

ASTROS Station User Manual

AS-201 / AS-101

V4.0



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1 ASTROS Station Introduction

ASTROS wireless presentation solution enables users to experience modern ways of communication with Astrogate's advanced network-based wireless AV distribution technology. Cross-platform ASTROS Apps and our native mirroring protocol supported allow users to present contents from various devices with existing network infrastructure. ASTROS also offers collaboration features that work seamlessly with touch displays to further increase the efficiency of communication and stimulate creativity.

ASTROS Station Key features highlight

Reliable ASTROS BYOM

- Easily host or join a video conference using your preferred tool directly from your laptop.
- Seamlessly connects the meeting host with the room Display & VC peripherals wirelessly on Zoom, Teams or Meet

High performance wireless presentation

- 4K full screen or 2K split-screen wireless presentation
- 4K video output

Screen sharing and advanced features by cross-platform ASTROS Apps

- BYOD: support Windows, macOS, Chrome OS, iOS, and Android
- Native mirroring: AirPlay mirroring, Google Cast and Browser Sharing
- Window Sharing: choose to share entire screen or selected application window on Windows and macOS
- Remote View: view and save the main screen in high quality and in real time (only available on AS-201)
- One-to-many: share contents to maximum 4 ASTROS Stations simultaneously
- Touch back: remotely operate a touch-supported device from a touch display

Intuitive and collaborative main screen features

- Split screen: AS-101 is up to 2, and AS-201 is up to 4 contents shared on the main screen simultaneously including AirPlay and Google Cast
- Moderation Mode: control what is being presented to the audience

- Auto layout or manual layout: automatically arrange the presented contents, or drag and drop to change the layout
- Whiteboard, Annotation, and Screen Capture: quickly express idea during the session (only available on AS-201)

Manage ASTROS Station with ease

- Browser-based ASTROS Configuration page

Network

- Up to 8 / 20 users can connect to AS-101 / AS-201 simultaneously
- Support Wi-Fi 802.11ac protocol
- Support NAT mode & Bridge mode
- Change Gatekeeper setting to control Internet or Intranet access
- Support 4-digit Login code setting and data transfer encryption

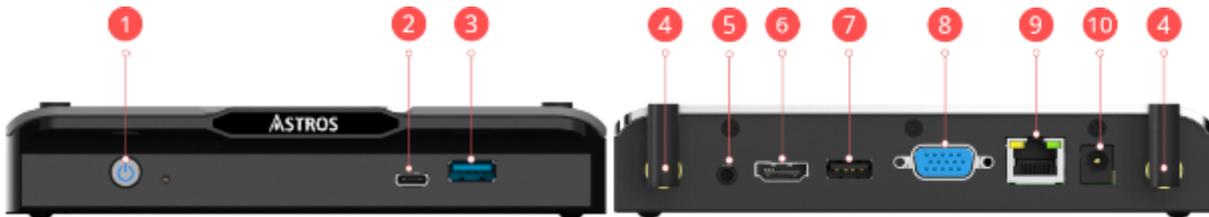
2 About ASTROS Station

2.1 Package Contents

ASTROS Station x1
Quick Installation Guide x1

Antenna x2
Power adaptor (12V 2A) x1

2.2 Interface



ASTROS Station front and rear view

- 1 Power button*
- 2 USB Type-C
- 3 USB 3.0 Type-A
- 4 Antenna connectors
- 5 Audio out
- 6 HDMI 1.4 output
- 7 USB 2.0 Type-A
- 8 VGA output
- 9 Ethernet connector, support PoE
- 10 Power jack

✧ Power button and LED behavior

Power button / LED behavior	Definition
Sleep mode	Short press to enter or quit sleep mode
Suspend mode	Short press to enter suspend mode. Long press for 2 to 3 seconds to quit suspend mode.
Factory reset	Long press until "Warning..." dialog appears on screen.
Red light	Sleep mode.
Blue light	Power on.
Blinking red and blue light	Firmware updating.

Note: USB devices support on ASTROS Station – Mouse / Touch panel / USB flash drive

2.3 Specification

Compatible OS	Windows 10+ macOS 12.5+(BYOM 13.5+) iOS 14+	Android 11.0+ Chrome OS Chrome 84.0.4147.110 +
Support protocol	BeamOp, AirPlay, Google Cast, Browser Sharing, Miracast	
Video output	HDMI / VGA	
Output resolution	HDMI only: 4K@60Hz HDMI + VGA dual output: 1080p@60Hz	
Audio output	HDMI & Audio Jack 3.5mm	
Wi-Fi Band	Switchable dual band 2.4GHZ / 5GHz (DFS channels not supported)	
Wireless transmission protocol	IEEE 802.11ac	
Authentication	AP mode: WPA2-PSK Station mode: WEP, WPA, WPA2, 802.1x EAP	
Ethernet Interface	10/100/1000 Mbps RJ-45 LAN (support PoE for AS-201)	
Interface	1 x HDMI, 1x VGA 1 x USB 2.0 Host Type-A 1 x USB 3.0 Host Type-A 1 x USB 3.0 Host Type-C 1 x 3.5mm Audio Jack 1 x 10/100/1000 Ethernet LAN 1 x Power Jack	
Power supply	PSU: 12V 2A PoE: 48V / 0.32A (Only available for AS-201)	
Net weight	500g	
Dimension	170mm x 104.4mm x 30.5mm (W x D x H)	
Temperature	Operating: 0° – 40° C (32° – 104° F) Storage: -10° – 70° C (14° – 158° F)	
Humidity	Operating: 20 – 80% non-condensing Storage: 10 – 90% non-condensing	
Certificate	FCC, CE, NCC, BSMI	
Warranty	3 years	

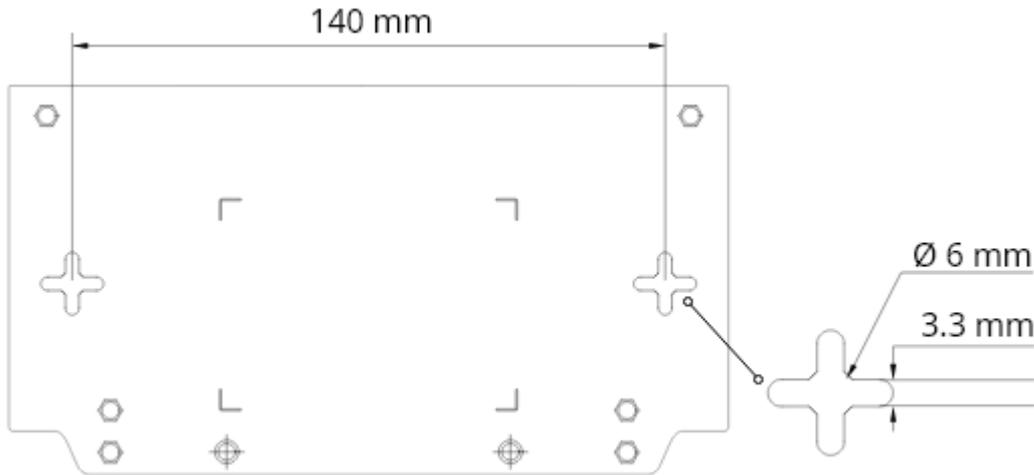
2.4 Port used by ASTROS Station

Service	Type	Port number	Direction	Note
AirPlay	UDP	5353	in/out	mDNS, device discovery
AirPlay	TCP	7002	in/out	AirPlay service port
AirPlay	TCP	7100	in/out	AirPlay service port
AirPlay	TCP	7202	in/out	AirPlay service port
AirPlay	TCP/ UDP	20200-20299	in/out	AirPlay RTP
Google Cast	UDP	5353	in/out	mDNS, device discovery
Google Cast	TCP	8008	in/out	Google Cast service port
Google Cast	TCP	8009	in/out	Google Cast service port
Google Cast	UDP	20400-20420	in/out	Google Cast mirroring data
ASTROS App	TCP	42302	in/out	ASTROS App
Dnsmasq	TCP/ UDP	53	in/out	DNS
Broadcast	UDP	1900-1901	in/out	Broadcast device discovery
Web	TCP	443	in/out	Configuration page
Web	TCP	8081	in/out	File delivery
Web	TCP	20616	in/out	Browser Sharing

3 ASTROS Station Installation

3.1 Wall mounting

- 1 Drill two holes in the wall with the distance shown on image below. Use screw anchors if needed.



ASTROS Station bottom view

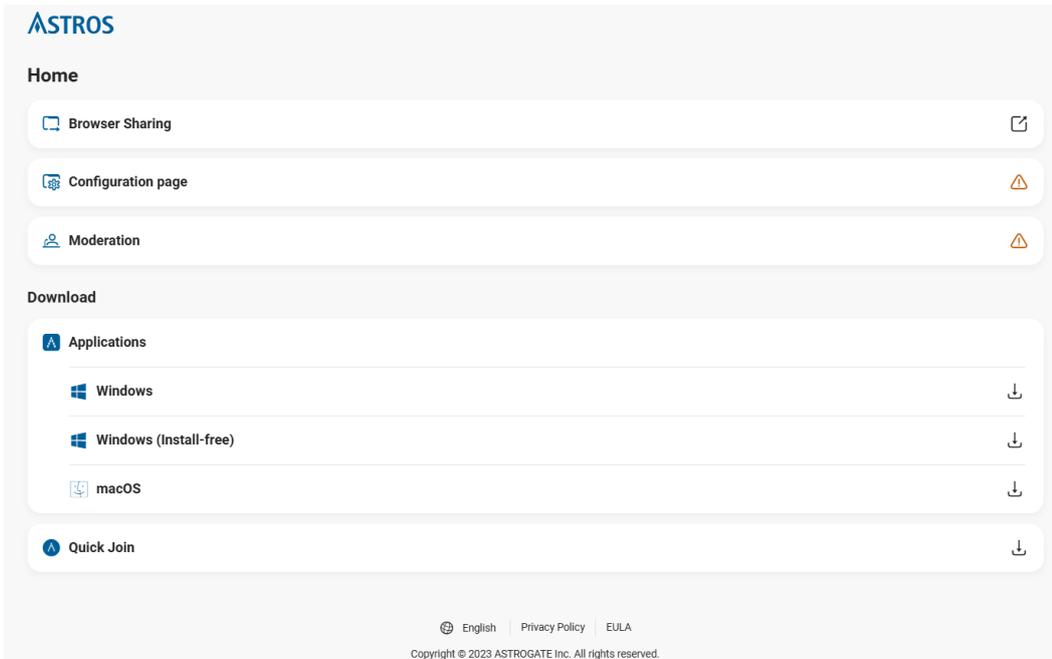
- 2 Drive in two screws.
The screw head diameter: between 3.3 and 6 mm.
The screw rod diameter: smaller than 3.3 mm.
Do not drive in the screws completely.
- 3 Hang the ASTROS Station to both screw heads and slide downwards until it is fixed. (Suggested height of wall mounting lower than 3 meters)

3.2 Connect Cables

- 1 Connect to a display with a HDMI or VGA cable.
If the display supports touch, also connect a USB cable.
- 2 Connect an Ethernet cable.
- 3 Connect a mouse. (Optional)
- 4 Connect the power adapter.
ASTROS Station will automatically turn on without pressing the power button.

4 ASTROS Station Configuration

4.1 The Landing page



ASTROS Station Landing page – First login

How to go to Landing Page:

- 1 Prepare a device with web browser capability. (a laptop is preferable)
- 2 Make sure your device and the ASTROS Station are connected to the same network.
For more information, see Network Integration.
- 3 On the Standby Screen, find ASTROS Station’s IP address on the left-hand side.
- 4 Type in IP or https://Station name in a web browser.
The default configuration page IP address is 192.168.120.11 if the Ethernet cable is not connected to the ASTROS Station.

Home

Browser Sharing	Click  to open a new tab and click “Start sharing”
Configuration page	Click  to set the password upon first login. After the password is set, click the  to log into the Configuration page.
Moderation	Click  to set the password upon first login. After the password is set, click the  to log into the Moderation.

Download

You could download the ASTROS app at this section

ASTROS App for Windows: Click  to download, an installation-required version for frequent users on Windows.

ASTROS App for Windows (Install-free): Click  to download, a green version for guests to use.

ASTROS App for Mac: Click  to download, an installation-required version for frequent users on macOS.

Quick Join: download a shortcut file with connection information of this ASTROS Station; see 5.3 > ASTROS Quick Join for more information.

Language  English :user could change the language of the Configuration page at the bottom of the webpage.

4.2 Access ASTROS Configuration page

1. For the first time log in, please set the passwords for Configuration page and Moderation.

- ✧ Try to add "https://" in IP address if you have trouble accessing the ASTROS Configuration page.
- ✧ You will be automatically logged out to the Landing Page if idle for 15 minutes.



4.3 General

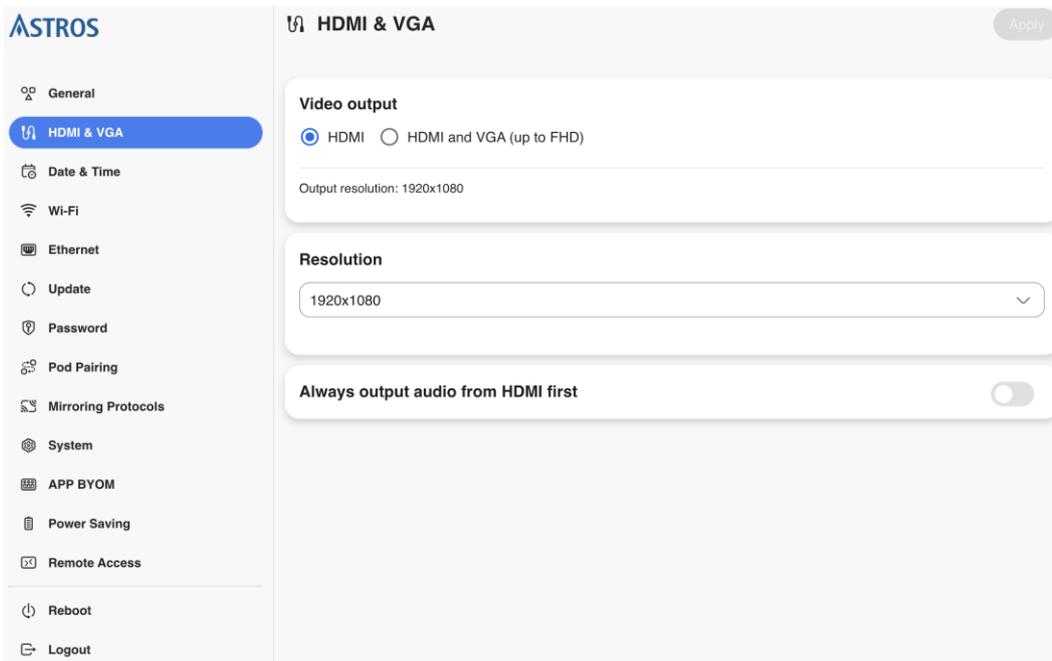
The screenshot displays the 'General' configuration page for an ASTROS station. On the left is a navigation menu with options like 'General', 'HDMI & VGA', 'Date & Time', 'Wi-Fi', 'Ethernet', 'Update', 'Password', 'Pod Pairing', 'Mirroring Protocols', 'System', 'APP BYOM', 'Power Saving', 'Remote Access', 'Reboot', and 'Logout'. The main content area is titled 'General' and includes an 'Apply' button in the top right. The settings are organized into sections: 'Station name' (input field with 'AS201-0023' and a toggle for 'Display on standby screen'), 'Login code' (radio buttons for 'Random', 'No code', and 'Fixed'), 'Station IP' (input field with a toggle for 'Display on standby screen'), 'Allow Remote View' (toggle switch), 'Background image' (instructions on image format and a grid of image preview thumbnails), and 'Language' (dropdown menu set to 'English').

ASTROS Station Configuration page – General

Station name	<p>The displayed name of this ASTROS Station.</p> <p>The name will be displayed on the Standby Screen and ASTROS App's Station list. It will also be the SSID (Wi-Fi name) for ASTROS Station wireless access point.</p> <p>Station name is optionable to display in the information bar of the standby screen.</p> <p>Default name: AS101-xxxx / AS201-xxxx</p> <p>Format: A to Z, a to z, 0 to 9 and "-" hyphen sign. Up to 16 characters.</p>
Login code	<p>Random: Login code enabled, generated randomly</p> <p>No code: Login code disabled</p> <p>Fixed: Login code enabled, customized 4 digits</p>
Allow Remote View	Enable the Remote View feature of Station
Station IP	Optionable to display in the information bar of the standby screen

Background image	<p>Click on the “add”  button to upload a custom background image from your device. Click on the “delete”  button to delete the custom background image.</p> <p>Image format: png or jpeg; width/height ratio between 1.5- 2.0; less than 4K resolution is recommended.</p> <p><i>*There are two built-in images (unremovable) with the first one selected as default.</i></p>
Language	Select the system language for this ASTROS Station

4.4 HDMI & VGA

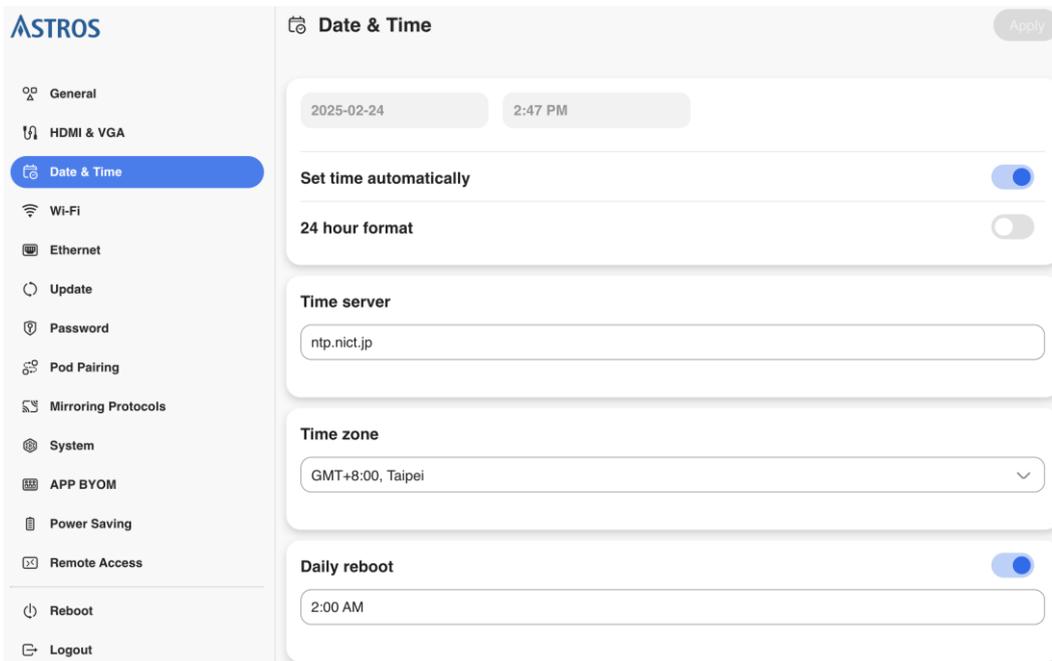


ASTROS Station Configuration page- HDMI & VGA

Video output	HDMI only (default): Maximum resolution is up to 4K resolution. HDMI and VGA: Enable dual-display output. In this mode, the maximum resolution is up to 1080p.
Output Resolution	Display the current resolution output by Station
Resolution	Select your preference resolution, the default is Auto.
Always output audio from HDMI first	When enable this option, the audio would output from HDMI even with USB speaker connected to the Station

- ✦ The available resolution depends on the connected monitor. When using dual-display output, both will be set to the same resolution.
- ✦ When audio jack and HDMI are both connected, the audio will be duplicated.

4.5 Date & Time



ASTROS Station Configuration page- Date & Time

Current date & time	Displays current date and time of ASTROS Station
Set time automatically	Automatic time retrieval by default. Enabled: automatically retrieve time and date from specified timer servers Disabled: manually set time and date
24 hour format	Enabled: 24-hour clock Disabled: 12-hour clock
Time server	To synchronize the time and date for your ASTROS Station, or choose Manual to set the server's IP address
Time zone	Select your time zone from the drop-down menu
Daily reboot	Choose the time to automatically reboot daily

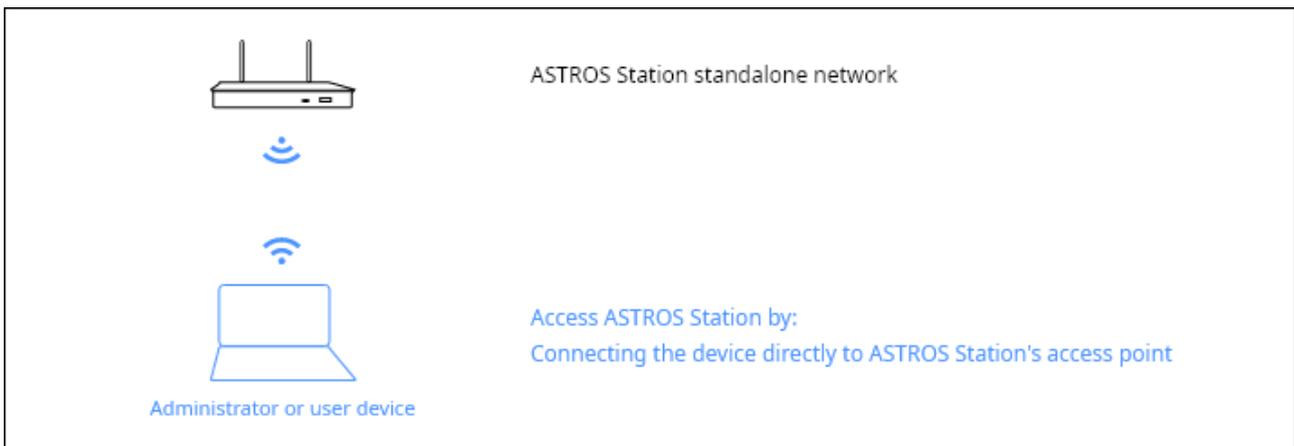
- ✦ Time synchronization is necessary for screen sharing. Please ensure the date and time is set correctly.

4.6 Wi-Fi / Ethernet

This section shows your options to integrate the ASTROS Station into the environment. How an administrator or a user accesses the ASTROS Station depends on which type of setup you choose.

- ✧ It is recommended to connect ASTROS Station to corporate network via Ethernet when performing Wi-Fi configuration.
- ✧ Switching Wi-Fi modes requires clicking Apply button to take effect.

Type 1: ASTROS Station Standalone network



ASTROS Station standalone network

With the following steps, you may set an ASTROS Station to Type 1 mode:

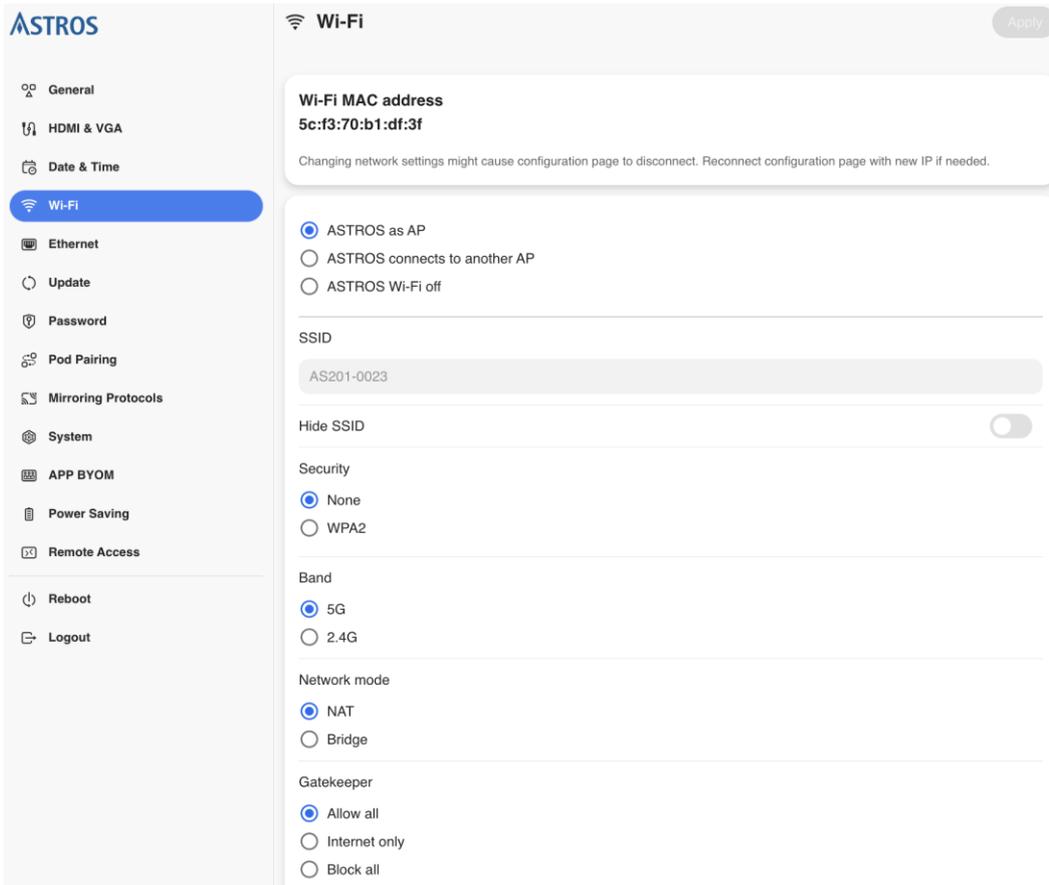
- 1 Ensure no Ethernet cable is connected to ASTROS Station
- 2 On the ASTROS Configuration page, go to [Wi-Fi]
- 3 Choose [ASTROS as AP]
- 4 Click the [Apply button]

With this setup, ASTROS Station will become a wireless access point.

Default SSID: AS101-xxxx / AS201-xxxx.

Default IP address: 192.168.120.11.

✦ Advance ASTROS Station Wi-Fi access point settings:



ASTROS Station Configuration page- Wi-Fi 1

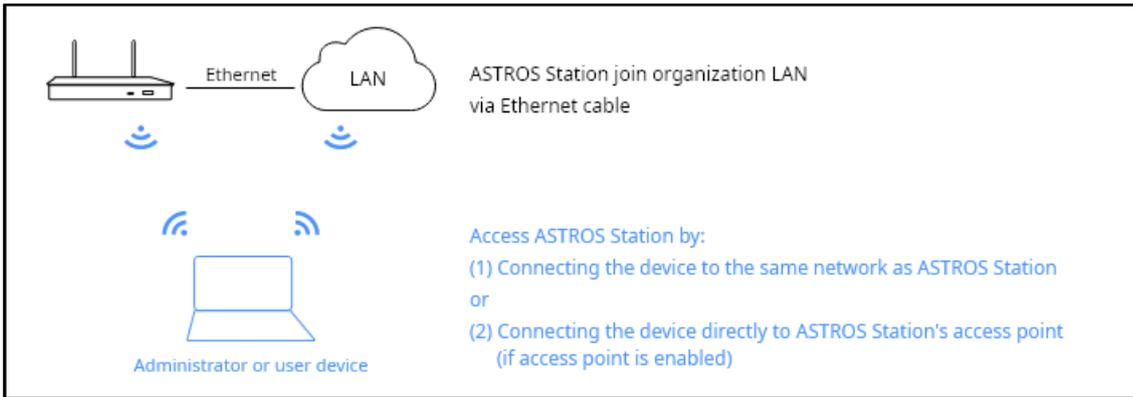
SSID	The broadcasted Wi-Fi name of this ASTROS Station. SSID by default is set to the same as the Station name. To change this, go to [General] > [Station name].
Hide SSID	Switch on to hide SSID.
Security	Set Wi-Fi protection mode to None or WPA2. WPA2 password format: A to Z, a to z, 0 to 9; 8 to 16 characters.
Band	Select 5G (default; recommended) or 2.4G.
Network mode	Select NAT (default) or Bridge
Gatekeeper	Select Allow all (default), Internet only or Block all

- ✦ To switch to a different Wi-Fi mode, please configure it to NAT mode first.
- ✦ Bridge mode selected: DHCP server of the ASTROS Station will be disabled. Please connect a DHCP server enabled Ethernet to the ASTROS Station. The obtain IP method of the ASTROS Station will be switched to DHCP.

Type 2: ASTROS Station join organization Local Area Network (LAN)

There are two ways to connect ASTROS Station to your organization LAN: via Ethernet cable (Type 2-1) or via Wi-Fi (Type 2-2).

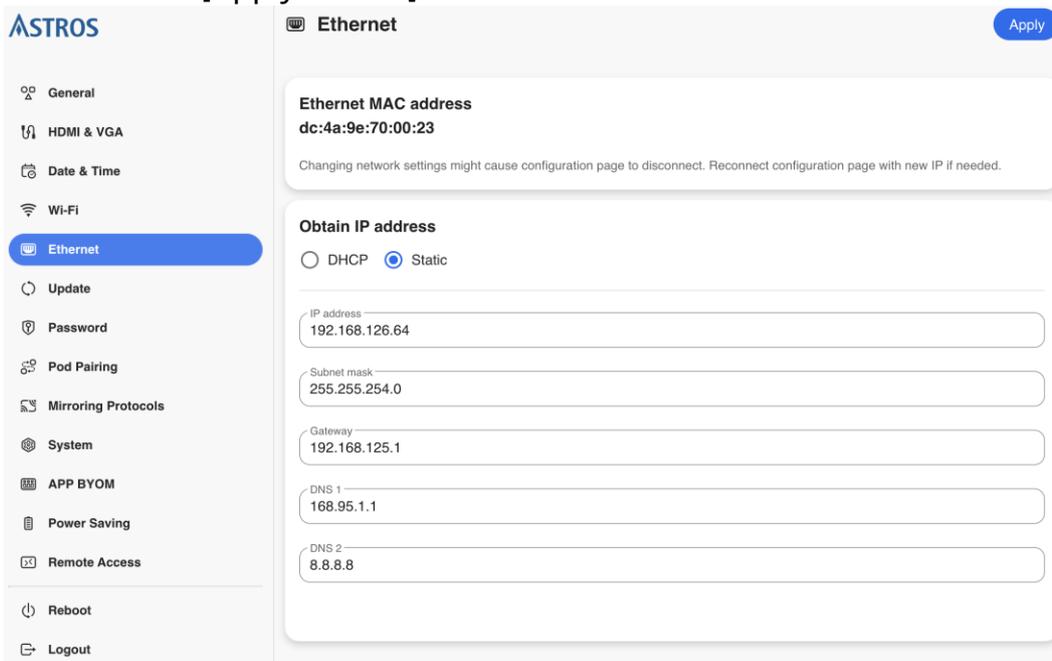
Type 2-1: ASTROS Station join organization LAN via Ethernet cable



ASTROS Station joins organization LAN via Ethernet cable

With the following steps, you may set an ASTROS Station to Type 2-1 mode:

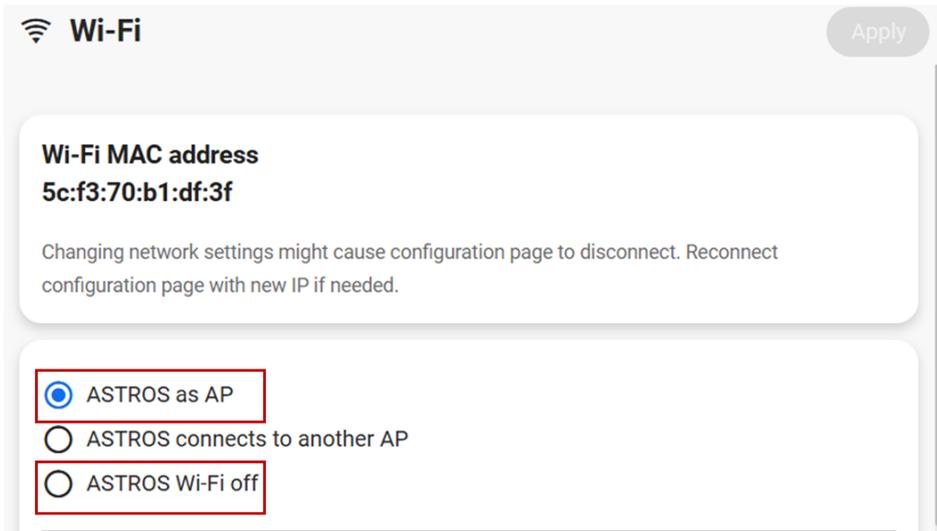
- 1 Connect an organization Ethernet cable to ASTROS Station
- 2 On the ASTROS Configuration page, navigate to [Ethernet]
- 3 Choose [DHCP] or [Static]
- 4 If you choose [static], please fill in valid IP information. All information should be in IPv4 format.
- 5 Click the [Apply button]



ASTROS Station Ethernet connected and static IP configuration

You may set the Wi-Fi option from the station to your device with the following steps:

1. On the ASTROS configuration page, go to [Wi-Fi]
2. Choose [ASTROS as AP] (if you wish to enable Station's access point) or [ASTROS Wi-Fi off] (if you wish to disable Station's access point)



ASTROS Station joins organization LAN via Ethernet cable

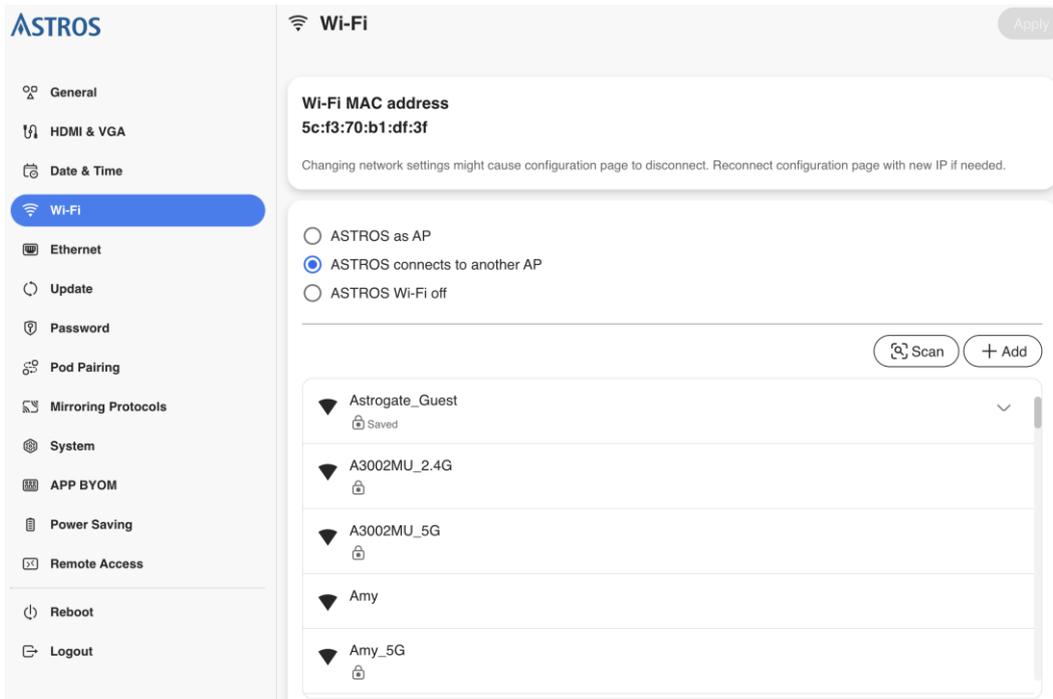
Type 2-2: ASTROS Station join organization LAN via Wi-Fi



ASTROS Station join organization LAN via Wi-Fi

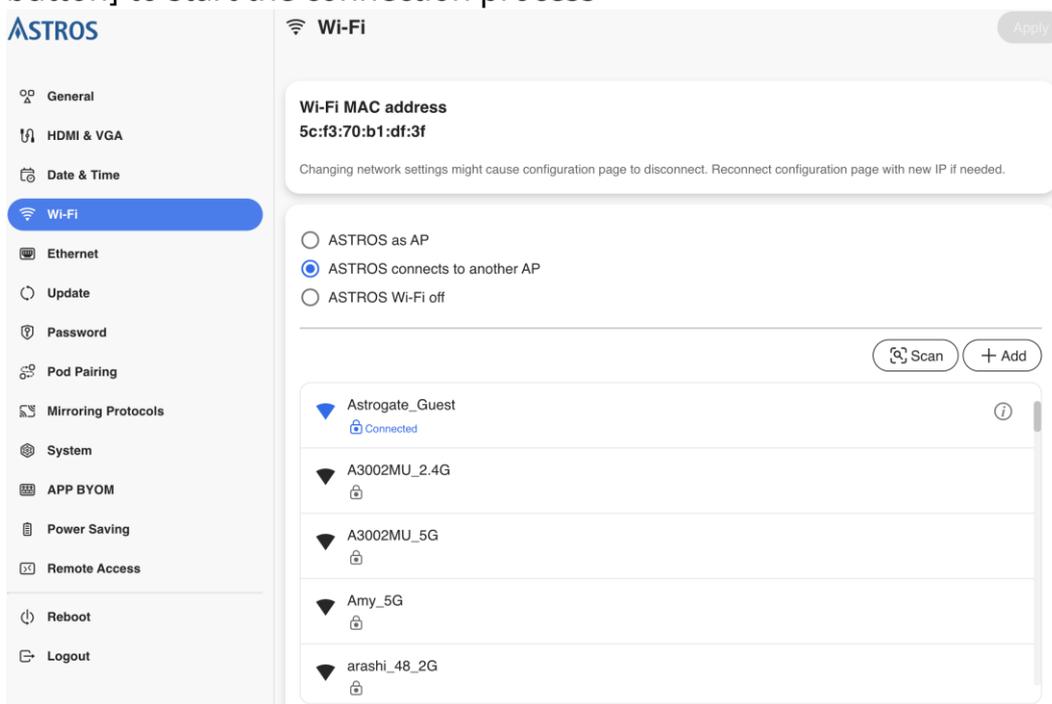
With the following steps, you may set an ASTROS Station to Type 2-2 mode:

- 1 On the ASTROS Configuration page, navigate to [Wi-Fi]
- 2 Choose [ASTROS connects to another AP]
- 3 Find the targeted organization wireless access point on the Wi-Fi list and connect



ASTROS Station Configuration page- Wi-Fi 2

4. To connect to the organization wireless access point manually, click [Add button] to start the connection process



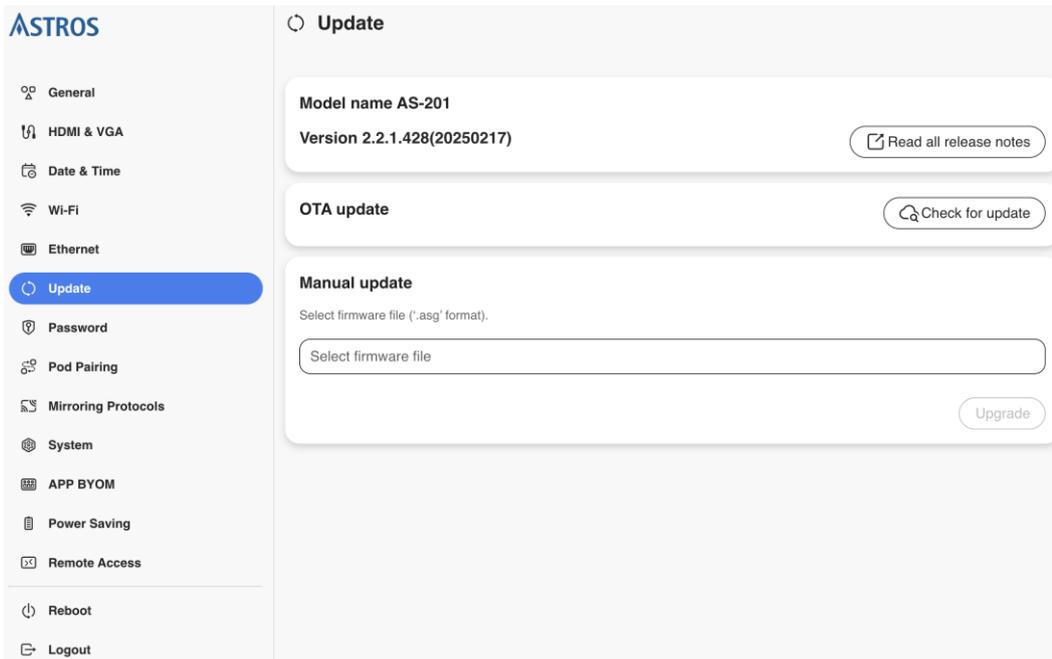
ASTROS Station Configuration page- Wi-Fi 2 (Connect.)

- 5 Click the [Apply button]
With this setup, ASTROS Station will obtain IP address from the DHCP server and display it on the Standby Screen.

- 6 Remove the Ethernet cable from ASTROS Station
 - ✧ Users or administrators must connect their device to the organization LAN to access ASTROS Station.

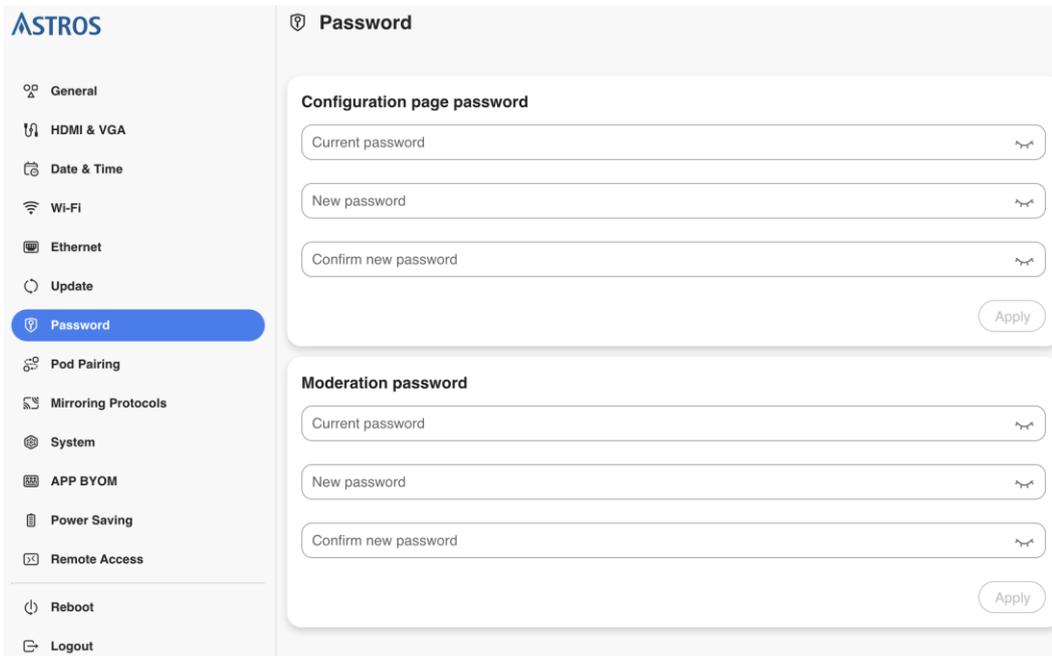
- ✧ Ethernet cable MUST be removed after the above setup for Type 2-2 to take effect.

4.7 Update



Model name	Model name of the ASTROS Station
Version number	Displays firmware version of the ASTROS Station; Access to read all release note.
OTA update	Check for update via Over-the-air (OTA) by clicking “Check for update” to check the latest firmware version. If new version is found, click “Upgrade”, ASTROS Station will start the firmware upgrade process when download is complete. <i>*The Configuration page will not be accessible until the upgrade process is completed.</i>
Manual update	Download the latest ASTROS Station firmware at https://www.astrogate.com/download/ Click the blank column to choose the .asg file and click the “Upgrade” button to start the upgrade process. <i>*The file extension of ASTROS Station firmware is .asg.</i>

4.8 Password



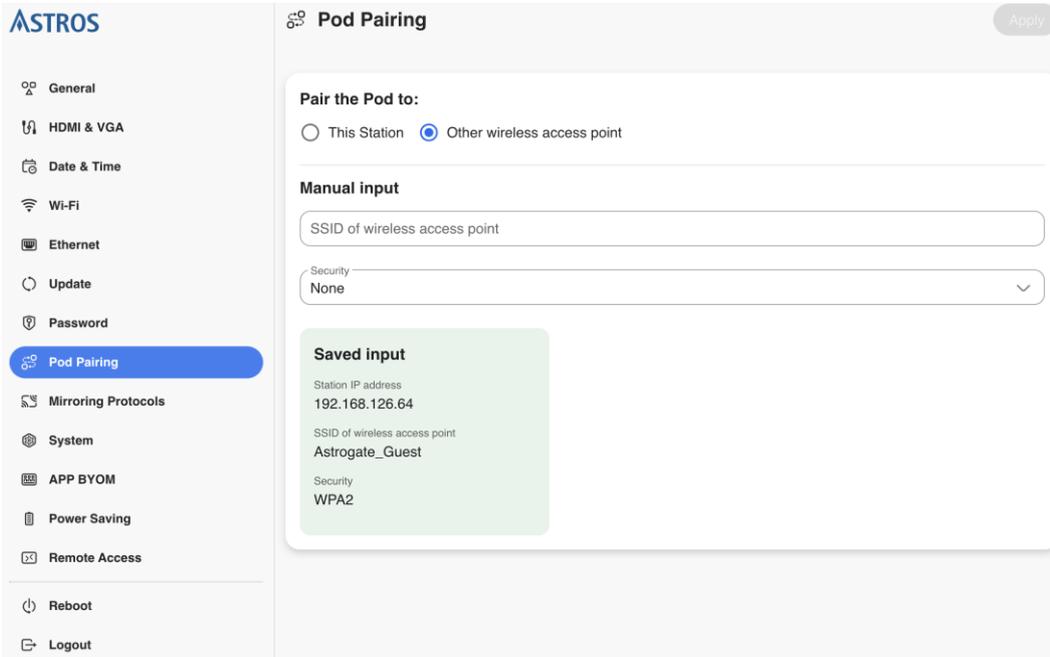
This page allows you to change the Configuration page password and perform system settings.

Configuration page password	Change Configuration page password Format: A to Z, a to z, 0 to 9; up to 16 characters.
Moderation password (available for AS-201)	Change Moderation page password Format: A to Z, a to z, 0 to 9; up to 16 characters.

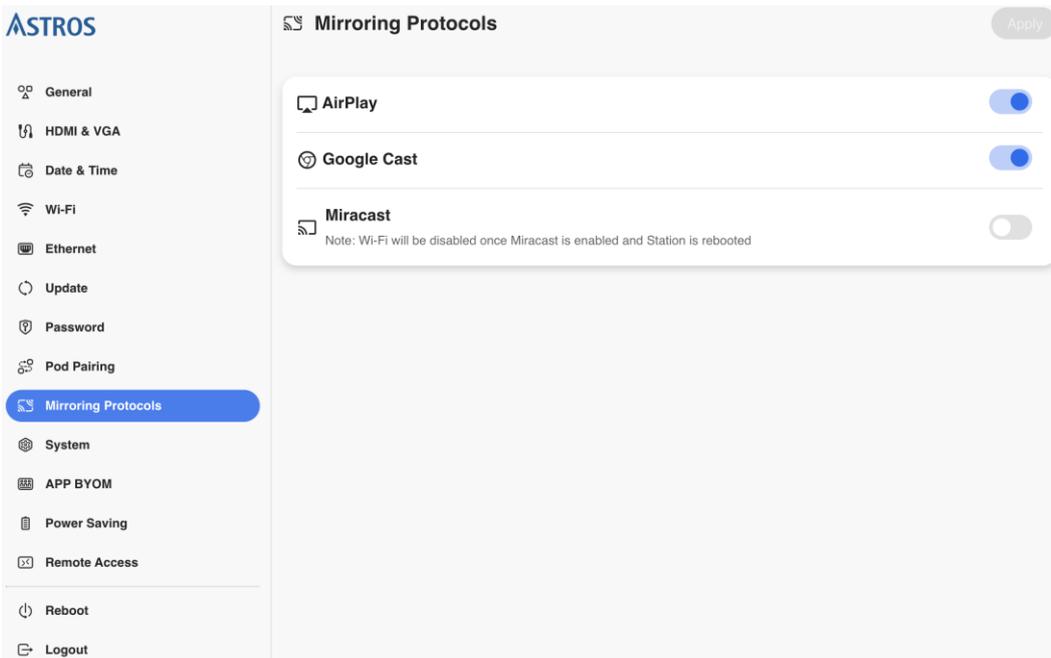
4.9 Pod Pairing

You may pair the Pod to Other wireless access point with the following steps:

- 1 On the ASTROS Configuration page, navigate to [Pod Pairing]
- 2 Choose [Other wireless access point]
- 3 Fill in wireless access point information.
- 4 Click the [Apply button]



4.10 Mirroring Protocols



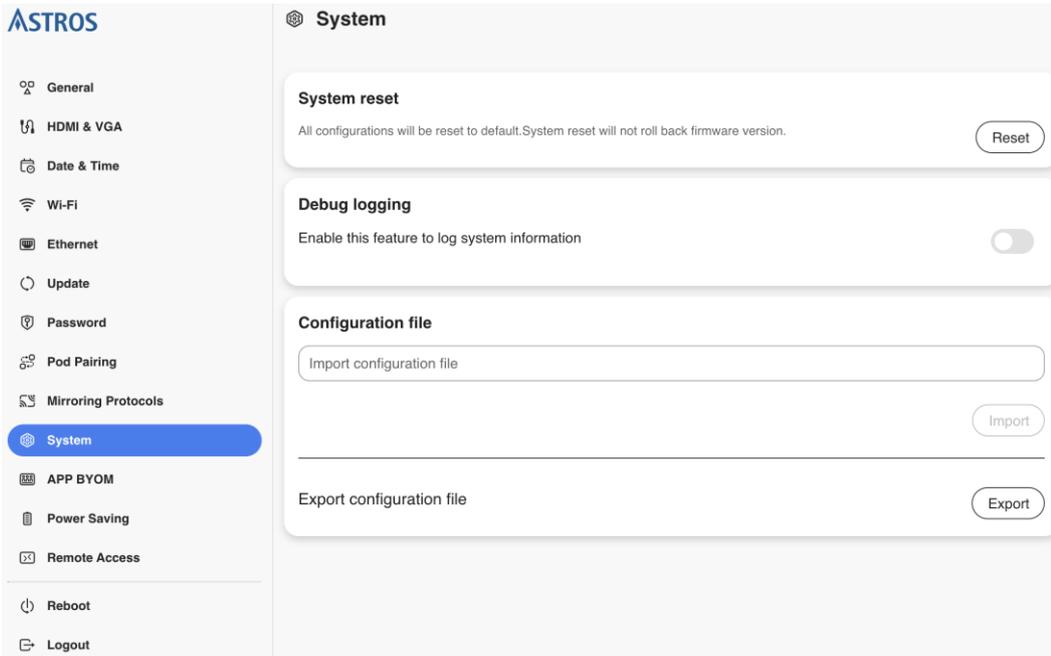
AirPlay

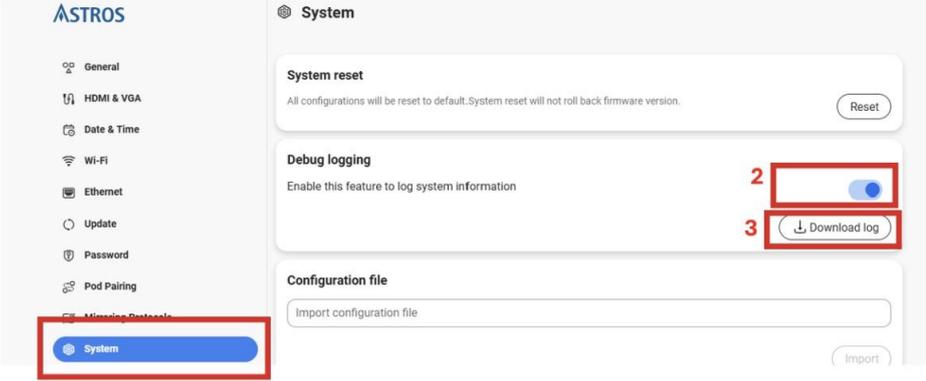
Google Cast

Miracast

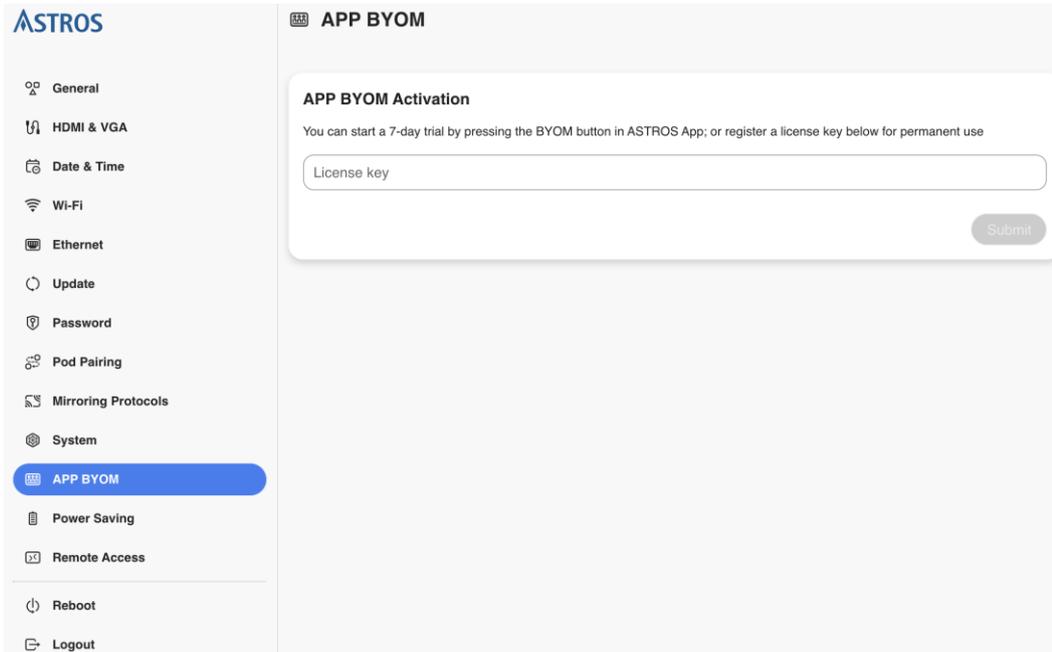
Enable the AirPlay feature of Station
 Enable the Google Cast feature of Station
 Enable the Miracast feature of Station

4.11 System



System reset	Perform system reset
Debug logging	<p>Please follow the steps below to collect the LOG for our further analysis.</p> <ol style="list-style-type: none"> Go to Web > System > Enable debug logging (button 2) Reproduce the issue step by step. Confirm the issue has been duplicated. > click Download log (button 3) Provide the log file to our technical support. 
Configuration file	Import or export Configuration file for ASTROS Station

4.12 APP BYOM



APP BYOM Activation

License key for APP BYOM

Please contact [Astrogate](#) for purchasing the license.

4.13 Power Saving

This page allows you to choose ASTROS Station power button behavior when you press it.

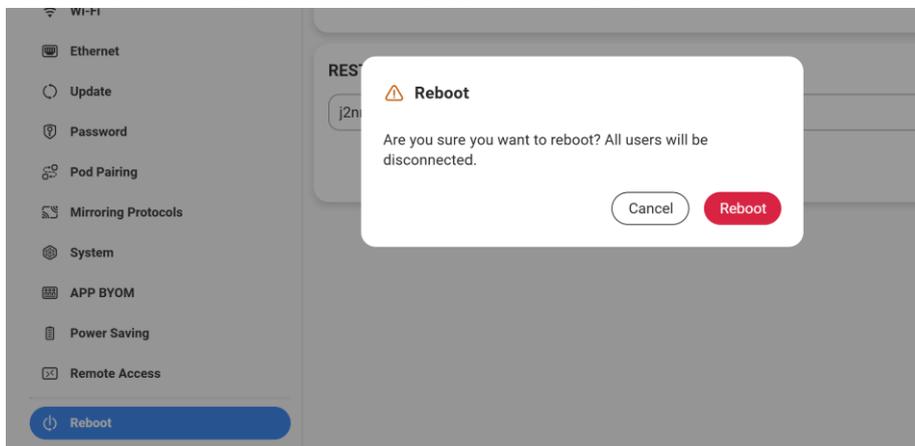
Sleep mode	<p>ASTROS Station turns off only the video and audio output. Users can still discover this ASTROS Station and connect.</p> <ul style="list-style-type: none"> ✧ To enter Sleep mode: short press the power button for 1 second. ✧ To quit Sleep mode: short press the power button for 1 second or any connection attempt.
Enter Sleep mode automatically	<p>In Sleep mode, you may set ASTROS Station to automatically enter Sleep mode if no operation is made for a certain period.</p>
Suspend mode	<p>In Suspend mode, ASTROS Station will shut down all functions to decrease power consumption to minimum.</p> <ul style="list-style-type: none"> ✧ To enter Suspend mode: short press power button for 1 second. ✧ To quit Suspend mode: short press power button for 1 second.

4.14 Remote Access

ASTROS Manager Server	The host name of the ASTROS Manager Server
RESTful API key	Generate key for RESTful API

4.15 Reboot

Click this button to reboot ASTROS Station.



4.16 Logout

Click to log out the Configuration page

5 Screen Sharing with ASTROS App

5.1 Download ASTROS App

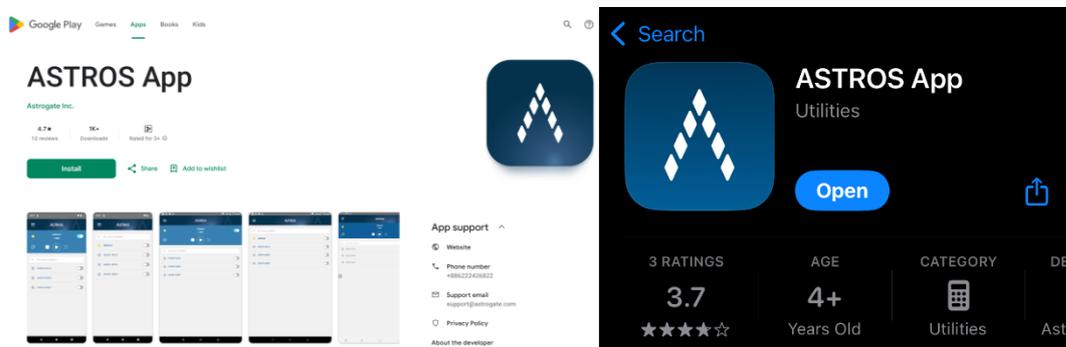
Windows and macOS

Visit [Astrogate website](#) to download the ASTROS App for your device.

Android, iOS and iPadOS devices

Search for ASTROS App in Google Play or App Store (keywords: ASTROS + Astrogate)

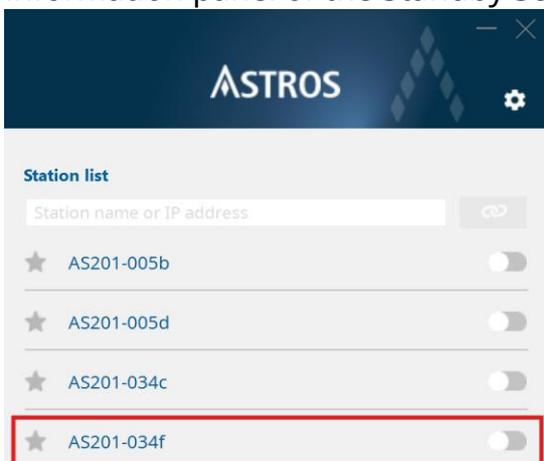
✦ Learn more about ASTROS App supported OS and version in [2.3 Specification](#).



5.2 Connect to an ASTROS Station

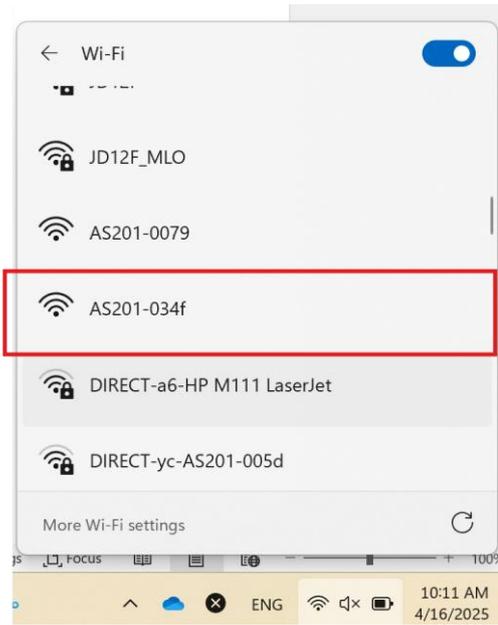
Steps

- 1 Launch the ASTROS App
- 2 On the Station list, find the name same as the “Station name” shown on the information panel of the Standby Screen.



- 3 If the Station name does not appear on the Station list, open your device’s Wi-Fi list, look for the Station name and connect. Then repeat step 1.

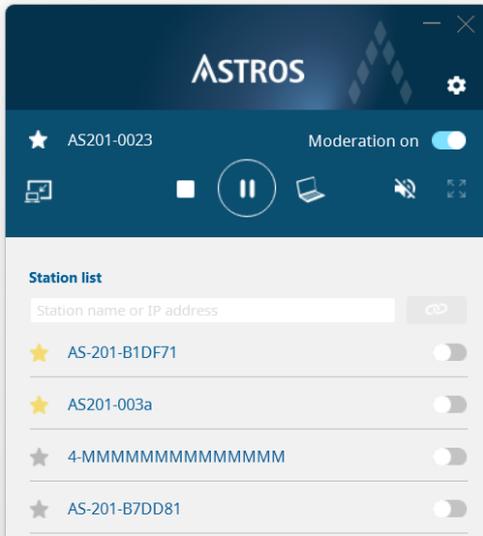
- ✧ Depending on the ASTROS Station network setup, you may be able to connect to ASTROS via organization network, Wi-Fi direct connection or both. See [Wi-Fi/Ethernet](#) for more information.



5.3 Operating ASTROS App

Station list

ASTROS App will list all the ASTROS Stations discovered on the same network and nearby Stations.



Station list on the ASTROS App

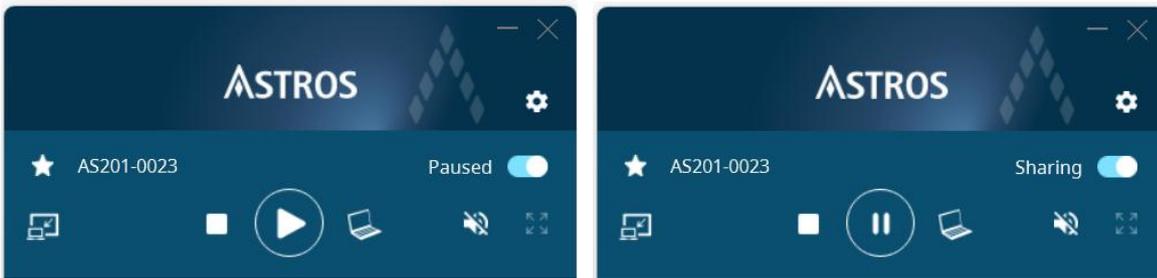
Search bar

You can use Search bar:

- Type in key characters to quickly find the ASTROS Station you are looking for.
- Type in IP address to connect to a specific ASTROS Station on the same network as your personal device

Play, Pause and Stop button

1. When you first connect to an ASTROS Station, click the “Play button”  to start sharing your entire screen to the main screen.
2. While sharing, click the “Pause button”  will freeze your projection on the last frame.
3. When clicking the “Stop button”  the ASTROS App will instantly stop sharing your screen.



Play/ Pause and Stop button on the ASTROS App

Window Sharing

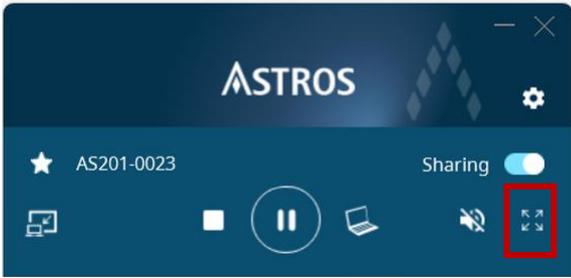
✧ Available on Windows and macOS



You can choose to share only a specific application window or the entire screen. Click “Window Sharing button”  to make your selection then click on the Play button to share.

- ✧ During the Window Sharing, your screen sharing will freeze if the window you have selected is not being placed on top of all windows or is being minimized. In such circumstance, the Touch Back feature will not work as you intended either.

Full Screen button



Click the “Full screen”  button to force your screen sharing to switch between full screen and split screen.

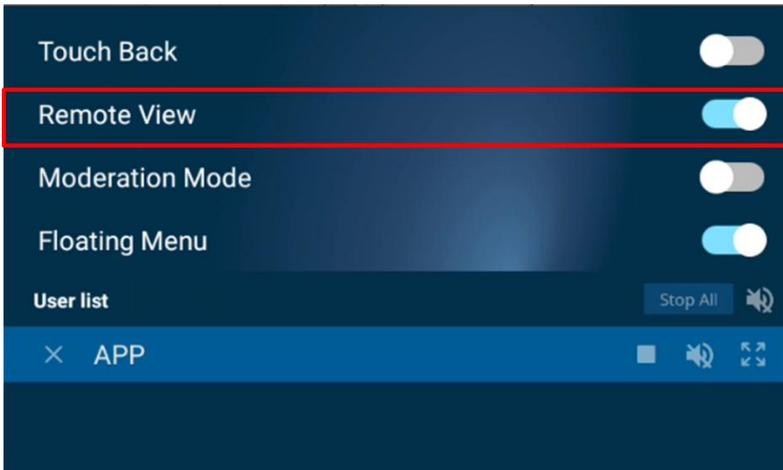
Mute Button

Click the “Mute button”  to turn on or off the audio of your screen sharing.

Remote View

✦ Available on AS-201

Click the “Remote View”  button to view the main screen with the ASTROS App.

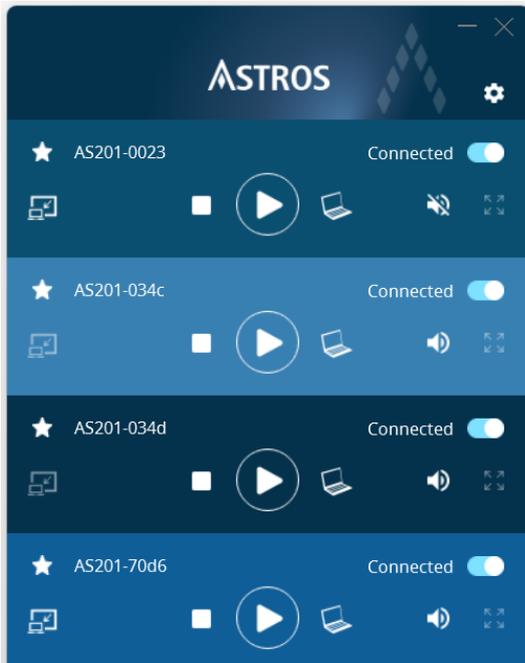


Enable Remote View on the Control Panel

**Or on the ASTROS Configuration page. Refer to [General](#) > Enable Allow Remote View One-to-many*

✦ Available for Windows and macOS

ASTROS App for Windows and macOS allows users to connect and share to up to 4 ASTROS Stations simultaneously. Users can choose to share different contents to different ASTROS Stations.



An ASTROS App that is connected to four Stations

Favorite Stations

Users can mark frequently used ASTROS Stations as favorites by clicking the star-shaped "Favorite button"  next to the Station name. The marked ASTROS Station will always be prioritized on the Station list.

ASTROS Quick Join

- ✧ Available on Windows and macOS
- ✧ On Windows, support only ASTROS App installation version

ASTROS Quick Join allows users to quickly connect to a pre-determined ASTROS Station.

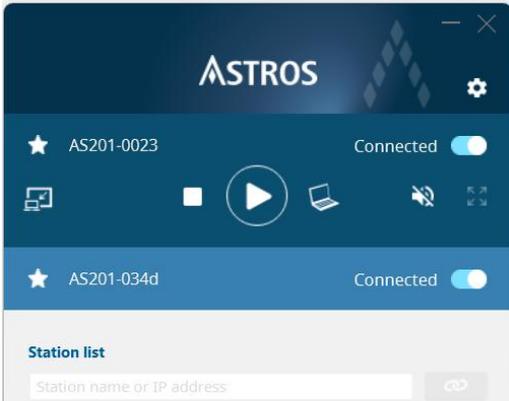
Download Quick Join file on the configuration landing page of a specific ASTROS Station.

**Refer to [4.1 The Landing Page](#) > ASTROS App for Quick Join*

The Quick Join file can be renamed and dispatched to other computers.

Collapse and expand connected ASTROS Station

Click the Station name to collapse the presentation panel. Click again to expand.



An expanded presentation panel and a collapsed presentation panel

Configure ASTROS App

Click the “configuration button”  to:

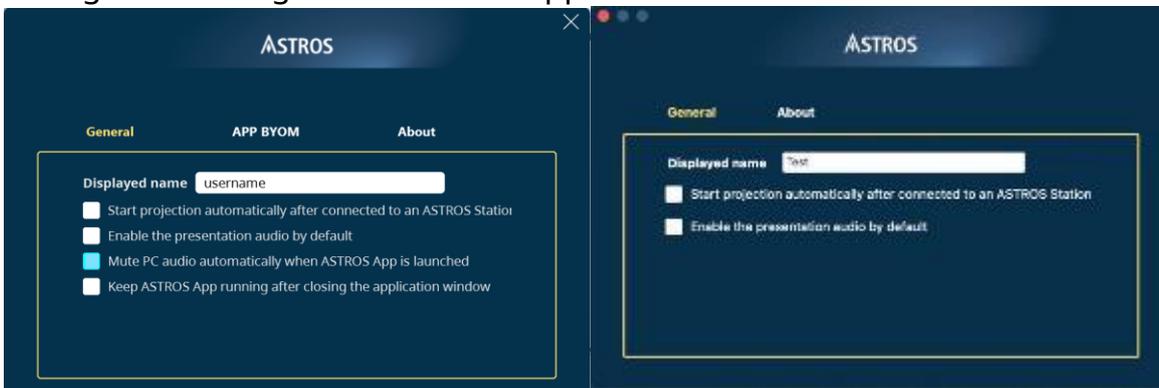
General

- 1 Change Displayed name

Change the name displayed on the main screen.

- 2 Configure the setting

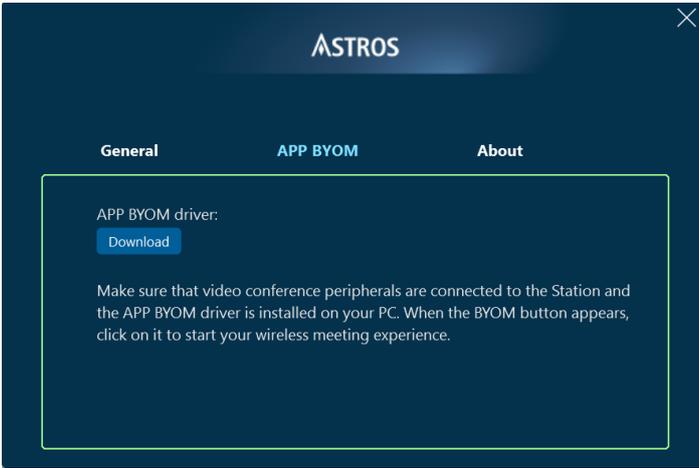
Change the setting of the ASTROS App.



Change displayed name or configure the setting of ASTROS Windows App(left) and macOS App(right)

APP BYOM

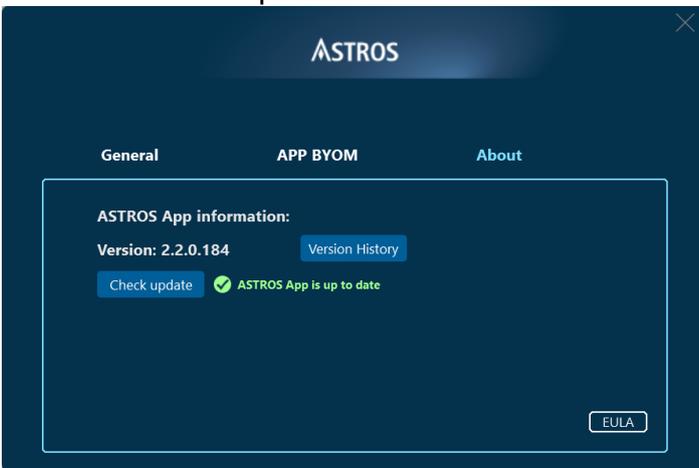
Download and install APP BYOM driver



Download APP BYOM driver here.

About

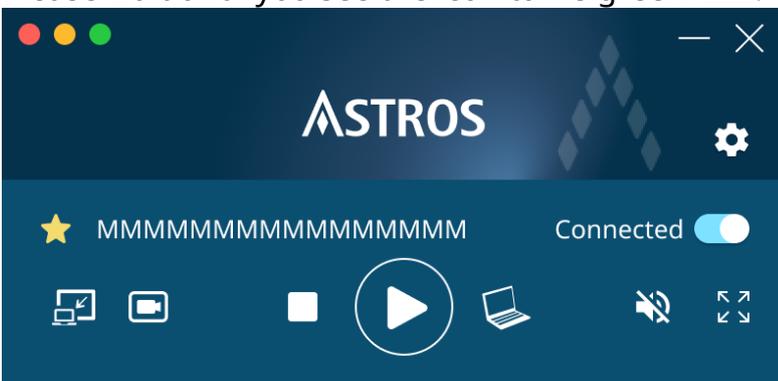
1. Version and update

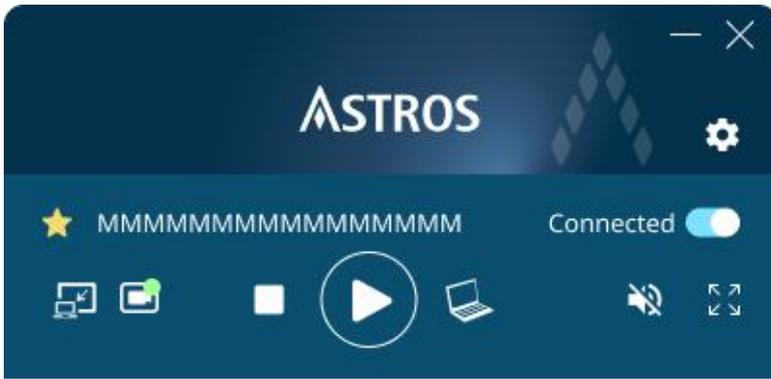


Check the current app version and check for update here.

ASTROS App will check for update every time you launch the app. If an update is available, an exclamation mark will appear on top of the Setting button.

APP BYOM Click the “APP BYOM” button  to use VC devices with the ASTROS App. Please wait until you see the icon turns green .





* When you connect to an ASTROS Station with VC devices, APP BYOM button will appear on the panel.

If no VC devices are connected, this button will not be displayed.

You can now use the BYOM function for 7 days trial.

*There is an expiration date displayed on ASTROS Configuration page. Refer to [4.12 APP BYOM](#)

BYOM button status table:

Status	No driver	Inactivated	Activated	Expired
Icon				

Enable sound for macOS sharing

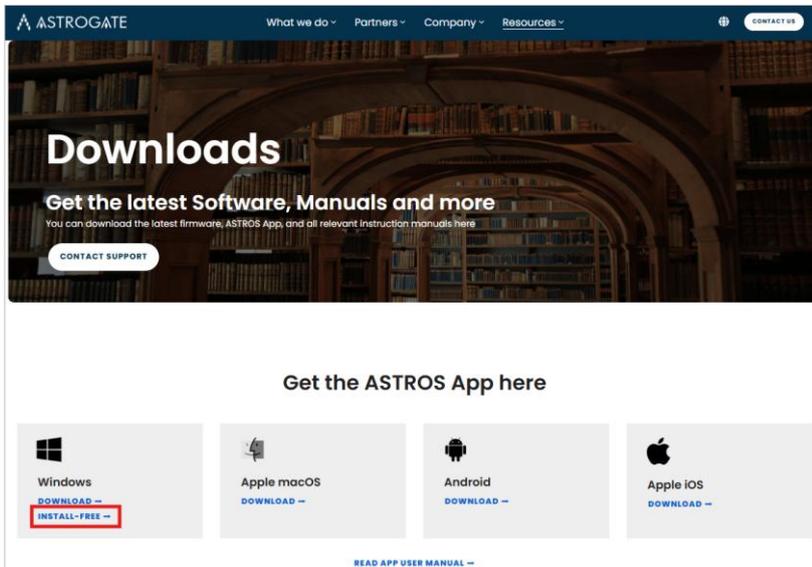
Audio driver is required for ASTROS App to share audio in the macOS environment. A yellow dot will appear on top of the Mute button if audio driver is not installed. To install the driver:

- 1 install the audio driver during ASTROS App installation, or
- 2 click the Mute button to trigger the audio driver installation process.

Windows install-free version

Download install-free ASTROS App at: www.astrogate.com/download. Or [The Landing Page]> ASTROS App for Windows (Install-free)

✧ The install-free version does not support upgrade function nor ASTROS Quick Join.

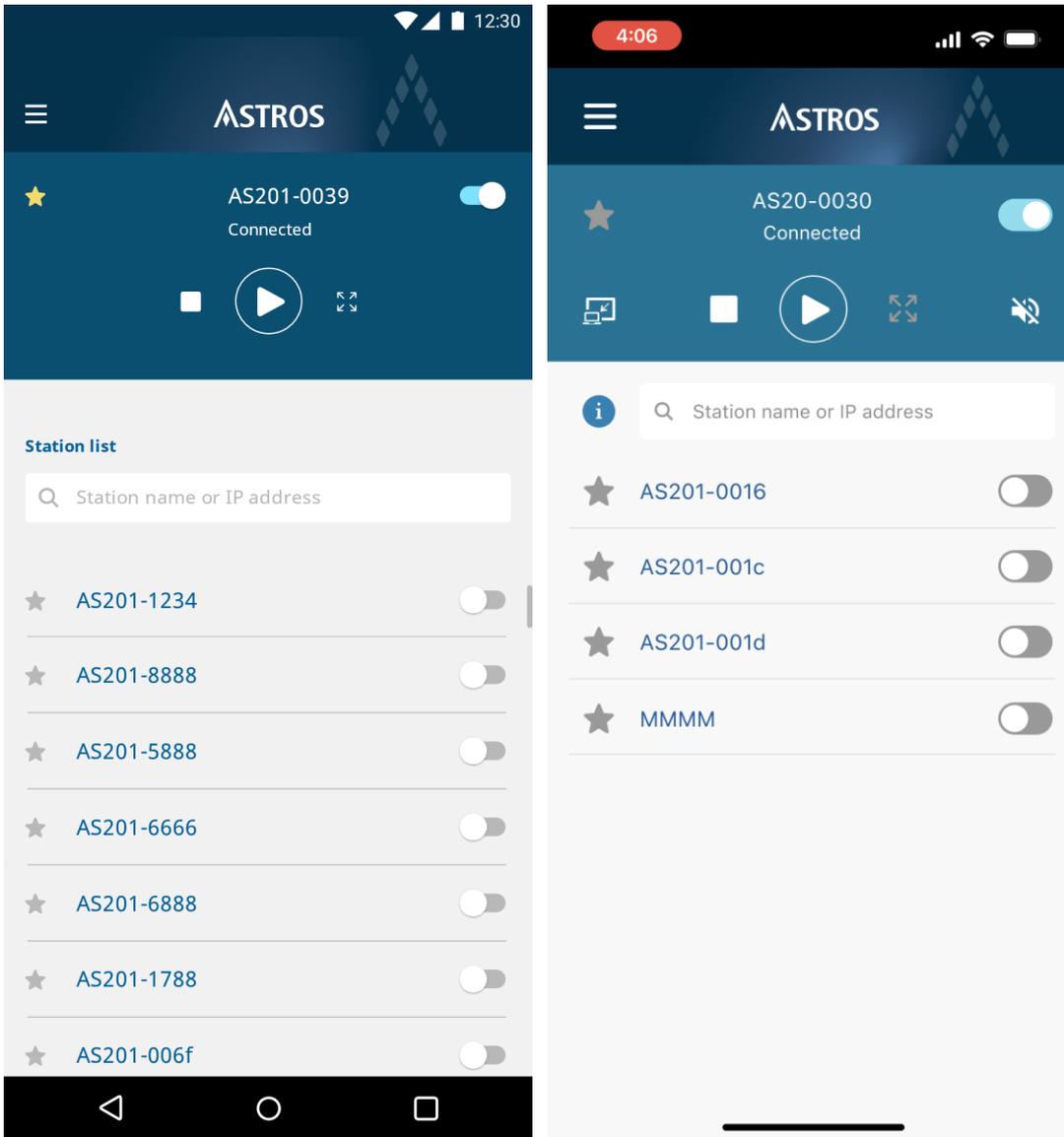


Windows install-free version download link: [Astrogate website](#)

5.4 ASTROS App for Android, iOS and iPadOS

Android or iOS/iPadOS devices and ASTROS Station need to be on the same network. Launch ASTROS App, then find the name same as the “Station name” shown on the information panel of the Standby Screen. Press connect toggle and Play button to start sharing. This App supports:

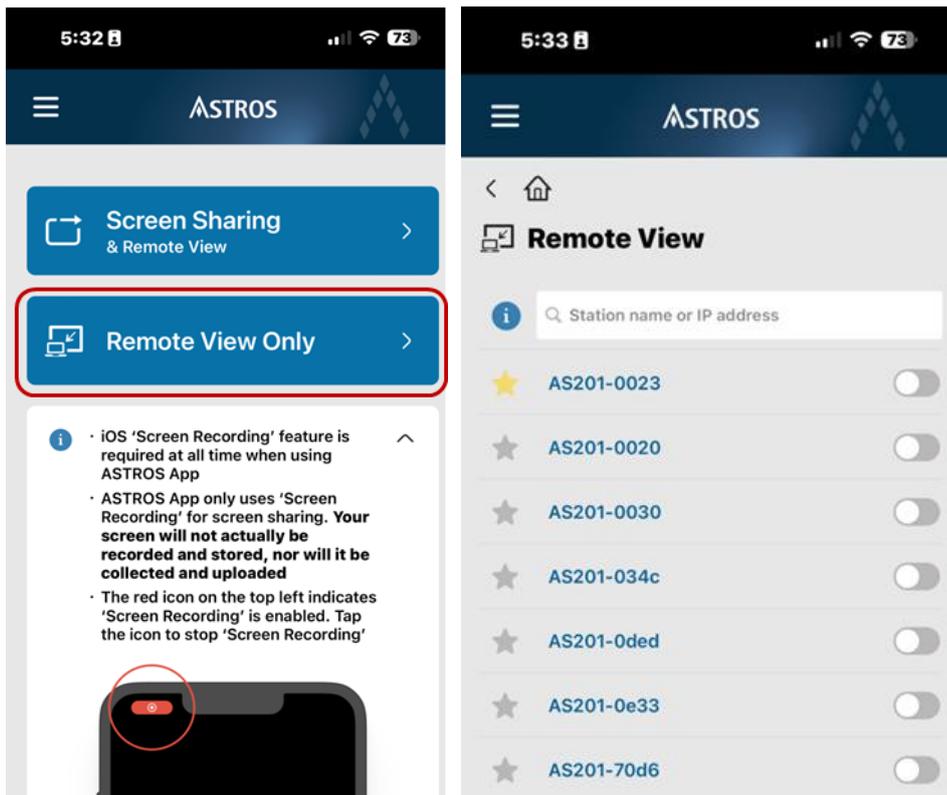
- Play/Pause and Stop screen sharing
- Entire screen sharing or split screen sharing
- Station list and search bar
- Favorite Stations
- Change displayed name of your device shown on the main screen



ASTROS App Android (left) and iOS/iPadOS (right) interface

- ✧ For Android, please click Start now to Start recording or Casting with ASTROS App when using ASTROS App
- ✧ For iOS/iPadOS, "Screen Sharing & Remote View" requires "Screen Broadcast". Click "Screen Sharing & Remote View", allow ASTROS App to access Local Network when using ASTROS App and click Start Broadcast.

“Remote View Only” allows users who only want to view the content of main screen on their devices.



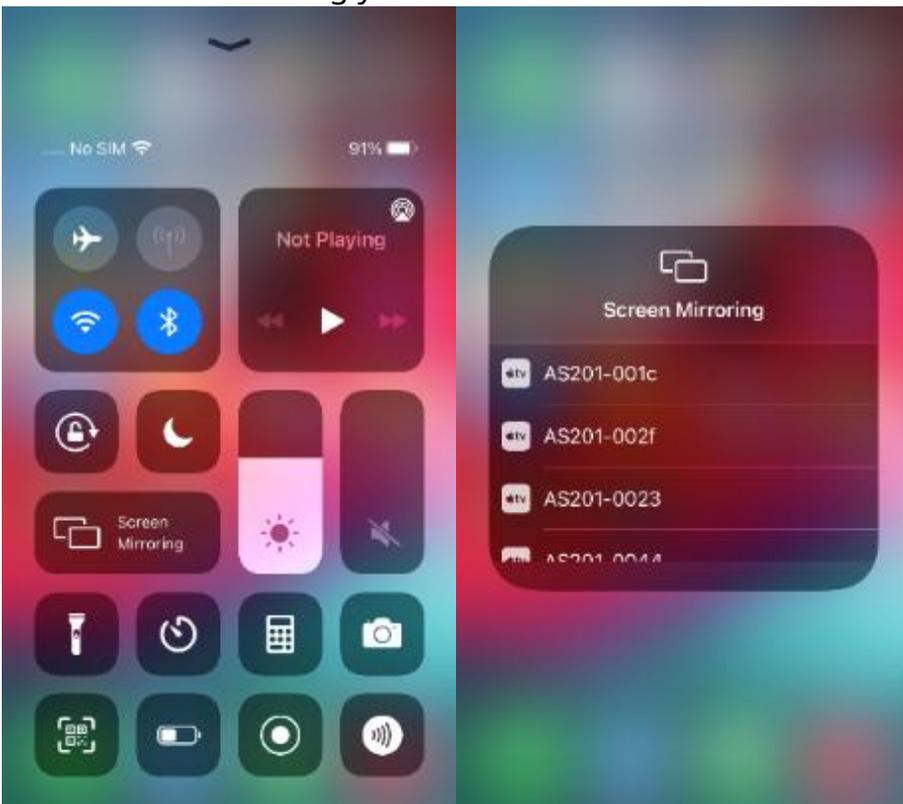
ASTROS iOS/iPadOS Remote View Only interface

6 Screen Sharing with AirPlay, Google Cast and Miracast

ASTROS Station supports native protocols including AirPlay, Google Cast and Miracast sharing.

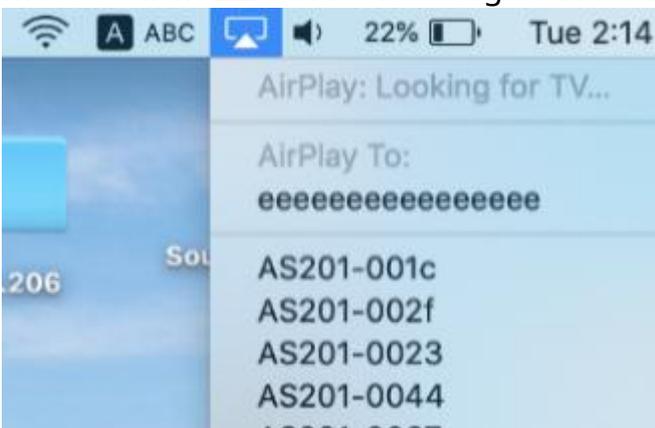
6.1 AirPlay

iPhone: Open Control Center, click Screen Mirroring and select targeted ASTROS Station to start sharing your screen



Airplay-iPhone

macOS: click  and select targeted ASTROS Station to start sharing your screen

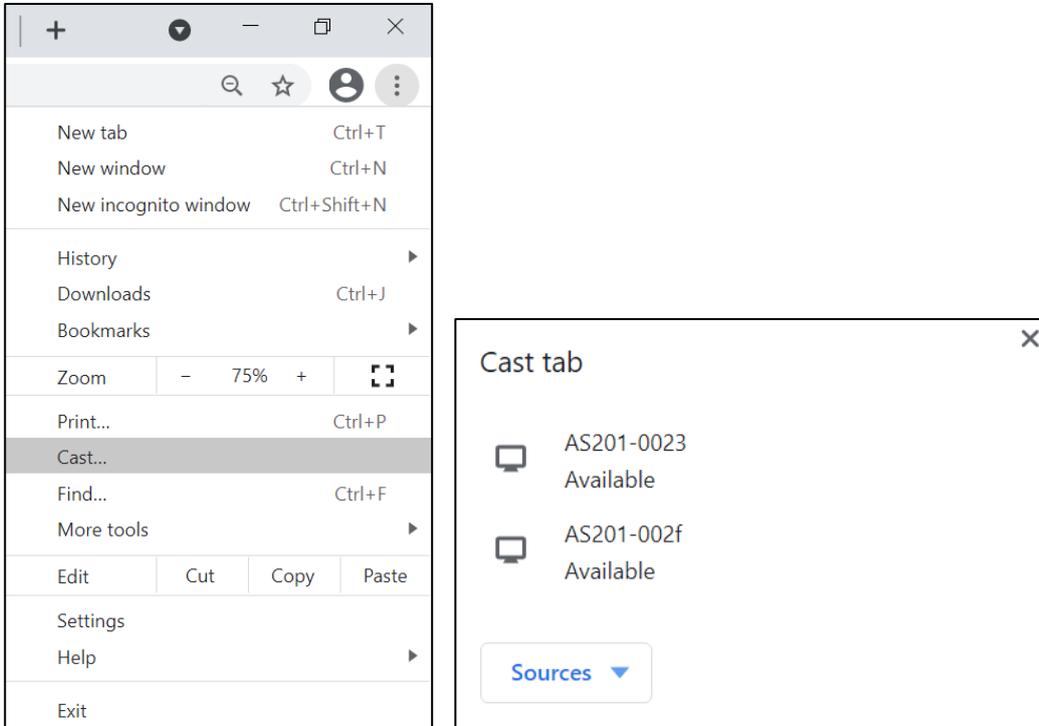


Airplay-macOS

✧ If required, please type in login code to start sharing (AirPlay)

6.2 Google Cast

Click “Cast” on setting of Chrome browser, and select targeted ASTROS Station to start sharing your screen

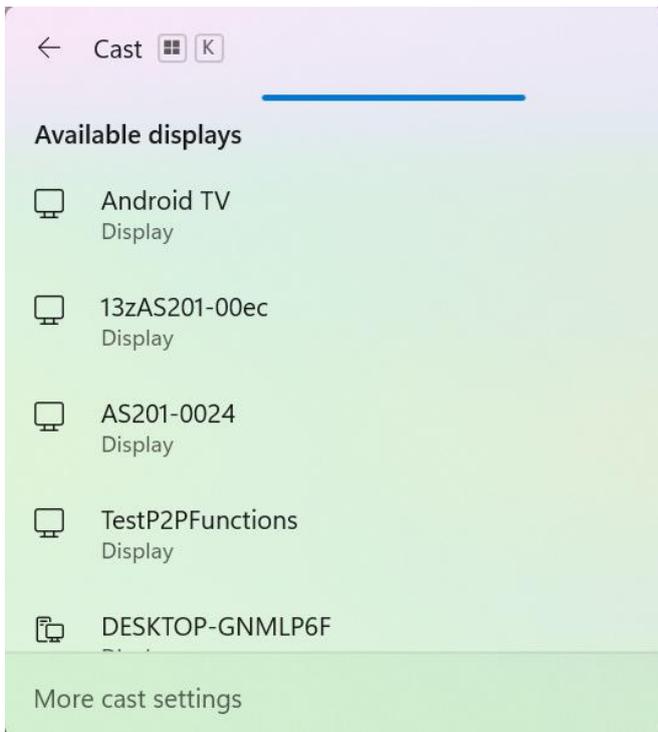


Google Cast- Chrome browser

**Your personal device needs to be on the same network as the ASTROS Station to screen sharing with AirPlay and Google Cast*

6.3 Miracast

Click the Windows logo key + K on windows computers, then select the display you'd like to cast to from the list of available devices.



7 Screen Sharing with Browser (Browser Sharing)

7.1 Access ASTROS Configuration page

✧ Support Browser: Google Chrome 79+, Microsoft Edge 88+



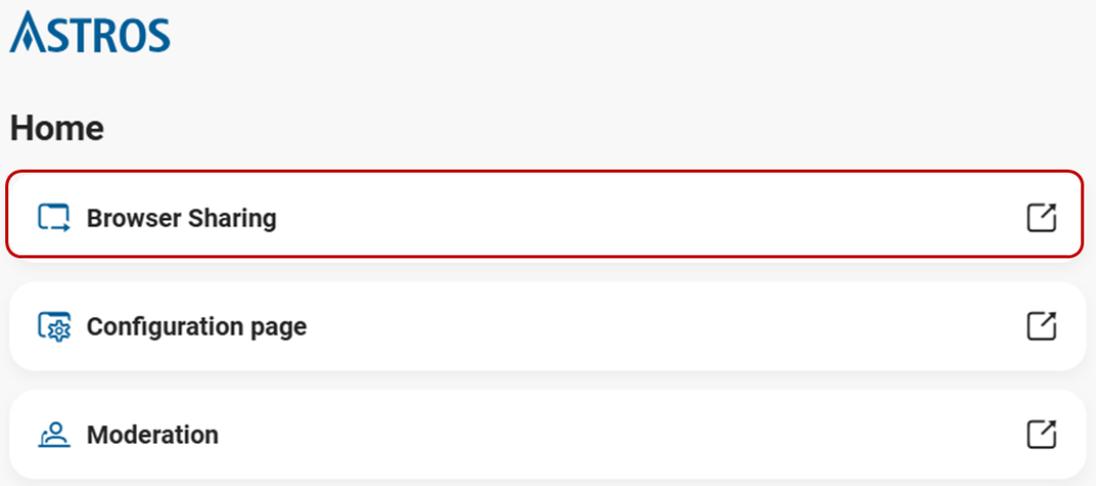
ASTROS Station Configuration page Prepare a laptop with web browser capability

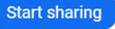
- 1 Make sure your laptop and the ASTROS Station are connected to the same network.
- 2 On the Standby Screen, find ASTROS Station's IP address on the information panel.
- 3 Type in IP or `https://Station name` in a web browser.
The default Configuration page IP address is 192.168.120.11 if the Ethernet cable is not connected to the ASTROS Station.

7.2 Start the Browser Sharing

Steps

- 1 Click “Open new tab button”  and will lead to a new tab on your browser for Browser sharing



- 2 Type in “Display name” and “Login code” (if login code is enabled) and click “Start sharing button” 

**Default Display name is Browser Sharing; Up to 20 characters, including Unicode and alphabet*

**Find Login code on Information Panel if Login code is enabled*

- 3 Choose what to share from the options of Entire Screen, Window or Chrome / Edge Tab

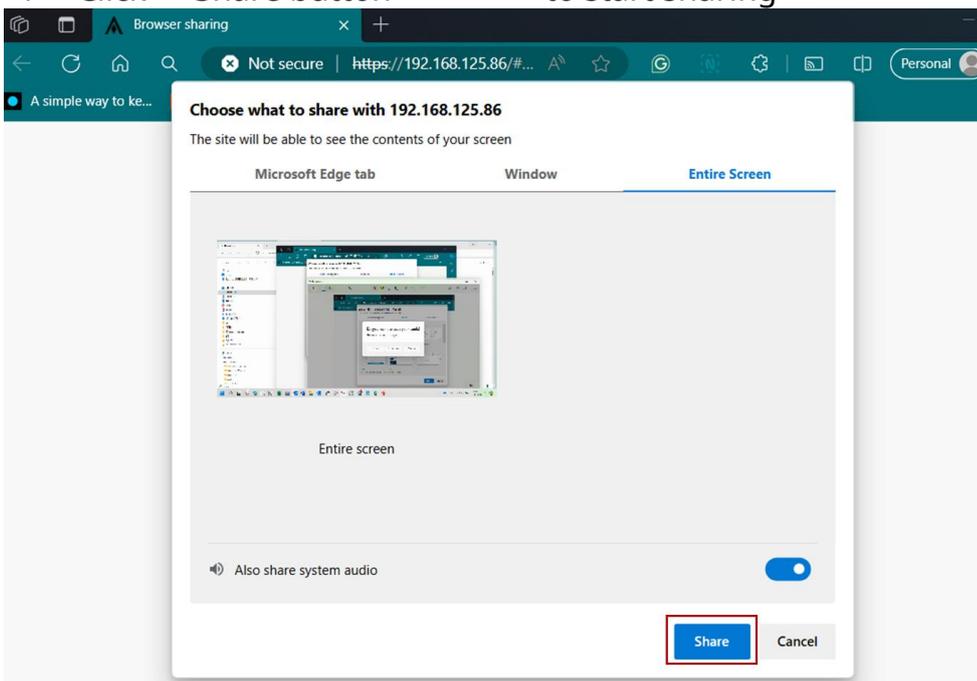
Entire Screen: share your entire screen

Window: choose to share only a specific application window or the entire screen

Chrome / Edge Tab: share only a specific tab on your Browser

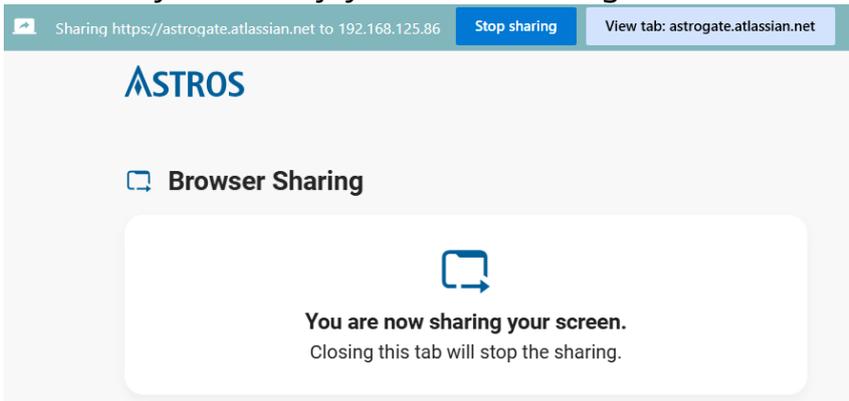
**Only Entire Screen and Chrome / Edge Tab can share system audio*

- 4 Click “Share button”  to start sharing



Browser Sharing - Choose what to share

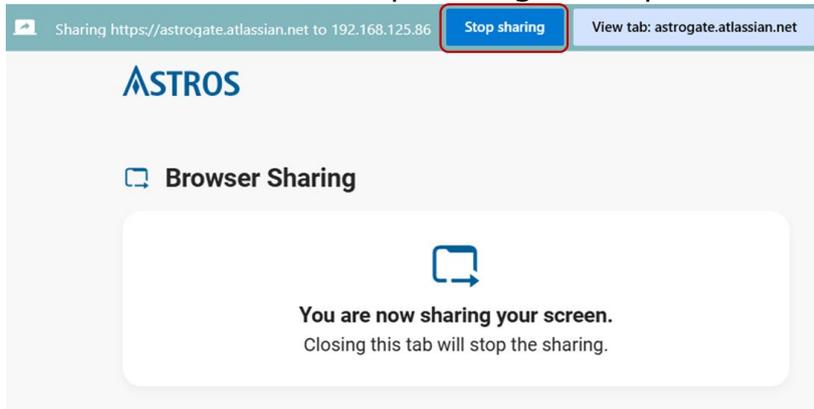
5 Now you can enjoy Browser Sharing



Browser Sharing – You are now sharing your screen

7.3 Stop the Browser Sharing

Close the tab or click “Stop sharing” to stop

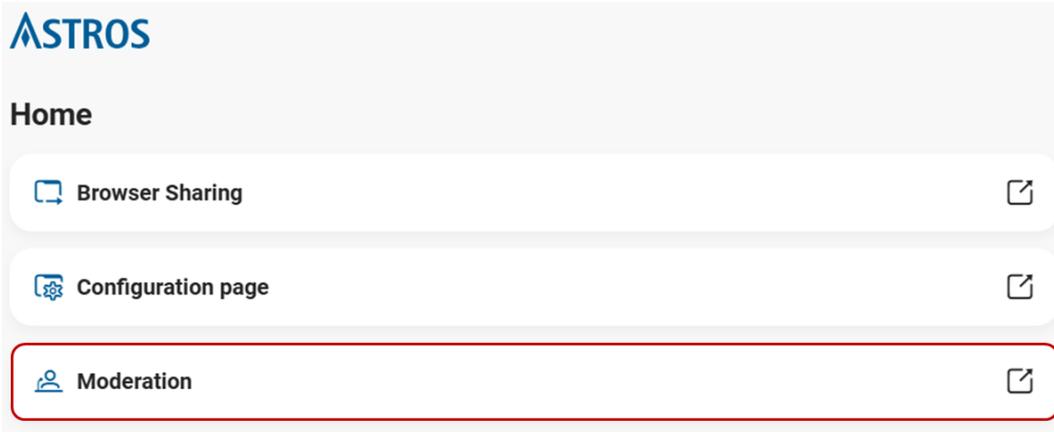


Browser Sharing - Stop sharing

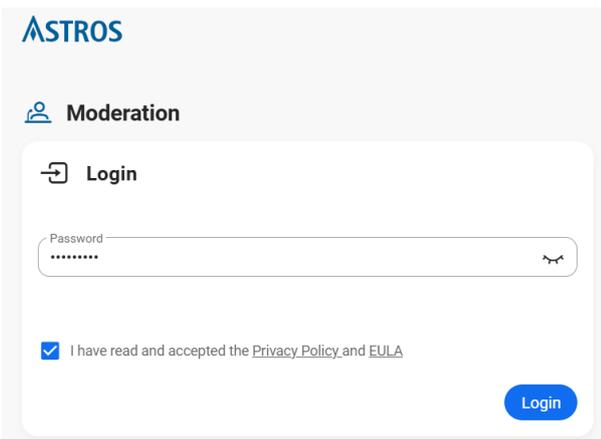
8 Web Moderation mode

✦ Available on AS-201

8.1 Log-in page



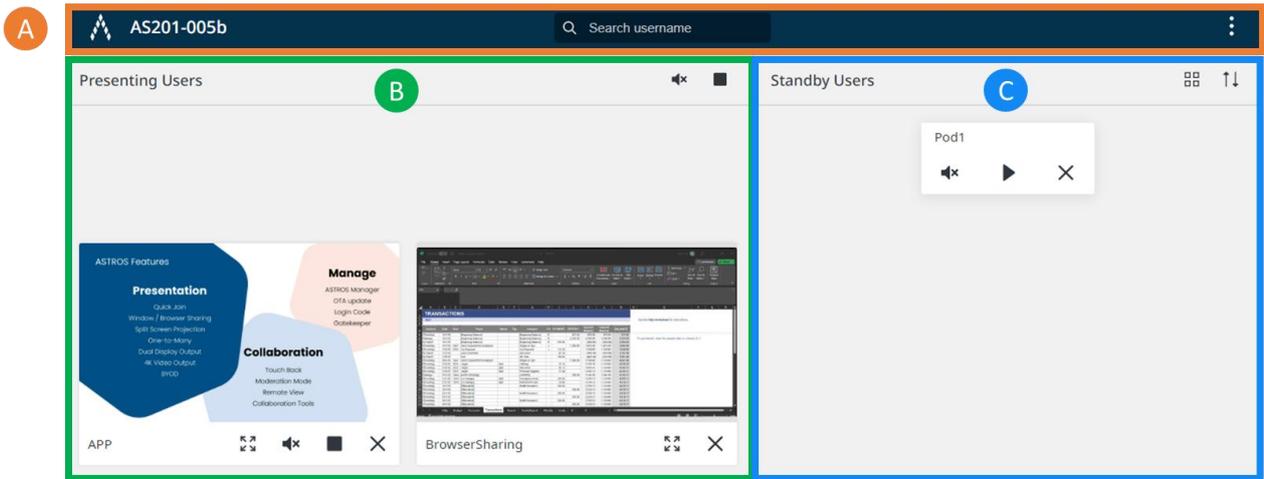
Log-in page of Moderation Mode



Log-in page of Moderation Mode

- 1 Go to the Landing page and click [Open in new tab] button 
- 2 Enter the password
- 3 Accept EULA and Privacy Policy and click [Login]

8.2 Control panel



Web Moderation Mode – Control panel

A Top Bar

Station name	AS201-005b	Show the connected Station which is moderated
Search Bar	Search username	Search the name of Presenting and Standby User
Setting list		Click the icon to expand the collapse panel
	<div data-bbox="571 1048 951 1547" data-label="Image"> </div>	<p>Show connection info. on the main display: Show the info bar on the projection screen, would disappear few seconds.</p> <p>Disconnect all users: Click to disconnect all connected users.</p> <p>Remote View: Enable / disable Remote View.</p> <p>Connected users: The number of users currently connected to this ASTROS Station.</p>

Remote View users:

The number of users who are currently viewing the main screen.

Language:

Language selection.

Log out:

Log out Web Moderation control panel.

B Projecting User

Show the projecting users, could mute  / unmute  and stop  all the users on the control panels.

C Standby User

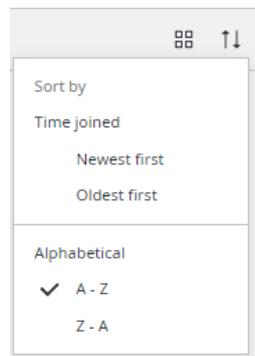
Show the standby users

Grid view  /List view 

Click to switch the view mode. Grid view to display the thumbnails.

Sorting list 

Sort the Station' s name

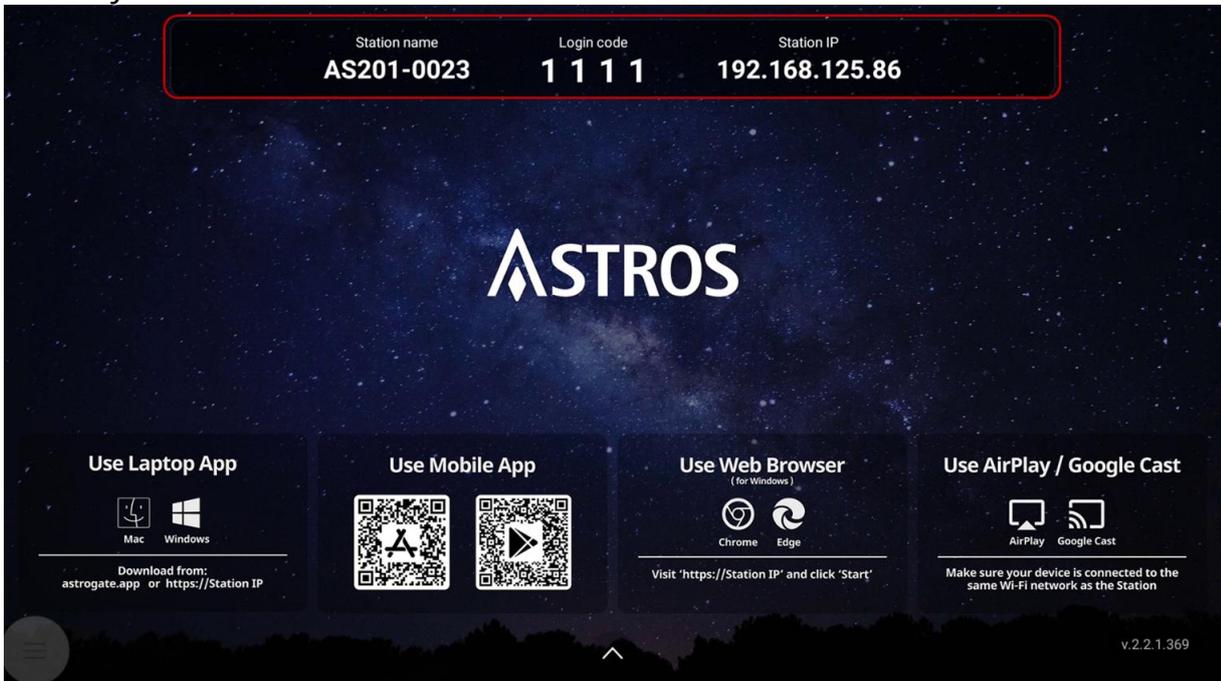


- ✧ The control panel would refresh automatically according to the changes made by moderator.
- ✧ ASTROS App for iOS / Android doesn't support thumbnails.
- ✧ AirPlay, Google Cast, and Browser Sharing cannot be muted / unmuted or stopped individually.

9 The Main Screen features and introduction

9.1 Information Panel

Information Panel is the area where you can find the name, IP address and login code of this ASTROS Station. Information Panel will always be on the top side of the Standby Screen.

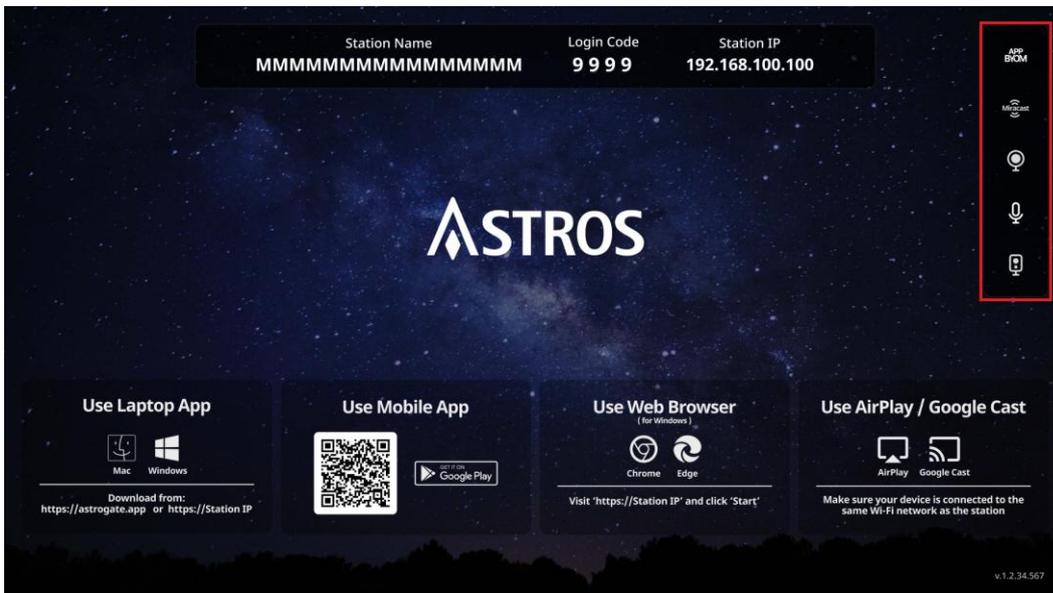


Information Panel (top side)

Station name	The name of this ASTROS Station
Station IP	The current IP address of this ASTROS Station
Login code	The login code of this ASTROS Station

Wireless video conferencing- When attaching the video conferencing devices to the Station, supported functions will display on the upper right corner of the main screen.

✦ Available on AS-201



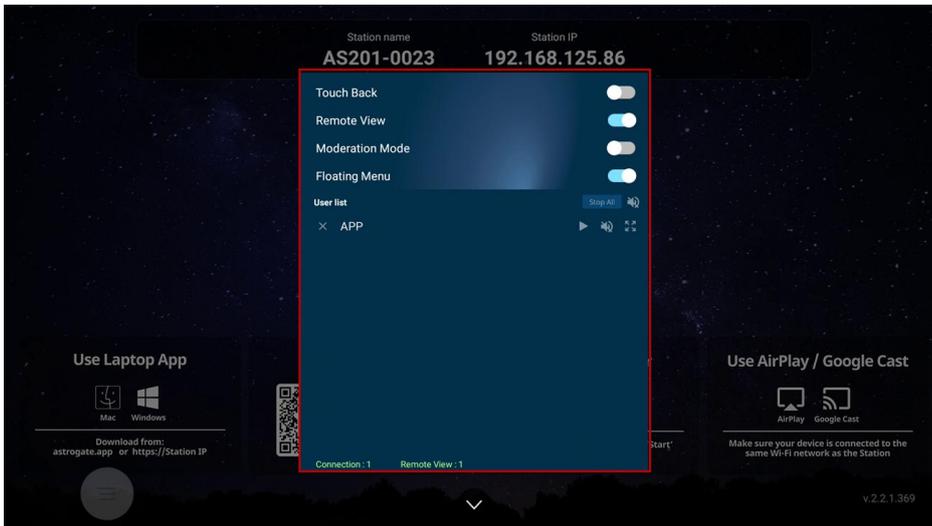
✦

Main screen – video conferencing icons

-  APP BYOM
-  Miracast
-  Camera
-  Microphone
-  Speaker

9.2 Control Panel

Control Panel allows you to quickly access settings and manage contents on the main screen.



Control Panel (red frame marked)

<p>Control Panel switch</p> 	<p>Control Panel switch will always appear at the bottom of the main screen if a touch display or a mouse is connected to the ASTROS Station.</p> <ul style="list-style-type: none"> • Tap once to expand the Control Panel. • Tap any other place to collapse the Control Panel.
<p>Touch back</p>	<p>When Touch back function is enabled and a touch display is connected to the Station, a user can operate a touch-supported device remotely from a touch display.</p>
<p>Remote View</p>	<p>When enabled, connected users can view the main screen from their own device with ASTROS App.</p>
<p>Moderation mode</p>	<p>Enabling Moderation Mode on the ASTROS to allow the moderator to control what is being displayed to the main screen and grant the moderator permission to disconnect a user from a session.</p> <p>When Moderation Mode is enabled.</p> <p>✧ <i>ASTROS Station only accepts screen sharing from the ASTROS App. Users can still connect to the ASTROS Station.</i></p>
<p>Floating menu</p>	<p>Enable to use the annotation/ Whiteboard/ Screen Capture features Disable to hide the Floating menu</p>
<p>User list</p>	<p>On the User List, connected users will be displayed. When Moderation Mode is enabled, you can control users' screen sharing including play, stop, pause, mute, unmute, and disconnect.</p>
<p>Stop all/ Mute all button</p> 	<p>Moderation mode enabled:</p> <ul style="list-style-type: none"> • Tap "stop all" button will force all current Screen Sharing to stop; the main screen will return to Standby Screen. • Tap "mute all" button once to mute all screen sharing; press again to unmute all screen sharing. <p>Moderation mode disabled: Stop all button and mute all button are disabled.</p>
<p>Connected user</p>	<p>Moderation mode enabled:</p> <ul style="list-style-type: none"> • You can control connected users' screen sharing including stop, mute, full screen, etc. <p>Moderation mode disabled: screen sharing control disabled.</p>
<p>Disconnect button</p> 	<p>Press to disconnect the user from the ASTROS Station.</p>

User name	The displayed name of the user. Press the area to stop or start screen sharing the user's device screen.
Mute button 	Press the button to mute or unmute the user's screen sharing.
Full screen button 	Press the button to make the user's screen sharing full screen; press again to resume previous content arrangement.
Connection (green string)	Showing how many users are currently connected to this ASTROS Station.
Remote View (green string)	Showing how many users are viewing the main screen from their own device with the Remote View feature.

9.3 Manage main screen content's layout

Auto layout

The shared contents will be automatically arranged by join order.

**AS-101 supports up to 2 contents simultaneously on screen; AS-201 supports up to 4.*

Manual layout

✧ To use this function, please disable Touch Back function on the Control Panel

you can rearrange the layout of the contents by dragging a content to the desired corners when more than one contents are shared to the main screen with a mouse or an interactive display connected..

9.4 Floating Menu and Collaboration Features

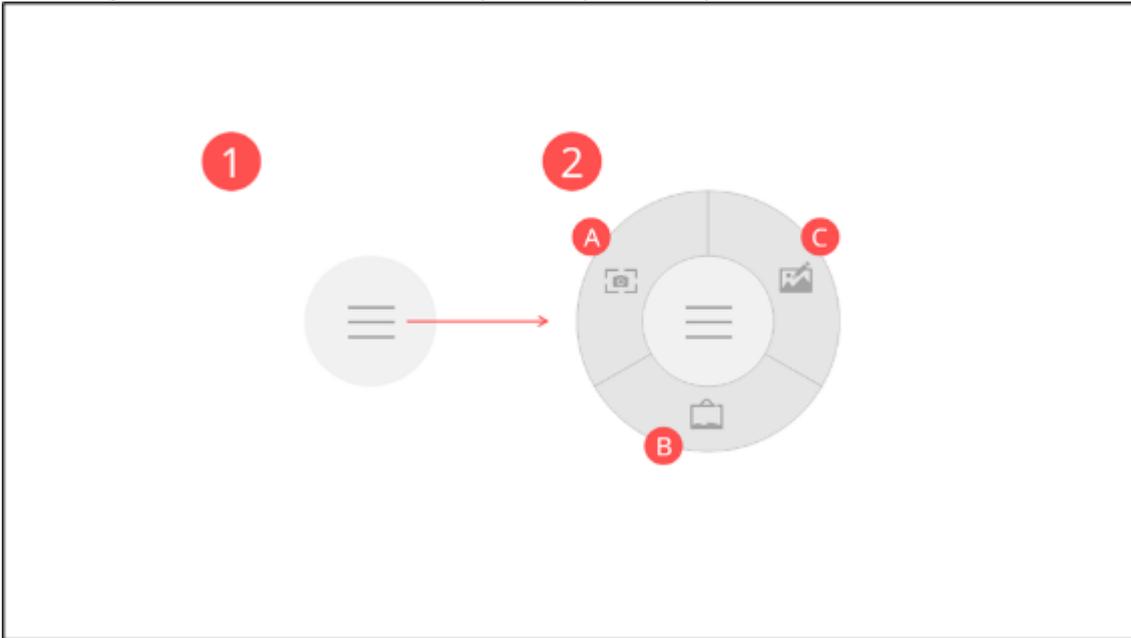
✧ Available on AS-201

Floating Menu

Floating Menu allows users to quickly access Whiteboard, Annotation and Screen Capture features.

1. Floating Menu will be automatically enabled if a touch display or a mouse is connected to the ASTROS Station.
2. Users can drag and move the Floating Menu to a desired location.
3. To hide the Floating Menu, please refer to [Floating Menu](#)

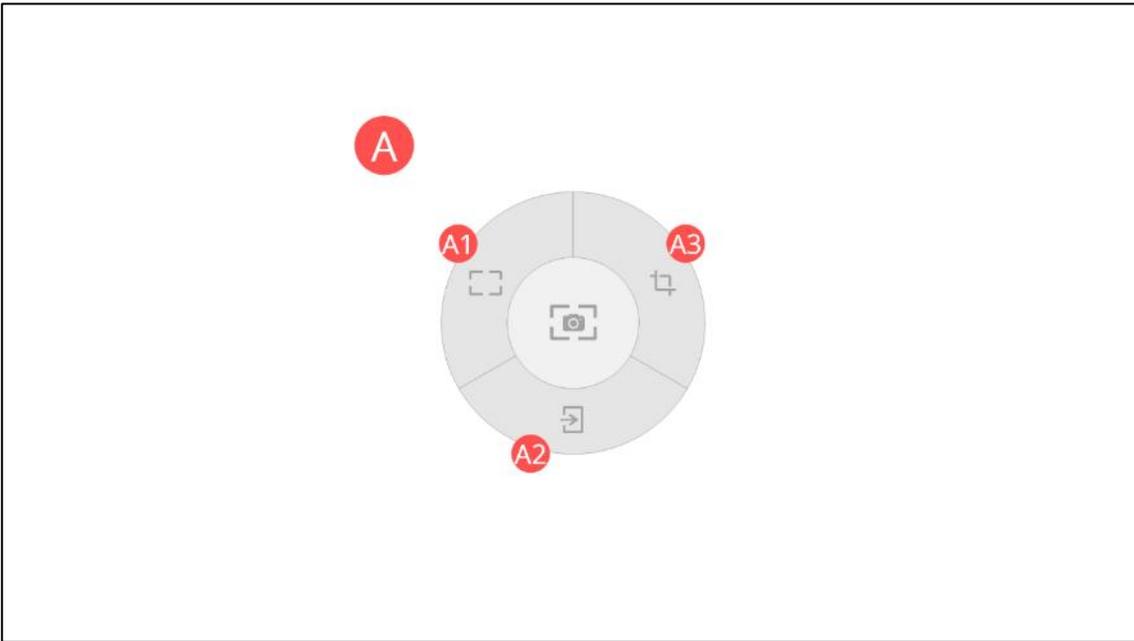
Floating Menu will fade to transparency if no operation is made for 15 seconds.



Floating Menu

1	Floating Menu idle state	Press the menu icon in the middle to expand the Floating Menu; press again to collapse.
2	Floating menu expanded	Access collaboration features by pressing corresponding icons.
A	Screen Capture	See Screen Capture introduction below
B	Annotation	See Annotation introduction below
C	Whiteboard	See Whiteboard introduction below

Screen Capture



Screen Capture menu

A	Screen Capture menu	
A1	Capture the entire screen	Capture the entire screen then choose to save the capture or import to Whiteboard for further editing.
A2	Exit	Exit to previous menu
A3	Capture a custom area	Select a custom area to capture then choose to save the capture or import to Whiteboard for further editing

✧ Regarding saving options, please see [Save Option] below

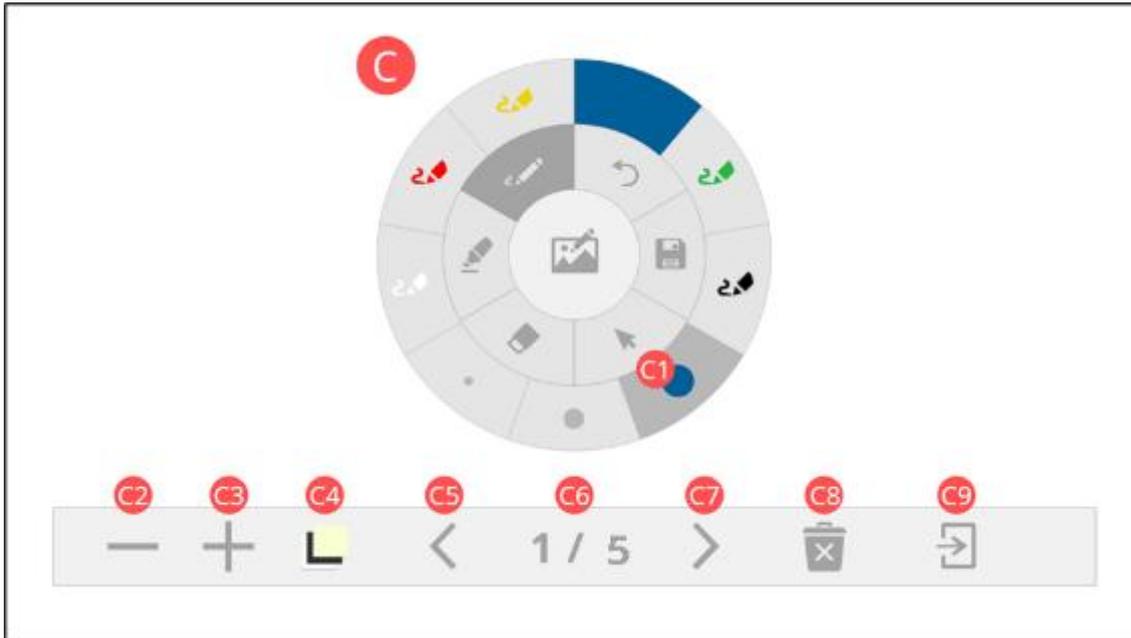
Annotation



Annotation menu

B	Annotation menu	
B1	Pencil	Select to draw solid lines. Select from 3 thickness and 6 colors.
B2	Highlighter	Select to draw transparent lines. Select from 2 thickness and 4 colors.
B3	Eraser	Select from 3 thickness or press the sweeper icon to clear all.
B4	Exit	Exit to previous menu
B5	Save	Capture the entire main screen including the annotated contents then save or import to Whiteboard for further editing.
B6	Undo	Undo up to 10 steps.

Whiteboard



Whiteboard menu

C	Whiteboard menu	
C1	Select	
C2	Delete page	Delete current whiteboard page.
C3	Add page	Add one whiteboard page. Your view will be switched to the newly added page.
C4	Select background	Select background for the current whiteboard page.
C5	Previous page	Go to the previous whiteboard page.
C6	Current page/ Total page	Maximum to 5 pages of total
C7	Next page	Go to the next whiteboard page.
C8	Discard all pages	Delete all whiteboard pages.
C9	Exit	Quit whiteboard and exit to previous menu.

Save Option

When using Screen Capture, Annotation or Whiteboard, you can use the built-in save function to save your current work



Save interface

Format	<ul style="list-style-type: none"> By selecting <i>image</i> your work will be saved as .png format. In Whiteboard, all whiteboard pages will be compressed into one .zip file. By selecting <i>PDF</i>, your work will be saved as .pdf format that contains all whiteboard pages.
Save to	Choose save to USB drive or Local drive <i>*save to USB drive only available when USB drive plugged</i>
Cancel	Exit Save option menu
Save	By clicking Save, a QR code displayed on the main screen, you can download the saved work by scanning the QR code. 
Paste into whiteboard	In Screen Capture and Annotation, you may choose to paste your work to Whiteboard for further editing.

10 Compliance Statements

10.1 Federal Communications Commission (FCC)

Statement

This device has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/display technician for help.

Notice: Shielded cables

All connections to other computing devices must be made using shielded cables to maintain compliance with FCC regulations.

Caution

Changes or modifications not expressly approved by the manufacturer could void the user's authority, which is granted by the Federal Communications Commission, to operate this device.

Operation Conditions

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference and
2. This device must accept any interference received, including interference that may cause undesired operation.

Notice: Canadian users

This Class B digital apparatus complies with Canadian ICES-003.

Remarque l'intention des utilisateurs canadiens

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

10.2 FCC RF Radiation Exposure Statement

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. (For only one antenna)

2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

10.3 NCC Warning Statement

根據 NCC LP0002 低功率射頻器材技術規範_章節 3.8.2 :

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

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應避免影響附近雷達系統之操作。

天線為高增益指向性只得應用於固定式點對點系統。

10.4 Warning

- 1 When AS-101 or AS-201 is running in PoE mode and connected to USB devices such as touch panel, mouse or USB drive, please note all USB ports are not allowed to be connected
- 2 About the RTC battery inside the ASTROS Station:
 - The RTC battery is forbidden to charge, decompose, heat, or throw into fire.
 - Do not ingest or swallow the RTC battery, or it can cause severe internal burns in just 2 hours and can lead to death.
 - Keep the RTC battery away from children.
- 3 Please use in accordance with the product manual to avoid damage to the product and affecting the warranty.
- 4 Product problems caused by the following improper use will not be covered by the warranty:
 - Disassemble or repair the product by yourself;
 - Disassemble or replace the RTC battery in the product;
 - Make the system short-circuit by spraying liquid improperly on the system;
 - Use equipment that is not in the product packing, such as power adapter or antennas, etc.

If you have any other questions, please contact our customer support or distributor, and send the product for repair if necessary.

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10.8 Declaration of conformity

EMC Directive 2014/30/EC (including amendments)

10.9 WEEE

Disposal instructions

Do not throw this electronic device into the trash when discarding. To minimize pollution and ensure utmost protection of the global environment, please recycle it.