Return:
			get ir volume down command:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f

Control Commands (Direct Control)

21	set ir volume down cmd:<cmd_content>
	Variables:
	<cmd_content>=
	{
	none (for clear saved command)
	IR HEX Code
	}
	Default Value:
	cmd_content = none
		Set ir volume down command	**Command:**
			set ir volume down cmd:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f
			Return:
			set ir volume down command:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f

22	get ir volume control interval **Variables:** <time>= 0 ~ 2000 s **Default Value:** 20 ms	Get ir volume control interval time	**Command:** get ir volume control interval **Return**: get ir volume control interval time 20ms
23	set ir volume control interval:<time> **Variables:** <time>= 0 ~ 2000 s **Default Value:** 20 ms	Set ir volume control interval time	**Command:** set ir volume control interval:100 **Return**: set ir volume control interval time 100ms
24	set ir volume manual:<state> **Variables:** <state>= up | down	Set ir volume manual up/down	**Command:** set ir volume manual:up **Return**: set ir volume manual up

25	get ir volume
	Variables:
	<state>=
	{
	on,
	off
	}
	Default Value:
	off
		Get ir volume control state	**Command:**
			get ir volume
			Return:
			get ir volume control off

26	set ir volume:<state>
	Variables:
	<state>=
	{
	on,
	off
	}
	Default Value:
	off
		Set ir volume control state	**Command:**
			set ir volume:on
			Return:
			set ir volume control on

Control Commands (Direct Control)

27	send ir cmd:<cmd> **Variables:** <cmd>= IR HEX Code	Send ir command out over ir tx port NOTE: the sent out command will not be saved in device	**Command:** send ir cmd:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f **Return**: sent ir command:0000 006c 0022 0002 0156 00ac 0015 0015 0016 0015 0016 0015 0015 0015 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0040 0015 0040 0016 0040 0016 0040 0015 0015 0016 0040 0015 0015 0016 0015 0016 0015 0015 0015 0016 0015 0016 0015 0015 0040 0016 0015 0015 0040 0016 0040 0016 0040 0015 05f1 0156 0055 0016 0e4f

28	get relay mode
	Variables:
	<mode>=
	{
	momentary latch
	}
	Default Value:
	momentary
		Get relay control mode	**Command:**
			get relay mode
			Return:
			get relay control mode momentary

29	set relay mode:<mode>
	Variables:
	<mode>=
	{
	momentary latch
	}
	Default Value:
	momentary
		Set relay control mode	**Command:**
			set relay mode:latch
			Return:
			set relay control mode latch

30	get relay normal state	Get relay normal state	**Command:** get relay normal state **Return**: get relay 1 and relay 2 normal state open

Control Commands (Direct Control)

No.	Command	Function Description	Example

31	set relay normal state:<relay_state>
	Variables:
	<relay_state>=
	{
	open
	closed
	}
	Default Value:
	open
		Set relay normal state	**Command:**
			set relay normal state:closed
			Return:
			set relay 1 and relay 2 normal state closed

32	get relay momentary time **Variables:** <time>= 0 ~ 120 s **Default Value:** 0 s	Get relay momentary time	**Command:** get relay momentary time **Return**: get relay momentary time 10s
33	set relay momentary time:<time> **Variables:** <time>= 0 ~ 120 s **Default Value:** 0 s	Set relay momentary time	**Command:** set relay momentary time:20 **Return**: set relay momentary time 20s
34	get relay disp port	Get relay port for screen up and down control	**Command:** get relay disp port **Return**: get relay 1 for screen down, relay 2 for screen up

35	set relay disp port:<screen_up_down>
	Variables:
	<screen_up_down> =
	{
	12, (screen up controlled by relay1, screen down controlled by relay2)
	21, (screen up controlled by relay2, screen down controlled by relay1)
	}
	Default Value:
	21
		Set relay port for screen up and down control	**Command:**
			set relay disp port:12
			Return:
			set relay 1 for screen up, relay 2 for screen down

36	get relay disp off delay **Variables:** <time>= 0 ~ 300 s **Default Value:** 30 s	Get relay control display off delay time	**Command:** get relay disp off delay **Return**: get relay control display off delay 30s

Control Commands (Direct Control)

No.	Command	Function Description	Example
37	set relay disp off delay:<time> **Variables:** <time>= 0 ~ 300 s **Default Value:** 30 s	Set relay control display off delay time	**Command:** set relay disp off delay:60 **Return**: set relay control display off delay 60s
38	set relay disp manual:<state> **Variables:** <state>= on | off	set relay control display manual on/off	**Command:** set relay disp manual:on **Return**: set relay control display manual on

39	get vidout cec power
	Variables:
	<state>=
	{
	on,
	off,
	warmup,
	cooldown
	}
		Get current power status from the sink via CEC	**Command:**
			get vidout cec power
			Possible response message include:
			• get cec on for sink on output
			• get cec fail for sink on output
			• No attached sink

40	set vidout cec power
	Variables:
	<state>=
	{
	on,
	off
	}
		Set power status on/off for the sink device via CEC	**Command:**
			set vidout cec power:on
			Possible response message include:
			• set cec on for sink on output
			• No attached sink

41	set vidout cec standby	Set power standby for the sink device via CEC	**Command:** set vidout cec standby **Possible response message include:** • set power standby for sink on output • No attached sink
42	set vidout cec makeactive	Make active for the sink device via CEC	**Command:** set vidout cec makeactive **Possible response message include:** • make active for sink on output • No attached sink
43	get vidout cec sleep timeout **Variables:** <time>= 0 ~ 60 s **Default Value:** 0 s	Get cec control display off delay time	**Command:** get vidout cec sleep timeout **Return**: get cec sleep timeout 30s
44	set vidout cec sleep timeout:<time> **Variables:** <time>= 0 ~ 60 s **Default Value:** 0 s	Set cec control display off delay time	**Command:** set vidout cec sleep timeout:60 **Return**: set cec sleep timeout 60s
45	set vidout cec disp manual:<state> **Variables:** <state>= on | off	Set cec control display manual on/off	**Command:** set vidout cec disp manual:on **Return**: set vidout cec control display manual on
46	get display **Variables:** <state>= on | off	get the last time control state of display on/off	**Command:** set disp manual:on **Return**: get display manual on

Control Commands (Direct Control)

No.	Command	Function Description	Example
47	set display:<state> **Variables:** <state>= on | off	set display on/off	**Command:** set disp manual:on **Return**: set display manual on
48	get auto display **Variables:** <state>= enable | disable **Default Value:** enable	get auto display control state	**Command:** get auto display **Return**: get auto display enable
49	set auto display:<state> **Variables:** <state>= enable | disable **Default Value:** enable	set auto display control state	**Command:** set auto display:disable **Return**: set auto display disable
50	get auto disp off delay **Variables:** <time>= 0 ~ 7200 s **Default Value:** 300 s	Get auto control display off delay time	**Command:** get auto disp off delay **Return**: get auto control display off delay 30s
51	set auto disp off delay:<time> **Variables:** <time>= 0 ~ 7200 s **Default Value:** 300 s	Set auto control display off delay time	**Command:** set auto disp off delay:60 **Return**: set auto control display off delay 60s

Schedule Commands (Direct Control)

No.	Command	Function Description	Example
1	get time **Variables:** <hour> = 0~23 <minute> = 0~59 <second> = 0~59 **Default Value:** hour = 0 minute = 0 second = 0	Get the current time in Device	**Command:** get time **Return**: get the current time is 11:30:40
2	set time:<hour>,<minute>,<second> **Variables:** <hour> = 0~23 <minute> = 0~59 <second> = 0~59 **Default Value:** hour = 0 minute = 0 second = 0	Set the current time in Device	**Command:** set time:20,30,00 **Return**: set the current time to 20:30:00
3	get date **Variables:** <day> = 1~31 <month> = 1~12 <year> = xxxx (four digits) **Default Value:** day = 1 month = 8 year = 2021	Get the current date in Device	**Command:** get date **Return**: get the current date is August 1,2021
4	set date: <day>,<month>,<year> **Variables:** <day> = 1~31 <month> = 1~12 <year> = xxxx (four digits) **Default Value:** day = 1 month = 8 year = 2021	Set the current date in Device	**Command:** set date:1,9,2021 **Return**: set the current date to September 1,2021
5	get schedule:<event#>	Get schedule actions for specified event	**Command:** get schedule:2 **Return**: get schedule: event:2 action: display on start time:08:00 repeat pattern:by weekly in Monday,Tuesday,Wednesday,Thursday,Friday repeat start:April 11 2021 repeat end:after 100 occurrences action name:display on

No.	Command	Function Description	Example

6	set schedule:<event#>,
	<action>,<start_time>,
	<repeat_pattern>,<repeat_
	start>,
	<repeat_end>,
	<action_name>
	
	TIP: Do NOT use spaces between variables
	
	Variables:
	<event#> = 1 ~10
	(maximum 10 events)
	<action> = (can be one or more of below settings)
	{
	auto switch enable | disable
	(= set auto switch mode:<state>)
	switch hdmi1 | hdmi2 | usbc
	(= set switch CI)
	video mute: on | off
	(= set vidout mute)
	display on | off
	(= set display:<state>)
	system on | off
	(= system <on | off>)
	volume:0-24
	(= set audout volume:<output volume>)
	audio mute: on | off
	(= set audout mute:<state>)
	mic gain:0-8
	(= set audin mic gain:<input gain>)
	}
	<start_time> = time:hhmm
	(hh=00~23 Hours,
	mm=00~59Mins)
	<repeat_pattern> =
	{
	daily (by Daily)
	week:xxxxxxx (by Weekly in selected week days, x=1 |
	0 ,1=selected, 0=unselected,
	week starts with Sunday)
	}
	<repeat_start> =start:mmddyy
	(mm=01~12(Month),
	dd=01~31(Day),
	yy=01~99(Year))
	<repeat_end> =
	{
	no end (No End Date)
	end after:xxx (End after xxx Occurrences xxx<255)
	end:mmddyy
	(mm=01-12(Month),
	dd=01-31(Day),
	yy=01~99(Year))
	}
	<action_name> =
	name:xxxxxxxxxxxx (12 character String(default =NULL)
	Default Value:
	" " (blank for no default schedule event)
		Set schedule actions for specified event	**Command:**
			>set schedule:10,auto switch enable,switch hdmi1,system on,display on,time:0900,start:010625,week:0111110,end:062725,name:SysOn
			
			Return:
			set schedule:
			event:1
			action:auto switch enable,switch hdmi1,display on,system on
			start time:09:00
			repeat pattern:by weekly in Monday,Tuesday,Wednesday,Thursday,Friday
			repeat start:January 6 2025
			repeat end:June 27 2025
			action name:SysOn

7	remove schedule:<event#> **Variables:** <event#> = 1 ~10	remove specified schedule event	**Command:** remove schedule:1 **Return:** removed schedule event 1

3000 RESEARCH DRIVE, RICHARDSON, TX 75082 AMX.com | 800.222.0193 | 469.624.8000 | +1.469.624.7400 | fax 469.624.7153

Last Revised: 2025-03-13