

Feature in Brief: binax Narrow Directionality

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What it is

A world-first, Narrow Directionality is the first directional microphone technology proven to allow hearing impaired wearers to hear speech better in cocktailparty like situations than even those with normal hearing.* Inspired by natural binaural listening processes, Narrow Directionality attenuates distracting speech and other noises from the back and sides so that the hearing instrument wearer can focus on the conversational partner right in front of him. Narrow Directionality significantly improves speech intelligibility in such situations while preserving spatial perception as much as possible.



Narrow Directionality narrows the beam of the directional microphone to focus on the target speaker directly in front of the wearer (purple shade). This provides more directional benefit than the standard directional microphone mode (lighter gray shade), and is clinically proven to allow hearing impaired wearers to hear speech better in cocktail-party like situations than even those with normal hearing (darker gray shade).*

How it works

Narrow Directionality is made possible by the High Definition Sound Resolution (HDSR) offered by the binax platform. It narrows the beam of the microphone focus even further so that not only is noise from the back attenuated, noise from right next to the target speaker can now also be reduced. Narrow Directionality is fully integrated into the automatic Universal program and transitions smoothly, channel by channel, from the existing standard directional microphone mode to provide the best directionality for every situation. It activates and deactivates automatically when it is necessary, and transitions between states imperceptibly to ensure excellent sound quality and spatial perception even in the transition phase. Not only does that mean wearer interaction is not required, it also keeps power consumption at a benchmark

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level at all times.



Narrow Directionality is checked by default as a part of the automatic directional microphone system in the Universal Program.

Availability

Narrow Directionality is available in 7bx and 5bx hearing instruments with e2e wireless 3.0. In 5bx hearing instruments, Narrow Directionality microphone focus beam is wider than in 7bx instruments, but still more effective than the traditional directional microphone system. In both performance levels, it is activated by default in the Universal program, as well as dedicated programs such as the Noisy Environment.

* Two clinical studies have shown that binax provides better than normal hearing in certain demanding environments (University of Northern Colorado, 2014; Oldenburg Hörzentrum, 2013): Speech Reception Thresholds (SRT) in cocktail-party situations improved up to 2.9 dB for wearers with mild to moderate hearing loss using Carat binax or Pure binax hearing aids with narrow directionality, compared to people with normal hearing.





