

EchoShield

Feature in brief



Hearing
Systems

SIEMENS

EchoShield

What it is

Reverberation is the persistence of sound caused by sound waves reflected from surfaces. When the room is large or reflective enough, the reverberation mixes with the original speech source and degrades the signal quality. The EchoShield program reduces the effects of reverberation so that the sounds are clear and crisp again, reducing listening effort for the wearer.* More than just for large spaces commonly associated with reverberation, this program is useful in many more places where reverberation is less apparent, but still problematic. These include hallways, lecture halls, and foyers.



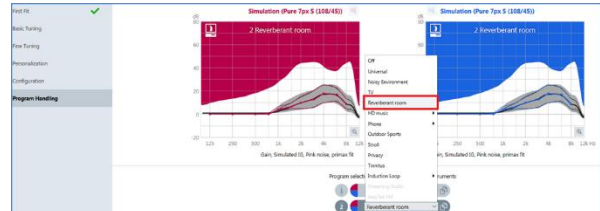
Reflected sounds which arrive at the listener's ears with a noticeable delay degrade the clarity of the direct sound, making listening more effortful as shown on the left side. EchoShield is able to attenuate these reflected sounds as shown on the picture on the right side.

How it works

EchoShield operates on the level difference between the direct sound and the reflected sounds, the latter of which is softer. Traditional compression provides more gain for soft sounds than louder sounds. As a negative side effect, compression actually amplifies these softer reverberations, making the situation even worse for hearing aid wearers. primax EchoShield ensures that these softer reflections are not over-amplified.

Fitting & Availability

EchoShield is available in a separate *Reverberant Room* program in primax 7px hearing instruments. This program can be found under the Program Handling tab in Connexx Eight.



Reverberant Room Program, which features EchoShield, in Connexx Eight

* Study conducted at the University of Northern Colorado examined the effectiveness of the new features of primax by collecting and analyzing ongoing EEG data while subjects performed speech testing. For both primax features SpeechMaster and EchoShield, the objective brain behavior measures revealed a significant reduction in listening effort when the feature was activated (Littmann, Froehlich, & Beilin. Objective listening effort assessment: The benefit of primax. Sivantos Whitepaper, Jan. 2016).

Legal Manufacturer

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