



OPTIMIZING THE P6, P8, P610 AND P815 RESPONSE BY COMPENSATING FOR SPECIFIC MOUNTING CONDITIONS

The P6/P610 and P8/P815 are designed to work in all environments without requiring additional equalization. However, as frequency response is affected by room placement, the response of these speakers can be further optimized for specific mounting conditions by using a parametric equalizer to compensate for the effects of placement.

The low frequency response of any loudspeaker depends on the enclosure size and on its distance from the wall. A speaker placed away from walls can have as much as 6dB less output in comparison to the same speaker flush mounted in a baffle wall. Within this variance, optimal response for the P6/P610 and P8/P815 can be achieved with additional equalization as described below.

PLACEMENT AWAY FROM WALLS (FREE SPACE)

When the speaker is placed away from walls, a +3dB lift @ 350Hz with a Q = 0.8 can be beneficial.

BAFFLE WALL MOUNTING

Speakers flush mounted in a baffle wall will have increased output in the lower frequencies. Therefore, the recommended compensation is -3dB @ 350Hz with a Q = 0.8.

ON-WALL OR SHELF MOUNTING

A speaker mounted on the surface of a wall (including when Procella brackets are used), has a boundary condition that lies between free space mounting and baffle wall mounting. If compensation is needed, a +3dB lift @ 350Hz with a Q = 1.3 should be a good starting point.

PLACEMENT BEHIND AN ACOUSTICALLY TRANSPARENT SCREEN

When Procella loudspeakers are mounted behind an acoustically transparent screen, the high-frequency response should be adjusted to compensate for any losses according to the screen manufacturer's recommendation. If you do not have a manufacturer's recommendation, a good generic setting is a +2dB lift @ 8kHz, with a Q = 0.5.

USAGE IN LIVE AND HIGHLY REFLECTIVE ROOMS

The response of the P6 and P8 is tailored for a room with a reasonable amount of high frequency absorption. If a room is very lively, with a lot of high frequency reflections and/or diffusion, it may be advisable to lower the speaker's response above about 1kHz by 2-3dB. This can be done with a high frequency shelf filter of -2 or -3dB @ 2kHz