

MT300 Matrix Tracking Box

— User Manual —

Federal Communication Commission

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radiofrequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

PSTI Statement of Compliance

Please refer to the following website: <https://www.aver.com/product-security-advisory>

Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Caution

Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

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More Help

For FAQs, technical support, software and user manual download, please visit:

Non-USA

Download Center: <https://www.aver.com/download-center>

Technical Support: <https://www.aver.com/technical-support>

USA

Download Center: <https://www.averusa.com/pro-av/support/>

Technical Support: <https://averusa.force.com/support/s/contactsupport>

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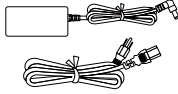
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Overview

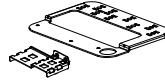
Package Contents



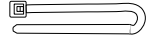
MT300
Matrix Tracking Box



Power Adapter &
Power Cord



Cable Fixing Plate
(x2)



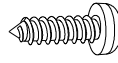
Cable Ties (x13)



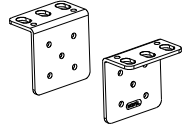
3.0 x 5mm
Flat Head Screw (x5)



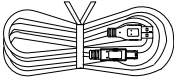
3.0 x 5mm
Truss Head Screw
(x4)



M3 x 10mm
Screws (x4)



Rack Mount Bracket
(x2)



USB 3.0 Cable (x2)
1.5 m/4.92 ft



RS-422 Cable

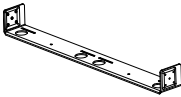


Quick Start Guide



Warranty Card
(Japan only)

Optional Accessories



Server Rack Mount

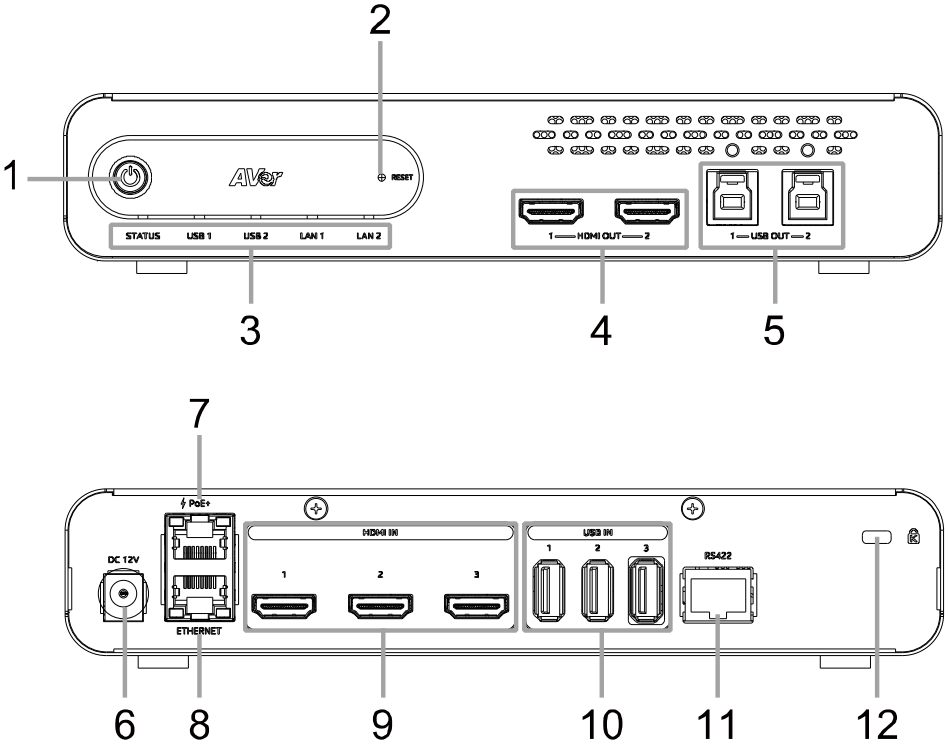


3.0 x 5mm
Flat Head Screw (x3)



3.0 x 5mm
Truss Head Screw (x2)

Parts Info



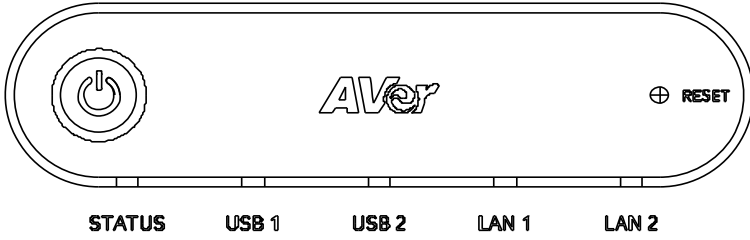
Front Panel

1. Power Button
2. Reset Button
3. LED Indicators
4. HDMI Out Port (x2)
5. USB Out 3.0 Type-B Port (x2)
(single USB out port per use only)

Back Panel

6. DC Power Jack
7. PoE+ Port IEEE 802.3AT
8. Ethernet Port
9. HDMI In Port (x3)
10. USB In 2.0 Type-A Port (x3)
11. RS-422 Port
12. Kensington Lock

LED Indicators



STATUS

Color	Status
Solid orange	Standby
Solid green	Normal
Flashing green	Firmware upgrade

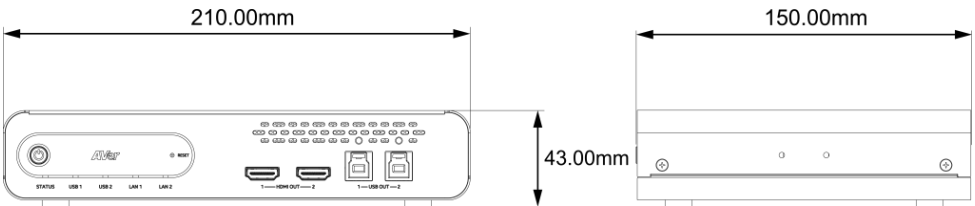
USB 1, USB 2

Color	Status
Solid green	Connected
Flashing green	Streaming

LAN 1, LAN 2

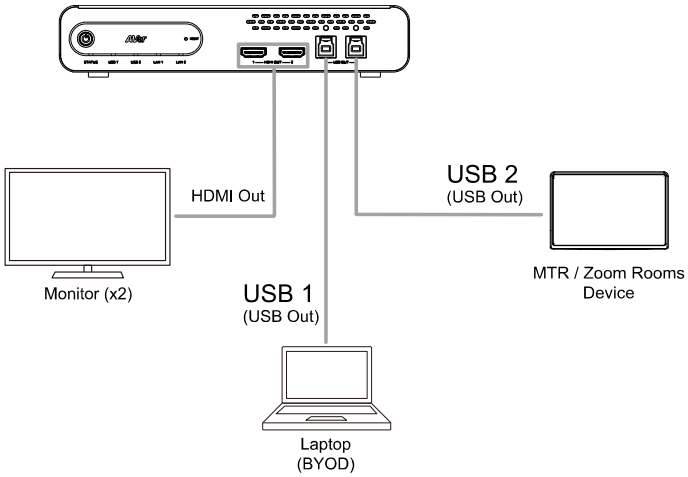
Color	Status
Solid green	Connected

Dimensions

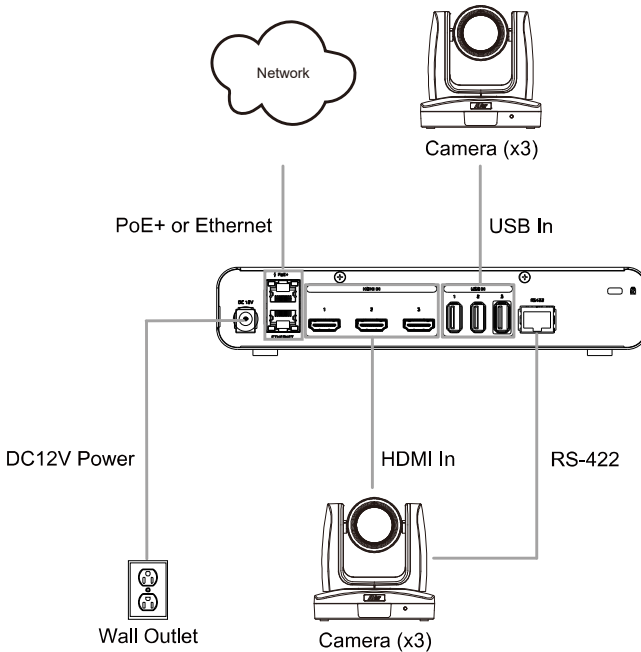


Connections

Front Panel

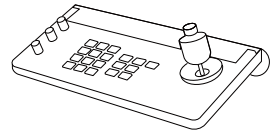
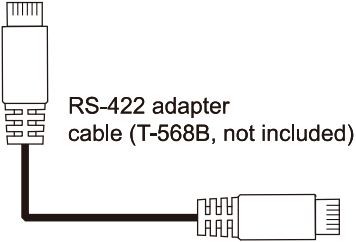
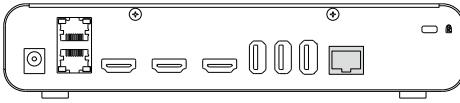
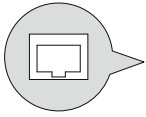


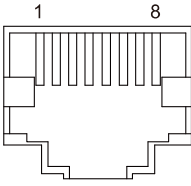
Back Panel



RS-422 Connection

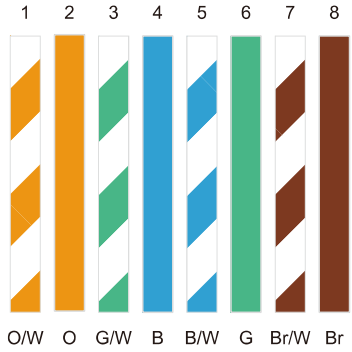
Use an RS-422 adapter cable to make a RS-422 connection to your control device.



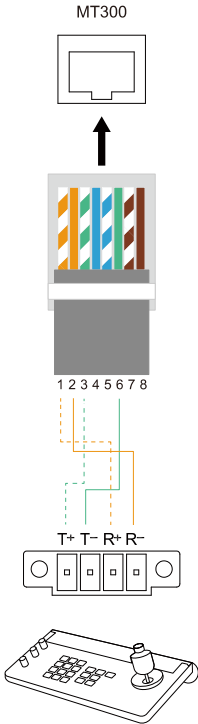


Pin #	Pin
1	TX+
2	TX-
3	RX+
4	TX+
5	TX-
6	RX-
7	RX+
8	RX-

RS-422 Port Pin Definition



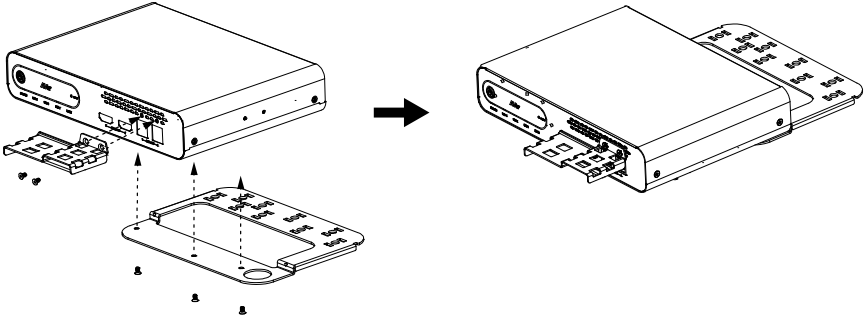
T-568B Cable



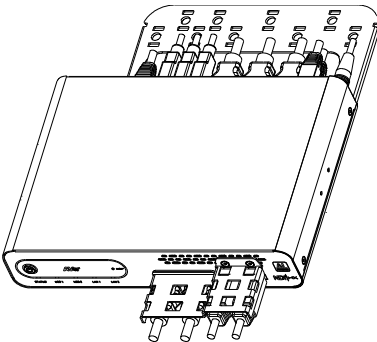
Installation

Cable Fixing Plate Installation

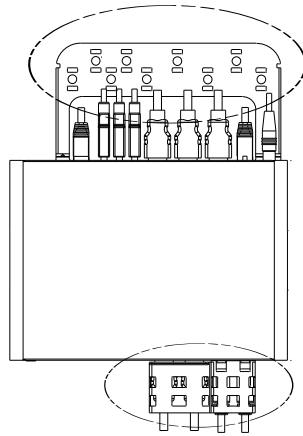
1. Secure the cable fixing plates to the tracking box with 5 flat hat 3.0 x 5 mm screws in the package.



2. Plug in cables.

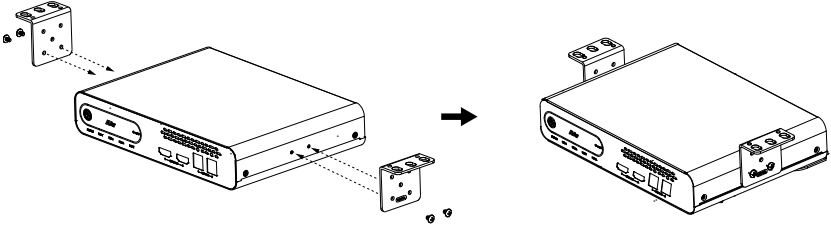


3. Use 13 cable ties in the package to secure the cables and cable fixing plates.

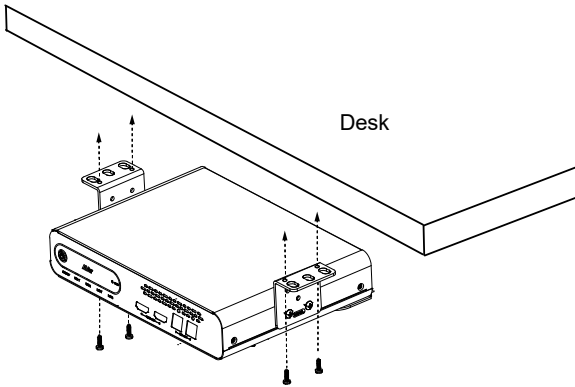


Desk Mount Installation

1. Secure the mount brackets on the tracking box.
Screw: 4 truss head screws, 3.0 x 5 mm

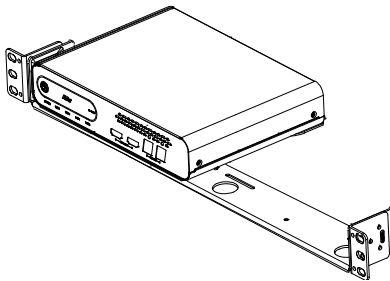


2. Install the mount brackets and the tracking box under the desk.
Screw: 4 screws, M3 x 10 mm



Server Rack Mount (Optional Accessories)

For details on optional accessories, consult your local dealer.



Get Started

Supported AVer Devices

Professional Tracking Cameras

- Single Lens

TR211	TR311HWV2	TR310
TR315	TR313V2	TR311
TR315N	TR323V2	TR311HN
TR335	TR323NV2	TR313
TR335N	TR333V2	TR331
	PTC310HWV2	TR333
	PTC310UV2	PTC310
	PTC320UV2	PTC310N
	PTC320UNV2	PTC310U
	PTC330UV2	PTC330
		PTC330U

- Dual Lens

TR535	TR530+
TR535N	PTC115+
	PTC500+

Professional PTZ Cameras (Do not support Human Tracking)

PTZ211	PTZ310
PTZ231	PTZ310N
PTZ310UV2	PTZ310W
PTZ310UNV2	PTZ330
PTZ330UV2	PTZ330N
PTZ330UNV2	PTZ330W

Video Conferencing Cameras (Do not support Active Position)

CAM520 Pro3
CAM550
CAM570

Distance Learning Camera (Do not support Active Position)

DL30

Supported Microphones

Important Note on Voice Tracking Installation

When installing voice tracking systems, consider the environment, materials, and distances to ensure optimal performance. Assess the room size, layout, and acoustics, as these factors impact accuracy. Different surfaces affect sound reflection and absorption, influencing effectiveness. Measure and maintain appropriate distances between devices and the coverage area for clear tracking. To achieve the best experience, connect with an AVer technical expert who can tailor the installation to your specific needs.

Third-party microphone systems may require setup in their manufacture software. Turn on **Multicast** on your router before setting up.


Audio-Technica

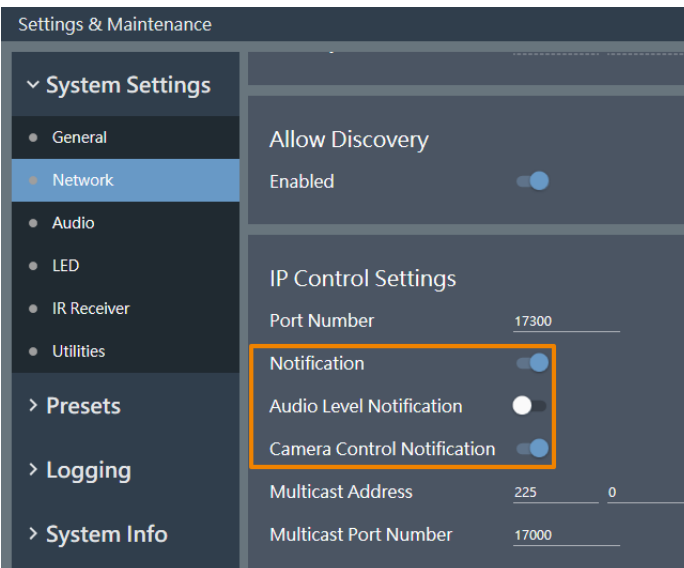
ATND1061LK/DAN

ATUC-50

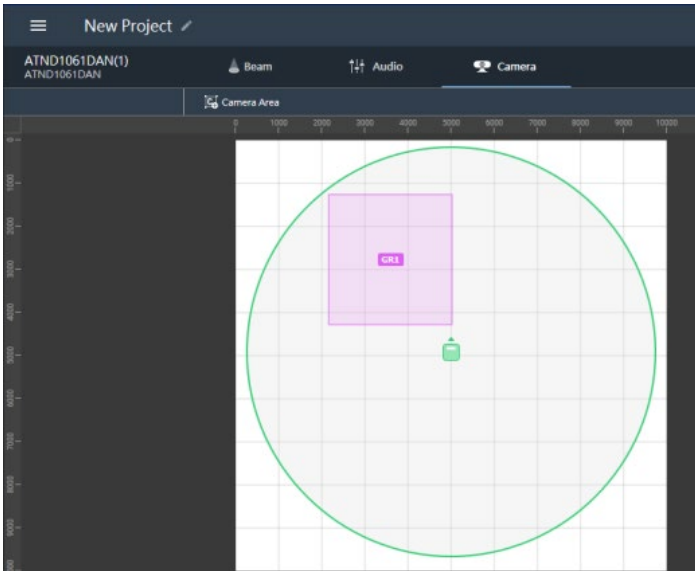
ATUC-IR

To set up ATND1061LK/DAN Beamforming Ceiling Array Microphone:

1. Open Digital Microphone Manager. Go to **Settings & Maintenance**  > **System Settings** > **Network** > **IP Control Settings**.
2. Turn on **Notification** and **Camera Control Notification**.



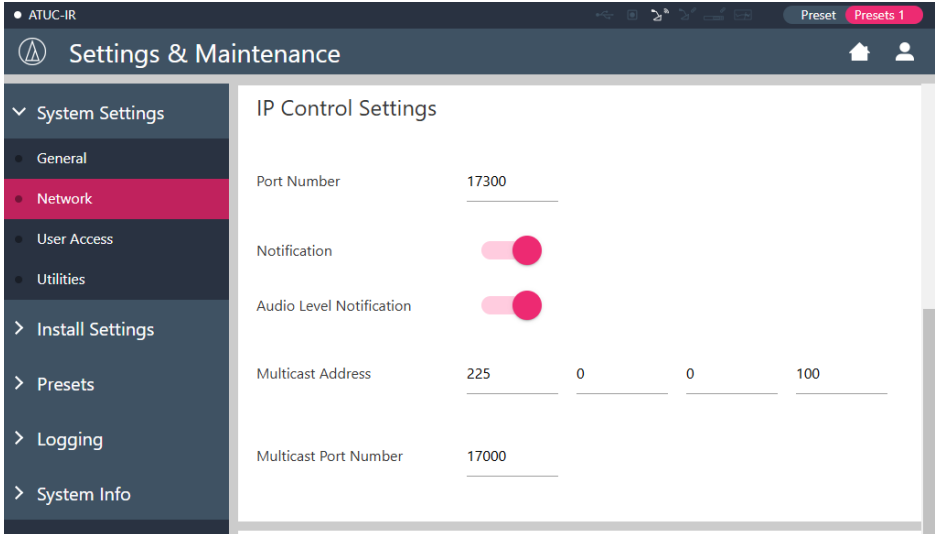
3. Select a microphone in the main area.
4. Go to **Camera > Camera Area**. Add a Camera Area by dragging it within the microphone pickup area. Each Camera Area group corresponds to MT300 channel 1-8.



To set up ATUC-IRCU infrared control unit:

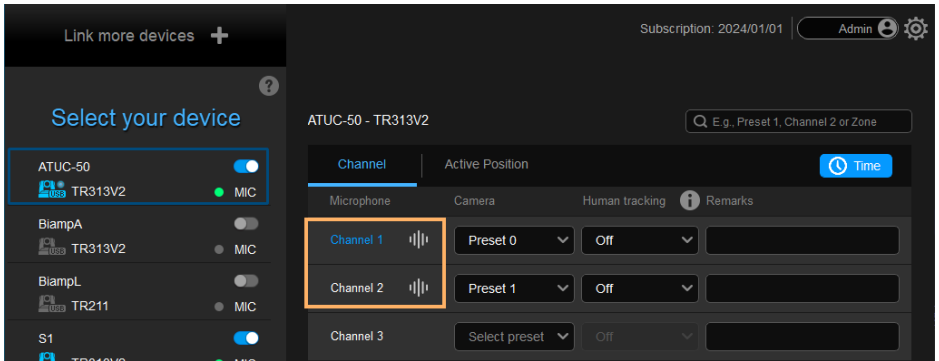
1. On the ATUC-IRCU Web Remote interface, go to **Settings & Maintenance > System Settings > Network > IP Control Settings**.
2. Turn on **Notification**.

Note: If a powered-off ATUC-IRDU appears to be sending audio signal in MT300, turn on **Audio Level Notification** to resolve the issue.



Pairing ATUC-50 with AVer camera presets for voice tracking :

- Each ATUC-50DU or ATUC-IRDU discussion unit corresponds to an MT300 channel.
- A discussion unit whose talk button is pressed first takes priority over others until it is mute. For example, Channel 1 (pressed first) takes priority over Channel 2 whose talk button is also pressed.



Biamp

Tesira Digital Signal Processor

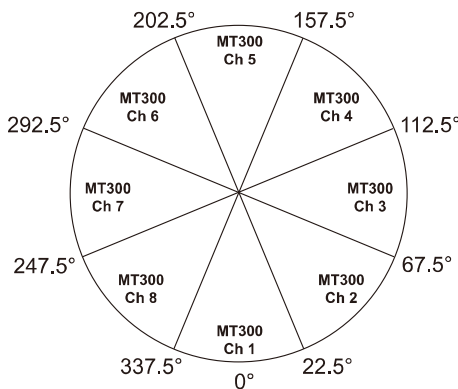
Parlé Ceiling Microphones (requires Parlé product revision A or B)

Hardware and Channels Overview

Tesira Digital Signal Processor	Tesira Forte X, Tesira Forte Rackmount, Tesira Server IO, Tesira Server.
Parlé TCM-X	Plenum network box + one ceiling-mount microphone array
Parlé TCM-XA	Plenum network box with built-in amplifier+ one ceiling-mount microphone array
Parlé TCM-XEX	One expansion ceiling-mount microphone array

Up to 2 ceiling microphone arrays are permitted per network box (one TCM-X or TCM-XA with TCM-XEX).

Each ceiling microphone array has 8 channels. MT300 divides the microphones' horizontal angles into 8 equal parts, which correspond to MT300 Channel 1 - 8.

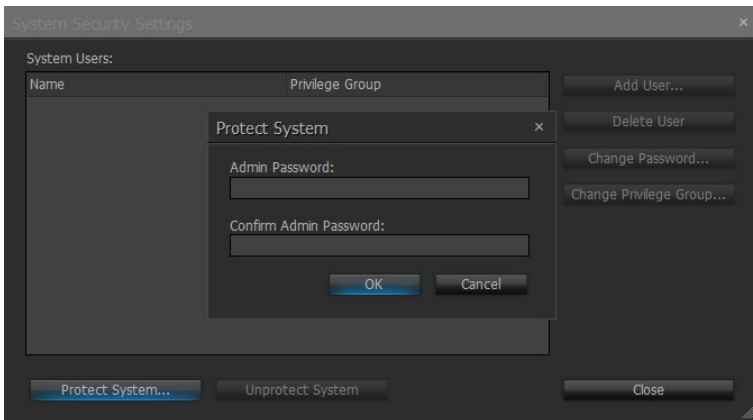


Microphone	Channel Start/End
AVerParleMic1	1-8 (ceiling mic 1) 9-16 (ceiling mic 2)
AVerParleMic2	17-24 (ceiling mic 1) 25-32 (ceiling mic 2)
AVerParleMic3	33-40 (ceiling mic 1) 41-48 (ceiling mic 2)
AVerParleMic4	49-56 (ceiling mic 1) 57-64 (ceiling mic 2)
AVerParleMic5	65-72 (ceiling mic 1) 73-80 (ceiling mic 2)
AVerParleMic6	81-88 (ceiling mic 1) 89-96 (ceiling mic 2)

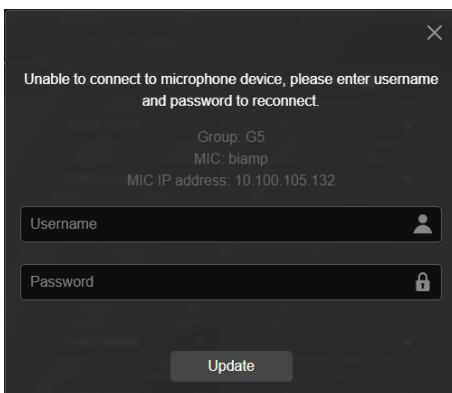
To enable system security:

You can protect 3rd party media control access for the Tesira system using username and password.

1. After the DSP has been configured, connect to the unprotected Tesira system with Tesira Designer Software.
2. Open the **System** page > **Security** menu > **Manage System Security...**
3. Click the **Protect System...** button to create the admin user and password.



4. You'll be prompted to enter the same set of username and password when connecting to Biamp microphones in MT300.

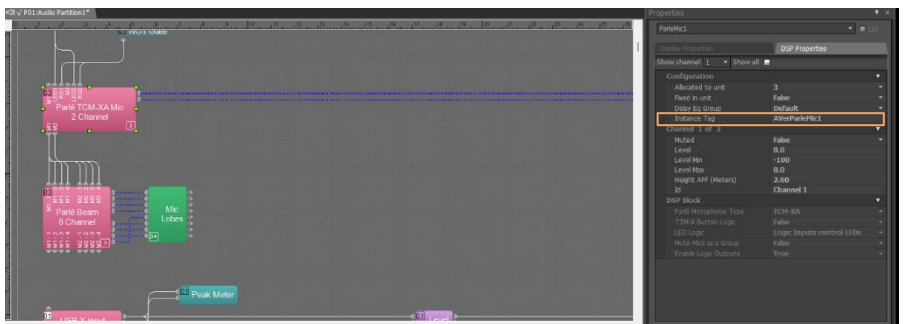


To set up Parlé TCM-X microphones:

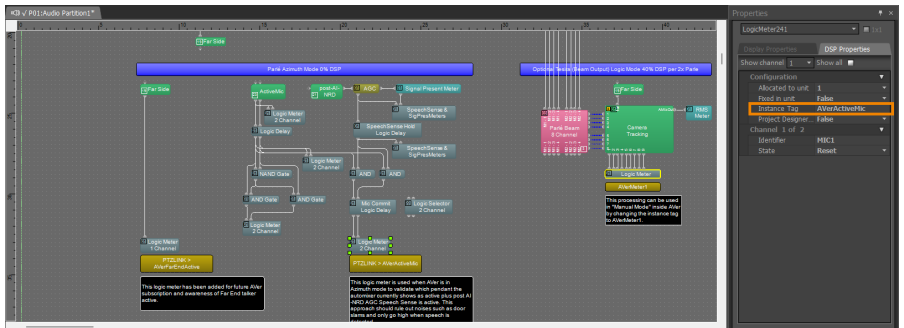
1. Open Tesira Design Software.
2. After the TCM-X microphone has been added to the layout, the instance tag of the Parlé microphone block or Logic Meter block to be controlled must use the following naming schemes.

To check or rename the instance tag of a specific block, click on that block, go to **Properties** panel > **DSP Properties** tab > **Instance Tag**.

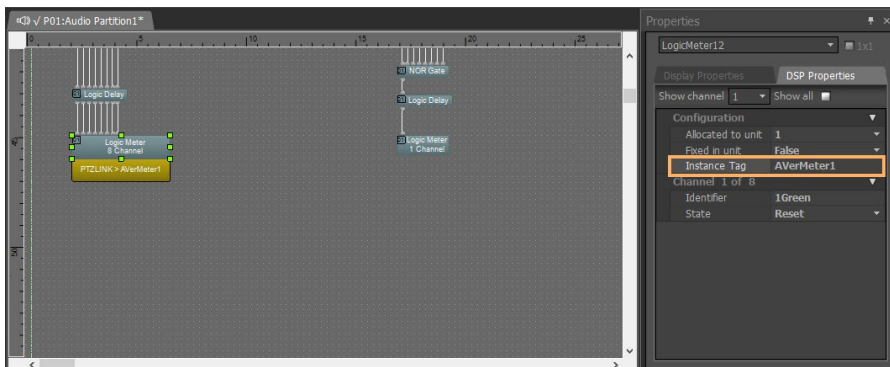
- Parlé microphone block: **AVerParleMicX** (X=1–6 starting with 1)



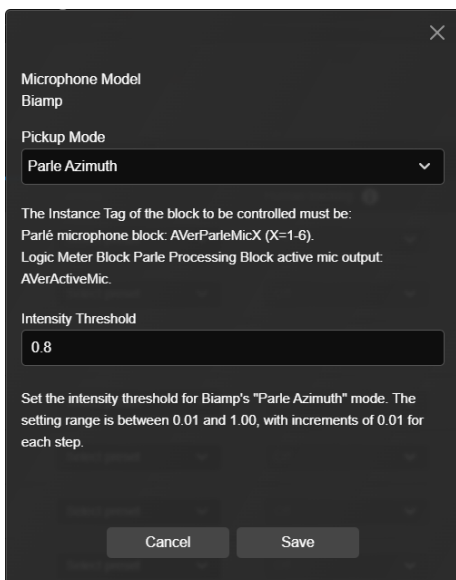
- Logic Meter Parle Processing active mic output: **AVerActiveMic**



- Logic Meter block: **AVerMeterX** (X=1–4 starting with 1)



3. Click **Channel Configure** and select a pickup mode in MT300. Then lick **Save**.



Bosch

CCS 1000 D Digital Discussion System

DICENTIS Wireless Conference System

- Each CCS 1000 D Control Unit supports up to 80 Discussion Devices.
- Assign each CCS 1000 D Discussion Device to one MT300 channel by changing the seat name.
- A discussion unit whose talk button is pressed first takes priority over others until it is mute. For example, Channel 1 (pressed first) takes priority over Channel 2 whose talk button is also pressed.

The screenshot displays the 'Manual Mode Settings' for a Bosch TR311HWV2 system. On the left, under 'Auto Mode Settings', the 'Select Output Layout' is set to 'Side by side' and the 'Select group' is 'Bosch TR311HWV2'. The main area shows a table of channels with columns for 'Channel', 'Active Position', 'Microphone', 'Camera', 'Human tracking', and 'Remarks'. Channel 1 is highlighted with an orange box, showing 'Preset 0' and 'Hybrid' settings. Channel 2 is also highlighted, showing 'Preset 1' and 'Zone' settings. Channels 3 through 8 are listed with 'Select preset' and 'OFF' settings. A 'Time' button is visible in the top right of the channel settings area.

Channel	Active Position	Microphone	Camera	Human tracking	Remarks
Channel 1	Presets	Microphone icon	Camera icon	Hybrid	
Channel 2	Presets	Microphone icon	Camera icon	Zone	
Channel 3	Presets	Microphone icon	Camera icon	OFF	
Channel 4	Presets	Microphone icon	Camera icon	OFF	
Channel 5	Presets	Microphone icon	Camera icon	OFF	
Channel 6	Presets	Microphone icon	Camera icon	OFF	
Channel 7	Presets	Microphone icon	Camera icon	OFF	
Channel 8	Presets	Microphone icon	Camera icon	OFF	

To set up CCS 1000 D:

1. Connect to the CCS 1000 D Control Unit through IP. Access the web interface with an administrator account.
2. Go to **System Settings > Users**, create a user for MT300 with the default username/password **ptzlink/ptzlink**. The password can be changed later. For **User rights**, select **Manage meeting**.

The screenshot shows the 'User settings' page with a list of users. A '+' icon is circled in orange, indicating the 'Add new user' action. The 'Add new user' dialog box is open, showing the following fields and options:

First name	AVer	User rights:	Manage meeting	Configure
Last name	Information		Prepare meeting	Prepare system
Username	ptzlink		Modify users	
Password	ptzlink			
Confirm password	ptzlink			

Buttons: Cancel, Save, Change password

3. Go to **System Settings > Network and general settings > General settings**, deselect **Automatically shut down the system when not used** to avoid entering standby mode.

The screenshot shows the 'Network and general settings' page. The 'General settings' section is highlighted with an orange box, showing the following option:

Automatically shutdown the system when not used

Buttons: Change network settings, Factory default

4. Go to **System Settings > Seats**, rename the **Seat name** ending with a space and a number to assign each discussion device to one MT300 channel of the same number.

Seat settings

(2-2)	Seat name	Mode	Camera	Pre-position
<input type="checkbox"/>	Seat 1	Normal	None	
<input type="checkbox"/>	Seat 2	Normal	None	

Selection mode De-init Remove disconnected seats

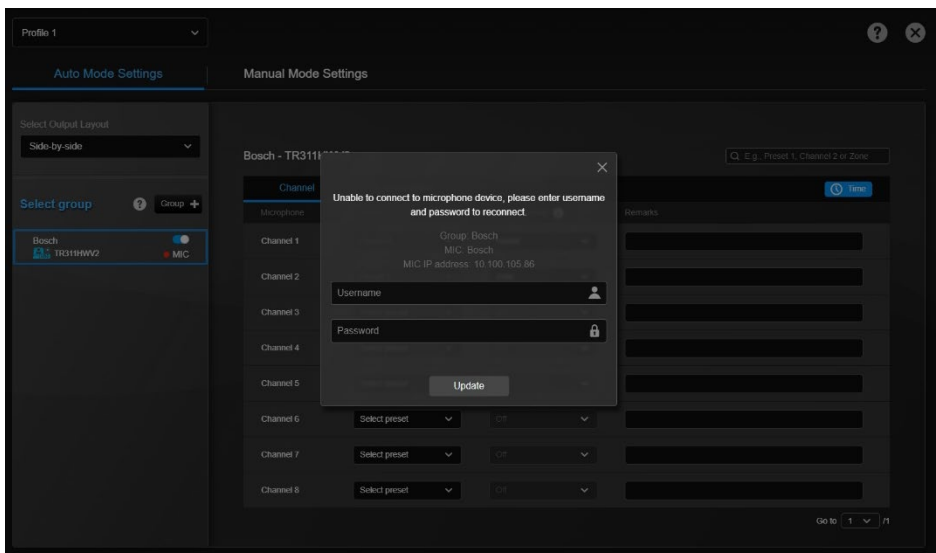
Navigation icons: Home, Back, Forward

Seat 1 corresponds to channel 1, seat 2 to channel 2, and so on.

5. You'll be prompted to enter the same set of username and password when connecting to Bosch microphones in MT300.

Note:

CCS 1000 D Control Unit allows one login at a time. When connecting CCS 1000 D Discussion Devices to MT300, make sure you are not logged in anywhere else.



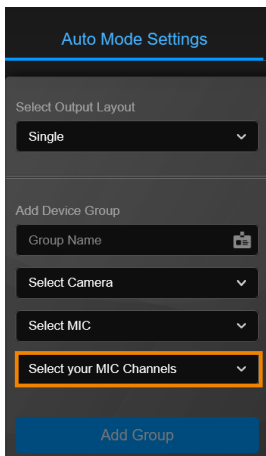
ClearOne

BMA 360 + CONVERGE® Pro 2 DSP Mixers

- CONVERGE® Pro 2 connects up to 3 daisy-chained BMA 360 microphone arrays.
- MT300 assigns 12 channels to each BMA 360. Unused channels are retained in the assigned BMA 360.

Daisy-Chained	Channel Start/End
1 st BMA 360	1-12
2 nd BMA 360	13-24
3 rd BMA 360	25-36

- When adding your device in MT300, select your MIC channels in the drop-down list according to the number of BMA 360 daisy-chained.



The screenshot shows the 'Auto Mode Settings' screen in the MT300 application. It features several configuration options:

- Select Output Layout:** A dropdown menu currently set to 'Single'.
- Add Device Group:** A section containing:
 - Group Name:** A text input field with a calendar icon.
 - Select Camera:** A dropdown menu.
 - Select MIC:** A dropdown menu.
 - Select your MIC Channels:** A dropdown menu, which is highlighted with an orange border in the image.
- Add Group:** A blue button at the bottom of the settings panel.

BMA 360D

- Use CONSOLE AI Lite software to select preset beam patterns for common room or custom pattern for unique floorplans of up to 12 beams.
- Each microphone beam corresponds to one MT300 channel of the same number.

CONSOLE AI Lite - BMA 360D

Channel Properties

SmartMix 360

Pre Gain: -20 to 20 dB

Gain (dB): -20 to 20 dB, -45.0

Post Gain: -20 to 20 dB, 73 dB

AEC: [Active] ALC: [Active] Filter: [Active] Mute: [Active]

AEC Reference: [Active] Linked Channel: <None> Gain (dB): -20 to 20 dB, 0.0 Post Gain: -20 to 20 dB, 107 dB

Beam Presets: Coverage Pattern: Rectangle Coverage Size: Small 6

Changing the Coverage Pattern or Size will overwrite any custom beam settings.

Display as contour lines

Double click to enable/disable beams

Speaker 1, 2, 3, 4: Gain (dB): -20 to 20 dB, 0.0 Filter: [Active] Mute: [Active] Polarity: [Active]

BMA 350D

Nureva

HDL300

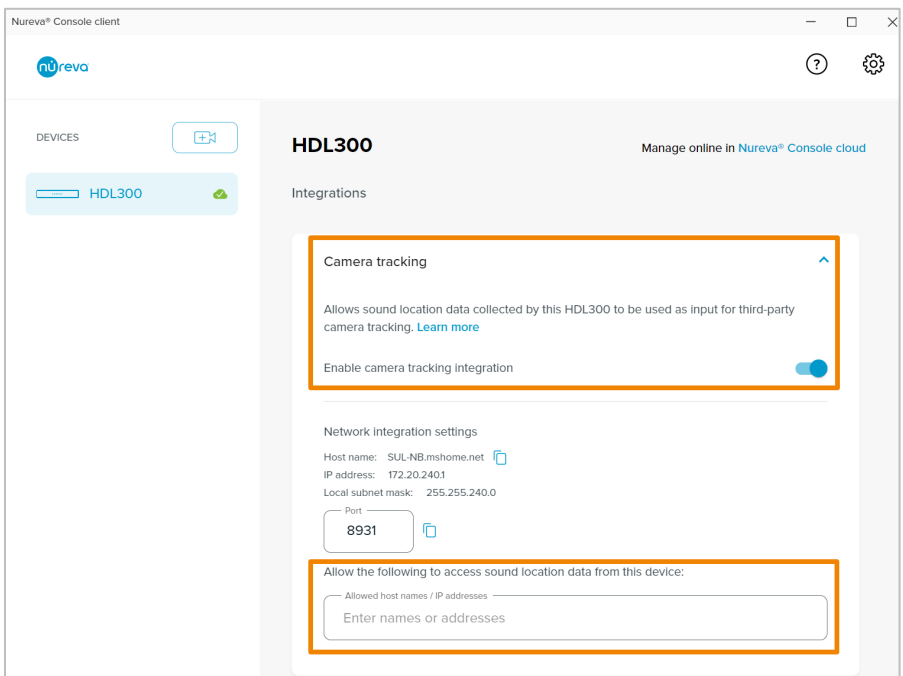
HDL310

Dual HDL300

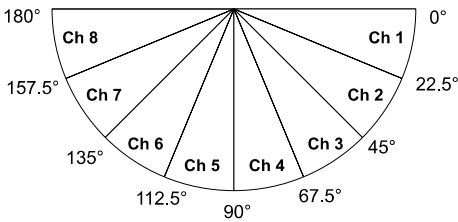
HDL410

To set up HDL microphones:

- Nureva Console Client:
 1. Turn on **Enable camera tracking integration**.
 2. Enter the IP address of the computer running MT300 in the **Allowed host names / IP addresses** field.



- MT300:
MT300 divides HDL microphones' horizontal angles into 8-24 equal parts, which correspond to MT300 channel 1-24.

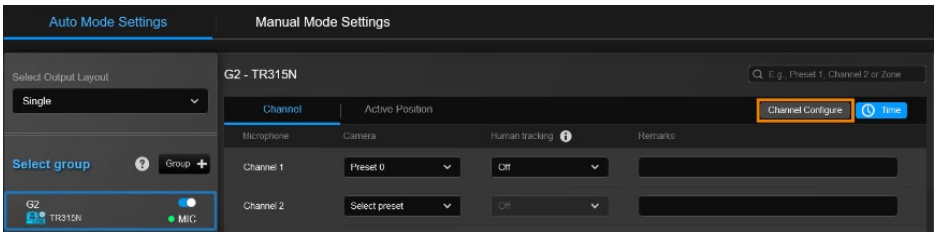


When adding microphones in MT300, enter the IP address of the computer running Nureva Console Client in the **IP Address** field.

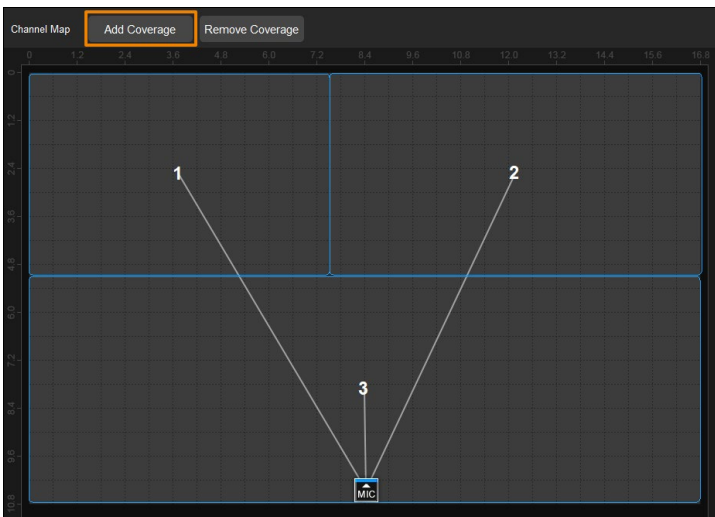
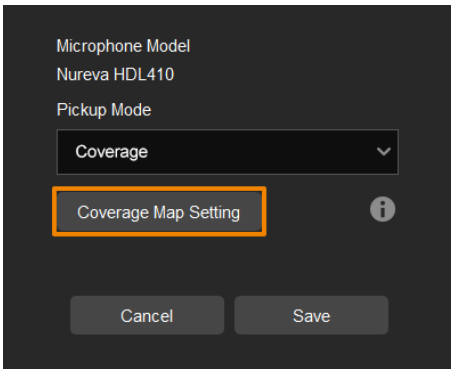
The screenshot shows the 'Add New Device' dialog box. It has a title bar with a close button (X). Below the title bar, there is a label 'Select Camera or Microphone' and a dropdown menu currently showing 'Microphone'. Below that is another dropdown menu labeled 'Microphone Brand'. The 'IP Address' field is highlighted with an orange border and contains a microphone icon. Below it is a 'Device Name' field with a folder icon. At the bottom, there are 'Cancel' and 'Save' buttons.

To add a coverage area for HDL410 in MT300:

1. Go to **Auto Mode Settings** > **Channel** > **Channel Configure**.



2. Select **Coverage** from the **Pickup Mode** drop-down list.
3. Click **Coverage Map Setting** > Click **Add Coverage**.



4. Add a coverage area by dragging it.

- You can add up to 8 coverage areas per microphone.
- When coverage areas overlap, the microphone will default to the area with the smaller number.

Sennheiser

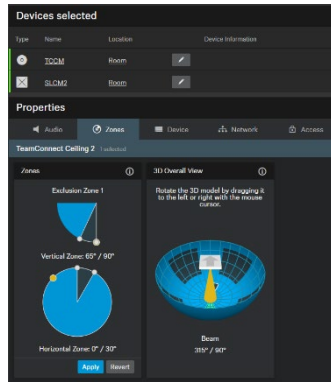
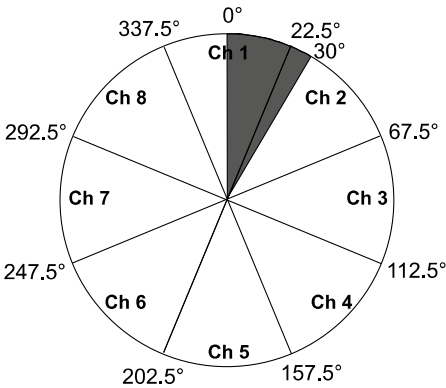
TeamConnect Ceiling 2

TeamConnect Ceiling Medium

MT300 divides TeamConnect Ceiling 2's and TeamConnect Ceiling Medium's horizontal angles into 8-24 equal parts, which correspond to MT300 channel 1-24.

- **TeamConnect Ceiling 2**

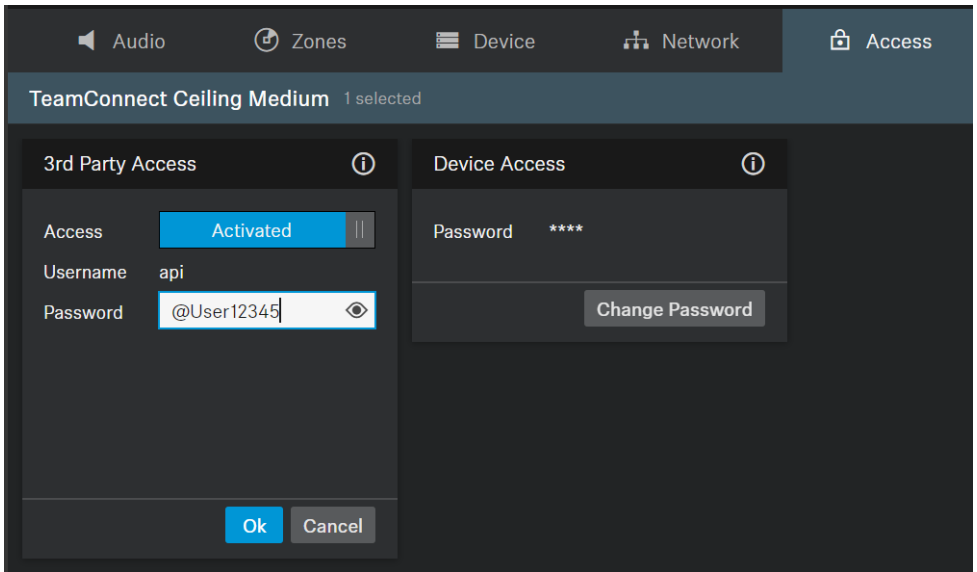
An Exclusion Zone set in Sennheiser Control Cockpit also affects the corresponding channel in MT300.



Sennheiser Control Cockpit

- **TeamConnect Ceiling Medium**

The 3rd party media control access for TeamConnect Ceiling Medium is encrypted and protected using username and password. It has to be enabled using Sennheiser Control Cockpit before use.



To set a 3rd Party device control password:

1. Open Sennheiser Control Cockpit. Go to the **Access** tab in the device configuration page.
2. Activate the toggle switch.
3. Enter a password.
4. You can use the username "api" and configured password for your API calls.

Note:

- If you deactivate 3rd party access, the previously set password will be deleted.
- Password must be at least 10 characters and no more than 64 characters. Use at least one lowercase letter, one uppercase letter, one number and one special character (!#\$%&()*+,-./:;<=>?@[^_{}~).

Shure

Shure® IntelliMix® P300 Audio Conferencing Processor

Shure® IntelliMix® Room Audio Processing Software

Shure® MXA310 Table Array Microphone

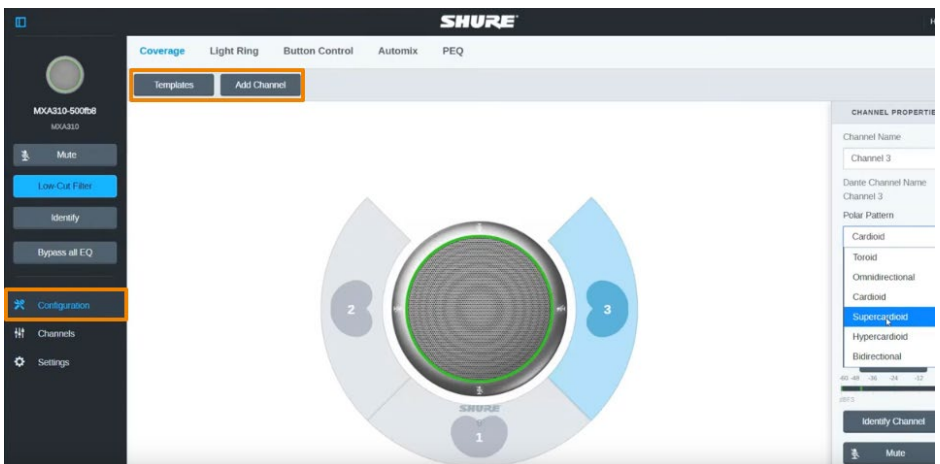
Shure® MXA710 Linear Array Microphone

Shure® MXA910 Ceiling Array Microphone

Shure® MXA920-S / MXA920-R Ceiling Array Microphone

Shure® Microflex® Complete Wireless (MXCW) System

- **MXA310 Table Array Microphone**



Web Application

1. Open the **Configuration** tab.
2. Select a template from the multi-channel options. Or select **Add Channel** to add more than 1 channel. MT300 does not support single channel for the MXA310.

- **MXA910 Ceiling Array Microphone**

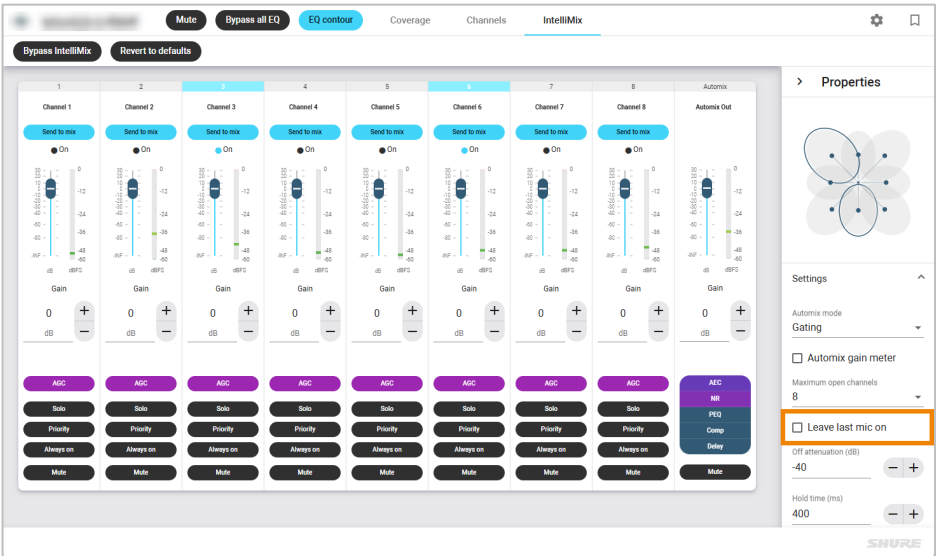
The screenshot displays the Shure MXA910 web application interface. At the top, there are control buttons for 'Mute', 'Bypass all EQ', 'EQ contour', 'Coverage', 'Channels', and 'IntelliMix'. Below these are 'Bypass IntelliMix' and 'Revert to defaults' buttons. The main area shows eight channels (Channel 1 to Channel 8) and an 'Automix Out' section. Each channel has a 'Send to mix' button, a gain control (0 dB), and a set of mode buttons: AGC, Solo, Priority, Always on, and Mute. The 'Automix Out' section has buttons for AGC, NR, PEG, Comp, and Mute. On the right, the 'Properties' panel is open, showing a microphone diagram and 'Settings'. The 'Settings' section includes 'Automix mode' set to 'Gating', 'Automix gain meter' (unchecked), 'Maximum open channels' set to '8', and 'Leave last mic on' (unchecked and highlighted with an orange box). Below this are 'Off attenuation (dB)' set to '-40' and 'Hold time (ms)' set to '400'. The Shure logo is in the bottom right corner.

Web Application

Go to **IntelliMix > Automixer Properties > Deselect Leave last mic on.**

- **MXA920-S / MXA920-R Ceiling Array Microphone**

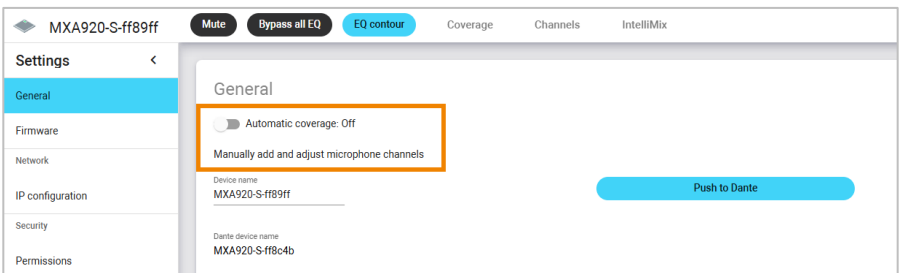
Note: To integrate with supported AVer camera tracking system via active talker positions, refer to [<Auto Mode \(Active Position\)>](#).



Web Application

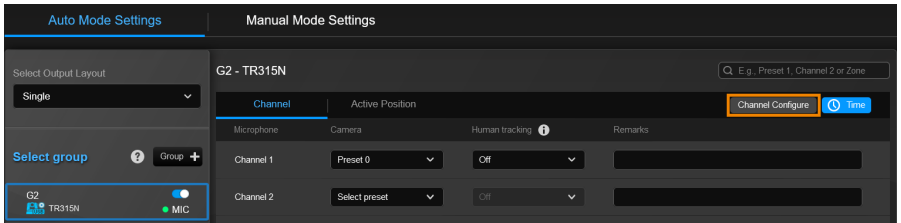
To manually position up to 8 lobes:

1. Go to **Settings > General > Turn off Automatic coverage.**

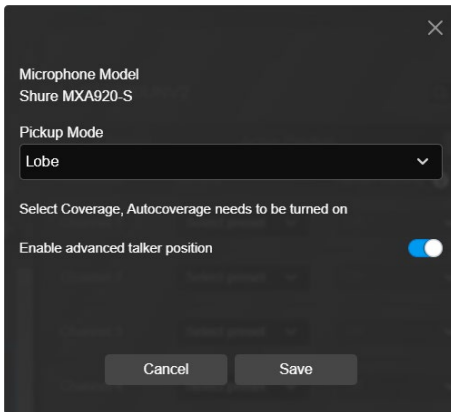


2. Go to **IntelliMix > Automixer Properties > Deselect Leave last mic on.**

3. Go to **Auto Mode Settings > Channel > Channel Configure** in MT300 > Select **Lobe** as **Pickup Mode**: The lobes you have positioned in the MXA920's web application correspond to MT300 channel 1-8.

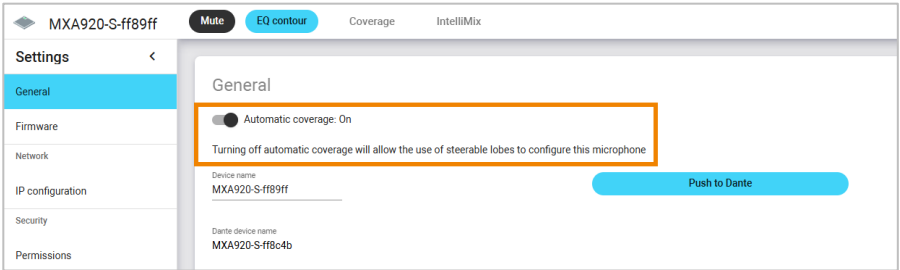


4. Turn on **Enable advanced talker position** to detect voice.

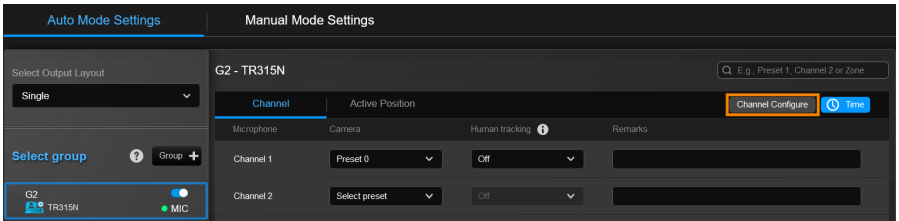


To add a mix of up to 8 dynamic and dedicated coverage areas:

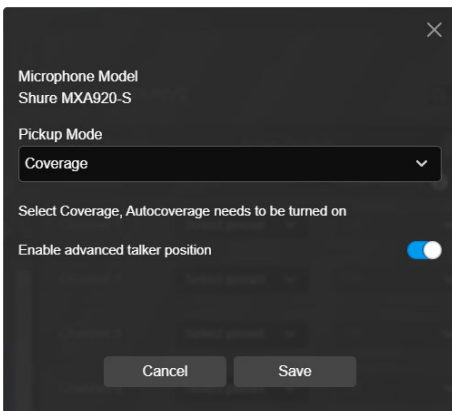
1. Go to **Settings > General > Turn on Automatic coverage.**
The default setting is a 30 by 30 foot (9 by 9 meter) dynamic coverage area.



2. To add more coverage areas, go to **Coverage > Add coverage.**
3. Go to **Auto Mode Settings > Channel > Channel Configure** in MT300 > select **Coverage as Pickup Mode:** The coverage areas you have added in the MXA920's web application correspond to MT300 channel 1-8.



4. Turn on **Enable advanced talker position** to detect voice.



Yamaha

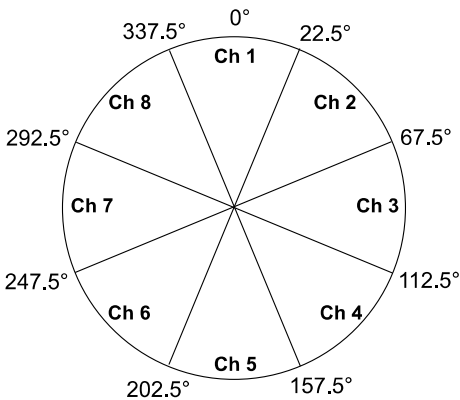
RM-CG Ceiling Array Microphone

RM-TT Tabletop Array Microphone

RM-CR Remote Conference Processor

RM-W Wireless Microphone System

- MT300 divides RM-CG's horizontal angles into 8-24 equal parts, which correspond to MT300 channel 1-24.



- MT300 voice tracking function requires linking more than one RM-TT or RM-W microphones for location data.
- When linking RM-TT or RM-W microphones to the RM-CR Remote Conference Processor, enter the processor's IP address in the **IP Address** field when adding microphones in MT300.

The screenshot shows the "Add New Device" dialog box. It contains the following fields and controls:

- Close button (X) in the top right corner.
- Dropdown menu: "Select Camera or Microphone" with "Microphone" selected.
- Dropdown menu: "Microphone Brand".
- Text input field: "IP Address" with a microphone icon to its right. This field is highlighted with an orange border.
- Text input field: "Device Name" with a plus icon to its right.
- Buttons: "Cancel" and "Save" at the bottom.

Access the Web Interface

To access the web interface of the Matrix Tracking Box, you can use any of the following software to find its IP address:

- AVer Device Utility
- AVer Enterprise Management

Note:

- The PoE+ port defaults to a static IP address of 192.168.1.168, while the Ethernet port uses DHCP.
- The MT300 default username and password is **admin/admin**.

AVer Device Utility

The screenshot shows the AVer Device Utility application window. At the top, there is a 'Network Device' section with a dropdown menu set to 'Intel(R) Ethernet Connection (2) I219-' and a 'Search' button. Below this is a green bar. A table lists three network devices with columns for No., Status, Progress, Model Name, Device Name, FW version, IPv4 Address, and MAC Address.

No.	Status	Progress	Model Name	Device Name	FW version	IPv4 Address	MAC Address
1	Working		TR535	TR535	0.0.0000.25	10.100.90.45	00:18:1a:e2:e0:72
2	Working		PTC310HWV2	PTC310HWV2	0.1.0000.65 [D:H]	10.100.90.17	00:18:1a:0c:a6:d1
3	Working		VB370A	VB370A	0.1.1002.58	10.100.90.50	36:69:88:11:11:2a

Below the table is a 'Setting' section with fields for 'Device Name', 'IP Address', 'Mask', 'Gateway', 'Primary DNS', and 'Secondary DNS'. There are radio buttons for 'DHCP' (selected) and 'Static IP'. A 'Login' section contains 'User ID' and 'Password' fields. An 'Apply' button is located at the bottom right.

To access the web interface:

1. Download AVer Device Utility from AVer Download Center (<https://www.aver.com/download-center>) and launch the software.
2. Click **Search** to see available devices on the same local area network (LAN).

Note:

- Make sure your MT300 is connected to the internet.
 - AVer Device Utility and camera must be on the same LAN.
3. Double-click on your MT300's IP address in the **IPv4 Address** column to open the web interface in your browser.

When you log in for the first time:

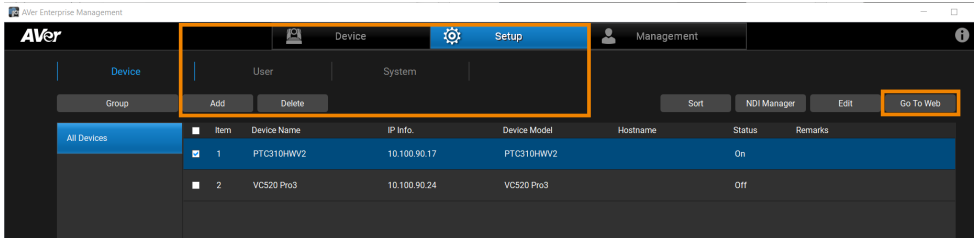
You'll be prompted to change the username and password.

- Username: Use 1-32 characters.
- Password: Use 8-32 characters and a combination of uppercase letters, lowercase letters, numbers, and symbols (%+=, -_!/@.~). The password cannot be the same as the username.

To change your network to DHCP or static IP:

1. Select the checkbox of your camera.
2. Enter the default or changed username and password in the **Login** field.
3. Select **DHCP** or **Static IP**, then enter your network settings if applicable in the **Settings** section.
4. Click **Apply**.

AVer Enterprise Management



Note: AVer Enterprise Management default username and password is **admin/admin**.

1. Download AVer Enterprise Management from AVer Download Center (<https://www.aver.com/download-center>) and launch the software.
2. Log in with the default username and password **admin/admin**.
3. Go to **Setup > Add**, then click **Auto Search** to see available devices on the same local area network (LAN).
4. Click to select your camera, enter the default or changed camera username and password, then click **Save** to add the camera to the device list.
5. Select the checkbox of your camera, then click **Go to Web** button to open the web interface in your browser.

Set up Your MT300

MT300's built-in Live Mode, Manual Mode and Auto Mode help you present video feeds in a single stream composited gallery, follow the presenter in real time as they move, or frame the active talker.

Compare MT300 Modes

	Live Mode	Manual Mode	Auto Mode Channel	Auto Mode Active Position
Live view camera count	4	4	4	
Profiles		36	36	36
Presets		256	256	
AVer camera + microphone groups			25	
Human Tracking		✓	✓	
3 rd -party microphone integration			✓	✓
X, Y, Z coordinates report				✓

Human Tracking

Human Tracking includes Presenter, Zone, Segment (supported models), and Hybrid Modes. Make sure you have configured required modes on the camera web interface.

For supported AVer cameras, refer to <[Supported AVer Devices](#)>. For tracking mode settings, refer to your camera's user manual.

Auto Mode (Channel) with Presenter Mode example:



Channel 1 detects voice

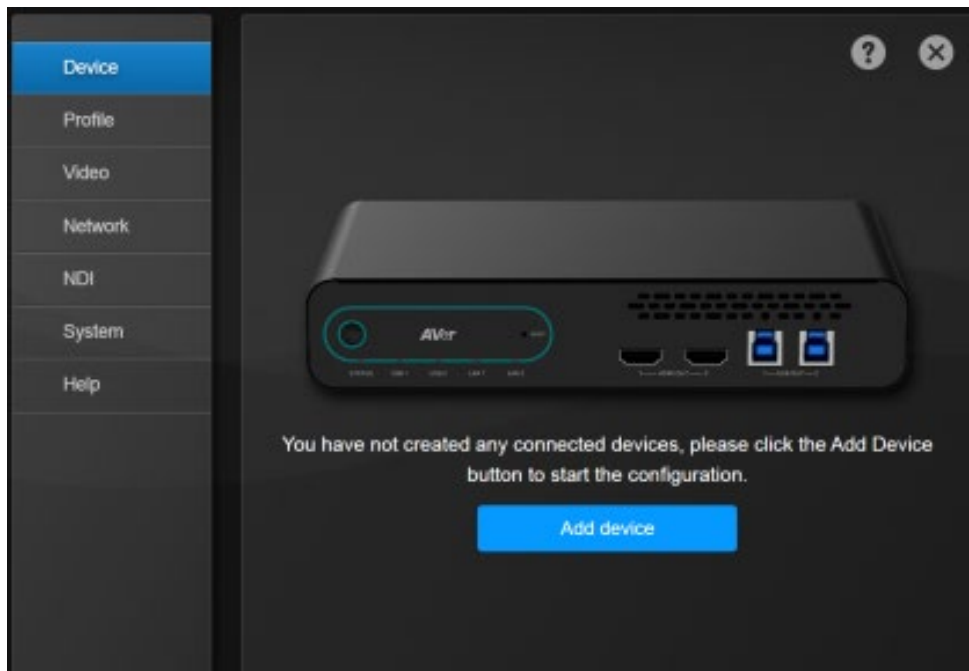
Camera moves to preset 1

Presenter Mode is turned on

1. Microphone channel 1 and preset 1 have been set to the whiteboard.
2. Select **Presenter** from the **Human tracking** drop-down list.


3. When microphone channel 1 picks up audio from the presenter, the camera will move to preset 1. Presenter Mode frames and follows the presenter on screen.

Add a Device



To add cameras and microphones:

1. Click **Add Device**.

Or click the **Settings** icon  on the top-right corner > **Device** > **Add device**.

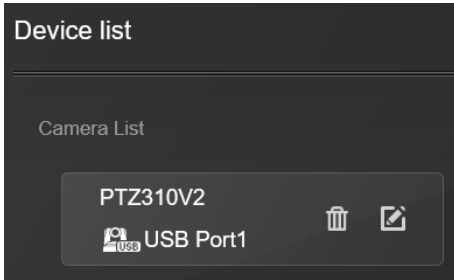
2. Fill out the **Add New Device** dialog box.

Item	Description
Select Camera or Microphone	Add a camera or a microphone.
Connect Camera	<ul style="list-style-type: none"> • IP: Connect to Ethernet or PoE+ port. • USB Port 1 and 2: Stream video. • USB Port 3: Stream audio and video. • HDMI: Select Control via IP for Human Tracking functions. • Non-AVer camera via IP: Select Streaming via RTSP and enter RTSP URL or Streaming via NDI and enter NDI group. <ul style="list-style-type: none"> Note: Only Live Mode and Manual Mode are available for Non-AVer cameras
Microphone Brand	Select a brand from the drop-down list.
IP Address	Click Auto Search or enter IP address.
Camera Account	Enter camera account and password.
Camera Password	
Streaming via RTSP Streaming via NDI	<ul style="list-style-type: none"> • Real-Time Streaming Protocol (RTSP): Make sure your camera and receiving device or application support RTSP. • Network Device Interface (NDI): Make sure your camera and receiving device or application support NDI. Enter a name for your NDI group (optional).
Device Name	Enter a name to be displayed on the device list.

3. Click **Save**. You can add up to 25 cameras and 25 microphones via USB, HDMI and IP.

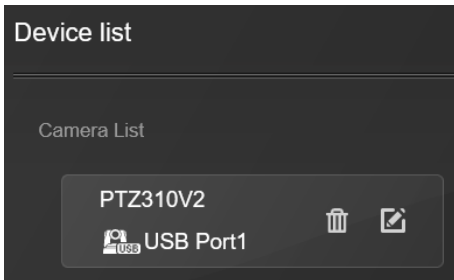
To edit devices:

1. Hover over the device and click the **Pencil** icon.
2. Edit device in the dialog box and click **Save**.

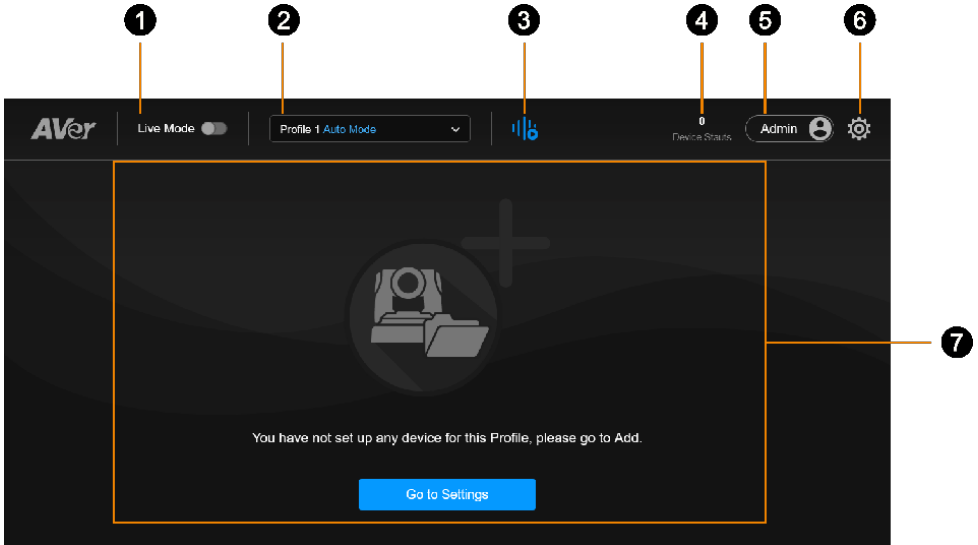


To delete devices:

Hover over the device and click the **Trash can** icon.




User Interface



1. Live Mode Toggle

2. Select Profile

- A profile can include both Auto Mode and Manual Mode settings, but only one mode is applied at a time.
- To switch modes, click the **Settings** icon  > **Profile**.

3. Pause / Resume Voice-Tracking

4. Device Count

Online device / added device count.

5. Account

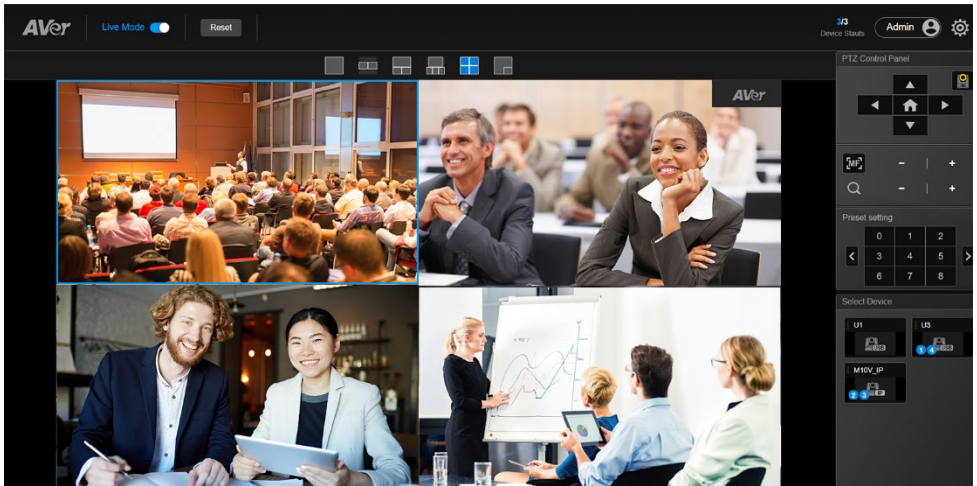
Switch between admin and user accounts. A user can use voice-tracking but cannot edit settings.

6. Settings

7. Live View



Live Mode

See camera live views, change layouts, and use pan, tilt, zoom controls.



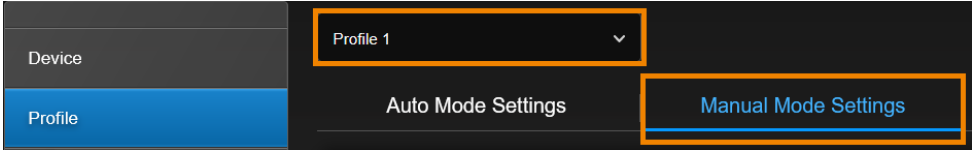
1. Toggle on **Live Mode**.
2. Select a layout.
3. Drag and drop a camera from **Select Camera** to a live view grid.
A blue circled number will appear on the camera icon to indicate the grid position.

To control a camera:

- Click to select a live view.
The selected live view will be in a blue frame.
- Click a number to load a preset.
- Click the Camera Switch Button  (TR535, TR535N only) to switch between PTZ camera and Wide-Angle camera.
- Toggle off **Live Mode** to exit Live Mode. Live Mode settings are saved automatically. Your last selected profile in **Setting**  > **Profile** will be applied when you return to the main page.
- To clear settings, click **Reset** to reset Live Mode to factory default settings.

Manual Mode

Use presets and Human Tracking modes to follow the presenter in real time as they move. Make sure you have defined required presets and configured required modes on the camera web interface.



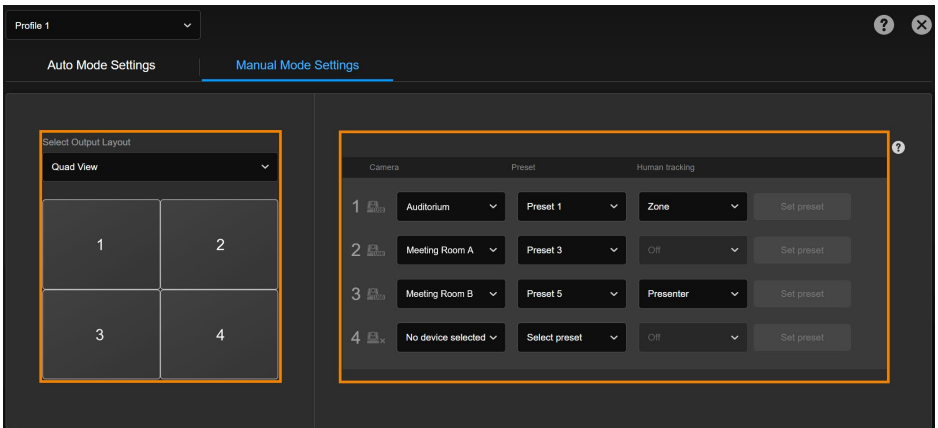
1. Click the **Settings** icon  on the top-right corner > **Profile** > **Manual Mode Settings**.


2. Create a profile.

Choose a profile from the **Profile** drop-down list. To rename it, scroll to the bottom and click **Rename**.

Note: A profile can include both Auto Mode and Manual Mode settings, but only one mode is applied at a time.

3. Select a live view layout for up to 4 cameras, then select **Camera**, **Preset**, **Human Tracking**.

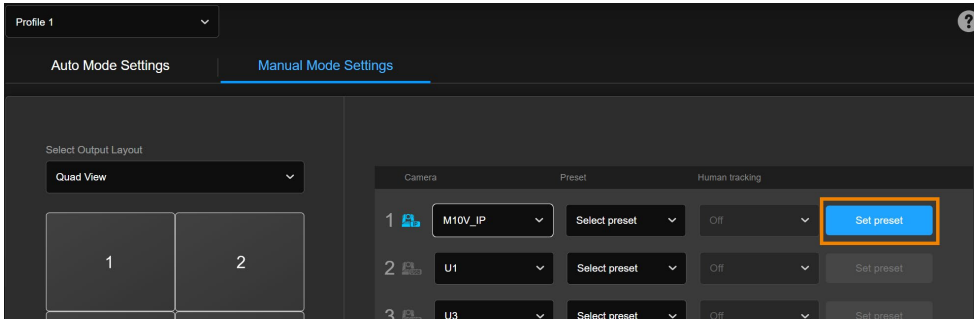


- The profile is saved and applied automatically when you close the **Profile** page by clicking . Your Manual Mode profile will now be applied.



Add a Preset

You can also add presets on MT300.



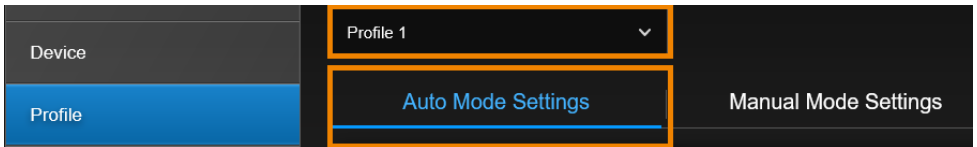
- Click **Set preset** to add presets.
- Position your camera using pan, tilt, zoom controls, click a number, then click **Save** to save that position.
- Position your camera using pan, tilt, zoom controls, click a number, then click **Save** to save that position.
- Click **Back** to return to the **Profile** page.




Auto Mode (Channel)

Frame the active talker with voice-tracking functionality by linking AVer cameras with third-party microphone systems (supported models) from Audio-Technica, Biamp, Bosch, ClearOne, Nureva, Sennheiser, Shure and Yamaha.

Third-party microphone systems may require setup in their manufacture software. For microphone settings, refer to <[Supported Microphones](#)>.

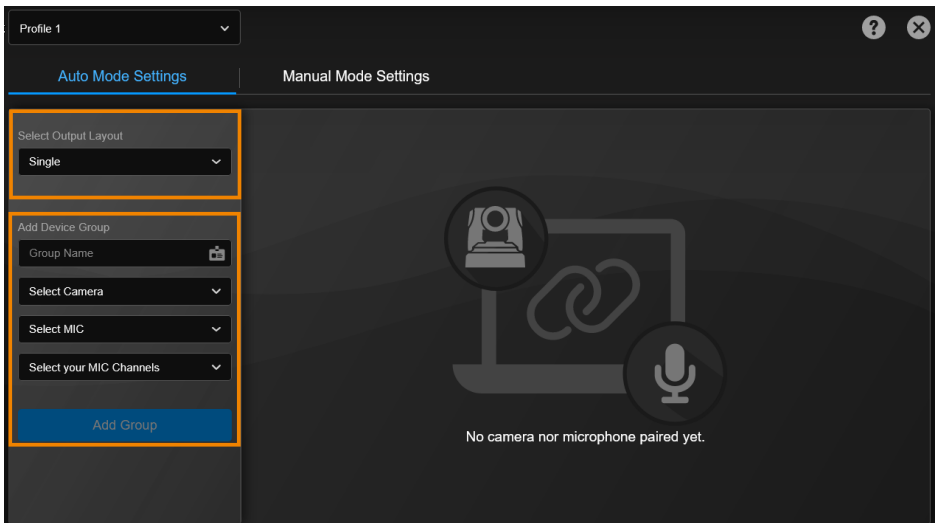


1. Click the **Settings** icon  on the top-right corner > **Profile** > **Auto Mode Settings**.
2. Create a profile.

Choose a profile from the **Profile** drop-down list. To rename it, scroll to the bottom and click **Rename**.

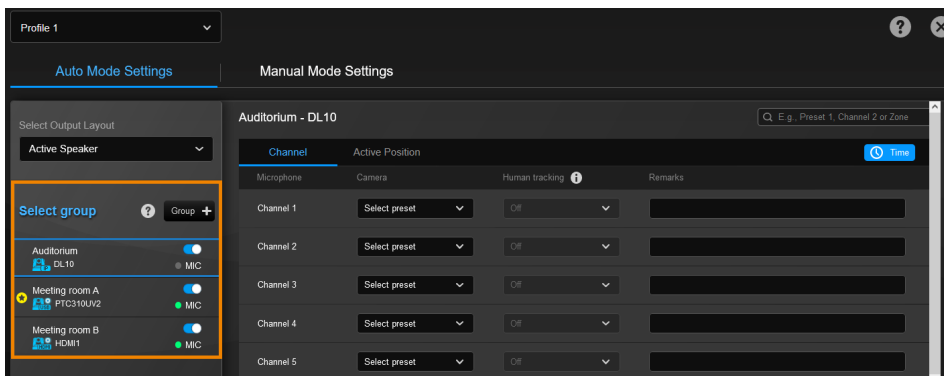
Note: A profile can include both Auto Mode and Manual Mode settings, but only one mode is applied at a time.

3. Select a layout for up to 3 cameras, then add up to 25 AVer camera and microphone groups. Refer to <[Select Group Panel](#)> for layout details.



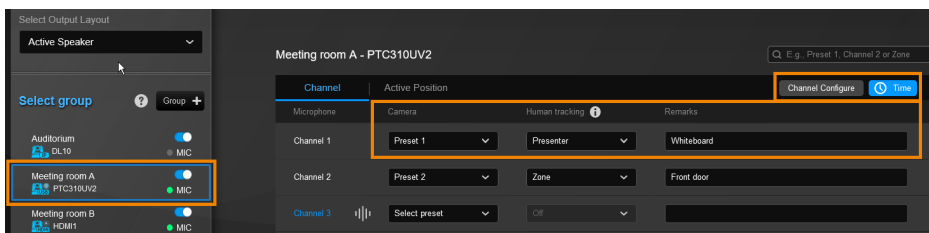
4. Added device groups will appear under **Select group**.

You can also assign a priority Group if multiple device groups share the same camera. Refer to [<Assign a Priority Group>](#).



5. Select a device group to pair microphone channels with presets.

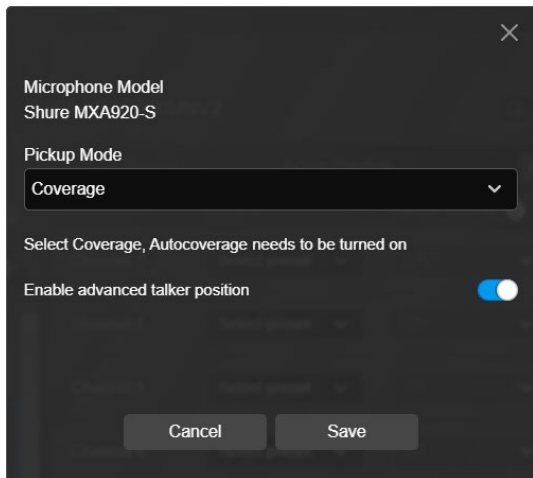
A blue frame indicates that it is selected.




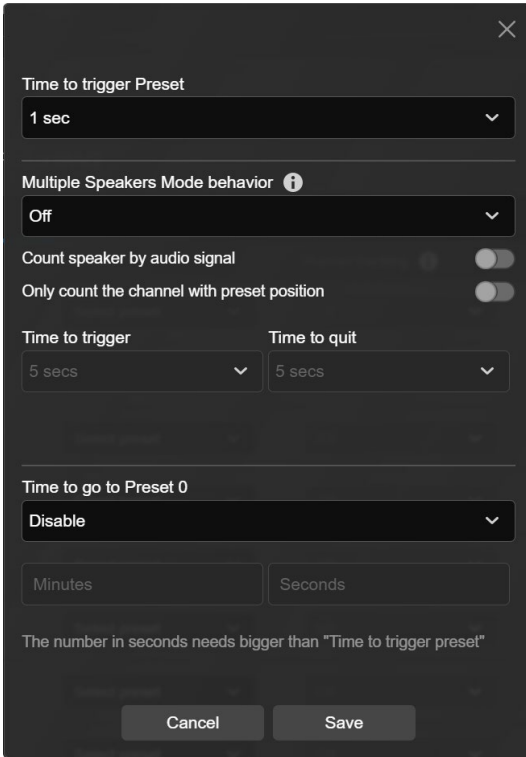
6. Select a preset and Human Tracking mode for each channel.

7. Add remarks to help identify the location.

8. Click **Channel Configure** to select a pickup mode based on your microphone setting. Then click **Save**.



9. Click the **Time** button  to set a delay before the camera goes to a preset.



Time to trigger Preset
1 sec

Multiple Speakers Mode behavior ⓘ
Off

Count speaker by audio signal

Only count the channel with preset position

Time to trigger 5 secs Time to quit 5 secs

Time to go to Preset 0
Disable


Minutes Seconds

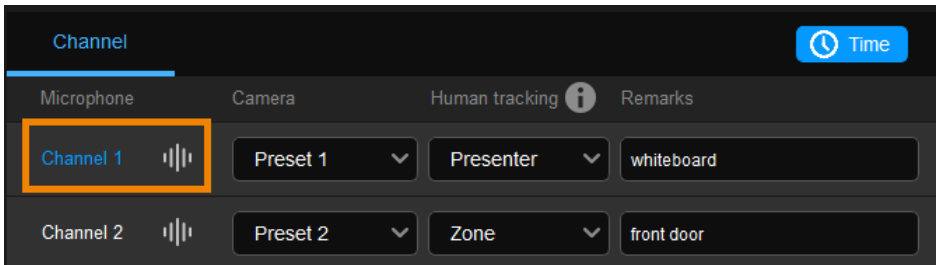
The number in seconds needs bigger than "Time to trigger preset"


Cancel Save

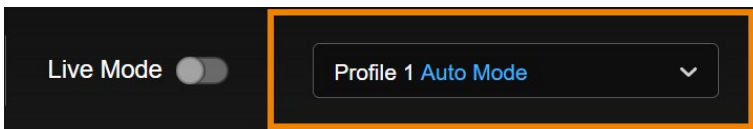
Item	Description
Time to trigger Preset	Set a delay before the camera goes to a preset.
Multiple Speakers Mode behavior	<p>When multiple voices are detected, Multiple Speakers Mode activates and the camera goes to preset 0 of the last camera to minimize disorienting movements. Refer to <Multiple Speakers Mode Conditions> for details.</p> <ul style="list-style-type: none"> • Enable Multiple Speakers Mode by selecting Back to Preset 0. • You can also assign a different preset for the camera to go to. Refer to <Assign a Priority Group.>
Time to go to Preset 0	<p>Set a delay before the camera goes to preset 0 of the last camera when the microphone detects no sound.</p> <ul style="list-style-type: none"> • You can also assign a different preset for the camera to go to. Refer to <Assign a Priority Group.>

	<ul style="list-style-type: none"> The duration of Time to go to Preset 0 must be longer than Time to trigger Preset.
Far end speakers trigger Preset 0 (Sennheiser microphones only)	<p>If the microphone detects voice from the far end of the room, such as during a video conference, the camera will go to preset 0 of the last camera.</p> <ul style="list-style-type: none"> You can also assign a different preset for the camera to go to. Refer to <Assign a Priority Group.>

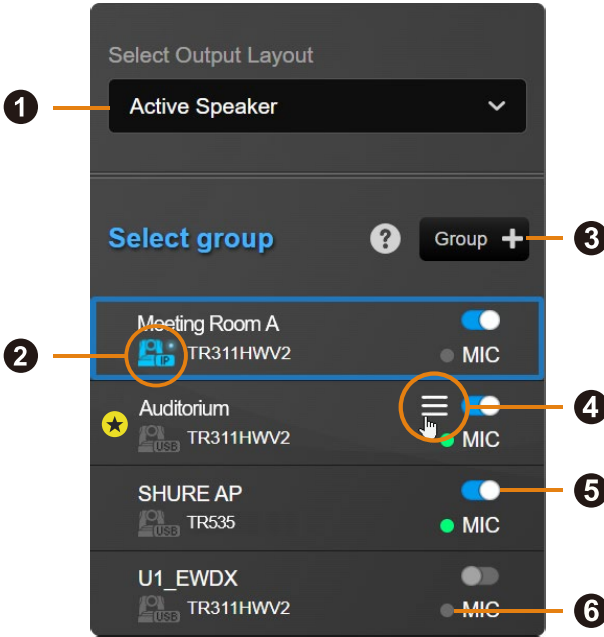
10. An **audio signal** icon  will identify which channels detect voice, while a blue highlight will indicate an active channel.



11. The profile is saved and applied automatically when you close the **Profile** page by clicking . Your Auto Mode profile will now be applied.

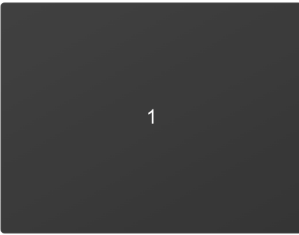


Select Group Panel

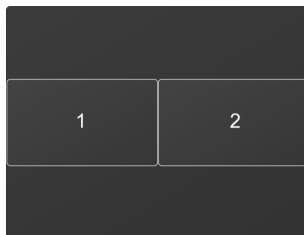
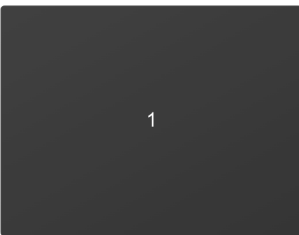


1. Select Output Layout

Single

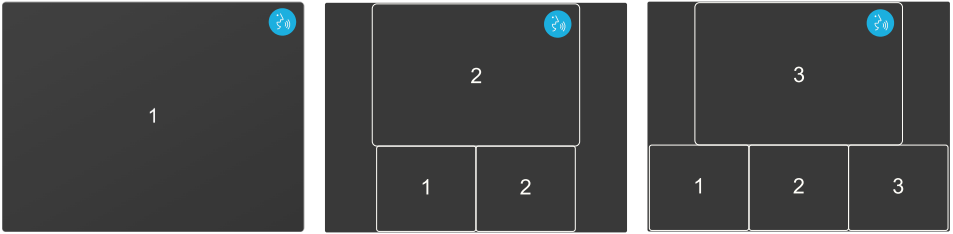


Sideby-side



Active speaker

Dynamically displays the current active channel in the top grid.



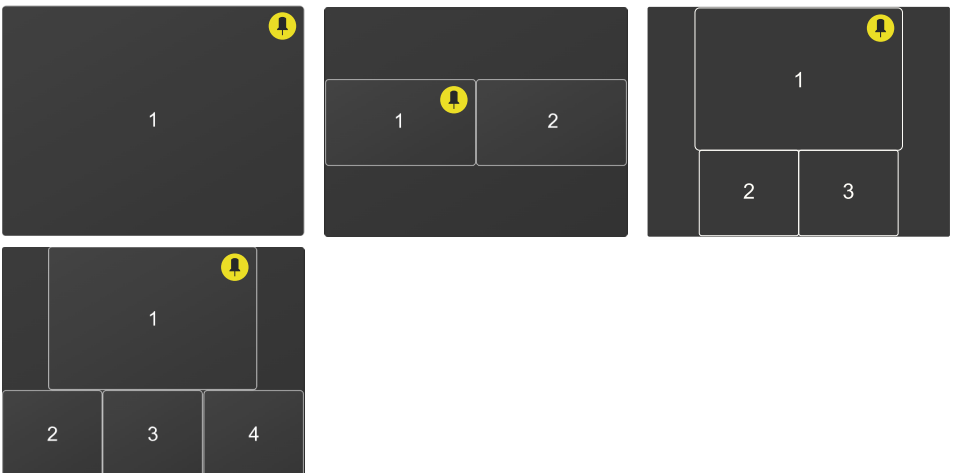
Picture-in-Picture (PIP)



Hybrid





Pins a group to the top grid while displaying up to 3 active channels.

If no group is pinned, the hybrid view defaults to the active speaker view.



2. Camera status

Click the **question mark** icon  for descriptions.



Icon	Status
	Camera is sending data to MT300
	Device online
	Device offline
	Incorrect account or password

3. Group +

Add a camera and microphone group.

4. Hamburger Menu

Hover your cursor over a device group to see the hamburger menu.

- Set preset: Add camera presets.
- Edit group
- Delete group
- Group overlay priority: Assign a priority group .
- Pin this group (Hybrid layout only): Pin a group to the top grid. .

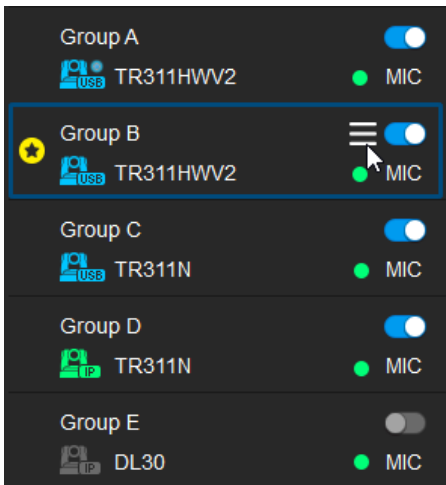
5. Toggle

Enable or disable a device group.

6. Microphone Status



- Green: Online
- Gray: Offline

Assign a Priority Group

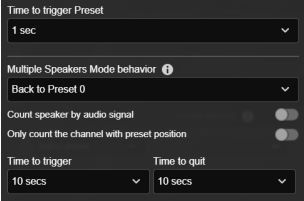
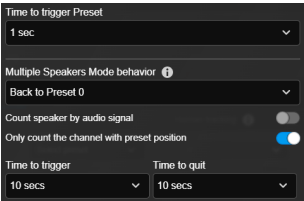
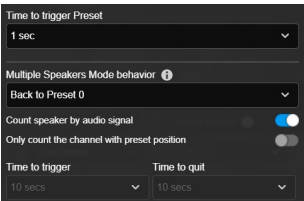
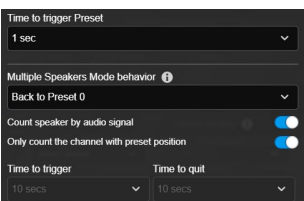


You can assign a priority group for the camera to go to when:

- Multiple groups share a camera.
- Microphone detects no sound (default preset 0).
- Multiple Speakers Mode activates (default preset 0).
- Microphone detects far end speakers (Sennheiser microphones only, default preset 0)

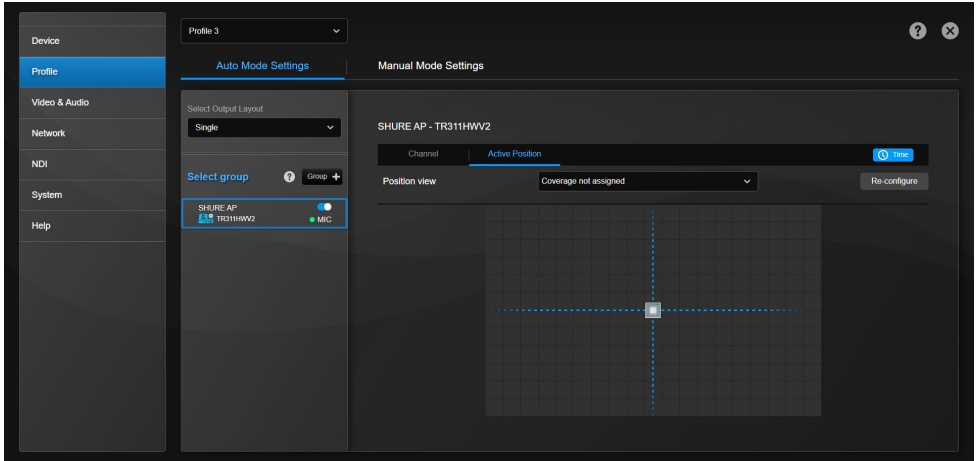
1. Hover the cursor over a group, then click the **hamburger** icon .
2. Select **Priority**. The **star** icon  will indicate a priority group.
3. To cancel priority, deselect **Priority**.

Multiple Speakers Mode Conditions

Conditions	Enter Mode	Leave Mode	
Active channel (default)	3 active channels are active in a set time (Time to trigger).	Fewer than 3 active channels are active in a set time (Time to quit).	
Active channel with preset	3 active channels with presets are active in a set time (Time to trigger).	Fewer than 3 active channels with presets are active in a set time (Time to quit).	
Audio signal channel Suitable for gooseneck discussion units	2 or more audio signal channels are active at the same time.	1 or no audio signal channel is active at the same time.	
Audio signal channel with preset Suitable for gooseneck discussion units	2 or more audio signal channels with presets are active at the same time.	1 or no audio signal channel with preset is active at the same time.	

Note: The durations of **Time to trigger** and **Time to quit** must each be at least 3 times that of **Time to trigger preset**.

Auto Mode (Active Position)



Active Position reports active talker positions from supported microphones in the form of X, Y, Z coordinates to deliver enhanced camera tracking.

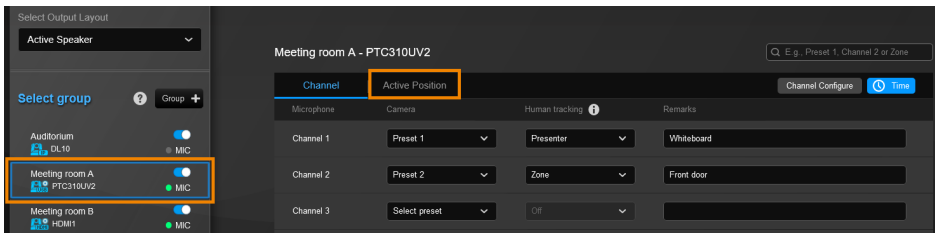
Supported Devices


USB- and IP-connected [supported AVer Devices](#)

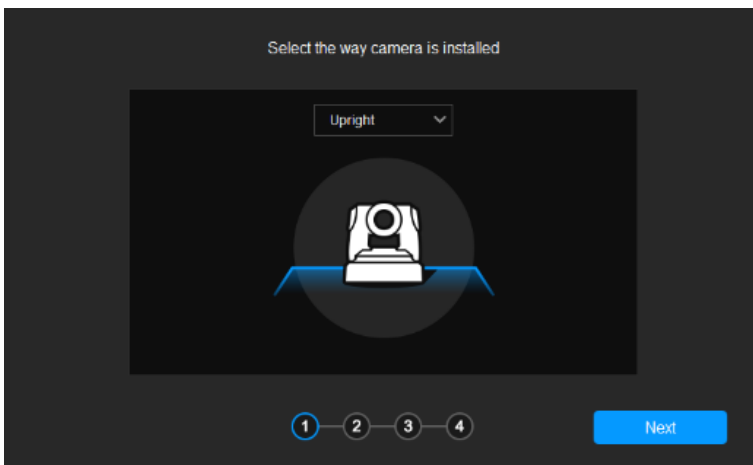
Shure® MXA920-S / MXA920-R Ceiling Array Microphone

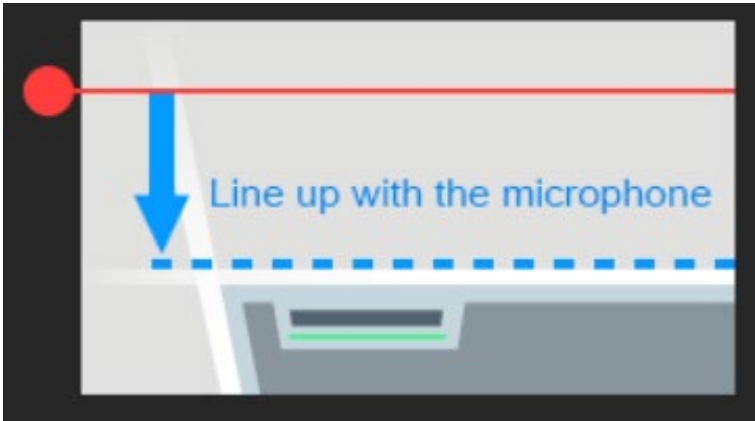
Square Microphone Calibration

1. Make sure the camera has been paired with a microphone.
2. Click to select a device group. A blue frame will indicate that it is selected.

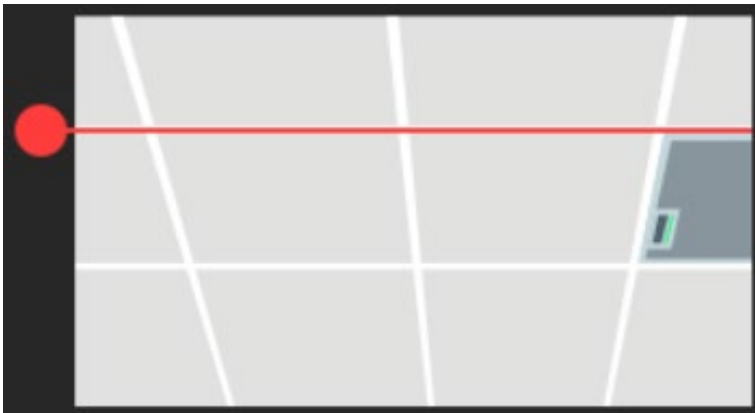


3. Click the **Active Position** tab and follow the setup wizard.
Click the question mark  in the top-right corner for instructions.


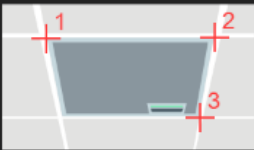




Dragging the red dot to align the red line to the top or bottom edge of the microphone.



The microphone doesn't need to be in the center of the live view, as long as the red line is aligned to the edge. Adjust the camera angle using pan, tilt and zoom controls, if the microphone appears at a slight angle.

Locate the first 3 corners of the microphone

Set the red coordinates in a clockwise direction accordingly. Make sure each coordinate aims at the top left, top right, and bottom right corner of the microphone.

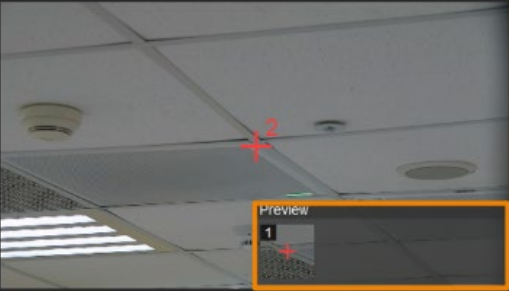
You may control the camera position using pan, tilt, zoom on the panel.

[Note] The first coordinate of the microphone must be positioned at the top left corner regardless of where the microphone logo is.


Next

Starting from the top left, locate 3 microphone corners in a clockwise direction with a red cross.

Locate the corners of the microphone



PTZ Control



Set

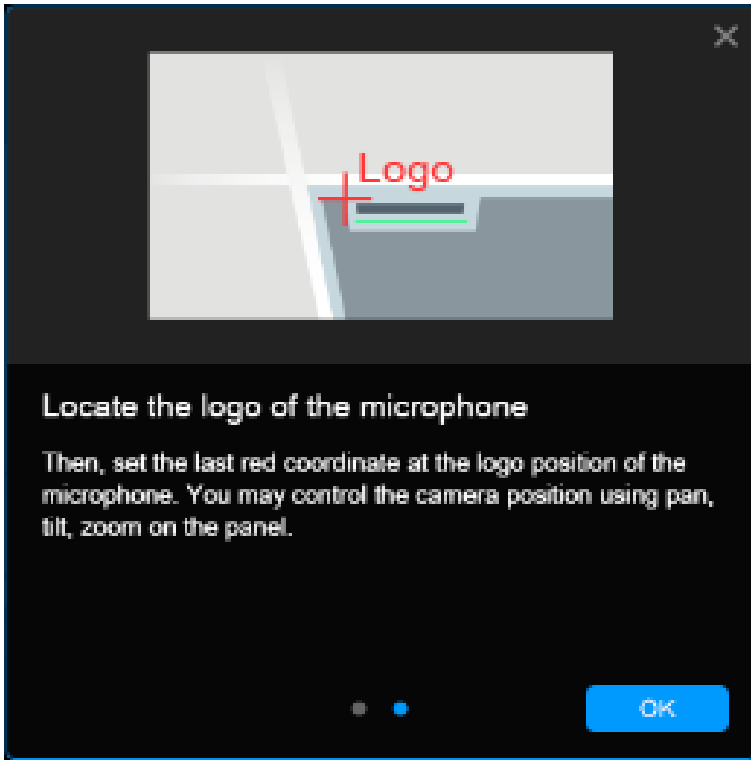
Reset

Back

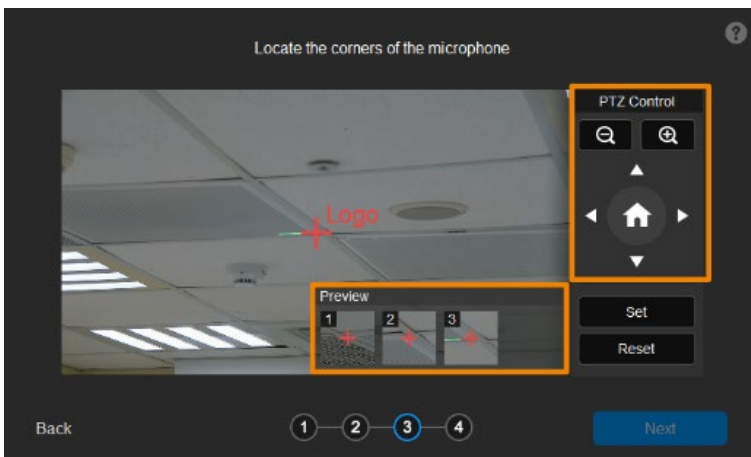
1 2 3 4

Next

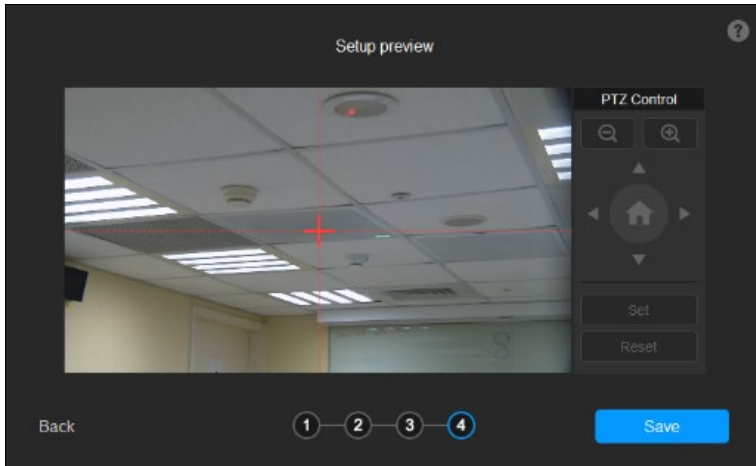
Click **Set**. The saved location will appear in the thumbnail.



Finally, locate the logo on the microphone to indicate its orientation. Depending on the microphone orientation, the logo corner may be the same as one of the 3 corners.



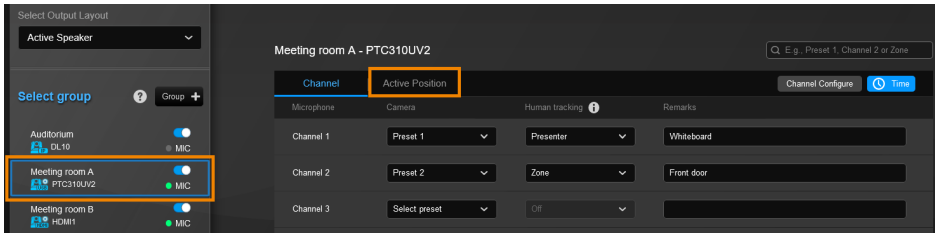
Click **Next** after locating 3 corners and the logo. Or click **Reset** to relocate all of them.




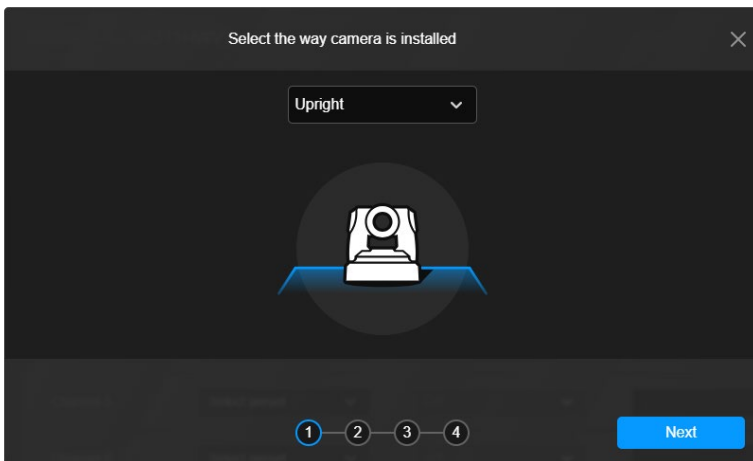
Make sure the red cross appears in the center of the microphone, and click **Save**. Or click **Back** to reconfigure.

Round Microphone Calibration

1. Make sure the camera has been paired with a microphone.
2. Click to select a device group. A blue frame will indicate that it is selected.



3. Click the **Active Position** tab and follow the setup wizard.
Click the question mark  in the top-right corner for instructions.



Locate the microphone center

Set the red coordinate at the microphone center.

Drag the red lines to check if the red coordinate is at the microphone center.

Make sure the red lines cover the inner circular edge of microphone.

[Note] Adjust the camera zoom to see the microphone and LED clearly.

[Note] Make the red lines cover the inner circular edge of microphone rather than the outer edge of microphone.

OK

Dragging the red dot to align the red lines to the top and left edge of the inner diameter so that the red cross appears at the center.

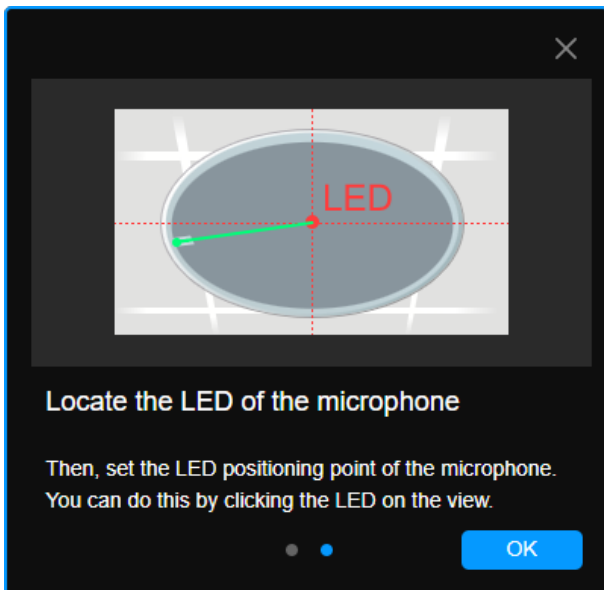
Locate the top point of the microphone

Set the red coordinate at the top point of the inner circular edge of microphone.

[Note] Locate the top point on the inner circular edge of microphone rather than the outer edge of microphone.

Next

Locate the top point of the inner diameter with the red cross.

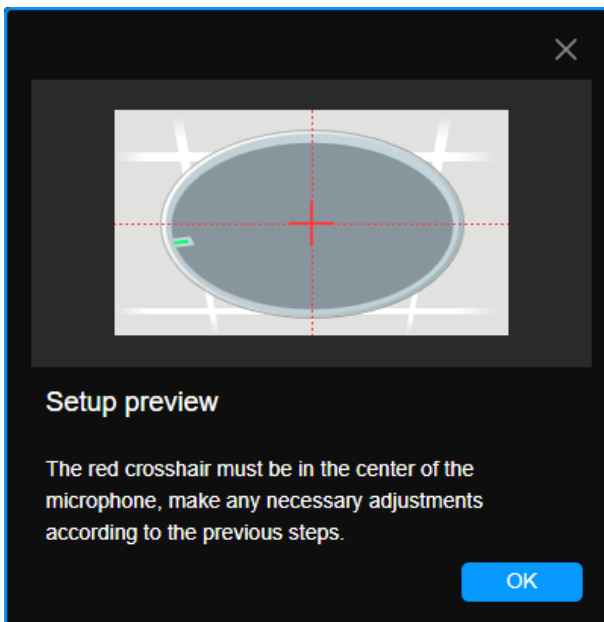


Locate the LED of the microphone

Then, set the LED positioning point of the microphone.
You can do this by clicking the LED on the view.

OK

Click to mark the position of the LED.



Setup preview

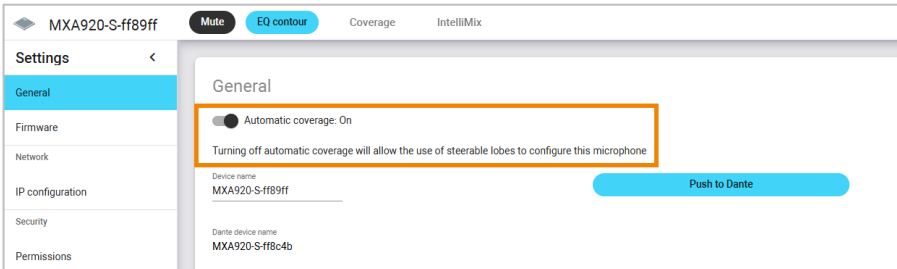
The red crosshair must be in the center of the microphone, make any necessary adjustments according to the previous steps.

OK

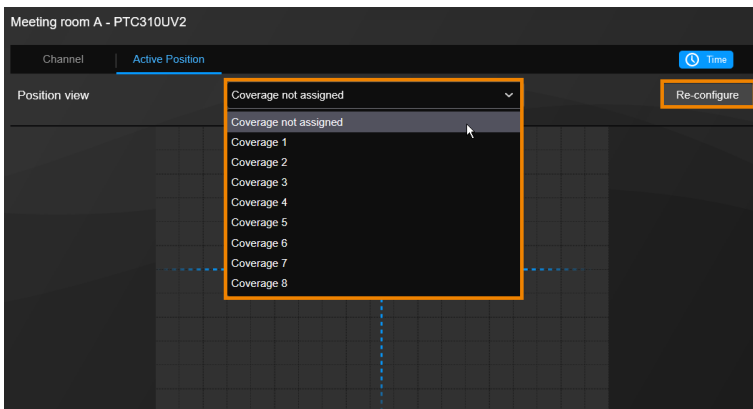
Make sure the red cross appears in the center of the microphone, and click **Save**. Or click **Back** to reconfigure.

Add a Coverage Area


1. On the MXA920 web application, go to **Settings > General > Automatic coverage**.
2. Turn on **Automatic coverage** to add a mix of up to 8 dynamic and dedicated coverage areas. The default setting is a 30 by 30 foot (9 by 9 meter) dynamic coverage area.



3. To add more coverage areas, go to **Coverage > Add coverage**.
4. Go to **Active Position** tab > select **Coverage not assigned** to use all coverage areas. Or select a coverage area that you have added in the web application from the drop-down list. Talker positions outside of the selected coverage area won't be picked up by MT300.



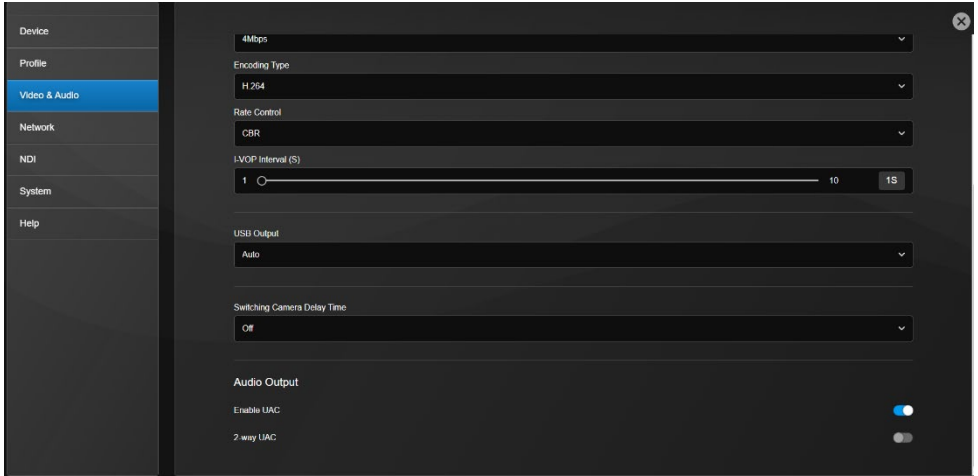
5. To change coverage areas, click **Re-configure**.

6. The profile is saved and applied automatically when you close the **Profile** page by clicking . Your Auto Mode profile will now be applied.



MT300 System Settings

Video & Audio



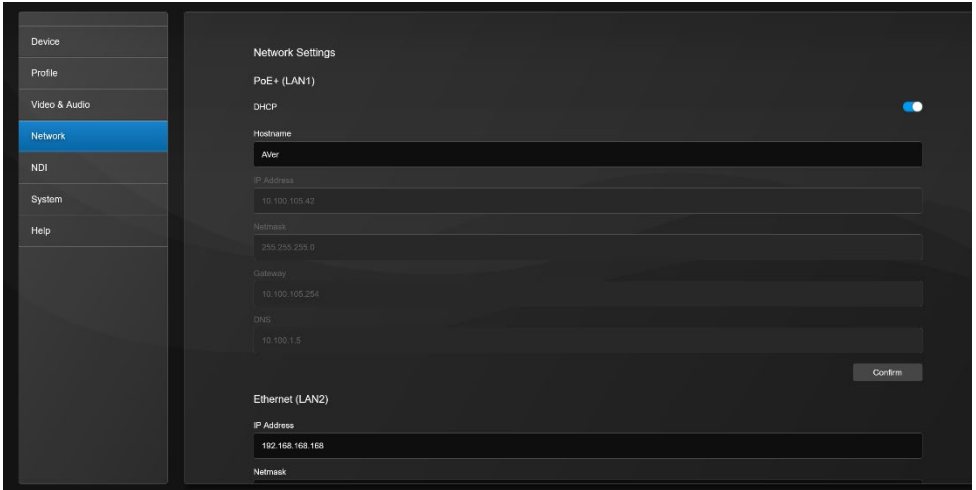
Video Output

Item	Description
HDMI Video Output Resolution	Choose a video output resolution.
Stream Video Output	Choose a streaming output resolution for the live view.
Framerate	Choose a framerate.
Bitrate	Choose a bit rate.
Encoding Type	Choose H.264 or H.265 .
Rate Control	Choose Variable Bit Rate (VBR) or Constant Bit Rate (CBR).
I-VOP Interval (S)	Drag the slider to choose how often I-VOPs appear in a video stream. <ul style="list-style-type: none">Shorter I-VOP intervals result in higher video quality but also larger file sizes.
USB Output	Choose a USB output source. <ul style="list-style-type: none">Auto: Automatic detection.USB #1: USB out port 1.USB #2: USB out port 2.
Switching Camera Delay Time	Choose a delay time to avoid displaying the live view when the camera is in motion; it will refresh once the delay time is up.

Audio Output

Item	Description
Enable UAC	Enable 1-way audio input from the camera to the computer.
2-way UAC	Enable audio input from the computer to speaker connected to the USB port 3 on MT300.

Network



PoE+ (LAN1)

Item	Description
DHCP	Toggle DHCP on or off.
Hostname	Enter a hostname that is displayed on devices such as an IP router. <ul style="list-style-type: none">• The default is AVer.
IP Address	Enter your network settings to set up a static IP connection. Toggle off DHCP first.
Netmask	
Gateway	
DNS	

Ethernet (LAN2)

Item	Description
IP Address	Enter your network settings to set up a static IP connection.
Netmask	
Gateway	
DNS	

RTMP Settings

Stream live video to a video platform such as YouTube.

To enable live streaming on YouTube:

1. Go to YouTube.
2. From the top right, click **Create > Go live**.
3. Copy and paste your YouTube server URL and stream key into the web interface.
4. Click **Start Stream** to start streaming, **Stop** to stop streaming.

RTSP Settings

Turn on Real-Time Streaming Protocol (RTSP) Security to protect your video stream on media players such as VLC, PotPlayer and QuickTime by ensuring that only authorized users can access it.

- When RTSP Security is turned off, enter your camera's RTSP URL into the media player.
RTSP URL: rtsp://[camera IP address]/live_st1
- Example: rtsp://192.168.1.100/live_st1
- When RTSP Security is turned on, enter your camera's RTSP URL and username/password into the media player.
RTSP URL: rtsp://[username:password]@[camera IP address]/live_st1
- Example: rtsp://1:1@192.168.1.100/live_st1
- username/password: camera's username/password (web interface login)

HLS Settings

Configure HTTP Live Streaming (HLS) settings to provide adaptive bitrate streaming, which ensures smooth playback and minimizes buffering.

1. Enter the stream URL obtained from the streaming service or server.
2. Click **Start Stream** to start streaming, **Stop** to stop streaming.

HTTP Settings

Set a **TCP Command String Control Port** number. The default is 1315.

HTTPS

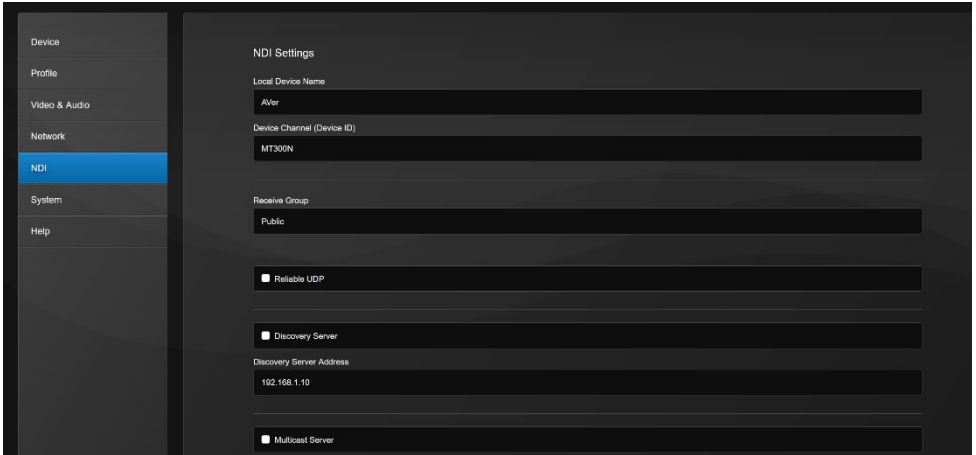
Enable HTTPS to establish a secure connection between your browser and your camera. To enable HTTPS access on your camera:

1. Obtain a SSL certificate for encryption and decryption in base-64 encoded format and use a private key in PKCS#8 format (unencrypted).
2. Package the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format.
3. Click **Browse** to select the certificate file, and then click **Upload**.
4. Turn on **HTTPS**.

NDI

Network Device Interface (NDI) protocol transmits high-quality, low-latency video and audio streams over IP networks.

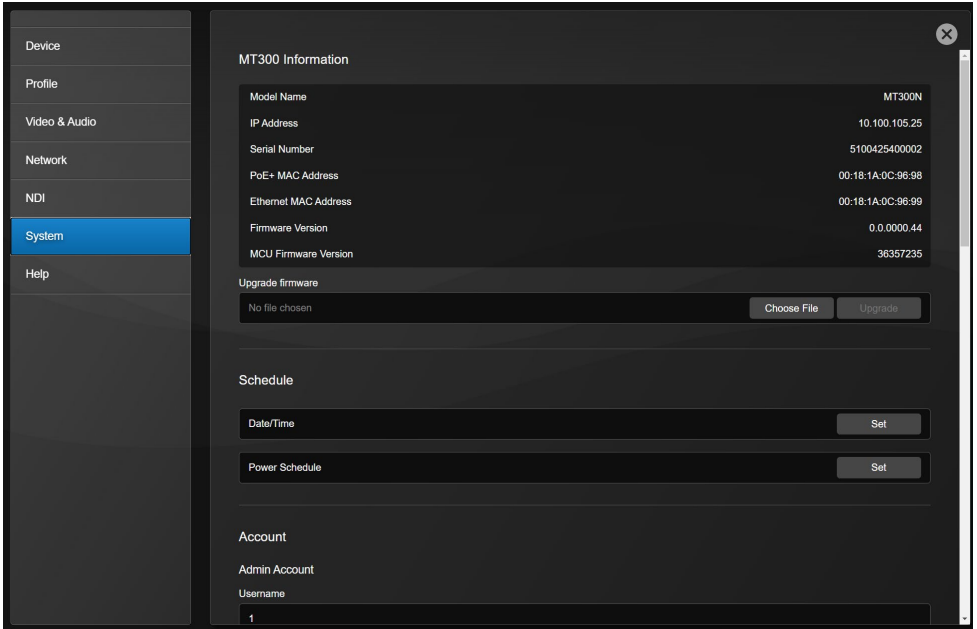
Tracking box comes in two models: MT300 (without NDI) and MT300N (with NDI). To purchase NDI|HX upgrade, please visit NewTek Online Store (<https://store.newtek.com/ndi-hx-upgrade-for-cameras.html#>).



Item	Description
Local Device Name	Enter a name that identifies your camera group on the NDI software.
Device Channel (Device ID)	Enter a name that identifies your camera on the NDI software. <ul style="list-style-type: none"> The default is MT300 or MT300N. Use no more than 10 characters, upper and lowercase letters, numbers and punctuation marks (! @ % ^ . / : + ? [] { } - _ ~).
Receive Group	Enter a name for a receive group. <ul style="list-style-type: none"> All devices in the receive group receive the same NDI streams. The receive group should remain public. If this is changed, you will need to join the group through NDI® Access Manager.
Reliable UDP	Enable Reliable User Datagram Protocol (RUDP) to improve streaming quality.
Discovery Server	Select the checkbox to enable discovery server to allow devices to discover and connect to each other on a network

	automatically.
Discovery Server Address	Enter the IP address of a server running a discovery server application.
Multicast Server	Select the checkbox to enable multicast server to allow efficient distribution of NDI streams to multiple receivers without overwhelming the network.
Multicast Server Address	Enter the IP address of a group of recipients that receive NDI streams from a multicast server.
Multicast Server Mask	Enter the network mask to specify the range of IP addresses that are eligible to receive NDI streams.
Multicast TTL	Enter a multicast time to live (TTL) value between 1-255 to control the distance multicast packets can travel.

System

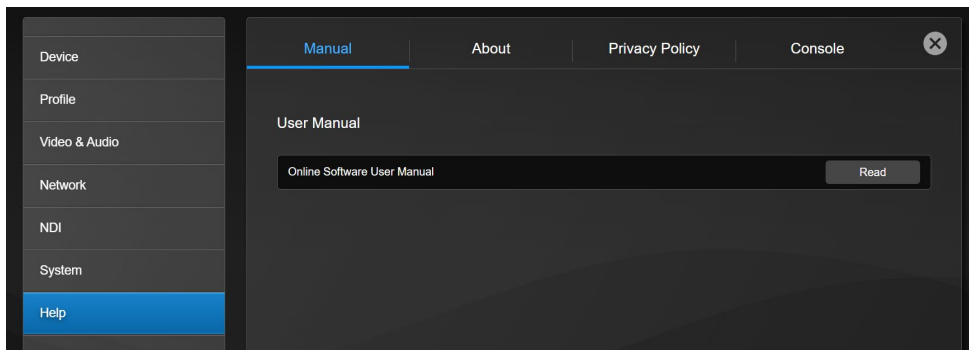


Item	Description
MT300 Information	Display MT300 information such as the IP address.
Upgrade Firmware	Download the latest firmware from AVer Download Center (https://www.aver.com/download-center).
Schedule	Date/Time: Set date and time for your tracking box. Power Schedule: Schedule specific times for your tracking box to start up, reboot, or shut down.
Account	Edit your admin and user account for login. <ul style="list-style-type: none"> Admin: The default username/password is admin/admin. User: The default username/password is user/user.
General	<ul style="list-style-type: none"> Language: Change the web interface language. Help us improve: Opt-in or opt-out of providing anonymous usage data. Factory default: Erase all data and settings and reset your tracking box to factory default settings. Reboot: Restart your tracking box.
Export / Import Settings	Export or import your tracking box settings and save debug files.
Shortcuts Key Setting	Set shortcuts for your USB keyboard or computer keyboard. You may set up to 36 shortcut keys.
Watermark Setting	Show or hide watermark on camera view. You may upload your

	<p>own watermark image, and select a watermark position from the drop-down list.</p>
--	--------------------------------------------------------------------------------------

- Support file format: PNG only.
- File size: Max. 2MB.

Help



Item	Description
Manual	View software user manual online.
About	View software terms and condition.
Privacy Policy	View software privacy policy.
Console	View and download real-time data on the camera-microphone action status for debugging purpose.

Specifications

DC Power	12V/1.5A
PoE+	42.5-57V / 0.6A
Reset Button	Yes
USB Inputs	3, Type-A for peripherals input #1,#2 are UVC only #3 can be UVC or UAC
USB Outputs	2, Type-B for user application Non-simultaneous output Automatic switch to the port that is connected to host. Port #1 has higher priority if both ports are connected to host (PC or MTR),. Resolution, providing 4K, 1080p FPS: 15, 30, 60
HDMI Inputs	3 Input resolution: up to 1080p per channel
HDMI Outputs	2 Simultaneous display, same configuration 1080p, 25Hz / 1080p, 50Hz / 1080p, 30Hz / 1080p, 60Hz / 4K, 25Hz / 4K, 50Hz / 4K, 30Hz / 4K, 60Hz
Ethernet	2, 1 PoE+, 1 RJ-45 Max connection number: 5 (Web/RTSP/RTMP) Resolution, providing 1080p and 4K FPS: 1, 5, 10, 15, 30, 60
LED Indicators	Yes Status, USB 1, USB 2, network 1, network 2
Security	Kensington security lock
RS-422	Yes
Operating Temperature	0-50°C
Dimension	4.3 x 21 x 15 cm (1.7 x 8.3 x 5.9 in.)
Installation	2, mountable in a rack or under a table

Specifications are subject to change without prior notice.

Troubleshoot


No human tracking.

- Make sure your camera supports human tracking. For supported AVer devices, refer to [<Supported AVer Devices>](#).
- If your camera is connected via HDMI, make sure you select **Control via IP**. Hover over the device in the device list and click the **Pencil** icon to edit.

Camera is too sensitive and flickering between presets.

- Select a longer length of time for [Time to Trigger Preset](#).
- If your camera is shared among several camera and microphone groups, [assign a priority group](#).

Stop voice-tracking.

- Click the **voice-tracking** icon  on the main page to pause voice-tracking for the current profile.
- Mute the microphone by pressing its physical button or accessing its web interface.
- Use the toggle switch on the Select Group Panel to disable the group.
Single video output: Audio is muted while video is still transmitting.
Multiple video output: Both audio and video stop transmitting.

Set auto reboot time	http://[account]:[password]@[IP Address]/cgi-bin?SetString=sys_reboot_time,"02:00"	
Get 2-way UAC	http://[account]:[password]@[IP Address]/cgi-bin?Get=TrkBox_Two_way_uac_on	0: disable 1: enable
Set 2-way UAC	http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Two_way_uac_on,3,0 http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Two_way_uac_on,3,1	0: disable 1: enable
Get USB output	http://[account]:[password]@[IP Address]/cgi-bin?Get=TrkBox_Usb_output_switch	0: Auto 1: USB#1 2: USB#2
Set USB output	http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Usb_output_switch,3,0 http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Usb_output_switch,3,1 http://[account]:[password]@[IP Address]/cgi-bin?Set=TrkBox_Usb_output_switch,3,2	0: Auto 1: USB#1 2: USB#2
Get device status	http://[account]:[password]@[IP Address]/request=queryDeviceStatus	Device Info: name=device name, type=camera or microphone, port=USB1~3, HDMI1~3, or IP status=online or offline
Get general mode	http://[account]:[password]@[IP Address]/request=getGeneralMode	0 (profile mode), 1 (live mode)
Set general mode	http://[account]:[password]@[IP Address]/request=setGeneralMode&generalMode=[generalMode ID]	generalMode ID: 0 (profile mode), 1 (live mode)
Enable live mode	http://[account]:[password]@[IP Address]/request=enableLiveMode	
Disable live mode	http://[account]:[password]@[IP Address]/request=disableLiveMode	
Get live mode layout	http://[account]:[password]@[IP Address]/request=getLiveLayout	liveLayout: PIP(0), Single(1), Side-by-side(2), Main Speaker(3), Main Speaker(4), Quad View(5)
Set live mode layout	http://[account]:[password]@[IP Address]/request=setLiveLayout&liveLayout=[liveLayout ID]	liveLayout: PIP(0), Single(1), Side-by-side(2), Main Speaker(3), Main Speaker(4), Quad View(5)
Query all profile info	http://[account]:[password]@[IP Address]/request=queryAllProfileTbInfo	response profile data array. array item:

		<pre> { "currentGroup":1, // current group ID "enableVoiceTracking":1, // pause or resume "isCurrent":1, // is current profile "layoutAuto":4, // auto mode layout "layoutManual":3, // manual mode layout "mode":0, // auto mode or manual mode "pid":1, // profile ID 1~36 "profileName":""," // profile name naming by user "profileOrder":1 } </pre>
Get current profile mode	http://[account]:[password]@[IP Address]/request=getMode	auto or manual mode
Set current profile mode	http://[account]:[password]@[IP Address]/request=setMode&mode=[mode ID]	mode ID=0(auto mode), 1(manual mode)
Query device status	http://[account]:[password]@[IP Address]/request=queryOnlineDevice	
Query live mode all layout settings	http://[account]:[password]@[IP Address]/request=queryLiveModeData	<p>response live mode data array.</p> <p>array item:</p> <pre> { "camView":0 // camView: 0 (Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ... "deviceTbCamDid":43, // camera ID "liveModeLayout":1, // layout ID: 0~5 "sourceOrder":1 // source order: 1~4 </pre>

		}
Reset live mode data	http://[account]:[password]@[IP Address]/request=clearLiveModeData	
Get live mode device list	http://[account]:[password]@[IP Address]/request=queryLiveModeDeviceInfo	response live mode device array. array item: { "camLensCount":1 // 0(Unknown), 1(Single lens camera), 2(Dual lens camera), ... "deviceTbCamDid":1, // camera ID "name":"USB1", // device name "port":"USB1", // device port or IP address(IP cam) "type":"camera" // device type }
Set camera to live mode layout source	http://[account]:[password]@[IP Address]/request=setLiveModeSource&liveLayout=[liveLayout ID]&srcOrder=[sourceOrder]&camDid=[deviceTbCamDid]&camView=[camView Index]	liveLayout ID: 0~5 sourceOrder: 1~4 deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...

PTZ Control Panel

HOME	http://[account]:[password]@[IP Address]/request=ptzHome&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
PanLeftStart	http://[account]:[password]@[IP Address]/request=ptzLeftStart&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
PanLeftStop	http://[account]:[password]@[IP Address]/request=ptzLeftStop&camDid=[deviceTbCamDid]&camView=[camView Index]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
PanRightStart	http://[account]:[password]@[IP Address]/request=ptzRightStart&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...

PanRightStop	http://[account]:[password]@[IP Address]/request=ptzRightStop&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
TiltUpStart	http://[account]:[password]@[IP Address]/request=ptzUpStart&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
TiltUpStop	http://[account]:[password]@[IP Address]/request=ptzUpStop&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
TiltDownStart	http://[account]:[password]@[IP Address]/request=ptzDownStart&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
TiltDownStop	http://[account]:[password]@[IP Address]/request=ptzDownStop&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
ZoomInStart	http://[account]:[password]@[IP Address]/request=ptzZoomInStart&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
ZoomInStop	http://[account]:[password]@[IP Address]/request=ptzZoomInStop&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
ZoomOutStart	http://[account]:[password]@[IP Address]/request=ptzZoomOutStart&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
ZoomOutStop	http://[account]:[password]@[IP Address]/request=ptzZoomOutStop&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
FocusInStart	http://[account]:[password]@[IP Address]/request=ptzFocusInStart&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
FocusInStop	http://[account]:[password]@[IP Address]/request=ptzFocusInStop&camDid	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The

	=[deviceTbCamDid]&camView=[camView Index]	first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
FocusOutStart	http://[account]:[password]@[IP Address]/request=ptzFocusOutStart&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
FocusOutStop	http://[account]:[password]@[IP Address]/request=ptzFocusOutStop&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
GoPreset	http://[account]:[password]@[IP Address]/request=ptzGoPreset&camDid=[deviceTbCamDid]&presetNum=[preset number]&camView=[camView Index]	deviceTbCamDid: camera ID presetNum: 0~255 camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
SavePreset	http://[account]:[password]@[IP Address]/request=ptzSavePreset&camDid=[deviceTbCamDid]&presetNum=[preset number]&camView=[camView Index]	deviceTbCamDid: camera ID presetNum: 0~255 camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
GetFocusMode	http://[account]:[password]@[IP Address]/request=ptzGetFocusMode&camDid=[deviceTbCamDid]&camView=[camView Index]	deviceTbCamDid: camera ID focusMode: 0:AF 1:MF -1:NO Focus function device camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...
SetFocusMode	http://[account]:[password]@[IP Address]/request=ptzSetFocusMode&camDid=[deviceTbCamDid]&focusMode=[0:AF 1:MF]&camView=[camView Index]	deviceTbCamDid: camera ID focusMode: 0:AF 1:MF -1:NO Focus function device camView: 0(Single lens camera), 1 (The first lens of multi-lens camera), 2 (The second lens of multi-lens camera), ...

TCP Commands

A TCP command string starts with AVER:[account]:[password]:/request=X, and ends with \r\n. X is as HTTP requests above. For example, AVER:[account]:[password]:/request=pause\r\n, AVER:[account]:[password]:/request=resume \r\n, and so on.

VISCA Command Table

MT300(N) also can be controlled via below VISCA over IP commands, but does not support VISCA RS422 commands.

VISCA over IP

PORT

Internet protocol	IPv4
Transport protocol	UDP
Port address	52381

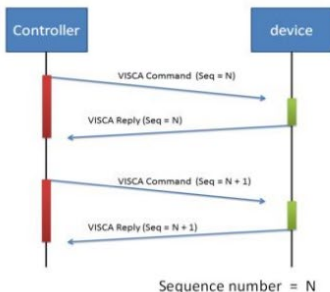
FORMAT

	byte 0	byte 1	byte 2	byte 3	byte 4	byte 5	byte 6	byte 7	byte8 ~~~~	byte23
func	Payload type	Payload length	Sequence number			Payload (1 to 16 bytes)				
data	Value1	Value2	1~16 (0x0001~0x0010)			0X00000000 ~ 0XFFFFFFF			VISCA Packet (see page VISCA)	

Payload type

Name	Value1	Value2	Description
VISCA command	0x01	0x00	Stores the VISCA command.
VISCA inquiry	0x01	0x10	Stores the VISCA inquiry.
VISCA reply	0x01	0x11	Stores the reply for the VISCA command or VISCA inquiry

Sequence number



Command Set	Command	Command Packet	Comments
Power	OFF	8x 01 04 00 03 FF	Power off MT300
Voice Tracking	Pause	8x 01 04 7D 03 00 FF	Pause voice tracking
	Resume	8x 01 04 7D 02 00 FF	Resume voice tracking
System	Change Profile	8x 01 04 40 01 YY FF	YY = profile num(0x01~0x24)
		8x 01 04 3F 02 YY FF	Preset recall, YY = profile num(0x01~0x24)
	Reboot	8x 01 04 A4 FF	Reboot MT300
		8x 01 7E 03 01 FF	USB port 1

	Switch USB Output	8x 01 7E 03 02 FF	USB port 2
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Command samples:

Command Set	Command	Command Packet	Comments
Power	OFF	01 00 00 07 00 00 00 01 81 01 04 00 03 FF	Power off MT300
Voice Tracking	Pause	01 00 00 07 00 00 00 01 81 01 04 7D 03 00 FF	Pause voice tracking