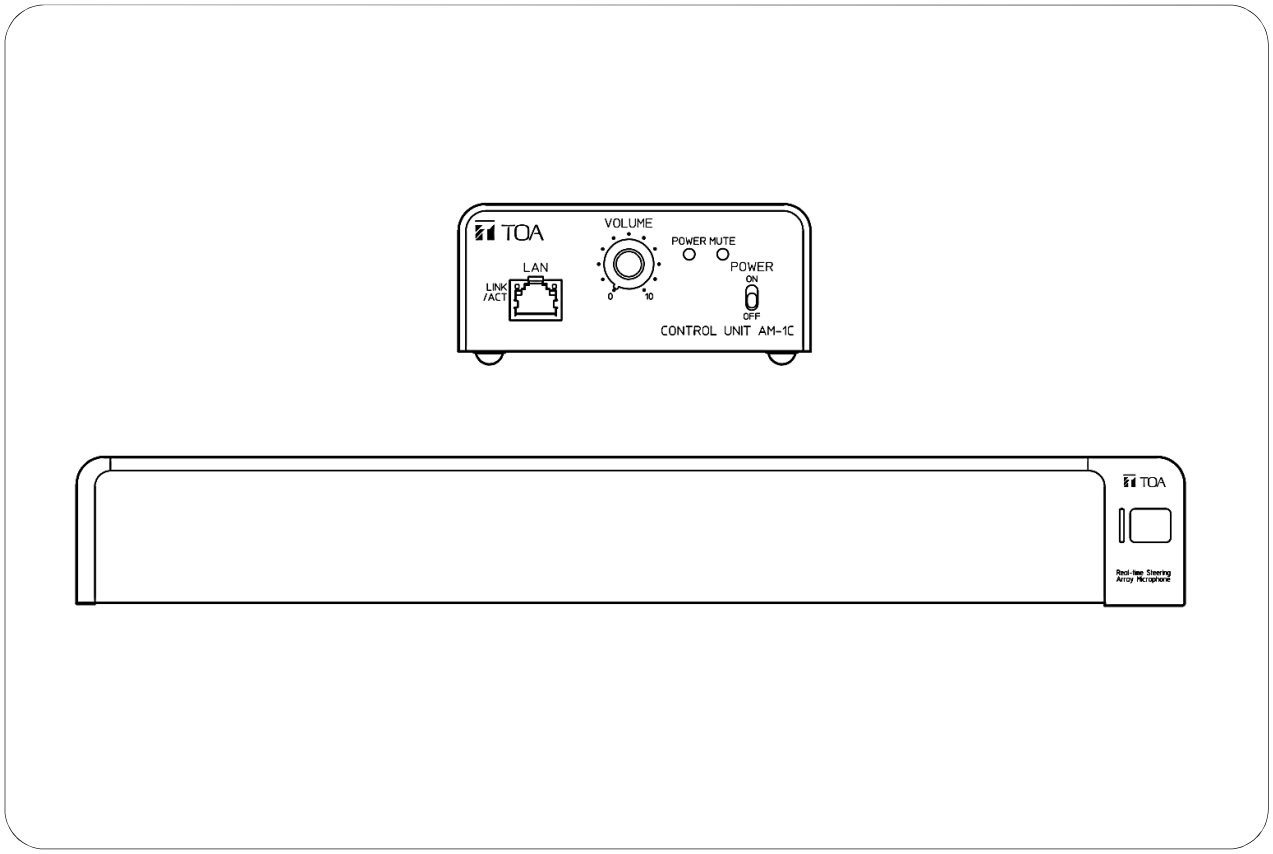
QUICK SETUP GUIDE

AM-1

AM-1 Setup Guide for the Polycom® Video Conferencing Systems



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1. ABOUT THIS SETUP GUIDE

This setup guide shows how to use TOA's AM-1 Real-time Steering Array Microphone System with the Polycom® Video Conferencing Systems for better performance. The applicable models from Polycom® are;

Polycom® RealPresence® Group Series (Group 500/700)
Polycom® HDX® Systems (HDX 9006/9004/9002/9001/7000)

*Group 300/550 and HDX 4000/6000 are not recommended to use with the AM-1, because the echo canceling feature is not available for external microphone input.

For more detailed settings for AM-1, please refer AM-1's Operating Instructions.

2. GENERAL INFORMATION OF AM-1

The AM-1 Real-time Steering Array Microphone System is a sophisticated microphone system, capable of detecting a sound source location, and steering the microphone's beam angle automatically in real-time to capture the targeted sound more efficiently. In addition, the unique user-friendly app allows the user to monitor the status of the sound source, and make changes to its detailed setting parameters by using an iPad™.

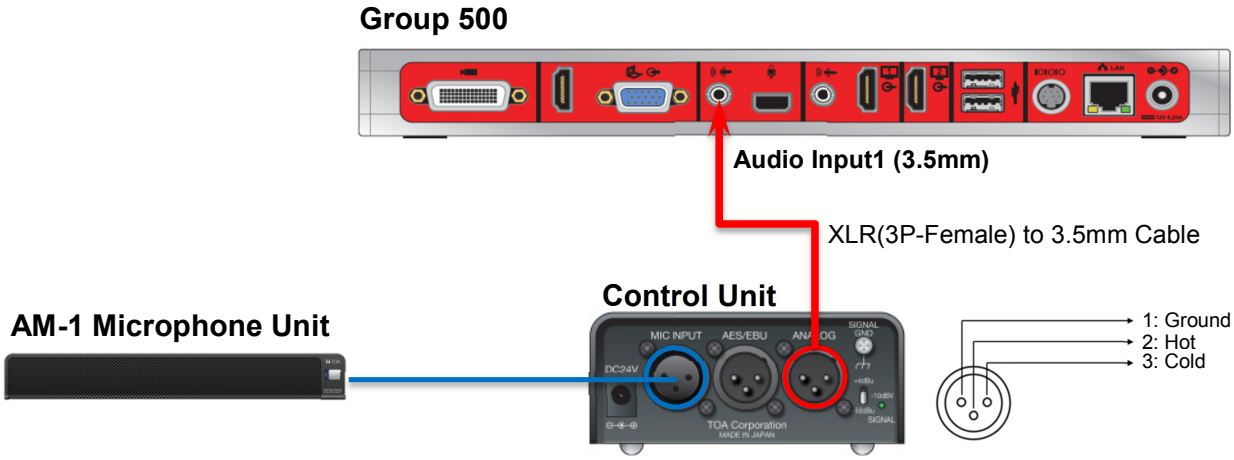
Key Features

- The microphone unit is equipped with 8 microphone elements able to achieve the line array effect with a narrow horizontal dispersion angle of 50 degrees.
- The unit is able to detect a sound source location and steer the microphone's beam angle automatically in real-time to focus on the targeted sound source.
- The dedicated user-friendly GUI is available for use with an iPad™, which allows monitoring of the sound source tracking status and setting of detail parameters. It is also possible to change parameter settings via a browser, when using a PC.
- The unit has a simple mute function with a physical mute switch on the microphone unit or through the GUI. The mute switch function of the microphone unit can be disabled through a GUI setting.
- It is equipped with two outputs: adjustable analog audio output level, and AES/EBU digital audio output.

3. SETUP WITH “Group 500”

CONNECTIONS

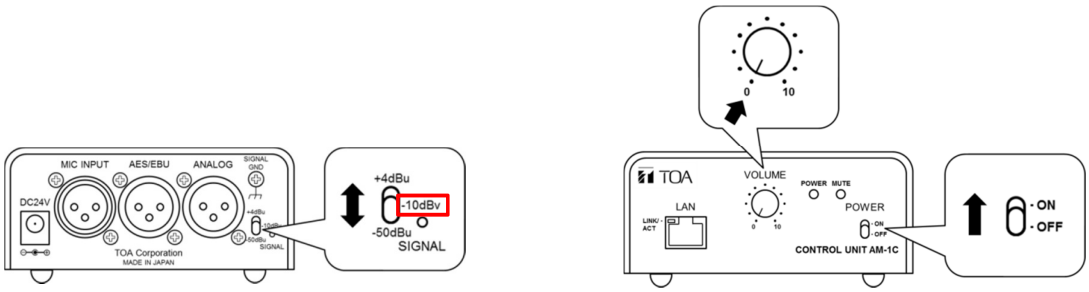
*When the Audio Input 1 is used for external equipment (**Use 3.5 mm Input for Microphone** enabled), the audio is mixed with the input on the Polycom microphone array input and sent to the far end. This input will be muted when the local mute is activated.



SETTINGS

Step1. Confirm all devices are connected properly as shown above.

Step2. Make sure that the audio output level of the AM-1 Control Unit is set to “-10dBv” and the volume control is set to “0”.



Step3. In the web interface of Group 500, go to **Admin Settings > Audio/Video > Audio >Audio Input.**

Step4. Enable **Use 3.5 mm Input for Microphone**.

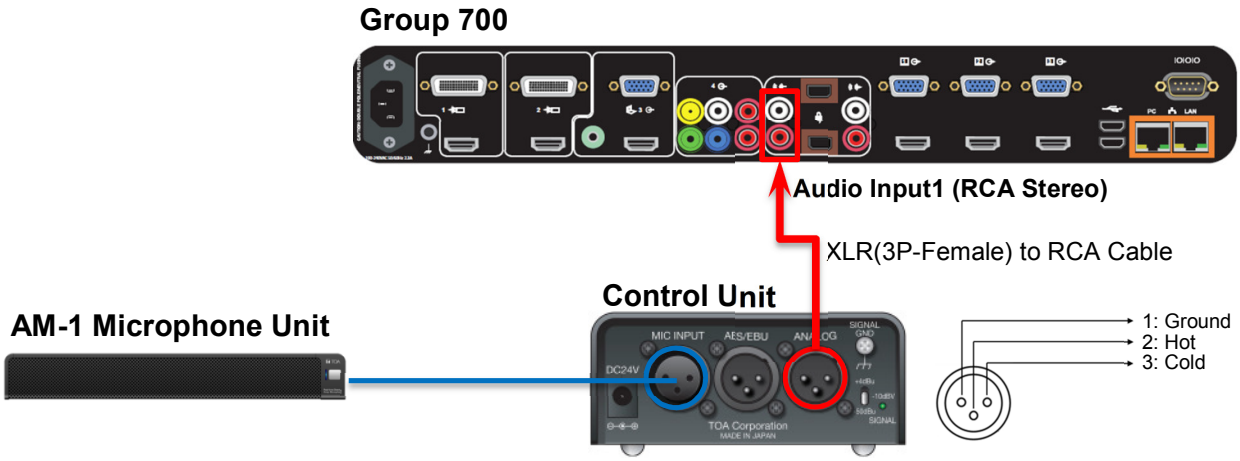
Step5. Enable **Echo Canceller**.

Step6. Adjust the **3.5 mm Level** if necessary.

Step7. While speaking to the microphone from an appropriate distance, adjust the output level with the volume control. The **Audio Meter** on Group 500 should peak at about 5 dB for normal speech.

4. SETUP WITH “Group 700”

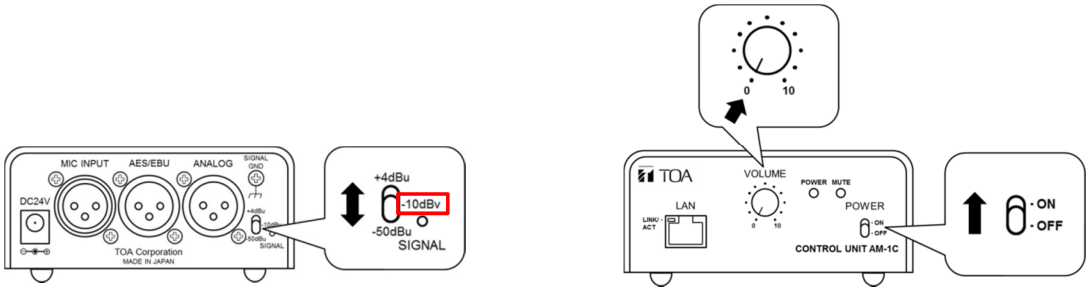
CONNECTIONS



SETTINGS

Step1. Confirm all devices are connected properly as shown above.

Step2. Make sure that the audio output level of the AM-1 Control Unit is set to “-10dBv” and the volume control is set to “0”.



Step3. In the web interface of Group 700, go to **Admin Settings > Audio/Video > Audio >Audio Input.**

Step4. Select Input Type **Line**.

Step5. Enable **Echo Canceller**.

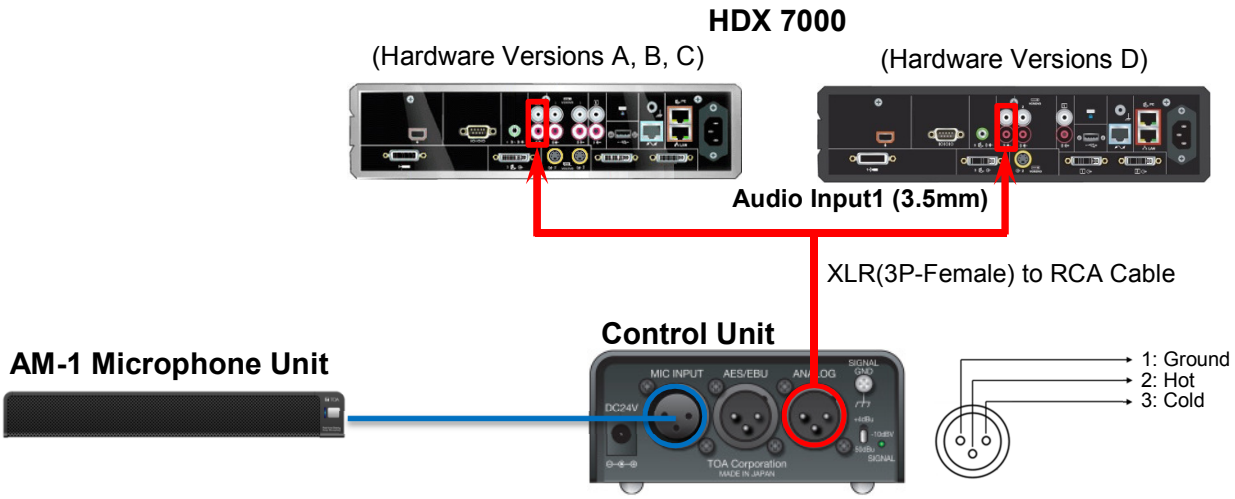
Step6. Adjust the **Audio Input Level** if necessary.

Step7. While speaking to the microphone from an appropriate distance, adjust the output level with the volume control. The **Audio Meter** on Group 700 should peak at about 5 dB for normal speech.

5. SETUP WITH “HDX 7000”

CONNECTIONS

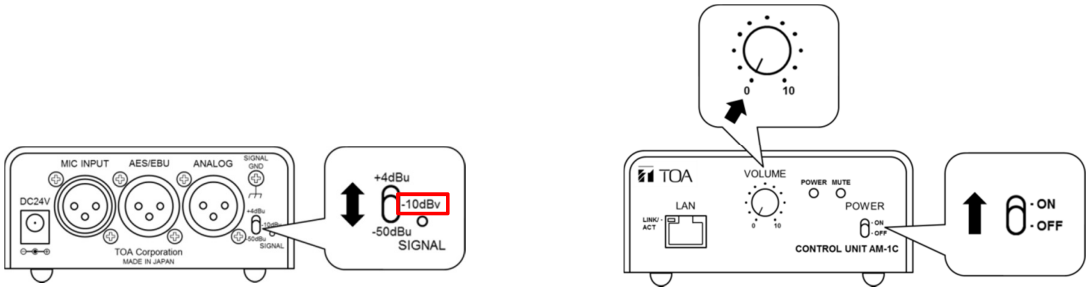
*Audio Input 1 is not associated with any particular video input, and it is not included in audio mix of output 1.



SETTINGS

Step1. Confirm all devices are connected properly as shown above.

Step2. Make sure that the audio output level of the AM-1 Control Unit is set to “-10dBv” and the volume control is set to “0”.



Step3. In the local interface of HDX 7000, go to **Admin Settings > Audio.**

Step4. Enable **Echo Canceller**.

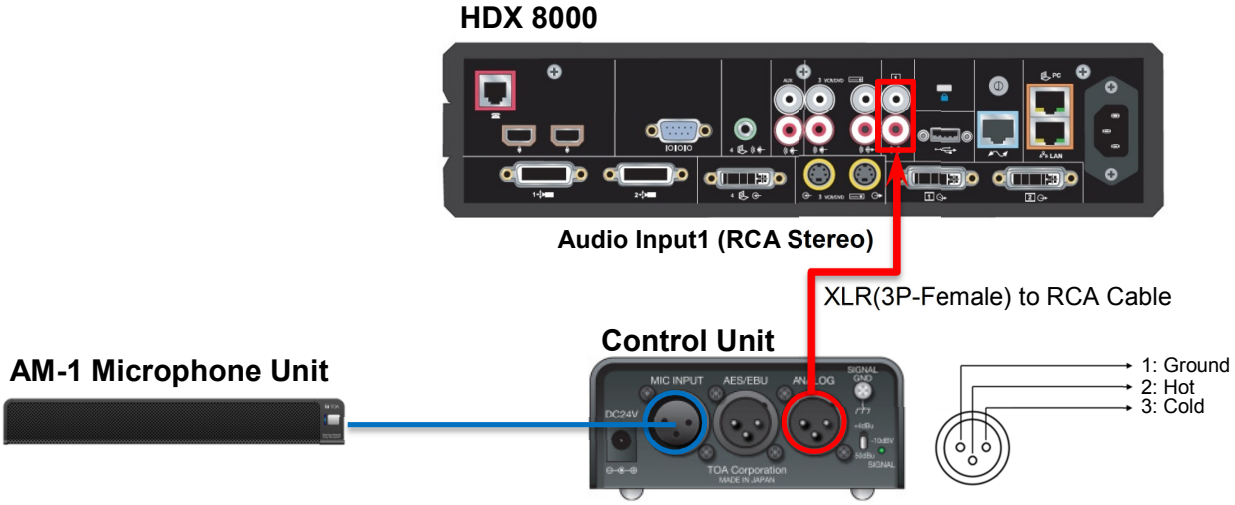
Step5. Adjust the volume level for **audio input 1** if necessary.

Step6. While speaking to the microphone from an appropriate distance, adjust the output level with the volume control.

6. SETUP WITH “HDX 8000”

CONNECTIONS

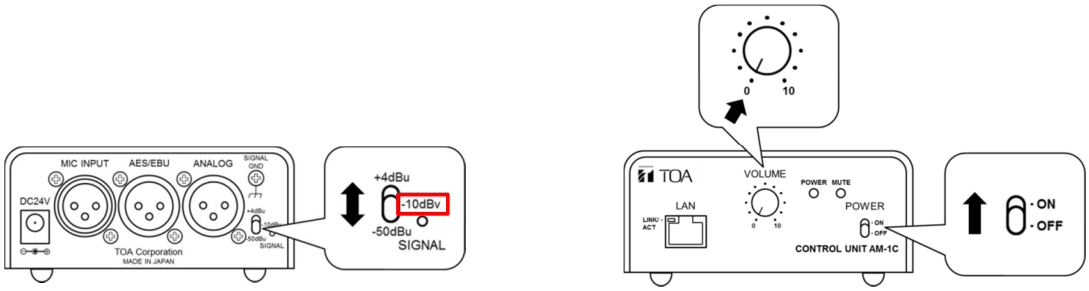
*Audio Input 1 is not associated with any particular video input, and it is not included in audio mix of output 1.



SETTINGS

Step1. Confirm all devices are connected properly as shown above.

Step2. Make sure that the audio output level of the AM-1 Control Unit is set to “-10dBv” and the volume control is set to “0”.



Step3. In the local interface of HDX 8000, go to **Admin Settings > Audio.**

Step4. Enable **Echo Canceller**.

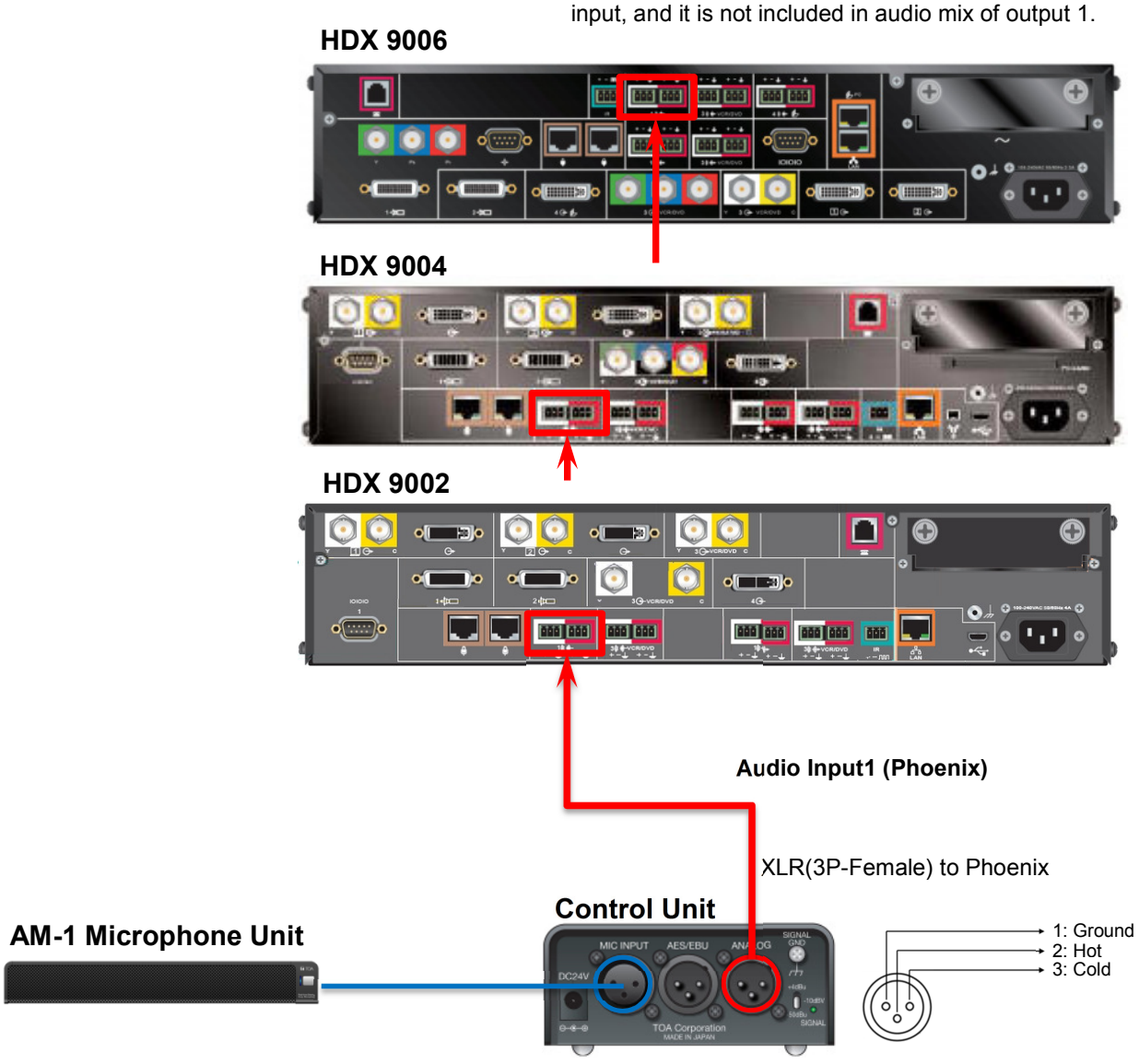
Step5. Adjust the volume level for **audio input 1** if necessary.

Step6. While speaking to the microphone from an appropriate distance, adjust the output level with the volume control.

7. SETUP WITH “HDX 9000 Series”

CONNECTIONS

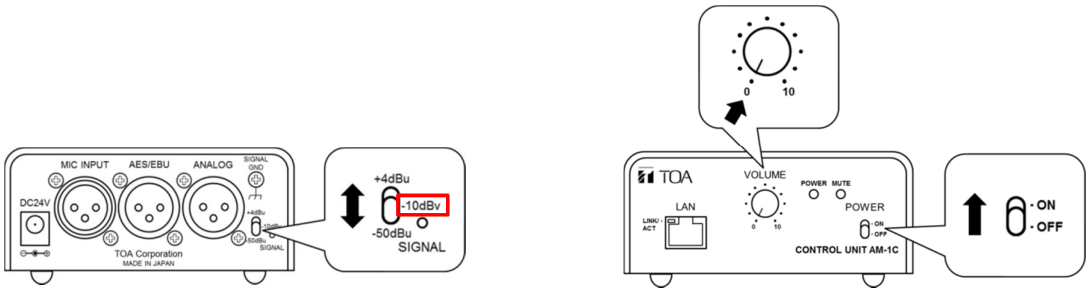
*Audio Input 1 is not associated with any particular video input, and it is not included in audio mix of output 1.



SETTINGS

Step1. Confirm all devices are connected properly as shown above.

Step2. Make sure that the audio output level of the AM-1 Control Unit is set to “-10dBv” and the volume control is set to “0”.



Step3. In the local interface of HDX 9000, go to **System > Admin Settings > Audio > Inputs/Outputs** (select if necessary).
or
In the web interface, go to **Admin Settings > Audio.**

Step4. Select Input Type to **Line Input**. (Only for 9004/9902/9001)

Step5. Enable **Echo Canceller**.

Step6. Make sure that the **Phantom Power** is NOT enabled. (Only for 9004/9002/9001)

Step7. Adjust the **Input Type Level** if necessary.

Step8. While speaking to the microphone from an appropriate distance, adjust the output level with the volume control. The **Audio Meter** on HDX 9000 should peak at about 5 dB for normal speech.

8. SPECIFICATIONS OF AM-1

MICROPHONE

Power Source	24V DC/200mA (supplied from Control Unit)
Maximum Input Sound Level	100dB SPL (at 20" distance)
S/N Ratio	90dB or more (from Control Unit)
Frequency Response	150 - 18,000Hz
Directional Angle	Horizontal: 50°(450 - 18,000Hz, Array mode), 180°(Cardioid mode) Vertical: 90°
Mute Switch	Touch sensor
LED Indicator	In operation (blue)
Cable	STP ASE/EBU digital audio cable
Maximum Cable Length from Control Unit	230ft (70m)
Dimensions	19.0”(W) x 0.8”(H) x 2.6”(D) (482 x 20 x 65mm)
Weight	2.4 lb (1.1kg)

CONTROL UNIT

Power Source	24V DC/400mA, from an optional AD-246 AC adapter
S/N Ratio	90dB over
Microphone Input	Dedicated input for Microphone Unit, XLR-3-31 equivalent
Audio Output	Analog: +4dBu ,-10dBV, -50dBu (selectable), XLR-3-32 equivalent Digital: AES/EBU 24bit 110Ω, XLR-3-32 equivalent
Control	Output volume control, Output level adjustment
LED Indicator	Power (blue), Mute (red)
Ethernet	100/10Mbps (Category 5, RJ45 jack), TCP/IP HTTP
Dimensions	4.1”(W) x 1.9”(H) x 8.7”(D) (105 x 48 x 221mm)
Weight	1.3 lb (0.6kg)