

IP Speaker Ambient Noise Compensation Feature

The Ambient Noise Compensation feature in all Algo IP speakers allows the endpoint to automatically adjust volume level to adapt to the current noise level in their respective location. This is done via the speaker's microphone, which detects the ambient noise level just prior to a call or multicast and automatically adjusts volume if necessary. In environments where several speakers are deployed, each speaker will self-adjust to be appropriately loud enough for the ambient noise level where the speaker is located (e.g. hallways in a school).

Note that the noise compensation will not re-adjust the volume while the device is active.

To configure the Ambient Noise Compensation, log into the web interface and navigate to the 'Basic Settings' -> 'Features' tab. Set the Page and/or Ring Volumes to an appropriate level for the quietest typical environment and enable the 'Ambient Noise Compensation' feature, as illustrated in the screenshot below.

The screenshot shows the 'Features' configuration page. Under 'Inbound Ring Settings', 'Ring/Alert Volume' is set to 4. Under 'Inbound Page Settings', 'Page Speaker Volume' is set to 4. Under 'Audio Processing', 'Ambient Noise Compensation' is checked. A 'Save' button is located at the bottom right.

The following equation is used to determine the appropriate volume level:

$$\text{Compensated Volume Level} = \text{Page/Ring Volume Level} + \text{Ambient Level}$$

*Note: the "Ambient Level" is calculated as the Measured Volume Level minus a Reference Volume Level of 66dB.

It is recommended to set the Page/Ring Volume levels to the lowest level that sounds acceptable in the current environment, so that there is more headroom available for the level to increase as the ambient increases. If the Page/Ring Volume levels are set to 10, then they will retain this same loudness at all ambient levels, as they are already at the maximum available power. A volume level of '4' is recommended as a typical starting point.