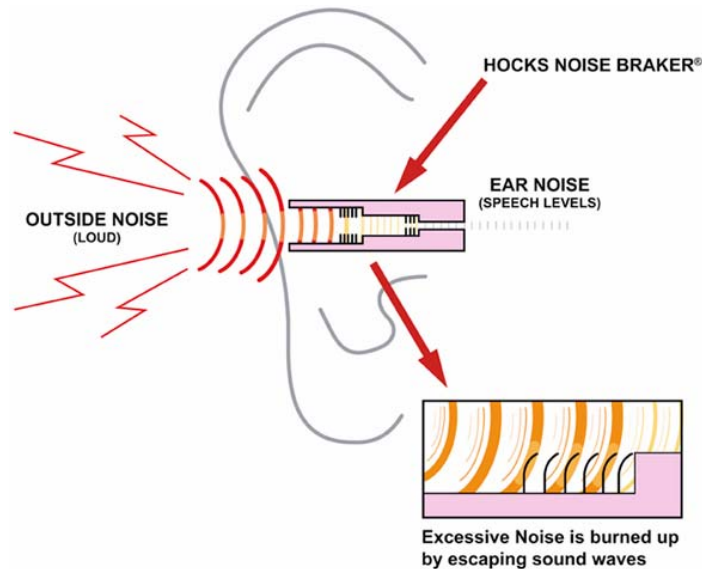


EP3 Sonic DefendersTM

The Hocks Noise Braker[®] filter is used in EarPro's Sonic Defenders. This filter uses the laws of physics—specifically, the Accelerated Resonant Decay Principle, which states that we can neither create nor destroy energy, only convert it—to convert sonic energy into thermal energy. The filter accomplishes this conversion through compression acceleration, as illustrated in the diagram below.



Any rise in temperature is so minute it cannot be noticed by the wearer. **No sounds over 80 dB will pass through the filter.**¹ When worn for hearing protection, the filter reduces the sound as follows:

Input Level	Noise Braker Attenuation
70 dB	4 dB
80 dB	26 dB
90 dB	34 dB
100 dB	32 dB
110 dB	36 dB
120 dB	39 dB

*all values are C-scale values²

Significant attenuation starts at 80 dB at a value of 26 dB, rising to 34 dB at 90 dB inputs but remaining roughly constant at an average of 35 dB through sound levels of 120 dB.³ For example, if the level of the noise is 110 dB, the noise braker will attenuate the sound to 74 dB, well below the mandated action level of 85 dB.

CONCLUSION:

Hocks Noise Braker filters will reduce the level of sound coming into the ear in conjunction with properly fitted earpieces, allowing **no sounds over 80 dB to pass through.**

¹ Hock's study

² C-scale is an all encompassing scale, taking into account almost all frequencies—covering more of the real life noise.

³ Jack Vernon, Ph.D., University of Oregon, Health Sciences Center