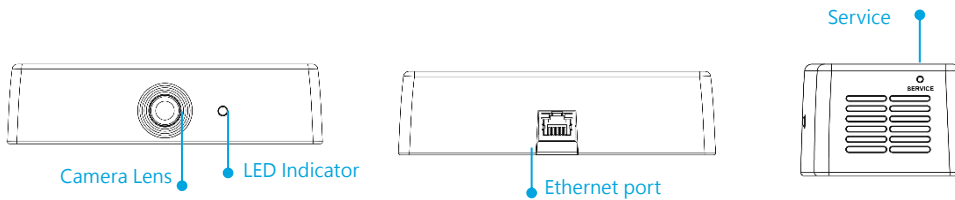










## 1. Overview



- Ethernet port: Supports PoE (802.3af) power supply
- Service button: Restores factory default settings for the device

## 2. What you need

			
AI-Box1	Microphone	Computer	Display
			
VC-WM14	Ethernet Switch	Network cable	HDMI cable

- Please update all devices to the latest firmware for optimal performance.

### Instructions

- Installation Personnel

Two-person installation is recommended for calibration and setup.

(No more than five people in the area during tracking tests to minimize potential interference..)

- Microphone Installation

To ensure accurate audio localization, align the ceiling microphone's 0° direction toward the front display or primary screen.

Here are approaches to verify the correct installation angle:

- Align the microphone logo toward the display.
- Verify the 0° sound direction in the microphone web interface while speaking in front of the display.  
(For Sennheiser microphones, please use the second method.)

- BC-200 Installation

Mount the device securely on the wall using an approved bracket, to maximize the shooting range and effectiveness.

- Supported Detection Range: 1.5-8 meters  
When using multiple BC-200, ensure all devices and target remain within the detection range.
- Horizontal of View (HOV): 54°



- BC-200 Installation Method

Refer to [9. Installation steps](#)

Install the mounting bracket to install the device in an upright position. Alternatively, mount the BC-200 inverted underneath the VC-WM14 camera bracket, as shown.



## Device connection

- Ensure BC-200 and AI-Box1 are connected on the same network subnet

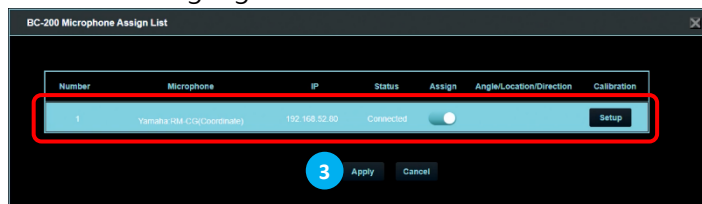


## 3. AI-Box1 Settings (Connect with BC-200)

(Web interface configuration is recommended.)



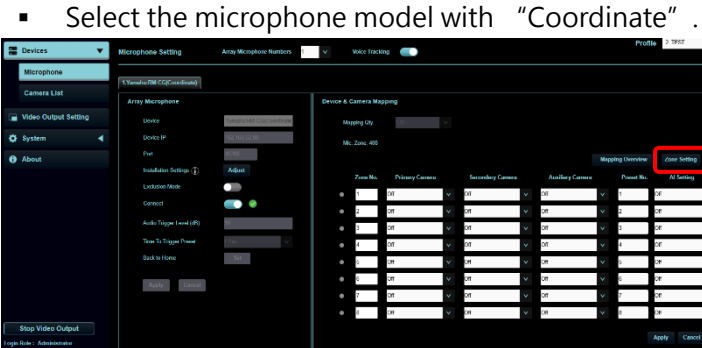
- Click [System] > [Settings] > [Extension Setup] > [Auxiliary Camera] > [Apply]
- Click [Search] > [Connect] > [Mic Assign]
- Click [Assign] > [Apply]. After successful assignment, the designated BC-200 will be highlighted in blue.



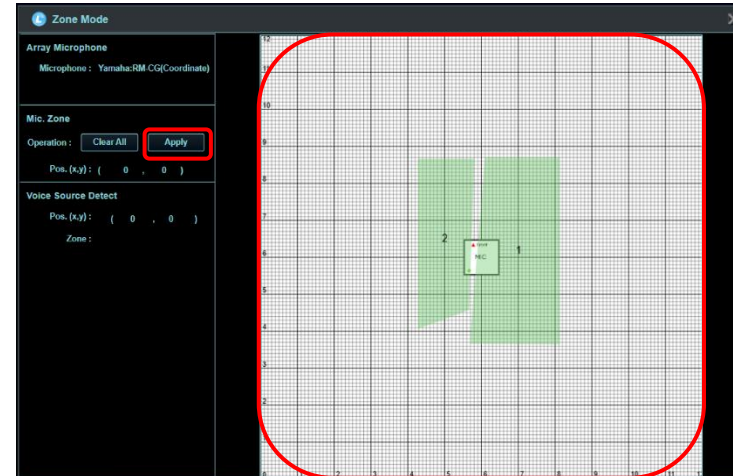
※If AI-Box1 rebooting or FW updating is required, ensure all BC-200 and

microphones have completed [Assign] pairing.

- Refer to the AI-Box1 user manual to connect the microphone and cameras, then click [Zone Setting] to enter the canvas interface.

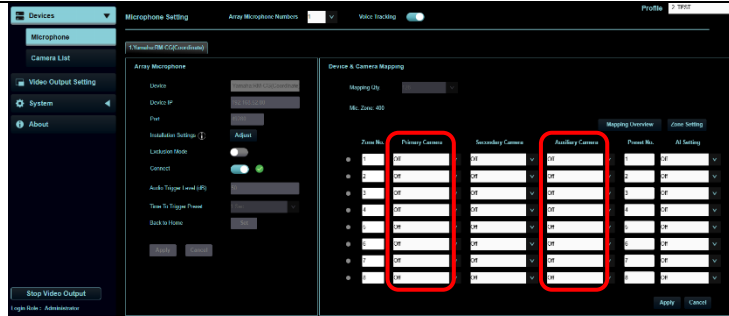


- Use the mouse to drag and draw the tracking area, then click [Apply].




- Select the camera and BC-200 for each zone, then click [Apply].

# BC-200 Quick Installation Guide



## 4. BC-200 Web Settings

1. Obtain the BC-200 IP address.

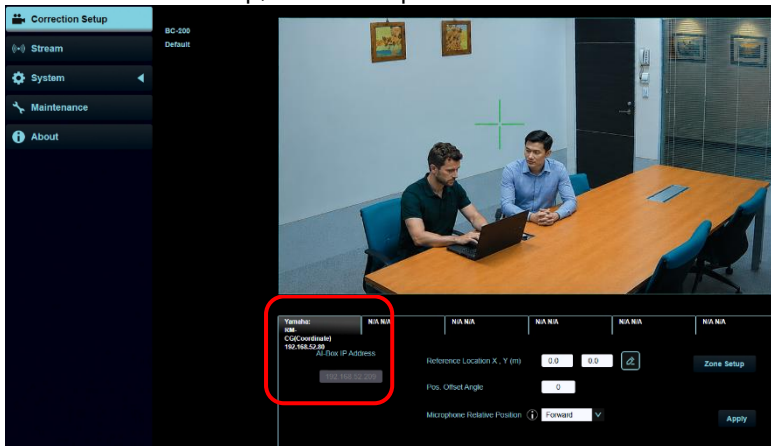
Refer to **3. AI-Box1 Settings**, enable [Auxillary Camera]> [Apply] and click  to search the BC-200 in the same network segment. (Default IP address: 192.168.100.101)



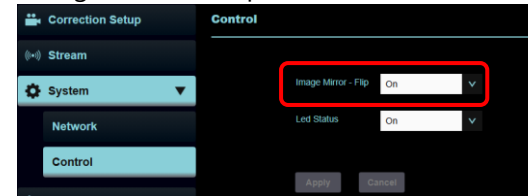
2. Open a web browser and enter the BC-200' s IP address to access its setting page.

- Account: admin
- Password: 9999

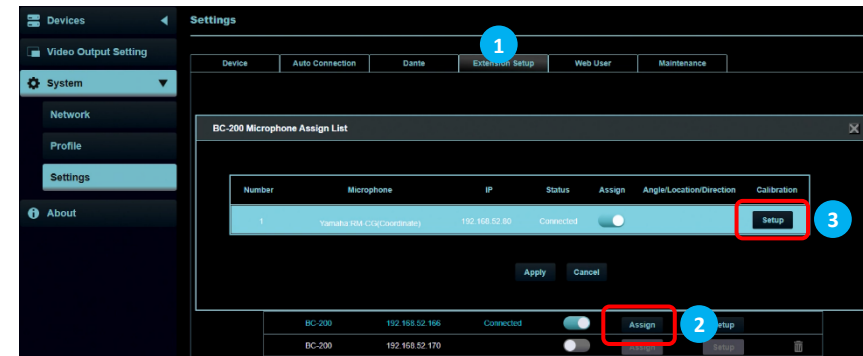
3. Go to [Correction Setup] and verify the following:
  - The microphone and AI-Box1 IP addresses are configured correctly.
  - For initial setup, ensure all parameter values are set to 0.



4. If the BC-200 is mounted upside down, go to [System]> [Control]> [Image Mirror – Flip], set it to [On], then click [Apply].

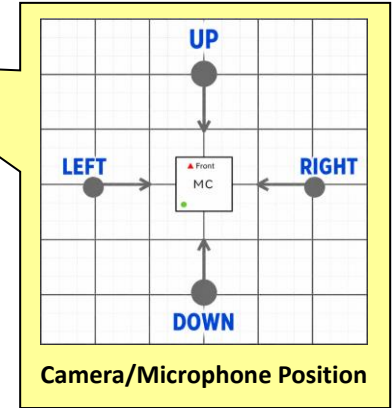
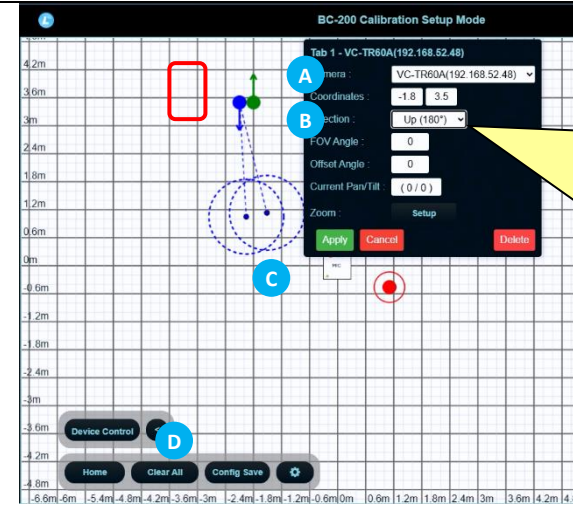
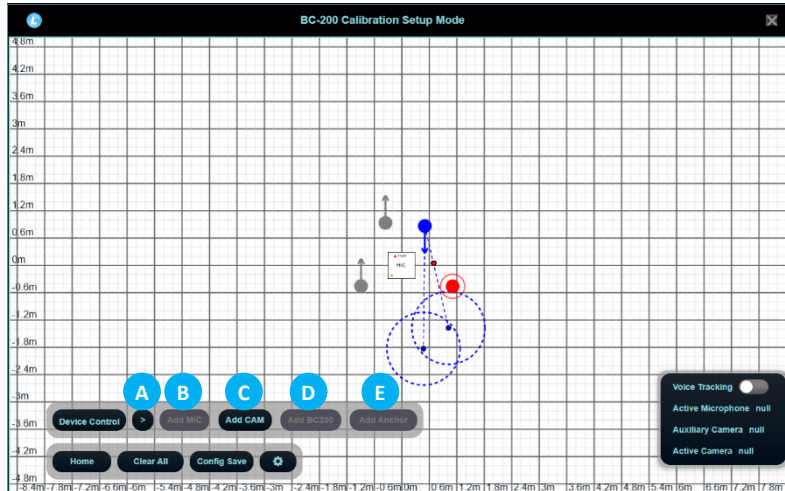


## 5. BC-200 and Microphone Calibration (BC-200 Calibration Setting Mode)



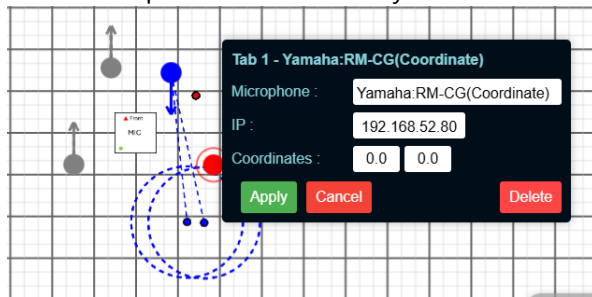
1. In AI-Box1 web interface, go to [System]> [Settings]> [Extension Setup]
2. Click [Assign] under Microphone Assign
3. Click [Setup] to enter the BC-200 Calibration Setting Mode
4. The canvas is initially empty. Add microphones, cameras, BC-200, and anchors as required. Only **Add CAM** supports adding multiple devices. Please add cameras according to the actual installation quantity. (Example: four cameras installed = click **Add CAM** four times.)

# BC-200 Quick Installation Guide



Item	Function	Description	Icon
A		Show/Hide Device Icons	
B		Add microphone	
C		Add camera	
D		Add BC-200	
E		Add Anchor	

5. Click Microphone and verify the coordinates are set to (0.0) (0.0)



6. Click the camera to open the settings window.

(A) Select the camera to be configured.

(B) Refer to the relative position diagram of the camera and microphone, then select the corresponding direction.

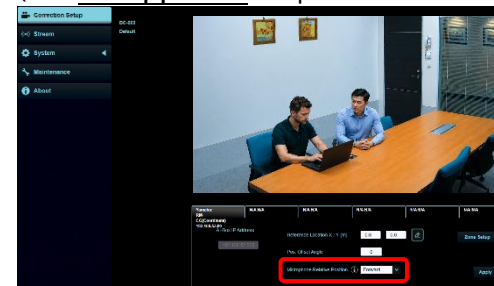
(C) Click [Apply]. The camera icon will turn green, indicating the configuration was successful.

(D) After confirming the positions and directions, click to save settings.

※If multiple cameras are installed, repeat steps (A)–(D) for each camera.

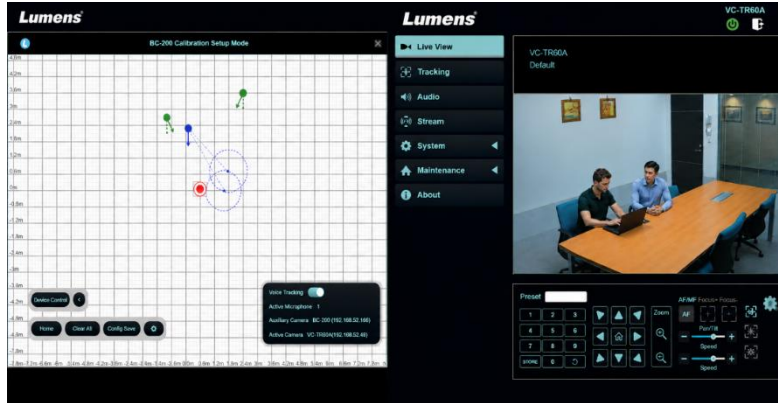
7. Refer to [4. BC-200 Web Settings](#) and go to [Correction Setup] to configure the [Microphone Relative Position].

(See [10. Appendix](#) for position reference.)



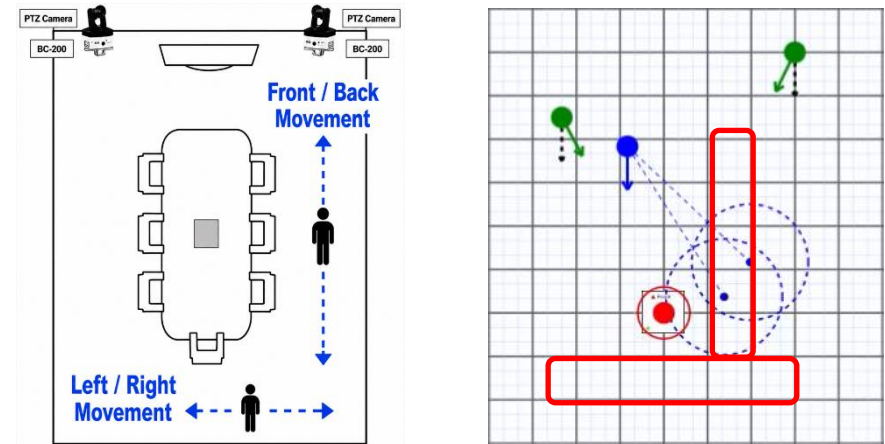
## 6. PTZ Camera and Microphone Calibration

Display the BC-200 Calibration Setup Mode and the camera web interface Live View side by side to allow simultaneous parameter adjustment and live preview.

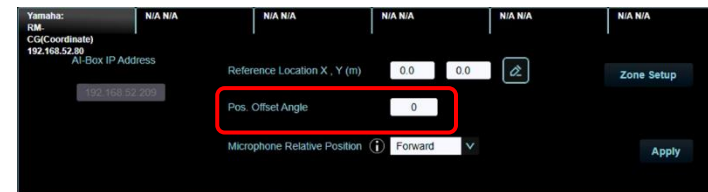


Adjust the horizontal / vertical angle

1. Move to the sides of the microphone center and confirm that the tracking indicator (dashed circle and blue dot) appears on the canvas.  
(※Note: Before calibration is completed, it is normal for the blue dot not to appear near the microphone center.)
2. Walk around the microphone in horizontal and vertical directions, and confirm that the tracking indicator movement matches the actual movement direction.  
(※Note: Keep the indicator offset within a single grid range for optimal calibration accuracy.)





3. If the tracking indicator offset exceeds a single grid range, refer to [4. BC-200 Web Settings](#), and adjust the [Pos. Offset Angle] setting in the web interface.

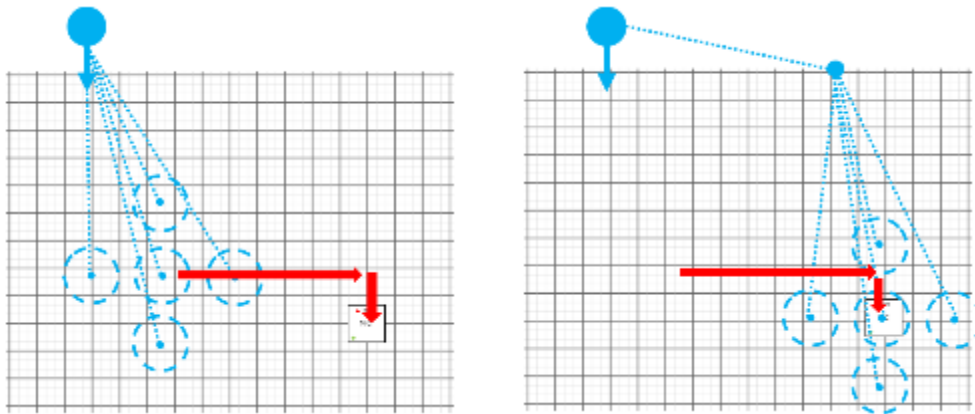


Example: BC-200 Microphone Relative Position Direction: Forward


Upper-right / lower-left offset	Upper-left / lower-right offset
Decrease the [Pos. Offset Angle]. Example: $360^\circ - 40^\circ = 320^\circ$	Increase the [Pos. Offset Angle]. Example: $0^\circ + 40^\circ = 40^\circ$

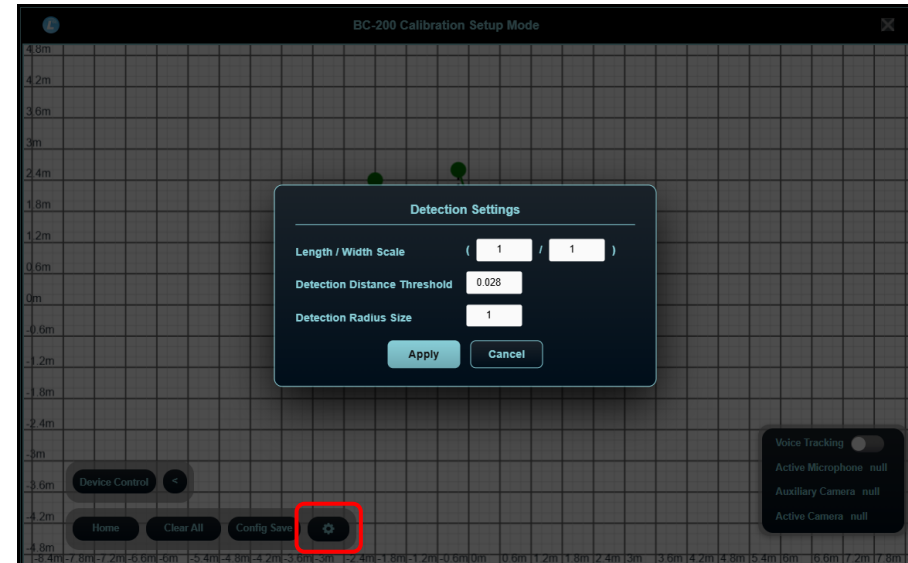
## Adjust the X/Y Offset

1. Move the  BC-200 on the canvas to align the tracking indicator with the microphone center (user standing directly below the microphone or at the corresponding relative position).
2. After adjustment, click  to save the settings.



## Adjust Detection Setting

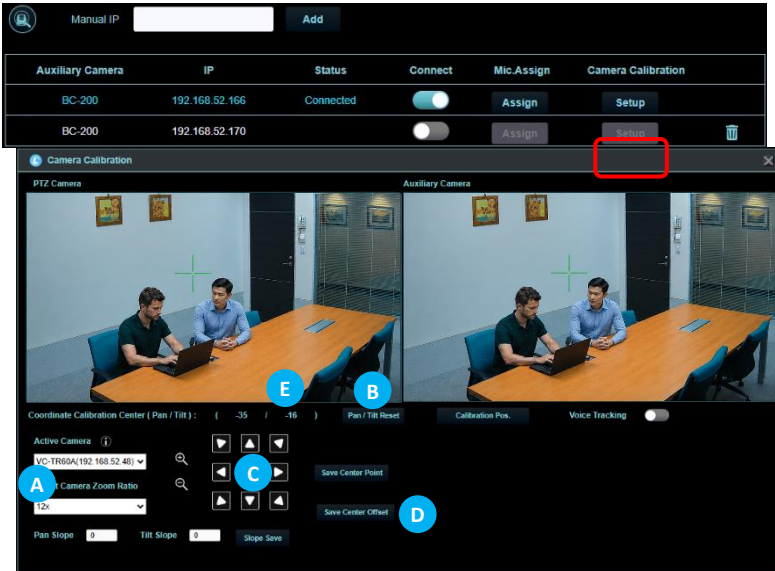
Click  Settings on the canvas to enter [Detection Setting].



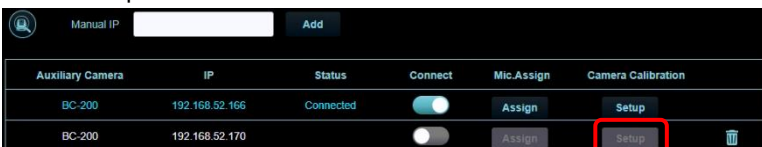
- **Detection Distance Threshold**  
The Detection Distance Threshold defines the trigger distance between the previous and next detection points.  
The recommended value is 0.028.
- **Detection Radius Size**  
This setting defines the detection radius of the tracking indicator.  
A recommended range of 0.8–1.2 is suggested depending on the installation environment.

## 7. BC-200 and PTZ Camera Calibration

1. Go to [System]> [Settings]> [Extension Setup] on the AI-Box1 web interface.
2. Under Camera Calibration, click [Setup] to enter BC-200 Calibration mode.

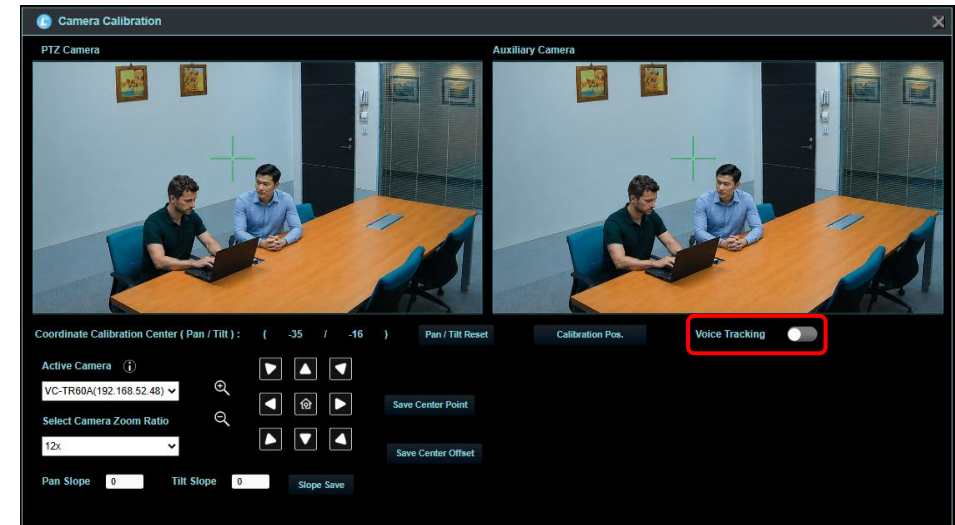


- (A) Select the camera to be calibrated and its supported zoom ratio.
  - (B) Click [Pan/Tilt Reset].
  - (C) Adjust the zoom ratio and arrow keys to align the camera view with the green cross position shown in the BC-200 view.
  - (D) Click [Save].
  - (E) The calibrated Pan/Tilt angle values will be displayed.
- ※ If multiple cameras installed, repeat steps (A)–(E) for each camera.
- ※ If multiple BC-200 installed, switch to the next BC-200 and repeat (A)–(E).



## 8. Testing and Fine Tune

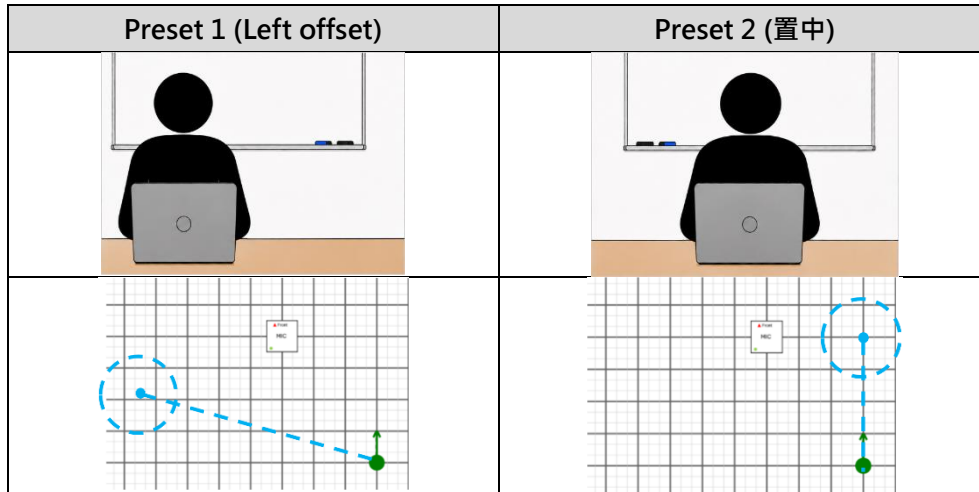
Test: check target centering



1. Refer to [7. BC-200 and PTZ Camera Calibration](#) to enter BC-200 Camera Calibration.
2. Turn on [Voice Tracking]
3. Speak and verify the tracking result and target centering.

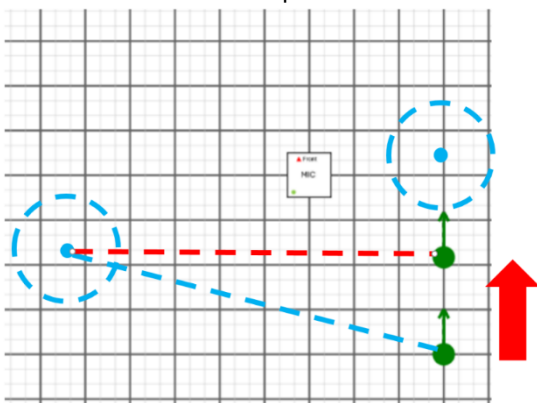
Target not centered

(A) Target offset to the left

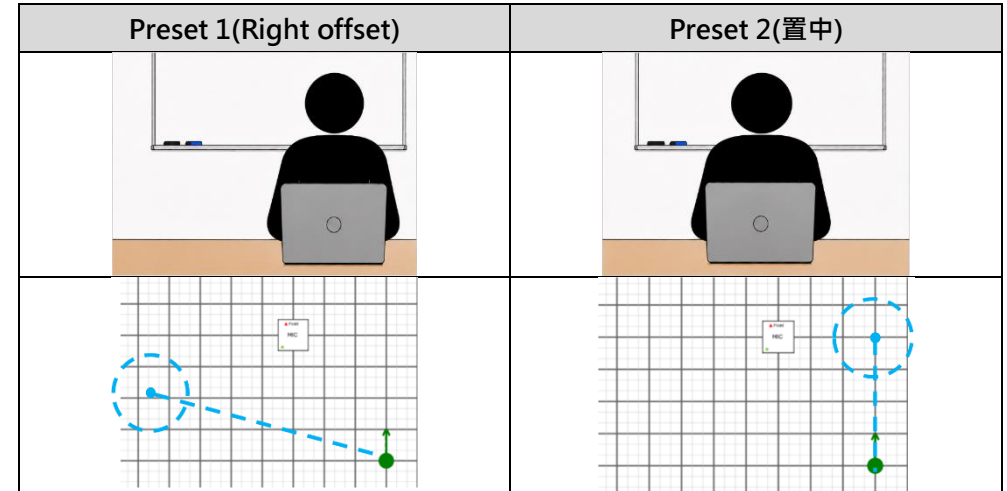


Adjustment:

Move the camera  upward on the canvas.

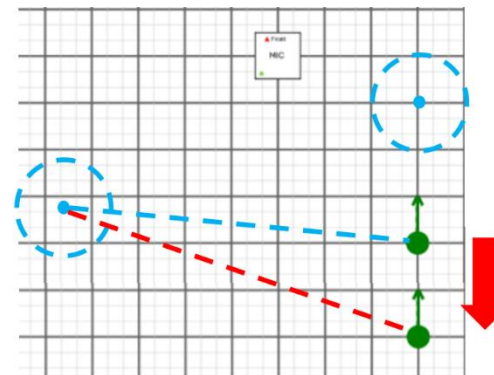


(B) Target offset to the right

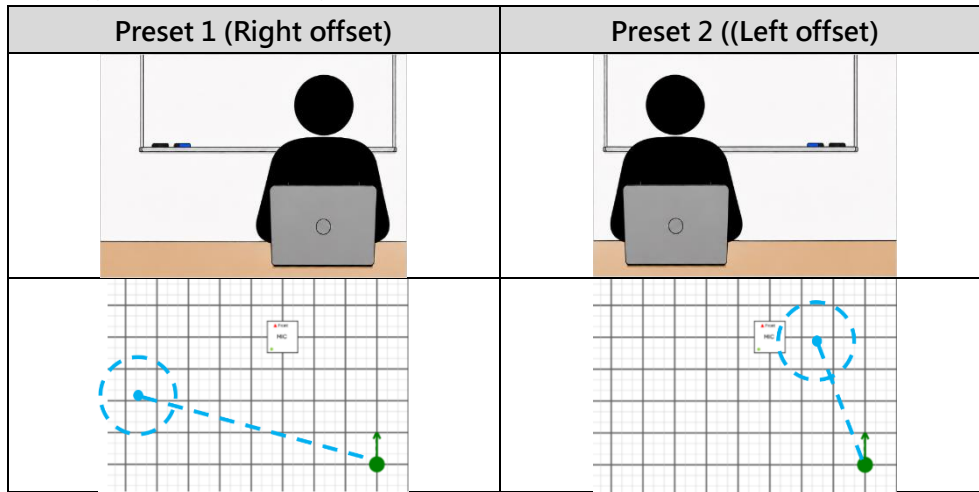


Adjustment:


Move the camera downward on the canvas

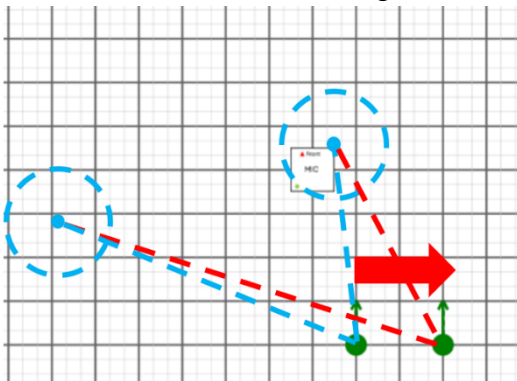


(C) Target offset to the right/ left

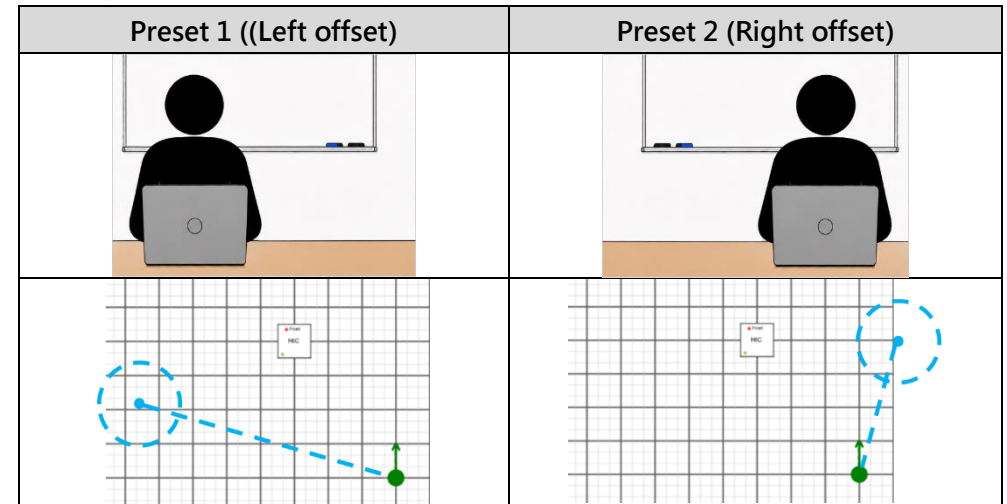


Adjustment:


Move the camera  to the right on the canvas.

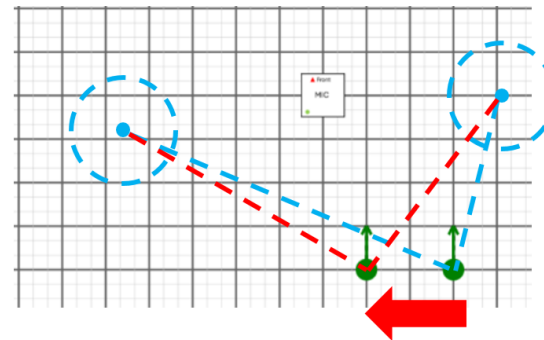


(A) Target offset to the left/ right

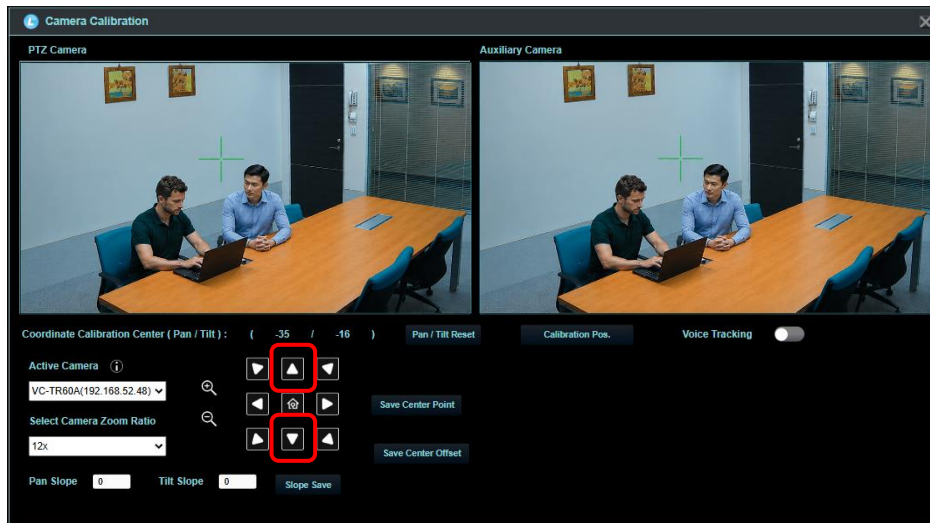
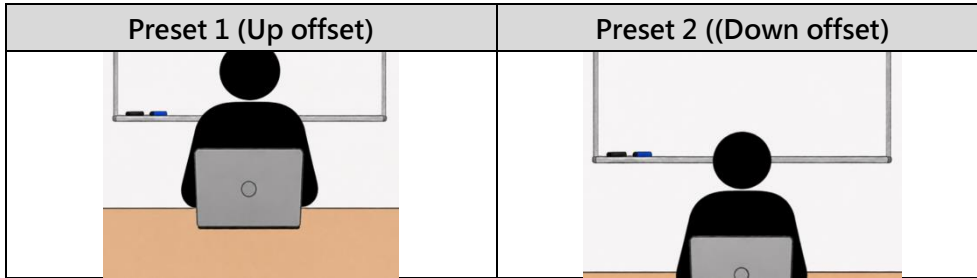


Adjustment:

Move the camera  to the left on the canvas.

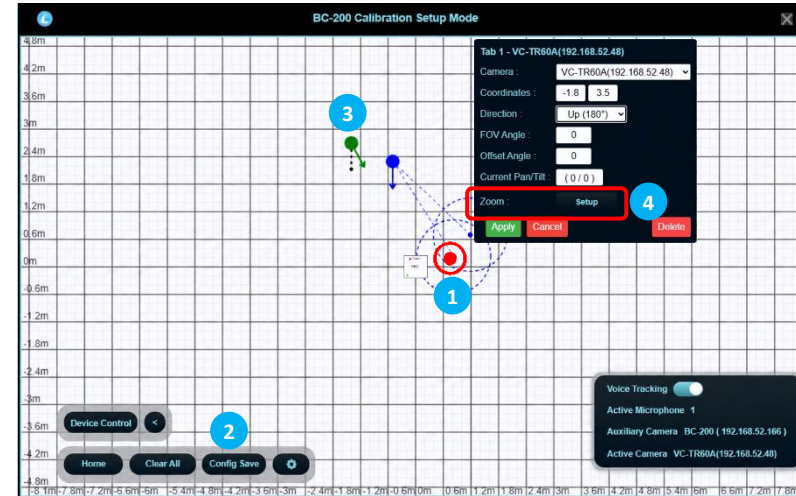



## (B) Target offset up/ down



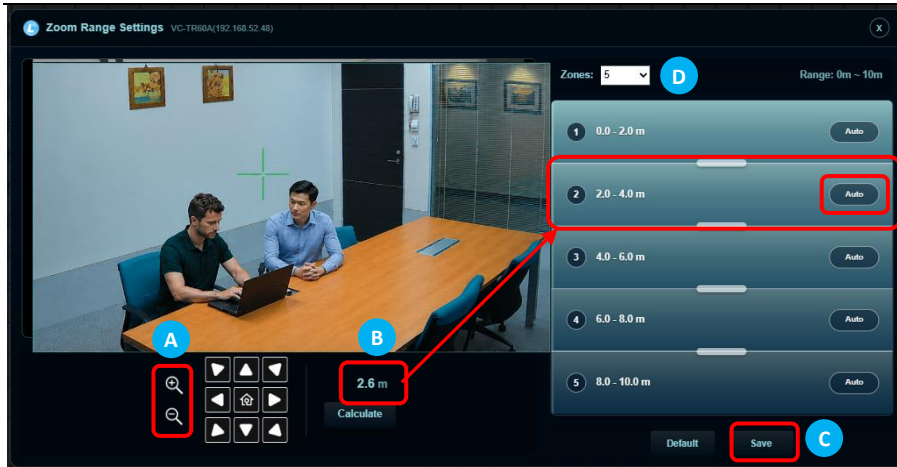
1. In the [BC-200 Camera Calibration], use the Up / Down arrow keys to adjust the position.
2. Click [Save Center Offset].

## Target size too large / small



1. In the [BC-200 Calibration Setup Mode], drag the Anchor to the target detection point on the canvas.
2. Click **Config Save** to save the setting.
3. Select the camera  to open the settings window.
4. Click [Zoom Setup] to enter [Zoom Range Setting].

# BC-200 Quick Installation Guide



- (A) Use [Zoom +/-] to adjust the zoom position.
- (B) Based on the detected distance, click [Auto] for the corresponding zone.
- After clicking [Auto], the button changes to [Custom] and a [Set] button appears. Click [Set] to save the parameter. If further adjustment is required, modify the value and click [Update].



- (C) Click [Save] to save the settings.
- (D) Adjust the number of zones as needed.
- Increasing the number of zones improves positional differentiation.
  - Drag the spacing adjustment bar to expand or reduce the zone range.

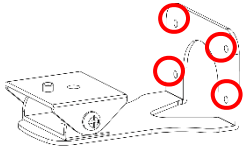
The minimum spacing is 0.6 m.



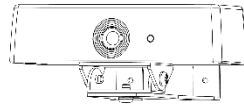
## 9. Mount Installation

### Wall Mounting

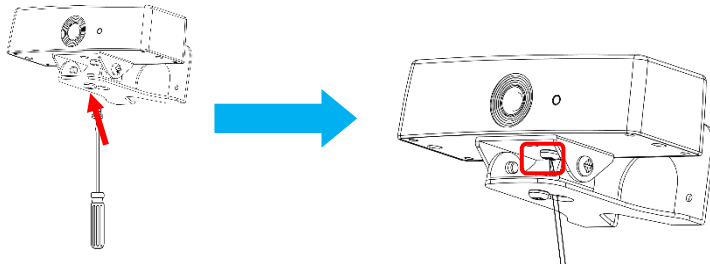
1. Secure the bracket module to the wall using the supplied accessories.



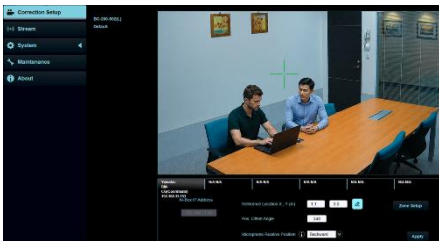
2. Place the BC-200 onto the metal bracket plate.



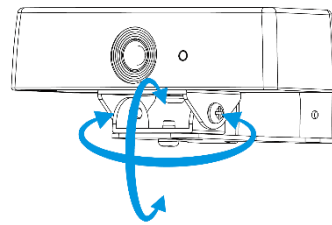
3. Using the supplied screws, insert the screwdriver through the holes on the bracket plate and secure the BC-200 to the bracket



4. Refer to [4. BC-200 Web Settings](#) and verify that the displayed view matches the actual tracking area.



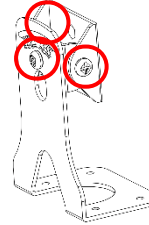
5. If the view is misaligned, adjust the horizontal or vertical angle as needed, then tighten all screws securely.



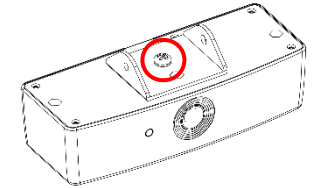
### Installed with VC-WM14 (Inverted Mount)

- Please complete the BC-200 installation before installing the camera.
- For inverted installation, refer to [4. BC-200 Web Settings](#) to configure Image Mirror and Flip settings.

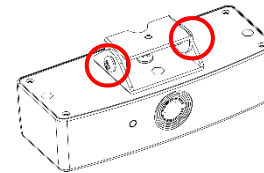
1. Remove the bracket module and screws from the accessory package.



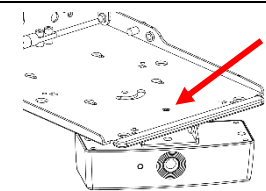
2. Secure the upper metal plate to the BC-200 using the removed screws.



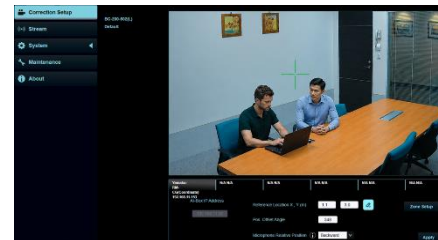
3. Secure the upper and lower metal plates together. (Loosely tighten the screws for later angle adjustment.)



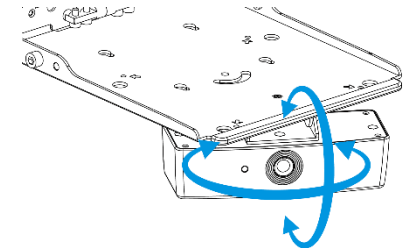
4. Secure the bracket to the WM14 metal plate using the supplied screws. (※Compatible only with the new metal plate version.)



5. Refer to [4. BC-200 Web Settings](#) and verify that the displayed view matches the actual tracking area.



6. If the view is misaligned, adjust the horizontal or vertical angle as needed, then tighten all screws securely.



# BC-200 Quick Installation Guide

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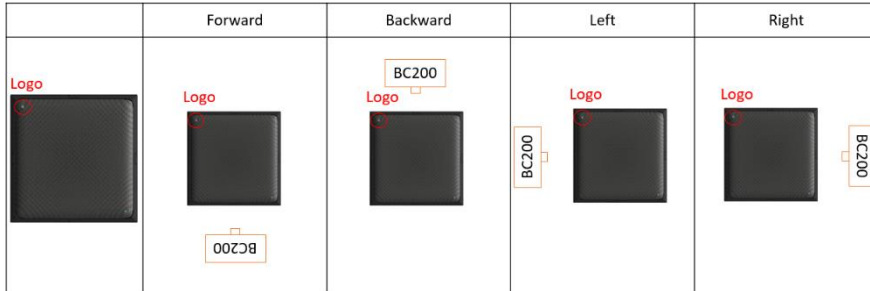
[www.lumens.com](http://www.lumens.com) **Lumens**<sup>®</sup>



## 10. Addendum

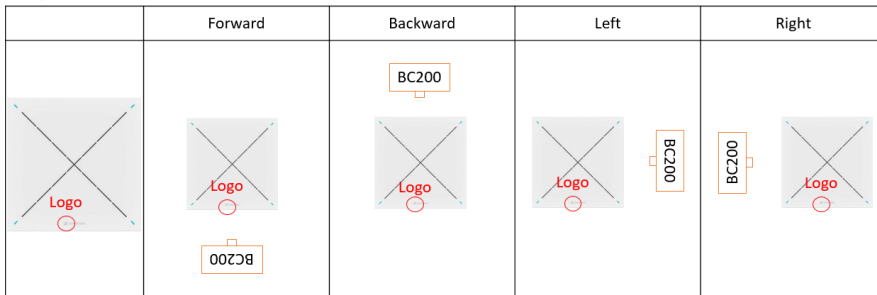
### ■ Yamaha RM-CG

Logo positioned in the top-left corner



### ■ Sennheiser TCC2

Logo positioned at the bottom



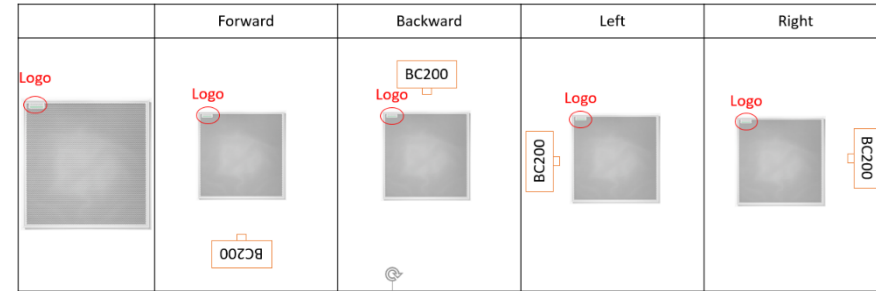
### ■ Sennheiser TCCM

Logo is positioned to the left side of the microphone at 0°  
 \*Please visit YouTube [My Lumens] channel to watch the related videos for instructions.



### ■ Shure920

Logo positioned in the top-left corner



### ■ Audio-Technica ATND1061LK (Currently not supported by BC-200)

Logo positioned in the top-left corner

