

OTICON | **Opn**

# Product Guide

2018



**oticon**  
PEOPLE FIRST

# Welcome to the Oticon Opn™ product guide

The open sound paradigm continues to expand, and Oticon Opn™ is opening up a world of sound to even more users, including those who prefer custom products. With a comprehensive range of custom styles, including the new IIC - our smallest hearing aid ever - you can give more people with hearing loss access to Oticon Opn's revolutionary open sound experience.

The success of Oticon Opn is built on the ground-breaking BrainHearing™ benefits including less listening effort, capacity to remember more and better speech understanding. All of these are enabled by the industry-leading, ultra-fast and precise Velox™ platform. Now, we are introducing an array of attractive new styles built on the Velox platform, all featuring the OpenSound Navigator™. And we have also added to the existing evidence base that proves the performance of this technology.

The latest results show how effectively Oticon Opn helps people with hearing loss to interact with multiple speakers, while significantly reducing their listening effort.\* This empowers people to participate actively in the same noisy environments as people with normal hearing.\*\*

\* Le Goff and Beck 2017, Oticon whitepaper \*\* Lunner et al, Aging and Speech Communication Conference, 2017

The Oticon Opn miniRITE is now also available as a rechargeable option with a rechargeable kit for both existing and new clients.

New FM adapters and receivers for Oticon Opn BTE 13PP let you help your clients in very challenging listening environments, like school settings or when listening to audio from external devices.

Oticon HearingFitness™ is a new app that analyses Opn hearing aid use and the sound environment. Like an exercise app for the ears, HearingFitness can suggest ways that wearers can improve their hearing and maximise hearing health.

With more styles and exciting new possibilities, Oticon Opn expands your ability to open up a world of sound for your clients. There are more reasons than ever to choose Oticon Opn!



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### INTERACTIVE PRODUCT GUIDE

This product guide is also available in a digital version at [www.oticon.global/opn](http://www.oticon.global/opn)

# The highlights of Oticon Opn

- **Extremely fast and precise technology** provides users with more accurate information about their 360° soundscape, even in difficult listening environments. This open sound experience gives access to multiple speakers and allows the user to decide what to focus on.
- **Two groundbreaking features** - OpenSound Navigator™ and Spatial Sound™ LX - work together to deliver the open sound experience.
- **This new open sound paradigm** is enabled by the groundbreaking Velox platform. With 50 times faster\* sound processing, and market-leading 64 frequency channel resolution, this tiny chip is a technological powerhouse.
- **20/20/30 - BrainHearing** benefits in noisy environments make it easier on the brain: 20% less listening effort, 20% more capacity to remember, 30% better speech understanding.\*\*
- **Closing a gap to normal hearing** - Oticon Opn can reduce noise to significantly decrease listening effort, which empowers people to participate actively in the same noisy environments as people with normal hearing\*\*\*.
- **Outperforms traditional and narrow directionality** - Oticon Opn improves speech understanding in noisy environments, and it is in a class of its own for multiple speaker understanding thanks to the OpenSound Navigator.\*\*\*\*
- **TwinLink™ wireless technology** delivers the best possible audiological performance and 2.4 GHz wireless connectivity for the highest sound quality and very low power consumption.
- **World's first Internet-connected** hearing aid connects directly to the internet via the IFTTT network, giving users the ability to connect to a wide range of "smart-home" devices that make everyday life easier.

\* Compared to Inium Sense. \*\* Le Goff et al. 2016. \*\*\* Lunner et al, Aging and Speech Communication Conference, 2017 \*\*\*\* Le Goff and Beck 2017, Oticon whitepaper. Benefits and features vary with price point and style



reddot design award  
winner 2017

“  
**In the past 20 years, I've worked in this field, I never encountered such a big breakthrough.”**

\_\_\_\_\_  
*Roland Zweers,  
hearing care professional and Oticon Opn user*

“  
**I feel that listening is effortless. I hear naturally without thinking about it.”**

\_\_\_\_\_  
*Valérie Leperchais, Oticon Opn user*

“  
**I feel like I'm alive again. I can participate in all the discussions that I previously wasn't a part of.”**

\_\_\_\_\_  
*Eugène Goetz, Oticon Opn user*

“  
**I can't remember that I was ever so enthusiastic. Oticon Opn is a revelation.”**

\_\_\_\_\_  
*Henkjan Bosch,  
hearing care professional and Oticon Opn user*

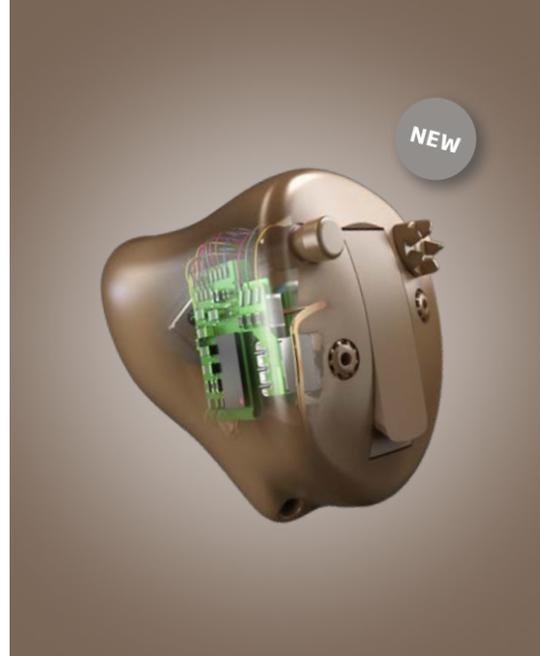
Testimonials represent the opinion of the concerned individuals only and may not be representative of the experience of others. Testimonials are not paid and may not be indicative of future performance or success of any other individuals. This testimonial is portrayed by an actor.

# What's new

The overwhelming response to the global launch of Oticon Opn from both users and hearing care professionals is unprecedented.

And the Oticon Opn portfolio continues to expand with a complete custom portfolio.

Now, even more of your clients can enjoy the BrainHearing benefits of the open sound experience.



## Custom products: Complete portfolio with an open sound experience

Offers a comprehensive range including IIC, CIC, ITC, ITE HS, and ITE FS with different options of features and functionalities, including 2.4 GHz wireless technology, Made for iPhone® functionality, NFMI, push button, telecoil, and Tinnitus SoundSupport™.

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## ConnectClip: A microphone, headset and remote control in one

Provides seamless, hands-free connectivity to iPhone, Android™ or any other modern smartphone. Powered by 2.4 GHz Bluetooth® low energy technology, ConnectClip streams audio to both hearing aids for a richer, easier listening experience when streaming any type of audio or when used as a remote microphone.

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## miniRITE rechargeable option: Convenient with hybrid battery power

Turn any Oticon Opn miniRITE into a rechargeable hearing aid with the rechargeable kit - without compromising audiology or connectivity. The hearing aids are charged overnight for a full day's use, and even work with conventional batteries as backup.

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## Oticon HearingFitness: Maintain hearing, maintain health

Gives Opn hearing aid users advice and encouragement on ways to hear better, protect their hearing, and fulfill their hearing potential. The app receives data from the hearing aids and analyses current sound environments, total daily hearing aid use, and historical usage data.

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## FM systems: Compatible with Opn

Allows wearers to hear speech over a longer distance or in noisy environments, transmitting audio directly to their Opn hearing aids. The FM adapters and receivers enable Opn BTE13 PP hearing aids to work with the Oticon Amigo system and other FM systems, a benefit that is especially relevant for children in school settings.

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## Noahlink Wireless compatibility: Easy programming of Oticon Opn

Now you can program your client's Opn hearing aids quickly and reliably without wires. This is all thanks to Bluetooth® low energy and the new Genie 2 software.

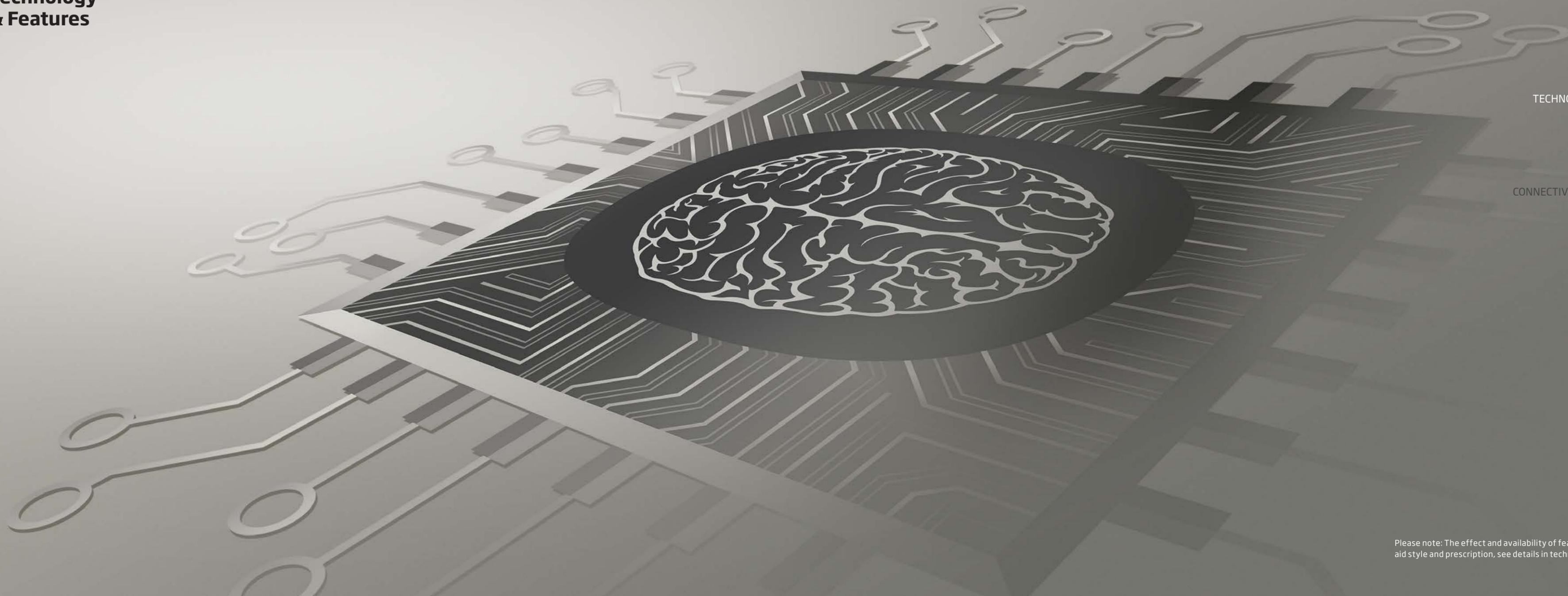
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## Genie 2: REM AutoFit can now integrate with Verifit®LINK

Enables you to use Verifit 1 or Verifit 2 to measure, automatically adjust and verify the fitting with a single click of a button in Genie 2. You maintain full control over the fitting with the option to manually fine-tune and verify settings in order to to personalise the fitting to the client.

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## Technology & Features



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Please note: The effect and availability of features varies with hearing aid style and prescription, see details in technical data sheets.

Ultra-fast processing  
**1,200** MOPS

High resolution  
**24** bit DSP

**11** DSP Cores  
High processing power

**64**  
frequency channels

Analysing more than  
**100** times/second

**113** dB SPL  
upper limit input range

## Introducing the Velox™ platform

### The best in resolution and speed

The groundbreaking Velox platform enables a paradigm shift.

Eleven-core processor, 8 cores for processing sound signals and 3 cores for managing wireless communication, give the instrument extremely fast processing capabilities. The high speed Network on Chip (NoC) architecture with finer engraving (65 nm) in 9 layers delivers impressive performance with the capacity to execute 500 million instructions per second (MIPS) and 1,200 million operations per second (MOPS). It all runs at a maximum of 3.3 mA, when all processes and streaming capabilities are in use. With the Velox platform, a tiny instrument powered by a 1.4V battery can deliver 50 times more processing power than the previous generation.

The digital signal processing uses 24 bit block-floating point representation across 64 frequency channels for higher signal and frequency resolution, fundamental to providing superior sound fidelity.

The Velox platform offers extended linear processing of sounds levels to an upper input limit of 113 dB SPL thanks to 24 bit A/D converters on each microphone and the auxiliary input.

Fully programmable with updatable firmware, the Velox platform is ready for the future.



## TwinLink™

### Wireless connectivity and binaural processing in a small, energy-efficient solution

New TwinLink technology uses two dedicated radio systems to meet distinct communication needs.

TwinLink technology supports seamless, energy-efficient communication between two hearing aids and streamer free connectivity with external electronic and digital devices.

Near-Field Magnetic Induction (NFMI) enables a continuous exchange of data and audio between two hearing aids to provide advanced binaural processing. This communication is done at minimal power consumption.

With new NFMI, data and audio information is exchanged 21 times per second between the two hearing aids, 4 times more compared to previous generations.

Stereo Bluetooth low energy 2.4 GHz connects Oticon Opn directly to smartphones and other digital devices for easy, seamless wireless connectivity. This technology also allows for true wireless fitting.



### DID YOU KNOW?

NFMI travels easily around the human body and the head, while 2.4 GHz travels well through air and holds its strength over longer distances.

On Velox, wireless connectivity is fully integrated into the chip for lower power consumption, smaller size and better performance.

**“ TELL YOUR CLIENT**

Enjoy 30% better speech understanding in complex listening environments. Enjoy 20% less listening effort and and remember 20% more.



OpenSound Navigator™

**DID YOU KNOW?**

Conventional technology switches slowly between a few fixed directionality modes. OpenSound Navigator operates fluidly and extremely fast between an infinite number of states which makes it suitable for all acoustical environments.

Rapid, continuous updates ensure that noise is even reduced between words.

## OpenSound Navigator™



**Less effort. Remember more. Better hearing!**

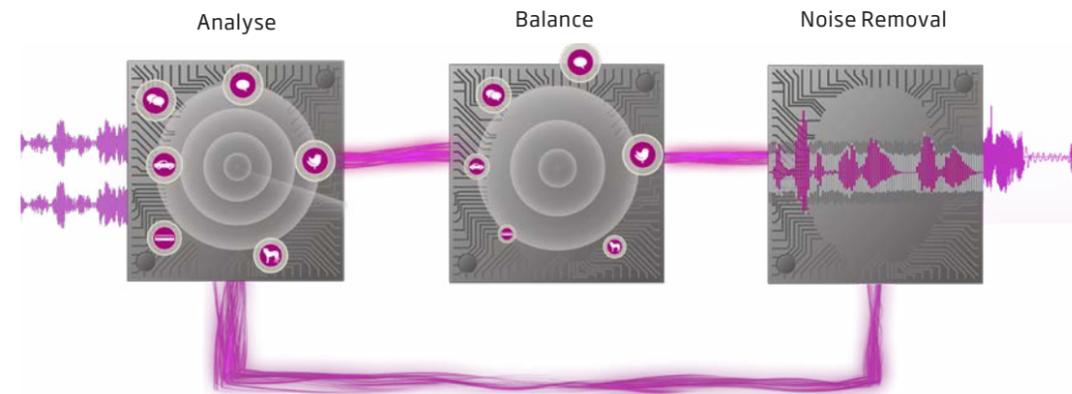
OpenSound Navigator is sound processing that reduces noise while preserving distinct speech from all directions. This is enabled by the new revolutionary Multiple Speaker Access Technology (MSAT), which ensures access to all speakers in a dynamic environment.

OpenSound Navigator employs an extremely fast three-step process;

- Scans the full 360° sound environment more than 100 times per second to identify noise and separate it from speech.
- Rapidly reduces the levels of loud noise coming from specific directions, while preserving speech.
- Rapidly attenuates remaining diffuse noise, even between individual words.

OpenSound Navigator ensures a full, more balanced soundscape and lets users enjoy improved speech understanding even in complex and dynamic environments, while at the same time preserving mental energy.

OpenSound Navigator is personalised in Genie 2 and can be further fine-tuned in YouMatic LX controls. The effect of OpenSound Navigator varies with hearing aid style and prescription



Illustrates OpenSound Navigator in hearing aids with 2 microphones

## Spatial Sound™ LX



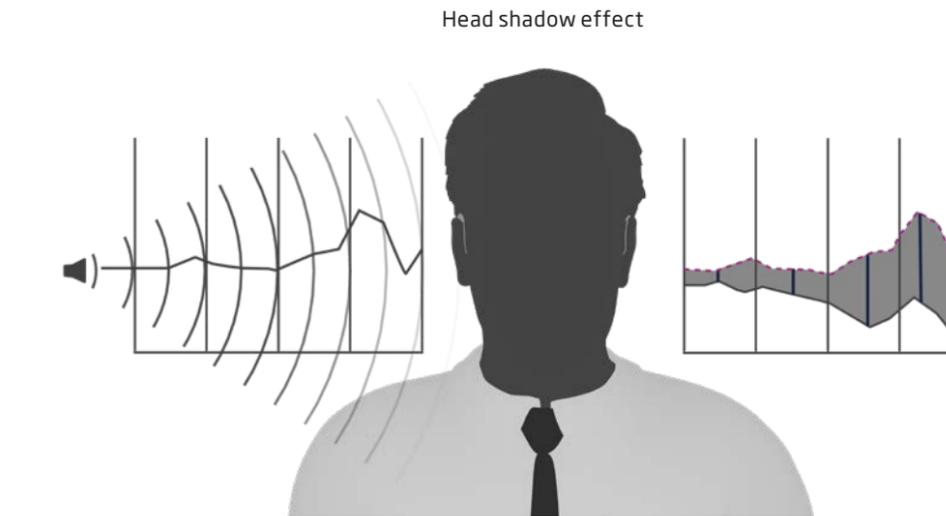
**Locate, follow and shift focus to the speakers you want to hear**

Spatial Sound LX combines a number of advanced technologies to provide a more precise spatial awareness to help users identify where sound is coming from.

Using the energy efficient and fast binaural communication offered by NFMI, Spatial Sound LX preserves interaural level differences in four frequency bands. This maintains the sense of location and direction naturally provided by the head shadow effect.

The multi-band analysis prevents low frequencies from masking higher frequencies. This ensures that interaural differences are preserved over the entire frequency spectrum.

As part of Spatial Sound LX, Spatial Noise Management emphasises sounds on the better ear in asymmetrical noise situations.



**“ TELL YOUR CLIENT**

Provides a richer, more realistic sound picture so you perceive the location and direction of sounds with greater ease.

**DID YOU KNOW?**

Interaural level differences (ILD) are important factors to make speech and noise appear distinctly and separately (and not muddled together) and help improve speech understanding in noise.

Four estimators enable precise, frequency-specific ILDs which remain intact across the frequency spectrum. This is important because the head shadow effect is greater at high frequencies.

## “ TELL YOUR CLIENT

Lets you hear sound, personalised to the way you like to hear it.

# YouMatic™ LX



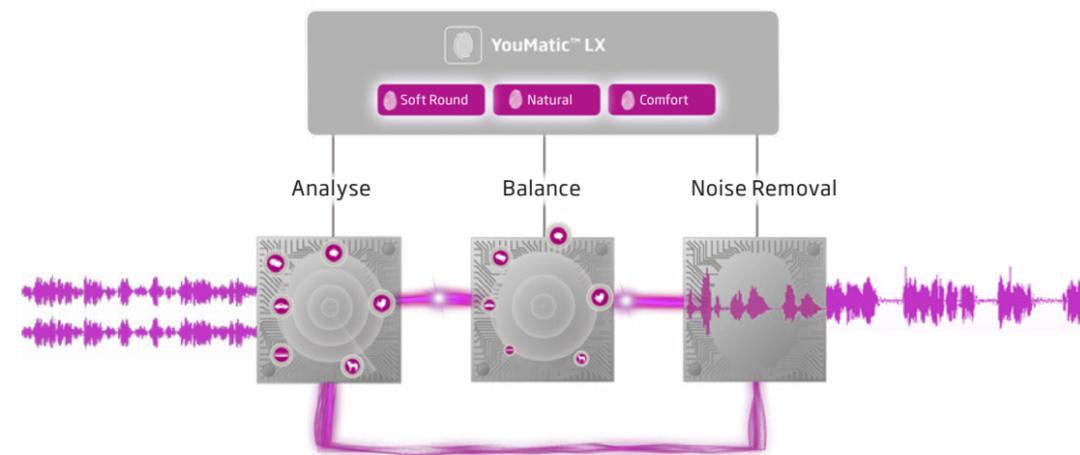
## Tailors OpenSound Navigator to individual needs and preferences

YouMatic LX is the personalisation feature in Oticon Opn that intelligently controls the level of performance and response of the OpenSound Navigator across listening environments.

YouMatic LX ensures that the OpenSound Navigator delivers the optimised open sound experience to individual users, and at the same time, provides the best possible speech understanding in difficult, noisy situations.

YouMatic LX is automatically configured during the fitting process based on the users' personal sound and listening preferences.

The YouMatic LX control is an integral part of the OpenSound Navigator screen in Genie 2 and enables you to fine-tune the OpenSound Navigator response to serve individual needs. The effect of YouMatic LX varies with hearing aid style and prescription.



Illustrates YouMatic LX in hearing aids with 2 microphones

## DID YOU KNOW?

Research shows that people have different preferences for how much the hearing aid should help in complex situations.

Personalisation is an integral part of client-centred care. Client-centred care increases satisfaction, adherence to treatment and the feeling of being in control.

# Speech Guard™ LX



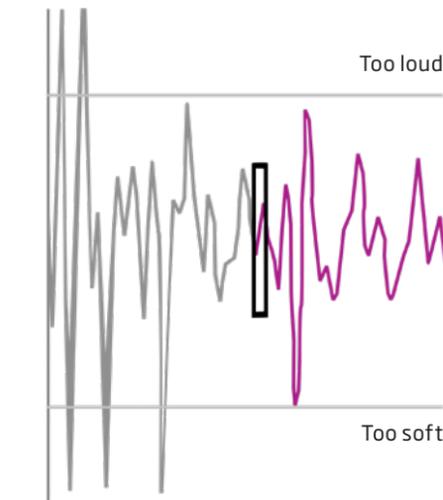
## Improves speech understanding in noisy environments

Speech Guard LX preserves clear, transparent sound quality and speech details for better speech understanding with less effort even in complex environments.

Speech Guard LX uses adaptive compression and is the only amplification technology that combines the benefit of linear amplification and fast compression. Linear amplification is applied in a 12dB dynamic range window to preserve amplitude modulation cues in speech signals.

When large changes in level occur, Speech Guard LX quickly adapts gain to maintain audibility and fits all sound in the reduced dynamic range of hearing-impaired listeners.

Speech Guard LX takes advantage of the new extended dynamic input range provided by Clear Dynamics to preserve the clear, transparent quality of loud sounds.



## “ TELL YOUR CLIENT

Improves speech understanding in noise and makes it easier for you to follow conversations in many situations - from soft to loud environments and even those with multiple speakers.

## DID YOU KNOW?

The benefits of the adaptive compression in Speech Guard LX have been documented in a number of studies. Amongst those, a study by Pitmann et al. (2014) where Speech Guard LX proved superior to fast and slow compression strategies.

**“ TELL YOUR CLIENT**  
Increases speech understanding by letting you hear more speech sounds like /s/ and /sh/.

## Speech Rescue™ LX

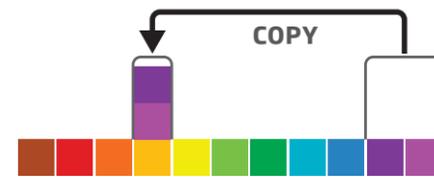
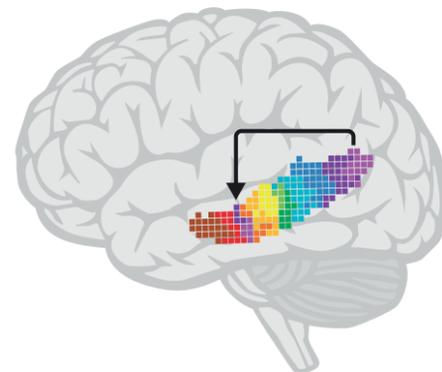


### Making high frequency sounds more audible

Missing high frequency sounds such as /s/ or /sh/ can negatively impact the flow and understanding of conversation. Oticon's methodology of frequency lowering called frequency composition increases speech understanding by 'rescuing' speech cues that might otherwise be lost.

OpenSound Navigator's precise ability to improve SNR makes Speech Rescue LX more effective in two ways: High-frequency noise is reduced to clean the inaudible high-frequency speech, which is then copied into noise-cleaned medium frequencies.

Combined with Speech Guard LX, this gives users with moderate to severe-to-profound hearing loss (in the high frequencies) access to inaudible high frequency sounds. The three step 'copy and keep' methodology copies inaudible high frequency sounds, places them on the edge of the the maximum audible output frequency (MAOF) and ensures that the low frequencies are preserved so that vowel information and sound quality are maintained.



**DID YOU KNOW?**  
Speech Rescue LX uses a multilayered lowering technique. The inaudible HF source sounds are copied and placed on the border of the clients usable hearing. The destination is never below 1600 Hz, as a primary aim of Speech Rescue is to protect the information carried by low frequencies as well as providing high frequency audibility.

## Soft Speech Booster LX

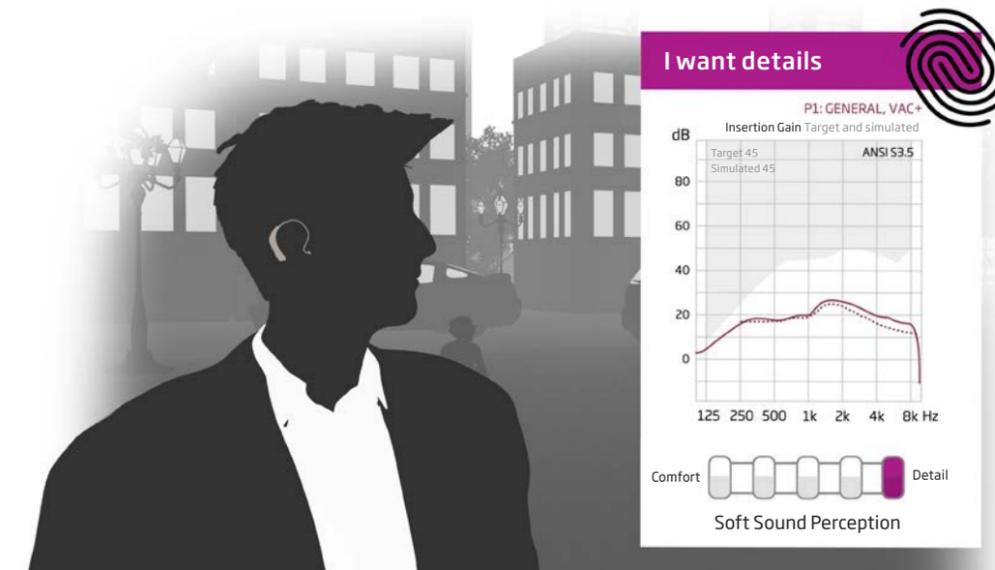


### Improves soft speech understanding up to 20%

Soft Speech Booster LX makes soft sounds audible to people with hearing loss. By increasing access to the soft sounds that occur in most situations and conversations, Soft Speech Booster LX improves soft speech understanding by up to 20%.

Oticon's proprietary fitting rationale, VAC+, uses multiple kneepoints to provide a clear focus on soft to moderate speech information while preserving comfortable perception of louder sounds.

Soft Speech Booster LX can be personalised using questions and sound files in Genie 2 to ensure a fitting matched to each user's unique perception of soft sound for the best possible balance between details and comfort.



**“ TELL YOUR CLIENT**  
Increases access to soft sounds so that you can enjoy up to 20% improved soft speech understanding without turning up the volume.

**DID YOU KNOW?**  
More than 75% of normal speech has soft sounds.  
Oticon has developed an app that shows just how much soft speech information is present in normal speech. Find the Soft Speech Booster-app in App Store.

## “ TELL YOUR CLIENT

Experience superior sound quality especially when you are enjoying music or engaging in conversations in noisy environments.

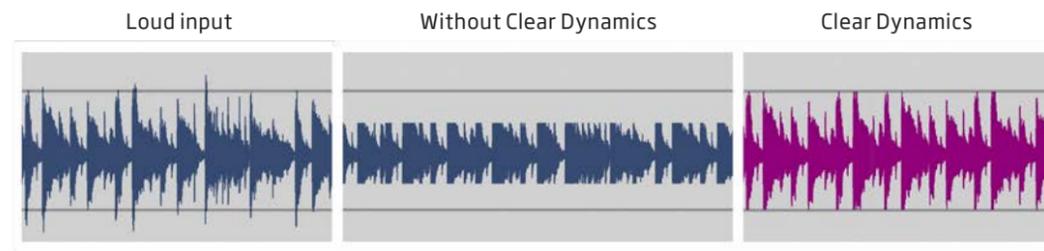
# Clear Dynamics



## Better sound quality in the full dynamic range of life

Clear Dynamics expands the input dynamic range, processing input sounds up to 113 dB SPL, to provide better sound quality without distortion and artefacts at loud input levels, while still keeping the sound quality of soft input levels intact. Clear Dynamics has an operating range from 5 to 113 dB SPL.

With speech cues preserved at high input levels, users enjoy a better listening experience without distortion even in loud environments. Clear Dynamics is especially valuable for users when listening to music or in conversations in busy, dynamic environments, where peaks can often be louder than the available input dynamic range.



## DID YOU KNOW?

Peaks of speech are usually around 12 dB above and 18 dB below the average speech level. In contrast, music is much more dynamic with peaks of up to 30 dB.

Total Harmonic Distortion (THD) is a measure of the distortion within the hearing aid. Clear Dynamics ensures less than 5% distortion up to 113 dB SPL.

# Wind Noise Management

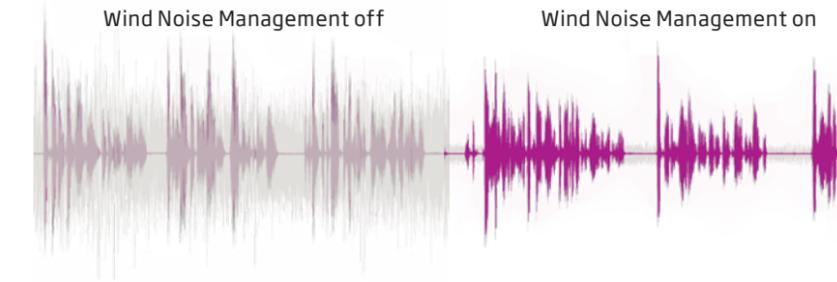


## Better access to speech in situations with wind noise

With the powerful Velox platform, Wind Noise Management offers innovative and highly efficient wind noise suppression. High speed estimators analyse the presence of wind noise 500 times per second in 16 frequency channels for fast and precise application of up to 30 dB wind noise reduction. Wind Noise Management attenuates wind bursts in less than 50ms, making it fast enough to precisely attenuate wind between words.

The purpose of Wind Noise Management is to attenuate the wind noise and quickly ensure a stable and comfortable loudness level for the hearing aid user, so they can focus on the speech that's important to them.

When speech is present, the signal-to-noise ratio is preserved because wind noise is suppressed when it is louder than speech. When no speech is present, the system will aggressively suppress wind noise to ensure comfort in windy situations.



## “ TELL YOUR CLIENT

Effectively suppresses annoying wind noise, even between the words in a conversation.

## DID YOU KNOW?

Wind fluctuates and is highly modulated, and may result in a very harsh and uncomfortable sound in hearing aids. As a result, many users reject using hearing aids even at moderate wind speed.

Wind Noise Management also suppresses the noise created when brushing against the hearing aid.

## “ TELL YOUR CLIENT

Enjoy clearer sound without worrying about annoying whistling or squealing, even in feedback-prone everyday situations like greeting someone with a hug.

# Feedback shield LX

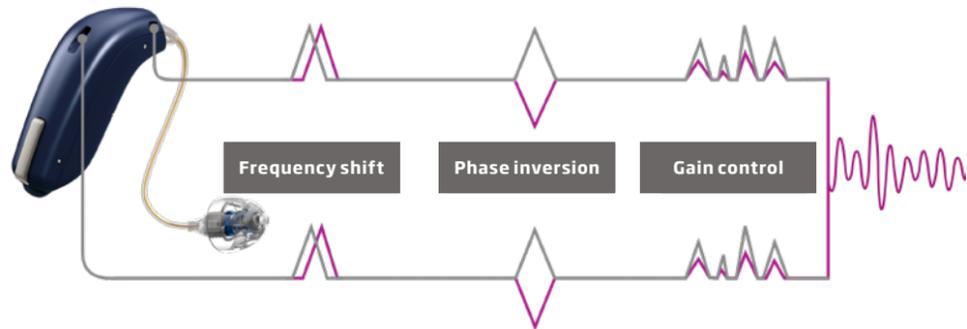


## Dual-microphone feedback system eliminates feedback rapidly and effectively

Feedback is uncomfortable and annoying. With Feedback shield LX, Oticon Opn delivers ultra-fast and effective feedback management without compromising audibility or sound quality. To improve efficiency and accuracy, Feedback shield LX operates in two separate

paths - one for each microphone. In each path, three distinct technologies work together to instantly suppress potential feedback. Frequency shift optimises phase inversion, and gain control may be applied if needed.

With Feedback shield LX, more gain can be added before any intervention is necessary. This gives you greater flexibility in the fitting process.



## DID YOU KNOW?

There are two types of feedback. Audible feedback materialises as a whistling sound, while inaudible feedback manifests itself as poor sound quality and occurs when the hearing aid is operating close to the feedback margin.

Feedback shield LX prevents both audible and inaudible feedback.

# Tinnitus SoundSupport™



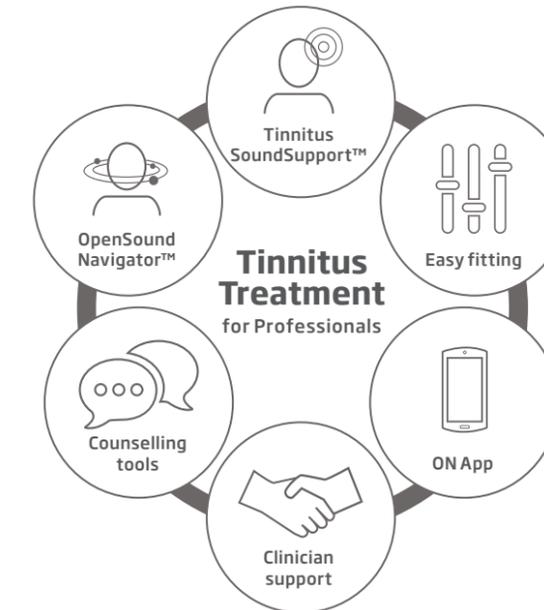
## A variety of relief sounds to meet the unique needs of each person with tinnitus

You can enable Tinnitus SoundSupport in all Oticon Opn performance levels. The integrated sound generator offers a wide range of sound options including broadband sounds (shaped to audiogram, white, pink & red) and three ocean-like sounds. These nature sounds are dynamic, yet soothing, and show great promise in decreasing the annoyance of tinnitus.

No brain works the same and some clients require sounds that are more dynamic or have a unique quality. Tinnitus SoundSupport aims

to make fitting as simple and quick as possible while giving clients a fully personalised treatment. You can apply four modulation options to any of the broadband sounds to create more possibilities for relief sounds that meet clients' individual needs and preferences.

Clients can adjust the volume level of relief sounds directly on the hearing aid or via the Oticon ON App. For the client it means easy and discreet handling and adjustment of relief sounds whenever needed.



## “ TELL YOUR CLIENT

Tinnitus SoundSupport and OpenSound Navigator give you the combined benefit of a balanced and rich sound experience that doesn't overload the brain and a powerful solution for tinnitus relief. The goal is to affect your perception of your tinnitus in a positive way.

## DID YOU KNOW?

No tinnitus treatment package is complete without appropriate client counselling and education. Oticon offers a comprehensive toolbox as part of our tinnitus treatment solution to help you guide your clients through their journey towards tinnitus relief.

# Feature overview

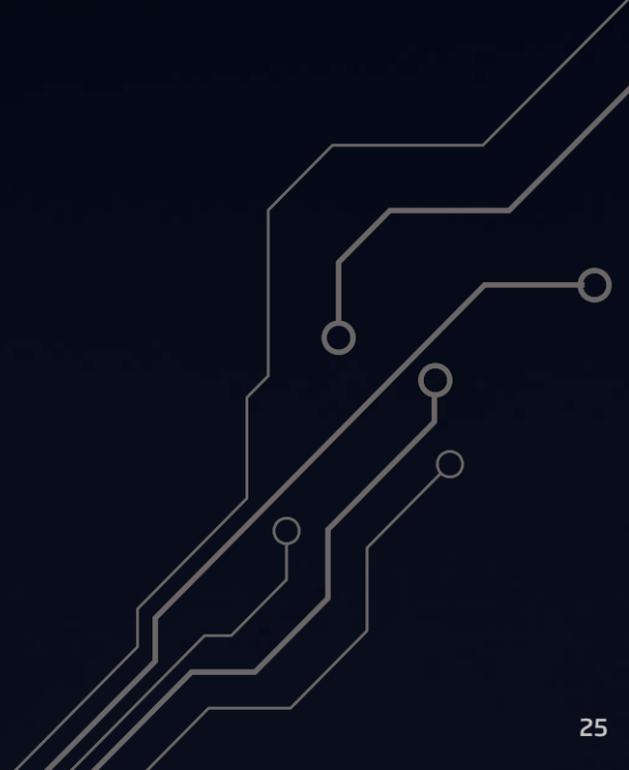
<b>Acoustic Notifications</b>	Provides notifications and warnings to assist and support confidence in daily use, e.g., start-up jingle, low battery warnings, etc.	
<b>Automatic Adaptation Manager</b>	Adapts in 3 steps for gradual user acclimatisation to a new hearing aid	
<b>App &amp; Remote Control</b>	Discreetly adjusts volume, switches between programs or controls connectivity sources with Remote Control or the Oticon ON App	Page 44 Page 47
<b>Autophone</b>	Automatically activates a phone program in the hearing aid for telephones with a dedicated magnet	
<b>Bass Boost</b>	Controls compensation for bass leakage in open fittings when streaming audio	
<b>Binaural Coordination</b>	Coordinates program and volume settings between the two hearing aids	
<b>Binaural Processing</b>	Continuous data exchange between two hearing aids about the sound level in each ear to maintain the difference in input between the ears	
<b>Clear Dynamics</b>	Expands the dynamic input range, processing sounds up to 113dB SPL, to preserve sound quality even at loud input levels	Page 18
<b>Data Logging</b>	Logs volume control usage, program usage and total use time	
<b>Feedback Analyser</b>	Analyses the risk of feedback with the prescribed gain and chosen acoustics in Genie 2	
<b>Feedback shield LX</b>	Employs an ultra-fast and effective feedback management system that prevents feedback without compromising sound quality or audibility	Page 20
<b>Fitting Bands</b>	16 fitting bands for a precise fit and more fine-tuning options for client fittings	
<b>Fitting Formulas</b>	Include VAC+, NAL-NL1, NAL-NL2, and DSL v5.0	
<b>Listening Programs</b>	Supports listening in difficult situations when the client may want extra support from e.g. a loop system	
<b>Made for iPhone®</b>	Indicates compatibility. 'Made for iPhone' means that the hearing aid and accessories have been designed to connect to iPhone, and have been certified by the developer to meet Apple™ performance standards.	Page 44
<b>Multiple Directionality Options</b>	Enables conventional directionality settings in addition to OpenSound Navigator transition settings	
<b>NFMI</b>	Near-Field Magnetic Induction - Improves speed of communication and bandwidth between two hearing aids with very low power consumption	Page 11

<b>OpenSound Navigator</b>	Provides listening support by continuously analysing the environment, balancing sound sources so focus sound is clear and competing sounds are not too disturbing. Finally, it attenuates remaining noise to provide a more accessible sound environment	Page 12
<b>Oticon Firmware Updater</b>	Enables you to update Velox-based hearing aids and connectivity solutions, adding new and improved features with just one click	Page 52
<b>Phone Program</b>	Optimises hearing aid for telephone conversations using the hearing aid microphone and/or telecoil	
<b>Processing Channels</b>	Data is analysed and processed in 64 channels, more than 100 times per second	Page 10
<b>REM AutoFit</b>	Enables you to personalise fittings to individual ear acoustics	
<b>Soft Speech Booster LX</b>	Applies an individual amount of soft gain to increase soft speech understanding	Page 17
<b>Spatial Noise Management</b>	Optimises listening in asymmetrical, noisy situations	
<b>Sound Studio</b>	Offers a large selection of soundscapes to simulate different listening environments in the process of providing a better first fit	Page 58
<b>Spatial Sound LX</b>	Uses binaural compression to provide precise spatial awareness that helps users identify where sounds are coming from	Page 13
<b>Speech Guard LX</b>	Preserves the dynamics of speech by combining the benefits of linear and non-linear compression	Page 15
<b>Speech Rescue LX</b>	Makes high frequency speech sounds like /s/ and /sh/ more audible using frequency composition	Page 16
<b>Stereo Streaming</b>	Streams audio input in stereo	Page 44
<b>Tinnitus SoundSupport</b>	Provides a variety of relief sounds, including soothing ocean sounds, to meet the individual needs of people with tinnitus	Page 21
<b>Transient Noise Management</b>	Protects against sudden loud sounds with fast recovery to preserve audibility. Offers four different levels for fine tuning, including 'off'	
<b>TwinLink</b>	Combines two distinct radio technologies in an innovative wireless communication system. Features one technology to support seamless, energy-efficient binaural communication between two hearing aids (NFMI) and one to support communication with external electronic and digital devices (2.4 GHz)	Page 11
<b>Wind Noise Management</b>	Protects against the discomfort of wind noise	Page 19
<b>YouMatic LX</b>	Accommodates personal listening preferences and sound perceptions in the prescription of gain and automatics	Page 14

# Instruments



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# The audiological difference between Oticon Opn 1, Opn 2 and Opn 3

Hearing loss limits the amount of acoustic detail the brain receives. The fewer details the harder the brain has to work to decode sound. Oticon Opn 1, Opn 2 and Opn 3 all provide access to a 360° listening environment, but they differ in the way they support and help the brain making sense of sound.

### Three Opn features are key in supporting the brain in making sense of sound:



**OpenSound Navigator** opens the sound by preserving distinct speech and removing the noise that makes speech unclear. The level of noise that can be removed in different listening environments ranging from 9 dB to 3 dB and results in different levels of BrainHearing support.



**Spatial Sound LX** makes sure that important information about the location of sound is preserved. With 4 level estimators Oticon Opn 1 offers the best spatial information of the three performance levels.



**Speech Guard LX** amplifies and preserve clean speech information and improves the ability of the brain to separate speech from noise. The difference between Opn 1, Opn 2 and Opn 3 lies in the input range combined with the linear window which ranges from 12 to 9 dB, resulting in different levels of speech cue preservation.

In addition, Oticon Opn also contains a number of other features that will also influence the support the brain receives in different listening situations e.g. Clear Dynamics, Spatial Noise Management, bandwidth, and number of processing channels.

**Oticon Opn 1 provides the maximum support across different listening environments, client age and lifestyle.**

## Oticon Opn product comparison

	Oticon Opn 1	Oticon Opn 2	Oticon Opn 3
<b>Speech Understanding</b>			
OpenSound Navigator™	Level 1	Level 2	Level 3
- Balancing power effect	100%	50%	50%
- Max. noise removal	9 dB	5 dB	3 dB
Speech Guard™ LX	Level 1	Level 2	Level 3
Spatial Sound™ LX	4 estimators	2 estimators	2 estimators
Soft Speech Booster LX	•	•	•
Speech Rescue™ LX	•	•	•
<b>Sound Quality</b>			
Clear Dynamics	•	•	-
Spatial Noise Management	•	•	-
Fitting Bandwidth	10 kHz	8 kHz	8 kHz
Processing Channels	64	48	48
Bass Boost (streaming)	•	•	•
<b>Listening Comfort</b>			
Transient Noise Management	4 configurations	On/Off	On/Off
Feedback shield LX	•	•	•
Wind Noise Management	•	•	•
<b>Personalisation &amp; Optimising Fitting</b>			
YouMatic™ LX	3 configurations	2 configurations	1 configuration
Fitting Bands	16	14	12
Listening Programs	•	•	•
Multiple Directionality Options	•	•	•
Adaptation Management	•	•	•
Fitting Formulas	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0	VAC+, NAL-NL1+2, DSL v5.0
<b>Connecting to the World</b>			
Stereo streaming (2.4 GHz)	•	•	•
Made for iPhone®	•	•	•
Oticon ON App	•	•	•
ConnectClip	•	•	•
Remote Control 3.0	•	•	•
TV Adapter 3.0	•	•	•
<b>Special Needs</b>			
Tinnitus SoundSupport™	•	•	•

Note: For custom instruments, see the style-specific technical data sheets.

### TELL YOUR CLIENT

Only Oticon Opn opens up the sound scape to embrace multiple speakers in difficult listening environments. It's just a matter of choosing the right version.

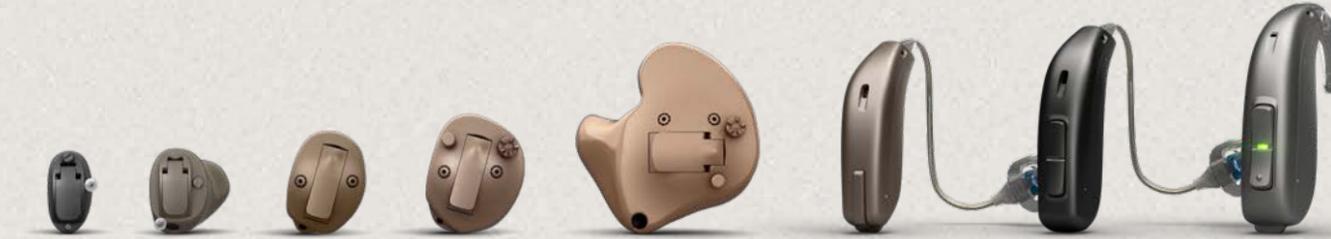
### DID YOU KNOW?

Regardless of end-user age and lifestyle, Oticon always recommends Opn 1 for maximum support across different listening environments, simple as well as complex.

# How the difference influences Oticon Opn's ability to support the brain

BrainHearing support is delivered by a unique combination of technologies working together to reduce listening effort and provide the brain with better conditions to perform in. All members of the Opn family provide the unique open sound experience, with access

to multiple speakers. However, they differ in the amount of support they give the brain in terms of rapid noise reduction, localisation of sounds, speech clarity, and the personalisation of the listening experience - **i.e. they differ in the level of BrainHearing support they deliver.**



Product	BrainHearing support	Open access to all speakers	Rapid noise reduction	Localisation of sounds	Speech clarity	A personalised listening experience
Oticon Opn 1	Level 1	Yes	...	...	...	...
Oticon Opn 2	Level 2	Yes	..	..	..	..
Oticon Opn 3	Level 3	Yes	.	.	.	.

**Supporting features:**

- OpenSound Navigator
- Spatial Sound LX

- OpenSound Navigator
- Frequency bands

- Speech Guard LX
- Spatial Sound LX
- Clear Dynamics
- Bandwidth

- OpenSound Navigator
- Speech Guard LX
- Clear Dynamics
- Bandwidth
- Frequency bands

- Fitting bands
- YouMatic LX
- Soft Speech Booster LX



The effect and availability of features varies with hearing aid style and prescription



**1. Open access to all speakers**

The open sound experience is built on the foundation of ensuring open access to multiple speakers, even in noisy environments.



**2. Rapid noise reduction**

Intruding noise puts extra load on the brain, so a rapid and precise reduction of noise coming from specific directions, as well as diffuse background noise, is essential to make distinct speech stand out.



**3. Localisation of sounds**

With the open sound experience bringing access to all sounds, it's important that users receive precise sound localisation information, so they can decide where to focus.



**4. Speech clarity**

To ensure maximal speech understanding with less effort, and a richer listening experience, all speech sources in any location are enhanced and clarified.



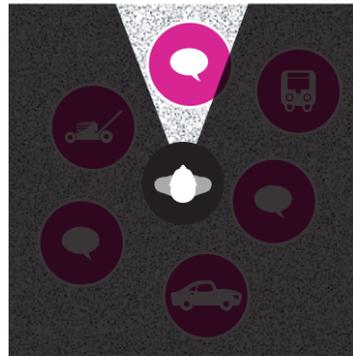
**5. A personalised listening experience**

The performance of Oticon Opn is optimised by making adjustments based on individual needs and personal preferences.

# By supporting the brain, Oticon Opn significantly reduces listening effort...

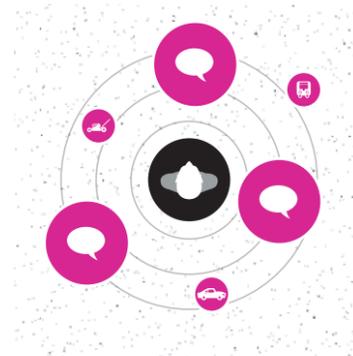
In difficult listening environments, the limitations of traditional hearing aid technology has led to the use of narrow directionality to make speech coming from the front clear. All other sounds - speech and noise alike - are reduced, leaving the user with a narrowed, artificial listening experience. But with the speed and precision of Multiple Speaker Access Technology (MSAT), the OpenSound Navigator can reduce noise enough to significantly reduce listening effort,\* while at the same time delivering an open sound experience.

## Traditional technology



Traditional directionality - focusing on one speaker, while suppressing all other sounds.

## MSAT in: Oticon Opn 1



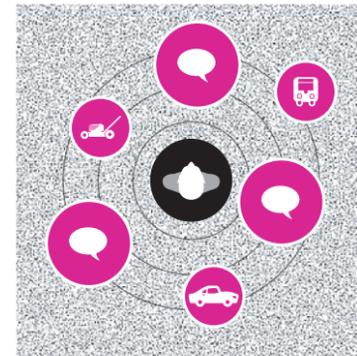
The easiest listening experience with maximum reduction of background noise and rapid reduction of loud noise coming from specific directions while preserving speech.

## Oticon Opn 2



An easier listening experience with moderate reduction of background noise, and reduction of loud noise coming from specific directions while preserving speech.

## Oticon Opn 3



An improved listening experience with basic reduction of background noise, and reduction of loud noise coming from specific directions while preserving speech.

- Background noise from all directions
- Noise between speakers from specific directions
- Distinct speech

\* Wendt et al. 2016, Lunner et al. 2016.

# ... and closes a gap to normal hearing

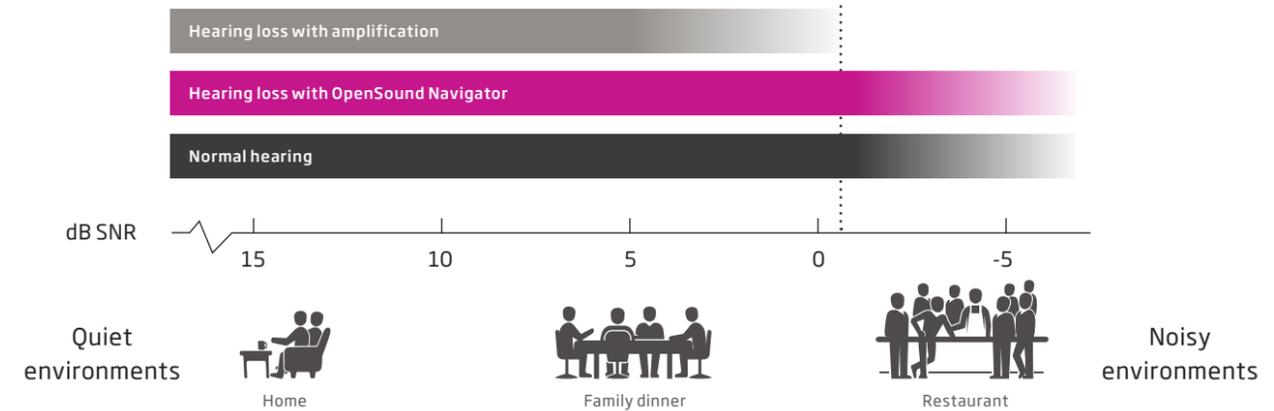
Compared to people with normal hearing, people with hearing loss have major difficulties with communicating in noisy environments, even when supported with good amplification.

Outstanding new evidence shows that OpenSound Navigator in Oticon Opn actually improves speech understanding from 20% to 75% in restaurant-like environments\*. This means that users can participate actively in environments with 5dB more noise.

Furthermore, data shows that Oticon Opn makes listening significantly easier across a wide range of everyday situations, preserving more mental energy for users to live their lives.

This empowers people to participate actively in the same noisy environments as people with normal hearing\*\*, such as restaurants and similar environments that they previously found too demanding.

\* Le Goff and Beck 2017, Oticon whitepaper  
 \*\* Lunner et al. Aging and Speech Communication Conference, 2017



**New evidence:** OpenSound Navigator empowers people to actively participate in the same noisy environments as people with normal hearing.



# Oticon Opn outperforms traditional and narrow directionality

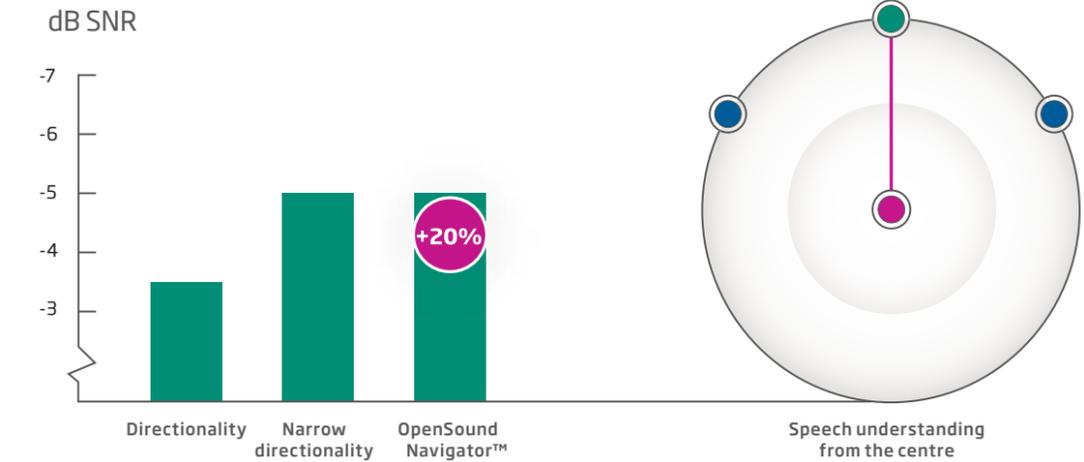
In a test that mimics a real-life conversation between four friends in a noisy environment, Oticon Opn was tested against two top-of-the-line hearing aids, representing traditional and narrow directionality. The results show that Oticon Opn is in a class of its own for multiple speaker understanding:

- **Centre speaker:** Opn increases speech understanding by 20% compared to traditional directionality and is on par with narrow directionality without closing down surrounding sounds
- **Side speakers:** Opn increases speech understanding by 15% compared to both traditional and narrow directionality

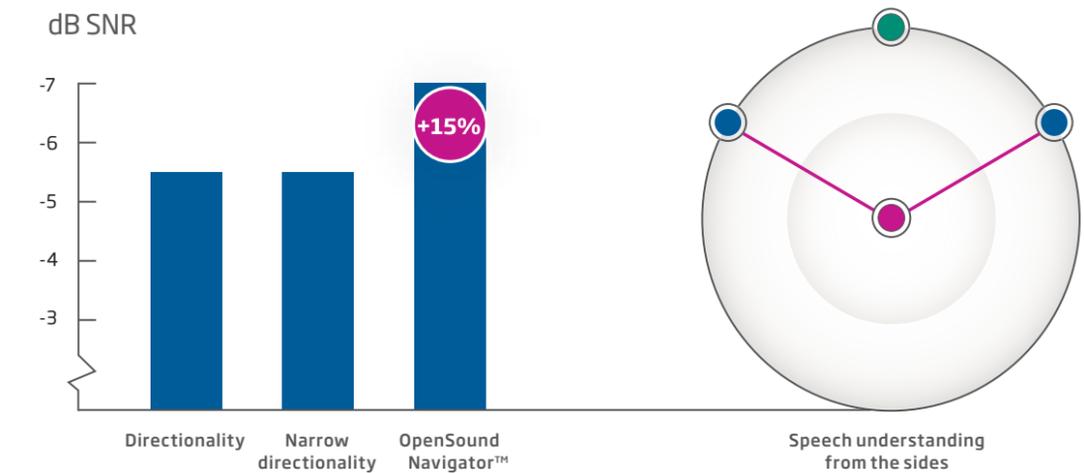
With Oticon Opn, people with hearing loss no longer have to live with the compromises of traditional directionality-based technologies and can get back into the social situations they've been missing.



OpenSound Navigator™ delivers best-in-class speech understanding from centre, without closing down surrounding sounds

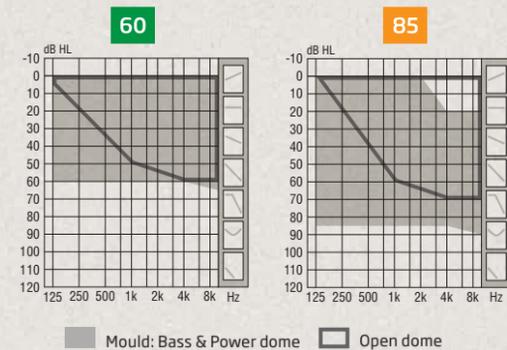


OpenSound Navigator™ outperforms competitive technologies for speech understanding from the sides

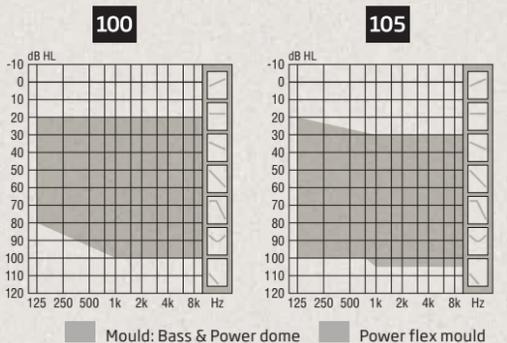


Bar heights correspond to SNR of 50% intelligibility - see Le Goff and Beck 2017, Oticon whitepaper

## Oticon Opn fitting range\*



OSPL90 (peak)		OSPL90 (peak)	
Ear simulator	116 dB SPL	Ear simulator	127 dB SPL
2cc coupler	105 dB SPL	2cc coupler	116 dB SPL
Full-on gain (peak)		Full-on gain (peak)	
Ear simulator	46 dB	Ear simulator	66 dB
2cc coupler	35 dB	2cc coupler	54 dB



OSPL90 (peak)		OSPL90 (peak)	
Ear simulator	132 dB SPL	Ear simulator	135 dB SPL
2cc coupler	122 dB SPL	2cc coupler	127 dB SPL
Full-on gain (peak)		Full-on gain (peak)	
Ear simulator	66 dB	Ear simulator	72 dB
2cc coupler	57 dB	2cc coupler	64 dB

\* Fitting range is based on Oticon Opn 1. Details for Oticon Opn 2 & Oticon Opn 3 are available in Technical data sheets.

## Small, discreet miniRITE

Oticon Opn miniRITE has a discreet design with a smart single push button for easy operation of volume and programs.

Oticon Opn miniRITE offers clients a discreet hearing aid with a wealth of features and functionalities incl. 2.4 GHz wireless technology,



Made for iPhone functionality, and Tinnitus SoundSupport.

Oticon Opn miniRITE uses the proven miniFit receivers and earpieces, fits up to 105 dB HL and is powered by a 312 battery.

### miniFit receivers

Select between three different receivers. miniFit receivers are available with length 0-5.

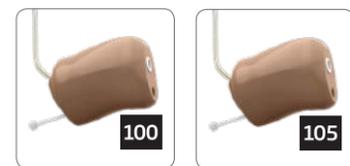


#### Accessories for miniFit receivers:

- Different ear grips for receiver 60 and 85
- Use ProWax miniFit filter
- Measuring tool

### Power flex moulds

Select between two Power flex moulds. Power flex have separate wires, available in length 1-5.



#### Accessories for Power flex moulds:

- Use ProWax filter
- Measuring tool

### Standard earpieces

miniFit domes 5 mm 6 mm 8 mm 10 mm 12 mm

		5 mm	6 mm	8 mm	10 mm	12 mm
Open dome		60	60 85	60 85	60 85	
Bass dome, single vent (0.8 mm)			60 85 100	60 85 100	60 85 100	60 85 100
Bass dome, double vent (1.4 mm)			60 85 100	60 85 100	60 85 100	60 85 100
Power dome			60 85 100	60 85 100	60 85 100	60 85 100

#### All domes:

- Are made of silicone
- Are only compatible with miniFit receivers
- Have built-in wax protection

### Grip Tip

Select between two different Grip Tip types, in two different sizes (small & large) for both left and right ear.



#### Grip Tip:

- Is tinted pink
- Is more durable than domes
- Has a tacky texture to help prevent slippage

### Customised earpieces<sup>1</sup>

Micro mould <sup>2</sup>		60 85
LiteTip <sup>2</sup>		60 85
Power flex mould		100 105
Micro mould, VarioTherm®		60 85
LiteTip, VarioTherm®		60 85

#### Micro mould and LiteTip:

- Are made of acrylic
- Use ProWax filter

#### VarioTherm®:

- Are thermoplastic
- Remains hard at room temperature for easy insertion
- Softens at body temperature for increased comfort and optimum sealing
- Available in two hardnesses - 50 and 70. 70 is standard.

Please note:

VarioTherm® requires gentle warming of the mould with a hair dryer before insertion or removal of the receiver.

<sup>1</sup> Requires taking an ear impression. <sup>2</sup> Uses ProWax filter.

® VarioTherm is a registered trademark of Dreve



C068 Royal Blue C090 Chroma Beige C094 Terracotta C093 Chestnut Brown

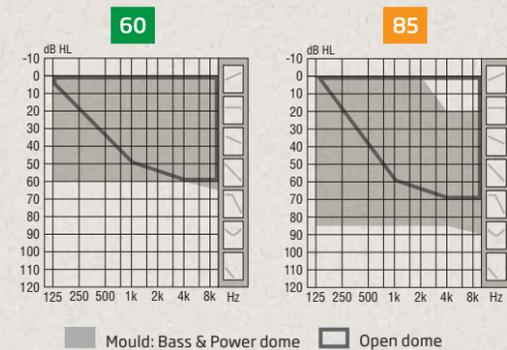


C063 Diamond Black C092 Steel Grey C091 Silver Grey C044 Silver

Battery size	312
Battery life (h)*	60-65
Rechargeable	•
Wireless	•
Directional	•
Program control	•
Volume control	•
Made for iPhone	•
TV Adapter 3.0	•
Remote Control 3.0	•
AutoPhone	•
Wireless fitting	Noahlink Wireless/ FittingLINK 3.0
Cable fitting	FlexConnect and Cable #3
Hardware certification	IP68

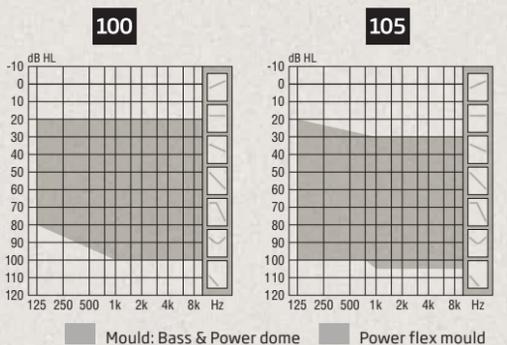
\* Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time). Interval is shown for miniFit 60. Details for other speakers can be found in Technical data sheets.

## Oticon Opn fitting range\*



OSPL90 (peak)		OSPL90 (peak)	
Ear simulator	116 dB SPL	Ear simulator	127 dB SPL
2cc coupler	105 dB SPL	2cc coupler	116 dB SPL

Full-on gain (peak)		Full-on gain (peak)	
Ear simulator	46 dB	Ear simulator	66 dB
2cc coupler	35 dB	2cc coupler	54 dB



OSPL90 (peak)		OSPL90 (peak)	
Ear simulator	132 dB SPL	Ear simulator	135 dB SPL
2cc coupler	122 dB SPL	2cc coupler	127 dB SPL

Full-on gain (peak)		Full-on gain (peak)	
Ear simulator	66 dB	Ear simulator	72 dB
2cc coupler	57 dB	2cc coupler	64 dB

\* Fitting range is based on Oticon Opn 1. Details for Oticon Opn 2 & Oticon Opn 3 are available in Technical data sheets.

## Sleek and discreet miniRITE-T

Oticon Opn miniRITE-T is a discreet style, based on the popular miniRITE, and features telecoil and a convenient double push button for easy volume and program control.

With miniRITE-T, clients with hearing loss up to 105 dB HL can choose a discreet hearing aid with a full set of features and functionalities,

### miniFit receivers

Select between three different receivers. miniFit receivers are available with length 0-5.

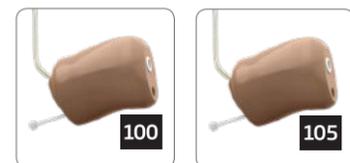


#### Accessories for miniFit receivers:

- Different ear grips for receiver 60 and 85
- Use ProWax miniFit filter
- Measuring tool

### Power flex moulds

Select between two Power flex moulds. Power flex have separate wires, available in length 1-5.



#### Accessories for Power flex moulds:

- Use ProWax filter
- Measuring tool



including 2.4 GHz wireless technology, Made for iPhone functionality, and Tinnitus SoundSupport.

The miniRITE-T uses the proven miniFit receivers and earpieces and is powered by a 312 battery.

### Standard earpieces

miniFit domes 5 mm 6 mm 8 mm 10 mm 12 mm

		5 mm	6 mm	8 mm	10 mm	12 mm
Open dome		60	60 85	60 85	60 85	
Bass dome, single vent (0.8 mm)			60 85 100	60 85 100	60 85 100	60 85 100
Bass dome, double vent (1.4 mm)			60 85 100	60 85 100	60 85 100	60 85 100
Power dome			60 85 100	60 85 100	60 85 100	60 85 100

### Grip Tip

Select between two different Grip Tip types, in two different sizes (small & large) for both left and right ear.



#### All domes:

- Are made of silicone
- Are only compatible with miniFit receivers
- Have built-in wax protection

#### Grip Tip:

- Is tinted pink
- Is more durable than domes
- Has a tacky texture to help prevent slippage

### Customised earpieces<sup>1</sup>

Micro mould <sup>2</sup>		60 85
LiteTip <sup>2</sup>		60 85
Power flex mould		100 105
Micro mould, VarioTherm®		60 85
LiteTip, VarioTherm®		60 85

#### Micro mould and LiteTip:

- Are made of acrylic
- Use ProWax filter

#### VarioTherm®:

- Are thermoplastic
- Remains hard at room temperature for easy insertion
- Softens at body temperature for increased comfort and optimum sealing
- Available in two hardnesses - 50 and 70. 70 is standard.

Please note:

VarioTherm® requires gentle warming of the mould with a hair dryer before insertion or removal of the receiver.

<sup>1</sup> Requires taking an ear impression. <sup>2</sup> Uses ProWax filter.

® VarioTherm is a registered trademark of Dreve



C090 Chroma Beige C094 Terracotta C093 Chestnut Brown

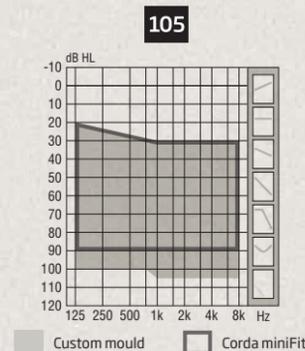


C063 Diamond Black C092 Steel Grey C091 Silver Grey C044 Silver

Battery size	312
Battery life (h)*	60-65
Wireless	•
Directional	•
Program control	•
Volume control	•
Made for iPhone	•
TV Adapter 3.0	•
Remote Control 3.0	•
AutoPhone	•
Wireless fitting	Noahlink Wireless/ FittingLINK 3.0
Cable fitting	FlexConnect and Cable #3
Hardware certification	IP68

\* Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time). Interval is shown for miniFit 60. Details for other speakers can be found in Technical data sheets.

## Oticon Opn fitting range\*



### OSPL90 (peak)

Ear simulator	138 dB SPL
2cc coupler	131 dB SPL

### Full-on gain (peak)

Ear simulator	73 dB
2cc coupler	66 dB

## Powerful and compact BTE13 PP

Oticon Opn BTE13 PP features a compact design with a tactile double push button for easy operation of volume and programs. BTE13 PP comes with telecoil and an optional discreet, two-colour LED indicator to monitor hearing aid status.

The compact and powerful hearing aid provides an MPO of 138 dB SPL and offers a full set of

### Hook and Corda miniFit options

BTE13 PP is defaulted with an undamped hook for adults. This is interchangeable with a damped hook or child hooks (damped/undamped) or the more discreet Corda miniFit Power option. Corda miniFit Power (1.3 mm thin tube) is available in 6 different lengths (-1 to 4).



**Accessories for Corda miniFit:**  
- Measuring tool

### Battery drawers and adapters

The standard battery drawer can be replaced with the following battery drawers, adapters and receivers. The battery drawers and the dedicated FM receiver are available in all instrument colours.



Tamper resistant (TAR) battery drawer



TAR adapter battery drawer



Dedicated FM Receiver Amigo R12G2



Universal FM Adaptor FM 10



Direct Audio Input adapter AP 1000



features and functionalities, including 2.4 GHz wireless technology, Made for iPhone functionality, FM compatibility and Tinnitus SoundSupport.

Oticon Opn BTE13 PP supports fittings with either hook and Corda miniFit or is powered by a 13 battery.

## Corda miniFit earpieces

### Standard earpieces

miniFit domes		6 mm	8 mm	10 mm	12 mm
Bass dome, single vent (0.8 mm)		•	•	•	•
Bass dome, double vent (1.4 mm)		•	•	•	•
Power dome		•	•	•	•

### All domes:

- Are made of silicone
- Are only compatible with Corda miniFit Power
- Have built-in wax protection

### Grip Tip

Select between two different Grip Tip types, in two different sizes (small & large) for both left and right ear.



### Grip Tip:

- Is tinted pink
- Is more durable than domes
- Has a tacky texture to help prevent slippage

### Customised earpieces<sup>1</sup>

Micro mould	
Micro mould, VarioTherm®	

### Micro mould:

- Are made of acrylic
- Uses ProWax filter

### VarioTherm®:

- Are thermoplastic
- Remains hard at room temperature for easy insertion
- Softens at body temperature for increased comfort and optimum sealing
- Available in two hardnesses - 50 and 70. 70 is standard.

### Please note:

VarioTherm® requires gentle warming of the mould with a hair dryer before insertion or removal of the thin tube.

<sup>1</sup> Requires taking an ear impression.

® VarioTherm is a registered trademark of Dreve



**C090** Chroma Beige  
**C094** Terracotta  
**C093** Chestnut Brown



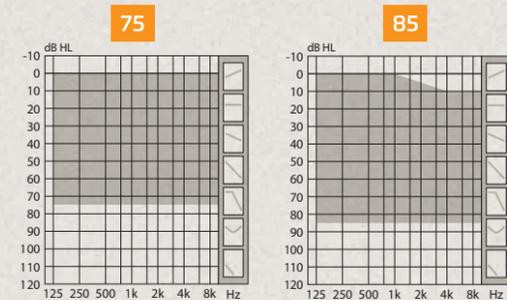
**C063** Diamond Black  
**C092** Steel Grey  
**C091** Silver Grey  
**C044** Silver

Battery size	13
Battery life (h)*	80-105
Wireless	•
Directional	•
Program control	•
Volume control	•
Made for iPhone	•
TV Adapter 3.0	•
Remote Control 3.0	•
AutoPhone	•
Wireless fitting	Noahlink Wireless/ FittingLINK 3.0
Cable fitting	Cable #3
Hardware certification	IP68

\* Real usage battery life is shown as an estimated interval based on mixed use cases with variable amplification settings and variable input levels, incl. direct stereo streaming from a TV (25% of the time) and streaming from a mobile phone (6% of the time). Interval is shown for miniFit 60. Details for other speakers can be found in Technical data sheets.

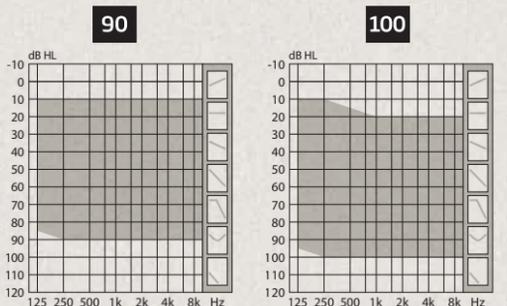
\* Fitting range is based on Oticon Opn 1. Details for Oticon Opn 2 & Oticon Opn 3 are available in Technical data sheets.

## Oticon Opn fitting range\*



OSPL90 (peak)		OSPL90 (peak)	
Ear simulator	120 dB SPL	Ear simulator	126 dB SPL
2cc coupler	108 dB SPL	2cc coupler	116 dB SPL

Full-on gain (peak)		Full-on gain (peak)	
Ear simulator	57 dB	Ear simulator	61 dB
2cc coupler	45 dB	2cc coupler	50 dB



OSPL90 (peak)		OSPL90 (peak)	
Ear simulator	131 dB SPL	Ear simulator	134 dB SPL
2cc coupler	120 dB SPL	2cc coupler	125 dB SPL

Full-on gain (peak)		Full-on gain (peak)	
Ear simulator	65 dB	Ear simulator	72 dB
2cc coupler	55 dB	2cc coupler	63 dB

\* Fitting range is based on Oticon Opn 1, ITC, ITE HS and ITE FS. Details for all other Oticon Opn models and custom styles are available in Technical data sheets.

## Invisible, flexible custom portfolio

The Oticon Opn custom portfolio offers a comprehensive range of in-the-ear styles for clients with a hearing loss up to 100 dBHL.

The new optimised shape for the faceplate and smaller technical components ensure that 8 out of 10 clients can now get an invisible hearing aid with the open sound experience.

The range includes IIC, CIC, ITC, ITE HS, and ITE FS and offers different options of features and functionalities, including 2.4 GHz wireless technology, Made for iPhone functionality, NFMI, push button, telecoil, and Tinnitus SoundSupport.

### Style and fitting options

Style	Battery size	Fitting level	NMFI	2.4 GHz	Microphones	Push button	Volume wheel	Telecoil	AutoPhone
	IIC	10	75 85	-	-	1	-	-	-
	CIC	10	75 85	o	-	1	o	-	-
	ITC	312	75 85 90 100	•	o*	2	o	o	o*
	ITE HS	312	75 85 90 100	•	o*	2	o	o	o*
	ITE HS	13	75 85 90 100	•	o*	2	o	o	o*
	ITE FS	312	75 85 90 100	•	o*	2	o	o	o*
	ITE FS	13	75 85 90 100	•	o*	2	o	o	o*

Available **75 85 90 100** Not available - Default • Option o

\* Not possible to combine 2.4 GHz and telecoil

Note: Choosing 2.4 GHz or telecoil can make the size of the custom product larger. For ITCs, this may result in a larger style (HS) depending on the ear size and shape.

## Custom dexterity

### Standard options

- Nail grip
- Large ball removal line
- Pull out clothing loop
- Raised push button
- Raised volume wheel (high knob)



Two microphones in ITC, ITE HS and ITE FS	NFMI enables	2.4 GHz wireless technology enables
<ul style="list-style-type: none"> <li>• Wind Noise Management</li> <li>• Multiple Directionality Options</li> <li>• The Balancing power effect in OpenSound Navigator</li> </ul>	<ul style="list-style-type: none"> <li>• Spatial Sound LX</li> <li>• Spatial Noise Management</li> <li>• Binaural Coordination</li> </ul>	<ul style="list-style-type: none"> <li>• Streaming to other devices:                             <ul style="list-style-type: none"> <li>- ConnectClip</li> <li>- TV Adapter 3.0</li> <li>- Remote Control 3.0</li> <li>- Phone Adapter 2.0</li> <li>- USB Adapter BT-D 800</li> </ul> </li> <li>• Made for iPhone</li> <li>• Oticon ON App</li> <li>• Oticon HearingFitness App</li> <li>• Internet Connectivity</li> </ul>

Note: For custom instruments, see the style specific technical data sheets.

## Custom instrument colours



## IIC instrument colours



Easy right/left identification for the smallest instruments.

<b>Wireless fitting</b>	Noahlink Wireless/ FittingLINK 3.0
<b>Cable fitting</b>	Cable #3 with Programming Adapter Mini 164237 or FlexConnect Mini 117468
<b>Hardware certification</b>	IP68

## Connectivity & Accessories

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## “ TELL YOUR CLIENT

Enjoy audio streamed directly from your iPhone®, iPad® and iPod touch® to your hearing aids.



## Made for iPhone

Oticon Opn is a Made for iPhone hearing aid. Directly connected to iPhone, the hearing aid doubles as wireless headphones - without the need for an intermediary device. The Bluetooth technology in Oticon Opn supports stereo streaming of music and produces sound with high fidelity and bandwidth. When making calls,

the user's voice is picked up by iPhone microphone. iPhone also doubles as a basic remote control for the hearing aids.



## Oticon ON App

The Oticon ON App makes it easy for Oticon Opn hearing aid users to have additional control of their hearing aids with just a touch of their fingertips. iPhone or the Android smartphone is connected directly to the hearing aids using Bluetooth.

The ON App allows users to adjust volume levels of both gain and tinnitus relief sounds, as well as switching between programs, settings and more. The app also offers a "find my hearing aid" search feature, a client information and education guide, links to hearing aid instructions and low battery notification.

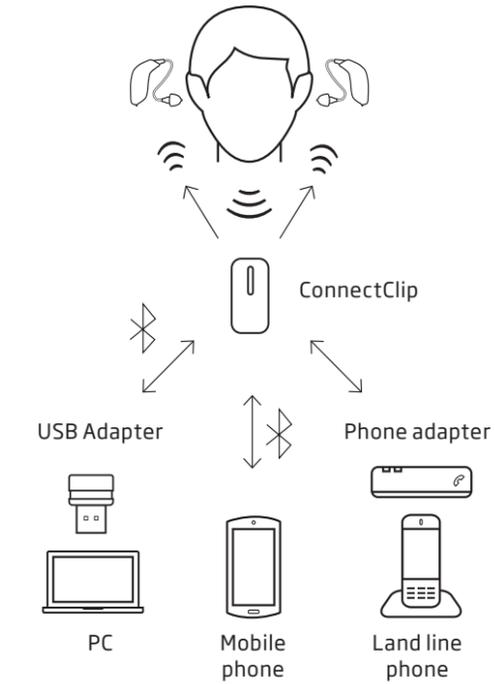


Apple, the Apple logo, iPhone, iPad, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Android, Google Play, and the Google Play logo are trademarks of Google LLC.

## ConnectClip

ConnectClip is used with mobile phones and other audio devices that don't support direct wireless connectivity (or streaming) to the hearing aids. The hearing aids function as a wireless headset and the user's conversation is picked up by the ConnectClip's built-in directional microphones. Audio from the mobile phone streams to ConnectClip using standard Bluetooth technology. The audio is then streamed directly to the user's hearing aids using 2.4 GHz Bluetooth low energy technology. ConnectClip works with almost any mobile phone with Bluetooth from 2010 onwards.

ConnectClip can also function as a remote microphone for streaming another person's voice directly to the Opn hearing aids from up to 20 metres away.



## “ TELL YOUR CLIENT

Turns your Oticon Opn hearing aids into virtual wireless headphones by streaming conversation from practically any mobile phone directly to your hearing aids.

## Phone Adapter

Phone Adapter 2.0 connects wirelessly to the ConnectClip - allowing for hassle-free daily use of traditional phones.

## USB Adapter

The USB Adapter (BTD 800) is a "plug and play" solution which wirelessly connects the ConnectClip to practically any computer for Skype, Messenger, Lync and other softphones.

**“ TELL YOUR CLIENT**

The Opn rechargeable option is easy to use and very convenient without any compromises on audiological performance. The hearing aids are charged overnight for a full day's use and can also work with conventional batteries as a back-up.



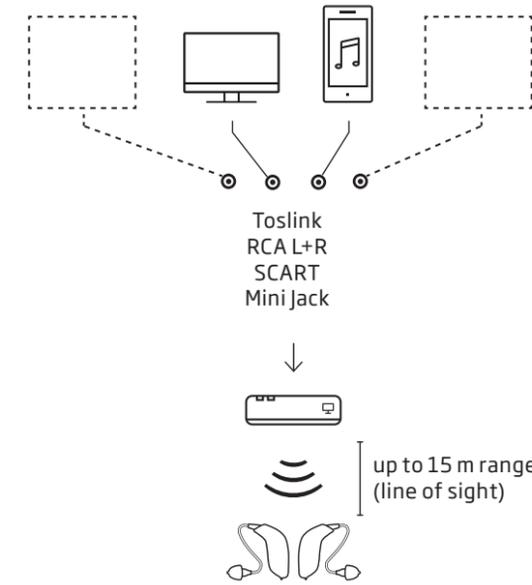
## miniRITE rechargeable option

Turn any Oticon Opn miniRITE into a rechargeable hearing aid with the rechargeable kit that includes two battery drawers, two silver-zinc batteries and a charger dock. The battery drawer comes in a discreet graphite grey colour that blends seamlessly with all Opn colours. The hearing aids are charged overnight for a full day's use.

The rechargeable solution is environmentally friendly and practical. One pair of rechargeable batteries can save time buying and disposing of around 150-200 disposable batteries a year.

Complete charging time: 7 hours  
Battery life: up to 19.5 hours\*

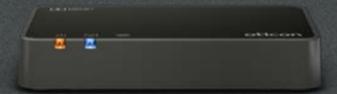
\*Daily hours of usage depend on level of hearing loss, streaming and lifestyle.



## TV Adapter 3.0

TV Adapter 3.0 wirelessly transmits real-time stereo audio from a TV or home entertainment system directly to Oticon Opn hearing aids at a distance of up to 15 metres. Users can set the volume to their preferred level for a listening experience free from the distraction of surrounding noise. The TV Adapter is installed and placed at the TV. Practically any audio source can be connected to the TV Adapter including digital stereo (PCM) and Dolby Digital® (Optical Toslink input).

As a unique feature the TV Adapter can be installed in most existing home entertainment systems.



## Remote Control 3.0

The Remote Control, roughly the size of a modern car key, gives users discreet control over Oticon Opn hearing aids. Users can easily adjust volume, switch between programs or control connectivity sources. Simple and easy to use, the Remote Control is especially beneficial for users with dexterity challenges.

**“ TELL YOUR CLIENT**

Gives you discreet and easy control over your Oticon Opn hearing aids - adjust volume or switch between programs with this small device, roughly the size of a modern car key.



## “ TELL YOUR CLIENT

Amigo FM is comfortable, easy to handle and reliable. The built-in LED lights in both the FM receiver and transmitter let teachers know that the system is working and that students can hear their voice.

## Amigo T31/T30/T5 FM Transmitters

Amigo FM transmits the teacher's voice clearly and consistently to the student's Opn hearing aids, without affecting the ability to hear other sounds and speech in the environment. With built-in LEDs in both receiver and transmitter, teachers can be certain that Amigo is working properly. Amigo FM comes with a high-quality omnidirectional lapel microphone and a boom microphone - both with a built-in external antenna in the microphone cord.

Amigo FM works with Opn BTE13 PP with an Amigo R12G2 FM receiver or the FM 10 adaptor and a universal FM receiver. Like Opn BTE13 PP, Opn miniRITE-T can access an FM signal using the Amigo Arc neckloop FM receiver.



## Oticon HearingFitness™

Like an exercise app for the ears, Oticon HearingFitness gives Opn hearing aid users advice and encouragement on ways to hear better, protect their hearing, and stay healthy. The app receives data from the hearing aids and analyses current sound environments, total daily hearing aid use, and historical usage data. Oticon HearingFitness can also use data from other apps and wearable devices, like measurements of heart rate and sleep patterns, to guide users towards healthier habits. HearingFitness will be available through an updated version of the Oticon ON App later in 2018\*.

\* Oticon HearingFitness will evolve continuously. Please find the current version and available functionalities on the App Store or Google Play.



## SafeLine™

Oticon SafeLine for adults and children is a retention cord that is attached to the hearing aids and to the wearer's collar with a clip to prevent loss and damage of the hearing aids. With SafeLine, children and adults can enjoy activities while retaining access to sound and with confidence that the hearing aids are safe. SafeLine comes in two lengths and has a breakaway cord with a unique quick-release clasp that easily opens if snagged or pulled.



## Internet Connectivity

Through a unique Oticon cloud solution, Oticon Opn can be linked to the If This Then That (IFTTT) network. This allows users to connect to and control an endless range of devices used in everyday life. Imagine, for instance that hearing aids are able to notify users when an email is received, turn the home alarm system on and off, or tell them when someone is at the front door - all of this is possible with Oticon Opn.

Explore the endless possibilities available when connecting Oticon Opn to the internet.

Visit [oticon.global/ifttt](http://oticon.global/ifttt)

## “ TELL YOUR CLIENT

Oticon SafeLine retention cord attaches your hearing aids to your collar with a clip to prevent loss and damage of your hearing aids. Wear your hearing aids with confidence no matter how active you will be.

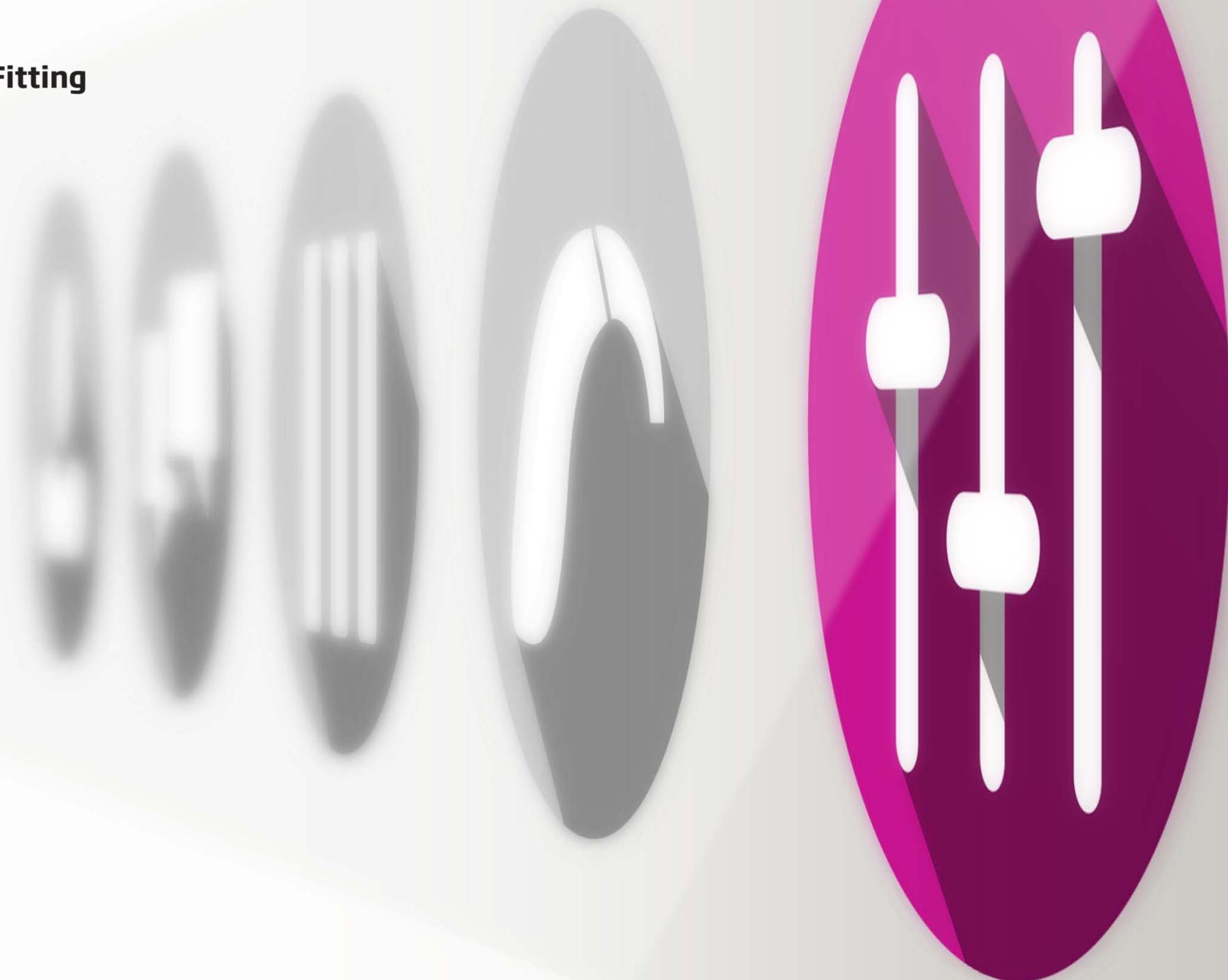
## ! IDEAS FOR USE

- Get an overview of the hearing aid usage
- Set hearing goals and track progress
- Receive suggestions for the optimal program setting
- Be motivated to get out into challenging sound environments

## ! IDEAS FOR USE

- Turn off lights when you leave home
- Get a voice alert when the doorbell rings
- Send a text when battery is low
- Switch to home program when entering the front door

## Fitting



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## New features in Genie 2

### Oticon Firmware Updater

A new firmware package with the newest updates is now available for the Oticon Firmware Updater in Genie 2:

- FM/ DAI compatibility for Opn BTE13 PP
- Support for Oticon HearingFitness™ App
- A more powerful Transient Noise Reduction management system
- General stability and security improvements

Please note that cable connection is required. Noahlink Wireless and FittingLINK 3 cannot be used for firmware updates.



For more information go to [oticon.global/fwupdate](http://oticon.global/fwupdate)

### BE INFORMED

The new hearing aids you receive may have a new FW version that is not compatible with your old Genie 2 installation. Therefore you must always install the latest Genie 2 software, when you receive it from Oticon.

### Industry first: Efficient, automatic target matching using your Verifit

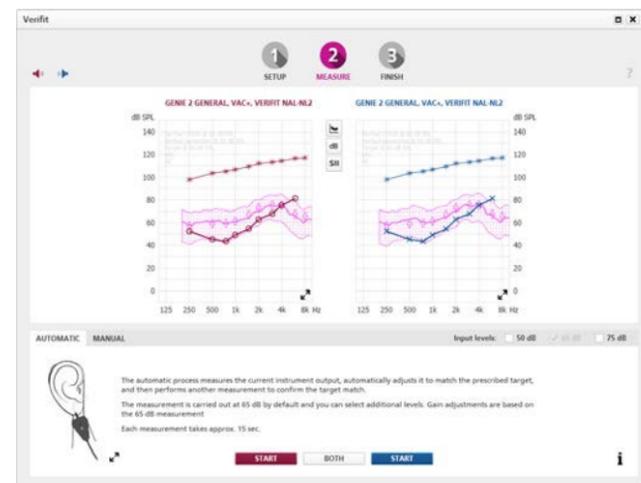
REM AutoFit can now integrate with Verifit REM systems.

REM AutoFit is a tool in Genie 2 that allows you to complete the verification process efficiently and conveniently by automatically matching hearing aid gain to prescriptive targets through integration with your REM system. The tool is also compatible with Interacoustics, MedRx and Otometrics systems.

REM AutoFit offers an adapted workflow that integrates with your Verifit system

using Audioscan's built-in software interface, Verifit®LINK. The tool is able to use Verifit 1\* or Verifit 2 to measure, automatically adjust and re-measure the fitting with the single click of a button in Genie 2. This helps you free up time for more clients, counselling and validation. You maintain full control over the fitting with the option to manually fine-tune and verify the settings in order to personalise the fitting for the client.

Whether you're using REM AutoFit with your Verifit or with an Interacoustics, MedRx or Otometrics system, the tool's streamlined workflow adapts to the system in use.



\* Only available on Verifit 1 with S/N 2070 or higher (Shipped after August 2005)

### Transfer gain-related settings from one hearing aid to another

You can transfer gain-related settings from one Oticon hearing aid to another - even when the instruments differ in style, fitting level or price point. This is especially useful during the fitting session when you are demonstrating different hearing aids to the same user and would like to retain your fine tunings as you change the hearing aid selection.

The new Transfer Settings functionality allows you to copy P1 gain, MPO, Adaptation Step, Brightness and Soft Sound Perception into a

new hearing aid in your fitting session. These settings are copied as close as possible given the limitations of the target instruments. All other settings are prescribed for the target instruments.

The tool can be accessed through Tools -> Transfer Settings, please refer to the user guide/help files for details for how to use the new Transfer Settings function.



# Creating an open sound experience

A simple two-step procedure creates an open sound experience. With the innovative OpenSound Navigator and YouMatic LX in Genie 2, you can easily build a personalised sound experience with access to all details in their environment and, at the same time, superior speech understanding.

Users are pro-actively engaged in the fitting process with questions and sound demos that make it easy for them to express what they like to hear without the need to describe their preferences.



## Step 1

Establish your client's listening preferences in the 'Personalisation' menu to take individual preferences into account when prescribing gain and automatics.

**A** Genie 2 features a personalisation process that includes a few simple questions to better capture the variations in sound preferences. In addition to listening preferences, age, gender, hearing aid experience and sometimes language will influence the prescribed gain and automatics.

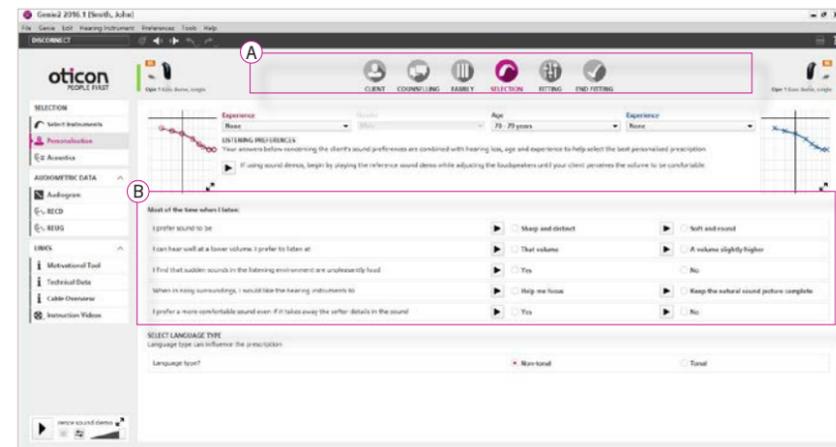
**B** For best results, present the sound sample for each question while clients are wearing their hearing aids, through headphones, or via loud-speakers, depending on each client's hearing loss and your clinical setup.

Once the personalisation has been completed, it will impact the prescription and settings for:

- OpenSound Navigator
- Soft sound perception trimmer
- Brightness trimmer
- Gain prescription

Each can be fine-tuned to more accurately meet client preferences in the Fitting step.

The personalisation screen should be revisited when experience level changes or greater audiometric changes occur.



## Step 2

Go to OpenSound Navigator to adjust further with YouMatic LX.

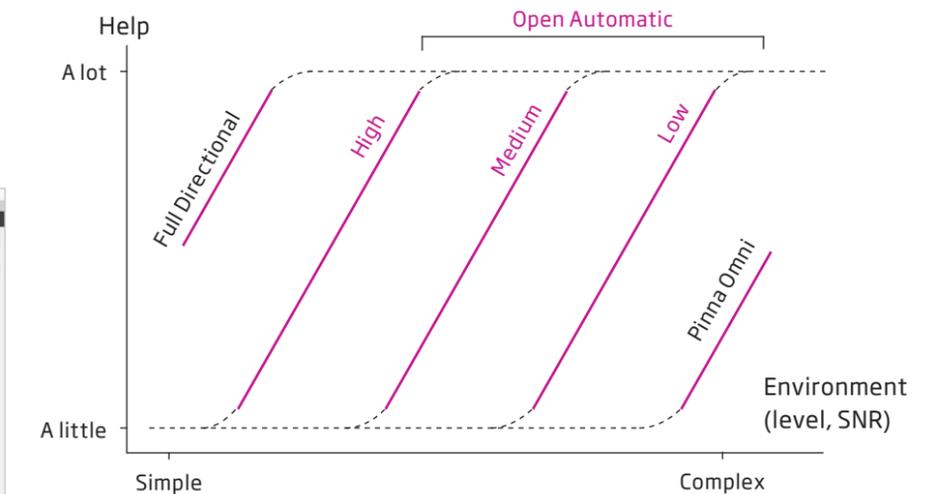
**C** OpenSound - Transition: The control lets you choose how much help is needed in the stage between simple and complex environments. In other words, how early in this transition will your client want the hearing aid to help more? You can choose between a Low, Medium, and High amount of help. As an example, when choosing High, the hearing aid will step in more aggressively to reduce unwanted sounds, even if the environment is not yet complex. OpenSound Navigator transition choices are displayed visually on the Transition bar above the control panel and in the illustration with the head, background sounds are reduced in size as more help is applied.

**D** Noise reduction controls: Adjustments to noise reduction are divided into Noise Reduction Simple and Noise Reduction Complex. Default settings are based on the clients answers to the questions in 'Personalisation/Listening preference' or will default to a Medium profile. Adjustments are made by clicking the +/- buttons. Noise reduction choices are displayed visually in the speech waveforms.

**E** Noise reduction on/off: By default, noise reduction is on because it is an integral part of the open sound experience, but it can easily be deactivated if needed by unchecking the box on the lower left.

**F** Directionality setting: In addition to the three transition settings you have two conventional directionality settings available. See the transition settings overview below.

For instruments with a single microphone, directionality is not available, but the Open Sound Navigator is optimised to support single microphone.



OSN directionality settings. In Pinna Omni, the hearing aid mimics sound as received by the human ear. In Full Directional, the focus is on sounds coming from the front. In Open Automatics, the hearing aid automatically adapts to the acoustical conditions, based on one of the three help profiles, High, Medium, or Low.

### ConnectClip fitting

As with other accessories, ConnectClip is paired with Opn hearing aids manually outside the Genie fitting session.

Once paired, you can adjust the remote microphone mode in the Accessories section under the ConnectClip tab, e.g., the level of the hearing aid microphones in relation to the streamed remote microphone signal.

Note: These settings apply to Remote Microphone mode only. To adjust the phone sound settings, use the Phone tab.

Other adjustments of the streamed signal from ConnectClip can be made on ConnectClip itself or using the Oticon ON app.

### Paediatric fitting mode

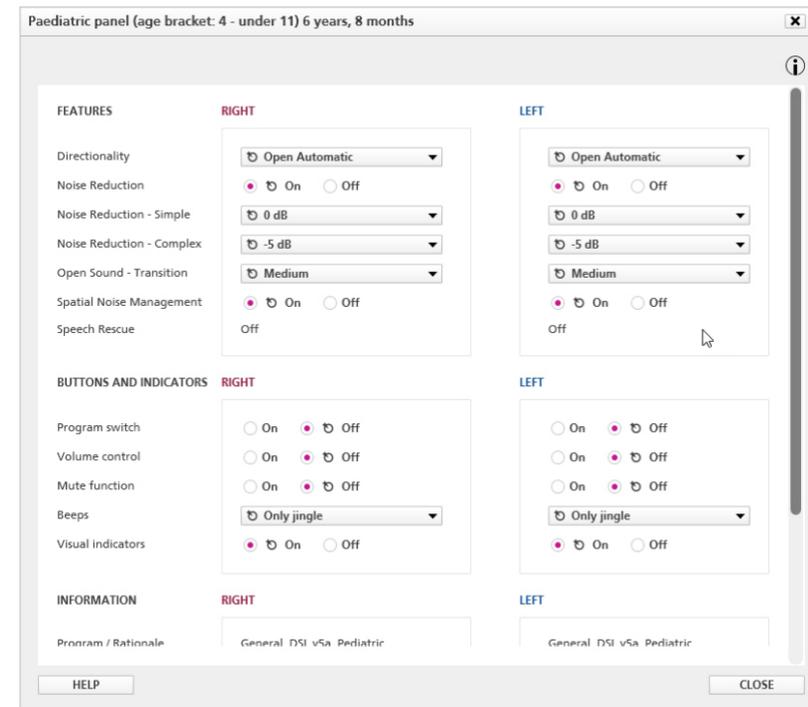
Paediatric fitting mode is now available in Genie 2 to support fitting of Opn instruments for children, ages 0-17 years. It offers easy access to audiogram and RECD tools, and a range of validation tools to support better outcomes for children wearing hearing aids.

As before, paediatric fitting mode provides a centralised way to view the child's hearing aid settings.

With the new Paediatric panel, you not only have an overview of the hearing aid settings, but you can also change them right away.

The Paediatric panel is conveniently located in the Fitting section on the right-hand side of the top navigation bar for easy access as you work.

By default, paediatric fitting mode is enabled for all clients, age 17 and under, but can be changed in the Preferences section.



### Noahlink Wireless

Noahlink Wireless is an industry-standard programming device for Bluetooth Low Energy-enabled hearing aids, like Oticon Opn. It connects to the PC using a USB cable and has a wireless connection to the hearing aids.

Note: Opn custom instruments without Bluetooth Low Energy require a wired connection.

### FittingLINK 3.0

FittingLINK 3.0 employs Bluetooth technology to connect directly to Oticon Opn hearing aids without an intermediate device. FittingLINK 3.0 is backwards compatible with Inium and Inium Sense hearing solutions when used in conjunction with FittingLINK neckloop.



# Sound Studio – create real-life sound scenarios in your clinic

The Sound Studio is a sound library with a large selection of virtual sound scenarios to simulate common listening situations as part of the fitting process. You can also design your own sound scenarios using various signals, such as speech, music, and situations with background noise. The 3D sound system runs on the fitting PC and uses the speaker setup in the clinic.

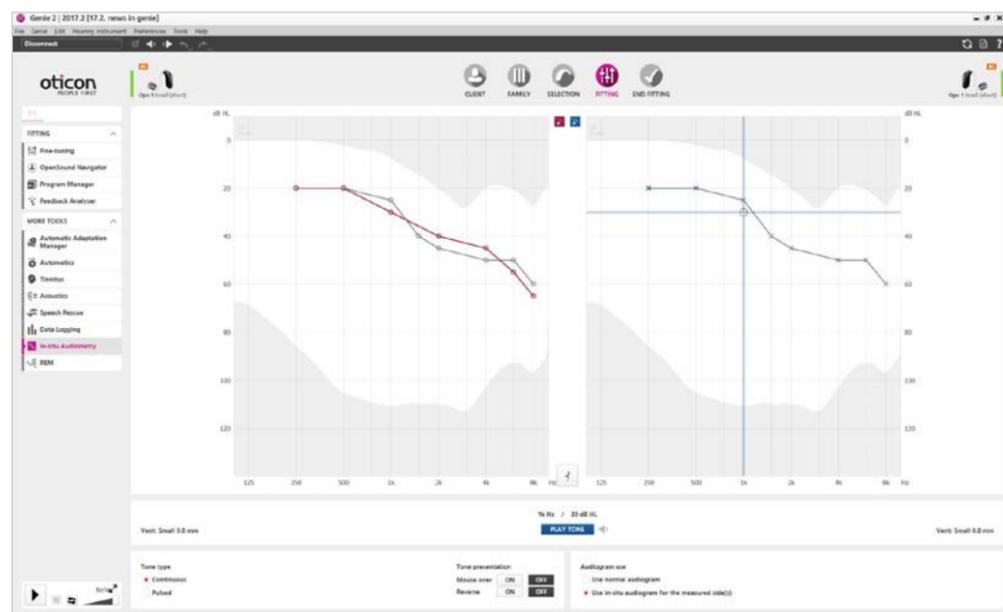
Sound Studio offers tinnitus relief sounds so you can simulate the benefit of Tinnitus SoundSupport in various situations and help clients and their partners better understand aspects of tinnitus treatment using sound therapy.

## In-situ Audiometry

In-situ Audiometry allows you to perform an audiometry-style procedure using the hearing aids themselves. This inherently incorporates information about the clients' ears, and their specific hearing aids, into the fitting.

The new In-situ Audiometry in Genie 2 has been upgraded with the following functionalities:

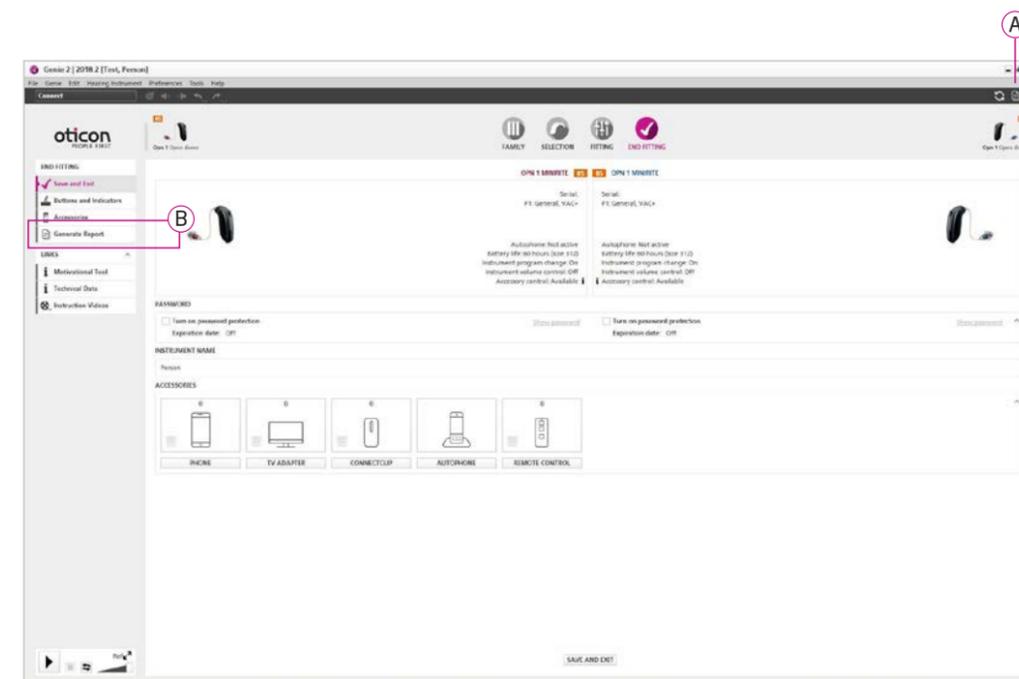
- A new user-friendly layout
- No restriction on measuring low frequencies
- Can be used in age group 3 for paediatric fitting (i.e., the oldest),
- New features, such as mouse-over presentation of sound stimuli for discreet presentation



## Improved print reports – new possibilities

We have improved the print reports to better fulfil your daily needs. Now, you can customise the client report with your name, logo and address, select different language options and send it to your client via email or save as a pdf. There are also more reports to choose from, where relevant:

- Tinnitus quick guide: for clients with Tinnitus SoundSupport™ activated
- How to pair accessories: for quick client overview on how to pair Oticon Opn hearing aids with accessories
- Communication strategies: to help your client understand their hearing challenges and needs



Access the report section in the top right-hand corner (A) or on the left panel in the End Fitting step 'generate report' (B). The icon has changed from a printer to a sheet of paper.



[oticon.global/opn](https://oticon.global/opn)

**oticon**  
PEOPLE FIRST