



Unique hearing solutions for Teens

At last a portfolio just for Teens!

As children journey toward adolescence their world becomes more challenging. Keeping up at school, learning to be independent, finding their own identity – the demands seem to be endless. To succeed academically and socially they need to hear and communicate effectively, and they look to their parents, teachers and professionals for help.

Technology-wise, teenagers prefer discreet devices because image is important, and they really want to fit in. And because hi-tech gadgetry is an integral part of teenage life, connectivity is also high on their wish list.

Meeting the needs of teenagers and their support network requires tailor-made solutions – and Oticon's Teenage Portfolio now offers these. With cool, connectible instruments, brochures for teenagers, and articles for parents and teachers, this carefully targeted package is the first of its kind.

We hope you will find these materials a source of inspiration, and that they will provide even more opportunities to succeed with this very special client group.





The importance of a good network

The path to adulthood can be rocky, and teenagers need the help of a caring network in order to stay on track. Our educational materials will assist parents, teachers and professionals in providing maximum support.

Parental concerns

All parents worry about their children's well-being, and when a hearing loss enters the picture they become doubly concerned. Parents have the best intentions, but need help in understanding the condition, accepting the consequences and overcoming any fears that they may have.

Parents really appreciate practical advice on what they and others need to do. Whether it's tips to ensure that their children always wear their instruments or that their teachers use the right equipment, they need to appreciate the importance of getting actively involved. The materials in this package will help to show them how.

Educational priorities

The greatest ambition for any teacher is to see their students succeed - whether they wear hearing aids or not. But where hearing loss is concerned, many teachers could benefit from more resources and information.

The behaviour of the teacher toward the student with hearing loss is critical to their success. Supporting them without putting them too much in focus becomes easier with the right training, equipment and materials. We strive to help by giving hearing care professionals the power to provide all three.



Delta – the stylish solution for teenagers

With Delta there are no compromises; it's all about high-fashion design and high-performance engineering. This ultra-cool instrument is a real stigma fighter because it doesn't resemble a hearing aid at all. Delta gives teenagers the performance they need and the style they desire.

Good reasons to choose Delta

Revolutionary design

Where teenagers are concerned, no matter how good the sound quality is, they often won't use their instruments unless they are discreet and cosmetically attractive. Delta's revolutionary design transforms hearing aids into the modern communication devices teenagers want them to be.

Excellent sound quality

Delta's excellent sound quality can be attributed to three things in particular: Receiver-In-The-Ear (RITE) technology, which reduces tube resonance and feedback; an extended bandwidth of 8000 Hz, which significantly improves speech intelligibility; and advanced features that are expertly orchestrated by Artificial Intelligence.

Great fitting flexibility

With Delta, hearing care professionals can fit the majority of teenagers visiting their clinic. Two fitting strategies and three types of ear pieces cover both High Frequency and Broadband hearing losses up to 80dB flat. And three different Delta models provide the flexibility to offer solutions in all price categories.





Fantastic sound in a futuristic shell

Delta's featherweight shell houses some of the most heavyweight sound processing technologies in the world. These systems help the teenager to filter out noise, focus on speech, and communicate more easily.

REVOLUTIONARY DESIGN

Teenagers live for hi-tech accessories and Delta can compete with the best of these. Deviating dramatically from any previous design concepts, Delta sets new standards for aesthetics and performance.



reddot design award
winner 2006

Delta's diminutive size makes it easy to hide, but its futuristic lines make it worth showing off. By breaking with tradition, Delta's award-winning design will go a long way towards alleviating the stigma associated with hearing aid use.

SOPHISTICATED SOUND PROCESSING

Superior Directionality

Delta's unique triangular shape enables the directional microphones to be placed in a horizontal plane with optimum microphone spacing. This produces far superior directionality in the 2 – 8 kHz region.

Voice-oriented noise management

In noisy situations Delta uses patented VoiceFinder technology to accommodate a speech-weighted noise reduction that does not reduce speech intelligibility when speech is present and full noise reduction when no speech is present for maximum listening comfort.

AI-controlled automatics

Delta's noise reduction, compression and directional systems are all controlled by Artificial Intelligence (AI). AI seamlessly manages and changes Delta's settings to deliver the best combination of sound quality, speech understanding and comfort.

Receiver-In-The-Ear (RITE) technology

RITE technology is unique and effective: Placing the receiver in the ear removes the need to compensate for the resonances created by the sound tubing; and the separation of microphone and receiver helps to reduce feedback. Also, the open earmould ensures less occlusion and together with the receiver placed in the ear canal it provides an unmatched and natural listening experience.



MAXIMUM FITTING FLEXIBILITY



Delta 8000



Delta 6000



Delta 4000

The 8-channel Delta 8000 provides the most advanced technology for the best speech in noise and ease of listening.

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The 7-channel Delta 6000 offers advanced features and high end performance.

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The 5-channel Delta 4000 delivers good all-round performance without compromising style.

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Two fitting strategies - Clarity and VAC - provide the ability to fit both High Frequency and Broadband hearing losses.

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With the two different fitting strategies and three different ear pieces, Delta fits hearing losses up to 80dB flat.



Micro Mould



Plus Dome



Open Dome

For more details, please refer to Delta at a glance on page 20

Epoq – a 21st century interface to sound

Where sound quality and connectivity are concerned, Epoq is in a class of its own. Innovative, intelligent and powerful, it offers natural fidelity and easy connectivity to popular electronic devices.

With its Streamer interface, Epoq is the optimal solution for wireless connectivity to mobile phones, MP3 players and PCs. And with its extreme 10 kHz bandwidth and state-of-the art processing, Epoq promises more lifelike sound quality than any other device - two significant benefits for teenagers.

Good reasons to choose Epoq

Easy connection to gadgets

Teens spend a lot of their time on mobile phones and listening to music, so they are looking for an easy interface to these gadgets. And the Epoq Streamer provides the wireless connection they've been waiting for.

Superb sound quality

No other instrument provides better sound quality than Epoq. With an expanded bandwidth of 10 kHz and broadband processing, speech becomes clearer, music sounds richer, and sounds become easier to locate.

Comfort AND audibility

It's nice to gain uninhibited access to speech - but not at the cost of comfort. With its ability to provide the best of both fast AND slow compression Epoq ensures maximum audibility and comfort - and far less fatigue.

Small, smart design

Image-conscious teenagers prefer small, smart-looking instruments. Epoq comes in a range of cool metallic colours to meet their personal tastes and cosmetic expectations.





21st-century Technologies

WIRELESS CONNECTIVITY

The Epoq Streamer is the teenager's gateway to all their external sound sources. This Bluetooth device makes headsets and cables redundant as the audio signal from their mobile phone or MP3 player is sent directly to both ears for clarity and complete freedom.

SUPERB SOUND QUALITY

Extreme bandwidth for extra HF cues

Epoq's 10 kHz bandwidth provides extra high frequency cues that make speech and sound sources simpler to locate. With "natural fidelity" the teenager's entire soundscape springs to life.



Receiver-In-The-Ear (RITE) technology

RITE technology promises better sound quality than ever. Placing the receiver in the ear removes the need to compensate for the resonances created by the sound tubing, and the microphone/receiver separation helps to reduce feedback. Also, the open earmould ensures less occlusion.



AUDIBILITY AND COMFORT

Epoq introduces a range of new sound processing technologies designed to elevate the teenager's hearing to a level they've never previously experienced.

The soundscape

A person's soundscape contains not only important communication signals but also the everyday sounds that create the ambiance of daily life. These are the cues that provide people with more spatial sound, better localization and thus a feeling of being connected to their environment. Epoq helps to maintain this connection through binaural, broadband processing.



Binaural processing advantages

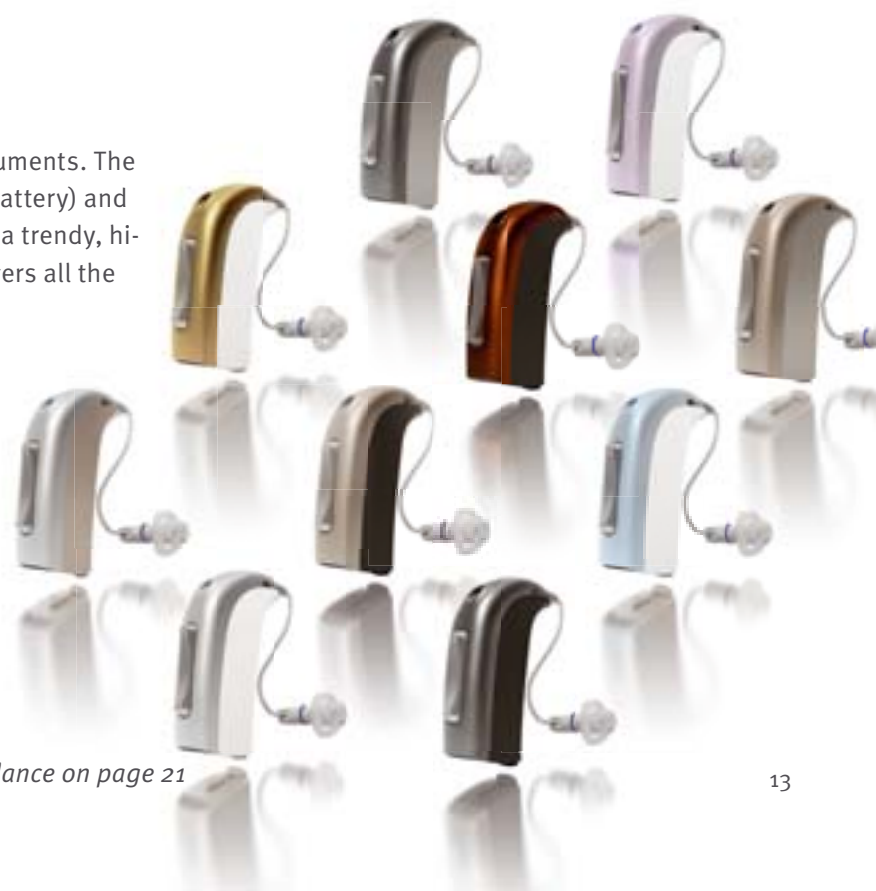
By coordinating the action of the directional, noise reduction, feedback cancellation and compression systems, Epoq provides the brain with cues that preserve the natural contrasts in the sound scene and the proper perspective that the brain needs to help maintain the sense of spatial awareness. These cues help to improve the teenager's awareness of the overall soundscape and their position within it.

Fast and slow compression

With traditional instruments, professionals have to make a choice between fast and slow compression, depending on whether speech or comfort is the goal. But with Epoq, fast and slow compression systems work in partnership to deal with each individual situation. So the audiologist won't have to make compromises.

DESIGN & DISCRETION

Epoq is available both as BTE and ITE instruments. The BTE is small and compact (with a size 312 battery) and comes in a selection of metallic colours for a trendy, hi-tech look. And the ITE versions offer teenagers all the discretion they could possibly desire.



For more details, please refer to Epoq at a glance on page 21

Much needed support

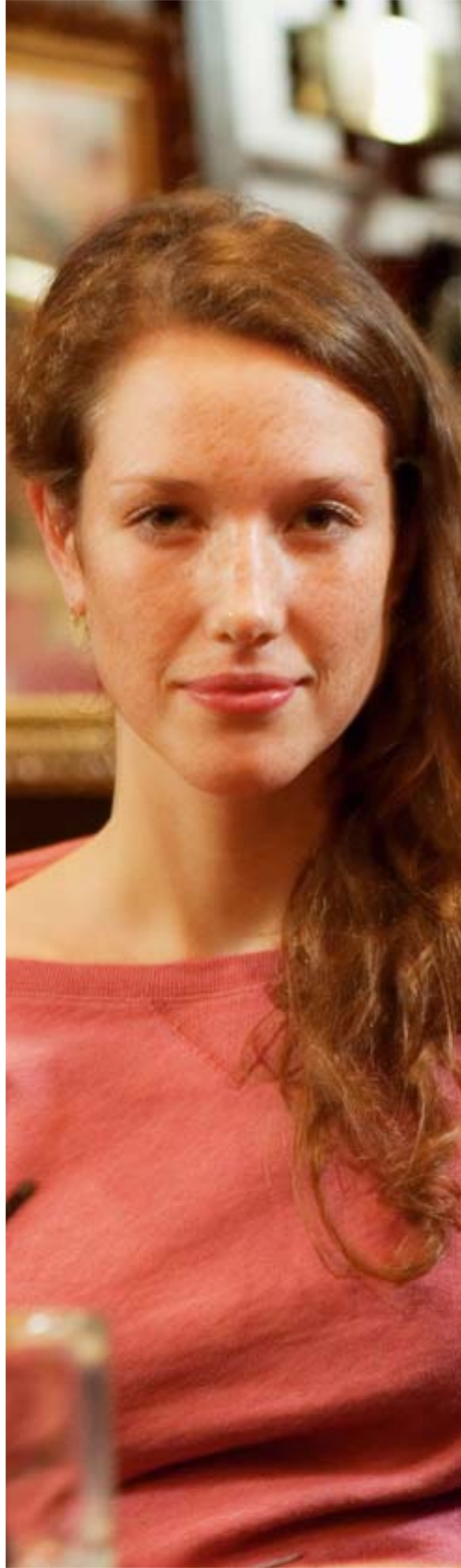
Teenagers deserve all the help they can get – as do their parents and teachers. They have so many questions, and our counselling tools and materials should provide many of the answers they've been looking for.

Advice for parents

Oticon's support tools are designed to help hearing care professionals to address many of the personal and practical issues parents may have. A new article written by an expert who specializes in counselling parents of teenagers with hearing loss is just one of many informative pieces available.

Tools for teachers

Pamphlets on technology, communication techniques, and ways to make classrooms more listener-friendly are available, together with a new article written by an expert in educational audiology. FM solutions designed to make teaching and learning easier are also available.





Shedding light on real-life issues

The following pages contain the summaries of two articles written by independent experts who specialize in counselling parents and teachers. These articles deal with the social, psychological and educational aspects of parenting and working with teenagers with hearing loss.

The complete articles, which can be ordered from Oticon or downloaded from www.oticon.com, can help professionals to tackle the issues that are of concern to parents and teachers, and to provide practical solutions to their problems.



Karen Anderson, Ph.D., has worked in paediatric and educational audiology settings with families, early interventionists, teachers and children with hearing loss for over 25 years.

SPECIAL CONSIDERATIONS FOR PARENTS RAISING A TEENAGER WITH HEARING LOSS

Karen Anderson's article explores the impact of a hearing loss on different aspects of the teenager's life. The amount of the impact depends on many things, including the degree of hearing loss, consistent use of hearing aids, and – very importantly - on the attitude and support of the parents.

Challenges covered in the article include:

- The psychological aspects of being a teenager with hearing loss
- Understanding the realities of listening and learning with hearing loss
- How hearing loss affects everyday listening
- Impact on socialization and future opportunities

Areas in which parents can take positive action include:

- How to arm the teenager with confidence
- How to adopt the right attitude
- Technology options and cosmetics
- The importance of hearing aid use
- Enticements, rewards and discipline



Cheryl DeConde Johnson, Ed.D., is an educational audiologist and is currently a lecturer in several AuD programs including the University of Colorado, Boulder, and Central Michigan University. She is active as a consultant, program evaluator, writer, as well as a trainer for the National Association of State Directors of Special Education (NASDSE).

KEEPING MOLEHILLS FROM BECOMING MOUNTAINS: Understanding & Supporting Teen Students with Hearing Loss

Cheryl DeConde Johnson's article addresses the unique characteristics of teenagers, and how a hearing loss can affect their ability to communicate and socialize. This valuable information is designed to help teachers develop strategies to help their students cope.

Challenges covered in the article include:

- Emotional ups and downs
- Ensuring that the teenager has access to speech
- The social aspects of hearing loss

Useful tips on helping students include:

- Strategies for assisting communication in class
- Ways to make the environment accessible and friendly.
- Using assistive listening devices
- Helping teens understand their hearing loss
- Helping them become self sufficient.
- Creating teen activities and a strong support network



Materials in the Teen Portfolio

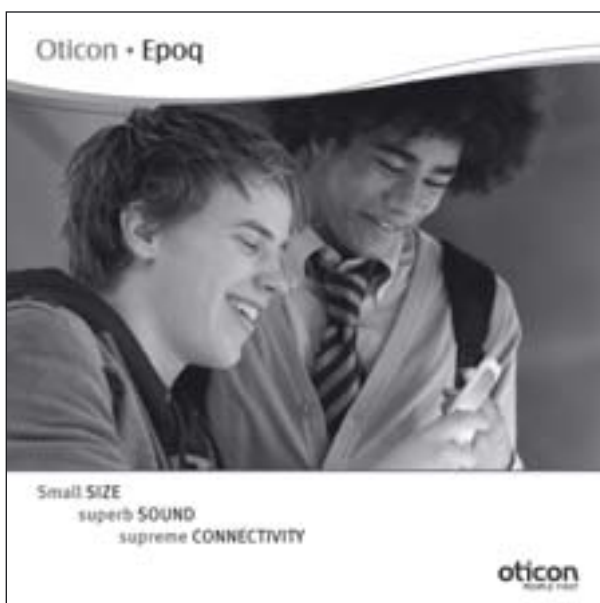
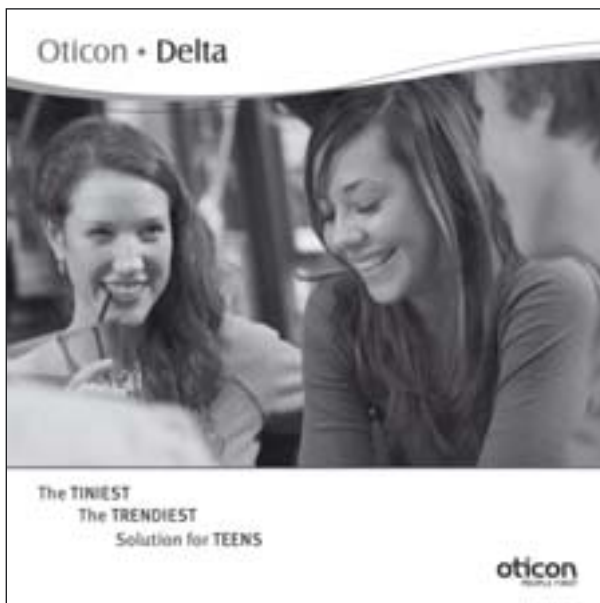
The products and materials in the Oticon Teen Portfolio are designed to optimize the selection, fitting and counselling processes. Find the range summarized below.

Delta/Epoq teenage brochures

These brochures help to demonstrate how the latest technology can help teenagers in situations THEY find important.

Independent articles

Written by experts in parent and teacher counselling, these articles help professionals to provide relevant, practical advice.



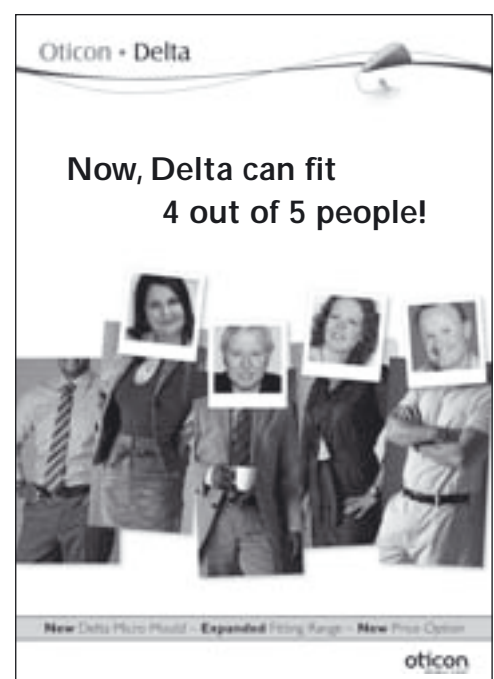
Counselling tools

The interactive counselling CDs are designed to support the fitting and counselling process.



Product brochures

These explain the functionality of the various features in Delta and Epoq, so the benefits can be conveyed in more detail.



Delta at a glance

Delta 4000



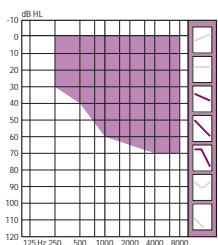
Delta 6000



Delta 8000

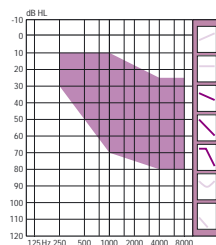


Gain (Ear Simulator)	55 dB	55 dB	55 dB
MPO (Ear Simulator)	116 dB SPL	116 dB SPL	116 dB SPL
Bandwidth	6 kHz	6 kHz	8 kHz
Channels	5	7	8
Directionality	Automatic Fixed	Automatic Adaptive	Multiband Adaptive
Noise Management	Yes	Yes	TriState
Identities	-	3	5
Dynamic Feedback Cancellation	Yes	Yes	Yes
Adaptation Manager	Manual	Manual	Automatic
Memory and Envirogram	-	-	Yes



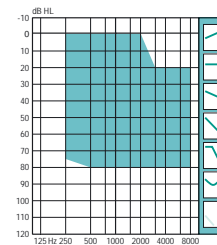
Open Dome

The Open Dome offers comfort and no occlusion and comes with double wax protection.



Plus Dome






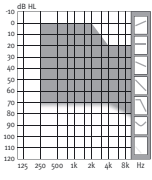
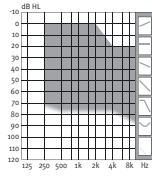
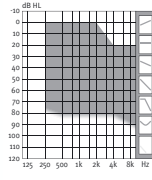
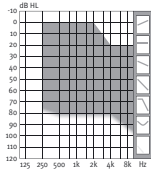
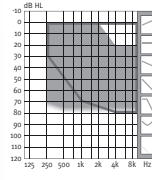
The Plus Dome is a semi closed dome for teens needing more loudness or frequency gain than the Open Dome can offer.



Micro Mould

The Micro Mould, for High Frequency and Broadband losses, is easy to clean and insert, and always stays in place.

Epoq at a glance

	CIC / MIC	ITC	ITE	BTE	RITE
					
					
Gain (Ear Simulator)	47 dB	51 dB	56 dB	60 dB	58 dB
MPO (Ear Simulator)	119 dB SPL	123 dB SPL	123 dB SPL	125 dB SPL	119 dB SPL
Programs	1	1-4	1-4	1-4	1-4
Ear Stream enabled	-	Yes	Yes	Yes	Yes
TriState Noise Management	Yes	Yes	Yes	Yes	Yes
Multiband Adaptive Directionality	-	Yes	Yes	Yes	Yes
Telecoil	-	Optional	Optional	Yes	Yes
Volume control	-	Optional	Optional	Configurable	Configurable
Binaural controls	-	Yes	Yes	Yes	Yes
Battery size	10	312	312	312	312
Battery life, typical	80 hrs	110 hrs	110 hrs	110 hrs	100 hrs

Epoq Streamer



The Epoq Streamer connects the Epoq hearing instruments to different audio sources for entertainment or information purposes. Communicating on a mobile phone and listening to music on an MP3 player is of huge relevance to teens and can now be supported along with listening to music from the home stereo.



People First

We believe that it takes more than technology and audiology to create the best hearing instruments. That's why we put the individual needs and wishes of people with hearing loss first in our development of new hearing care solutions.