

WIZARD-4U2

User Manual

4K Wireless AV & BYOD Dual-Screen Content Sharing and Collaboration System

Wireless media presentation system
supporting BYOD with USB 2.0 and USB 3.0
for use in conferences and training rooms

Please visit the [SY website](http://www.sy.uk) to download the Installation Guide

Thank you for purchasing the Wizard 4U2

The SY-WIZARD-4U2 is designed with the professional AV installers in mind. The many extensive features assist in system integration, validation and maintenance.

Installation precautions

This product has special circuitry to protect it against moderate surges and static discharges. However, to ensure reliable operation and long service life, it is important to take the necessary precautions against any spikes, surges and static discharges.

Place the units away from heat sources and allow adequate ventilation.

Shielded cable and in particular cat6, cat6a or cat7 is highly recommended. As much as possible cables should be routed away from any noisy sources and avoiding long runs in close proximity to AC mains cables.

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The Wizard 4U2 is a 4K BYOD wireless/LAN presentation system designed for use where sharing and collaboration is required, such as in conferences or training rooms. Attendees can bring their own devices and connect to the Wizard 4U2 and have their image displayed. BYOD devices include Android and iPhone Smartphones, and iPads.

There are two wireless wands types, SY-WAND-H-4K and SY-WAND-C-4K, which allow wireless connections of either an HDMI source or a USB-C source as inputs to the Wizard 4U2. These Wands must first be paired with the respective Wizard 4U2 before use.

The Wizard 4U2 is designed to make use of touch screens to access Wizard 4U2 floating menu or for doing on-screen annotations. These annotations can be different on each screen when set to either 1+4 or 4+1 mode.

A maximum of sixteen wireless sources can connect to the Wizard 4U2 but only a maximum of four can be viewed on the displays when in Dual-display mode, or five when set in either 1+4 or 4+1 modes. A sidebar menu allows the selection of which input signals can be displayed. The first four wireless/LAN signals that arrive are automatically assigned to the display windows and to the sidebar menu, subsequent signals are added to the sidebar menu. A touchscreen or mouse will be required to select these additional inputs.

Features

- Pure wireless presentation experience
- Bring Your Own Device (BYOD), no messy or unsightly cables
- Supports USB devices such as cameras, microphones, and speakers
- Fully compatible with mainstream VC platforms such as Zoom, WebEx, etc.
- Wireless content up to 4K60
- Touch screen support for both outputs
- Three Dual Display Modes – mirrored multiview, 1+4 format or 4+1 format
- Independent drawing modes on both displays when in 1+4 or 4+1 modes
- Output HDMI 2.0 signals up to 4K60 4:4:4
- Supports native wireless mirroring protocols such as Airplay, Miracast, Chromecast
- Supports up to two USB cameras
- Wireless dongles for HDMI sources and USB-C video
- PoE support on LAN port 1 only
- RS232 control
- Built-in WebGUI for configuration and moderator control

Package Contents

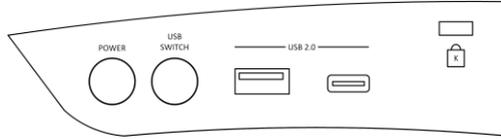
- 1x Wizard 4U2
- 3x Wi-Fi antennas
- 1x 12V DC PSU
- 1x Manual

Optional Extras

- SY-WIFI-DONGLE Dongle for Airplay
- SY-WAND-H-4K Wand for HDMI sources, requires a USB-A power source
- SY-WAND-C-4K Wand for USB-C sources

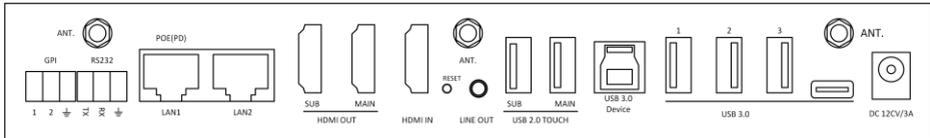
Connectors and Controls

Side



Name	Description
POWER	Power switch
USB SWITCH	USB switching function
USB 2.0	USB-A and USB-C connectors for dongle pairing
K	Slot for Kensington Lock

Rear



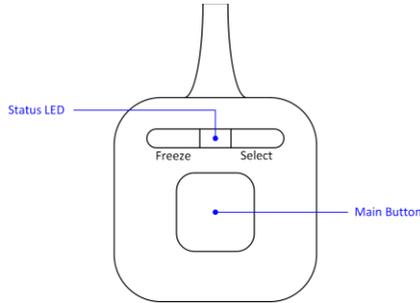
Name	Description
ANT.	Wi-Fi Antennas (x 3)
GPI	General Purpose Input ports (x 2)
RS232	RS232 serial control
LAN1	IP port with PoE
LAN2	IP port – no PoE
HDMI SUB	Secondary HDMI output
HDMI MAIN	Primary HDMI output
HDMI IN	HDMI input from local PC
RESET	Rest button – recessed behind hole
LINE OUT	3.5mm L/R analogue audio output
SUB USB TOUCH	USB touchscreen port for Sub HDMI output
MAIN USB TOUCH	USB touchscreen port for Main HDMI output
USB 3.0 Device	USB 3.0 for local PC
USB 3.0	USB 3.0 ports and USB-C port
DC 12V/3A	12V DC input (centre positive)

Top Decal

On the top of the Wizard 4U2 is a decal that lights with different colours depending on the status of the unit:

Decal Colour	Description – The Wizard 4U2 is:
Off	Not powered
Flashing Red	Booting after being powered up
Solid Red	In standby mode, press the POWER button to activate the Wizard 4U2
Green	Not connected to any input source
Blue	Connected to at least one input source

SY-WAND 4K Controls



Name	Description
Main Button	Start / Stop the connection to the Wizard 4U2
Status LED	Indicates the status of the Wand – see Wand Light Colours for more details
Freeze Button	Freeze or unfreeze image while connected to the Wizard 4U2
Select Button	Configurable button – See Device Control → Button Definition on page 29 for more details

Additional Options

SY Wands

SY-WAND-H-4K HDMI wireless wand to connect an HDMI source to the Wizard 4U2. A USB port is required to power the SY-WAND-H-4K.

SY-WAND-C-4K USB-C wireless wand to connect a USB-C video source to the Wizard 4U2. Power is taken from the USB-C output port.

Pairing the Wizard 4U2 with a Wand

To use either of these Wands, it must first be paired with the Wizard 4U2 it is being used with. Wand pairing is done as follows:

1. Plug the SY-WAND-H-4K into the USB-A port on the side of the Wizard 4U2, or the SY-WAND-C-4K into the USB-C port on the side of the Wizard 4U2.
2. Wait for the pairing process to complete and then unplug the Wand and connect it to the source device. The SY-WAND-H-4K requires a separate USB-A port to act as its power supply source.
3. Wait for the indicator on the Wand to stop flashing and then press the centre button of the Wand to begin sending the video to the Wizard 4U2.

Once paired, the Wand will always connect to the same Wizard 4U2. Pairing will need to be repeated should the same Wand need to connect to a different Wizard 4U2.

Wand Light Colours

The SY-WANDS display a colour bar to indicate its current operating status:

Colour	Description
Flashing Red	Wand is starting up.
Flashing Green	Wand is finding the Wizard 4U2 it was last paired with.
Steady Green	Wand is ready to begin sharing.
Steady Red	Wand is sharing with the paired Wizard 4U2.

Using this Product

Required Connections

1. Connect display devices to the HDMI MAIN and HDMI SUB outputs.
2. Attach the antennas to the rear of the Wizard 4U2.
3. Connect the 12V DC PSU to the PSU input port.

Optional Connections

1. Connect a local PC with HDMI to the HDMI IN port.
2. Connect a USB Type-A to Type-B cable or a USB3 cable from the local PC to the USB 3.0 Device port.
3. Connect a LAN cable to either or both the LAN ports.
4. Connect an RS232 cable to the 3-way RS232 connector.
5. Connect a 3.5mm stereo jack connector to the audio output.
6. Attach any USB devices, such as a mouse to access to the on-screen menu system.

Dual Display Modes

The MAIN and SUB outputs can be set in one of three modes:

1. Duplicate on both displays.
2. Use MAIN as the full image display with the SUB showing the multiview mode.
3. Use MAIN as the multiview display with the SUB showing a full image.

Note that changing these modes in the Web Interface will disconnect all sources, including the HDMI IN. All sources will need to reconnect to restore the images.

When using the 1+4 or 4+1 modes, the first source to connect is always assigned to the display showing the full-screen image. All subsequent sources are assigned to the multiview display.

The Home Screen

The Home screen is always displayed when there are no input sources, or when all active input sources have been stopped from the sidebar menu or by a control command.



The Home screen provides the following information:

1. The device **ID: Wizard 4U2**. This can be changed using the built-in web interface (see **Wireless Network Setting**).
The current password for BYOD sources, this may change depending on the setting of the **Auto change password** option in the **Network setting** tab of the built-in WebGUI.
The current time – Configured on the **Date & Time** settings in the **System Settings** tab of the built-in WebGUI.
2. The three circled icons have the following meanings:
 - The tick icon has a number that shows the current security level. Click the icon to display a screen showing the security level settings. Use **Security Settings** from the WebGUI to change the security level.
 - The middle icon requires the presence of a USB memory device to save or recall the current settings of the Wizard 4U2. Any previously saved configuration file can be reloaded to configure the Wizard 4U2.
 - The **i** icon toggles displaying of the top info bar. The bottom info bar is always on.
3. **4K Direct Casting** shows how to connect casting devices to the Wizard 4U2.
 - For the SY Cast, use your Android mobile to scan the QR code and install the SY Cast app. Start the SY Cast App to wirelessly connect your mobile to the Wizard 4U2.
4. **PC & Mac 4K Casting** shows how to connect laptops and PCs to the Wizard 4U2 using one of the two SY Wands.
5. The WiFi and both LAN IP addresses of the Wizard 4U2 are given at the bottom of the home screen. N/A indicates that the IP address for that port is Not Available.

Sidebar Menu

The sidebar menu allows selection of the inputs that are not on the display. To do this, one or more of the current image sources may need stopping before starting another one. At the bottom of the sidebar are icons for the two drawing modes.

On-Screen Drawing and Whiteboard Modes

The Wizard 4U2 has two distinct drawing modes that can be used independently when in 1+4 or 4+1 display modes:

1. Whiteboard mode - A plain background is displayed (white by default)
2. On-Screen drawing - The video is displayed as the background

Both these modes require a mouse or touchscreen that must be connected to any USB port on the Wizard 4U2. Drawing is done by moving the mouse while the left button is pressed, or by drawing directly on the touchscreen surface.

Click on one of the following icons from the bottom menu of the Wizard 4U2 sidebar to select the desired mode:



Enable whiteboard drawing mode.



Enable on-screen drawing mode.

With either mode active, use the mouse or touchscreen to draw on the display, change the pen colour, change from lines to shapes, erase portions of the drawing, or save the drawing to the internal memory of the Wizard device – note that this memory is lost when the Wizard unit is powered down.

Drawing Mode Icons

The selected drawing mode will show either one toolbar or three toolbars. In each case some or all of the following icons will be present:

Icon	Description
	Add a new page in whiteboard mode
	Delete the current whiteboard page
	Page Selection in whiteboard mode
	Undo
	Redo
	Erase parts of the drawing, use a longer left button click to increase the pen size
	Erase the entire drawing
	Set the pen colour and size – another menu appears with the pen colour and size options
	Draw geometric shapes – another menu allows selection of the desired shape
	Select background colour – any drawing will be kept
	Save the current drawing to local storage

Icon	Description
	Exit drawing mode and return to normal operating mode
	File options – see below Only available in whiteboard mode

File Options Menu

The file options menu has the following items on it:

Open	Open a previously saved drawing file from local memory and display it
New Project	Create a new project
Save as	Save a WMN file in local storage
Import from U-disk	Load a stored project from a USB memory device
Save as PDF	Save the current drawing as a PDF file
Clear History	Delete all whiteboard and annotation files from local storage

The file options access the internal local memory of the Wizard device – note that anything saved to this memory will be lost when the Wizard unit is powered down. To access the files, either scan the QR code with your mobile's camera or enter the given IP address in a web browser. The downloaded image files will be in PNG image format.

Streaming from PC, Laptop, or Android

Use your device's App Store to download the SY Cast app appropriate to your OS.

Run the downloaded app to install WirelessMedia on your computer system. This will also install three drivers – **Virtual Meeting Camera**, **Virtual Meeting Audio** and **Virtual Meeting Microphone**. These can be used with any Meeting software, such as Zoom.

The WirelessMedia app will create an additional video display to allow streaming to the Wizard device using either WiFi or LAN connections. This will allow you to continue using your primary display or displays. This additional display is only visible to the Wizard 4U2 but any type of content can be moved to this display as required.

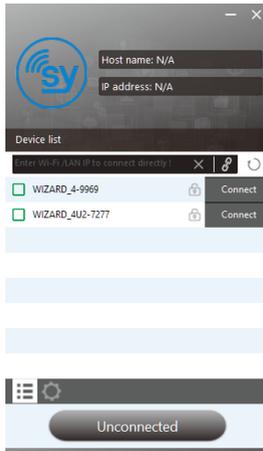
The IP addresses shown in this section are examples only, the IP of your Wizard 4U2 will always be shown on your PC.

Open the WirelessMedia app from the WirelessMedia icon:



SYCast-wi...

The app will then search for and list all Wizard devices that are visible to the PC, laptop, or Android device:

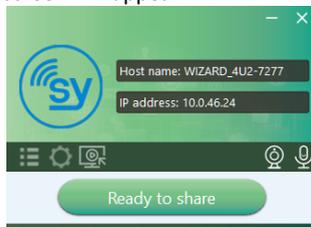


Click the Connect button to the right of the Wizard device and the password enter window will appear:



Enter the eight-digit password as displayed on the Home page of the Wizard unit, including any leading zeros. Click OK to complete the connection.

If you are prompted to download a newer version of the WirelessMedia app, use the **Error! Reference source not found.** to obtain the latest version appropriate to your computer system. Once connected, the following screen will appear:



When ready to being sharing your screen, click on the Ready to share button. The screen will now change to:



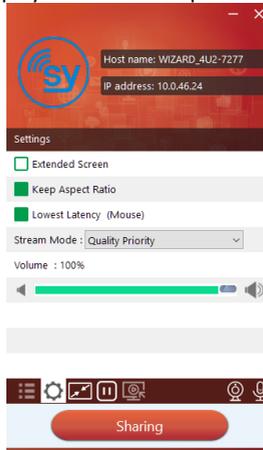
Click the **Sharing** button to stop sharing with the Wizard 4U2.

Above the Sharing button is a row of icons:

	Display a list of detected Wizard devices
	Settings – see below
	Toggle between split screen and full screen.
	Select Camera

Settings

Selecting the settings icon will display the available optional settings:



Any active item is indicated by a filled green box.

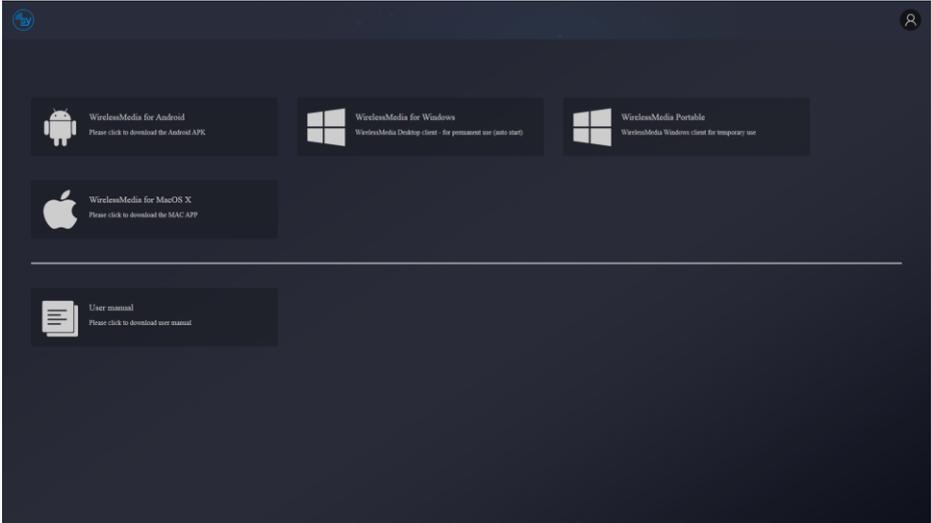
The following table describes each option:

Setting	Default State	Description
Extended Screen	Off	Toggle between streaming the secondary (desktop extend) or primary display
Keep Aspect Ratio	On	Toggle between maintaining the aspect ratio of the streamed display or stretching the image to fit.
Lowest Latency (mouse)	On	Change the mouse latency, lowest when enabled.
Stream Mode	Quality Priority	Select between Fluency Priority and Quality Priority. This setting will depend on the quality of the network connection.
Volume	100%	Set the output volume level for any sounds sent from the computer.

Click the  button in the top right corner to close the WirelessMedia app. A confirmation box will appear, click the Yes button to end the session.

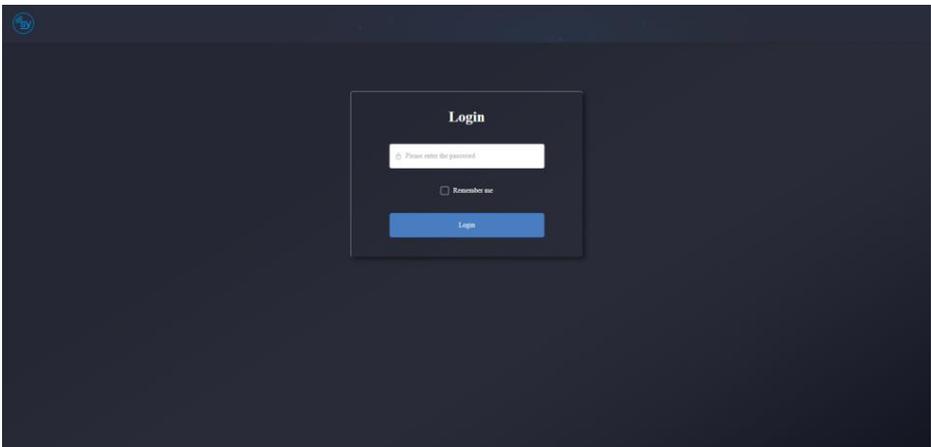
Built-In Web Interface

The Wizard 4U2 has a built-in Web GUI interface for changing the settings and configuration of the Wizard 4U2. Use the Home screen to obtain the IP address and the LAN port you wish to use and the following download page will appear after entering the IP address in a web browser address bar:



This page provides several options to download the Wizard 4U2 streaming software package for various platforms and for accessing the User Manual.

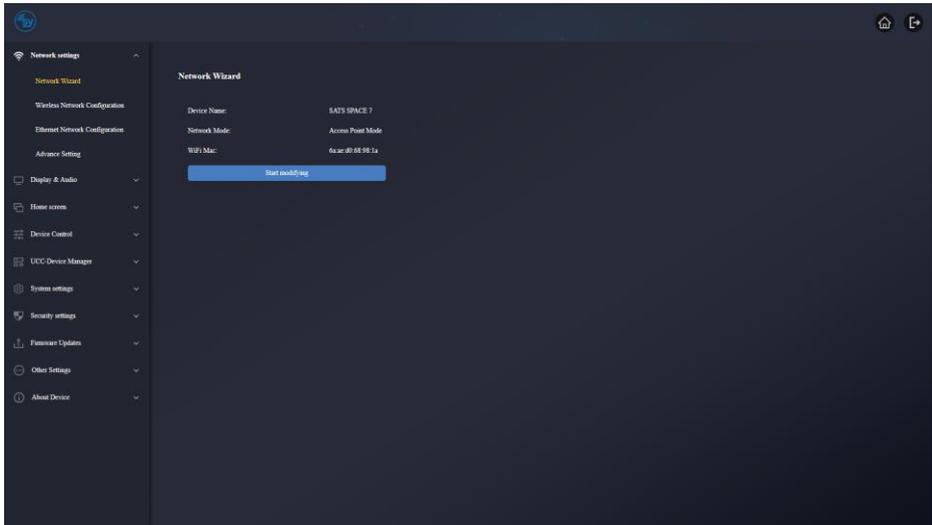
To access the configurations settings pages, click on the twin gear icon at the top right and the login page will appear:



Enter the current login password and click the Login button.
The default login password is: **admin**.

Settings Page

After entering the Settings page will appear with the Network settings tab opened to the Wireless network section.



The sidebar menu selects the respective settings page, each detailed in the following sections. Any settings already in progress will not be lost if a different page is selected.

Navigation Icons

The two icons on the right of the top bar are:

Home – Return to the Downloads page, select the twin gears from the Downloads page to return to the above Network settings page.

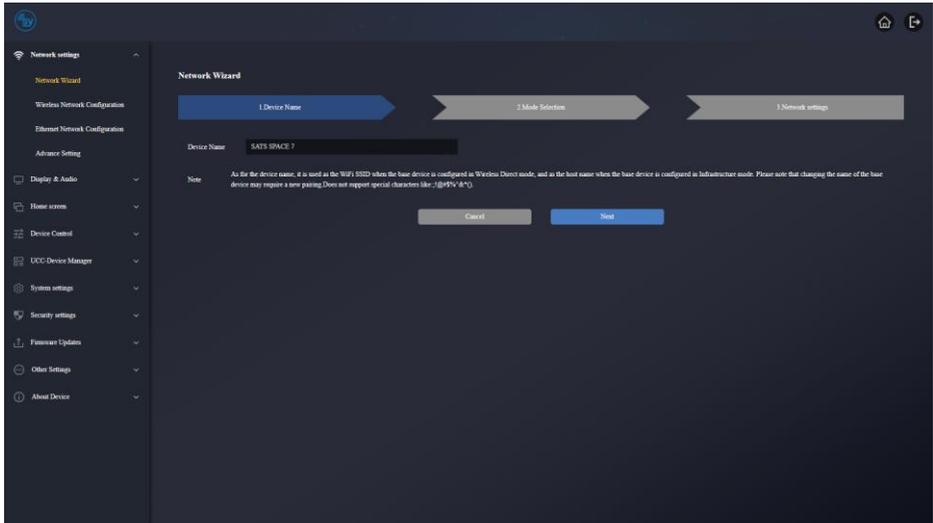
Logout – Return to the login page.

Network Settings

Wireless Network

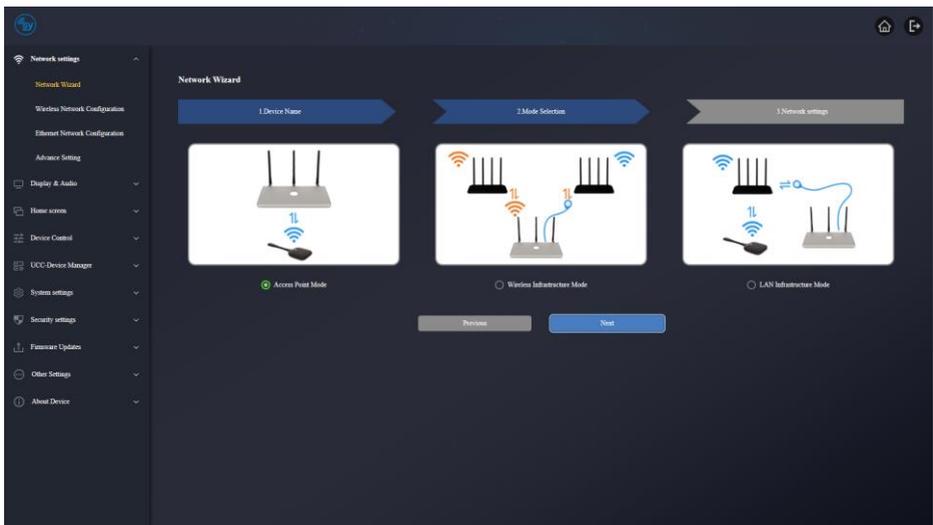
The Start Modifying button will initiate a four step process to change the settings for the wireless network identify of the Wizard 4U2:

1. Device Name – Enter a new device name to clearly identify the Wizard 4U2 on the wireless network.



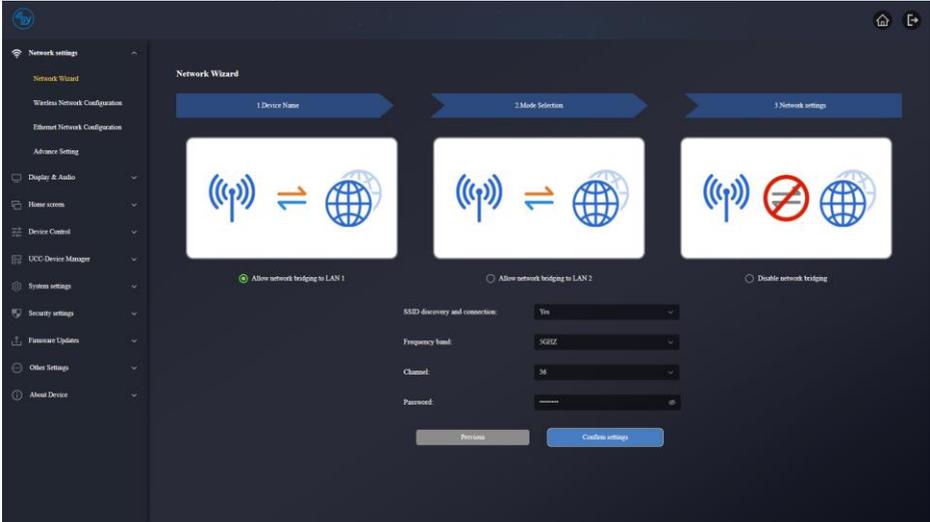
Click **Next** step to go to step 2 or click **Cancel** to abort the Wi-Fi settings mode.

2. Mode selection – Choose one of the wireless operating modes.



Click Next step to go to step 3 or click Previous to return to step 1.

3. Network settings – Choose one of the options for the internet access mode.



The dropdown boxes have the following settings:

- SSIS Discovery and connection Yes or No Default is Yes
- Frequency 2.4GHz or 5GHz Default is 5GHz
- Channel 36, 40, 44, 48, 149, 153, 157, 161 Default is 36
- Password This is the same as shown on the HDMI Home page

Click Next step to go to step 4 or click Previous to return to step 2.

4. SSID setting – If needed, enter the GUEST and/or STAFF network SSID.

Click Submit settings to confirm any changes made or click Previous to return to step 3.

Note: SSID – Service Set Identifier.

Checking the WiFi Setting

To do either of the two checks described below, use of a WiFi Analysis app is required.

Checking the Wizard 4U2 WiFi Settings

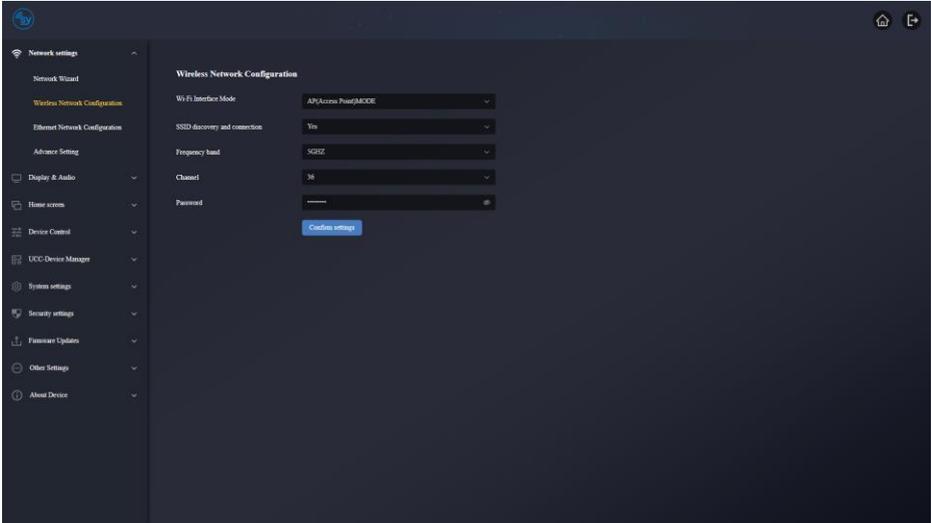
Use the WiFi App to confirm which frequency the Wizard 4U2 is on and which channel it is on. Use the above form in step 3 to change the settings to a free WiFi channel.

Checking the WiFi RSSI for Dongles or Mobiles

RSSI is the Received Signal Strength Indicator. For best result the value should be above -70dB. Please refer to the *Bad wireless connection* in the Troubleshooting section on how to improve the RSSI.

Wireless Network Setting

The page sets the options for the Wireless Network:



The dropdown boxes have the following settings:

- Wi-Fi Interface Mode AP (Access Point) Mode

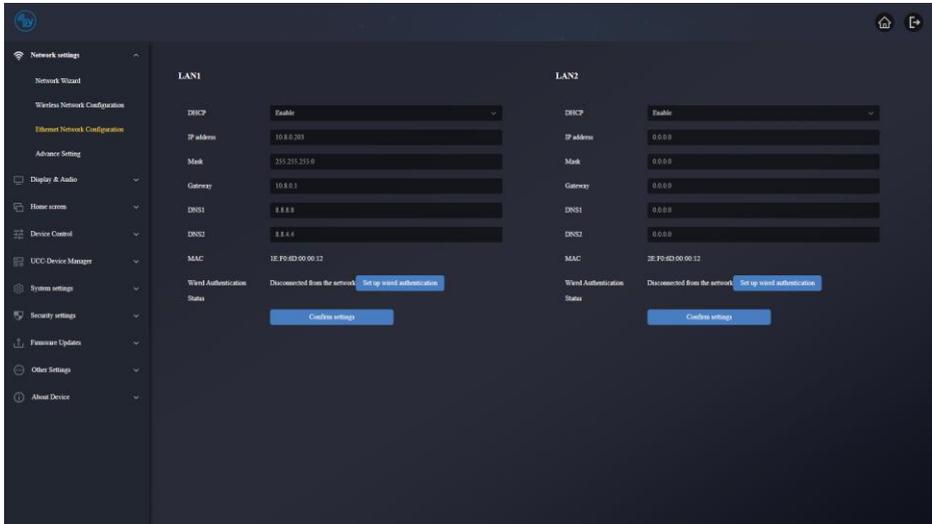
Wireless Infrastructure mode

- SSIS Discovery and connection Yes or No Default is Yes
- Frequency 2.4GHz or 5GHz Default is 5GHz
- Channel 36, 40, 44, 48, 149, 153, 157, 161 Default is 36
- Password This is the same as shown on the HDMI Home page

Click the **Confirm Settings** button to accept the changes.

Ethernet

Enter the details for LAN 1 or LAN 2 as desired:



DHCP – select Enable or Disable as needed. When DHCP is set as Enable, the remaining edit boxes are not usable.

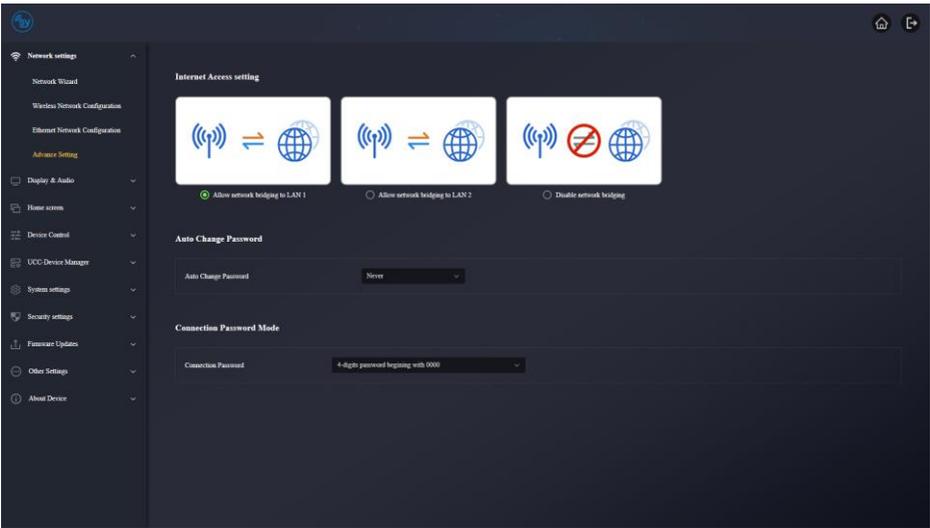
- IP Address set the static IP address for the Wizard 4U2 LAN port.
- Mask set the network subnet mask for the Wizard 4U2 LAN port.
- Gateway set the IP address of the default Gateway device.
- DNS1 set the IP address for the first domain name server.
- DNS2 set the IP address for the second domain name server.
- MAC the MAC address of the Wizard 4U2, this cannot be changed.

Click the **Confirm settings** button to set the changes into the Wizard 4U2.

Advance Setting

This is the access password for wireless BYOD devices, to change the login password see_. This pages sets how often this password is changed from one of the following: **Never, 5 minutes, 30 minutes, 1 hour, 2 hour, 4 hour, or 24 hour**. The interval chosen will take effect immediately and will be acknowledged by a green Success banner at the bottom of the browser window.

The Connection Password can be set to use only the last 4 digits with leading zeroes, or to use all 8 digits.

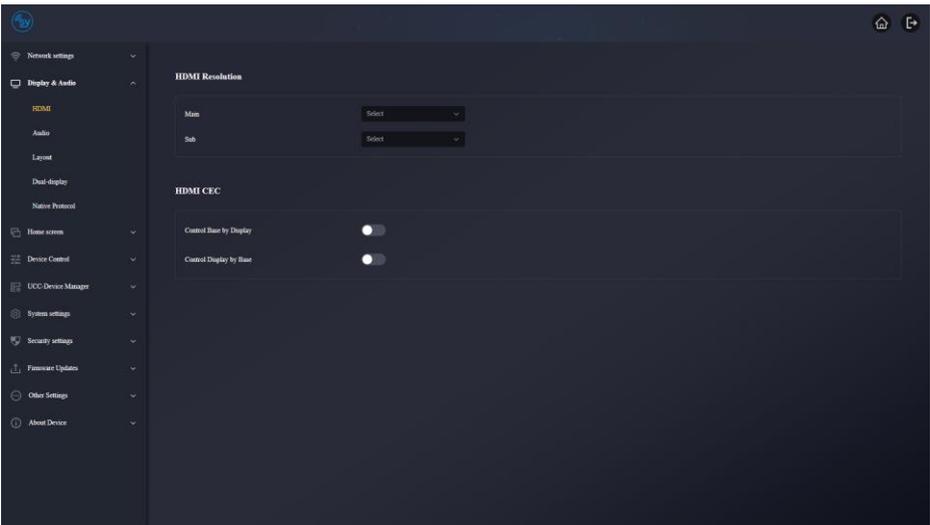


Display & Audio

HDMI

HDMI Resolution

Select the desired output resolution for each output separately, or Auto to allow the Wizard 4U2 to automatically choose the best output resolution for the display device. The selected option will take effect immediately and will be acknowledged by a green Success banner at the bottom of the browser window.



Control Base by the Display

ON – when the CEC enabled display device is put into standby, the Wizard 4U2 will also enter standby mode.

OFF – putting the CEC enabled display device into standby will not affect the Wizard 4U2.

Control Display by Base

ON – when Wizard 4U2 goes into standby, the CEC enabled display device will also be set to standby.

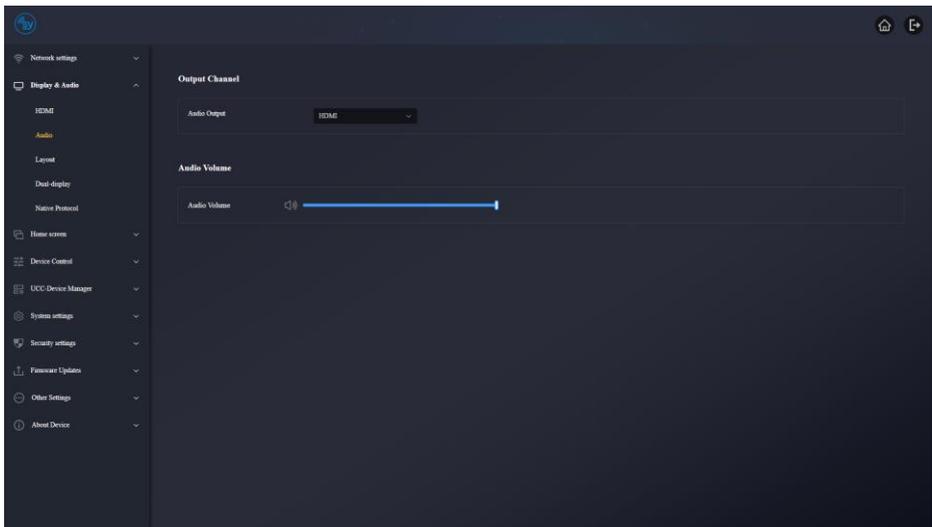
OFF – the Wizard 4U2 device will not turn off the display.

The selected option will take effect immediately and will be acknowledged by a green Success banner at the bottom of the browser window.

The default state is with both options set to OFF.

Audio

This page sets the audio output options.



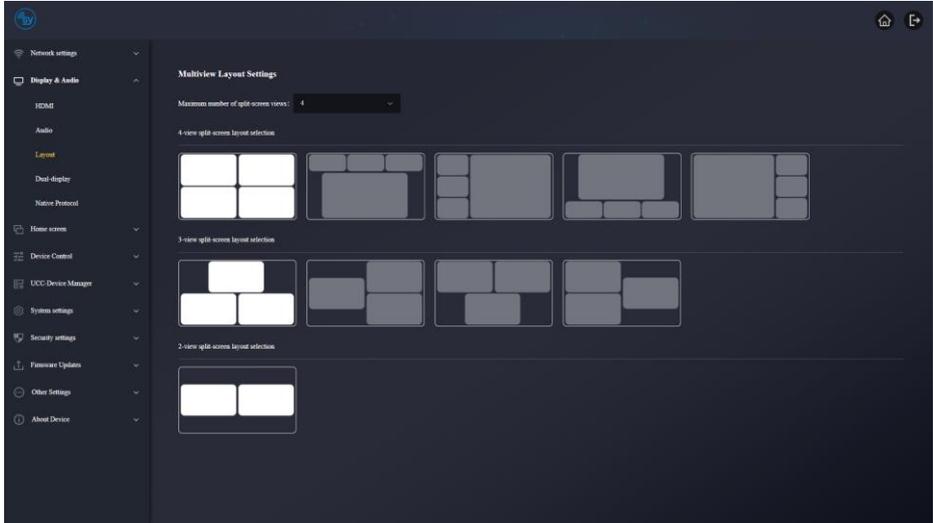
From the dropdown list, select where the audio is to be output:

- Jack** This is the LINE OUT analogue audio output on the rear of the Wizard 4U2. In this mode there is no HDMI audio to the display device.
- HDMI** The HDMI output carries the audio. In this mode there is no analogue audio on the LINE OUT connector.
- Jack&HDMI** Both the HDMI output and the LINE OUT carry the audio signal.
- USB** This will only appear if USB speakers are connected to the Wizard 4U2. In this mode the audio signal is sent only to the USB speakers.

The audio volume slider sets the maximum output volume level for the Wizard 4U2.

Layout

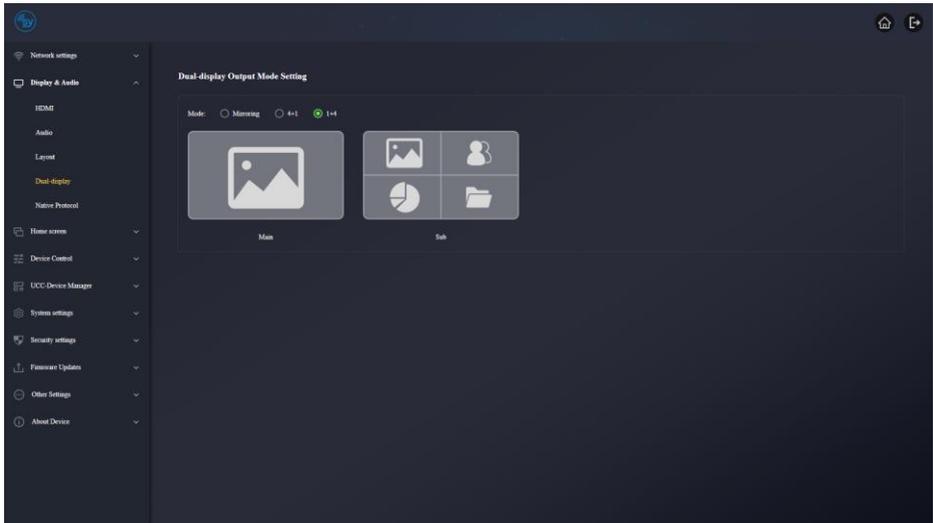
This page can set the maximum number of inputs and the multiview layout options.



The selected option will take effect immediately and will be acknowledged by a green Success banner at the bottom of the browser window.

Dual Display

This page controls the appearance for the MAIN and SUB outputs.



The options are:

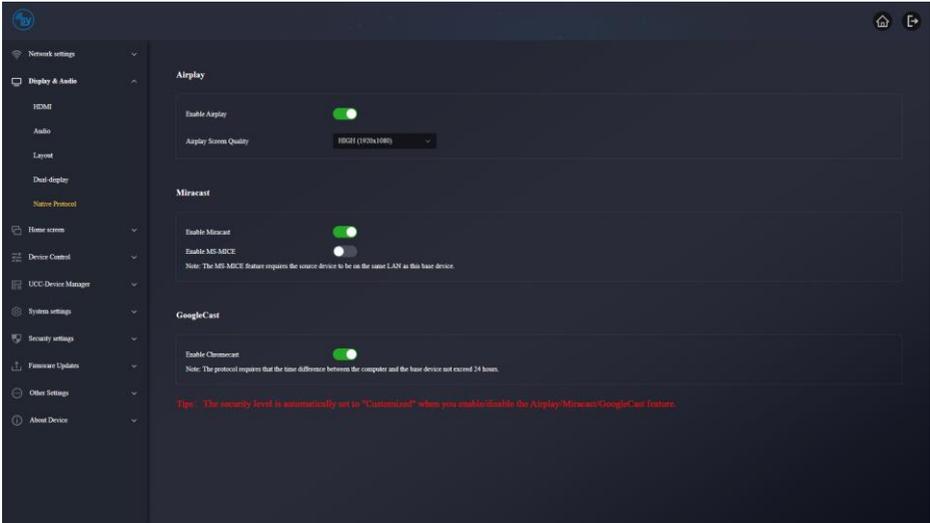
- Mirroring:** Both outputs display the same image, including the multiview mode.
- 4+1:** The MAIN output shows the multiview mode while the SUB output only shows a single image.

1+4: The MAIN output only shows a single image while the SUB output shows the multiview mode.

The selected option will take effect immediately and will be acknowledged by a green Success banner at the bottom of the browser window. The two graphics will change to indicate how the MAIN and SUB screens will show their images.

Native Protocol

Enable or Disable the connection methods for several streaming devices:



Change the toggle buttons to enable or disable the following streaming options:

Airplay Used by Apple devices

Miracast Widely used by several devices

Enable MS-MICE Set to enable the Microsoft Miracast over Infrastructure Connection Establishment protocol

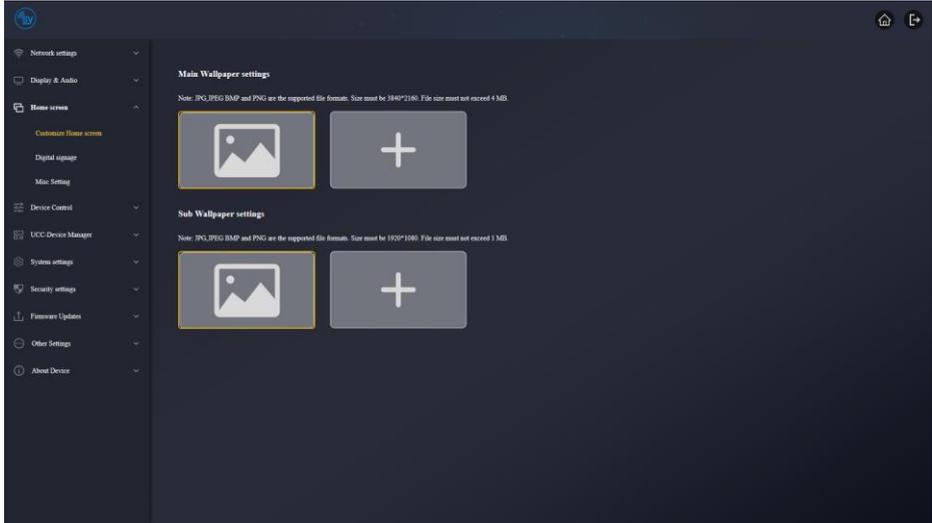
GoogleCast Used by Google devices, including ChromeCast.

Home Screen

Customize Home Screen

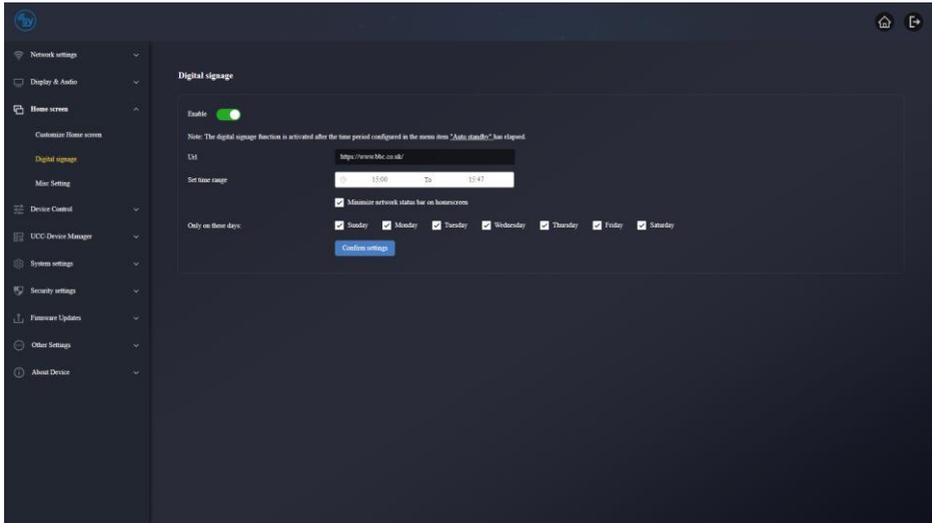
Each output may have different background images, called the Home Screen.

Note that the currently selected image will replace the internal home screen image, but the information text will still be shown, if enabled.



Digital Signage

This page allows for specific content to run after the Auto Standby time has elapsed.



Enable

Set to configure the content date/time options.

URL

Enter the URL for the content to display.

Set time Range

Set the start and end times for the content.

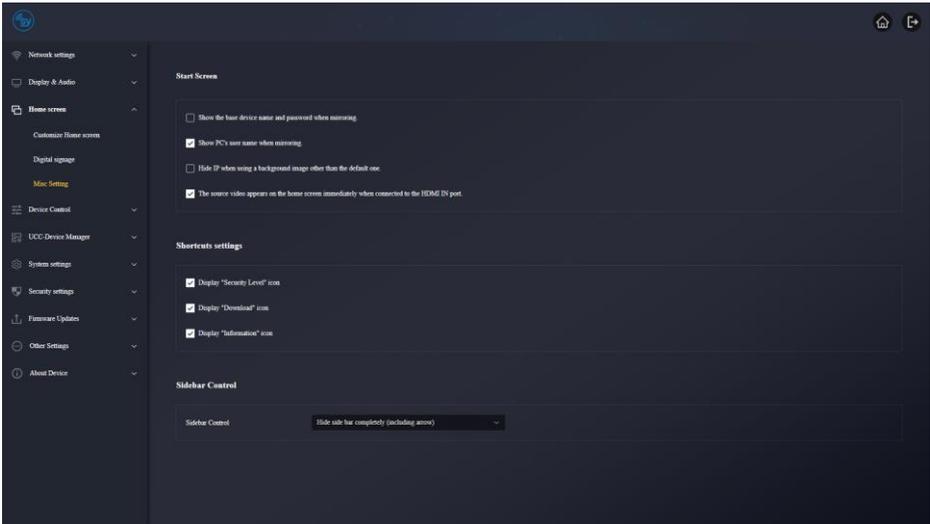
Only on these days Set the days that the content shall run on.

Set the **Minimize Network status bar on homescreen** option to hide the IP address for LAN1 and LAN2 when the content is playing.

Use the Confirm Setting button to accept the changes.

Misc. Setting

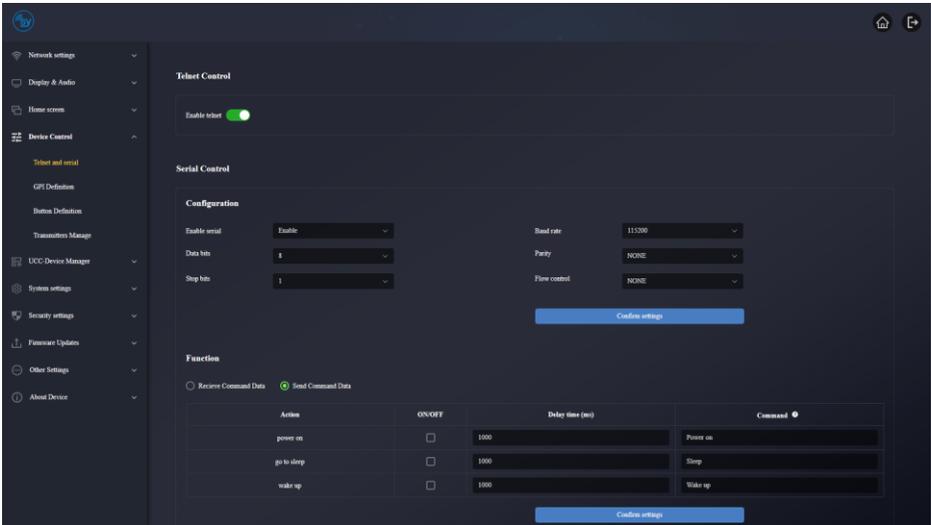
This page controls which items are displayed over the Home Screen image.



The selected option takes effect immediately and will be acknowledged by a green Success banner at the bottom of the browser window.

Device Control

Telnet and Serial



Enable Telnet
Serial Control

Set to allow the use of the Telnet control function
Select the options for the serial port. Any changes will also affect the RS232 control commands. Click the **Confirm Settings** button to accept the changes.

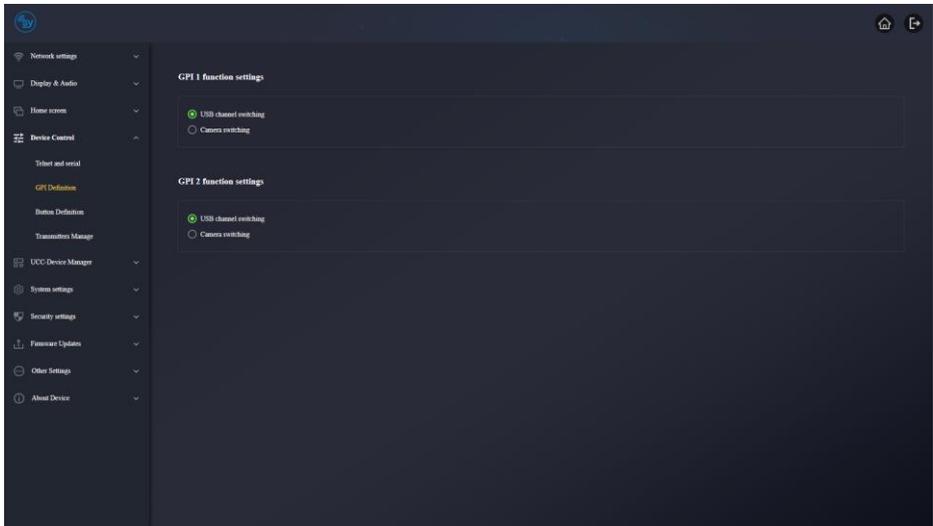
Function

- Receive Command Data Set to receive control commands
- Serial Command Data Set to enable transmission of commands to the display
 - Power on: Set the command to turn the display on
 - Go to Sleep: Set the command to turn the display off
 - Wake Up: Set the command to wake up the display

Click the **Confirm Settings** button to accept the changes.

GPI Definition

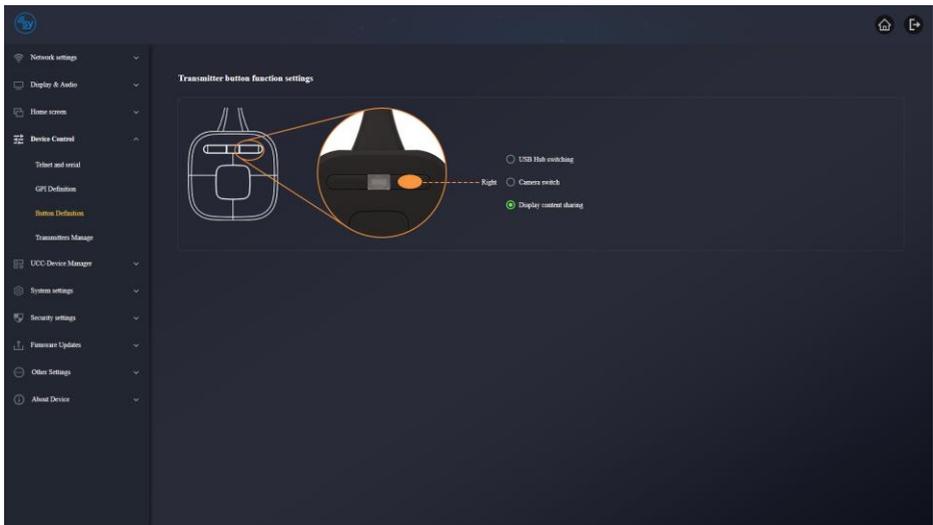
This page determines the action for each the two general purpose inputs (GPI).



The selected option takes effect immediately and will be acknowledged by a green Success banner at the bottom of the browser window.

Button Definition

This page sets the function for the SELECT button on the Wand.



The selected option takes effect immediately and will be acknowledged by a green Success banner at the bottom of the browser window.

Transmitters Manage

This page displays information about current and previously paired Wand devices.

The screenshot shows the 'Transmitters Manage' page in a dark-themed application. On the left is a navigation menu with items like 'Network settings', 'Display & Audio', 'Home screen', 'Device Control', 'UCC Device Manager', 'System settings', 'Security settings', 'Firmware Updates', 'Other Settings', and 'About Device'. The main content area is divided into two sections: 'Connected' and 'Paired'.

Connected Table:

Item ID	Transmitter Type	MAC Address	Serial Number	Transmitter Firmware Version	Status	Last Active Time	Operate
1	HDMI Transmitter	34:78:e4:8c:08:6c	S002339007	V0.0.2G.A1122	Sharing	2024/04/08 08:38:33	

Paired Table:

Item ID	Transmitter Type	MAC Address	Serial Number	Device Name	Operate
1	USB-C Transmitter	34:78:e4:8c:08:5a	-	-	
2	HDMI Transmitter	34:78:e4:8c:08:c2	-	-	
3	HDMI Transmitter	34:78:e4:8c:08:90	S002402007	-	
4	USB-C Transmitter	34:78:e4:8c:08:04	S002402008	-	
5	HDMI Transmitter	34:78:e4:8c:08:6c	S002339007	W/M81-6E	

The Operate column in the top section allows a moderator to stop or start any connected Wand. The Operate column in the bottom section allows a manager to delete references to previously paired wands.

UCC-Device Manager

USB Hub Switching

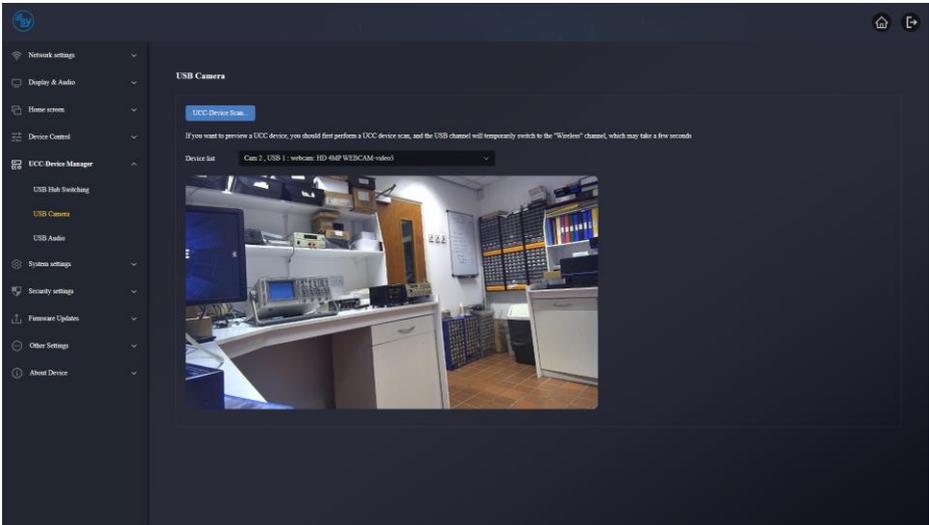
This pages sets the function of the USB Switch on the side of the Wizard 4U2 device.

The screenshot shows the 'USB Hub Switching' page. At the top, there's a diagram of the device's side panel with labels for 'POWER', 'USB-A interface', and 'USB-B'. Below this is a close-up image of the physical 'POWER' and 'USB SWITCH' buttons. The main control area features a 'USB Hub Switching' label and three radio buttons: 'Auto', 'USB-B' (which is selected), and 'Wireless'. At the bottom, a schematic diagram shows a central orange circle connected to icons for a microphone, a USB-A port, a USB-B port, and a wireless signal.

The graphic at the bottom of the screen illustrates the function when either USB-B or Wireless are selected.

USB Camera

When there USB cameras attached, this page allows for the selection of any of the two cameras.

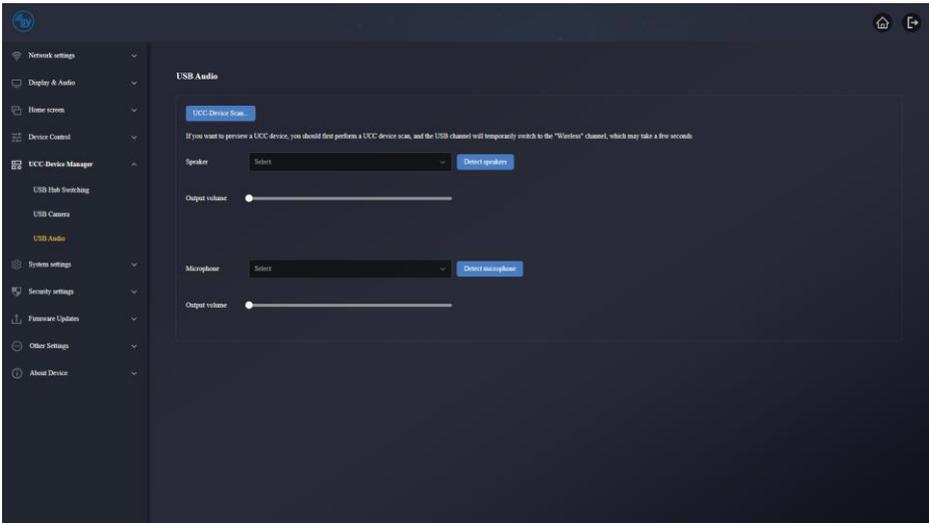


UCC Device Scan... Click to let the Wizard 4U2 scan for any changes to the USB devices.

Device List Select the camera to preview.

USB Audio

This page manages the USB audio devices.



UCC Device Scan... Click to let the Wizard 4U2 scan for any changes to the USB devices.

Speaker Select the speaker to use from the list.

Detect Speakers Click to let the Wizard 4U2 scan for any USB speakers.

Output Volume Move the slider to set the speaker volume.

Microphone

Select the microphone to use from the list.

Detect Microphone

Click to let the Wizard 4U2 scan for any USB microphones.

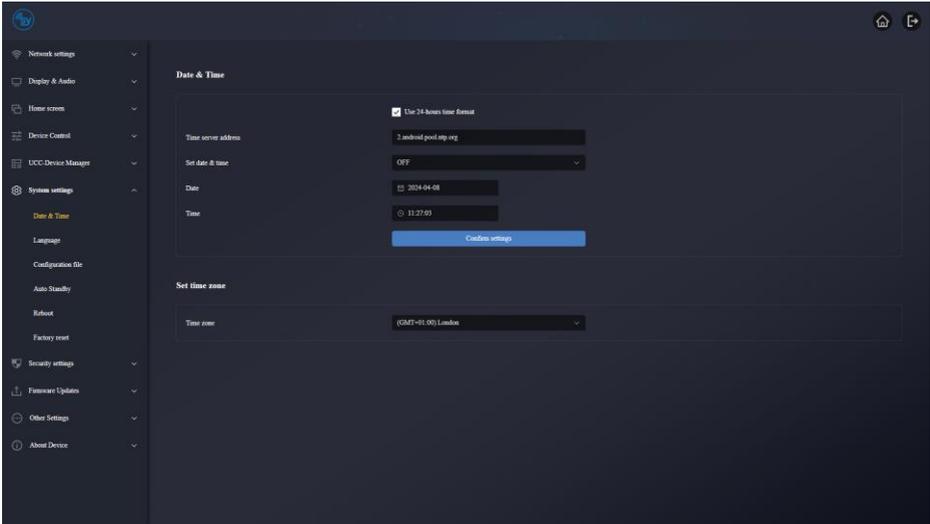
Output Volume

Move the slider to set the microphones volume.

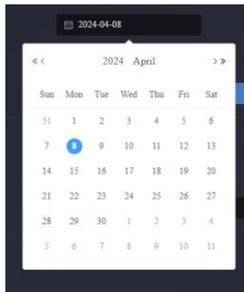
System Settings

Date and Time

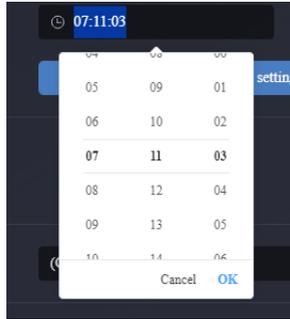
Use this page to set the date and time for your locale.



Clicking on the Date box will open the data picker:



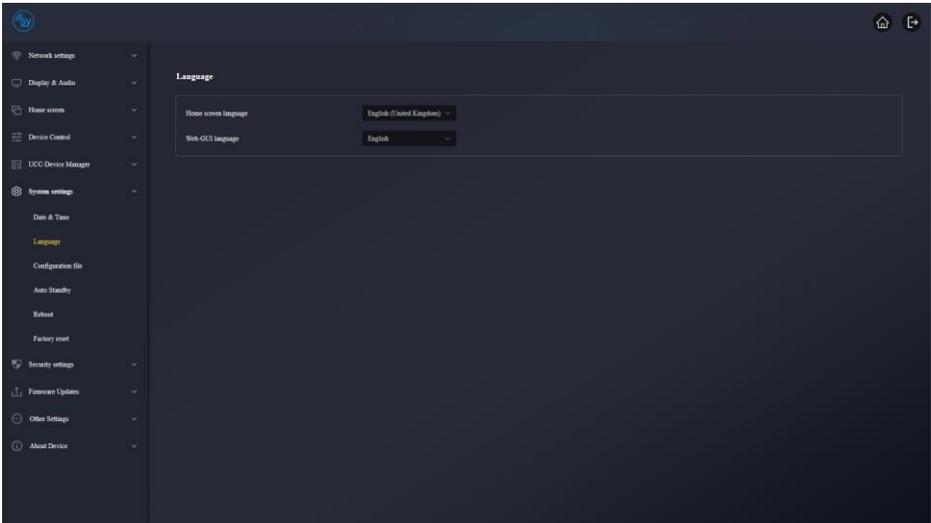
Clicking on the Time box will open the time picker:



Click **OK** to accept the changes, or **Cancel** to reject the changes.

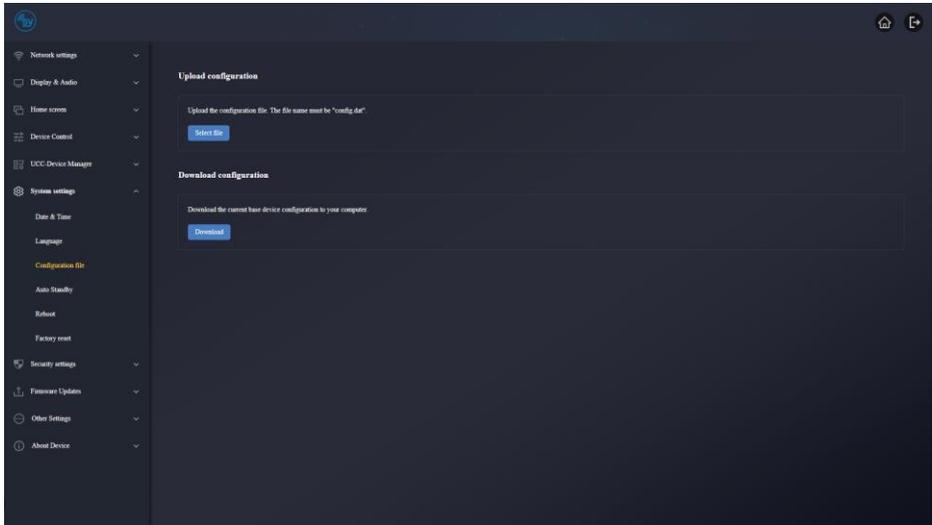
Language

Use this page to change the language for either the Home screen, or the Web GUI. Or both.



Configuration File

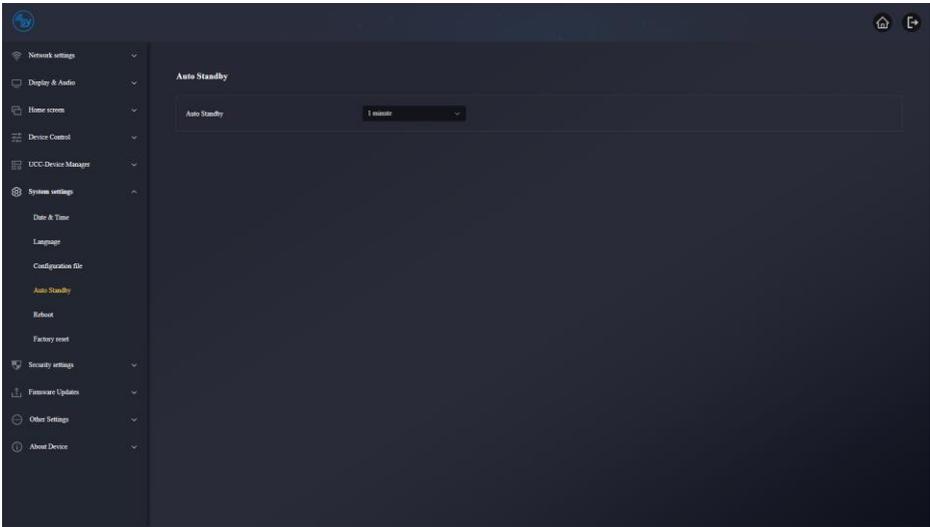
Use this page to create or use a configuration file.



A configuration file is useful when several Wizard 4U2 units need to have the same configuration. Use one Wizard 4U2 to create the configuration file, then use **Select File** button to configure other Wizard 4U2 devices to the same settings.

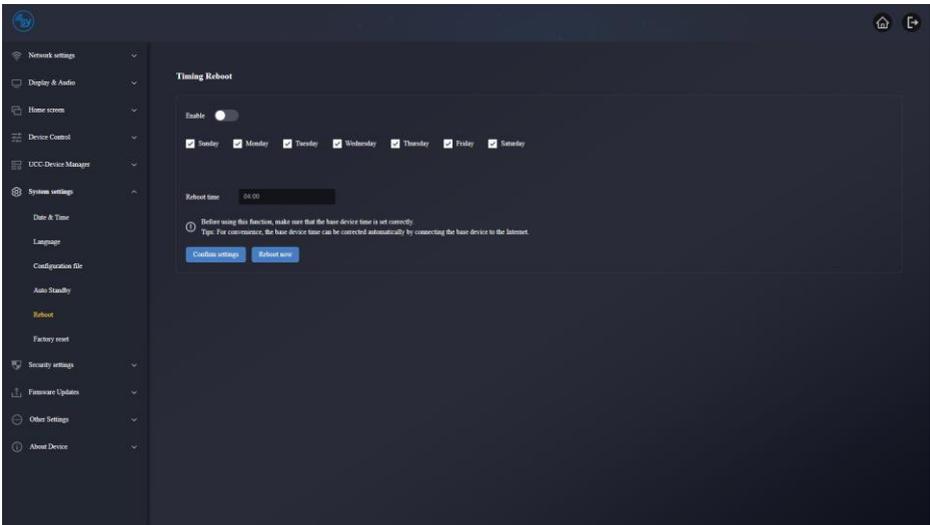
Auto Standby

Select the Auto Standby time from the drop-down list. This setting is used in conjunction with the **Digital Signage** option shown on page 26.



Reboot

This page sets the days and time for an automatic reboot of the Wizard 4U2.

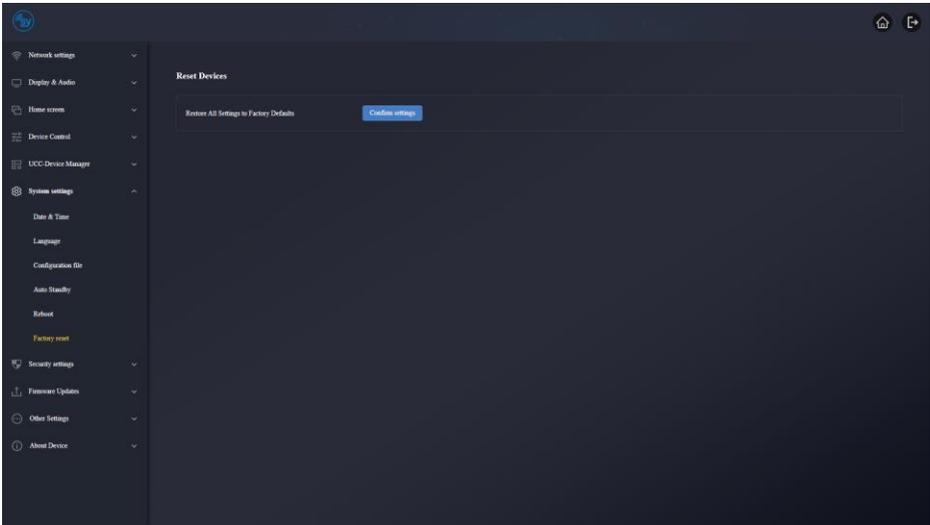


Confirm Settings Reboot Now

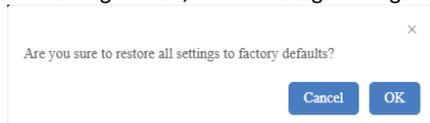
Click to store the days and time options for the automatic reboot.
Click to reboot the Wizard 4U2 immediately.

Factory Reset

Use this page to reset the Wizard 4U2 to its factory default state.



After clicking on the Confirm Setting button, the following message will appear:

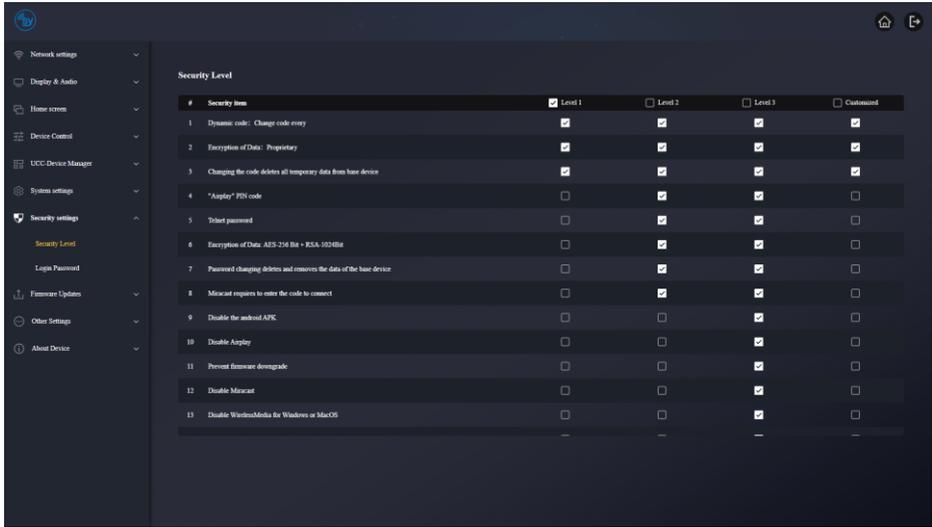


Click **OK** to confirm resetting to factory defaults.
Click either **Cancel** or the **X** to abort.

Security Settings

Security Level

This page sets the desired security level for the Wizard 4U2.

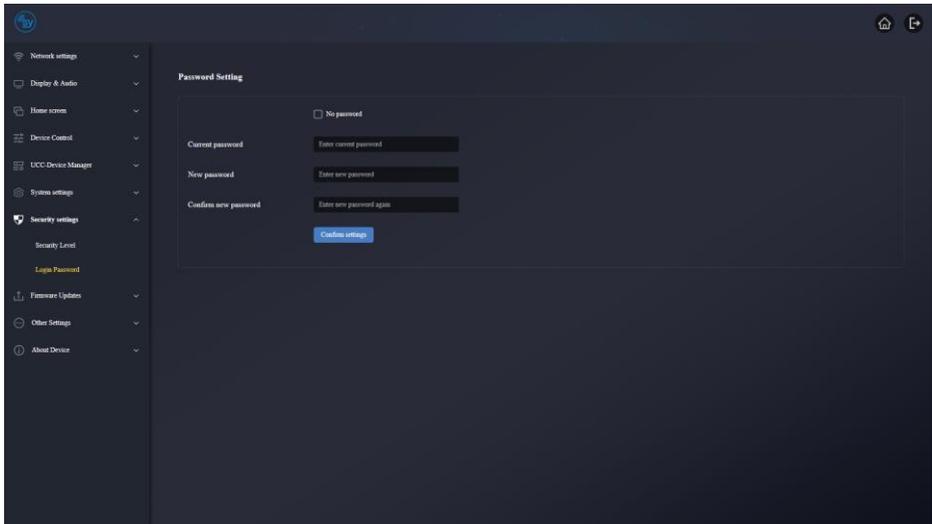


Security Item Select the desired pre-defined security level or the configurable Customized security level.

Level 1, Level 2, and Level 3 are pre-defined and their respective options cannot be changed. Choose the **Customized** option to configure a specific set of security options.

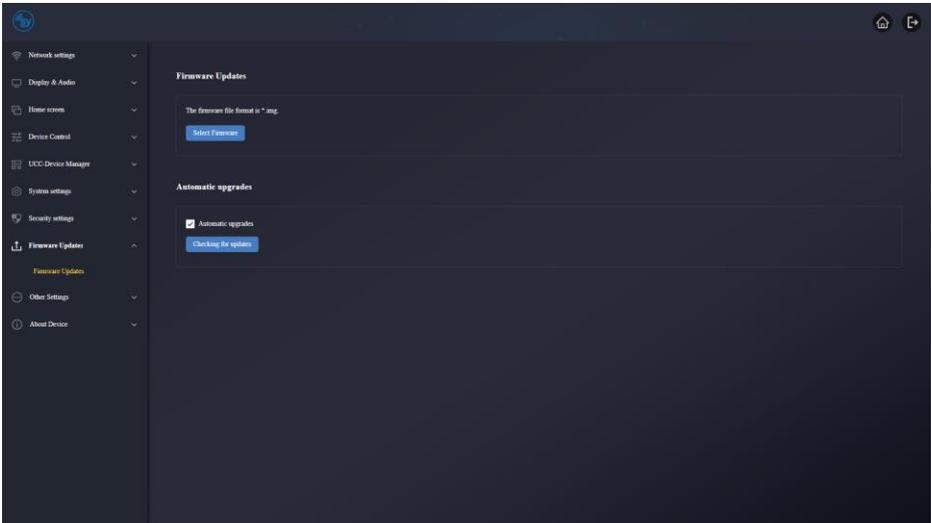
Login Password

Use this page to change the login password for the web GUI interface.



Firmware Updates

Only use this page to install firmware updates.



Select Firmware This will open a file navigator to select a firmware that is present on your computer.

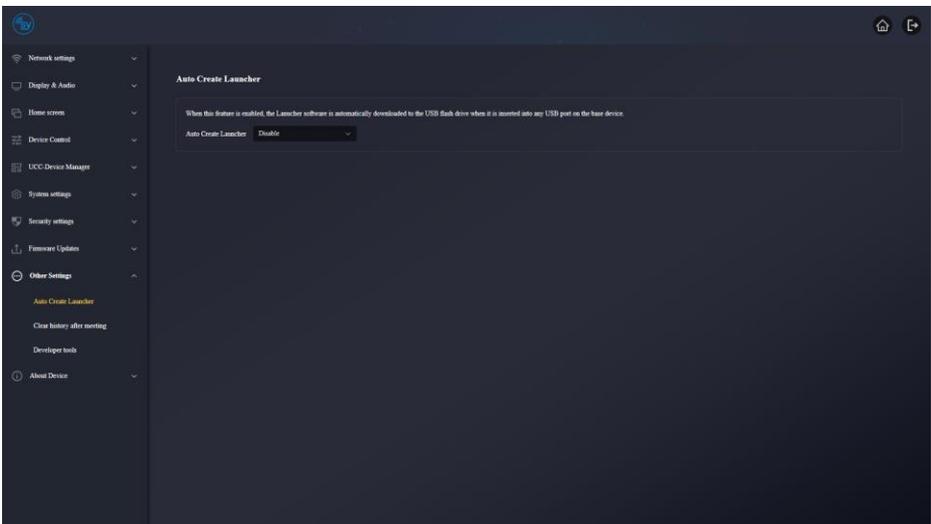
Automatic Upgrades Set to allow the Wizard 4U2 to periodically check for new updates.

Check for Updates Click to check for any new updates.

Other Settings

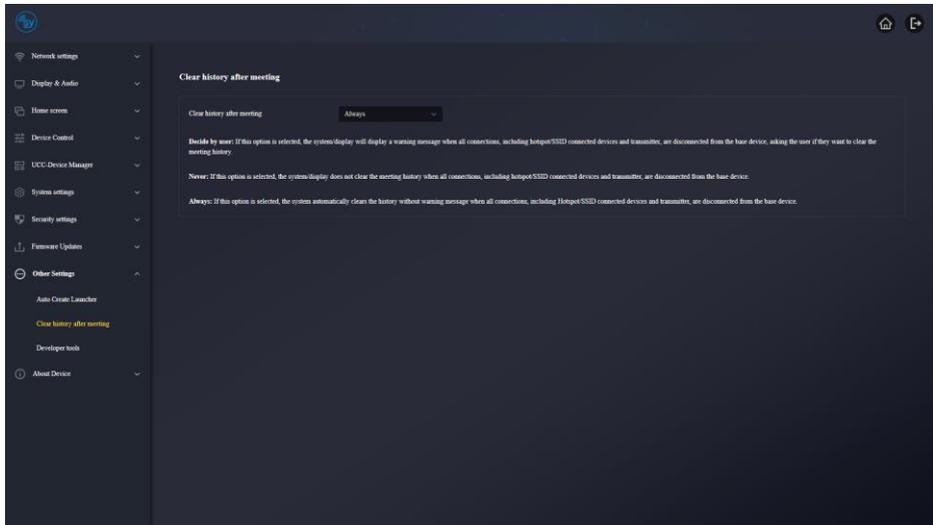
Auto Create Launcher

When enabled, the Launcher will be automatically created on the USB drive when it is inserted to any USB port on the Wizard 4U2.



Clear History after Meeting

Set how the meeting history is handled when all connections are lost.



Select one of the options from the dropdown list:

Decide by User: A warning message is displayed asking whether the meeting history should be deleted.

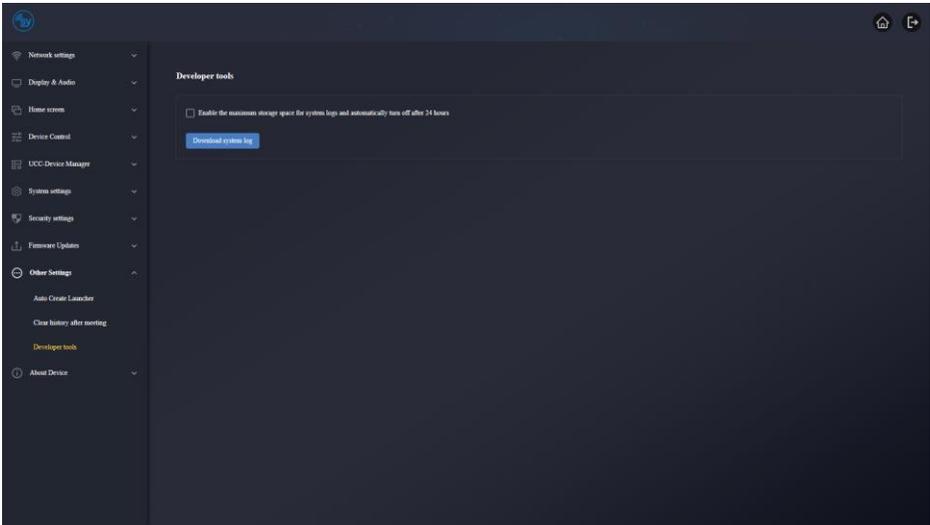
Never: The meeting history is not deleted.

Always: The meeting history will always be deleted.

The selected option takes effect immediately and will be acknowledged by a green Success banner at the bottom of the browser window.

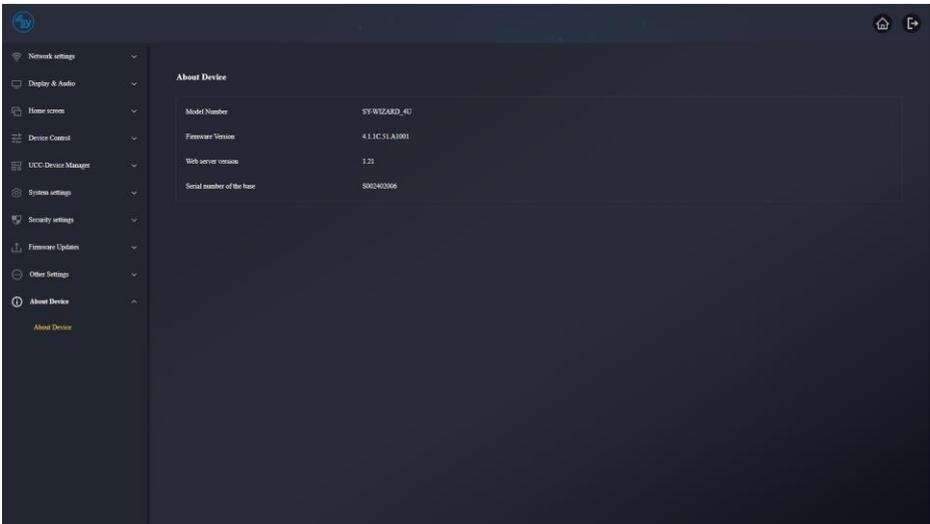
Developer Tools

The page contains the options for managing the system logs.



About Device

This page provides information about the Wizard 4U2.



Controlling the Wizard 4U2 Device

The Wizard 4U2 can accept control commands using either RS232 or a Telnet interface. The following settings are used to connect to the Wizard 4U2.

RS232 Settings

Check the **Serial port settings** tab of the built-in WebGUI for the current serial port settings. Ensure that the serial is enabled and the Serial port function option is set to **Uart function as telnet**. Click Confirm settings button. The factory default RS232 Settings are:

UART Function:	Telnet
Baud rate:	115200
Data bits:	8
Parity:	None
Stop Bits:	1
Flow Control:	None

Each command sent to the RS232 port must end with a carriage-return and line-feed sequence.

Telnet Settings

The default Telnet settings are:

IP:	IP address of the LAN port to use as shown on the Home page
Port:	23

Once a Telnet connection is made, the unit responds with the following:

```
Welcome to WMedia telnet
Input 'help' to see command list
WMedia>+home on
WMedia>+standby off wakeup
WMedia>+volume unmute 100
WMedia>+mute off
WMedia>+wifi ap-on 36 WIZARD_4U-8591 00007202OK
WMedia>
```

The actual values will be different each for each Wizard 4U2 and the eight digit password will also be different each time. See the command list for an explanation of each of the response messages.

Command List

1. Note that all commands are case insensitive: help, Help and HELP are all identical.
2. All commands are single words and any parameters must be separated by one or more spaces.
3. All RS232 commands must end with a carriage-return and line-feed sequence.
4. Take care when typing manually, the backspace is not accepted and will display as ^H instead.
5. When using the Hercules program, type all Telnet commands into the main window. Sending commands from any of the three command boxes at the bottom of the Hercules program does not behave as expected.
6. Response messages will begin with either '+' or '#', these are both the same and have no specific meaning.
7. Valid Telnet responses always end with 'OK'.

- Any command errors give the response **ERROR:** followed by a number. Please check the spelling and that the command has the correct parameter specified.

Help Command

The HELP command has two uses:

Command	Description
HELP	List all available commands
HELP xxx	Show help detail for command xxx For example: HELP STATUSBAR statusbar show display the home screen statusbar statusbar hide turn off the home screen statusbar

Standby Control

Command	Description
STANDBY SET x	Set auto standby time where x is one of the following: OFF Disable auto standby 1MIN Set auto standby to 1 minute 5MIN Set auto standby to 5 minutes 10MIN Set auto standby to 10 minutes 15MIN Set auto standby to 15 minutes 30MIN Set auto standby to 30 minutes
STANDBY SLEEP	Put the Wizard 4U2 into standby mode
STANDBY WAKEUP	Wake up the Wizard 4U2 from standby mode

Home Screen

The Home screen is the info screen that is shown when there are no devices streaming to the Wizard unit. Invoking the HOME command:

Command	Description
HOME	Display the home screen – this can only be turned off when a device begins sharing again. Response: OK WMedia>+home on WMedia>+button stopShare 1692971494 c0a82b7a,307bc9b251fe,V0.7.5E.A1118,2,1,1,1,WMT-H,SY47MV200072WMedia>OK The first two lines are confirmation of the command. The remainder will list all Wands and devices that are no longer sharing with the Wizard 4U2.
HOME ?	Determine if the home screen is shown from one of the following responses: #home on The home screen is being displayed #home off The home screen is not being displayed

Audio Control

These commands control the audio volume and mute status. Note that the MUTE and VOLUME commands are independent, the volume can be changed while the audio output is muted but no sound will be present until the MUTE OFF command is sent.

Command	Description
VOLUME x	Set volume level, where x is a value from 0 to 100.
VOLUME ?	Return the mute state and current volume level #volume unmute 100 Full, unmuted volume #volume mute 100 Audio is muted, volume = 100%
MUTE ON	Mute the audio output. Response: +mute on
MUTE OFF	Unmute the audio output. Response: +mute off
MUTE ?	Return the mute status: +mute on or +mute off

Autoshare

Turn the auto share mode on or off.

Command	Description
AUTOSHARE ON	Turn on the Autoshare mode.
AUTOSHARE OFF	Turn off the Autoshare mode.
AUTOSHARE ?	Return the current Autoshare mode setting.

Get Wand Info

This command lists all paired SY-Wands associated with the Wizard 4U2, giving detailed status information.

Command	Description
BUTTON ?	Return info for all connected SY-WAND units. Button 1692971494 c0a82b7a, 307bc9b251fe, V0.7.5E.A1118, 2, 1, 1, 1, WMT-H, SY47MV200072OK This is decoded as follows: Button 1692971494 The current time in the Wizard 4U2 c0a82b7a Wand IP address, 192.168.43.122 307bc9b251fe Wand MAC address 30:7b:c9:b2:51:fe V0.7.5E.A1118 Wand firmware version 2 Reserved 1 Wand is connected 0 means Wand is not connected 1 Wand is sharing to screen 0 means Wand is not sharing 1 Wand is ready to share, 0 means Wand is not ready yet WMT-H Wand is SY-WAND-H SY47MV27M00072 Wand serial number OK End of response message

The Wand time value is given as the number of seconds since 1970-01-01 00:00:00.

Pair

Control the pairing of the SY-WANDs. In each of the following commands, xxx can be either the serial number or the MAC address of the respective Wand.

Command	Description
PAIR REMOVE xxx PAIR RM xxx	Remove a paired SY-WAND from the list of paired wands.
PAIR ENABLE xxx	Enable a paired SY-WAND. The Wand must already exist in the list of paired wands.
PAIR DISABLE xxx	Disable a paired SY-WAND. The Wand must already exist in the list of paired wands.
PAIR STATUS xxx	Check the pairing status of an SY-WAND. The Wand must already exist in the list of paired wands.
PAIR ?	List all the paired wands.

Forceshare

Force a sharing device or SY-WAND to display in fullscreen mode, where xxx can be either the serial number or the MAC address of the respective Wand.

Command	Description
FORCESHARE xxx	The parameter xxx can be the IP address, the name of the sharing device, or one of 0, 1, 2, 3, or 4. The value 0 will restore the multiview display mode and values 1 to 4 refer to multiview windows 1 to 4.

Password Control

This password is the eight digit number used for any device that wishes to stream to the Wizard 4U2, not the WebGUI password.

Command	Description
PASS ?	Return the current BYOD password. The format of this password depends on the settings on the built-in web interface – see Auto change password. Response example: #pass : 00005673
PASS REFRESH REFRESH PASS	Use either of these commands to generate a new password.

Floatmenu

Control the display of the sidebar menu.

Command	Description
FLOATMENU 1	Turn off the sidebar menu.
FLOATMENU 2	Set the sidebar menu to not show any thumbnail views.
FLOATMENU 3	Set the sidebar menu to show the thumbnail views.

WiFi Hotspot Info

These commands control the operation of the Wi-Fi hotspot of the Wizard 4U2:

Command	Description
WIFI ON	Turn on the Wizard 4U2 WiFi hotspot.
WIFI OFF	Turn off the Wizard 4U2 WiFi hotspot.
WIFI LIST	Output the WiFi MAC and IP address.
WIFI CHANNEL n	Set the WiFi channel number – see below for valid channel numbers.
WIFI SSID n	Set the WiFi SSID network name.
WIFI PASS p	Set the WiFi hotspot password to p, where p is an eight digit value formatted in accordance with the settings on the Connection password tab of the built-in web interface.
WIFI AMOUNT	Return the number of WiFi devices connected to the Wizard 4U2.
WIFI ?	Return WiFi status: +wifi ap-on 36 WIZARD_4U2 00005673 The message is as follows: +wifi Wi-Fi request response ap-on Wi-Fi mode is on 36 Wi-Fi channel number WIZARD_4U2 Wi-Fi device name 00005673 Current sharing password

The WiFi channel number should be one of the following: 36, 40, 44, 48, 149, 153, 157, or 161.

Security Level Control

Set the Security Level. The security level options are shown in the WebGUI page.

Command	Description
SECURITY 1	Set the minimal security level.
SECURITY 2	Set the moderate security level.
SECURITY 3	Set the maximal security level.

Login

This requires security level 2 or 3. No password is required for security level 1. If the Telnet password option is set in the custom security mode, then the following command will be required to use RS232 control.

Command	Description
LOGIN xxxxxx	Login to telnet with password xxxxx

Control the Home Screen Status Bar

Optionally show or hide the status bar at the top of the Home screen.

Command	Description
STATUSBAR SHOW	Display the top statusbar on the Home Screen.
STATUSBAR HIDE	Turn off the top statusbar on the Home Screen.

Specifications

General

Source Video Format	Up to 4K60
HDMI Output Resolutions	HDMI Output: 4K60, 4K30, 1080p60, 720p60
HDMI Standard	HDMI 2.0 for the output
HDCP Compliance	HDCP 1.4 and HDCP 2.2
LAN	Port 1: 100Mbps, supports PoE Port 2: 1000Mbps Default settings: Proxy: None DHCP: Enabled IP addresses for both Port 1 and Port 2 are shown on the Home screen
Wi-Fi Antennas	3 – The IP address for WiFi port is shown on the Home screen
Audio input	AirPlay, Miracast, DLNA, Windows/MAC, WMH, USB, BT SpeakPhone
Analogue audio output	3.5mm stereo jack
USB interfaces	Wizard 4U2: Side 1x USB 2.0 & 1x USB C Rear 2x USB 2.0 Type A 1x USB 3.0 Type B 3x USB 3.0 Type A 1x USB-C
RS232	1x 3-way pluggable terminal connector (Tx, Rx, Gnd)
GPI	1x 3-way pluggable terminal connector (1, 2, Gnd)
Number of simultaneous windows	Up to 4 on display screen Up to 14 in thumbnail list
Number of simultaneous connections	Up to 16
Wireless data rate	Up to 1200 Mbps
Latency	< 100ms, 20ms minimum
Wi-Fi Transmission Protocol	WiFi IEEE 802.11 a/g/n/ac
Wi-Fi Frequency Bands	2.4 GHz & 5 GHz
Wi-Fi Channels	2.4 GHz – 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 or 11 5.0 GHz – 36, 40, 44, 48, 149, 153, 157, 161
PoE Standard	IEEE 802.3f
Power Supply	12V DC @ 3A or PoE
Power Consumption	10W max.

Environmental

Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)
Operating Humidity	20 ~ 90%RH (non-condensing)

Physical

Product	Wizard 4U2
Dimensions (WxHxD)	220 x 32 x 120 mm
Weight	600 g

Troubleshooting

Problem	Cause	Solution
<i>SY Cast</i> for Android app running on Android device, or <i>Airplay</i> on iOS device, cannot find the Wizard base unit	The Wi-Fi password of base unit changed when Android or iOS device is connected to the base unit using Wi-Fi	Reconnect the Android or iOS device and enter the new password displayed on the Wizard home screen
Poor image quality on the display	The cable between the Wizard and the display is either of poor quality or too long Wrong output resolution	<ul style="list-style-type: none"> • Try another cable • Replace the cable • Check that the cable connectors are fitting properly in the HDMI connectors Change the Wizard output resolution to match the preferred resolution of the display.
Bad wireless connection	Wi-Fi problems <ul style="list-style-type: none"> • RF Interference • Channel over used The Wizard 4U2 does not automatically jump to other channels	Use a Wi-Fi scanner to find a free Wi-Fi channel and select it using the WebGUI configuration settings. Regularly check the RF environment to determine if there are frequent changes in Wi-Fi networks your area
Low signal strength	<ul style="list-style-type: none"> • Metal cabinets, walls, buildings, etc., causing reflections and affecting the Wi-Fi signal • Obstacles between the Wand and the Wizard 4U2 are reducing the Wi-Fi signal strength and/or quality 	<ul style="list-style-type: none"> • Place the Wizard 4U2 nearer to the display • Change the orientation of the antennas in relation to the sender direction • Remove or limit as many obstructions as possible between the Wizard 4U2 and transmitter
The “SY Cast” app doesn’t start when the Wand is connected to a laptop computer	<ul style="list-style-type: none"> • When using for the first time, the Launcher app must be installed on the laptop 	<ul style="list-style-type: none"> • After installing the Launcher program, “SY Cast” is ready to use at any time

Safety Instructions

To ensure reliable operation of this product as well as protecting the safety of any person using or handling these devices while powered, please observe the following instructions.

1. **ONLY USE** the power supply provided. If an alternate supply is required, check the voltage, polarity and that it has sufficient power to supply the device it is connected to.
2. **DO NOT** operate this product outside the specified temperature and humidity range given in the above specifications.
3. Ensure there is adequate ventilation as this product generates heat while operating.
4. Repair of this product should only be carried out by qualified professionals as this product contains sensitive devices that may be damaged by any mistreatment.
5. Only use this product indoors and in a dry environment. **DO NOT** allow any liquids or harmful chemicals to come into contact with this product.

After Sales Service

1. Should you experience any problems while using this product, firstly refer to the Troubleshooting section in this manual and/or your local dealer before contacting SY Technical Support.
2. When calling SY Technical Support, please provide the following information:
 - Full Product Name and Model Number
 - Product Serial Number
 - Details of the fault and any conditions under which the fault occurs.
3. This product has a two year standard warranty beginning from the date of purchase as stated on the sales invoice. For full details please refer to our Terms and Conditions.
4. The SY Product warranty is automatically void under any of the following conditions:
 - The product is already outside of its warranty period
 - Damage to the product due to incorrect usage or storage
 - Damage caused by unauthorised repairs
 - Damage caused by mistreatment of the product
5. Please direct any questions or problems you may have to your local dealer before contacting SY Electronics.