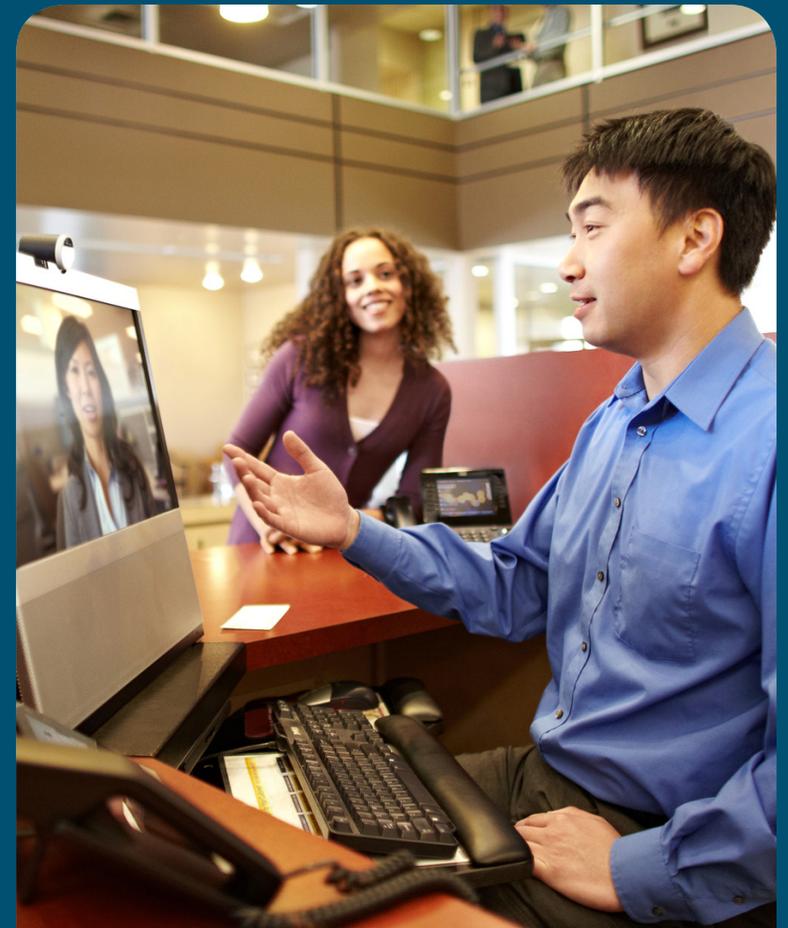ıIııılıı
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Using Sennheiser SpeechLine Ceiling Mic on Cisco Webex Devices

The Sennheiser SpeechLine Ceiling Mic on Cisco Webex video devices
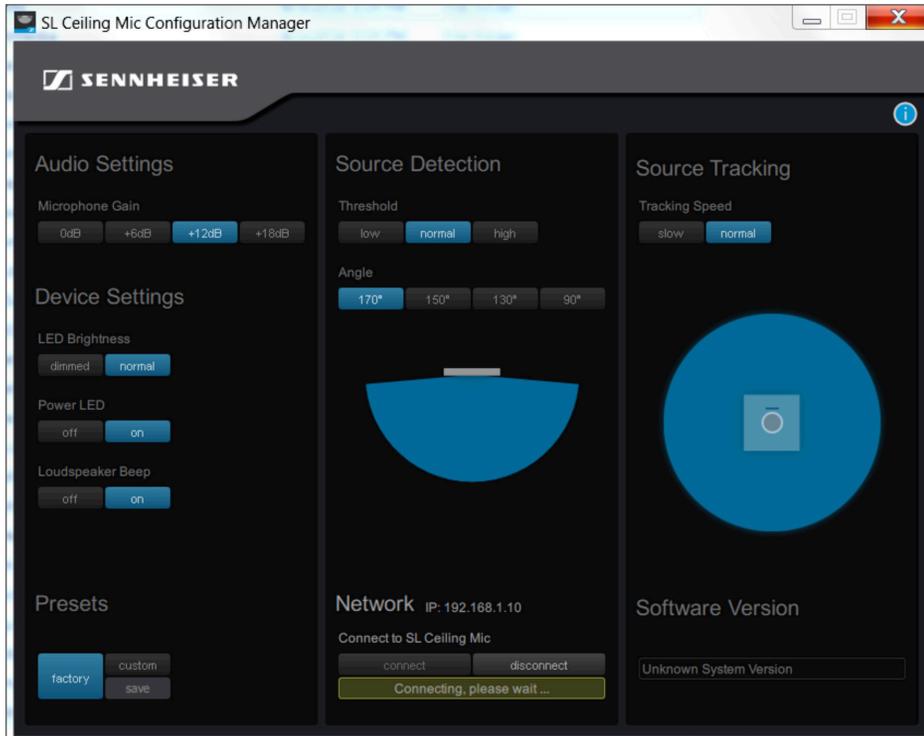
The Sennheiser SpeechLine (SL) Ceiling Mic is a ceiling-mounted array microphone intended for use in various AV conferencing environments, including meeting rooms, boardrooms, and multi-purpose spaces. It utilizes an automatically steered microphone beam to pick up audio from participants.

This document gives guidelines on the use of the SL Ceiling Mic with Cisco Webex® video devices.

To control the SL Ceiling Mic, download the SL Ceiling Mic Configuration Manager app (Figure 1).

Figure 1. SpeechLine Ceiling Mic Configuration Manager

Connecting the SL Ceiling Mic to a Cisco SX80 or Room Kit Pro

The SL Ceiling Mic has balanced analog output (signal +, signal −, and ground), and a 3.81mm pitch Euroblock connector. This does not fit the 3.5mm pitch Euroblock input connector on the Cisco® SX80 or Webex Codec Pro, and must be replaced with a 3.5mm pitch connector.

The SX80 and the Room Kit Pro have eight configurable analog microphone/line inputs on their rear panels. The balanced analog output from the SL Ceiling Mic can be connected to one these inputs. Note that they have four-pin microphone inputs: signal +; signal −; ground; and mute control (marked with a microphone symbol). The mute control is for Cisco's microphones and should not be connected.

The inputs can be configured via the SX80 or Room Kit Pro admin interface. The inputs should be configured as line input (turning off 48V phantom power). The microphone gain on the SL Ceiling Mic should be kept at the default +12 dB. The input level on the SX80 and the Room Kit Pro should be reduced from the default 58 dB to between 25 and 30 to get a level equivalent to the level from Cisco's microphones, and to ensure the input is not overloaded.

Cisco's MX700 and MX800 systems use a variant of the SX80. Room Kit Pro and Room 70 G2 use the Codec Pro, and the same configuration guidelines apply to these products.

Connecting the SL Ceiling to other Cisco Webex video devices

Cisco products such as the SX10, SX20, MX200 G2, MX300 G2, Room 55, Room Kit, and Room Kit Plus do not have the same options or range on microphone input gain adjustments as the SX80.

Call to action

To learn more, visit
https://www.cisco.com/c/en/us/products/
collaboration-endpoints/telepresence-
microphones/index.html

Potential issues

- **Cisco products with an integrated microphone**
  Products such as the SX10, MX200 G2, MX300 G2, Room Kit, and Room 55 have an integrated microphone that is set to on by default. The signal from this internal microphone will be mixed with the signal from the SL Ceiling Mic. That will influence the resulting sound quality, depending on the position of the ceiling microphone and the participants. The integrated microphone can be turned off via the Cisco product admin web interface to avoid this interference.

- **Overloading the microphone inputs**
  As mentioned earlier, microphone inputs on Cisco products can be overloaded if the level from the Sennheiser SL Ceiling is not attenuated appropriately. This may result in microphone signal clipping and distortion.

- **Echo**
  As the Sennheiser SL Ceiling is tracking speakers and steering pickup beam accordingly, the feedback path from the loudspeaker to the microphone changes. This means the echo control system in the Cisco products will need to re-adapt to this changing feedback path, and there is a small risk of echo or reduced double-talk performance for the participants on the far end of the conference. The Sennheiser SL Ceiling has been tested by Cisco, and it will work well in most cases. It is recommended to test the performance in the space it is intended to be used before installing permanently.

- **Signal-to-noise ratio on the SL Ceiling Mic**
  The default gain setting on the SL Ceiling Mic is +12 dB. This is recommended for a typical ceiling mount setup with distance to speakers of around 2.5 meters. Reducing the gain on the SL Ceiling Mic will reduce the signal-to-noise ratio.