Echo Cancellation

QUICK INSTALLATION GUIDE

I/O Interface

1 3.5mm line out for monitoring	**5** VOL 2: Volume control of Input 2 A/B
2 Input 1 A/B: Line in	**6** Output 1 A/B: Line out[1]
3 VOL 1: Volume control of Input 1 A/B	**7** Output 2 A/B: Mic out[2]
4 Input 2 A/B: Mic in	**8** Power in

9 Audio Signal Level Indicator

10 Audio USB

11 Audio Signal Level Indicator Switcher

Connection Diagram

Media Station

Ceiling Mic   Amplifier/Speaker

Media Station

Media Station
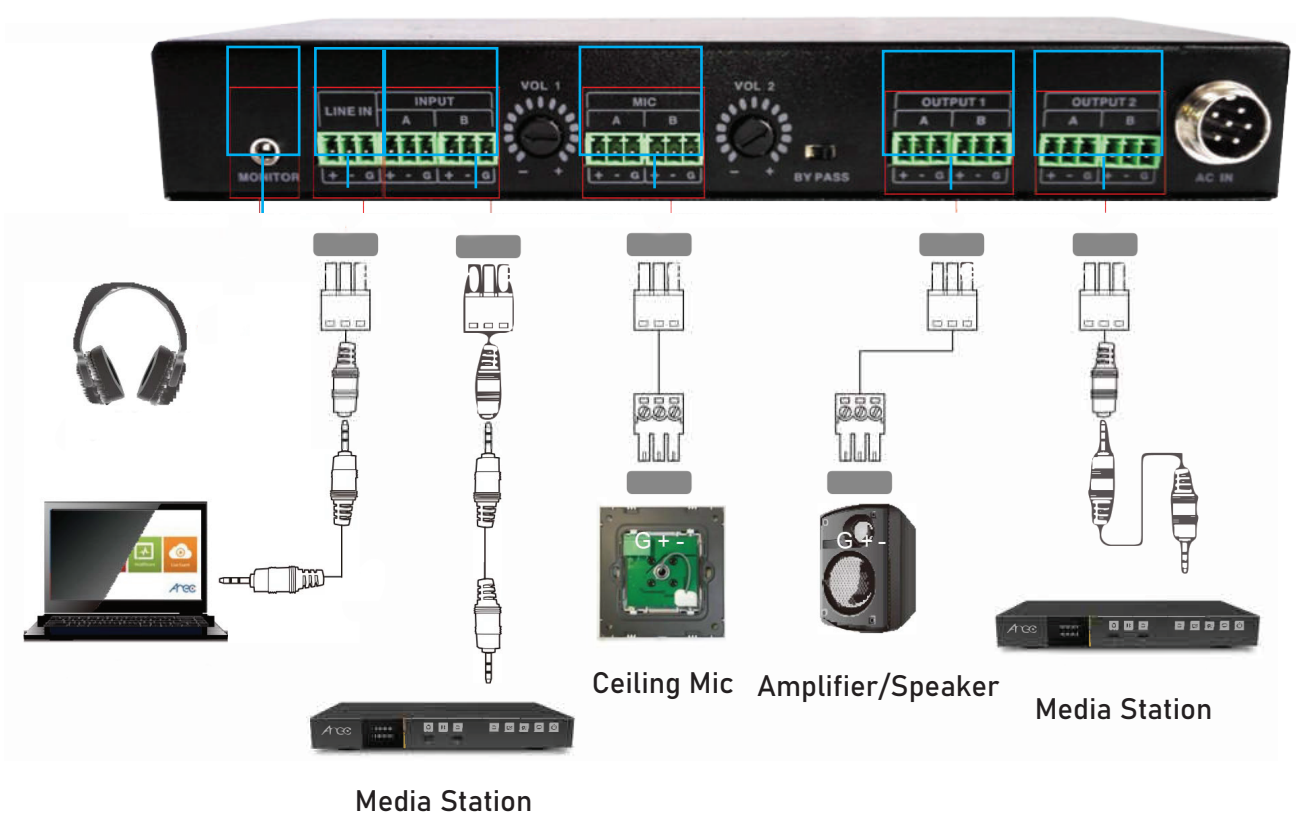
1 Output 1 A sends loopthrough audio from input 1 A/B

2 Output 2 only delivers the audio received from the Input 2 A/B), but removes the sound from the speaker

Echo Cancellation Debug

Set the power amplifier volume to 10-11 (about 50%), select the DIP switch and move the INPUT corresponding DIP up. The other 3 DIPs should remain down. Adjust the INPUT 1 knob of the box to the appropriate volume - the LED light can neither have red nor green light flickering. In case of signal input being at a distance, the LED light can be flickering between green and red.

## Important to note when setting up :

1 **Microphone Volume Setting -**
Turn the DIP switch MIC to ON, speak at a normal volume about 2 meters away from the microphone (use a sound level meter to test about 60-66dB), adjust the MIC volume knob, and keep the LED light at least 1-2 green lights on when speaking, and no orange light on.


2 **Input A/B. INPUT A/B volume setting (reference signal setting) -**
On the DIP switch, set INPUT A/B to ON and the rest to OFF; speak normally to the microphone from about 2 meters away, observe the LED light on the listening end, adjust the INPUT volume knob, and keep the LED light below the orange area and the green light. At least 2 must be lit.
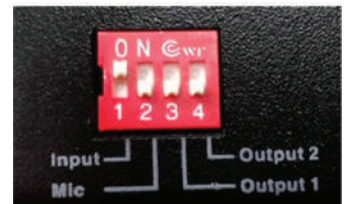
Please note that to convert an unbalanced output to balanced output, you need to short-circuit the wires for "-" and "G" as shown on the image for INPUT A/B
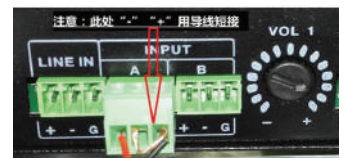
3 Adjust the volume of the speakers on both sides to an appropriate position. When speaking at a distance of 2 meters from the MIC, you can use a mobile phone sound pressure meter to measure at a distance of 1 meter from the speaker, and adjust the amplifier to maintain the maximum sound pressure level of 83DB; at this point, the echo cancellation debugging is completed.

4 **Please note that** it is recommended to use omnidirectional or cardioid condenser microphones, and strong directional condenser microphones are not recommended (because a small number of strong directional microphones will cause uneven sound pickup).

If you are using VC software, please turn off AEC, AGC, and NR algorithms of the software. Otherwise, it may not be possible to remove the echo.

5 **Bypass -** left position enables short reverb mode. Right position enables long reverb mode.

6 **When using with a USB sound card-**
Wnen the USB card is playing volume, the sound can be at 100%, but don't let it reach the red area of signal level. Put the input 1 switch on and monitor the volume. Lower the volume if the signal is in the red area.

When recording, put the sound card volume to 20-25%. You can manually adjust the volume using a knob on the back of the echo cancellation module.

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