ALF-UC1 User Manual

Preface

Read this user manual carefully before using the product. Pictures shown in this manual are for reference only. Different models and specifications are subject to real product.

This manual is only for operational instruction, please contact the local distributor for maintenance assistance. The functions described in this version are updated as of September 2021. In the constant effort to improve the product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

FCC Statement

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. It has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.

Do not dispose of this product with the normal household waste at the end of its life cycle. Return it to a collection point for the recycling of electrical and electronic devices. This is indicated by the symbol on the product, user manual or packaging. The materials are reusable according to their markings. By reusing, recycling or other forms of utilisation of old devices you make an important contribution to the protection of our environment. Please contact your local authorities for details about collection points.

Features:

ALF-UC1

- Supports quad viewer on one display.
- Supports VESA PC resolution input, auto-detecting.
- Able to mirror PC's extended desktop or MacBook's desktop.
- Able to mirror smart devices' photos, videos, music etc.
- Supports USB / HDMI / USB Type-C plug-in auto configuration / pairing for ALF-WirelessMedia dongle.
- Supports "Airplay" for apple device.
- Supports "Miracast" for windows and android.

Version log:

Version	Revise time	Description
1.0	2022, DEC. 22th	Created

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1. Overview:

ALF-UC1

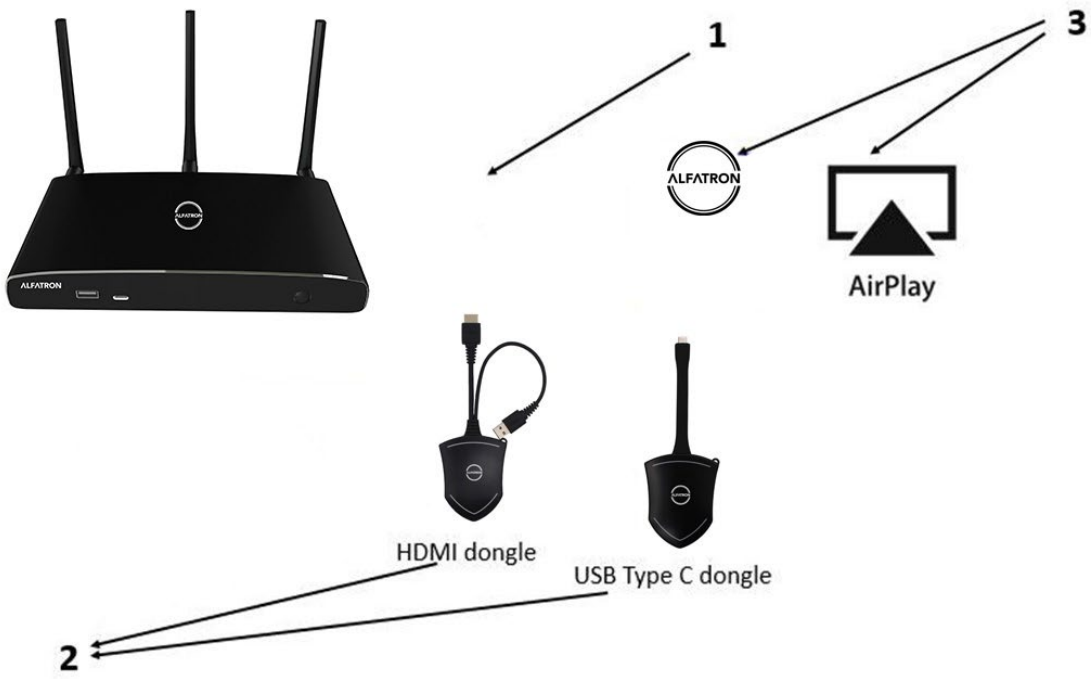
The ALF-UC1 makes connecting or participating within a meeting simple, with the touch of a button. It also allows other participants to join the meeting more efficiently, and the result is ensuring meetings are more effective, and productive. The ALF-UC1 contains one Base Unit.

Optional dongles available: ALF-USBC-D, ALF-HDMI-D

ALF-UC1 Set Components

The ALF-UC1 Set supports up to four individual interfaces: Two dongles (ALF-USBC-D, ALF-HDMI-D), "ALF-WirelessMedia" for Android APK, Airplay for IOS, Miracast for Windows, and the ALF-WirelessMedia application for both Windows 10 and above and MacOS.

Depending on the application, or size of the meeting room, users could choose between the multiple interface options, listed above.



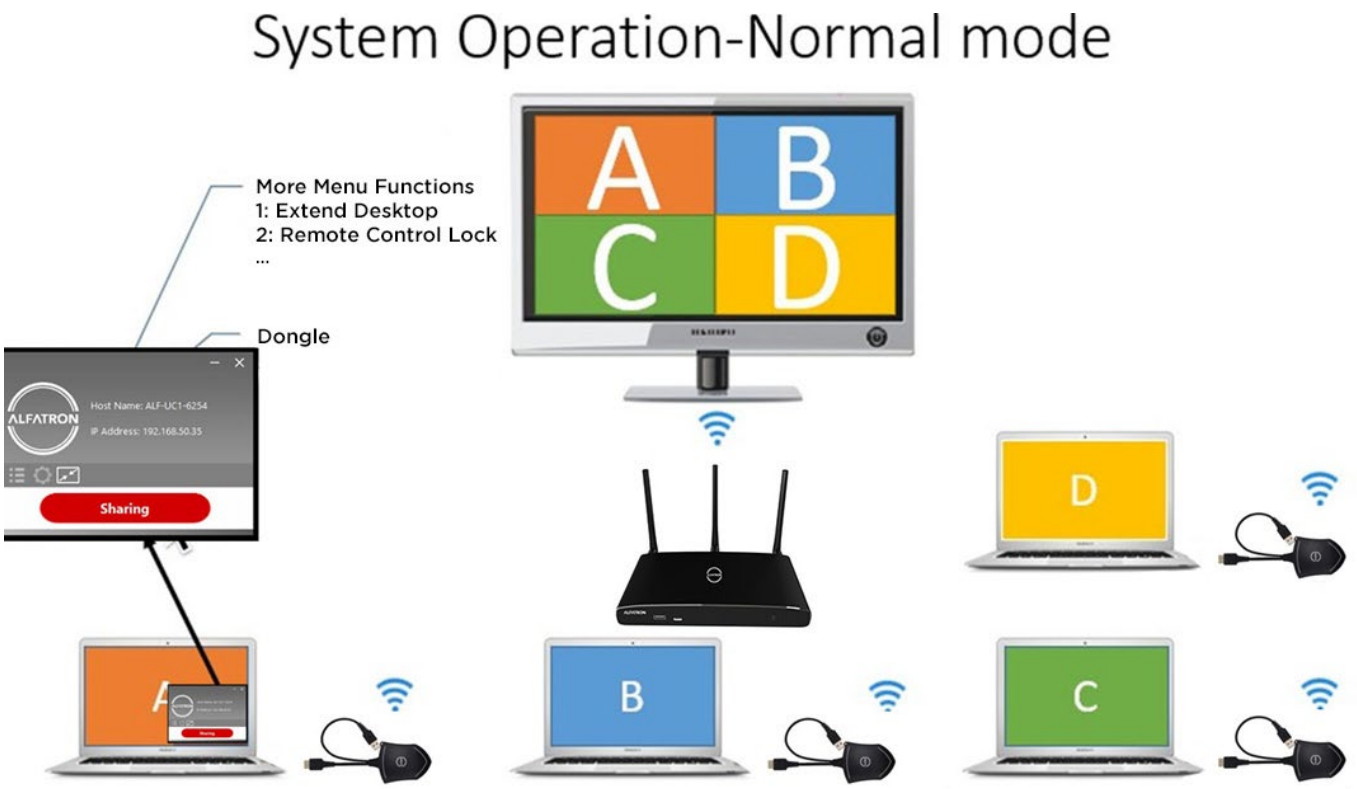
ID	Name	Description
1	ALF-UC1	Base / Host unit
2	Dongles	For PC / MAC to share the desktop / extended desktop.
3	"ALF-WirelessMedia" App for Android	For smart android devices to share the screen.

4	Airplay for IOS	For smart IOS devices to share the screen.

Accessories List

ID	Name	Description
1	Antenna	Two antennae are included in the box, to avoid damage, they are not pre-mounted. The antenna can rotate for a better wireless connection.
2	Power adapter	International plug inter-changeable power adapter, plugs included are the US, Europe, UK, and Australian standard.
3	Phoenix terminal	1 piece phoenix terminal for connecting to the RS232 port of the rear panel.

The diagram of Host and Dongle system as below.



2. Specification:

ALF-UC1 Specification	
HDMI output	1x HDMI 19-pin female connector
Video Output Resolution	3840x2160@60Hz, 3840x2160@30Hz, 1920x1080@60Hz
Format Compliance	HDMI1.4/HDMI2.0
Video Capacity:	1080P @ <60Hz Airplay for IOS devices 1080P @ <60Hz "ALF-WirelessMedia"APP 1080P @ <60Hz for all dongles
HDCP	HDCP1.4 / HDCP2.2
Analog Audio Output	1x 3.5mm PC audio female connectors
LAN port	RJ45 x2：1Gbps x1(POE)，100Mbps x1
USB interface	USB3.0 x1, USB 2.0 x1，Type-C x1
Audio Input	AirPlay, Windows / MAC
Control connectors	3.5mm Phoenix terminal / RS232 interface
Number of window simultaneous on screen	≥4+12（4 main windows+12 thumbnail windows)
Number of simultaneous connections	≥16 with dongle, (up to 64 depending on the network equipment setup)
Data rate in wireless	Up to 1200Mbps
Video Playback Frame Rate	20 - 60 FPS
Latency	＜100ms，Min 20ms
Wireless transmission protocol	WIFI IEEE 802.11 a/g/n/ac
Frequency band	2.4 GHz and 5 GHz
WIFI Antenna	MIMO 2x2
Dimension (W x D x H)	165mm x 95mm x 24.5mm（including antenna：165mm x 125mm x 24.5 mm）
Weight	0.4lbs（200g）
Temperature	-4° ~ +140° F (-20° ~ +60° C)
Humidity (Storage / Operating)	20% - 90%（non-condensing）
DC Power	12V (3A) / POE (LAN Port 2)
POE standard	IEEE802.3af
Power Consumption	10W(MAX)

3. Panel Layout

About this chapter

The installation chapter gives an overview of the interface of ALF-UC1.

Overview

- Hardware Interface
  - ALF-UC1 Front Panel
  - ALF-UC1 Rear Panel
  - ALF-USBC-D, ALF-HDMI-D Front panel
- Software Interface
  - Home Screen

3.1 Hardware Interface

3.1.1 ALF-UC1 Front Panel

ID	Name	Description
1	Front USB connector	USB port, for dongle pairing, mouse control, USB touch screen etc.
2	Front Type-C connector	Type-C port, for dongle pairing.
3	Power Button	Turn on or off the device.
4	Back-lit LED indicator	Initializing indicates RED, power on indicates flashing GREEN, “Ready to share” indicates static GREEN, “Sharing” indicates static cyan.

USB port

- The USB port is used to update the software of the ALF-UC1.
- The USB port is used for pairing the dongle with the base unit.
- The USB port is used for connecting a mouse to create / upgrade launcher by clicking **Download** button, hide SSID, PASS, Wi-Fi IP, and Lan IP by clicking **Info**. Check **Security level button** and control PC source device when a PC desktop is mirroring to the screen by plugging in the dongle.
- The USB port is used for connecting a USB-based touch screen to create / upgrade Launcher by clicking **Download** button, hide SSID, PASS, Wi-Fi IP, and Lan IP by clicking **Info**. Check **Security level button** and control PC source device when a PC desktop is mirroring to the screen by plugging in the dongle.
- The USB port is used for creating the ALF-USB-L Launcher by clicking **Download** button, when a USB stick is plugged in.

Type-C port

The Type-C port is used for pairing ALF-USBC-D dongle with base unit.

Mechanical fixture points.

The mechanical fixture points are located at the bottom of the base unit.

3.1.2 ALF-UC1 Rear Panel

ID	Name	Description
1	Line audio output	2 channel analog audio output: Connect a 3.5mm mini-jackconnector from this jack to the Line in jack of an audio system.
2	RS-232	Connect an RS-232 cable from this port to an RS-232 device.
3	Rear USBC connector	Type-C port, for dongle pairing.
4	Rear USB 3.0 connector	USB port, for USB dongle pairing, mouse control, USB touch screen, etc.
5	HDMI output	Connect an HDMI cable from this port to an HD or 4K / HDMI 2.0 display.
6	LAN Ethernet port 1	100Mbps: Connect an Ethernet cable between this jack and a LAN to connect the ALF-UC1 to LAN.
7	LAN Ethernetport 2	1Gbps: Connect an Ethernet cable between this jack and a LAN to connect the ALF-UC1 to LAN. Supports POE.
8	DC Power socket	Connect the included power adapter to this socket, and connect the plug to an available electrical outlet.
9	Antenna fixture points	Screw the included two antennas to these two ports.
10	Reset	Reset Hole.

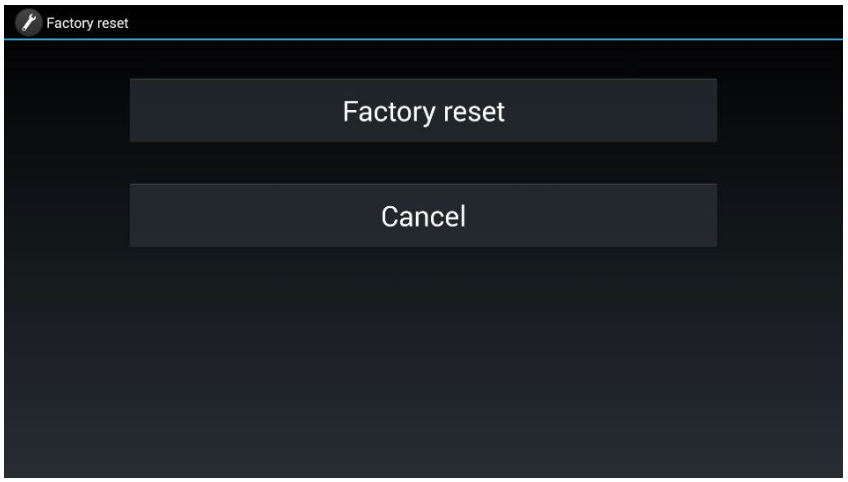
USB port

- The USB port is used to update the software of the ALF-UC1.
- The USB port is used for pairing the dongle with the base unit.
- The USB port is used for connecting a mouse to create / upgrade launcher by clicking **Download** button, hide SSID, PASS, Wi-Fi IP, and Lan IP by clicking **Info**. Check **Security level button** and control PC source device when a PC desktop is mirroring to the screen by plugging in the dongle.
- The USB port is used for connecting a USB-based touch screen to create / upgrade Launcher by clicking **Download** button, hide SSID, PASS, Wi-Fi IP, and Lan IP by clicking **Info**. Check **Security level button** and control PC source device when a PC desktop is mirroring to the screen by plugging in the dongle.
- The USB port is used for creating the ALF-USB-L Launcher by clicking **Download** button, when a USB stick is plugged in.

3.1.3 Factory Reset

- Power the Base unit.
- When the *Home Screen* is shown, press the reset button at the rear panel of base unit. Press this button with a pointed object, e.g., a paper clip until the "*Factory Reset" page* is shown as below, for at least 2 seconds.
- The Base unit will reboot after 3 seconds and be default configuration.
- If you do not have a picture, press and hold the reset button until the red LED on the top panel is lit, to execute the reset.

All previous settings will be lost, and you will need to do the set-up once more.



Default Configuration

- Ethernet:
  - Proxy: None
  - DHCP: Enable
- Wireless network:
  - Frequency: 5GHZ
  - Channel: Auto
  - Auto change Wi-Fi hotspot password: 5 minutes
- Display & Audio
  - HDMI resolution: Auto
  - HDMI CEC:
    - Device auto power off: ON
    - Base unit auto power on: OFF
  - Audio output: Jack and HDMI
  - Airplay screen quality: High
  - show device name and password when mirroring: OFF

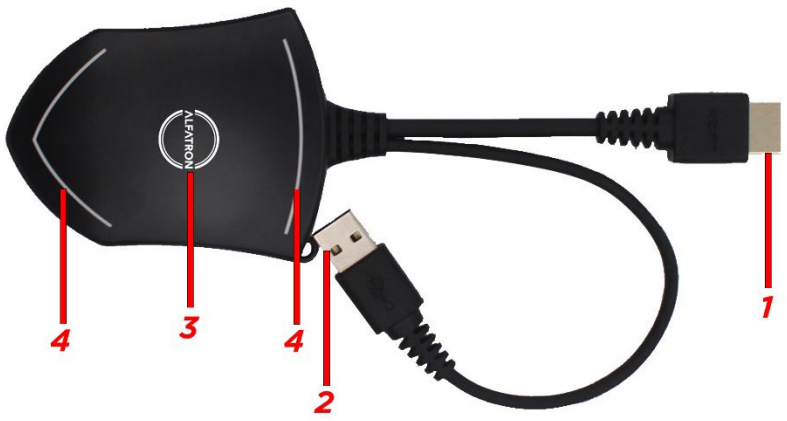
- show PCs username when mirroring: ON

- Moderator Control
  - Add a sub-window bar to enable previewing the connected devices: ON
  - Real time preview: ON
- System settings
  - Date and time: Automatic date and time: use network provided time
  - Auto Standby: Never
  - Language: English
- Security Settings
  - Security Level: Security level 1
  - Connection Password: 4-digit password beginning with 0000
  - Change admin password: admin (default)

- Other settings
  - Auto create launcher: Disabled
  - Clear history after meeting: Always

3.1.4 Dongle Front Panel

ALF-USBC-D and ALF-HDMI-D dongles are used for toggling the mirroring from a personal PC or MAC desktop on the main screen.



ID	Name	Description
1	HDMI connector	The HDMI connector of the button can be plugged into a PC / Laptop for sharing your screen.

2	USB connector	Supply power or plug into the base unit for pairing the Button to the Base Unit or upgrade the dongle.
3	Touching Button	Touch the sensor button to start displaying the content of the PC / Lap-top screen on the main screen. Touching the button during the meeting will toggle the sharing of the screen.
4	LED ring indicator	Indicates the status of the button.

ID	Name	Description
1	USB Type C connector	The USB Type C connector of the button can be plugged into a PC / Laptop for sharing your screen.
2	Touching Button	Touch the sensor button to start displaying the content of the PC / Lap-top screen on the main screen. Touching the button during the meeting will toggle the sharing of the screen.
3	LED ring indicator	Indicates the status of the button.

3.2 Software Interface

3.2.1 Home Screen

ID	Name	Description
1	**Wi-Fi Indicator**	Wi-Fi Direct mode: internal access point is enabled **Wi-Fi Infrastructure mode:** "Client-Mode", Wi-Fi connection to router is established, icon displays the current signal strength. A secure Wi-Fi connection is established, or connection to a router failed: Wi-Fi is not available: **LAN Infrastructure mode:** access point is disabled
2	**ID**	Wi-Fi name or device name of the Base-unit access point.
3	**PASS**	Wi-Fi password of base unit.
4	**Password-timer**	Only displayed when timer is active; time until the password is changed automatically.

5	**Refresh Wi-Fi-password**	Generate new password manually for securing your Wi- Fi network.
6	**Wi-Fi IP** **LAN IP**	● Wi-Fi IP: address of base unit in wireless LAN ● Assigned IP: address of base unit in LAN; "N/A"=no connection to network
7	**SSID: Guest** **SSID: Staff**	Name of Wi-Fi network for **Guest** and **Staff**, which allows mobile devices to connect with the base unit.
8	**TIME**	Displays time if LAN has access to a time server; even after disconnecting the LAN connection, the time is displayed until the device has been disconnected from power.
9	**Security level**	Security level 1-3, display ONLY. The security features of the displayed level are displayed in detail by clicking on the icon; the settings can only be changed by administrator in the webserver console setting menu.
10	**Download Button**	Creating & upgrading Launcher "AlfaShare.exe" for Windows, MAC to USB stick.
11	**Info**	Shows status-bar (1) – (7) in Home screen: displayed / hidden
12	**Windows / MacOS Quick Start**	Instructions on how to transmit PC / Lap-top onto themain screen. First-time users must first install the starter program from the web page or from the USB stick.
13	**Android / IOS Quick Start**	Instructions on how to transmit smart mobile devices, either powered by Android or IOS, onto the mainscreen.
14	**Preview function of the screen contents of the participants with transmitter and mobile devices; White Board and Annotation function icon**	Preview function of the screen contents of all connected transmitters and mobile devices; White Board and Annotation function.
15	**Load "ALF-WirelessMedia" App from Store**	Scan QR-code for Android device and download the application from Google Play Store.

4. Installation

The installation chapter gives an overview of the different ways to install and connect the ALF-UC1 Base Unit.

Overview:

- Installation methods for the Base unit
- Table mounting
- Wall mounting
- Recommendations about antenna placement and orientation
- ALF-UC1 Power Connection
- ALF-UC1 Video Connection
- ALF-UC1 Audio connection
- ALF-UC1 LAN connection
- About USB device connection
- Wiring Diagram

4.1 Installation methods for the Base unit

Introduction to the installation methods:

The Base unit can be installed in two different manners in a meeting room.

- Table mount
- Wall mount

The articulated antennas are removable. They can rotate for better wireless connection.

Attention: For optimal performance, ensure the Base unit is close to the display, and avoid obstacles between the Base unit and the Dongles.

Necessary tools

• A drill (type of drill depends on the type of wall)
• Flat screwdriver
• Additional screwdriver that matches the mounting screws (mounting screws not included in the package)

Necessary parts

• 2 mounting screws
• 2 plugs

How to install

1. Drill two holes in the wall as indicated on the drawing.
   Horizontal distance: 177 mm ± 0.15
2. At the bottom of Base Unit, turn in the two flat screws into the two holes until tightly fastened.

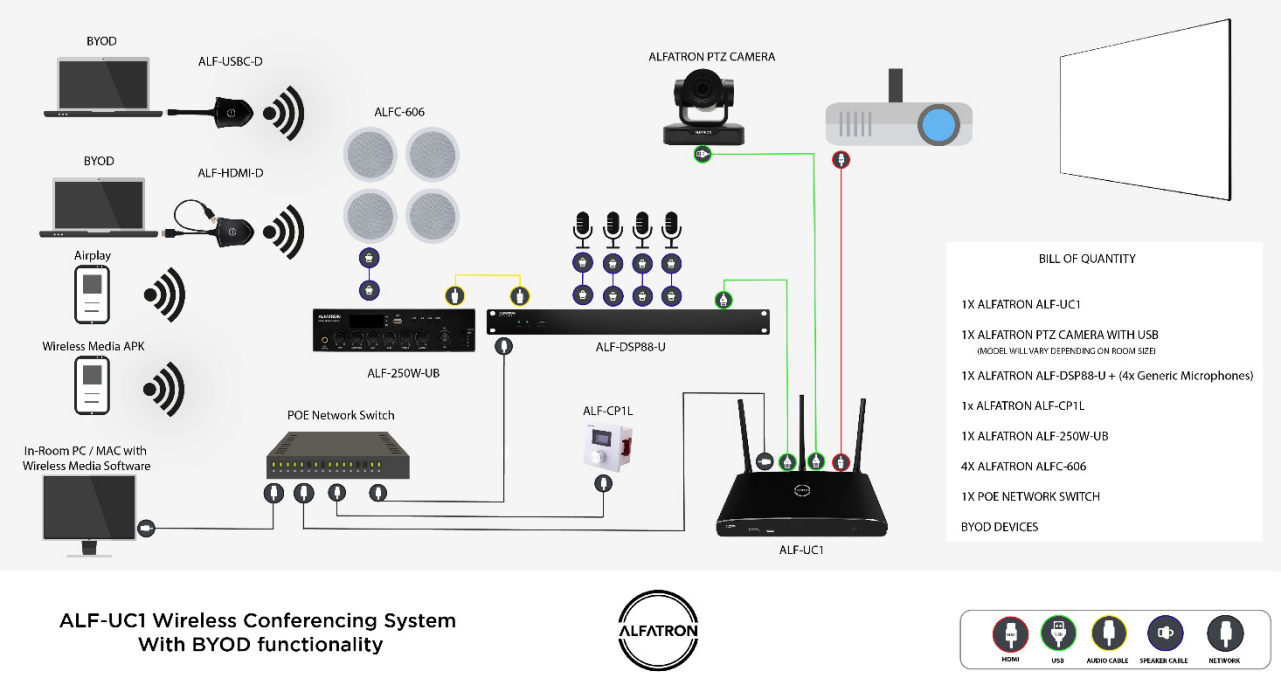
Note: Mounting screws and plugs are not included in the ALF-UC1 box. The type of screws depends on the type of wall (stone, wood, plasterboard, etc) you are mounting the Base Unit to. Ensure the head of the screw is not larger than the hole in the bottom of base unit.

3. Place the UC1 on the wall and fixate the base unit with the 2 unfixed screws.

Antenna placement rules

- The antennas should be oriented vertically, so perpendicular to the ceiling and parallel to the walls.
- The antennas should be installed far enough (at least 50cm / 1.6ft) from metallic surfaces to avoid unwanted reflections and far enough (at least 1m / 3.3ft) from other radio equipment that operates in the same frequency range, e.g., other Wi-Fi access points, cordless telephone, microwave ovens, etc. It is also best to install antennas at least 15 cm (6 inches) from concrete walls.
- The most favorable situation is a direct line of sight between antennas and Buttons. Any obstruction will cause the signal to follow a longer propagation path, which can result in performance degradation.
- Due to the particular radio pattern of the dipole antennas, the antennas should not be placed just above potential positions of ALF-UC1 users. As a result, the advised position for the antennas is at the side ofthe meeting room.

4.2 Wiring Diagram



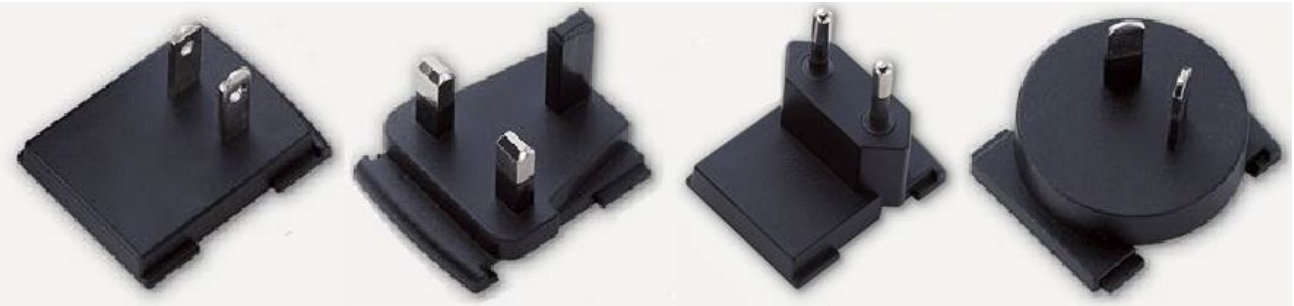
ALF-UC1 Wireless Conferencing System
With BYOD functionality

4.3 Power Connection

The Base unit can be powered by the external universal power adapter.

How to connect the external power adapter

1. Plug the power connector to the power adapter to the power input connector of the Base Unit
2. Choose the appropriate power plug (US, UK, EU, or AU) to be installed on the power adapter,
3. Connect the power cable plug into the wall outlet.



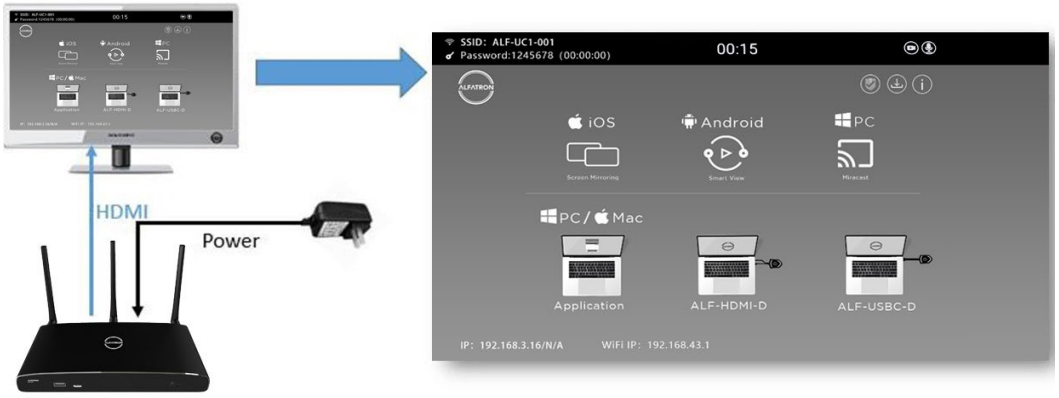
Note: *Once the power adaptor is connected to the base unit, it will power on, and you will need to use the POWER button with Status LED in front of the Base unit to switch ON or OFF.*

Power over Ethernet

If the LAN Ethernet switcher supports POE (Power over Ethernet), it could power up the Base unit instead of using the external power adapter.

4.4 Video Connection

1. Connect the **HDMI Output** of the base unit to a 4K or Full-HD display via an HDMI cable.
2. Connect the power adaptor to the base unit **DC power socket** and connect the plug to an available electrical outlet and switch the base unit on.
3. After booting, the system will display the **home page**, as shown below:



4.5 Audio Connection

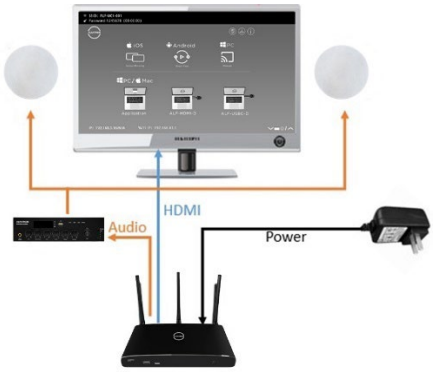
The ALF-UC1 Dongle can transmit the audio output of the PC / Lap-top, re-direct and send to the Base Unit along with the video signal. The audio will be output at line levels from the 3.5mm mini jack socket connector and via the HDMI output connectors simultaneously.
It's up to the user to decide whether or not to send the audio signal along with the video signal.

Audio via HDMI output

When the display is connected via the HDMI, and it supports audio along with video, then a separate audio connection is not required. The audio signal is sent together with the video signal to the display. The system is shown as below:

How to connect separate audio

1. Connect an audio cable with a 3.5mm mini jack socket connector into the audio of the Base Unit
2. Connect the other side to the meeting room's sound system.



Sound is not sent out

The ALF-WirelessMedia button will keep capturing and send the audio of the PC / Laptop, since PC / Lap is successfully mirroring desktop to the main screen.

1. Please ensure the button is static green and the PC / Laptop is sharing on the screen.
2. Check *Setting* configuration, to adjust the *Volume* set in ALF-*WirelessMedia setting* tab.

PC / Laptop Sound

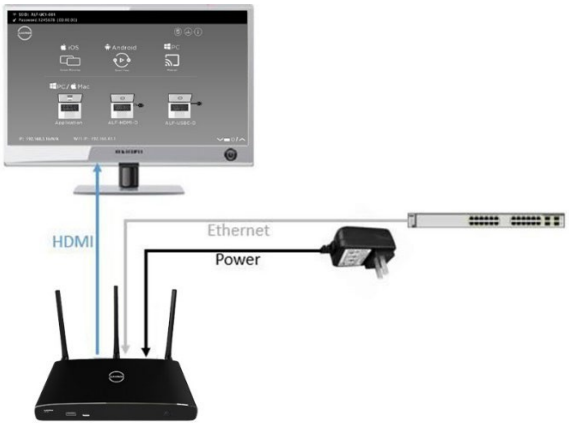
The default setting on the ALF-WirelessMedia will mute the internal speaker of PC / Laptop and route the audio to the base unit once the PC / Laptop is successfully mirroring the desktop to the main screen; this is to avoid the repeated audio.
When pressing the button to stop sharing, the local loudspeaker will return to the previous status, you can now adjust the volume on your PC / Laptop.

Note: *If you want to keep the internal speaker of the PC / Lap active while routing the audio to the base unit, please click the audio mute icon in the status bar to turn on the internal speaker.*

4.6 LAN connection

The Base Unit can be connected to a local network or directly to a PC / laptop. For normal operation, a LAN connection is not necessary. When needed, it's suggested to connect the ALF-UC1 to the Internet.

1. Connect a network cable with an RJ-45 connector into the LAN port of the Base Unit.
2. Connect the other side to LAN.
3. If the LAN Ethernet switcher supports POE (Power over Ethernet), it could power up the ALF-UC1 other than using the external power adaptor.

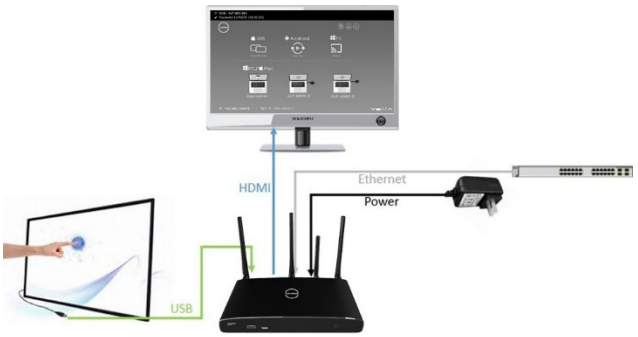


The LAN connection can be used for:

- Network integration of Base Unit in guest or company network.
- Telnet control the Base Unit.
- Maintenance purposes.
- Over-The-Air -Update (OTA) of firmware of Base unit.

4.7 Usage of USB device

Please use a USB Mouse or Touchscreen:



1. To configure the **Security level check button, DOWNLOAD BUTTON**, **INFO**.
2. To control the sharing PC / Laptop.
3. To activate system upgrading
4. For white board or annotation during a presentation, the ALF-UC1 transmits Video, Audio and the USB-HID function for mouse-control and click-function of a touchscreen. Connect touch-interface of your screen to the USB-port on your laptop or PC.

USB control

USB mouse for configuration menu

- Single click to select.
- Right-click to back to the Home Page.

Touch screen

- Click to select.
- Long press to open the contextual menus, as double-click or click the right button of a USB mouse.

5. Quick-to-Start

5.1 Mobile device: Wireless Connection

1. Download the application named “ALF-WirelessMedia” (Windows/ Mac via units IP address) in Android Google Play market for Android mobile device.

2. For IOS devices, use Airplay to mirror the desktop.
3. The ALF-WirelessMedia provides two ways to discover the ALF-UC1 for mobile devices:
   a) Portable hotspot: connect the hotspot to connect the ALF-UC1.
   b) LAN connection: connect the ALF-UC1 and mobile both in LAN network, to discover and connect to ALF-UC1.

After Factory reset, the ALF-WirelessMedia starts in standard configuration "Wireless Direct Mode" ("Linked Single Network"), where the base unit creates its own wireless access point, to which all the transmitters connect. This istypical for a quick setup, temporarily installation, or for small business meetings with a small number of meeting rooms.

The Wi-Fi icon for "Wi-Fi Direct Mode" appears in the top status bar of the Home screen. The SSIDs for these hotspots appear in the Start screen of ALF-WirelessMedia:

Guests and staff have access to the internet when LAN is enabled.

5.1.1 Enable portable hotspot:

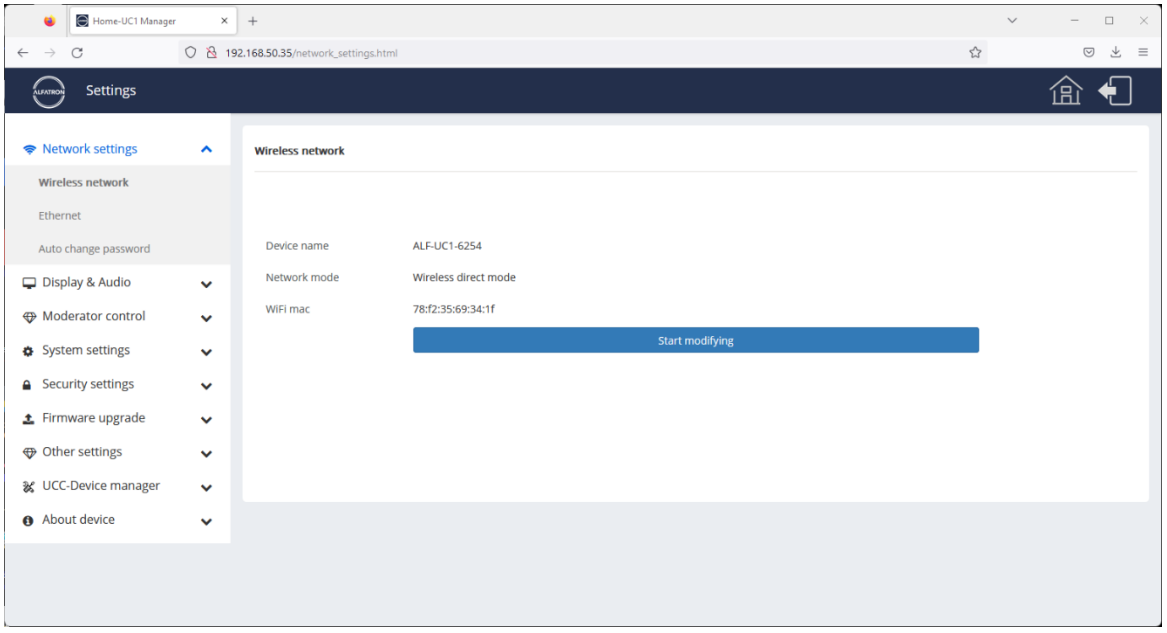
The SSID and PASS (Password) are shown on the Homepage, as shown below:

5.1.2 Enable LAN connection:

Ensure the ALF-UC1 is connected to the Network. When *Local IP* shows an active IP address, e.g. 192.168.3.32, it indicates that the UC-1 is successfully connected to the LAN and receives an appointed IP address.

> ***Note:*** *When it shows "N/A", it means the ALF-UC1 is not connected to the LAN (Local Area Network) via CAT cable, or it failed to get an available IP address from the corporation router.*

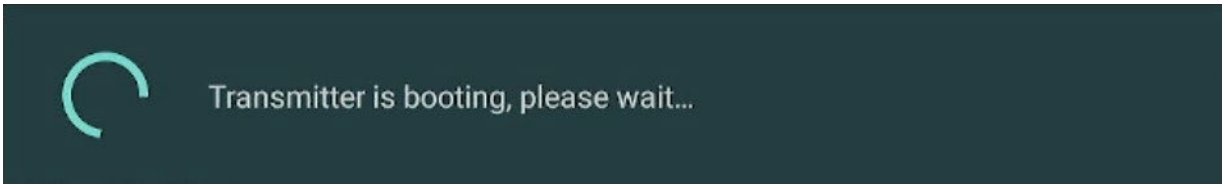
Please refer to the LAN-settings in Ethernet, as below:
Default password for entering the Main menu on webserver console is "admin".



5.2 Pairing transmitter with base unit

1. Connect the USB of ALF-USBC-D to either of the 2 x USB port of the ALF-UC1, ALF-USB-L to USB port / type C port, or the ALF-HDMI-D (HDMI dongle) to USB port, to pair all the Dongles with the base unit. The home page displays as shown below.

2. When plugging in Dongles, the message table shows "Transmitter is booting, please wait…" as shown below



3. Then, the message table will display "Pairing, please wait…" as shown below:

4. After completing the pairing, the message table shows "Succeeded to pair!" on the home page, as shown below. Then, please un-plug the transmitters and use it for the mirroring of your laptop.

If the error message "Configuration fail" is shown, please check the connection of USB-C is kept stable after plugging in and try again.

Note: After each change of the SSID / Wi-Fi channel in menu, all the transmitters must be paired again.
When you purchase additional transmitters, or when a transmitter should be assigned to another Base-unit, the transmitter must be paired again.
A transmitter can only be paired to one Base-unit at a time. The transmitter will always make connection to the Base-unit it was last paired to.

5.3 Mirroring

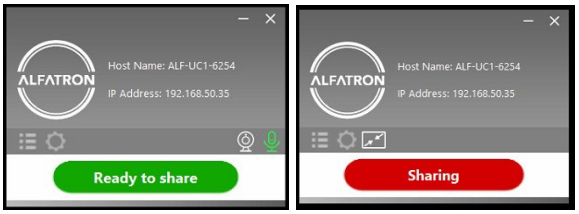
5.3.1 PC / Laptop

Driver-based Transmitter

ALF-USB-L:

1. Use a universal USB stick to create a "Launcher", which is stored in the base unit.
2. Connect the USB stick to base unit and click the **DOWNLOAD** icon on the homepage to download the "ALF-WirelessMedia-windows.exe" for windows PC / Laptop, "ALF-Wirelessmedia-macOS.app" for Macbook, "user manual" and ""ALF-WMedia2.apk".". Plug the USB stick into the USB port of your PC / laptop to copy the relative "Launcher" as above to PC or laptop. Continue with step 4.

3. Or connect the PC to SSID & PASS of base unit which are shown on the Homepage and browse the Wi-Fi IP or LAN IP from PC, which are also shown on Homepage. Select to download the "ALF-WirelessMedia- windows.exe" for Windows PC / Laptop or, "ALF-WirelessMedia-macOS.app" for MacBook. Continue with step 4.
4. Execute ALF-WirelessMedia.exe / app from PC or laptop until the dongle shows a static green LED indicator, or until you see a visual button of "Launcher", showing "Ready to share", you could click the dongle button or software button to start "Sharing" the desktop on the main screen.

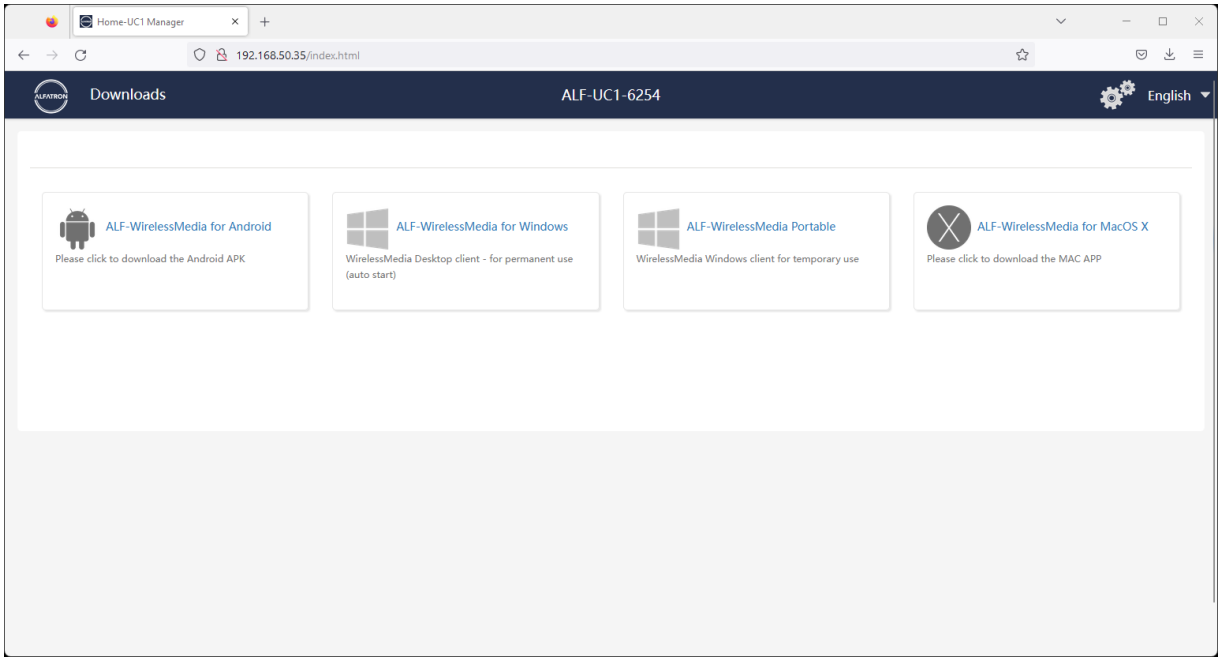


5. Click the dongle again, to stop mirroring, LED shows green again.

Note: *For the second time user, once the dongle has been plugged into the PC, it will run automatically and be ready to share.*

ATTENTION:

1. For security conscious customers, please download the “ALF-WirelessMedia-pro.exe” instead of “ALF-WirelessMedia-windows.exe” for the steps above.
2. “ALF-WirelessMedia-pro.exe” doesn’t run automatically after the plug-in of the dongle but require user to manually click and execute the “ALF-WirelessMedia-pro.exe” every time.



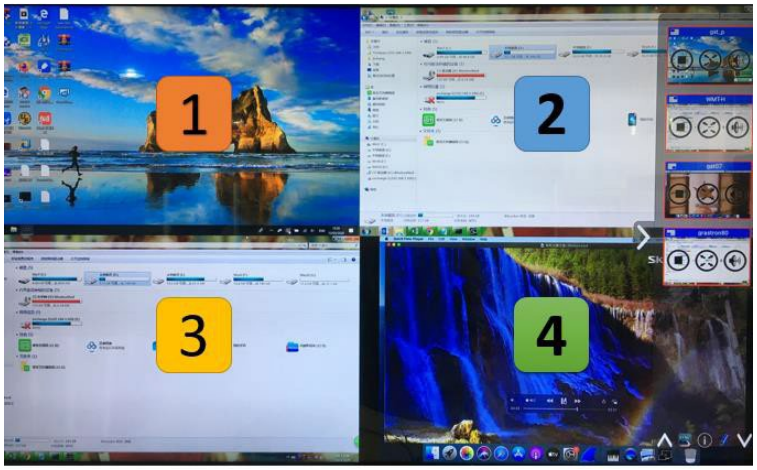
Non-Driver based dongle

ALF-HDMI-D / ALF-USBC-D:

1. Plug the USB port of the ALF-USBC-D into the USB port of the base unit to pair.
2. Plug the USB port and the HDMI port of the ALF-HDMI-D to a PC / Laptop / MacBook. (USB port for power)
3. When the dongle LED is static green , you can then touch to share the screen or click the visual button on bottomright corner of PC.

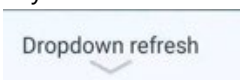
Quad view mirroring:

The ALF-UC1 can mirror 4 sources onto a single main display simultaneously, which supports PC / Laptop and mobile devices.

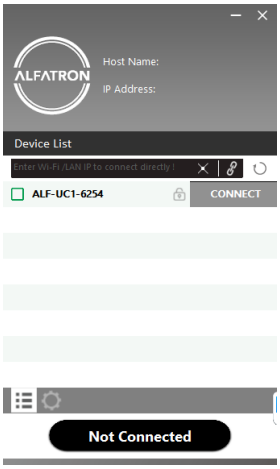


5.3.2 Mobiles Devices

Sharing on Android devices

1. Open the “ALF-WirelessMedia” application.
2. Connect your mobile device to one of the displayed Wi-Fi networks.
3. Open the “ALF-WirelessMedia” application in your mobile device, and you will see the Home Page of “ALF-WirelessMedia” as shown below. Click the device list refresh button 

for Android.
4. Select the base unit you want to connect, enter password and mirror.



5. Once pairing is completed, it shows the OSD “Welcome ***” on the home page. For example, if we connect it via a PC/Mac, it shows a “Welcome (USER / PC Name) ” on screen,

6. Now you can mirror the desktop of your mobile.
7. Click the “Share Screen” button again to stop mirroring.

✧ Click the connected device name to check the base unit status and base unit firmware version. Click “Fullscreen” to be full screen on the main screen when more than one signal is connected and shared.

✧ Click the upper right corner icon, check the “ALF-WirelessMedia” application version information.

Sharing on IOS devices

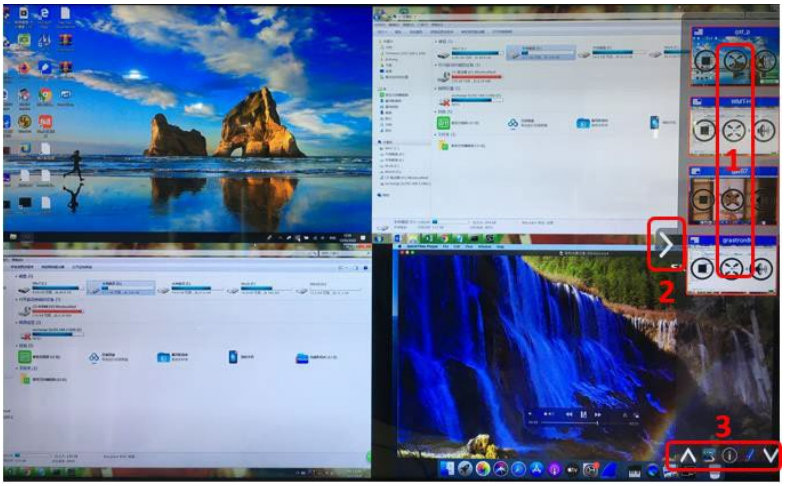
1. With **AirPlay** technology, user can stream their screen or music, (YouTube-) videos, pictures … wireless toBase-unit. Connect your iOS device within the same Wi-Fi network as the ALF-UC1.

For IOS devices, activate the control center. Click the **Airplay** icon on your Apple device and select the target ALF-UC1 to start mirroring through the ALF-UC1 to the main screen.

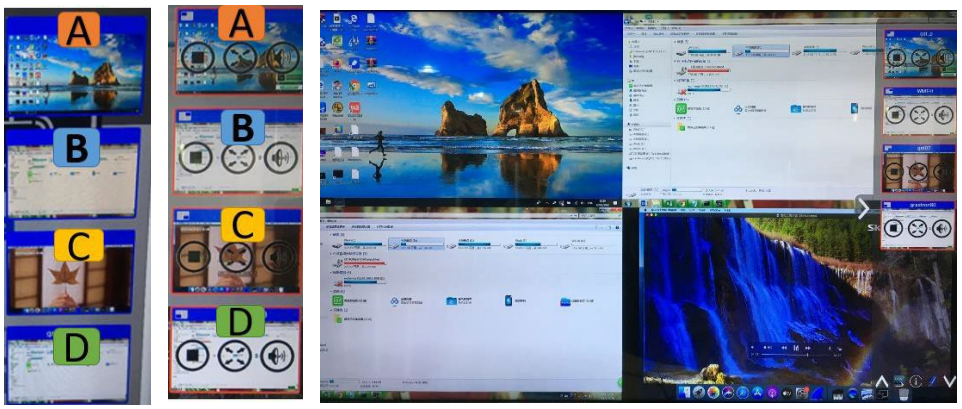
It will show OSD on home screen after connecting successfully.

5.4 Preview Window

On the touch-screen panel, or with a mouse plugged into the ALF-UC1, you can click on LEFT or RIGHT-arrow (2), to show the small preview-windows as a bar on the right edge of the screen, or to hide it if it is disrupting your view. Once the preview windows are activated, you see live images (1) of all connected dongles and android devices via “ALF-WirelessMedia” APK at the right edge of the screen. Just scroll UP or DOWN (3) to see further preview pictures.



As soon as the presenter clicks with the mouse of the Base-unit, or clicks (taps) with the finger on the touchscreen, the participants of the meeting are activated, another click at the arrow shows the image on the main screen in full format. A red frame is displayed for the active picture. The button indicates play button, click to show screen. The button indicates step out screen, click to stop mirroring the current signal. The button indicates full screen, click to fill the main screen. The button indicates volume, click to adjust the volume of the connected signal. The button indicates the location of the connected devices on main screen.



5.5 Whiteboard & Annotation

Whiteboard and **Annotation** requires an HID compatible device, such as interactive white board or interactive touch screen. It is easy to use, ensuring the collaboration in your business is more productive and effective: documentscan be easily written, edited, captured, and shared.

Whiteboard: write all your ideas and share the digital notes with anybody. Different pen colours and backgrounds can be selected.

Annotation: draw or write annotations in overlay within your documents or presentations. Save and share everything that was discussed. Different pen colours can be selected.

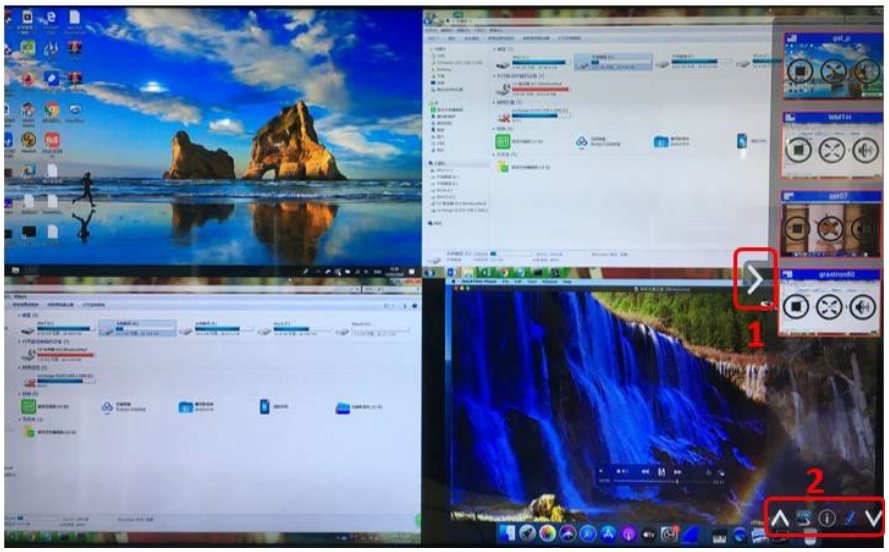
How to start Whiteboard or Annotation mode

The "Preview window" in Home Screen to start this mode.

Click (tap) the LEFT-arrow (1), located on the right side of the screen, and select **Whiteboard** or Annotation icon in (2).

Icon in (2) indicates "information", click to check the base unit SSID, password, Wi-Fi IP and Lan IP address when devices are shared on the main screen. This info will be shown on main screen for at least 20 seconds and

will disappear automatically, in order to let other attendees join the meeting as well.



The toolbar for Whiteboard or Annotation appears at the bottom of your screen.
If another user is mirroring, the Whiteboard & Annotation function is closed.

5.5.1 Whiteboard

Click on the icon to enter the white Whiteboard page. You can create free drawings with your finger on the touch screen, mouse (multitouch capability).

Use the toolbar to select one of the following functions:

ID	Icons	Function
Tool bar 1		Add an empty page
		Delete the actual page
		Display previous or next page
Tool bar 2		Undo: one step backward in changes
		Redo: one step forward in changes
		Erase part of drawings or annotation, change diameter by a longer tap
		Clear the entire drawing / writing on the screen
		Pen allows writing / drawing in different colours
		Draw basic geometric shapes
		Select colour of board, the drawing will remain
Tool bar 3		Will pop up, when “Pen” or “Draw shape” or “Select colour of board” is selected, for individual change of size of Pen, Shape or colour.

Tool bar 4 File options 	 	Save the current screenshot on local storage (PNG+WMN) Close Whiteboard to go back to Home screen, actual project can be saved on local storage (WMN) File options: ● Open WMN-file from local storage and continue / edit an older project ● New project ● Save as WMN on local storage in unit, it will be erased after POWER-OFF ● Import from U disk stored project (WMN) ● All pages are saved as PDF on local storage ● Clear history – delete all whiteboard and annotation files on local storage

5.5.2 Annotation

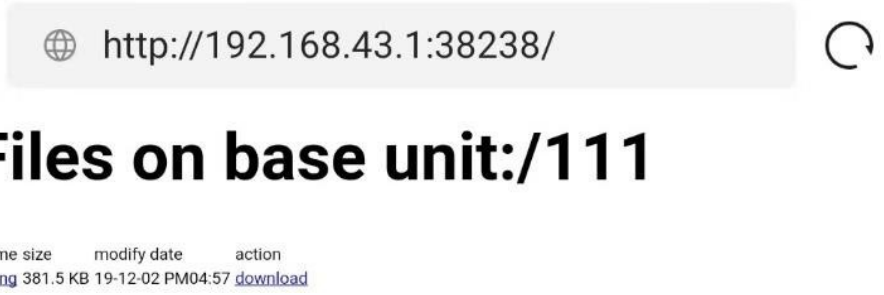
Click on icon to enter the Annotation function. Use the toolbar to select one of the following functions:

ID	Icons	Function
Tool bar 1		Undo: one step backward in changes
		Redo: one step forward in changes
		Erase part of drawings or annotation, change diameter by a longer tap
		Clear the entire drawing / writing on the screen
		Pen allows writing / drawing in different colours
		Draw basic geometric shapes

Tool bar 1		Close Whiteboard to go back to Home screen, actual project can be saved on local storage (WMN) Close Whiteboard to go back to Home screen,
		Save the current screenshot on local storage (PNG)

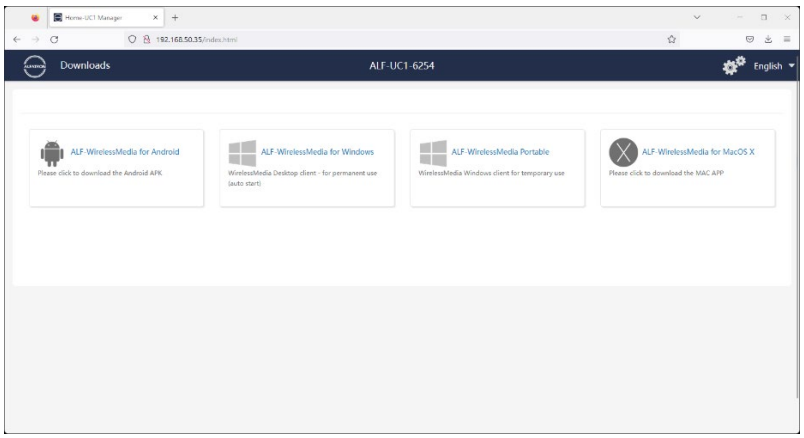
Download the drawings to connected users

Scan the QR-code with your mobile's camera or enter the given IP-address in a browser. If the network connection is set correctly, you will get the saved files on the Base unit, which you can download as a PNG file. The possibility for download will be closed after you click OK. You can copy data to USB disk and put this USB disk into the Base-unit and import with "Import from U disk" to the Whiteboard-section.



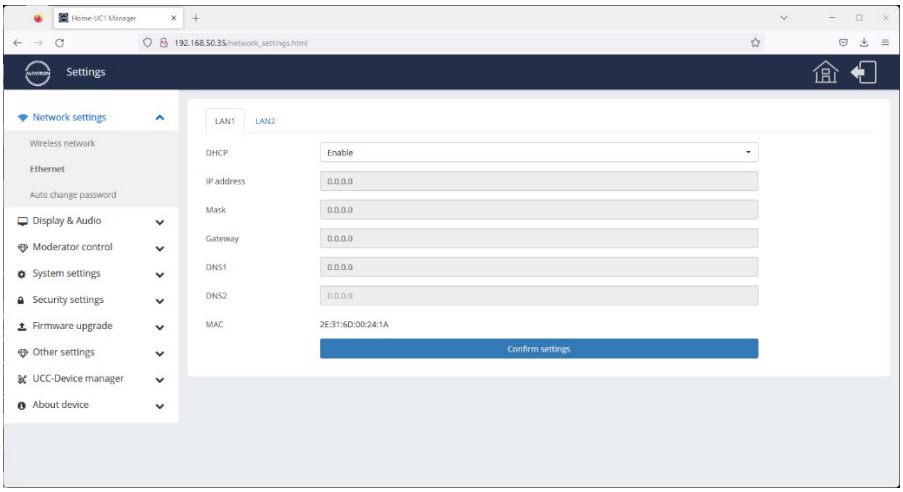
6. Web Setting Management Configuration

Connect base unit ID and Password or LAN IP to laptop, to enter Wi-Fi IP browser page to configure settings of base unit. The “ALF-WirelessMedia-windows.exe” for windows PC / Lap-top, “ALF-WirelessMedia-macOS.app” for Mac OS X, and “ALF-WirelessMedia” for Android can be downloaded here.



Click “Settings” on the top right corner to enter into the menu which will then display the configuration.
A password is required to enter the configuration menu. The default password after a Reset is “admin”. You can change the password in the menus “Security setting”.

Note:
If user has forgotten the password, you need to do a Factory Reset to restore “admin” as the password.



The main interface for Settings is shown below, including **Network settings, Display and Audio, Moderator control System settings, Security settings, Firmware upgrade, Other settings,** and **About device.**

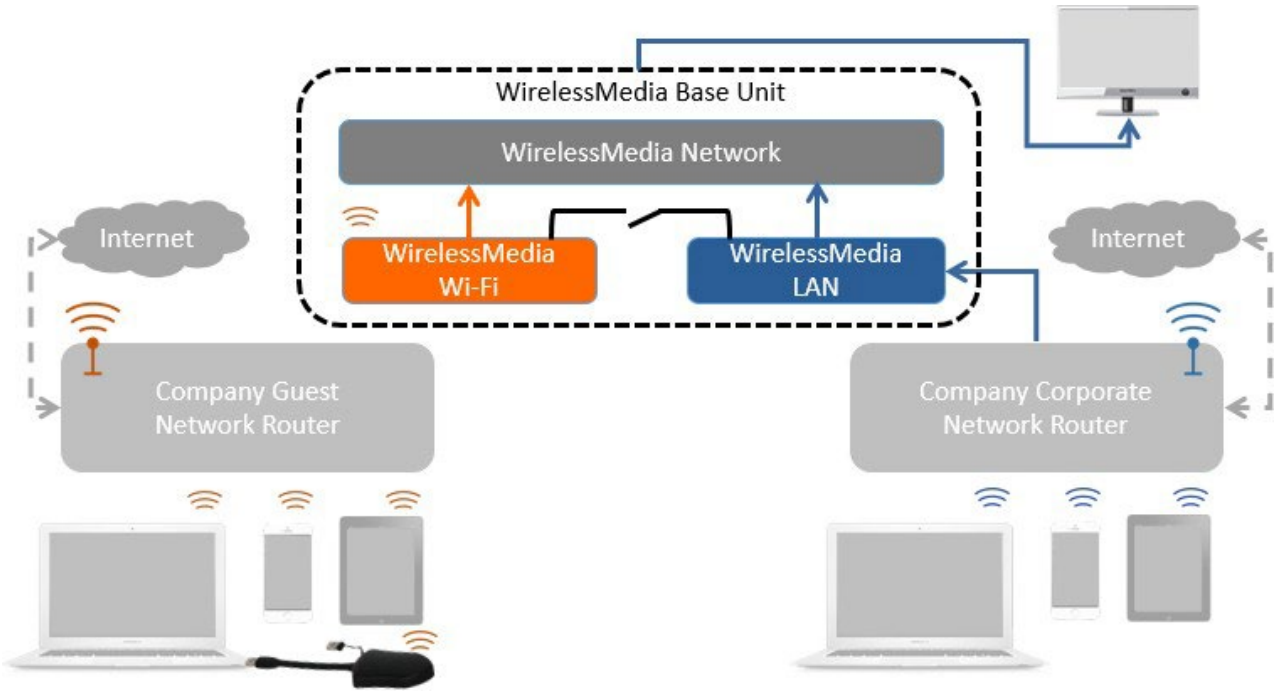
6.1 Network settings

6.1.1 Wireless network

To take advantage of the full benefits of the ALF-WirelessMedia possibilities, the ALF-UC1 should be properly integrated in the organization's network (company / university / school). This wizard allows the user to create a custom configuration for integration of the ALF-WirelessMedia into the existing wireless infrastructure within larger organizations.

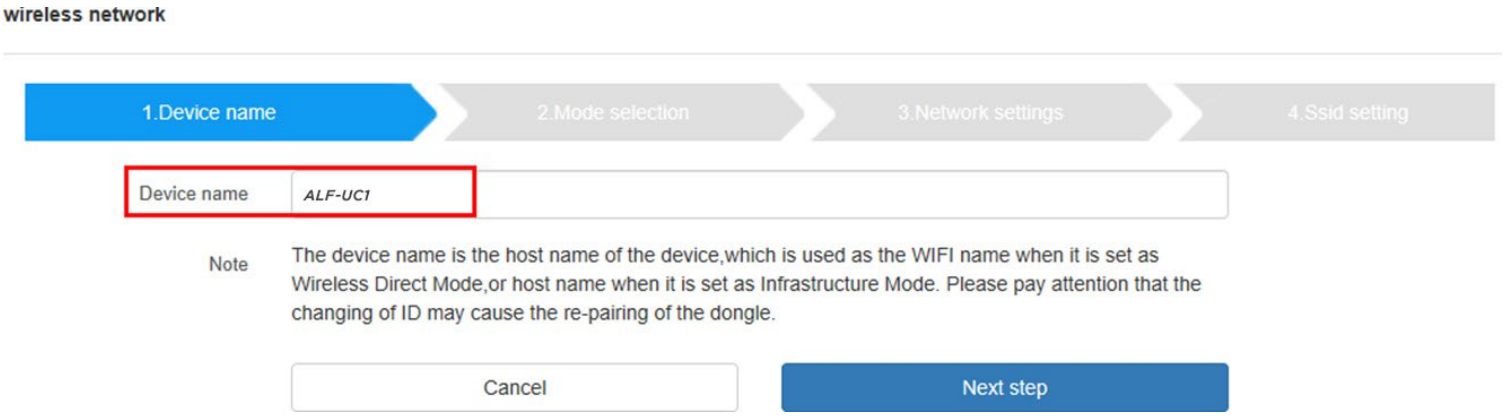
Segmented Dual Network, is to provide two segmented routing ways to connect to the base unit simultaneously and separately, including wireless WI-FI network (normally connected to Guest / untrusted network) and wired LAN network (normally connected to the corporate / trusted network).

A typical Segmented Dual Network topology is shown below:



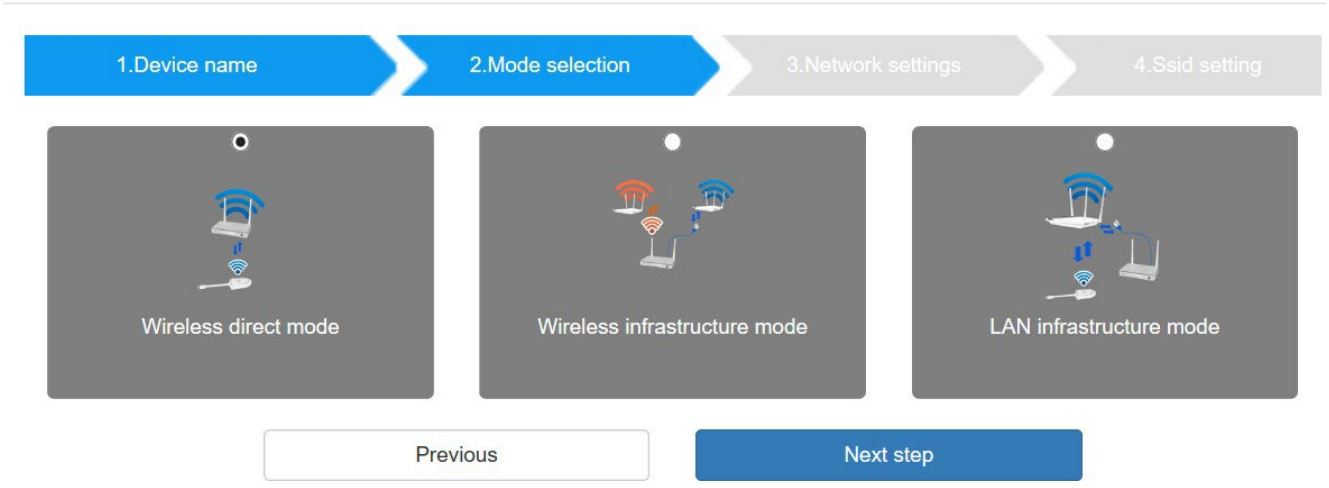
6.1.1.1 Wireless network configuration wizard

Enter a device name for the ALF-UC1. We recommend taking a descriptive name, if you have more than one ALF-WirelessMedia installed. The default name is “UC1-XXXX”.



Only "a-z","A-Z","0-9","-_" and space are legal character.

Click “Next step”. The following three connection methods are available:



6.1.1.2 Wireless Direct Mode

After Factory Reset, the ALF-UC1 base unit starts up in the **default Stand-Alone "Wireless direct mode"** configuration, where the Base-unit creates its own wireless access point, which all dongles use to connect. This is typical for a quick setup for small group meetings. The Wi-Fi icon for the "Wireless direct mode" is displayed in the top status-bar of the Home screen. Guests connect to the access-point of Click & Show, while Staff can also connect to the ALF-UC1 via Wi-Fi or via LAN to their corporate network.

Stand-Alone Connection

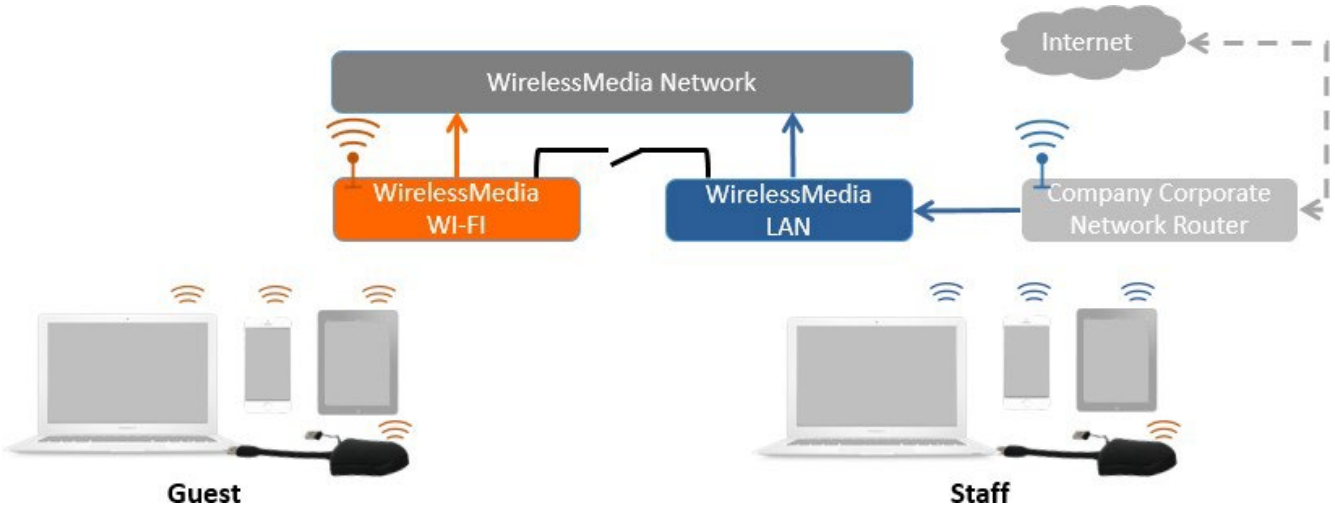
The internal Wi-Fi access Point of the ALF-UC1 is active . The dongle is paired directly to it. Guests and Staff use the internal Wi-Fi access point of the ALF-UC1 to present with all their units. **No Internet access is required.**

The LAN-Port of the Base-unit is not connected. The PC-users can present with or without the dongle via the ALF-WirelessMedia PC driver (Windows or MacOS). Android users (BYOD) can share their content by installing the free APP on their device and IOS users can use AirPlay (Apple only).

Recommended Environment

This option is best for temporary operation, small installations, and rooms without network access or networks that do not allow network access for Guests, due to strict security concerns, and are completely separate from the corporate network.

Under this mode, the dongle will automatically be paired to the base unit Wi-Fi hotspot when plugging dongle to the base unit USB port for pairing.

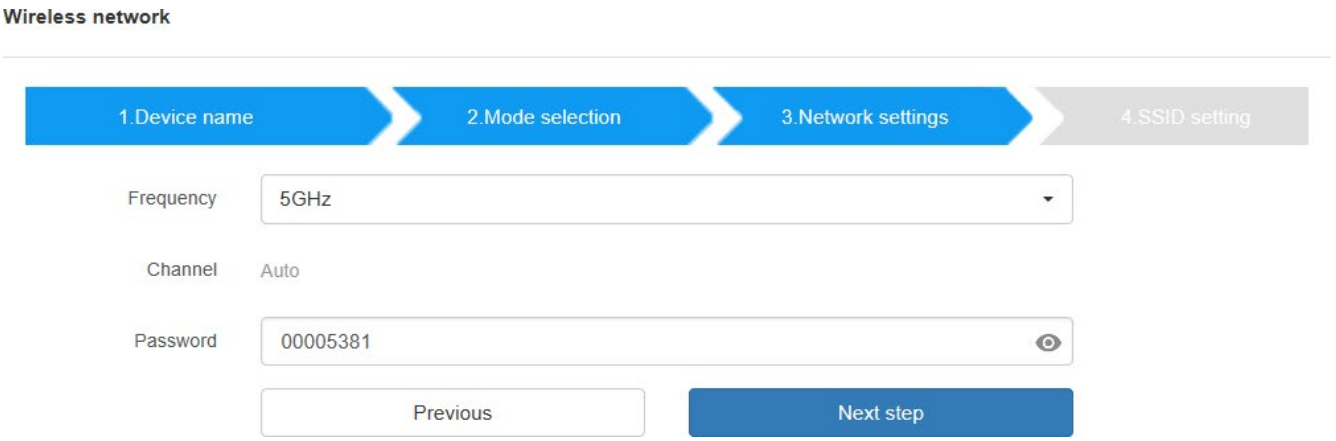


You can start using UC1 in this mode without any other wireless network configuration.

Click “Next step” to

Set up Wi-Fi access point

Set-up Wi-Fi access point includes Frequency, Channel, and Password.



- **Frequency**: Click to select 2.4 GHz or 5 GHz Wi-Fi frequency. Default is 5 GHz.
- **Channel**: Click to select the Wi-Fi channel. Default is 5 GHz, Auto.

If the Wi-Fi channel is changed, no new pairing of the dongle is necessary.

2.4 GHz frequency band: channels 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.

5 GHz frequency band: no need to choose 5G channel, system will choose proper channel automatically. Default is 5 GHz, channel: Auto.

Default channel (USA): 36,40,44,48 or 149,153,157, 161. Four channels will be opened at the same time, system will automatically choose proper channel from them.

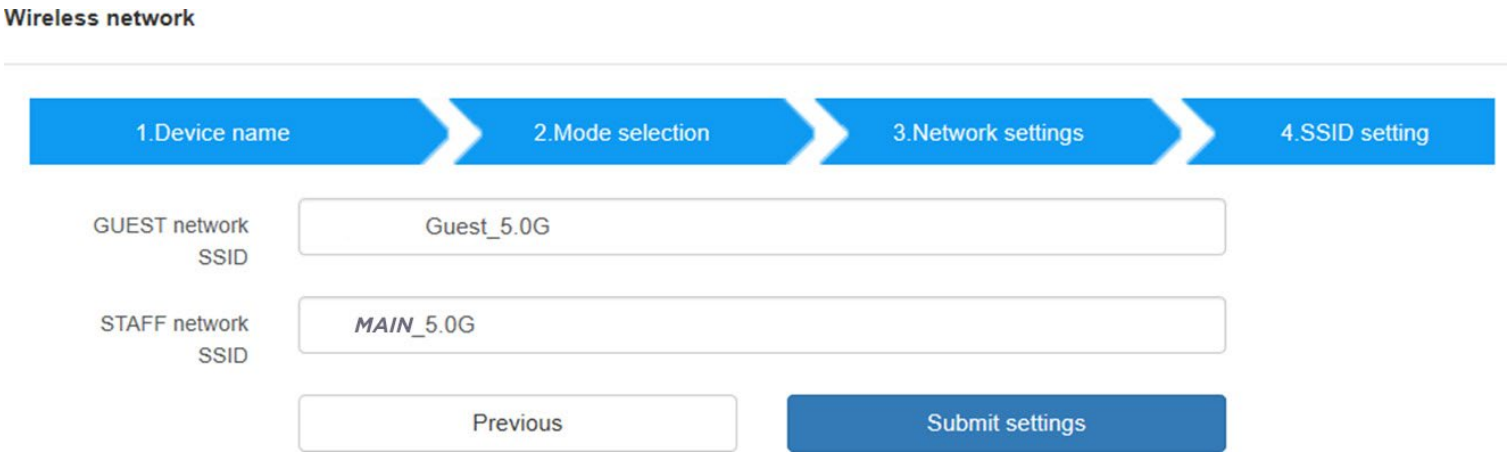
Default channel (Europe): 36,40,44,48.

Default channel (China): 149,153,157,161.

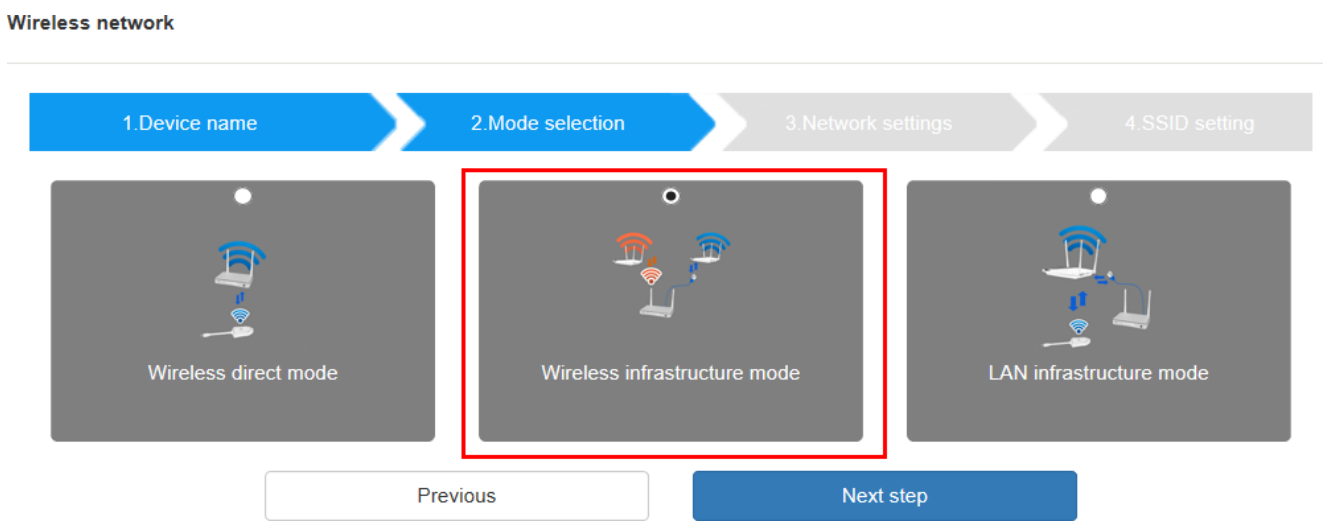
- **Password**: Click on the input field to fill out the appropriate password with a length of **8 characters.**

Click “Next step” to edit or change Guest network SSID and STAFF network SSID. This information will be shown at Home Screen of the ALF-UC1.

Click “Submit settings” to finish configuration. Once this is done, the dongle must be re-paired with the base-unit.



6.1.1.3 Wireless Infrastructure mode

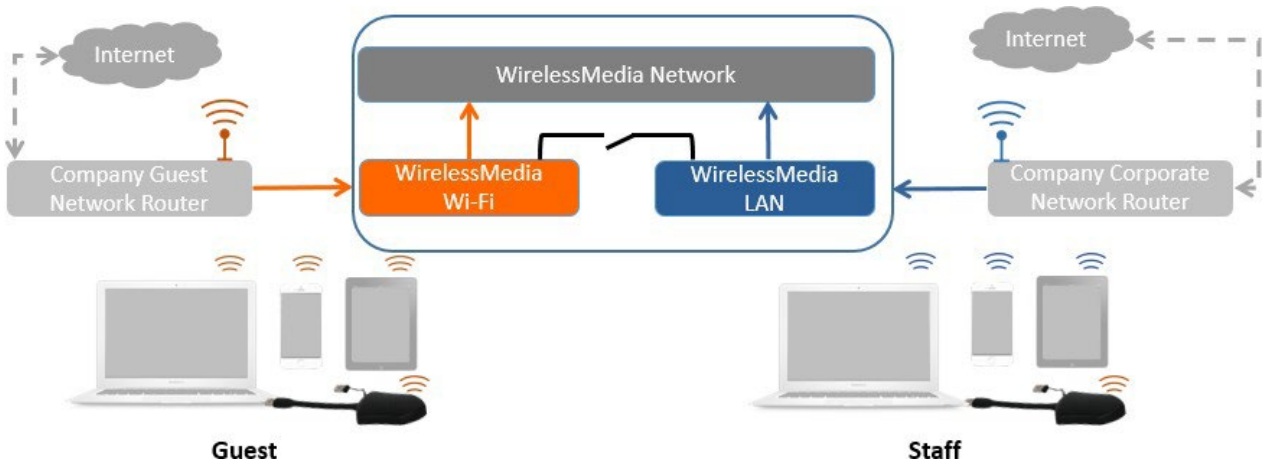


The ALF-WirelessMedia can connect to a wired and a wireless network simultaneously. The base unit is securely connected to the company network with LAN. Guest users connect to Wi-Fi "Guest" access. The employees ("Staff") connect to their usual access point of the corporate network, without having to change the Wi-Fi. This is very useful for organizations which have a wireless "Guest" network for external visitors, and a wired "Staff" network for their employees. The segmented Dual Network of the ALF-WirelessMedia provides two separated routing ways to connect to the Base-unit at same time. Guest-users are not able to access any resource on the Ethernet of the company.
The ALF-WirelessMedia uses the existing wireless network infrastructure. Guest and Staff have internet access.

Dual Network Configuration

The internal Wi-Fi network of the ALF-WirelessMedia is connected to the Guest Wi-Fi network of the organization, (**ClientMode:** the indicator-icon shows the actual signal strength). The Base-unit is still wired with LAN-cable to the internal company network

The PC-users can present, with or without a dongle via the ALF-WirelessMedia PC driver (Windows or MacOS). Android users can share their content by installing the free APP, IOS users can use AirPlay to share content (Apple only).



The dongle is connected to the Wi-Fi access Point of the Guest network, which in turn is connected to the internal Wi-Fi access Point of the ALF-WirelessMedia, the dongle can also be configured to connect to the enterprise's access point. Mobile users stay connected to their current network, have access to their normal corporate environment, as well as Internet access.

The actual received signal strength from Guest network is shown in Home screen of the ALF-WirelessMedia:

Follow the instructions of the configuration wizard for the "Wireless infrastructure mode". When pairing the dongles, by plugging in the dongle to the USB port of the Base-unit, it will automatically pair to the associated access point of Guest or Staff Wi-Fi and NOT to the ALF-WirelessMedia.

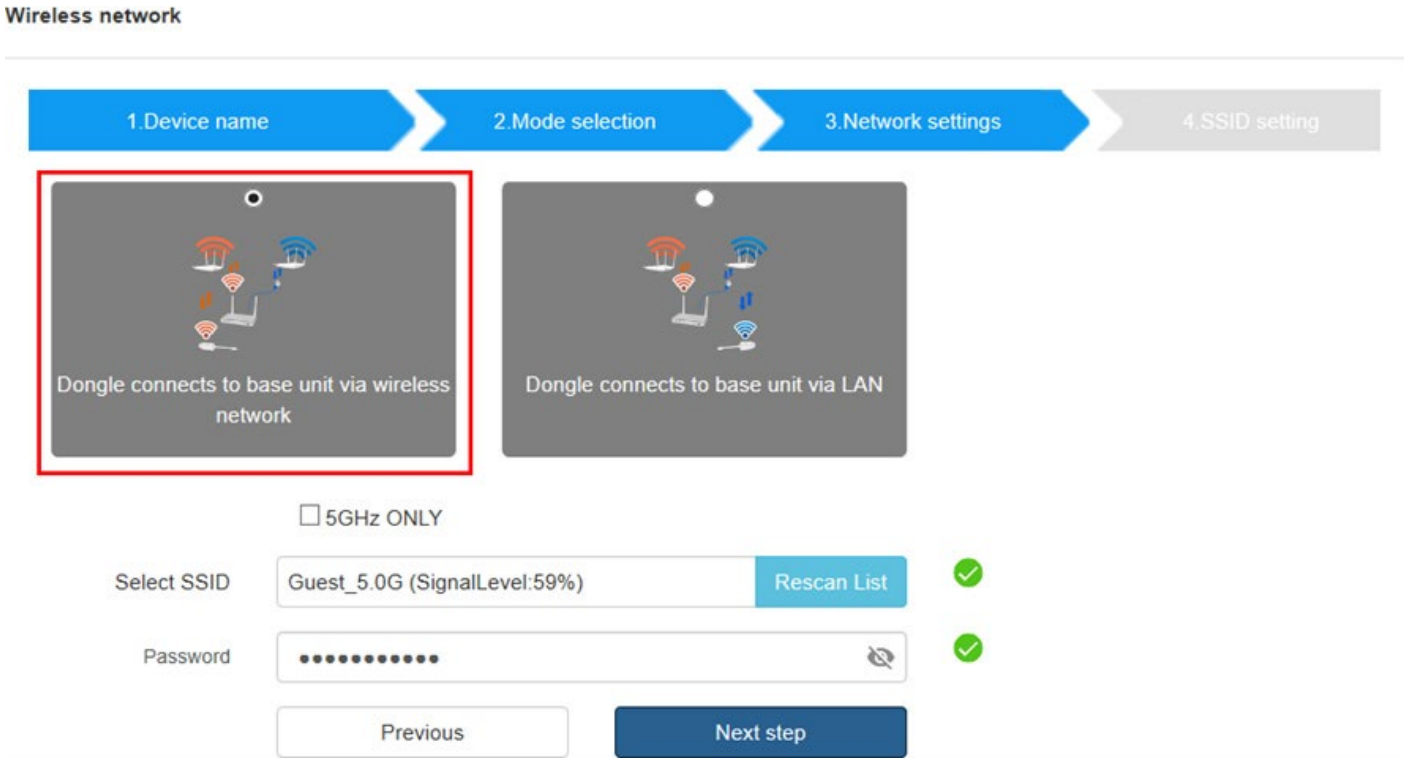
Click "**Next step**" to configure the network for which the dongle needs to be paired to.

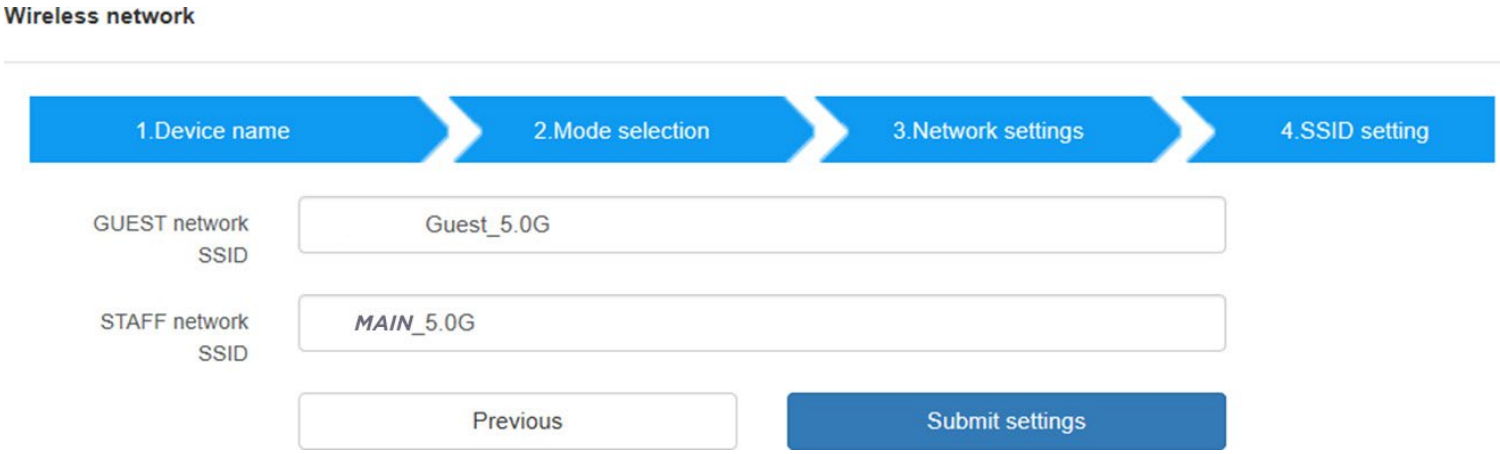
"Dongle connects to base unit via wireless network."

Choose a wireless network which is separate from the company LAN network for guest users.

Select SSID: Choose a wireless network to connect to base unit for guest.
Password: Enter the password to connect the base unit to the guest network.

Click "Next step" to edit or change Guest network SSID and Staff network SSID.





Wi-Fi name of guest and staff will be shown on home screen after "Submit settings".

After submitting successfully, please re-pair the dongle with the base unit.

"Dongle connects to base unit via LAN."

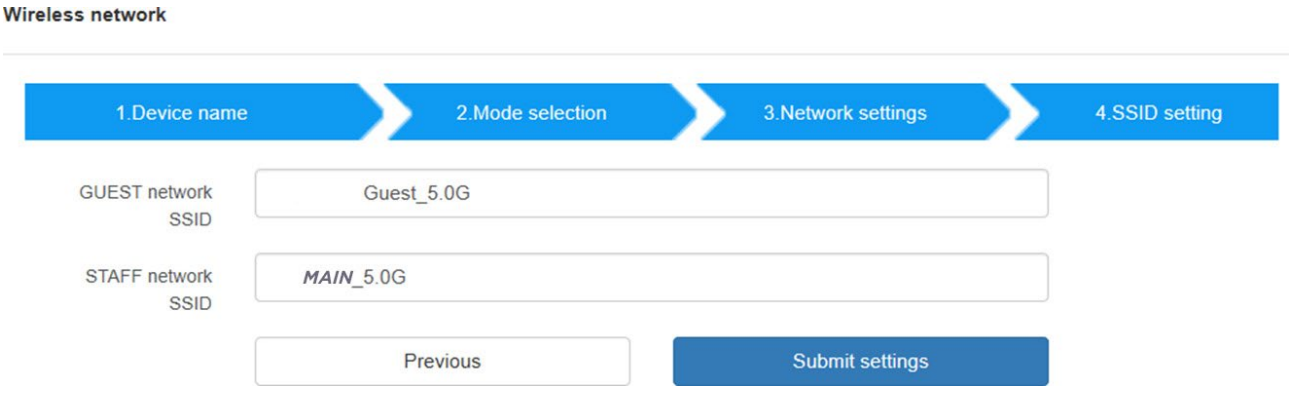
Choose a LAN network which is used for the company staff users.
Note: *In this mode, the dongle is paired for internal staff usage.*

Select SSID: Choose a wireless network to connect to the base unit for guests.
Password: Enter password to connect the base unit to the guest network.

Select dongle SSID: Choose the same LAN network to which the base unit connects, to pair the dongle.
Password: Enter password of the LAN network.

See image below:

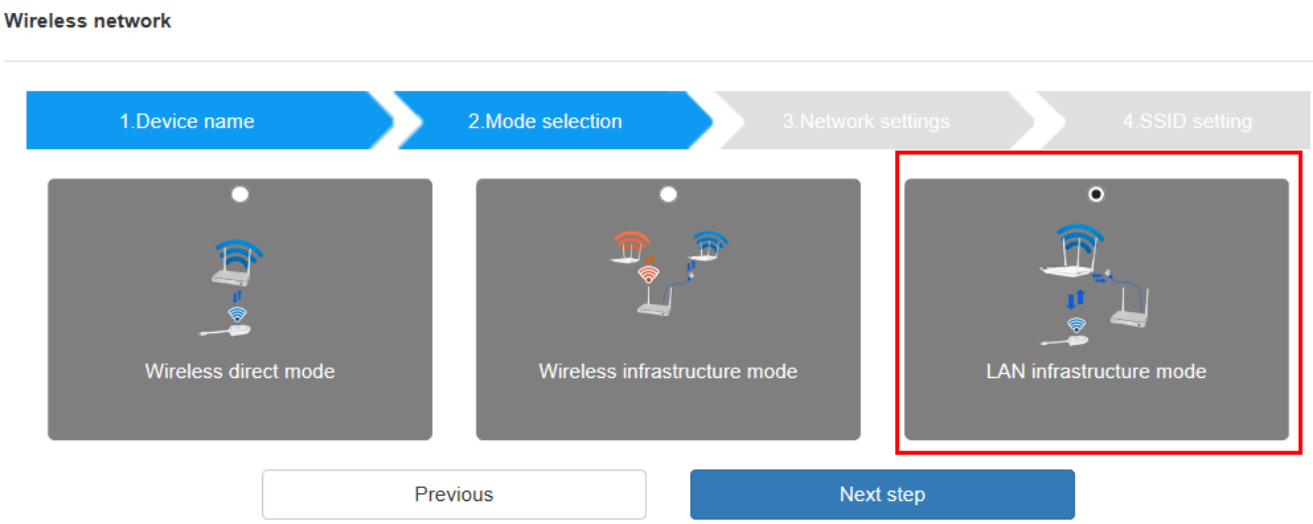
Click "Next step" to edit or change Guest network SSID and Staff network SSID.



Wifi name of guest and staff will be shown on home screen after "Submit settings"

After submitting successfully, please re-pair the dongle with the base unit.

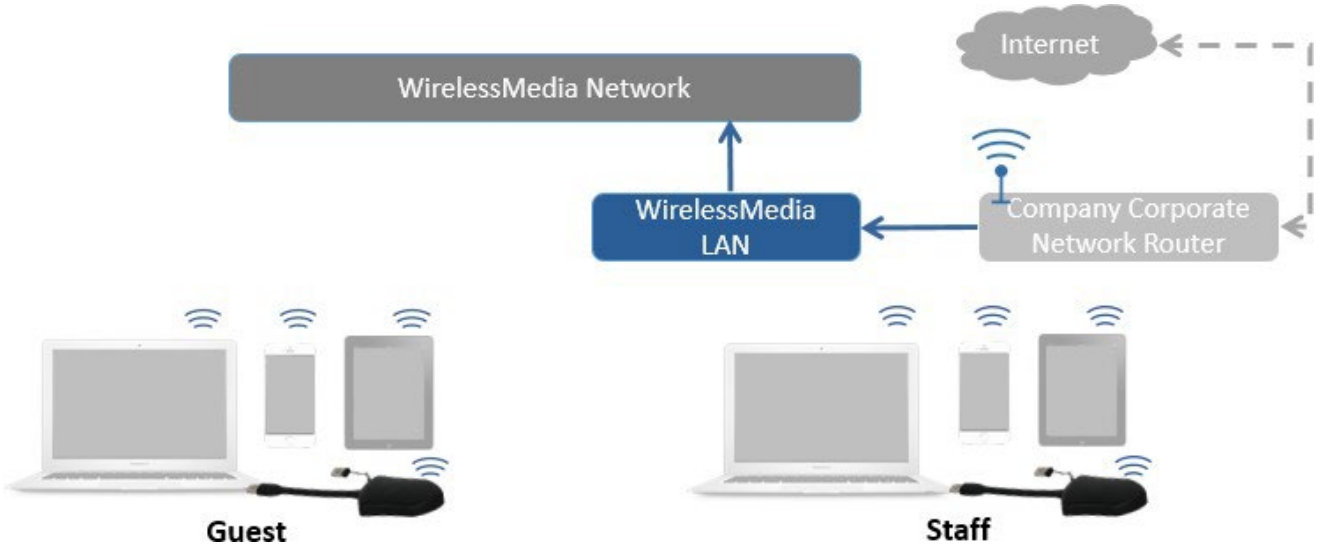
6.1.1.4 LAN Infrastructure Mode



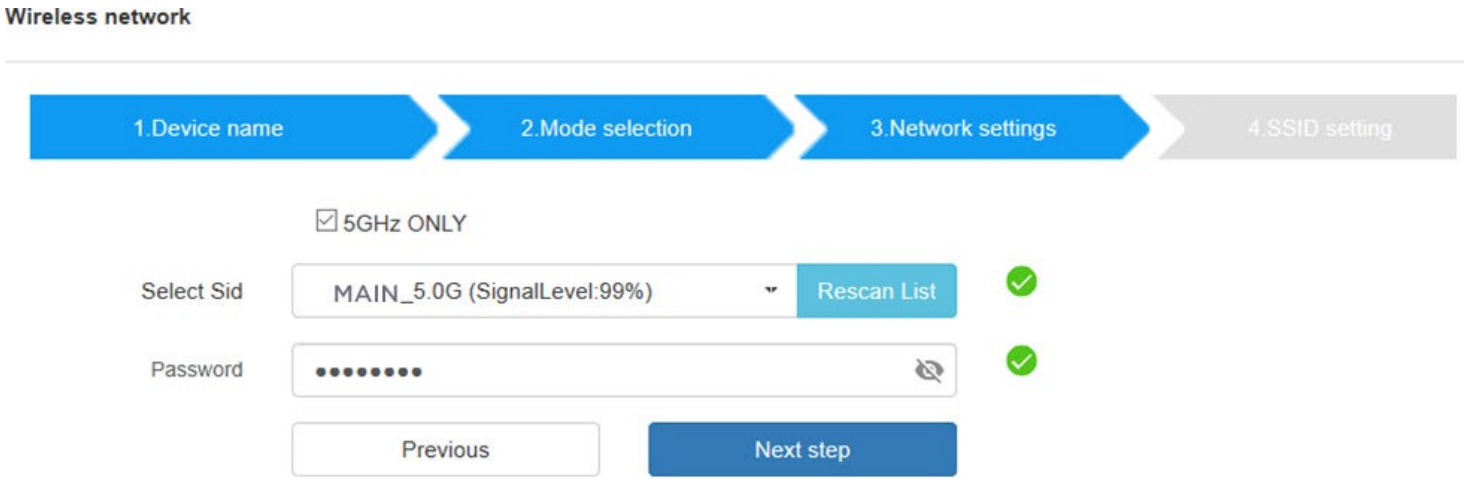
In this configuration the **built-in Wi-Fi** access point of the ALF-WirelessMedia **is disabled:** .

The dongle and / or the mobile devices can connect to the secured wireless access point of the company network. The Base-unit of the ALF-WirelessMedia is hard-wired connected via LAN to the Ethernet of the Company network.

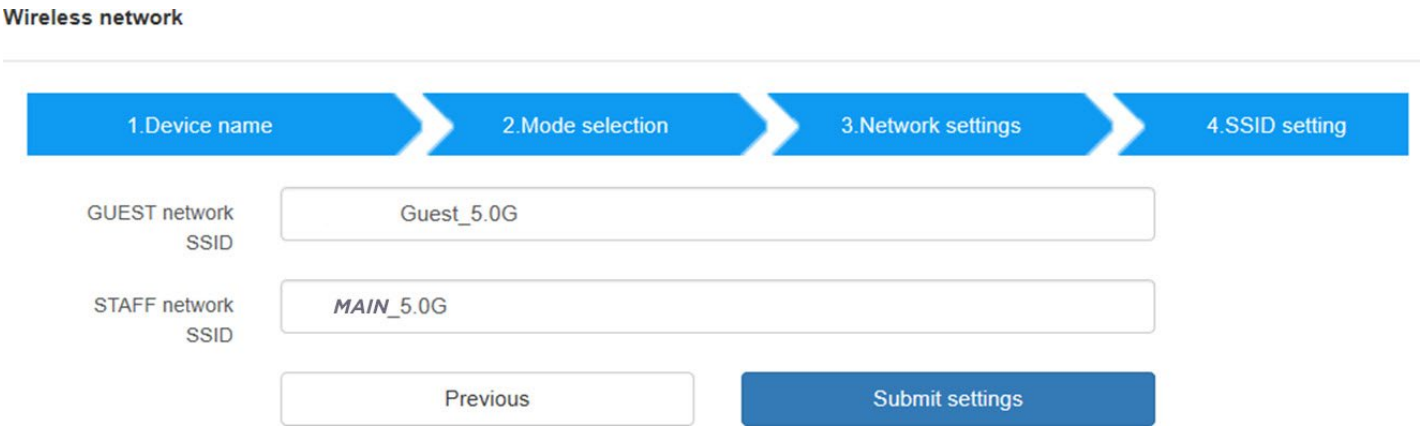
The Staff-users connect to their usual access point of the Company network, without the need to change the Wi-Fi. Follow the instructions of the configuration wizard for "LAN infrastructure mode".
When pairing the dongles, by plugging the dongle in the USB / Type C port of the Base-unit, it will be automatically paired to the Staff access point, and NOT to the "ALF-WirelessMedia" Base-unit.



Click “Next step” to choose a LAN network which is used for the company staff users, and pair the dongle to this network.



Click “Next step” to edit or change Guest network SSID and Staff network SSID.

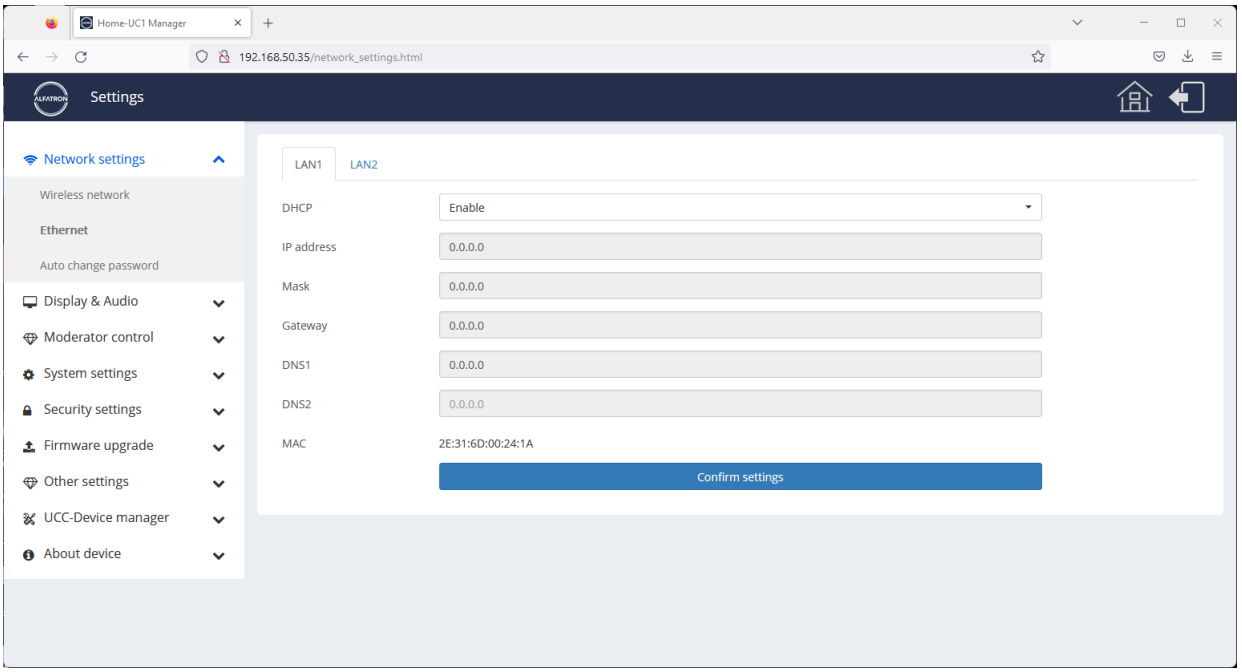


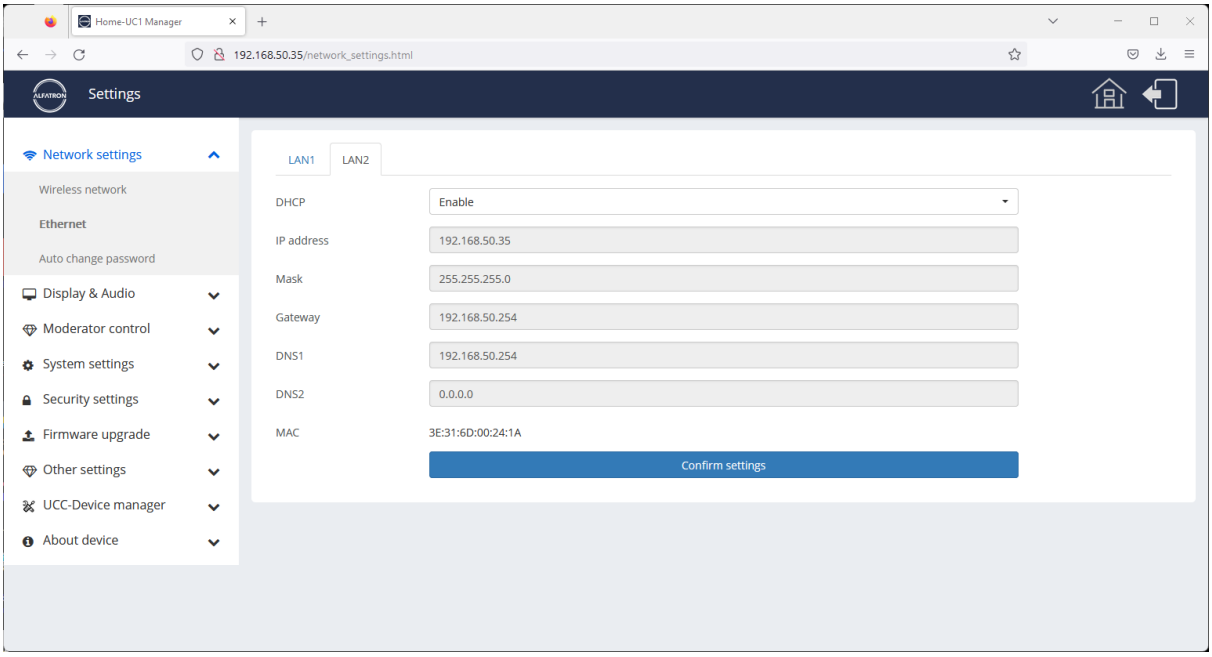
Wi-Fi name of Guest and Staff will be shown on home screen after “Submit settings”

After submitting successfully, please re-pair the dongle with the base unit.

6.1.2 Ethernet

Configure the Ethernet settings. The ALF-UC1 has two LAN ports, if the base unit is connected with two LAN cables, you can configure as below tab.



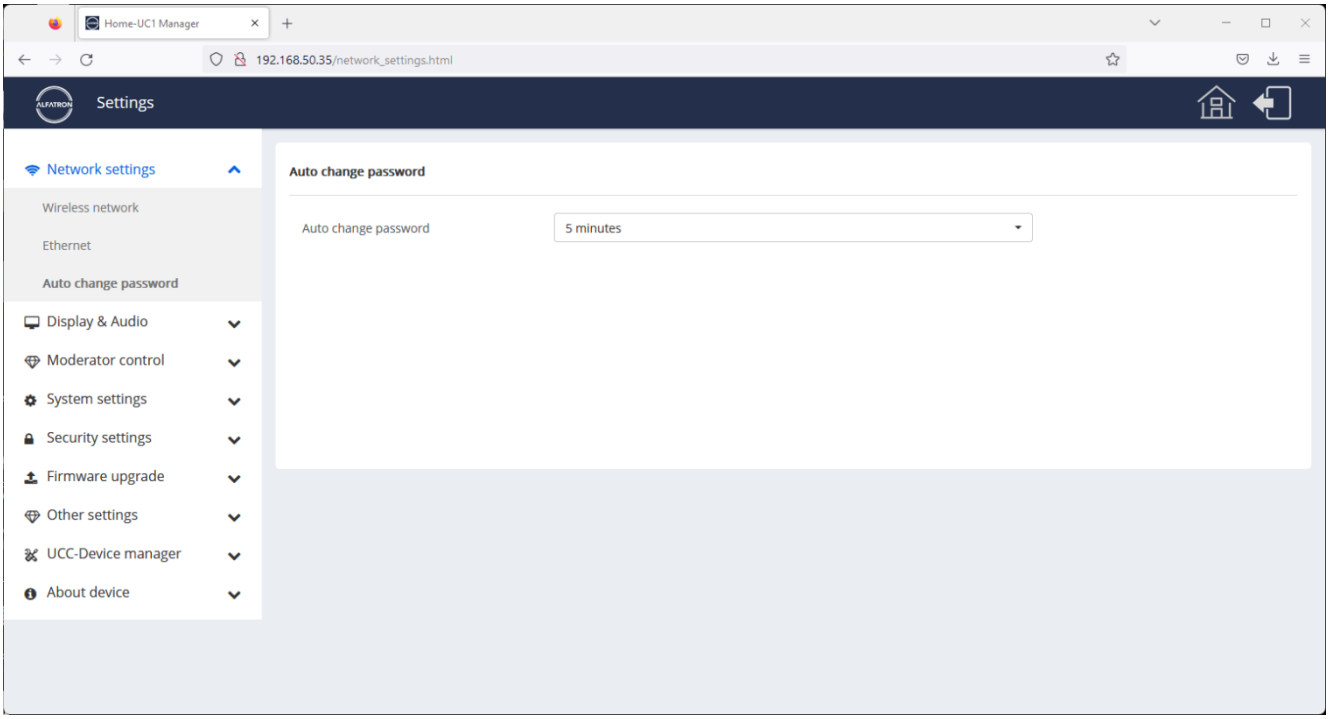


6.1.3 Auto change password

The password remains unchanged for all participants of the meeting while at least one dongle, **or** a Wi-Fi network of a mobile device is connected to the Base-unit. Once the last user disconnects, the password can be configured.

- The changeability of the password will be fixed by connecting a dongle to a PC / Laptop or connecting a mobile unit to the Wi-Fi of the Base-unit and continues to be changeable after 15s once disconnecting the last dongle or disconnecting the Wi-Fi of a mobile unit.
- Users do not need to re-pair the dongle again if only the password is changed. A **Smart mobile device** has to enter the correct SSID and password to connect to the Base-unit access point, in order to access all functionality.

Configure to automatically change Wi-Fi password to a random number at specified period of time.



Click to set the configuration, including:

- **Never:** Never change Wi-Fi password. (Even after POWER-OFF condition)
- **5 minutes:** Change Wi-Fi password every 5 minutes.
- **30 minutes:** Change Wi-Fi password every 30 minutes.
- **1 hour:** Change Wi-Fi password every 1 hour.
- **2 hours:** Change Wi-Fi password every 2 hours.
- **4 hours:** Change Wi-Fi password every 4 hours.
- **24 hours:** Change Wi-Fi password every 24 hours.

6.2 Display & Audio

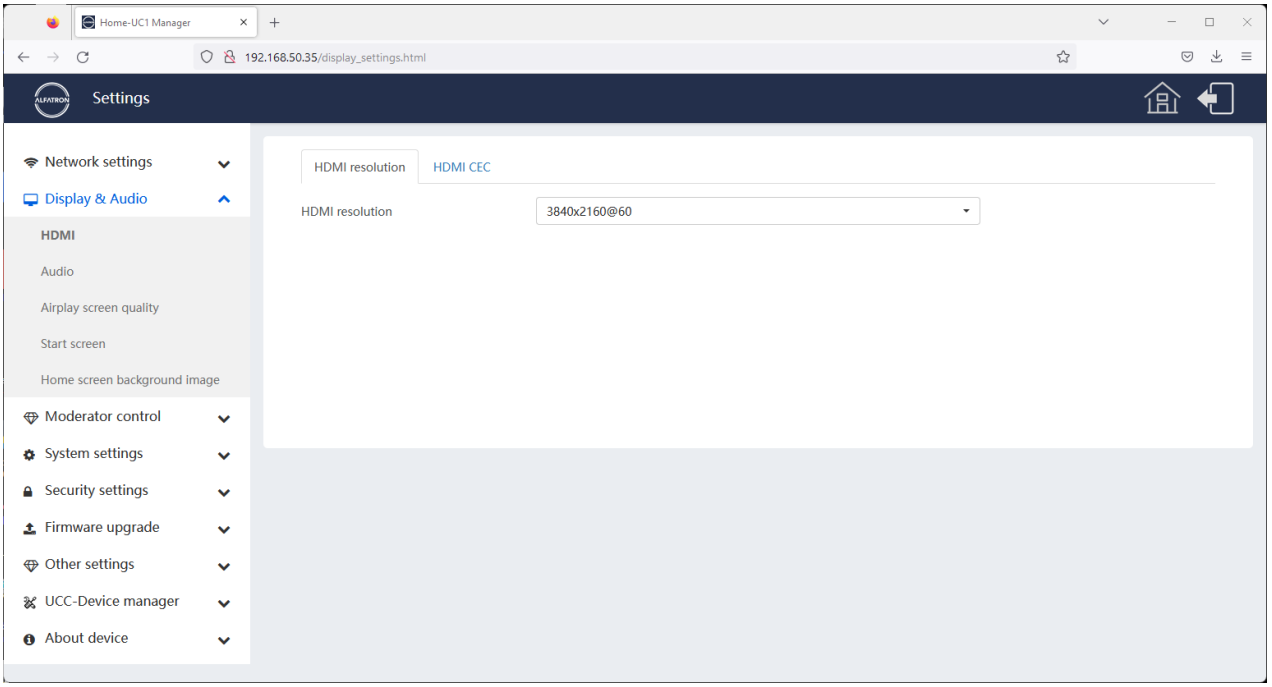
6.2.1 HDMI

HDMI Resolution

Select the resolution of the HDMI output of the Base-unit:

Existing HDMI output resolution as below:

- Auto
- 3840 x 2160 @30Hz
- 3840 x 2160 @60Hz
- 3840 x 2160 @50Hz
- 1920 x 1080 @60Hz
- 1920 x 1080 @50Hz
- 1920 x 1080 @30Hz

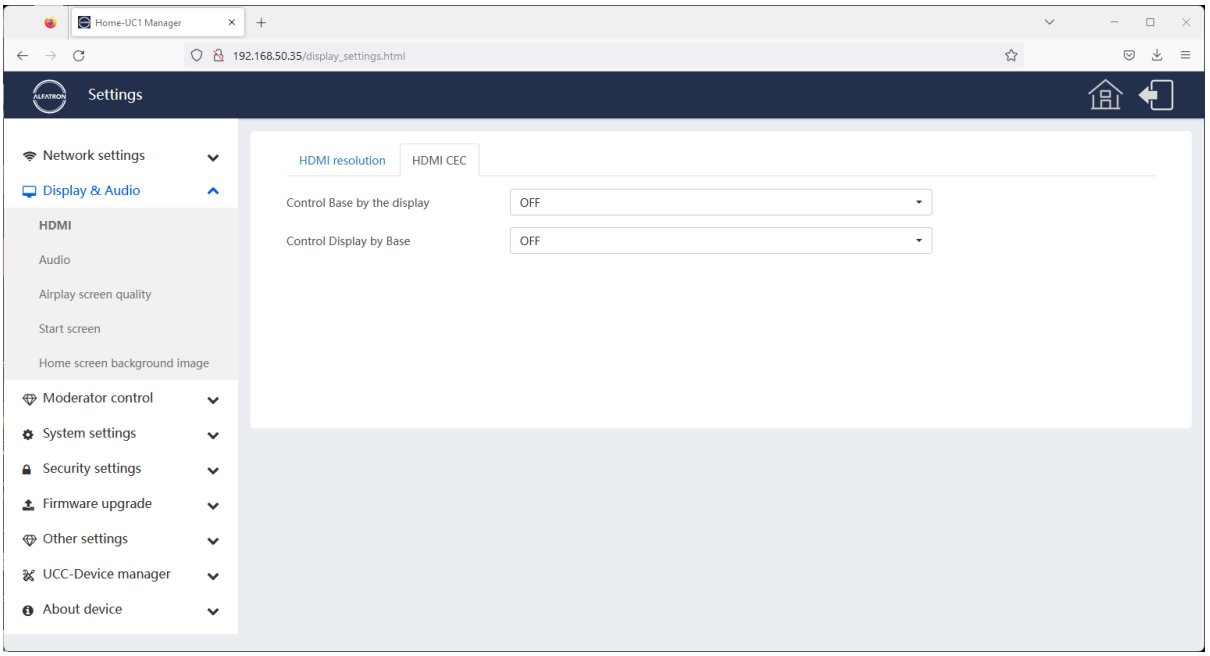


Note: *If the display only supports FULL HD, the 4K resolution will not be shown on the list of resolutions.*

HDMI CEC

Base unit supports CEC function if the connected display supports CEC function.

- **Device auto power off:**
  - ON (Default): Display will automatically turn off when base unit is powered off.
  - OFF: Display will not automatically turn off when base unit is powered off.
- **Base unit auto power on:**
  - On: Base unit will be woken up automatically when display is on.
  - Off (Default): Base unit will not be woken up automatically when display is on.



6.2.2 Audio

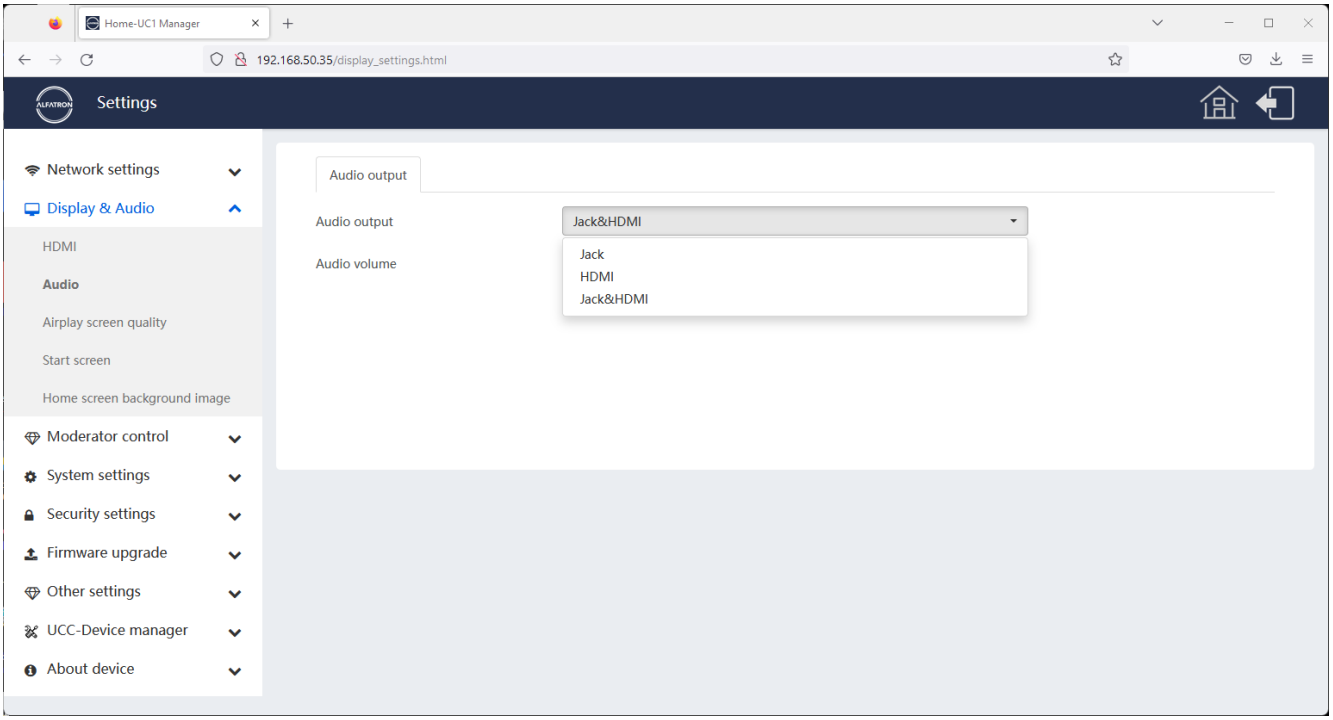
Audio

Choose audio output:

Jack: Output 3.5mm mini-jack audio only.

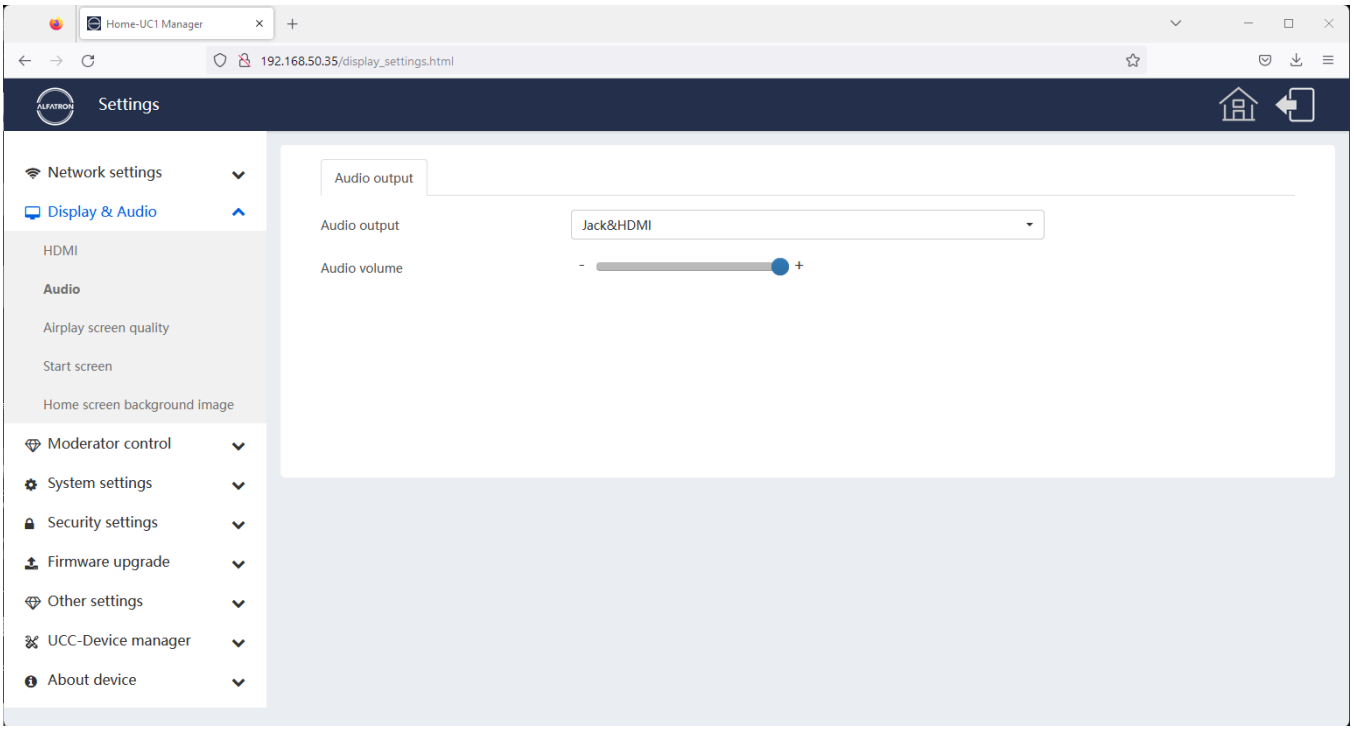
HDMI: Output HDMI audio only.

Jack and HDMI (Default): Output Jack and HDMI audio



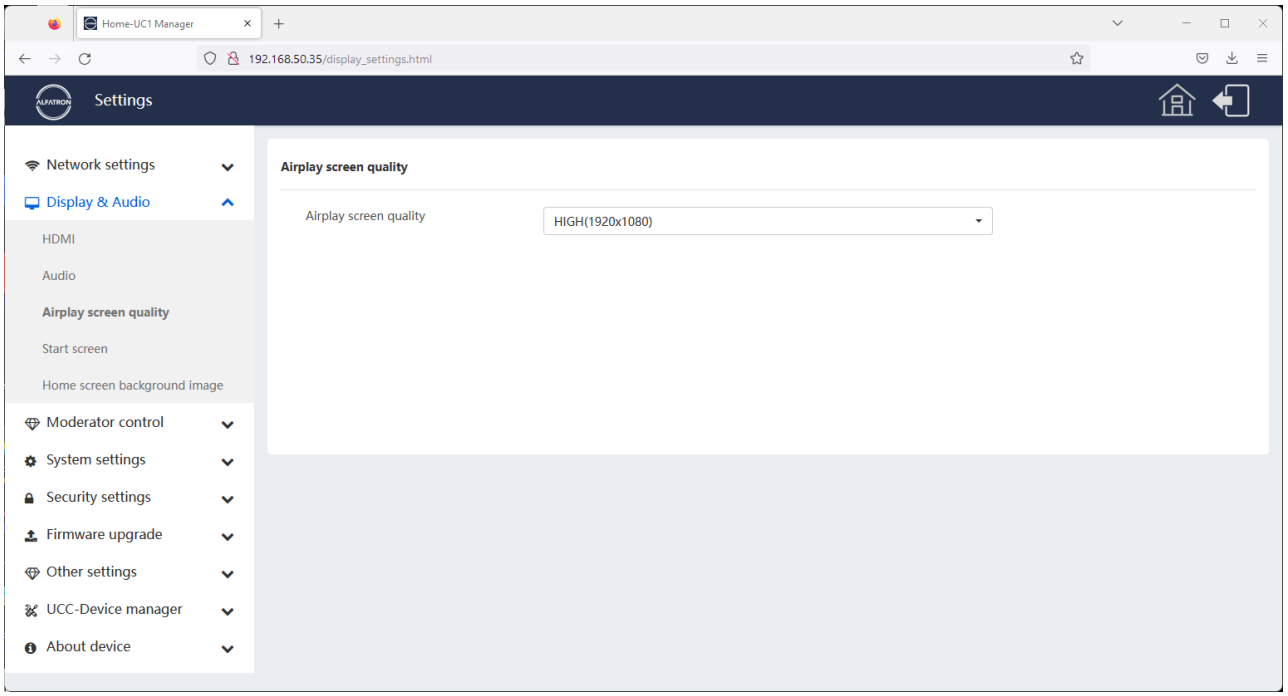
Volume

User can select volume of the display from 0 to 100.



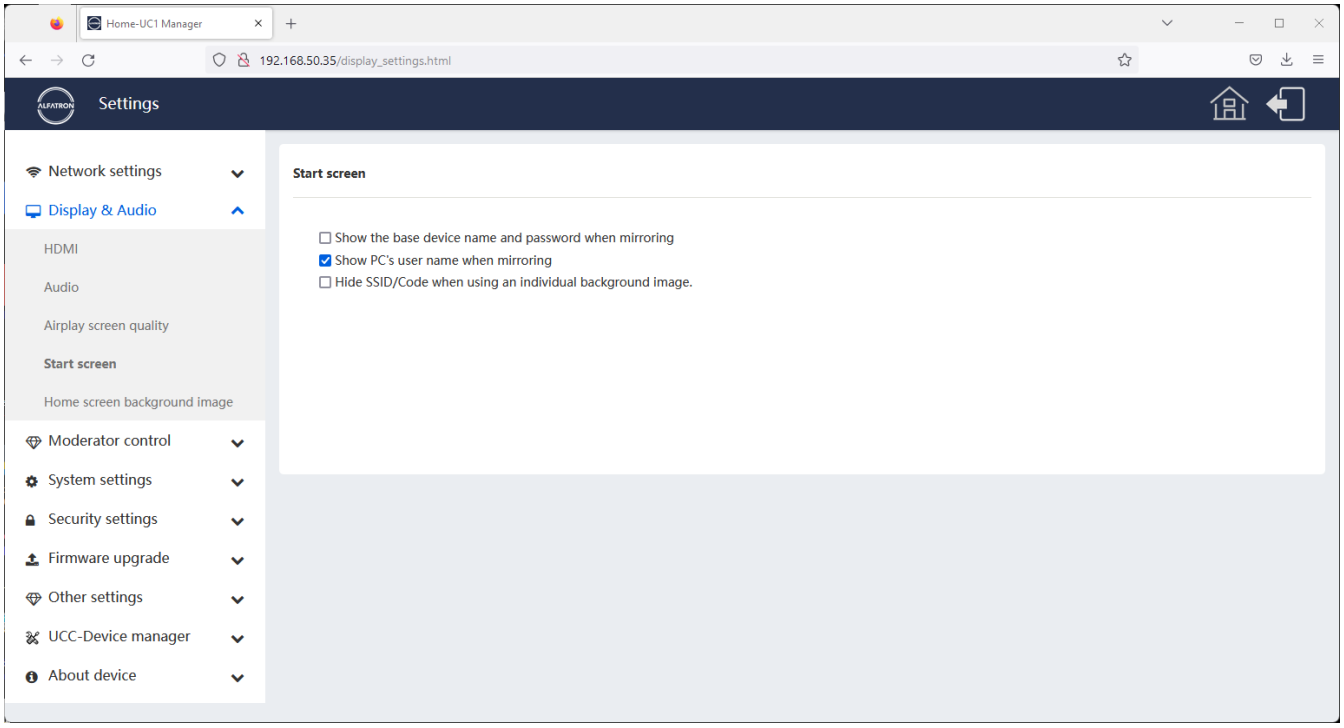
6.2.3 Airplay screen quality

Click to select the image quality when displaying apple device via “AirPlay” mode.



6.2.4 Start Screen

- **Show device name and password when mirroring:** Name (ID) and Wi-Fi-password can be shown or hidden in top status-line of **main screen.**

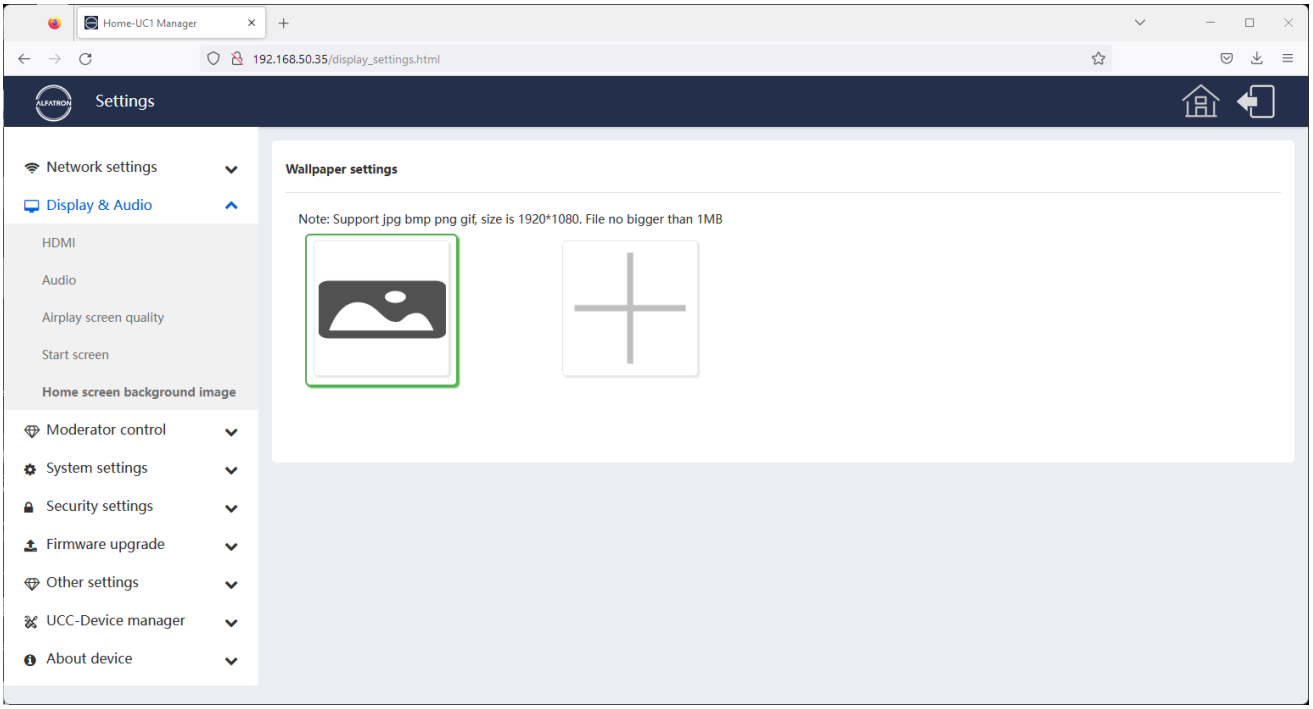


- **Show PCs username when mirroring.**

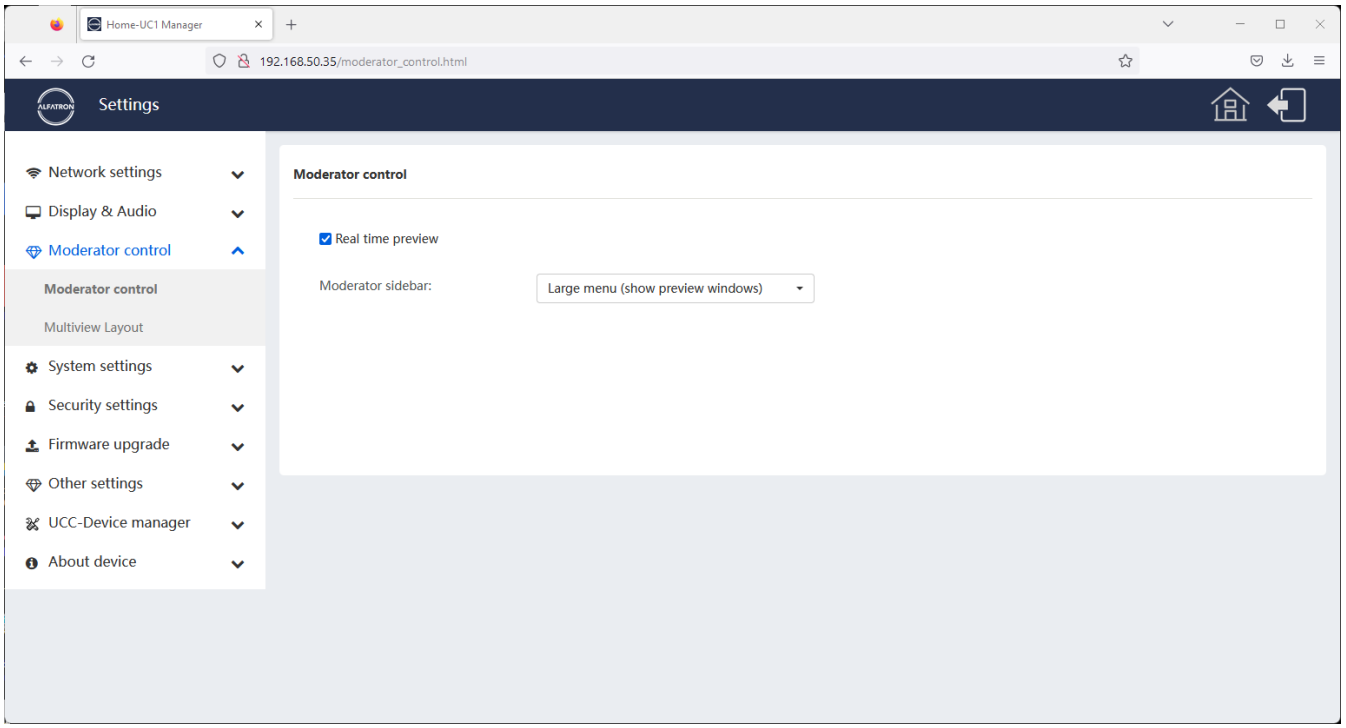
Show username.

6.2.5 Home Screen background image

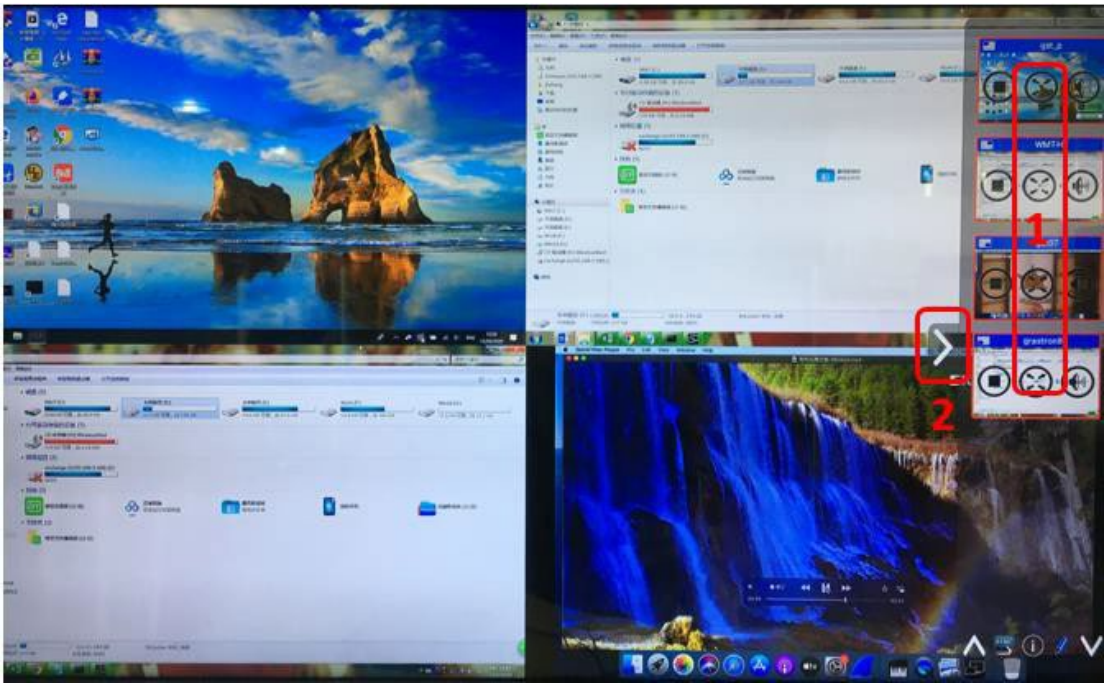
When powering on the ALF-UC1, the start screen will be displayed. User can change background image of homescreen. Select the image (jpg, bmp, png, or gif with a resolution 1920x1080p) from suitable directory and select box for activation. You can return to the Standard Home screen every time.



6.3 Moderator control



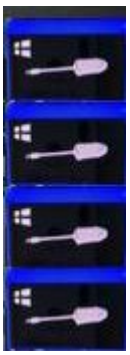
- Add a sub-window bar to enable previewing the connected devices. Tick the icon, it will show the sub window as below once devices are connected to base unit.



If you do not tick the icon, the preview window bar will be minimized as below:

- Real time preview

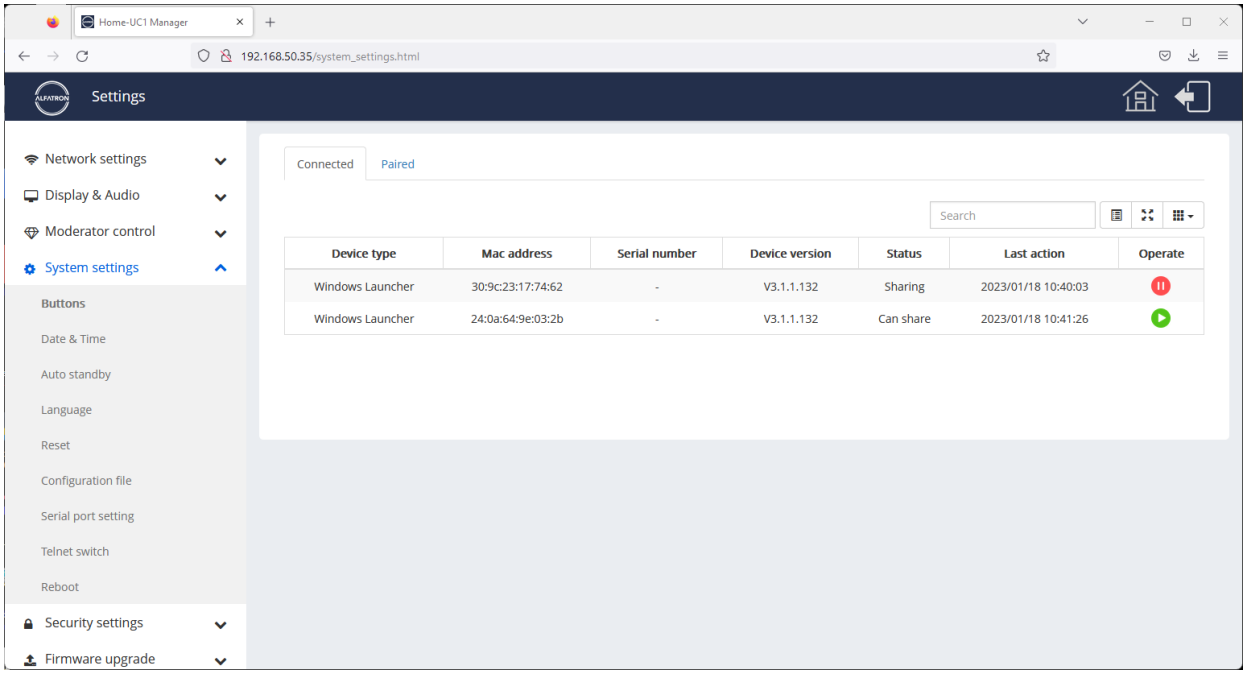
If you tick the icon, the preview window will show the real time preview, if you do not tick, the preview window will only show a static picture as be



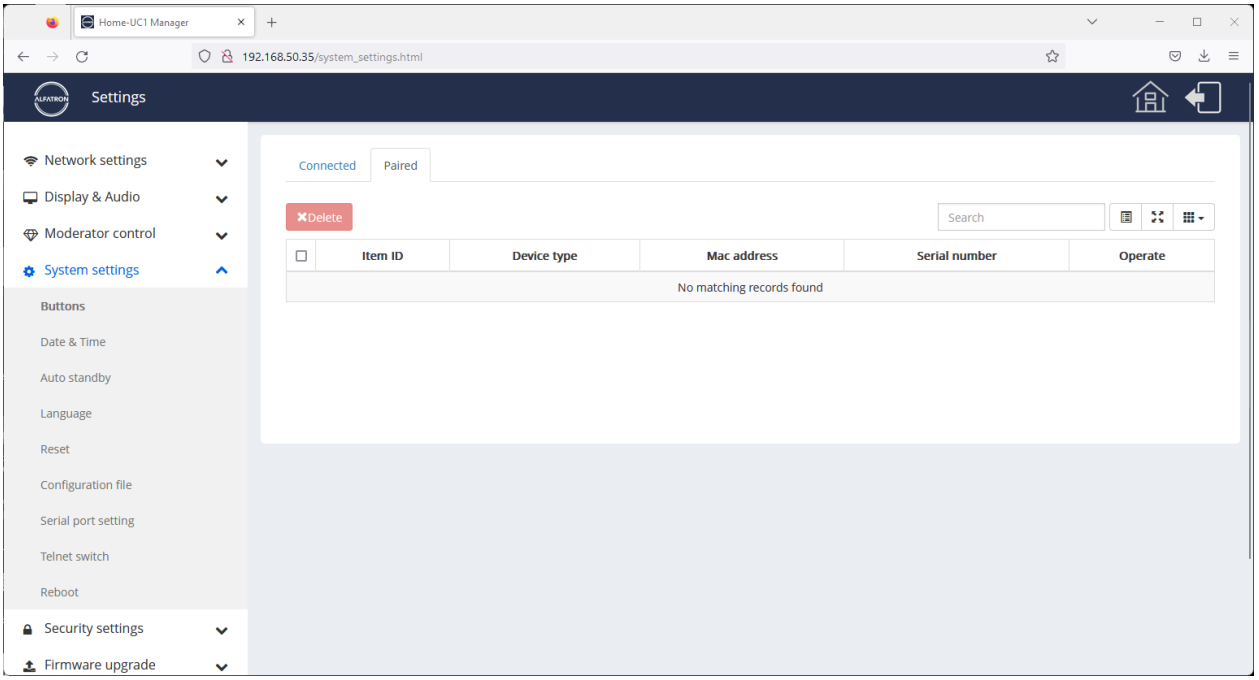
6.4 System settings

6.4.1 Buttons:

Show Device name, MAC Address, Serial Number, Device Version, Device Status, Last Action, and Item Operate.



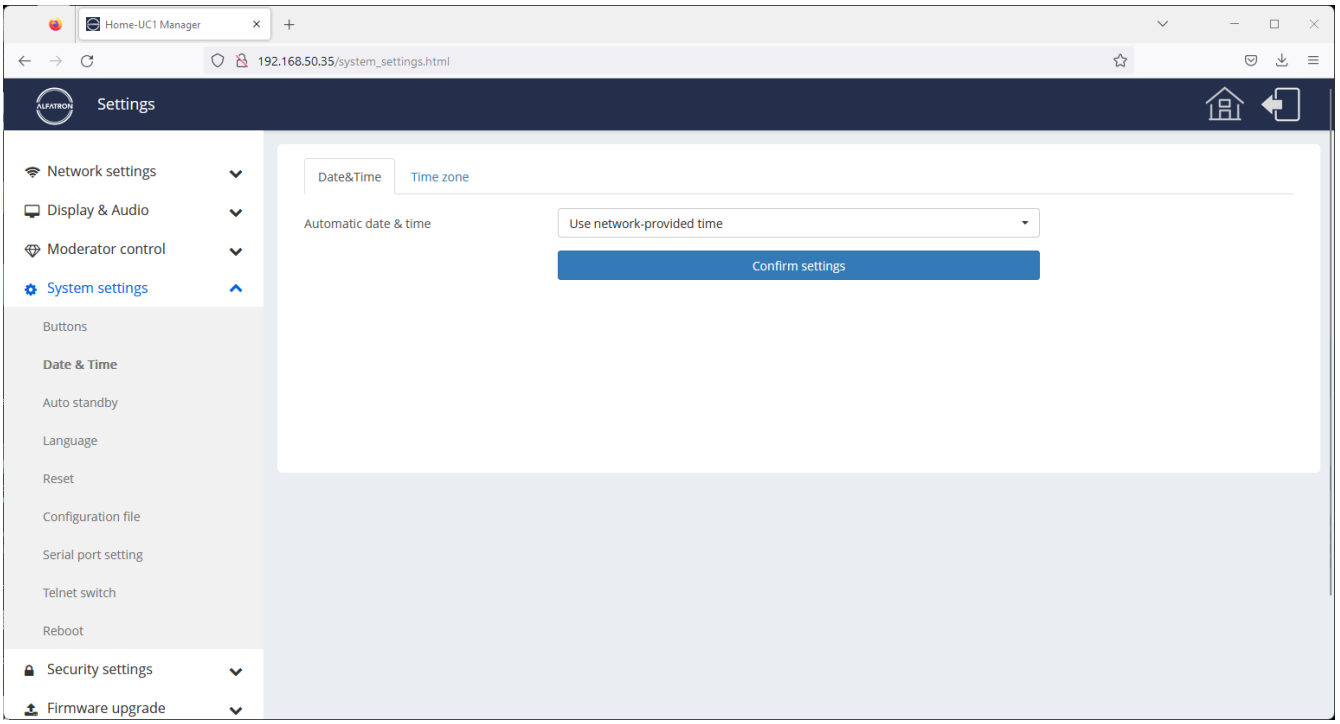
Paired: Show properties of connected dongles, and this can be managed from this page.

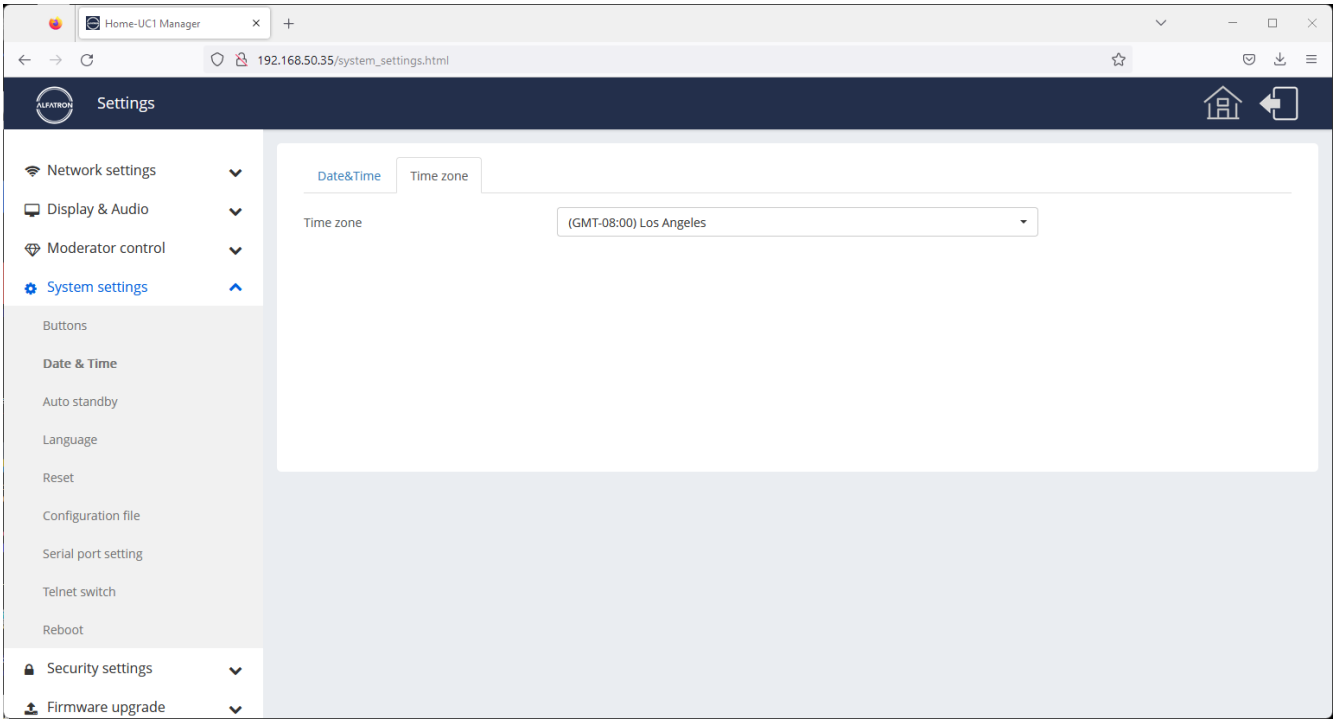


6.4.2 Date & Time

Includes: Automatic date and time, set date, set time, and select time zone.

- **Automatic date & time**: Uses a NTP time server to provide time as the system time.
- **Set date**: Click the input field to fill out the appropriate date.
- **Set time**: Click the input field to fill out the appropriate time manually. The setting is **not** saved, when power is off.
- **Select time zone**: Click the input field to fill out the appropriate time zone.


Home-UC1 Manager
192.168.50.35/system_settings.html
Settings
Network settings
Display & Audio
Moderator control
System settings
Buttons
Date & Time
Auto standby
Language
Reset
Configuration file
Serial port setting
Telnet switch
Reboot
Security settings
Firmware upgrade
Date&Time
Time zone
Automatic date & time
Use network-provided time
Confirm settings

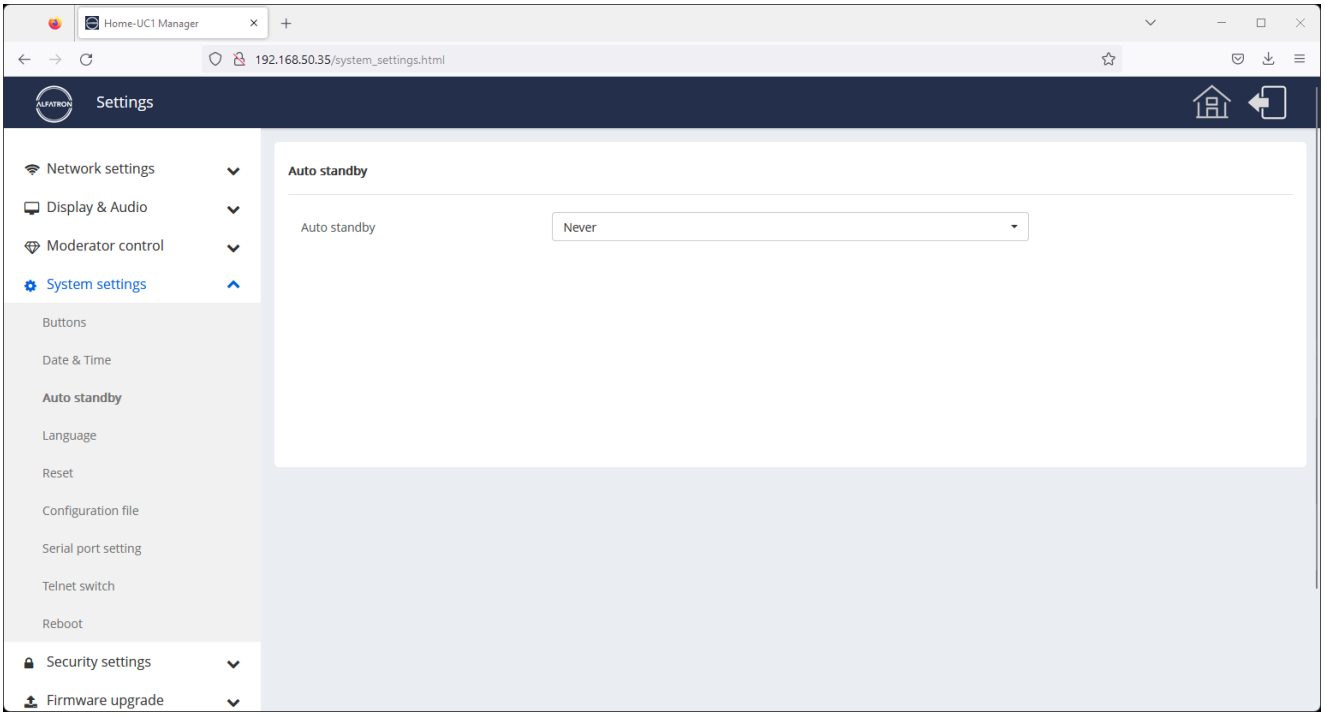


6.4.3 Auto standby

If the "Auto Standby" mode is activated, the ALF-UC1 will automatically switch to power saving mode, a selectable time after the last dongle was plugged out, or Wi-Fi of a mobile unit was disconnected, or there is no operation within the system. Time is selectable from **Never** to **30 minutes**. In Standby, green LED on top of Base-unit flashes and **HDMI-output is switched off**.

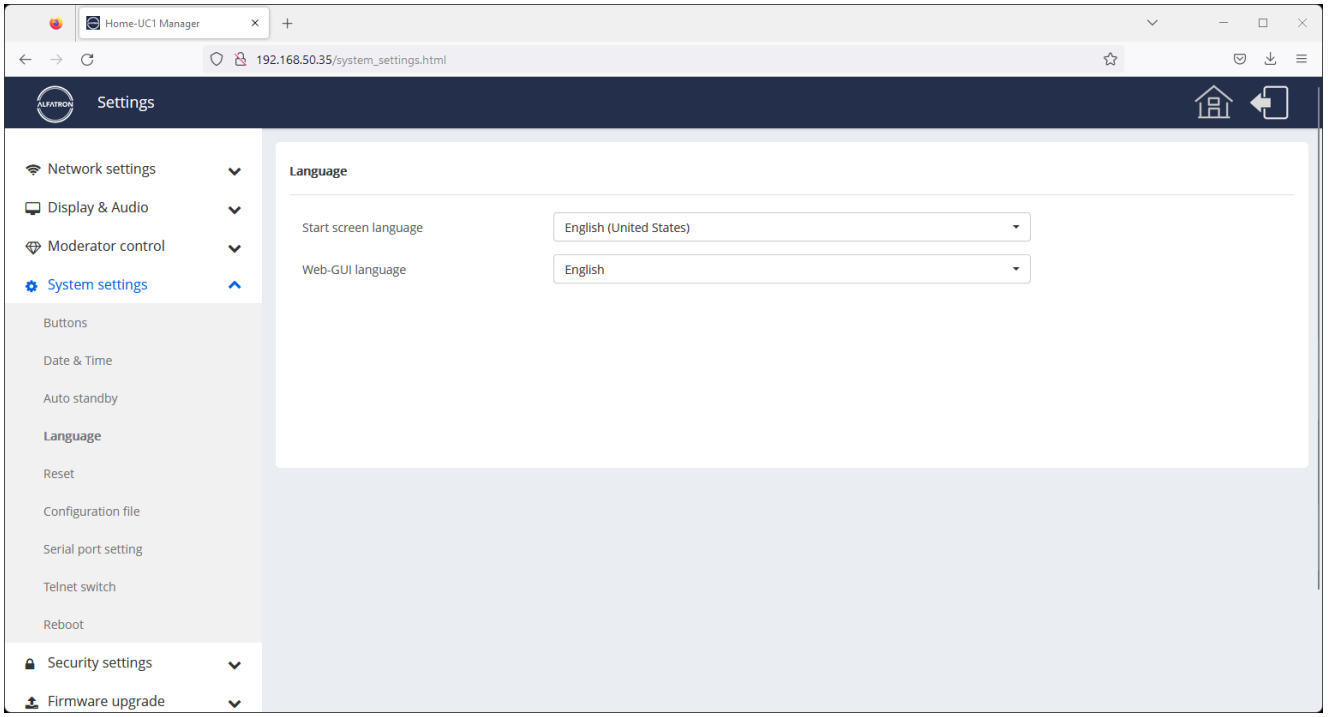
When a **dongle is plugged in and connected**, or a **mobile unit is connected**, Standby is deactivated.

Movement of mouse at USB-input at Base-unit also deactivates Standby mode.



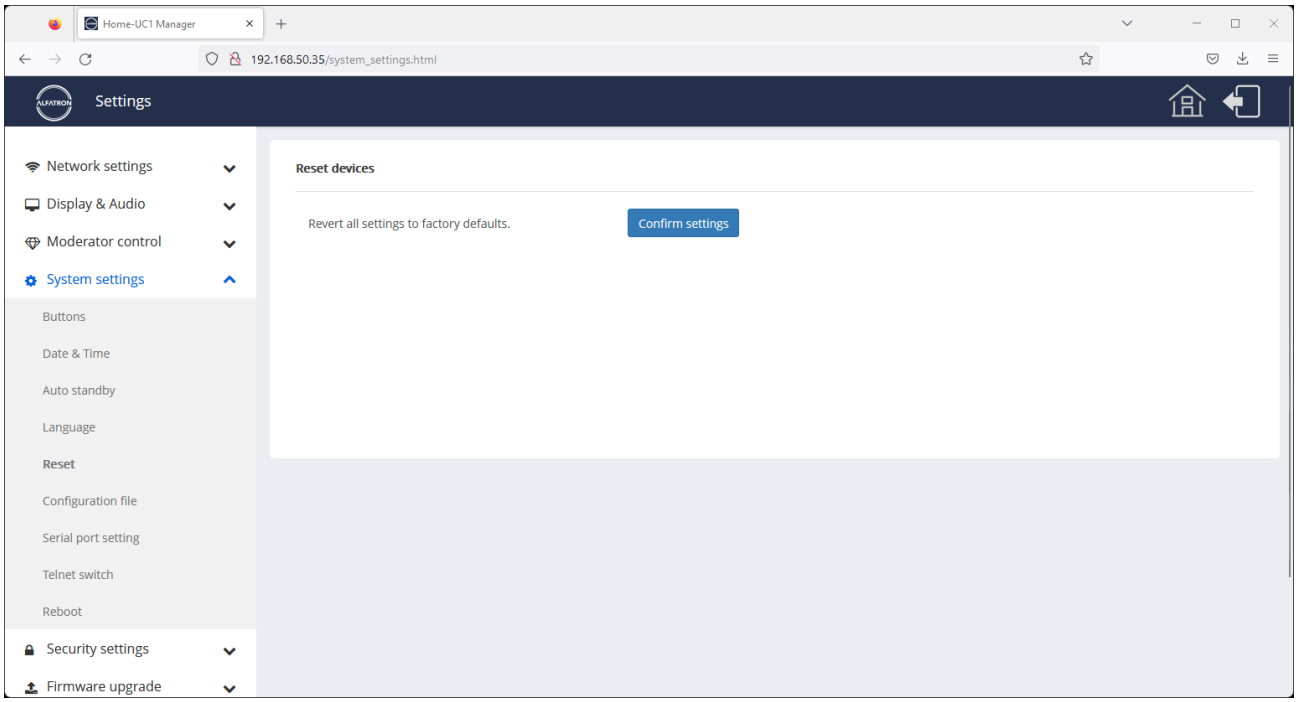
6.4.4 Language

Select a display language:



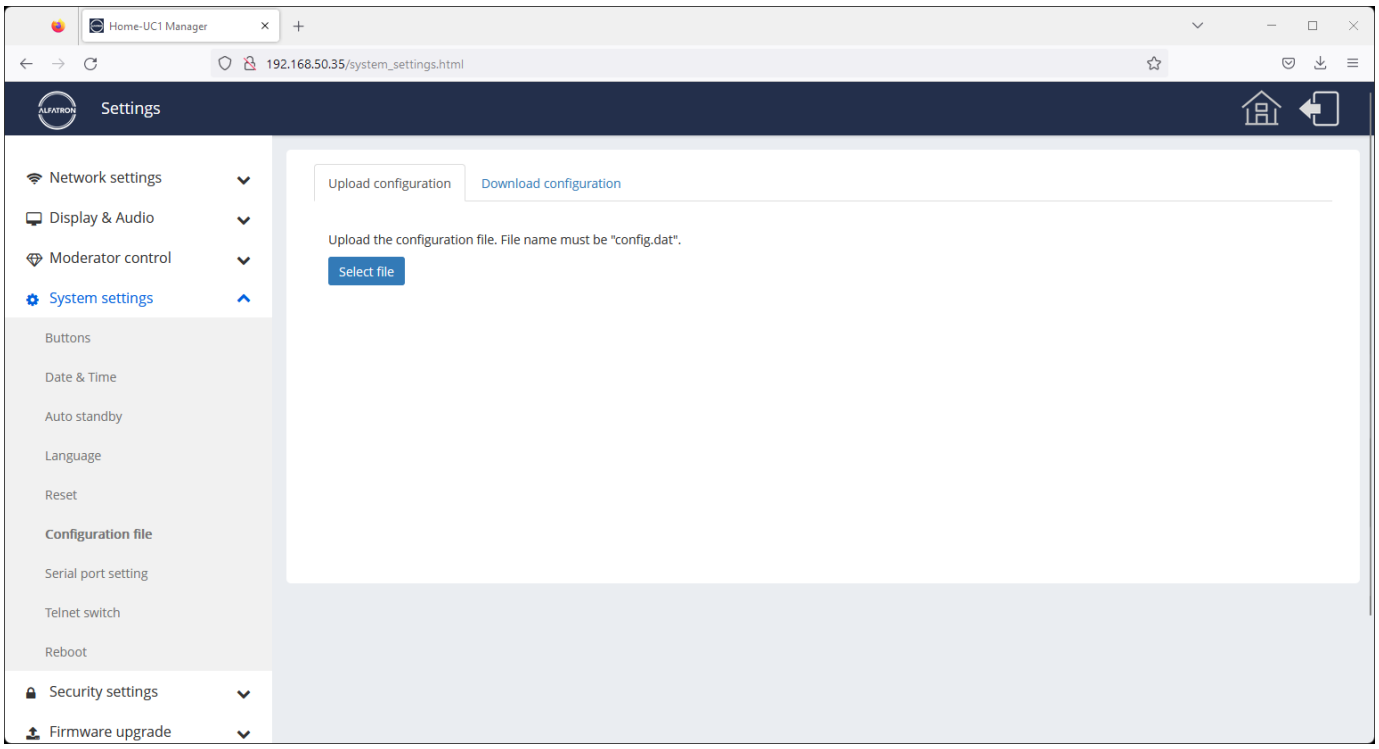
6.4.5 Reset

Doing a factory reset to restore the unit to default:



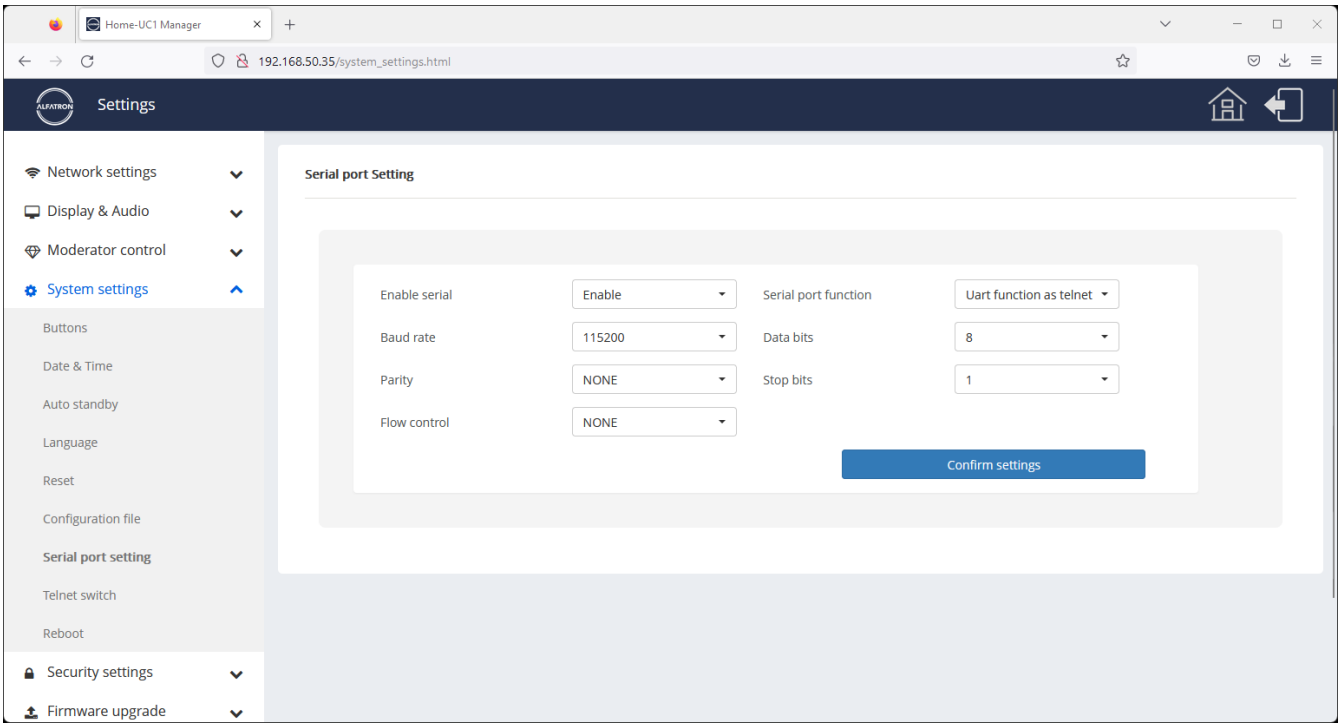
6.4.6 Configuration File

Configuration File is a packaged file which contains all the configuration parameters of the ALF-UC1, which could be downloaded and copied to multiple devices which need to use the same configuration.



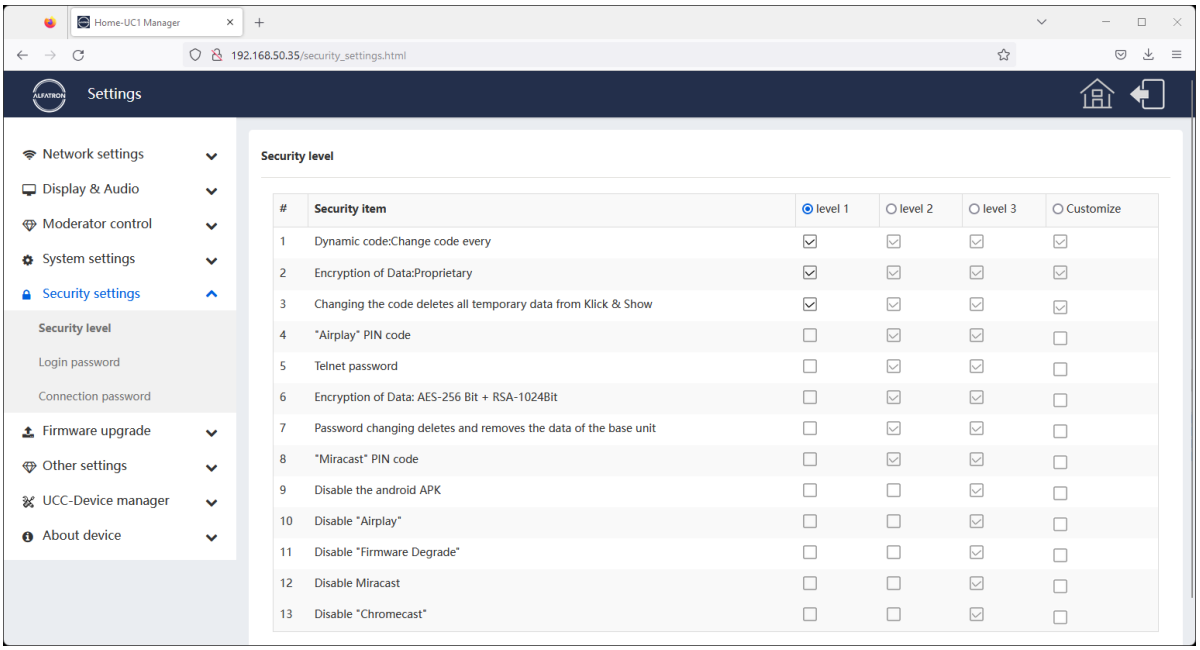
6.4.7 Series Port Setting

Telnet command and RS-232 command configuration:



6.5 Security Settings

6.5.1 Security level



Based on the user requirements, **three different security levels** can be set in the menu of the ALF-UC1, to satisfy various security requirements, according to different security sensitive environments or security policies. A security level is a predefined set of settings. Click on the corresponding entry in the menu should you want to adjust the respective security features. The default setting is level 1.

Level 1: Normal safety; keeps the security as “normal” and daily usage for any organization, such as classrooms, regular meeting rooms etc.

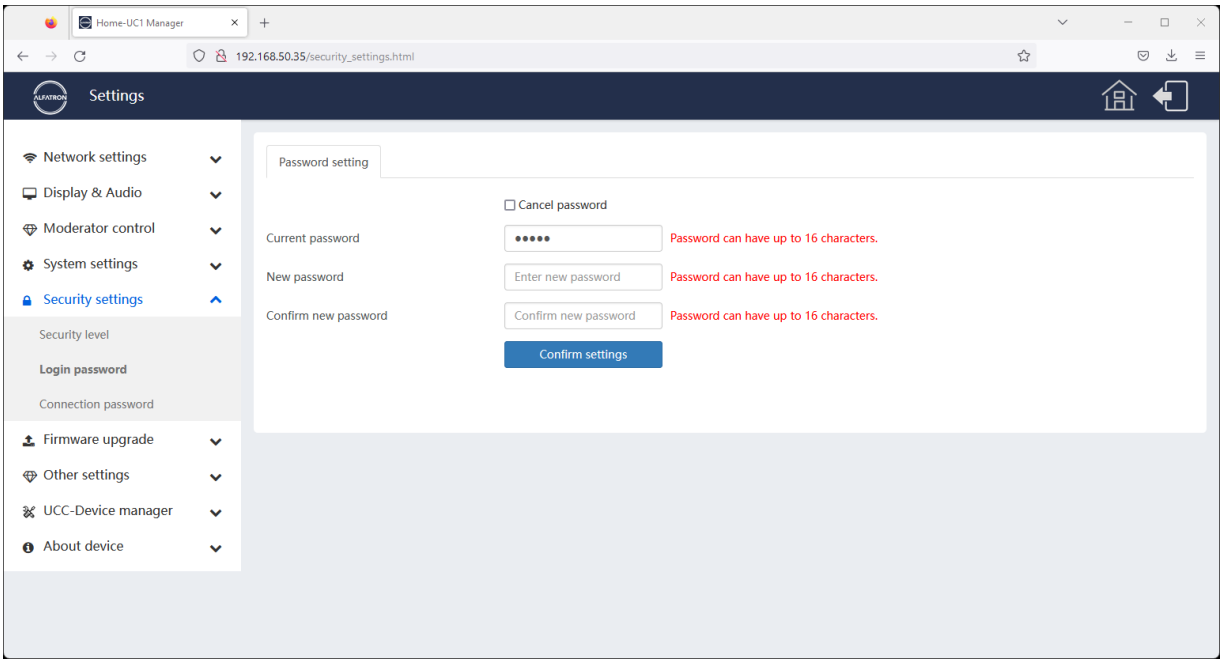
Level 2: Higher security; provides increased security for companies, organizations, government agencies, etc., through powerful encryption of audio and video data; other security features include limiting the transmission of "AirPlay" by introducing a password.

Level 3: Used for strict security requirements in data sensitive companies, organizations, authorities, and banks. This level contains all “Level 2” security measures, and in addition, all mobile applications, such as the Android app as well as AirPlay are blocked, and the web browser (WebUI) of the Base-unit is blocked. In addition, the downgrade of the firmware is not possible.

The setting of the security level is displayed in the home screen, click the icon for more information.

6.5.2 Login Password

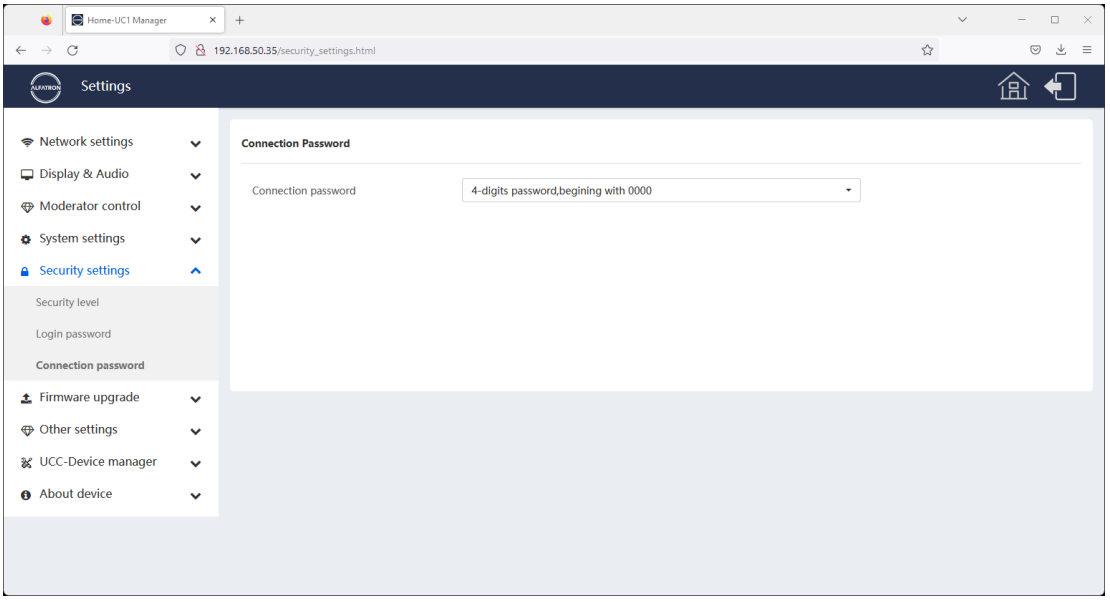
Change admin password by entering the setting menu on webserver. Default password, or after a factory reset, is “admin”. You can change the password as necessary. You can also deactivate the password entry, set the appropriate checkmark and “Confirm settings”.



6.5.3 Connection password

Two types of password format can be chosen to show on home screen:

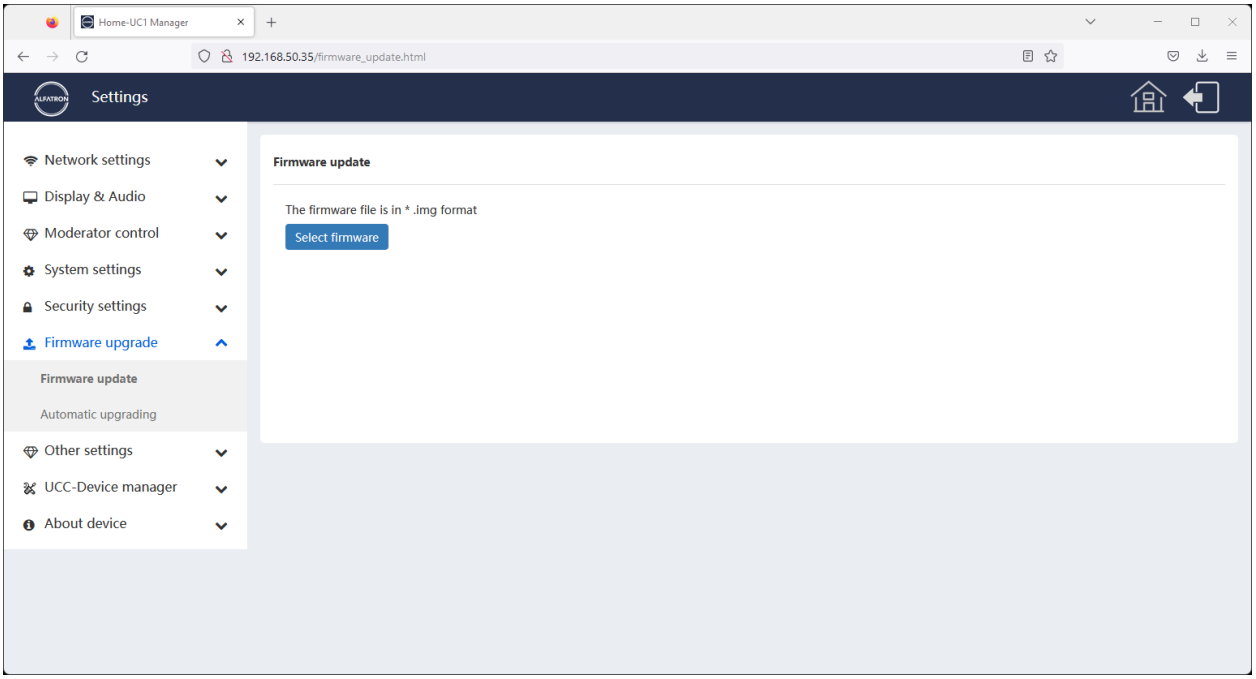
- 4-digits password, beginning with 0000
- 8-digits password



6.6 Firmware upgrade

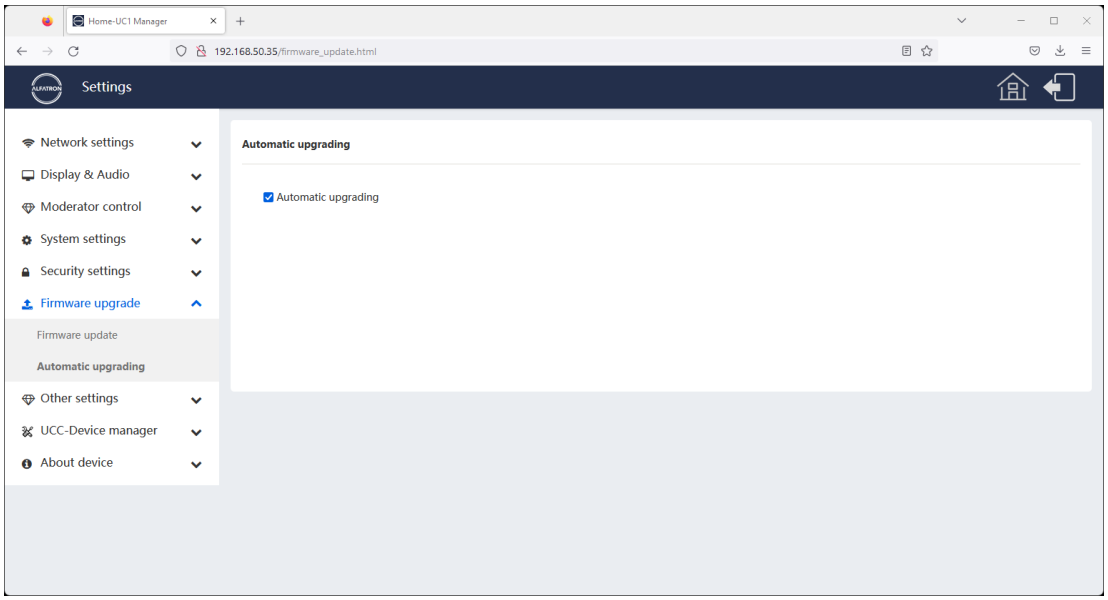
6.6.1 Firmware Update

To upload local updated files to upgrade the base unit.



6.6.2 Automatic Upgrading

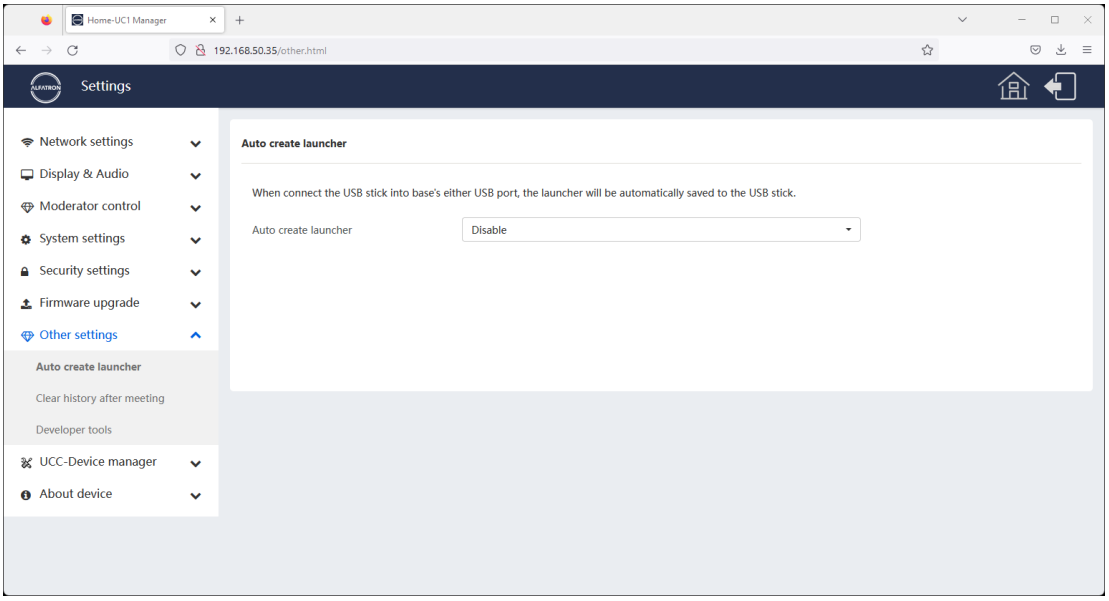
Tick to choose upgrading from OTA via Internet or from local files.



6.7 Other settings

6.7.1 Auto create launcher

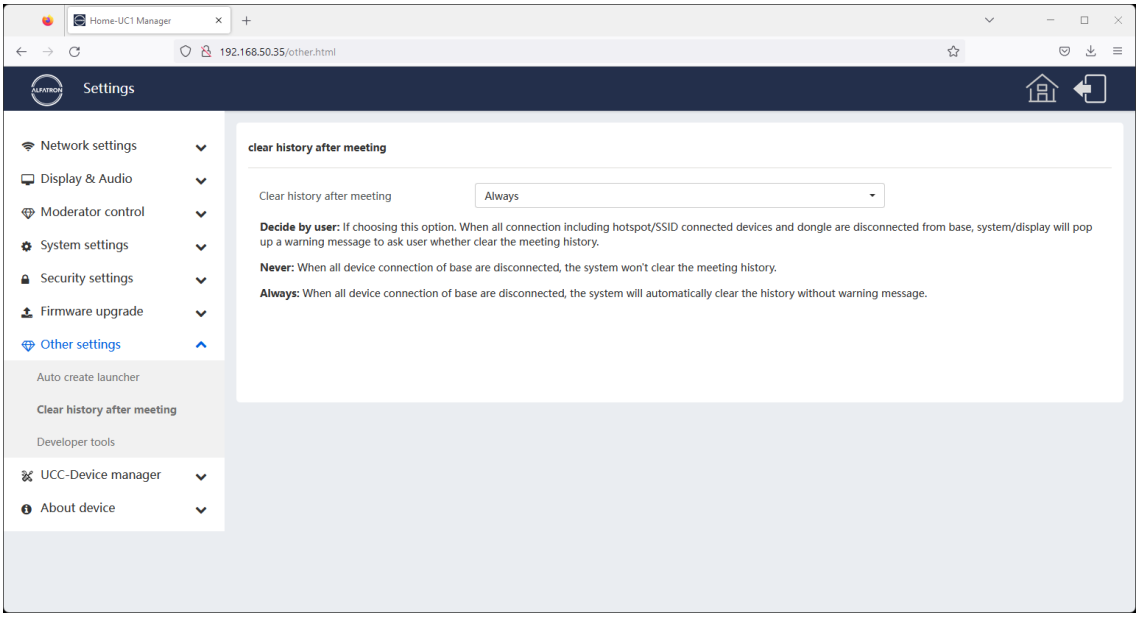
When using a USB drive in one of the USB ports of the Base-unit, the Launcher program “ALF-WirelessMedia” will be copied automatically onto the USB drive. Enable or disable the appropriate box.



6.7.2 Clear history after meeting

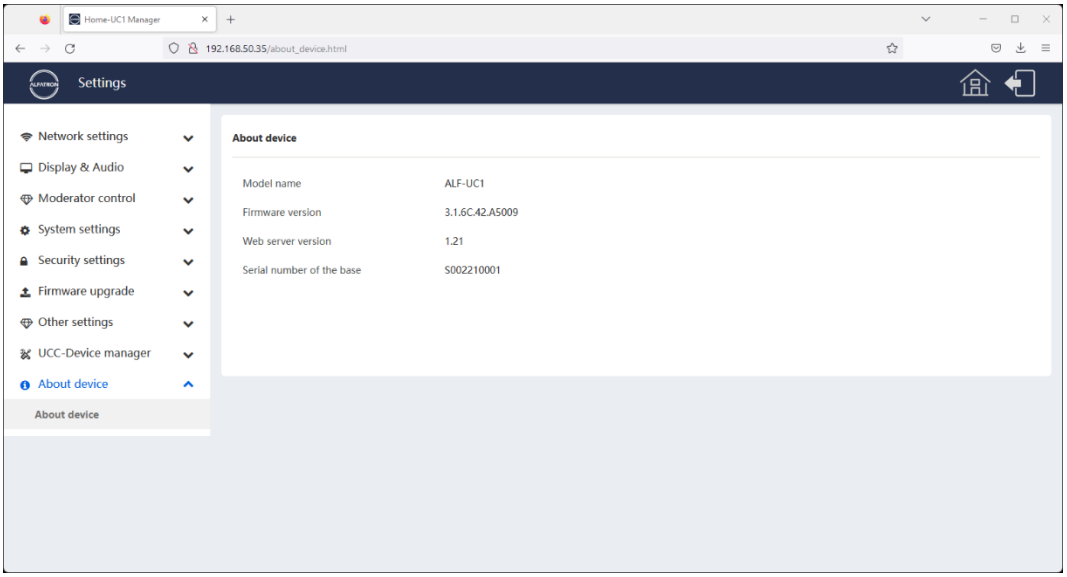
Pictures, videos, and music of mobile units will be stored in the memory of Base-unit. This memory can optionally be erased at the end of a meeting when the dongle is pulled from the Laptop / PC.
Settings are:

Decide by User – A dialog appears when dongle is pulled.
Never – Storage space is automatically erased when memory is filled to 90%
Always – Memory is automatically deleted.



6.8 About device

Check the firmware version of base unit and web server version.



7. Updating the ALF-WirelessMedia

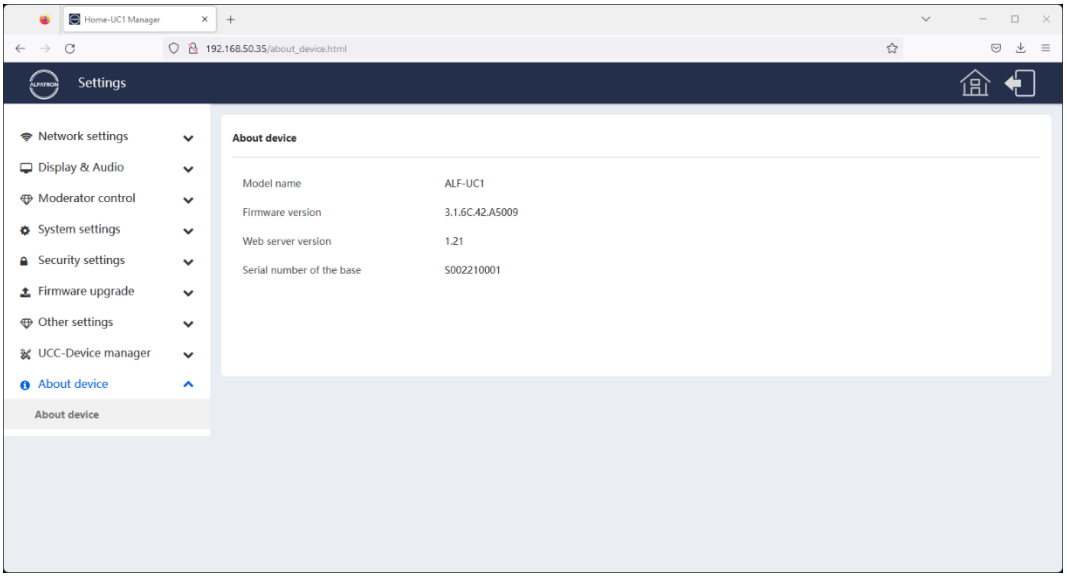
Updating the firmware can be useful to take the advantage of new features of the ALF-WirelessMedia, or to fix known issues and bugs. The ALF-WirelessMedia includes two methods of updating: Updating by USB stick, and webserver.

After updating the Base-unit, always check whether the other peripherals still function as expected or whether they should be updated also.

There are **two different areas** for updating: Firmware of **Base-unit**, Firmware of **dongle** and, **Launcher** for PC / Laptop or MAC "ALF-WirelessMedia.exe". All software is stored on the Base-unit, to be transferred manually to different devices.

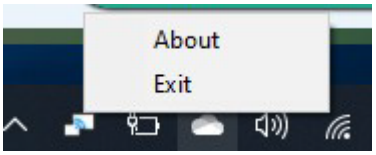
7.1 Check current firmware information

Base-unit: webserver "console" menu / About device.

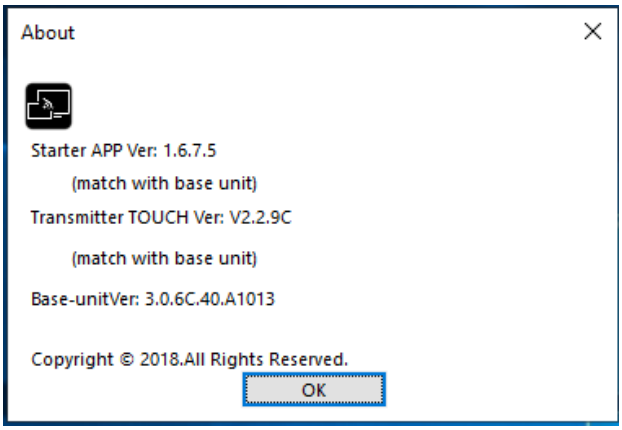


Windows OS:

Dongle / Launcher: Firmware version can be seen in the ""ALF-WirelessMedia".exe" program icon in the Windows statusbar by right-clicking the ""ALF-WirelessMedia"" icon and selecting "About", as shown below:

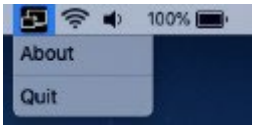


Click “About” to check dongle and launcher program version.



MAC OSX:

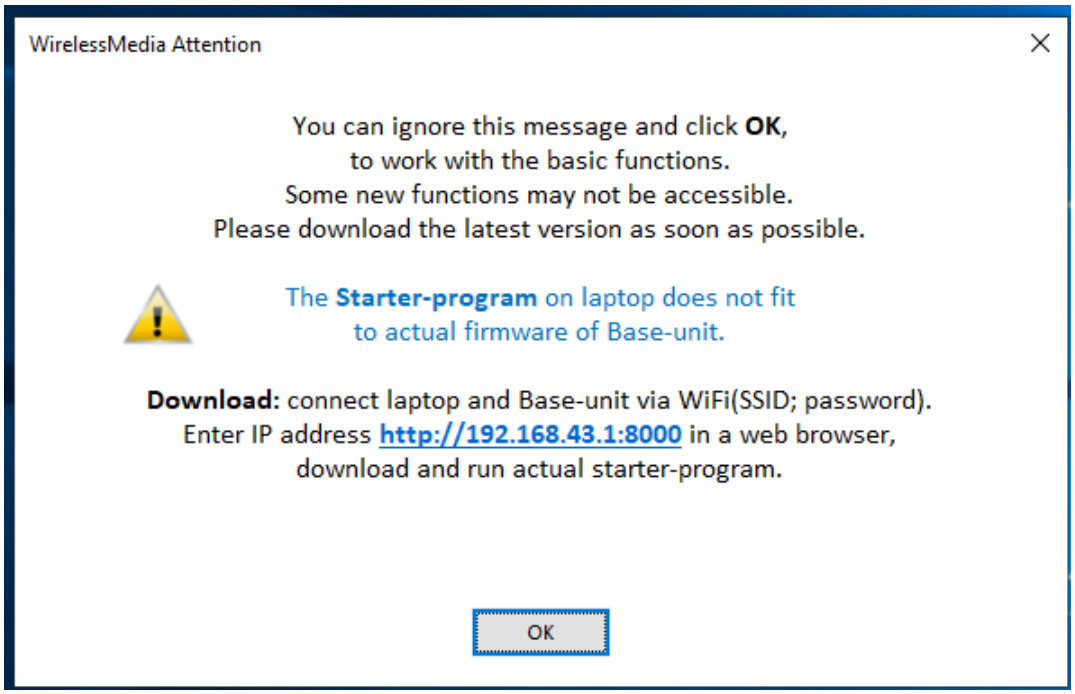
Dongle / Launcher: Firmware version can be seen in the ""ALF-WirelessMedia".app" program icon in MAC OSX statusbar, by clicking the ""ALF-WirelessMedia"" icon and selecting "About", as shown below:

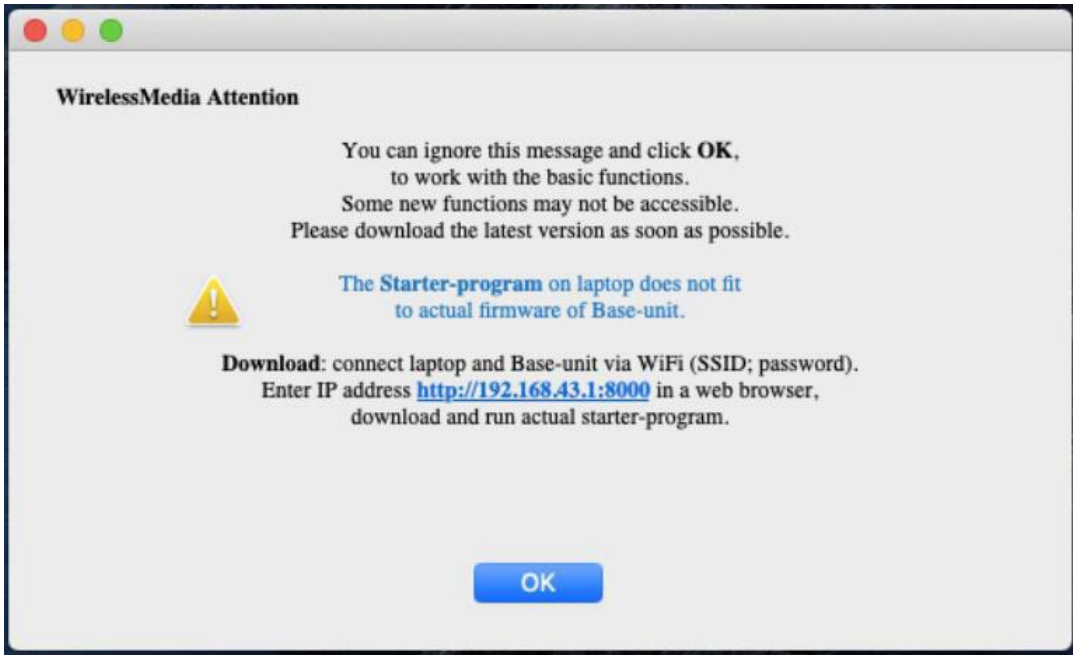


Click "About" to check dongle and launcher program.

Firmware's are NOT matching:

When the dongle or "Launcher" firmware is an older version, or the dongle firmware or "Launcher" firmware does not match the base unit version, it will display a ""WirelessMedia" ATTENTION" alert message box in the window OS or MAC OSX, as below:





When this occurs, follow the steps to update the firmware's, as indicated in the messagebox.

7.2 Upgrading firmware of base unit:

There are two ways to upgrade the base unit, described below:

First method:

The base unit device can be updated via a USB drive:

1. Copy the file “update.img” to the root directory of the USB drive.

2. Connect the USB drive to either USB port of **Base-unit**.

   Note: The USB port can only support a maximum of 500ma. Please use an appropriate power U-disk for upgrading USB drive.

ALF-WirelessMedia recognizes the “**update.img**” file when a USB stick is plugged-in automatically and starts the “FullUpdate” procedure.

You can plug out the USB stick within 10 seconds to stop the update.

Attention !

Do not disconnect power during the upgrading progress, or the units firmware will be corrupted.

3. The upgrade progress is displayed as below, and the unit will reboot automatically after completing the update:

Note: *During the update, the screen can be temporarily dark.*

If the progress bar stops at 1%, use another USB drive as it may be defective.

The display device shows the “Home Screen” after device has booted normally; you can disconnect the USB-drive.

4. Perform a “Factory Reset” after the firmware update is complete?

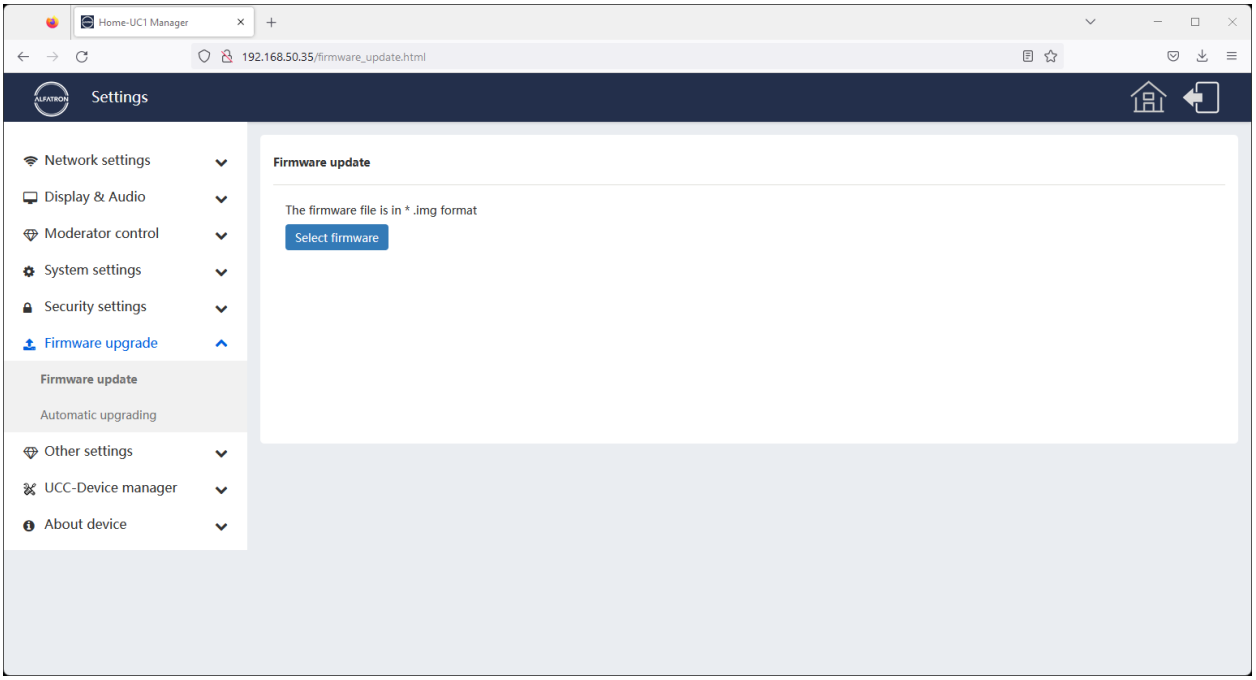
Only when the associated “Release notes” requires an additional “**Factory Reset**“, perform it via the menu “**System settings”** / “**Reset”** on webserver console menu.
All configuration data will be lost, therefore, note all settings within the Sub-menus before doing a Factory Reset.

5. The update of Base-unit is finished.

Second method:

Base unit can be upgraded via the webserver console menu as below:

Select a “update.img” file to upgrade to applicable version.



7.3 Upgrading and Pairing of Dongle:

1. Plug the dongle into either of the two USB ports of ALF-UC1 to be updated. A message will automatically be displayed to indicate if the installed firmware of dongle is older, and needs to be updated.

Note: *Type C USB dongle needs to plug into the Type-C USB port in the front of base unit to upgrade.*

The updating progress automatically starts with the progress bar, as shown below:

2. "**Pairing"** to the Base-unit is done automatically afterwards, it shows as below:

3. Plug out the dongle once the upgrading process is completed. Update all other dongles accordingly.

7.4 Upgrading Launcher:

Attention: The USB driver should be FAT 32 format not NTSC format.

After upgrading the **Base unit** and **Dongle**, the launcher should be written with the actual launcher program for Windows, MAC, and Apps for mobile devices.
There are 2 methods to update the USB drive / launcher:

Method 1: Via a USB drive

1. Connect the USB drive to either USB port of the base unit.

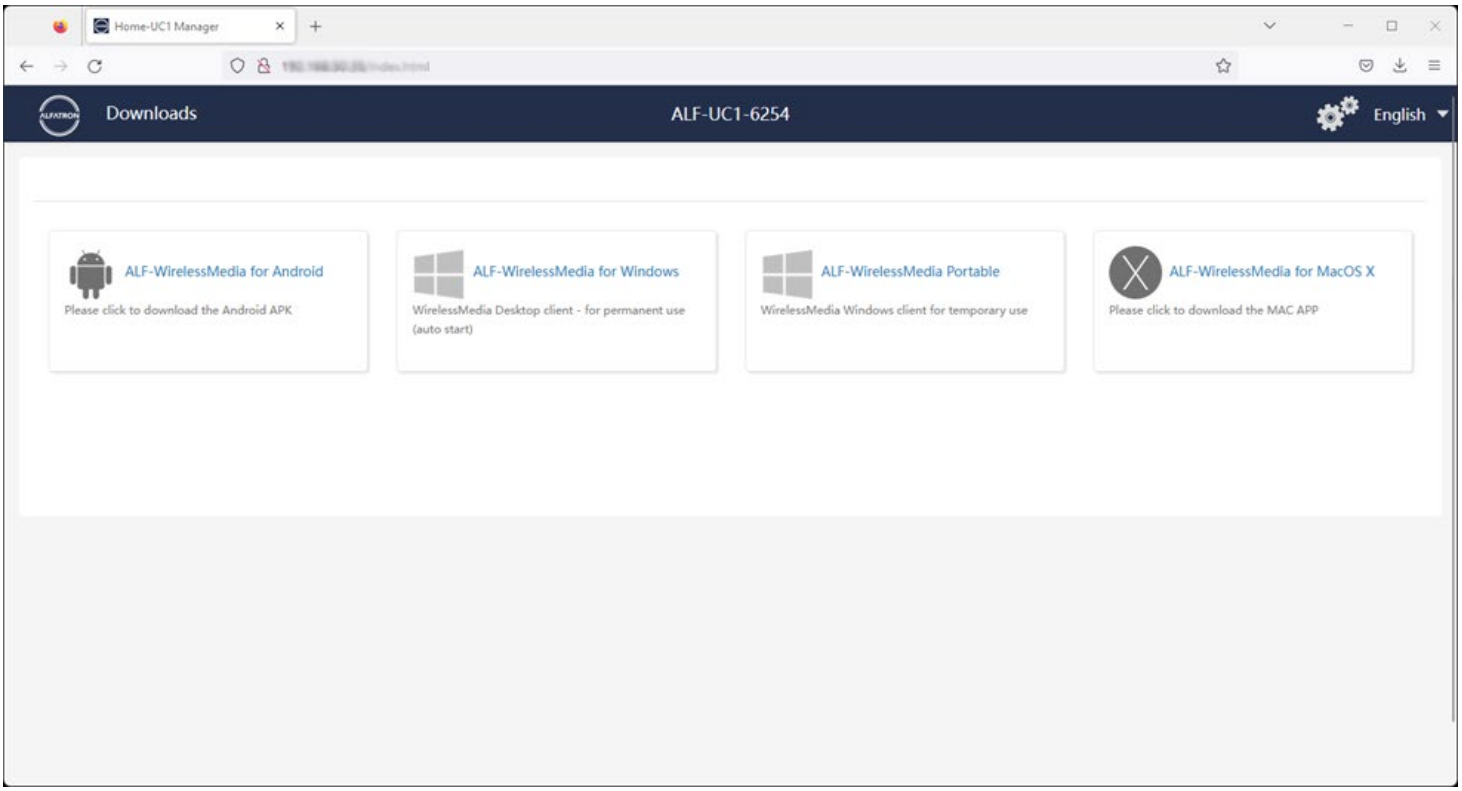
2. Click the "Download" icon within the "Home Page", as below:

3. The Launcher “ALF-WirelessMedia” is written to the USB drive, an OSD-windows shows the progress. When ready, unplug the USB drive.

Method 2: Via Wi-Fi

1. Connect PC to ALF-UC1 SSID and enter the password in the homepage, as below:

2. Open Browser and enter Wi-Fi IP: 192.168.43.1



3. Click to enter “Launcher” download webpage, as displayed below:
4. Choose and click Windows or MAC launcher to download.

5. Find the “Launcher” program in the PC and copy to the PC desktop. Copying to the desktop is recommended for quick launch.

6. Run the program to start sharing.

Two methods to execute the launcher for first time user:

- Copy the program to the PC and click to execute it. This will share the PC screen.
- Connect the dongle to a PC; click to run program from the USB drive and share the PC screen.

For both methods, user doesn't need repeat the above steps for a repeat plug-in.

The Launcher program "ALF-WirelessMedia for Windows" and "ALF-WirelessMedia Pro for Windows" includes, by default, an additional virtual driver "ExtendedDesktop" to optionally install the Windows 10 Extended Desktop functionality, if, and when needed. This may require admin rights.

7.5 Clean files of older versions of Launcher program in Laptop

Older version "ALF-WirelessMedia" files left in the PC may influence the performance of the newer "ALF-WirelessMedia" program. Currently, it is required to manually clear the files, before using the newly updated "ALF-WirelessMedia" firmware's.

Steps:

1. Find the place where the remaining "ALF-WirelessMedia" programs are stored. Normally, these files are stored in the C:\Users**(user name)\AppData\Local\"ALF-WirelessMedia", as shown below.

2. If the "*.service" "*.serviceC3" cannot be removed, and displays the alert message as below, please use combined hot key to open the task manager by pressing "**Ctrl+Alt+Delete**", as shown below:

3. Right-Click on the "*.service" or "*.serviceC3", for example right-click on ALF-WirelessMediaAutoServiceC3.exe" as shown above, and click to End Process.
4. Recheck the task manager to ensure the "ALF-WirelessMedia" program is not still running in the task manager. Also recheck to ensure there isn't any "ALF-WirelessMedia" in the C:\Users***(userame)\AppData\Local\"WirelessMedia".
5. Execute the actual version of the Launcher program.

Upgrading progress is completed.

8. Operation Guide

8.1 Mirroring PC desktop

You can operate the ALF-WirelessMedia for Windows optionally **with** or **without the Dongle.** If there are several participants in a meeting, mixed operation is also possible.

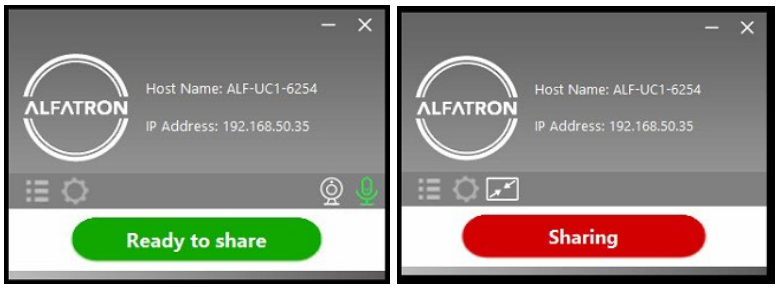
8.1.1 Extended Desktop for Windows 10 and above

The Launcher program "**ALF-WirelessMedia for Windows**" includes by default, an additional virtual driver "**ExtendedDesktop**" to optionally install the Windows 10 and above Extended Desktop functionality if it is needed.

8.1.2 Microsoft Windows PC / Laptop with Dongle

Operating system requirements: Windows 10 and above, 32 and 64 bit.
For first time user, you have to **copy the Launcher program"** ALF-WirelessMedia**" first onto your laptop. Run this Launcher program.**
When the Launcher program is pre-installed and has already run for the first time, plug in the dongle, and continue with step 2.
When Launcher program is not yet installed on PC, refer to chapter 7.4.

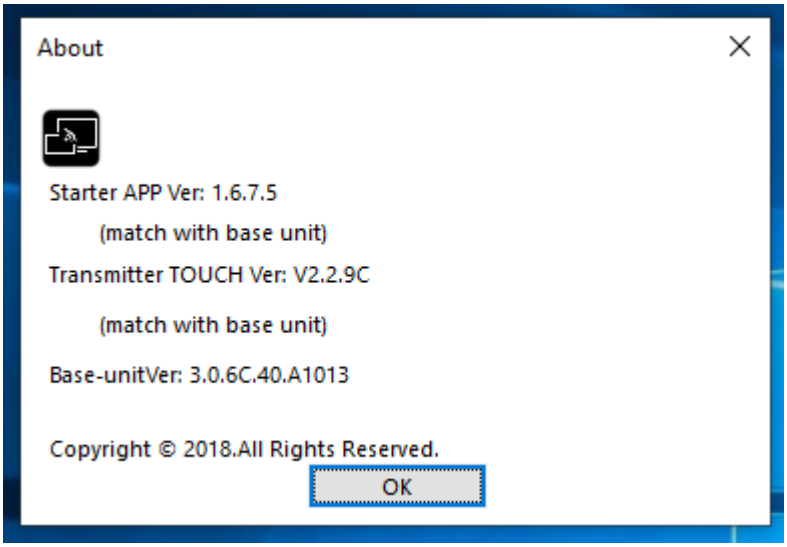
1. Plug a dongle **into the USB port of your PC or Laptop.** The ALF-WirelessMedia application startsautomatically and the symbol is displayed in the task bar of the PC / laptop.
2. When the transmitter button shows a static **green** LED indicator, or until you see a message showing up stating "**Ready to share"**, click the transmission button to start mirroring.



3. Click dongle or the visual button again to stop mirroring, LED or window color shows green again.

Right click the ALF-WirelessMedia status icon in Windows taskbar to open up the **context-menu**.

- "**About**": You can check the software versions of the Base-unit, the dongle, and the launcher program.



- "**Exit"**: End APP. Exiting the App completely.
  If you click the cross "**X**" in the upper right corner of the app, the app in the task bar is only minimized and can be recalled again from the taskbar at any time.

8.1.3 Microsoft Windows PC / Laptop without Dongle

For the first time user, you have to first **copy the Launcher program "ALF-WirelessMedia for Windows" onto your laptop.**

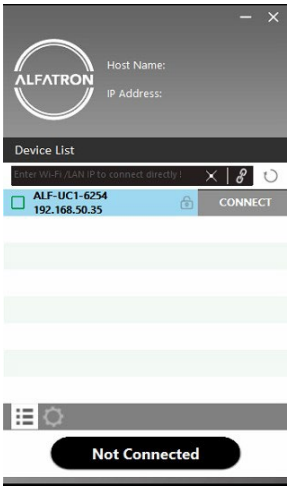
When the Launcher program is already loaded, continue with Step 2.

1. When Launcher program is not yet installed on PC, refer to chapter 7.4.
2. Connect your laptop to **Wi-Fi network displayed on the home screen**, or connect to the **LAN** on the network using a network cable.
3. Double-click the "ALF-**WirelessMedia-windows.exe**" Launcher program, a list of all available "ALF-WirelessMedia" in the **same network** will be displayed and select which device you want to connect to.

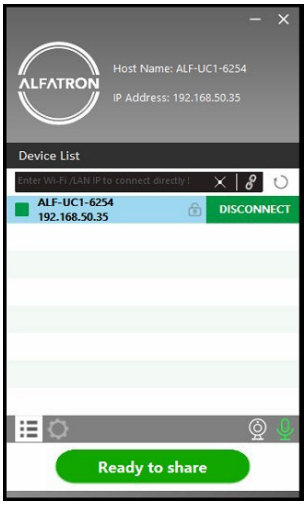
   The connections are password protected (lock icon).

4. Enter base unit password and click "connect", the system is ready to share.

You can also manually connect by entering the name (SSID) or IP address. (Click icon



).Enter the corresponding base unit password, press **'OK'**, then the system is "**Ready to share"**.

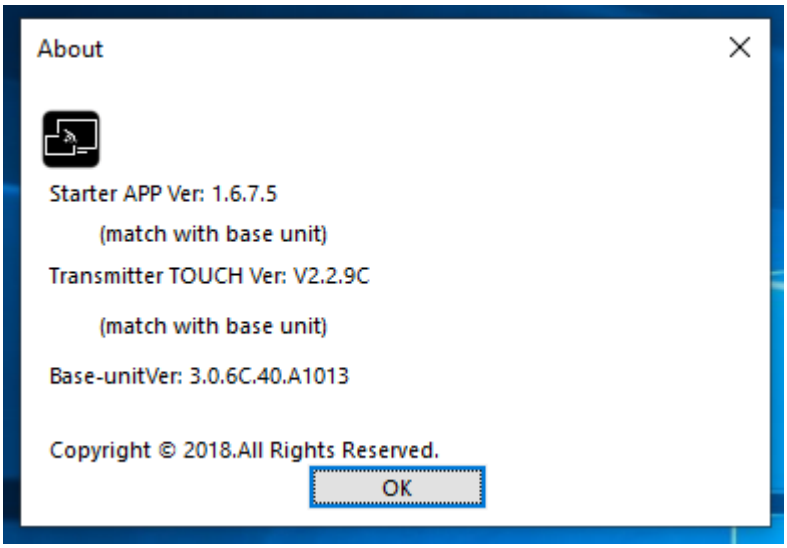


5. Click “Ready to share” when the window color is static red, the screen will then mirror to the main screen.

6. Click the **software button again** to stop mirroring, window color turns green again. You can minimize theAPP-window. In Windows taskbar you can see if screen is being mirrored not.

Right click the ALF-WirelessMedia status icon in Windows taskbar to open up the **context-menu**.

- “**About**”: You can check the software versions of the Base-unit, the dongle, and the launcher program.



- "**Exit"**: End APP. Exiting the App completely.
  If you click the "**close**" button in the upper right corner of the app, the app in the task bar is only minimized and can be recalled again from the taskbar at any time.

8.1.4 Options for Microsoft Windows PC / Laptop – Extended Screen

Click the icon in App to open/close "options".

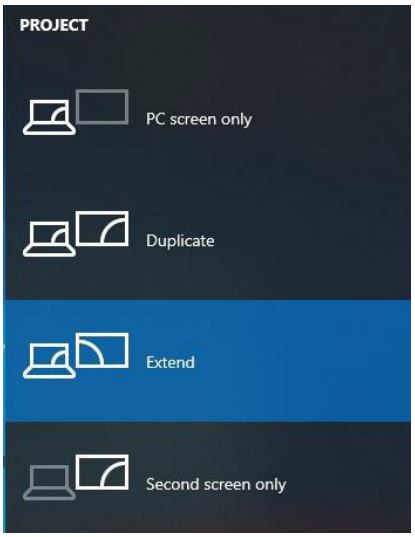
"Options":

- **Extended Screen:**
  Transfers extended desktop of active source. Depending on your operating system, you may require the installation of the virtual driver "**Extended Display"** for function with Windows 10.

  The primary screen (1) is displayed on the laptop, and the virtually extended screen (2) is displayed on the main screen. If the PC has already connected an extended screen (3), the extended screen (2) will always be displayed on the main screen.

  For first time use of "Extended Screen" function, click "Extended Screen", a message will pop out to indicate the installation of the "Extended Display" driver. Click "yes" to continue, once installed, the "Extended screen" function is ready to use.

Note:
If you select the "Extended Screen" feature, Windows automatically switches to "Extended Mode". If you stop the transfer with "ALF-WirelessMedia" (Pause), Windows remains in " Extended Mode" until you press "**Windows key + P**" on the laptop to select the "PC screen only" mode.



- **Keep Aspect Ratio:**
  Keep the original aspect ratio to display on the main screen.

- **Stream Mode:**
  - Fluency Priority: Default
  - Quality Priority: Better quality on video and audio.

- **Low Latency Mouse:**
  The setting is applied individually for PC use only. The shape of the mouse-pointer is equal in shape in the application. There may be a small delay in movement of the cursor (approx. 150 ms). The movement of mouse-pointer is displayed smoothly with **hardly any noticeable delay** (about 20 ms) on the main screen, which significantly improves the operation of the application from the main screen. The look of the mouse pointer is, in all applications, a typical cursor arrow.

- **Volume Slider:**

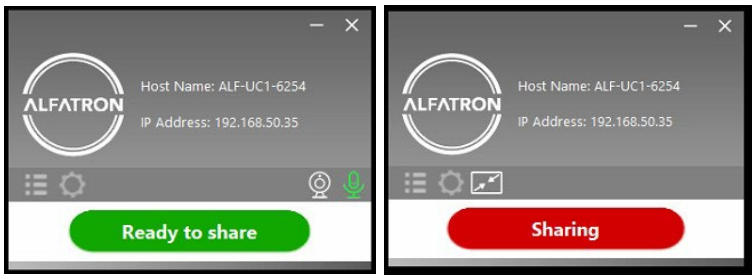
Adjust the playback volume of the main screen when presentation laptop is active.

8.1.5 MAC OS PC/Laptop with Dongle

At least **operation system macOS 10.9 and above** is required.
For first time user, you have to first **copy the Launcher program "ALF-WirelessMedia for MAC" on your laptop.Run this Launcher program.**

When the Launcher program "ALF-WirelessMedia **for MAC**" is already loaded, continue with Step 2.

1. When Launcher program is not yet installed on PC, refer to chapter 7.4.
2. Connect your laptop to **Wi-Fi network displayed on the home screen**, or connect to the **LAN** on the network using a network cable.
3. Plug a dongle **into the USB port of your Macbook.** The ALF-WirelessMedia application starts automaticallyand a symbol is displayed in the dock and in the top menu-bar.
4. When the dongle button shows a static **green** LED indicator, or until you see a message showing up "**Ready to share"**, you can click to start mirroring.



5. Click the dongle or software button again to stop mirroring, LED or window color shows green again. Right click the ALF-WirelessMedia status icon in Windows taskbar to open up the **context- menu**.

- "**About**": You can check the software versions of the Base-unit, the dongle, and the launcher program.

- "**Exit"**: End APP. Exiting the App completely.

  If you click the "**close**" button in the top menu bar of the app, the app is only minimized and can be recalled againin the dock at any time.

6. **Disconnect at the end of the meeting.**

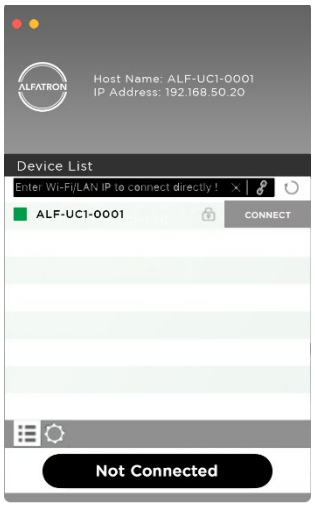
8.1.6 MAC OS PC / Laptop without a Dongle

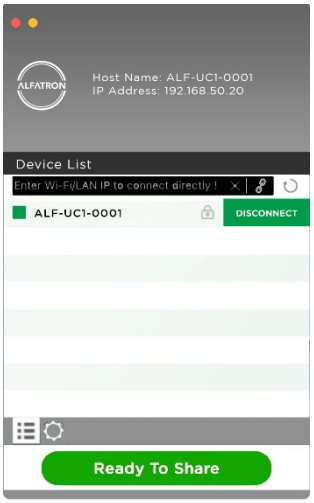
For first time user, you have to first **copy the Launcher program "WirelessMedia for Mac" onto your Mac. When the Launcher program is already loaded, continue with Step 2.**

1. When Launcher program "**WirelessMedia-macOS.app"** is not yet installed on PC, refer to chapter 7.4.
2. Connect your Mac to a **Wi-Fi network displayed on the home screen**, or connect to the **LAN** on the network using a network cable.
3. Double-click the "**WirelessMedia for Mac**" Launcher program , a list of all available "WirelessMedia"in the **same network** will be displayed, select which device you want to connect to. The connections are password protected (lock icon).

4. Enter base unit password and click "connect", the system is then "Ready to share".

You can also manually connect by entering the name (SSID), or IP address. (Click icon).Enter the





corresponding base unit password, press **'OK'**, the system is then "**Ready to share"**.

5. Click the software button "Ready to share" in Mac, when window color is static red, the screen is mirroring tothe main screen.

6. Click the **software button again**, to stop mirroring, window color shows green again. You can minimize theAPP-window, in the top menu-bar you can see if the screen is mirroring not.

Right click the WirelessMedia status icon in the top menu-bar to open up the **context-menu**.

- "**About**": You can check the software versions of the Base-unit, the dongle, and the launcher program.

- "**Exit"**: End APP. Exiting the App completely.
  If you click the "**close**" in the menu bar of the app, the app in the top menu-bar is only minimized, and canbe recalled again from the top menu-bar at any time.

8.1.7 Options for Apple MacOS, MacBook – Extended Screen

Click the icon in App to open / close “options”.

“Options”:

- **Extended Screen:**
  Transmits the Extended desktop (“Use a Separate Display”) **only via AirPlay**, when activated for Display on WirelessMedia.

- **Keep Aspect Ratio:**
  Keep the original aspect ratio to display on the main screen.

- **Low Latency Mouse:**
  The setting is applied individually for PC use only. The shape of the mouse-pointer is equal in shape in the application. There may be a small delay in movement of the cursor (approx. 150 ms). The movement of mouse-pointer is displayed smoothly with **hardly any noticeable delay** (about 20 ms) on the main screen, which significantly improves the operation of the application from the main screen. The look of the mouse pointer is, in all applications, a typical cursor arrow.
- **Stream Mode:**
  - Fluency Priority: Default
  - Quality Priority: Better quality on video and audio.

8.2 Transmitting IOS mobile device

8.2.1 How to use AirPlay?

AirPlay: WirelessMedia Base Unit supports "Airplay", which enables mirroring the desktop of your Apple device such as iPhone, iPad etc. onto the main screen.
(Note: iOS devices must first be connected to the Wi-Fi of "WirelessMedia").

Please open the control center on the desktop, click the airplay icon on your Apply device and select the receiver device to connect. Now you can mirror your screen content wirelessly through to the base unit to the main screen.

8.3 Transmit Android device wireless

8.3.1 "WirelessMedia" Apk for Android

1. Open the "WirelessMedia" application.

Note: Must allow permission to access photos, and pictures when installing.

2. Connect your mobile device to one of the displayed Wi-Fi networks.

3. The main interface of "WirelessMedia" is shown as below. Click the device list refresh button Dropdown refresh, which is highlighted in red circles as shown below:

4. Select the base unit you want to connect to, enter the password and mirror.
5. When sharing to the main screen, it displays OSD “Welcome ***” on the home page. For example, if we connect to it by a PC or Mac, it shows a “Welcome (Username or PC Name)” on screen, as shown below.
6. Now you can mirror the screen of your mobile.
7. Click the “Share Screen” button again to stop mirroring.

Click “my device” to check the device status and firmware version.

9. WIFI Recommendation Setting

9.1 Check the WIFI configuration on the base unit

Please use Wi-Fi analysis software to check the Wi-Fi environment, in order to select clean or unused WIFI between the 2.4GHz and 5Hz frequency. Wi-Fi channel as below:
2.4GHz: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
5GHz: 36, 40,44, 48,149, 153, 157, 161

9.2 Check the Wi-Fi RSSI on dongle or Mobiles

Please use a Wi-Fi analysis software to measure the WIFI RSSI (Received Signal Strength Indicator). We recommend that the RSSI should be above -70dB to be strong enough to keep a stable signal transmission. If not, follow the trouble shooting guide---*Bad wireless connection* congestion.

10. Trouble Shooting

Below are remedies to potential trouble shooting issues you may experience while using the "WirelessMedia".

Problem	Cause	Solution
While using the "WirelessMedia for Android" or Airplay for IOS, the base unit is not discoverable.	WIFI password of base unit changed when android or IOS device is connected to the Wi-Fi of the base unit.	Reconnect the mobile by entering password showed on the home screen.
The image quality on the main display screen is poor.	The quality or length of the cable between the Base Unit and the display is insufficient or the connection between these two is faulty.	• Replace the cable • Use a high-quality cable. • Ensure the cable connection is secured properly.
Improper resolution for the main screen.	ALF-UC1 could not output: 3840x2160_60Hz, 3840x2160_50Hz 3840x2160_30Hz, 1920x1080_60Hz, 1920x1080_50Hz, 1920x1080_30Hz	• Change the resolution within the setting configuration. Match it to the native resolution of the main screen. See chapter 7.

Bad wireless connection. The connection between the transmitter and the base unit is not stable.	Wi-Fi problems. ● Interference in the radio channel. ● Overload in the radio channel. "WirelessMedia" does not automatically jump to other channels when there are changes in the RF environment.	● Use a Wi-FI scanner to find a available wireless frequencies and channels, and select it via the setting configuration. ● Regularly check the RF environment if there are frequently changes in Wi-Fi networks in your environment.
Low signal strength.	● Metal cabinets, walls, construction elements, ...can cause reflections deteriorating the wireless signal. ● Obstacles between dongles and Base unit cause loweringof the wireless strength and quality.	● Put the base unit closer to the main screen. ● Change the orientation of the antennas at the rear panel of base unit to the transmitter direction. ● Remove or limit as much as possible all obstructions between the transmitters and base unit. ● Avoid placing the Base-unit in (metal) cabinets, suspended ceilings, under tables or in adjoining rooms.
Cannot get the "WirelessMedia" to run when plugging in the dongle into the laptop	● When you are using "WirelessMedia" for the first time on your laptop or for guests, you have to copy the Launcher program "**WirelessMedia windows. Exe"** or "**WirelessMedia macOS. app"** onto your Laptop / PC. Run this Starter-program. You can run the Starter App without Admin-rights.	There are 2 possibilities to load the Launcher program, see chapter **7.4.** Best is to download the App **via LAN or Wi-Fi of Base-unit.** When the Launcher program is preinstalled initially, the "WirelessMedia" is ready to use immediately.
No display	● Bad connection at USB port on the laptop	● Reconnect to the USB port ● Try another USB port ● Reboot the laptop

USB not responding	• Some types of USB devices might be blocked as per the company policy. • USB port setting on the lap-top might limit the usage of high-power USB devices when on battery power.	If possible, change the USB port policy on the laptop
Low video performance (sharpness, audio and video dropouts, video stream is glitching)	• The media-player is not ideal. • The video quality also depends on the computing power of the PC / laptop and CPU load with other running software applications. • A laptop in battery mode can be switched to reduced computer power, to save energy. The transmission of HD video requires a certain amount of CPU power to guarantee the optimum quality of the transmission.	• Use another media-player (VLC player), or another browser. • Update the software of your Video-player to the latest version. • Reduce the CPU usage of other software applications. • Lower the screen resolution of the laptop. • Update the driver of graphic-card. End low power mode at laptop
Video is not displayed on screen	The content uses HDCP	• WirelessMedia input can't support showing HDCP source. If possible, connect the source device to local HDMI input at base unit.
	The display cable (HDMI) is not correctly connected.	• Insert the display cable to the display and the Base-unit.
	The display is switched off.	• Switch on the display.
	The Base-unit is in **standby** mode, "Power-LED" is flashing at Base unit.	• Power off and on again or insert a dongle into laptop.
When using Windows 7, the following message about the Window Aero color scheme appears "Windows has detected your computer's performance is slow. This could be because there are not enough resources to run the windows Aero color scheme. To improve… "	WirelessMedia uses resources from the GPU. In combination with other programs which do so, Windows 7 sometimes shows this message suggesting to disable Aero to improve the performance of the laptop.	• It's safe to ignore this message and choose "Keep the current color scheme."

Your content is removed from the display and the LEDs on the button are blinking.	Connection to the Base Unit is lost.	WirelessMedia tries to restore the connection automatically. If it fails, the LEDs on the button start blinking red. Unplug the button from your lap-top and try a new button.
Nothing is shown on the displays at all	The displays are switched off.	Switch on the display
	The display cable is not correctly connected	Insert the display cable into the display and the Base Unit
	The Base Unit is in standby mode	Briefly push the standby button on the Base Unit or power off, and on again.
No LAN connection with the Base Unit	Wrong IP address	IP address is not within LAN range
		DHCP is not enabled.
No Wi-Fi connection between mobile device and Base Unit	Wrong Wi-Fi frequency	Check mobile device to select the correct 2.4GHz or 5GHz
	Wrong SSID and password	Enter the correct SSID
No audio when transmitting local files to the Base Unit	Unsupported audio format, including Dolby MS11, DDCO DTSLBR, DTSE, DTSNeoUltra, SRS-THEATERSOUND, DTS_StudioSound3D, DTS_HD,	If possible, reformat the file to other audio format, such as DD, DD+, HE- AAC, DTS DMP, WMA, DRA, COOK
There is no sound at main display.	No connected audio device.	Make sure the audio is turned on.
	Volume is set to OFF.	Adjust level in menu configuration WirelessMedia console within webserver settings.
	The volume level is set to low in the options of the "WirelessMedia" Launcher program on the PC.	Adjust the volume in the "WirelessMedia" Launcher program on the PC.
	Audio signal may be muted.	Click with right-mouse button at speaker icon within the task-bar and switch on.
	The volume level is set too low.	Adjust the volume level in Options menu of WirelessMedia.
	Audio is muted in mixer of volume in taskbar.	Right-click at speaker icon in the taskbar, open mixer and unmute "WirelessMedia" or "Video Playback".
	The software of Video-player is not up to date.	Update Video-player. Try another player.

	An active virus scanner can block the Audio.	Check the filter-settings in Virus scanner. De-activate the player to check.
There is no sound via AirPlay.	The volume is set too low on the mobile device.	Increase the volume on the mobile device.
There is no sound from the main screen when mirroring a video via the **App "WirelessMedia for Android ".**	Due to the limit of the Android system, Android doesn't provide an interface to capture the audio. In this case, there is no sound when mirroring the video.	Use dongle or Apple Airplay to do mirroring when necessary.
Can't update firmware of the base unit.	Flash disk format is NTFS	Re-format the flash disk to be in FAT format to update it.
Can't work airplay with Macbook / Iphone / iPad.	Operation System requires Mac OS 10.9 IOS 8.0 and later (WirelessMedia app)	● To use AirPlay, you must connect the iOS device to the Wi-Fi of WirelessMedia and enable the AirPlay feature in the Control Center. ● Update the iOS device to a newer operating system.
Poor Video-quality with **AirPlay**.	There are 2 states for AirPlay: a.) Mirroring: 1: 1 copy of the screen b.) Streaming: Videos (Internet, Youtube); the image will not be displayed on the iOS device.	Reduce "Quality! In settings of Youtube, for example from "Automatic" to 720p.
Can't work with Android device?	Operation System requires Android 2.3 and later (WirelessMedia app)	Update to the latest OS

1. Limited warranty

1.1 This limited warranty covers defects in materials and workmanship in this product.

1.2 Should warranty service be required, proof of purchase must be presented to the Company. The serial number on the product must be clearly visible and not have been tampered with in any way whatsoever.

1.3 This limited warranty does not cover any damage, deterioration or malfunction resulting from any alteration, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to excess moisture, fire, improper packing, and shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by the Company to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product. This limited warranty does not cover equipment enclosures, cables or accessories used in conjunction with this product.

This limited warranty does not cover the cost of normal maintenance. Failure of the product due to insufficient or improper maintenance is not covered.

1.4 The Company does not warrant that the product covered hereby, including, without limitation, the technology and/or integrated circuit(s) included in the product, will not become obsolete or that such items are or will remain compatible with any other product or technology with which the product may be used.

1.5 Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.

1.6 Unless otherwise specified, the goods are warranted in accordance with the manufacturer's product specific warranties against any defect attributable to faulty workmanship or materials, fair wear and tear being excluded.

1.7 This limited warranty only covers the cost of faulty goods and does not include the cost of labour and travel to return the goods to the Company's premises.

1.8 In the event of any improper maintenance, repair or service being carried out by any third persons during the warranty period without the Company's written authorization, the limited warranty shall be void.

1.9 A 7 (seven) year limited warranty is given on the aforesaid product where used correctly according to the Company's instructions, and only with the use of the Company's components.

1.10 The Company will, at its sole option, provide one of the following three remedies to whatever extent it shall deem necessary to satisfy a proper claim under this limited warranty:

1.10.1 Elect to repair or facilitate the repair of any defective parts within a reasonable period of time, free of any charge for the necessary parts and labour to complete the repair and restore this product to its proper operating condition.; or

1.10.2 Replace this product with a direct replacement or with a similar product deemed by the Company to perform substantially the same function as the original product; or

1.10.3 Issue a refund of the original purchase price less depreciation to be determined based on the age of the product at the time remedy is sought under this limited warranty.

1.11 The Company is not obligated to provide the Customer with a substitute unit during the limited warranty period or at any time thereafter.

1.12 If this product is returned to the Company this product must be insured during shipment, with the insurance and shipping charges prepaid by the Customer. If this product is returned uninsured, the Customer assumes all risks of loss or damage during shipment. The Company will not be responsible for any costs related to the removal or reinstallation of this product from or to any installation. The Company will not be responsible for any costs related to any setting up this product, any adjustment of user controls or any programming required for a specific installation of this product.

1.13 Please be aware that the Company's products and components have not been tested with competitor's products and therefore the Company cannot warrant products and/or components used in conjunction with competitor's products.

1.14 The appropriateness of the goods for the purpose intended is only warranted to the extent that the goods are used in accordance with the Company's installation, classification, and usage instructions.

1.15 Any claim by the Customer which is based on any defect in the quality or condition of the goods or their failure to correspond with specification shall be notified in writing to the Company within 7 days of delivery or, where the defect or failure was not apparent on reasonable inspection by the Customer, within a reasonable time after discovery of the defect or failure, but, in any event, within 6 months of delivery.

1.16 If delivery is not refused, and the Customer does not notify the Company accordingly, the Customer may not reject the goods and the Company shall have no liability and the Customer shall pay the price as if the goods had been delivered in accordance with the Agreement.

1.17 THE MAXIMUM LIABILITY OF THE COMPANY UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT.