OTICON | **Opn S**

Product Guide

2019

oticon
PEOPLE FIRST

Welcome to the Oticon Opn S™ product guide

The revolutionary Oticon Opn™ broke with the conventional way of supporting people with hearing loss in noisy environments. With Oticon Opn S, we take the open sound experience and the unique benefits of BrainHearing™ to the next level.

A microphone too close to a speaker creates feedback. Because of this feedback risk, hearing aid users are often unable to attain the prescribed gain in an open fitting.[1] The OpenSound Optimizer™, powered by the completely new Velox S™ platform, is so fast it can detect and prevent feedback proactively, even before it occurs. This new feature enables you to open up your patient's world with up to six additional decibels of gain, in an open fitting – all without the risk of feedback.[2] This means a whole new level of fitting freedom, and the ability to further improve speech understanding, without compromising clarity and sound quality.

With an even better version of the groundbreaking OpenSound Navigator™, Oticon Opn S offers even more possibilities to meet individual user needs. A new Very High setting in Oticon Genie 2 enables more help in everyday situations. Whenever wearers feel they need an extra boost of help, they simply activate the OpenSound Booster, available in the Oticon ON App.

Oticon Opn S takes BrainHearing benefits to new heights to deliver further improvements in speech understanding, reduced listening effort and more capacity to remember conversations. With up to 6 dB more gain, open fittings and the open sound experience, Oticon Opn S users can experience speech understanding in noisy listening environments at the level of people with normal hearing.[3]

Oticon Opn S comes in four styles, all available at three price points. Highlights include the new miniRITE R, which offers a unique combination of the open sound experience, superior connectivity and a state-of-the-art rechargeable lithium-ion solution in an elegant and discreet design. With a super-fast three-hour charging time for a full day of power,[4] the miniRITE R is an attractive addition to the popular and proven miniRITE, miniRITE T and BTE PP styles.

Welcome to the Oticon Opn S product guide!

[1] Callaway 2019, Oticon Whitepaper [2] For prescribed fittings, according to best practice [3] Juul Jensen 2018, Oticon Whitepaper, Oticon Opn S 1
[4] Lithium-ion battery performance varies depending on hearing loss, lifestyle and streaming behavior

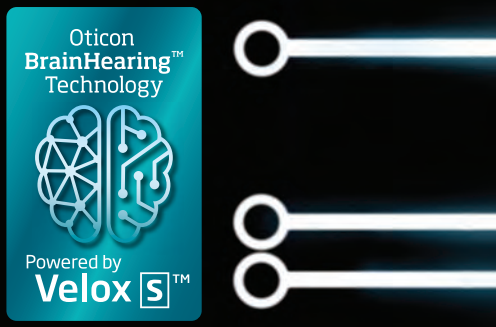
DIGITAL PRODUCT GUIDE
This product guide is also available in a digital version at oticon.com

Contents

The highlights of **Oticon Opn S**

With Oticon Opn, we set a new industry standard – **Oticon Opn S takes it even further:**

- **Velox S – a new level of processing power**. Faster automatics, new highly sensitive detectors, and increased memory make the Velox S platform the most powerful from Oticon ever, enabling us to analyze sound 56,000 additional times per second.
- **The OpenSound Navigator** 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.
- **Empowering users with the new OpenSound Booster** – offering even more help in everyday noisy situations to those who need it most, whenever they need it the most.
- **OpenSound Optimizer – from feedback management to feedback prevention**. With optimal gain, open fittings and no feedback, the OpenSound Optimizer brings users the next level of the open sound experience.
- Powered by the OpenSound Optimizer and the OpenSound Navigator, Oticon Opn S helps improve speech understanding in noise and **closes the gap towards normal hearing.**
- **An extensive range of wireless connectivity possibilities** – including hands-free streaming from all modern smartphones with ConnectClip.
- **The new miniRITE R** – a unique combination of the open sound experience, superior connectivity and a state-of-the-art rechargeable lithium-ion solution in an elegant and discreet design.
- **The Oticon ON App** – designed to empower users with a wide range of features and functionalities that add to the outstanding audiology of Oticon Opn S.



Oticon Opn S at a glance

A high performing family delivering an outstanding range of open sound opportunities for all situations.

Four attractive styles and a wealth of features and accessories.

miniRITE: The smallest member of the family
The miniRITE comes with a smart single push button for easy operation of volume and programs. Offers a variety of features and functionalities including TwinLink™ for 2.4 GHz wireless technology, Made for iPhone® functionality and Tinnitus SoundSupport™.

Page 34

miniRITE T: Sleek and discreet
Features a telecoil and double push button for easy volume and program control. The fully featured solution includes Tinnitus SoundSupport, Speech Rescue™ LX, DSL, and TwinLink for 2.4 GHz wireless technology and Made for iPhone functionality.

Page 38

Rechargeable miniRITE R: A full day's power. Every day.
The new Oticon rechargeable hearing aid style is powered by state-of-the-art lithium-ion battery technology to give your patients the simplicity of rechargeable batteries. It is easy to use, fast to charge, elegant and sits discreetly on the ear.

Page 36

BTE PP: Powerful and compact
With an output of 138 dB SPL, benefits patients with severe-to-profound hearing loss. A tactile double push button lets users easily control volume and programs and the LED indicator monitors hearing aid status. Includes DSL, Speech Rescue LX and TwinLink for 2.4 GHz wireless technology and Made for iPhone functionality.

Page 40

Connectivity: An extensive range of 2.4 GHz wireless accessories
Stream high-quality sound to both ears from a TV, landline phone, modern smartphone, tablet, computer, or any Bluetooth-enabled device. The ON App gives easy control of the hearing aids, like the Remote Control, and access to a range of new connectivity possibilities.

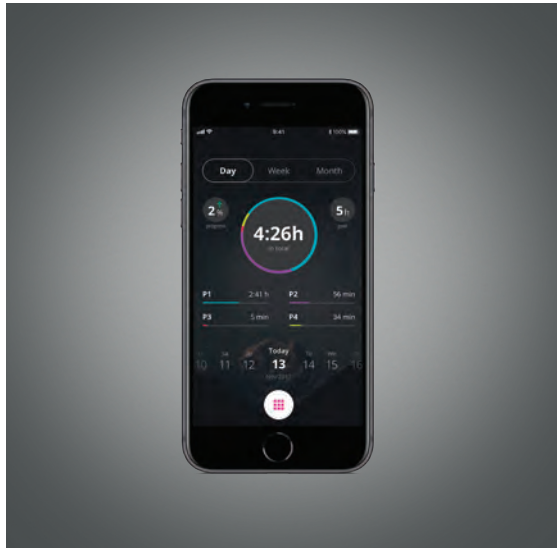
Page 44

Genie 2: A whole new level of fitting freedom
Creates a stable, comfortable listening experience without the restrictions of handling feedback. In more than 80% of fittings, no action is needed related to feedback management. The new OpenSound Optimizer enables optimal gain and open fittings without compromising sound quality or audibility. Same acoustics now allow for more stable gain. Extra gain is automatically used to reach the rationale target when needed for prescribed fittings.

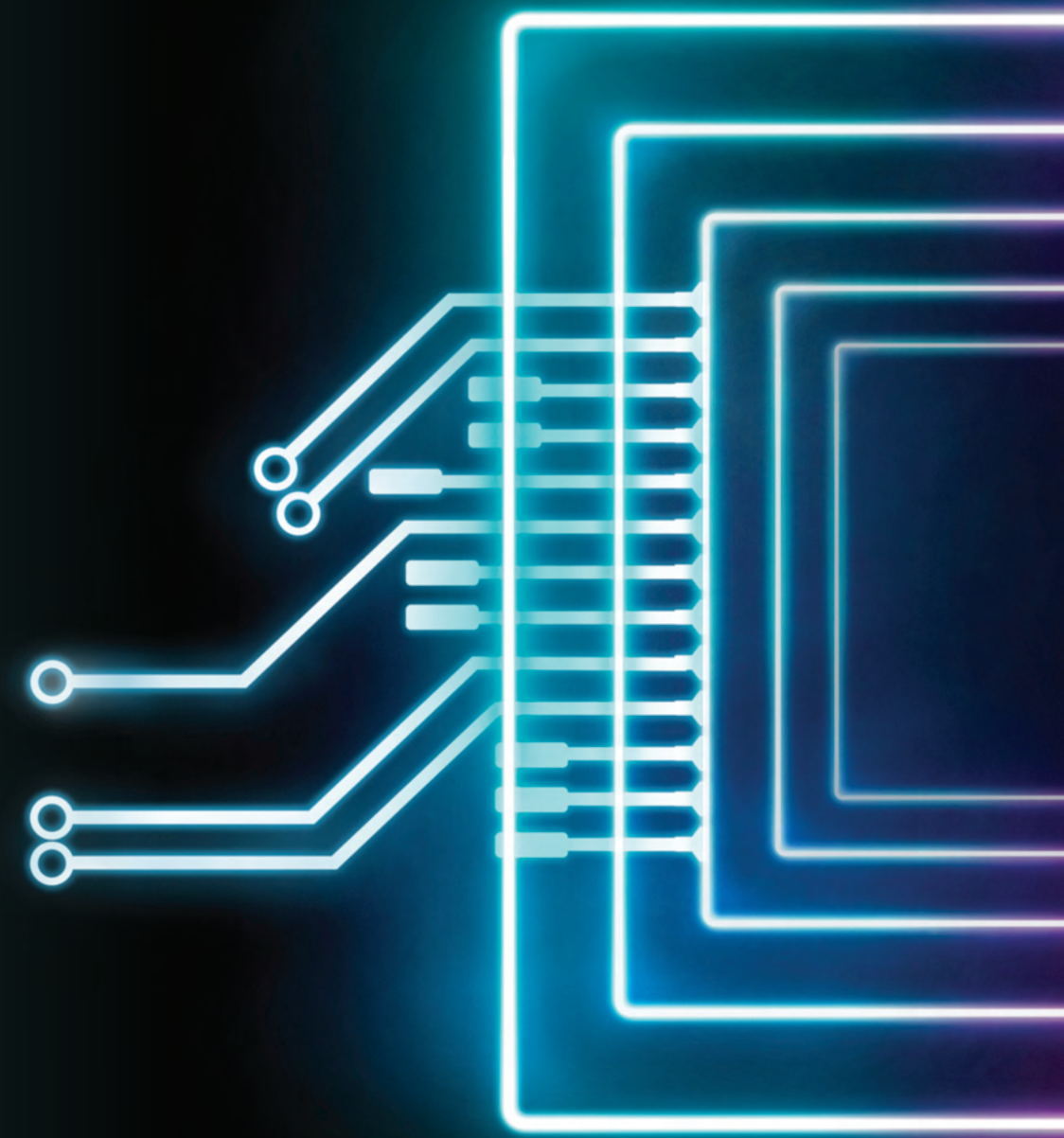
Page 52

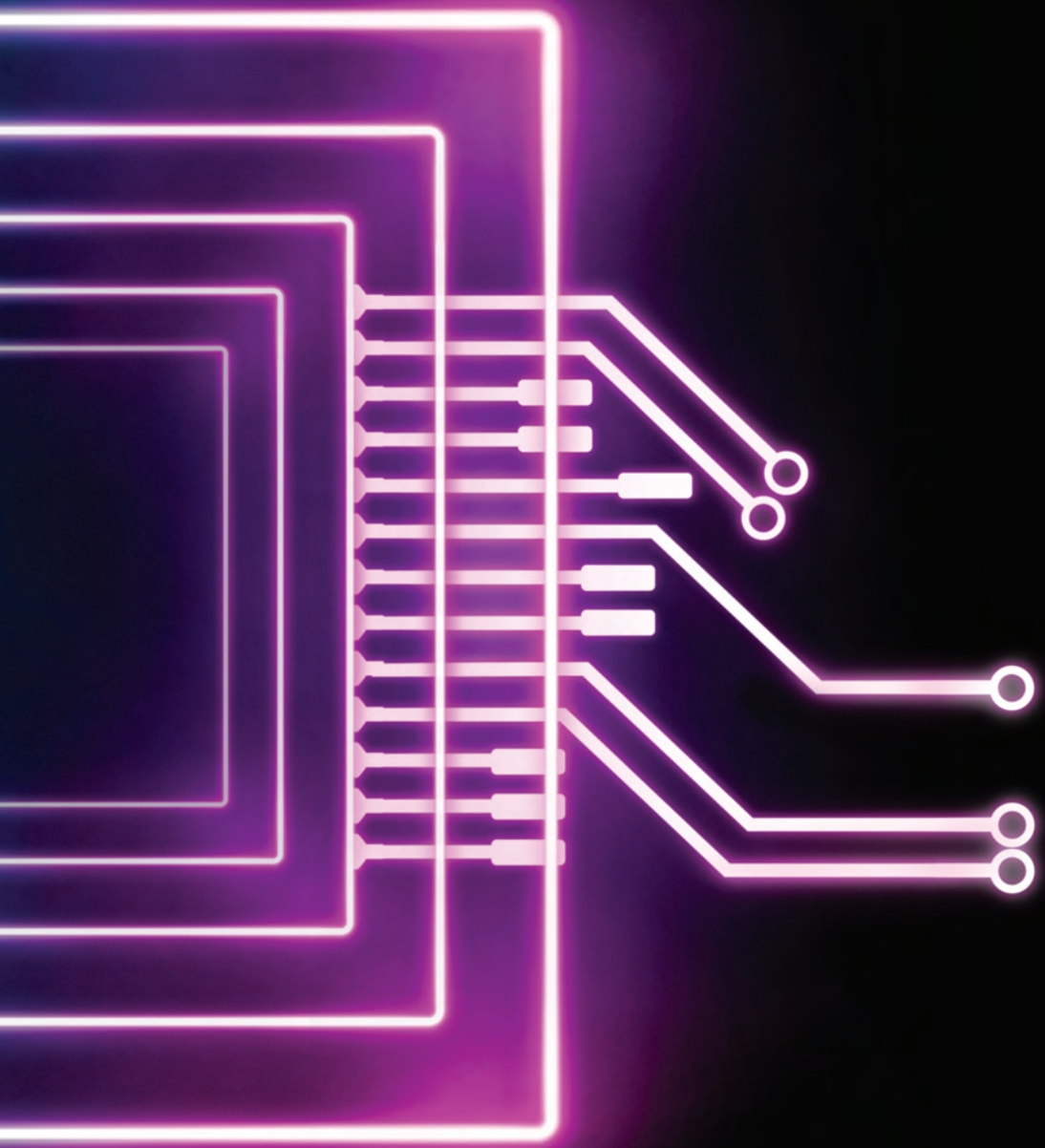
Oticon ON App: Boost hearing and Oticon Opn S
Oticon ON App works as remote control, offers the OpenSound Booster, HearingFitness™, an education guide, low battery notification and streams tinnitus relief sounds. Links to hearing aid instructions, connects to the Internet of Things and much more.

Page 44



Technology & Features





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 Cores
High processing power

64
frequency channels

Analyzing sound environment more than
100 times/second

New acoustic measures
56,000 per second

113 dB SPL
upper limit input range

Introducing the Velox S platform

The best just got better
The Velox S, our fastest, most advanced platform ever, brings unprecedented computation capabilities to create a life-changing difference for users.

Velox S provides extremely fast processing capabilities, with an 11-core processor, 8 cores for sound processing and 3 cores to manage wireless communication. The high-speed Network on Chip (NoC) architecture features finer engraving (65 nM) in 9 layers to deliver impressive performance with the capacity to execute 500 million instructions per second (MIPS) and 1,200 million operations per second (MOPS). When all processes and streaming capabilities are in use, Velox S runs at a maximum of 3.3 mA. With the high-speed platform, a tiny hearing aid powered by a 1.4V battery can deliver 50 times more processing power than the Inium Sense platform.

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 S 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. New detectors monitor changes in the acoustic environment with 56,000 measurements per second, enabling the OpenSound Optimizer.

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

TwinLink

Wireless connectivity and binaural processing in a small, energy-efficient solution
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 NFMI, data and audio information is exchanged 21 times per second between the two hearing aids, 4 times more compared to previous generations without TwinLink.

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

TwinLink
NFMI + 2.4 GHz

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

TELL YOUR PATIENT

With Oticon Opn S you can thrive and take active part in difficult listening situations, just like people with normal hearing.

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 revolutionary Multiple Speaker Access Technology (MSAT) that ensures access to all speakers in a dynamic environment.

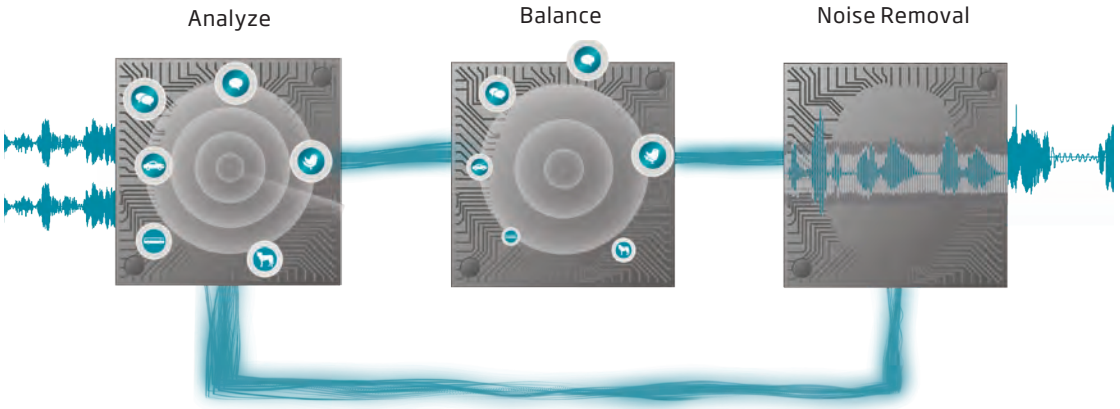
OpenSound Navigator employs an extremely fast three-step process:

- 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 personalized 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.

The OpenSound Booster function in the Oticon ON App, allows users to override the personalized standard program. It can activate the full power of OpenSound Navigator in less complex environments for situations when the user needs more help.



Illustrates OpenSound Navigator in hearing aids with 2 microphones

OpenSound Optimizer

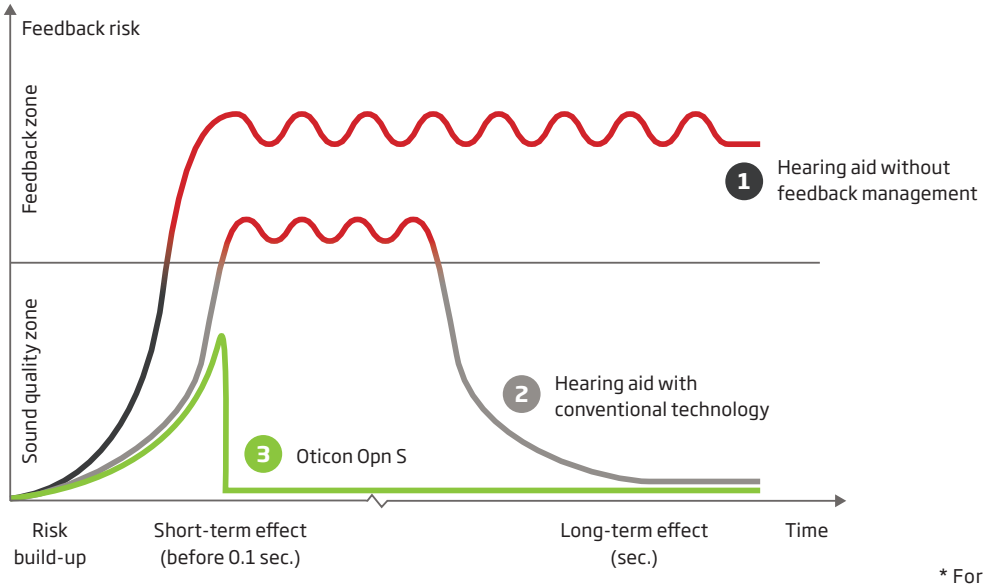
Optimal gain and open fittings, without feedback risk.
The extremely fast OpenSound Optimizer allows Oticon Opn S to break the feedback loop by detecting and preventing feedback proactively, even before it occurs. This enables you to give your patients up to 6 additional decibels of gain and more open fittings than in the past – all without the risk of feedback.*

OpenSound Optimizer represents a breakthrough in accessing speech details with more natural sound, increased comfort and improved speech understanding – even in the most challenging listening environments.

OpenSound Optimizer protects the sound quality by using ultra-fast signal processing:

- Predicts acoustic response by performing additional 56,000 measurements per second in 28 independent bands.
- Counters detected acoustic changes immediately using targeted breaker signals in one or more frequency bands.
- Stops breaker signal as soon as the acoustic response is stable again (or as soon as acoustic response is stabilized).

OpenSound Optimizer works with Feedback shield LX to avoid false detections, see section on Feedback shield LX for details.



* For prescribed fittings, according to best practice

TELL YOUR PATIENT
The new super-fast technology in Oticon Opn S ensures you can enjoy a clear, stable sound without worrying about howling and whistling.

DID YOU KNOW?
Traditional feedback management technology relies on feedback to build up to an audible level before it reacts to reduce the gain and stabilize the system.

OpenSound Optimizer applies preventive signal processing to eliminate the risk before it builds up to audible feedback.

Spatial Sound™ LX

TELL YOUR PATIENT
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 (not muddled together) to 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.

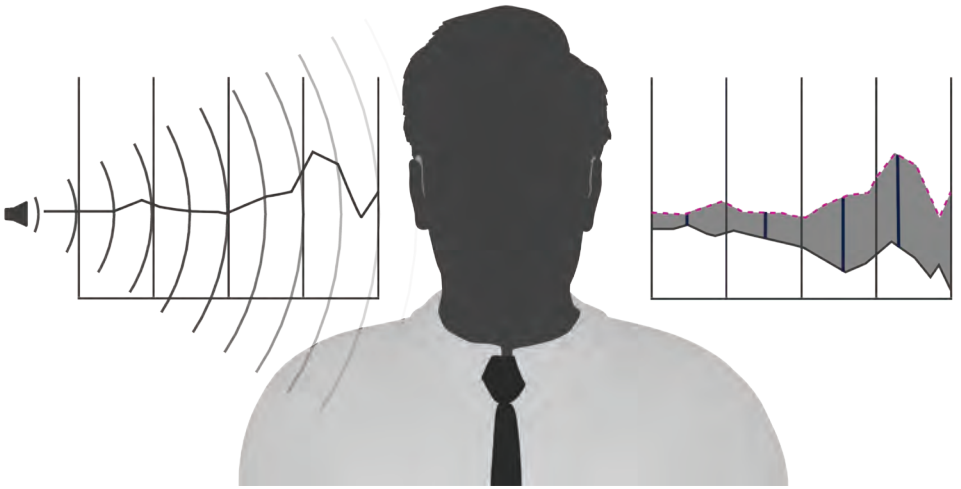
Locate, follow and shift focus to the speakers you want to hear
Spatial Sound LX combines a number of advanced technologies to provide a more precise spatial awareness to help users identify where sound is coming from.

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 emphasizes sounds on the better ear in asymmetrical noise situations.

Head shadow effect



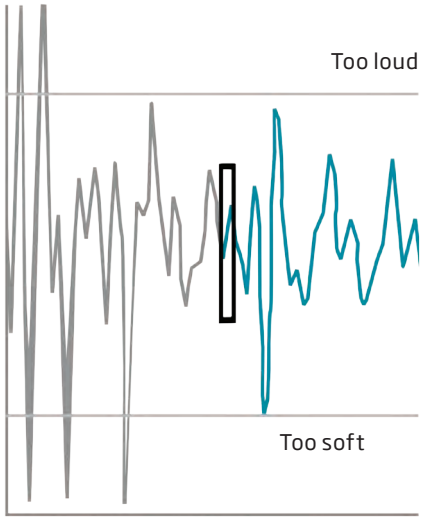
Speech Guard™ LX

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 12 dB 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 PATIENT
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.

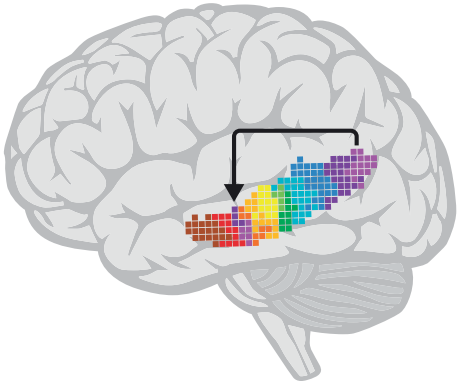
Speech Rescue LX

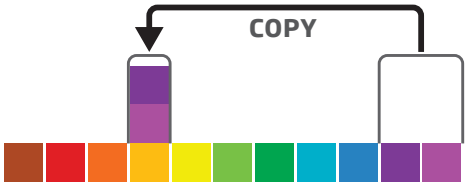
TELL YOUR PATIENT
Increases speech understanding by letting you hear more speech sounds like /s/ and /sh/.

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.





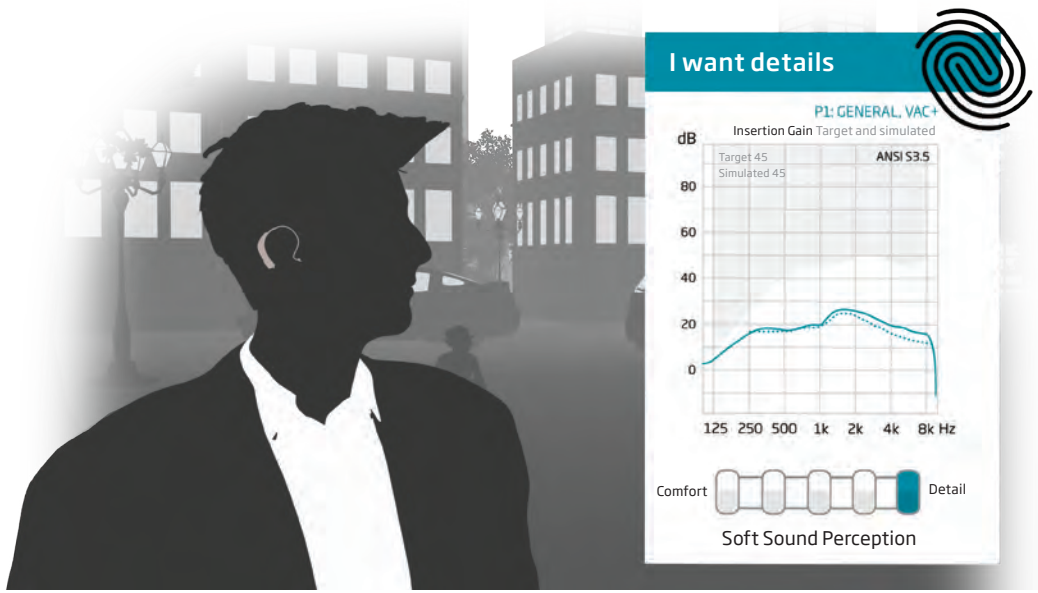
DID YOU KNOW?
Speech Rescue LX uses a multilayered lowering technique. The inaudible HF source sounds are copied and placed on the border of the patient's usable hearing. The destination is never below 1600 Hz, as a primary goal of Speech Rescue is to protect the information carried by low frequencies 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 personalized 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 PATIENT
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.

Clear Dynamics

TELL YOUR PATIENT

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

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 artifacts 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.

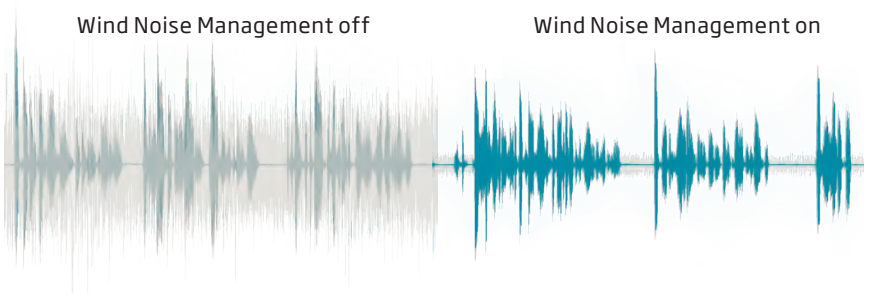
Wind Noise Management

Better access to speech in situations with wind noise

With the powerful Velox S platform, Wind Noise Management offers innovative and highly efficient wind noise suppression. High speed estimators analyze 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 PATIENT

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.

Feedback shield LX

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

DID YOU KNOW?
Feedback management consists of two functions: to ensure a stable instrument at any given time and to handle dynamic changes.

In Oticon Opn S, Feedback shield LX and OpenSound Optimizer work together to cover both functions.

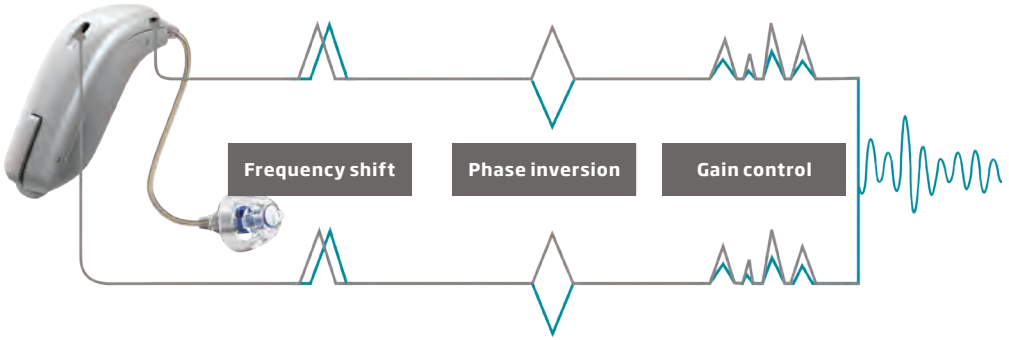
Dual-microphone feedback system for reducing and suppressing feedback

The Oticon Opn S platform enables Feedback shield LX to support OpenSound Optimizer's ultra-fast reaction and preventive abilities to take feedback management to the next level. Working together, the two technologies combine the strengths of rapid, pro-active feedback elimination with a stable adaptive system to avoid false detections and activation of Feedback shield LX.

The well-known Feedback shield LX operates in two separate paths – one for each microphone. In each path, three distinct technologies work together to suppress feedback and ensure stable amplification. Frequency shift optimizes phase inversion, and gain control may be applied if needed. Thanks to the OpenSound Optimizer, the gain control is now used far less.

With the new system, OpenSound Optimizer's new ultra-fast detection engages pro-active modulation to instantly stabilize the system when a feedback risk emerges. If the risk is only momentary, OpenSound Optimizer disengages the modulation when the risk has passed. If the feedback risk persists, the modulation ensures that the Feedback shield LX system can adapt and stabilize. As Feedback shield LX engages, OpenSound Optimizer's modulation is tapered off gradually.

Combining Feedback shield LX and OpenSound Optimizer in Oticon Opn S allows you to add more gain to reach target. This gives you greater flexibility in the fitting process.



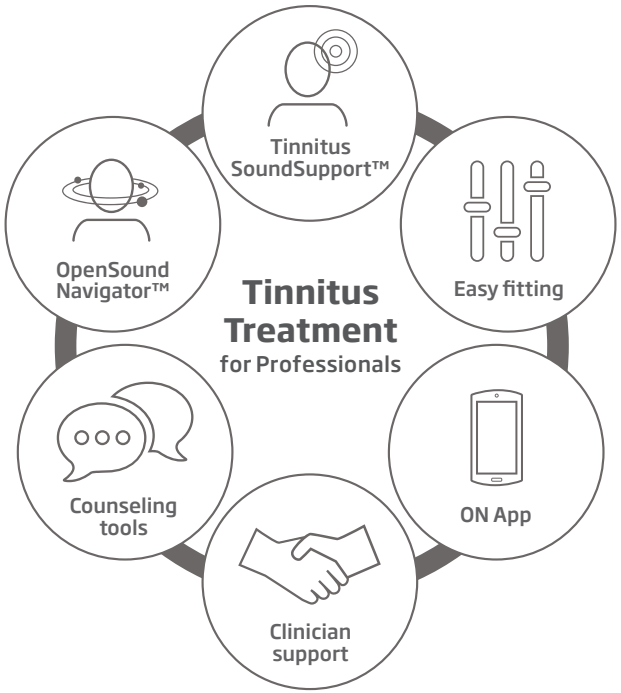
Tinnitus SoundSupport™

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

You can enable Tinnitus SoundSupport in all Oticon Opn S 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 patients 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 patients a fully personalized treatment. You can apply four modulation options to any of the broadband sounds to create more possibilities for relief sounds that meet patients' individual needs and preferences.

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



TELL YOUR PATIENT

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 patient counseling and education. Oticon offers a comprehensive toolbox as part of our tinnitus treatment solution to help you guide your patients through their journey towards tinnitus relief.

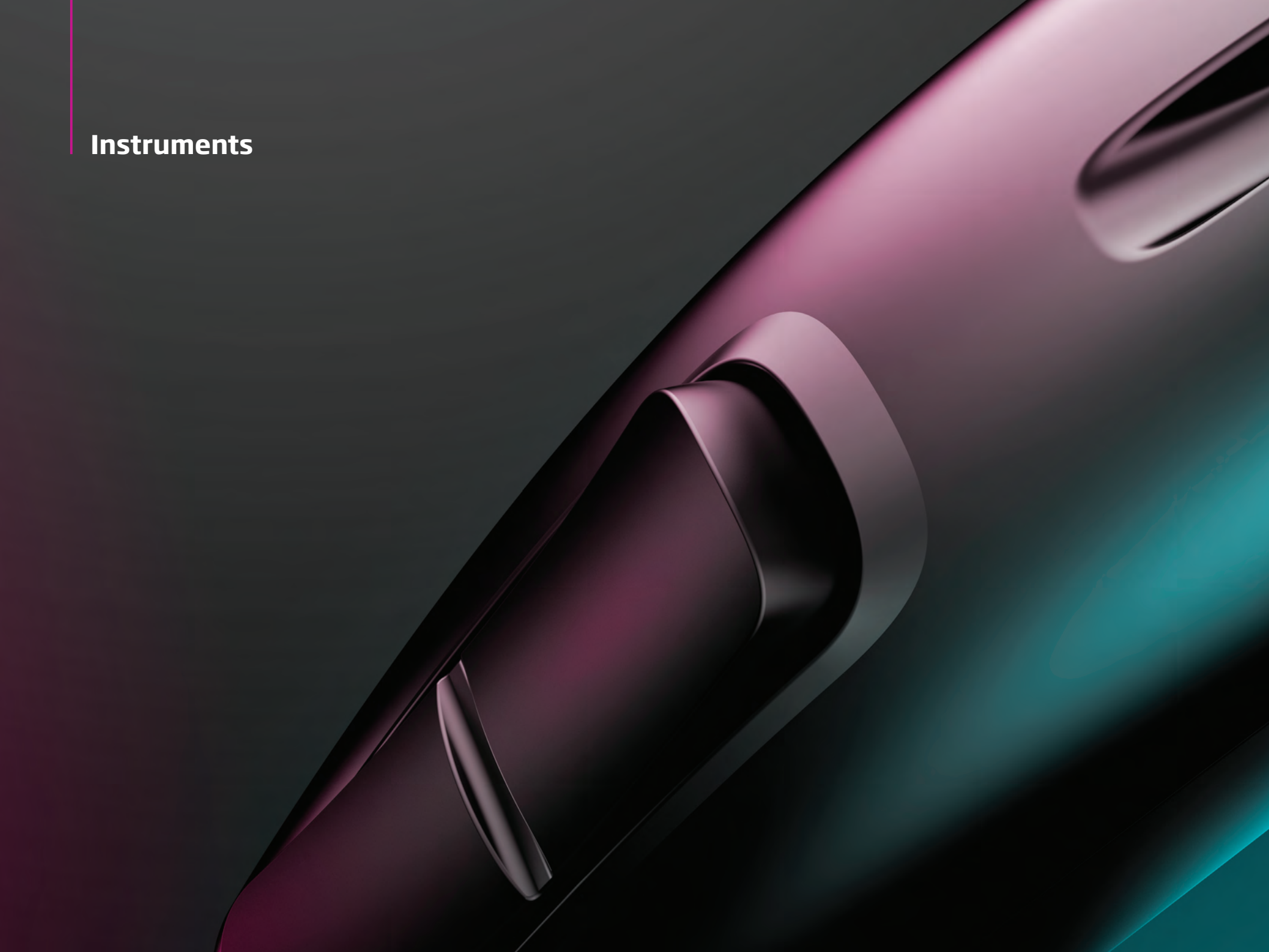
Feature overview

Acoustic Notifications	Provides notifications and warnings to assist and support confidence in daily use, e.g., start-up jingle, low battery warnings, etc.	
Automatic Adaptation Manager	Adapts in 3 steps for gradual user acclimatization to a new hearing aid	
App & Remote Control	Discreetly adjusts volume, switches between programs or controls connectivity sources with Remote Control or the Oticon ON App	Page 44 Page 48
Bass Boost	Controls compensation for bass leakage in open fittings when streaming audio	
Binaural Coordination	Coordinates program and volume settings between the two hearing aids	
Binaural Processing	Continuous data exchange between two hearing aids about the sound level in each ear to maintain the difference in input between the ears	
Clear Dynamics	Expands the dynamic input range, processing sounds up to 113 dB SPL, to preserve sound quality even at loud input levels	Page 18
Data Logging	Logs volume control usage, program usage and total use time	
Feedback Analyzer	Analyzes the risk of feedback with the prescribed gain and chosen acoustics in Genie 2	
Feedback shield LX	Employs a proven and effective feedback management system to reduce the risk of feedback and suppress feedback if it occurs	Page 20
Fitting Bands	16 fitting bands for a precise fit and more fine-tuning options for patient fittings	
Fitting Formulas	Include VAC+, NAL-NL1, NAL-NL2 , and DSL v5.0	
Phone & Listening Programs	Supports listening in difficult situations when the patient may want extra support e.g., in a phone conversation or when using a loop system	
Made for iPhone	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
Multiple Directionality Options	Enables conventional directionality settings in addition to OpenSound Navigator transition settings	
NFMI	Near-Field Magnetic Induction – Improves speed of communication and bandwidth between two hearing aids with very low power consumption	Page 11

Note: The feature overview relates to Oticon Opn S 1.

OpenSound Navigator	Provides listening support by continuously analyzing 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
OpenSound Optimizer	Improves listening performance and comfort with ultra-fast proactive feedback detection and prevention. Enables optimal gain and open fittings without compromising sound quality or audibility.	Page 13
Oticon Firmware Updater	Enables you to update Velox S-based hearing aids and connectivity solutions, adding new and improved features with just one click	Page 52
Processing Channels	Data is analyzed and processed in 64 channels, more than 100 times per second	Page 10
REM AutoFit	Enables you to personalize fittings to individual ear acoustics	
Soft Speech Booster LX	Applies an individual amount of soft gain to increase soft speech understanding	Page 17
Spatial Noise Management	Optimizes listening in asymmetrical, noisy situations	
Sound Studio	Offers a large selection of soundscapes to simulate different listening environments in the process of providing a better first fit	Page 58
Spatial Sound LX	Uses binaural compression to provide precise spatial awareness that helps users identify where sounds are coming from	Page 14
Speech Guard LX	Preserves the dynamics of speech by combining the benefits of linear and non-linear compression	Page 15
Speech Rescue LX	Makes high frequency speech sounds like /s/ and /sh/ more audible using frequency composition	Page 16
Stereo Streaming	Streams audio input in stereo	Page 44
Tinnitus SoundSupport	Provides a variety of relief sounds, including soothing ocean sounds, to meet the individual needs of people with tinnitus	Page 21
Transient Noise Management	Protects against sudden loud sounds with fast recovery to preserve audibility. Offers four different levels for fine tuning, including 'off'.	
TwinLink	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
Wind Noise Management	Protects against the discomfort of wind noise	Page 19
YouMatic LX	Accommodates personal listening preferences and sound perceptions in the prescription of gain and automatics	

Instruments



The audiological difference between Oticon Opn S 1, Opn S 2 and Opn S 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 S 1, Opn S 2 and Opn S 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 S 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 S 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 S 1, Opn S 2 and Opn S 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 S 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 S 1 provides the maximum support across different listening environments, patient age and lifestyle.

Oticon Opn S product comparison

	Oticon Opn S 1	Oticon Opn S 2	Oticon Opn S 3
Speech Understanding			
OpenSound Navigator™	Level 1	Level 2	Level 3
Balancing power effect	100%	50%	50%
Max. noise removal	9 dB	5 dB	3 dB
OpenSound Optimizer™	•	•	•
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	•	•	•
Sound Quality			
Clear Dynamics	•	•	-
Spatial Noise Management	•	•	-
Fitting Bandwidth	10 kHz	8 kHz	8 kHz
Processing Channels	64	48	48
Bass Boost (streaming)	•	•	•
Listening Comfort			
Transient Noise Management	4 configurations	On/Off	On/Off
Feedback shield LX	•	•	•
Wind Noise Management	•	•	•
Personalization and Optimization			
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
Connecting to the World			
Stereo streaming (2.4 GHz)	•	•	•
Made for iPhone	•	•	•
Oticon ON App	•	•	•
ConnectClip	•	•	•
Remote Control 3.0	•	•	•
TV Adapter 3.0	•	•	•
Phone Adapter 3.0	•	•	•
Special Needs			
Tinnitus SoundSupport™	•	•	•

“ TELL YOUR PATIENT

Only Oticon Opn S 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 patients age and lifestyle, Oticon always recommends Opn S 1 for maximum support across different listening environments, simple as well as complex.

How the difference influences Oticon Opn S'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 S 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, localization of sounds, speech clarity, and the personalization 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
Oticon Opn S 1	**Level 1**	Yes	• • •
Oticon Opn S 2	**Level 2**	Yes	• •
Oticon Opn S 3	**Level 3**	Yes	•

Supporting features:

- OpenSound Navigator
- OpenSound Optimizer
- Spatial Sound LX

- OpenSound Navigator
- Frequency bands

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

Localization of sounds	Speech clarity	A personalized listening experience
• • •	• • •	• • •
• •	• •	• •
•	•	•

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

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

- Fitting bands
- YouMatic LX
- Soft Speech Booster LX

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

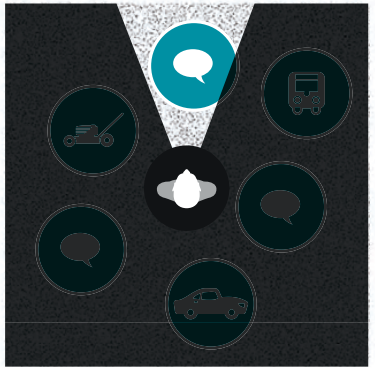
4. Speech clarity
To ensure maximal speech understanding with less effort, and a richer listening experience, all speech sources in any location are enhanced and clarified.

5. A personalized listening experience
The performance of Oticon Opn S is optimized by making adjustments based on individual needs and personal preferences.

By supporting the brain, Oticon Opn S 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



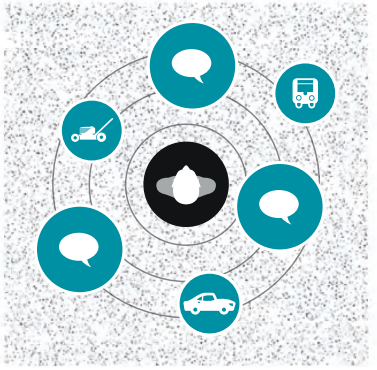
Traditional directionality – focusing on one speaker, while suppressing all other sounds.

MSAT in:

Oticon Opn S 1

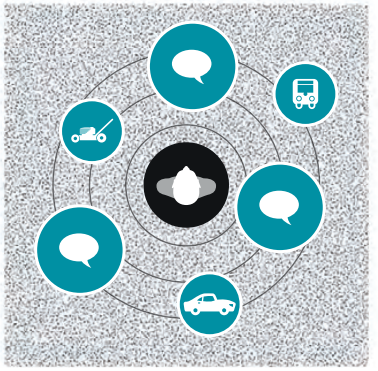
The easiest listening experience with maximum reduction of background noise and rapid reduction of loud noise coming from specific directions while preserving speech.

Oticon Opn S 2

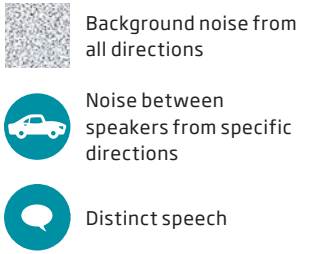


An easier listening experience with moderate reduction of background noise, and reduction of loud noise coming from specific directions while preserving speech.

Oticon Opn S 3



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



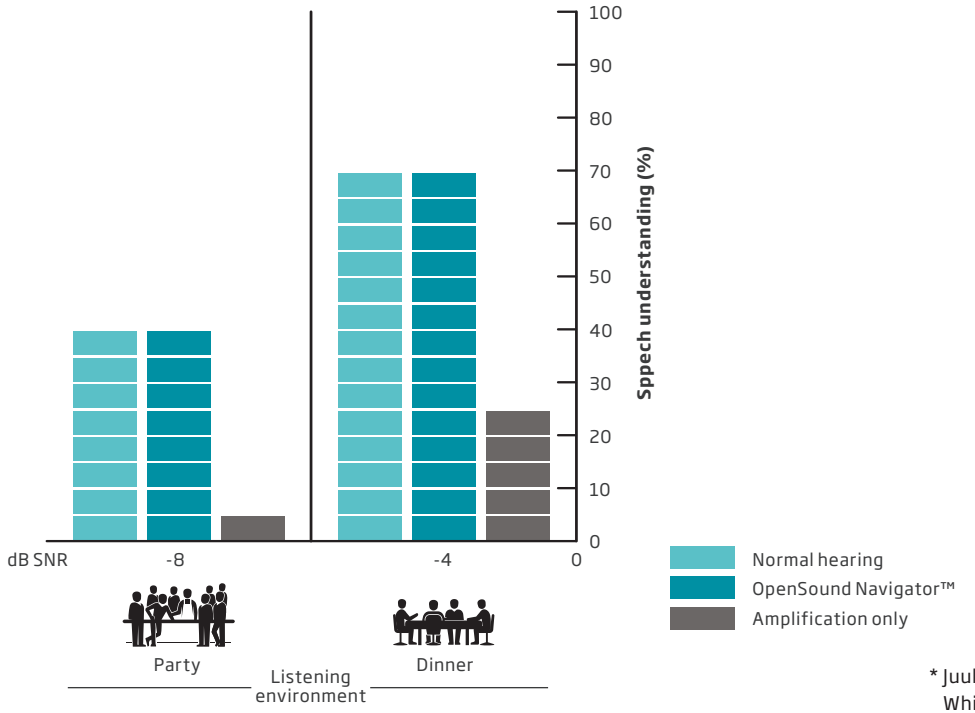
* Wendt et al. 2017

… and closes another 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.

Conclusive evidence has already proven that OpenSound Navigator makes listening significantly easier for people with hearing loss across a wide range of everyday situations. In fact, it closes a gap to normal hearing, empowering people with hearing loss to participate actively in the same environments as people with normal hearing.

Powered by the OpenSound Optimizer and the OpenSound Navigator, Oticon Opn S takes speech understanding to the next level, closing yet another gap to normal hearing.* With up to 6 dB more gain, open fittings and the open sound experience, Oticon Opn S users can experience speech understanding in these difficult listening environments at the level of people with normal hearing, such as restaurants and similar environments, that they previously found too demanding.



* Juul Jensen 2018, Oticon Whitepaper, Oticon Opn S 1

Oticon Opn S takes BrainHearing benefits to new heights

The introduction of Oticon Opn and the open sound experience enabled BrainHearing technology to outperform traditional hearing aid technology when it came to understanding multiple speakers in noisy environments and at the same time, significantly reduce listening effort.

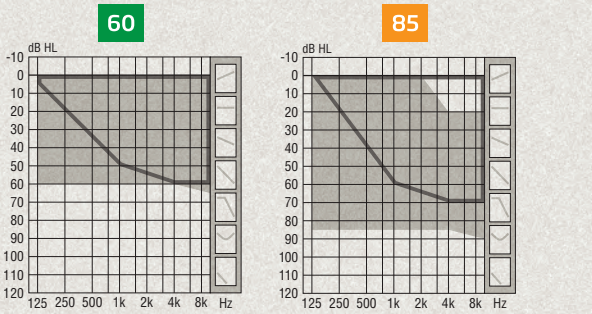
Oticon Opn made listening easier on the brain, delivering BrainHearing benefits of: 30% better speech understanding, 20% less listening effort and 20% more capacity to remember.

Now, Oticon Opn S takes the BrainHearing benefits to new heights by delivering an additional 15% better speech understanding, 10% less listening effort and 10% greater ability to remember.*

* Juul Jensen 2019, Oticon Whitepaper, Oticon Opn S 1

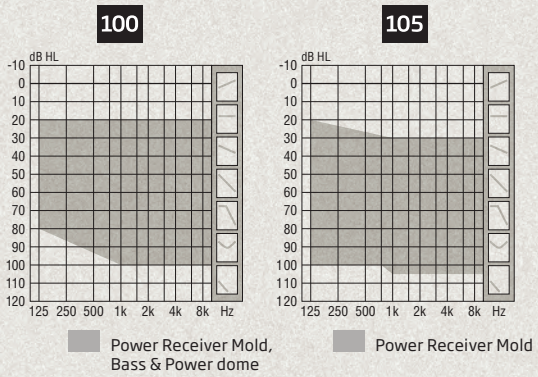

Oticon Opn
outperforms traditional technology
Oticon Opn
+30%
+20%
+20%
Documented improvement
Traditional directionality based technology
Improved speech understanding
Reduced listening effort
Increased memory recall
Oticon Opn S
outperforms Oticon Opn
Oticon Opn S
+15%
+10%
+10%
Documented improvement
Oticon Opn
Improved speech understanding
Reduced listening effort
Increased memory recall

Oticon Opn S 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 S 1. Details for Oticon Opn S 2 & Oticon Opn S 3 are available in Technical Data Sheets.

Small, discreet miniRITE

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

Oticon Opn S miniRITE offers patients a discreet hearing aid with a wealth of features and functionalities including 2.4 GHz wireless technology, Made for iPhone functionality, and Tinnitus SoundSupport.

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

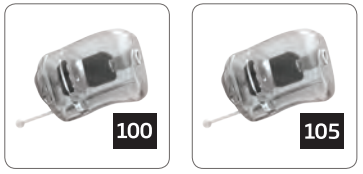
miniFit receivers

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
- ProWax miniFit filter
- Measuring tool

Power Receiver Mold

Select between two Power Receiver Molds. Power Receiver Molds have separate wires, available in length 1-5.



Power Receiver mold

Accessories for Power Receiver Mold:
- ProWax filter
- Measuring tool
- Power Receiver Mold required for 105 receiver

Standard earpieces

miniFit domes	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:
- Made of silicone
- 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.


No vent


Vent

Grip Tip:
- Color: clear
- More durable than domes
- Tacky texture to help prevent slippage

Customized earpieces[1]

MicroMold[2]		60 85
LiteTip		60 85
Power Receiver Mold		100 105
MicroMold, VarioTherm®		60 85
LiteTip, VarioTherm®		60 85

MicroMold and LiteTip:
- Made of acrylic
- ProWax filter

VarioTherm®:
- 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 mold with a hair dryer before insertion or removal of the receiver.

1) Requires taking an ear impression. 2) Uses ProWax filter.
® VarioTherm is a registered trademark of Dreve

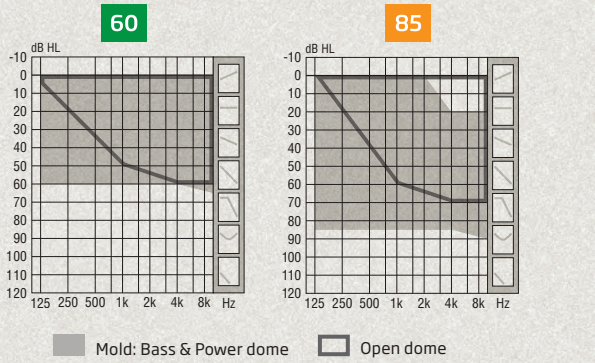
C090 Chroma Beige | **C094** Terracotta | **C093** Chestnut Brown

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

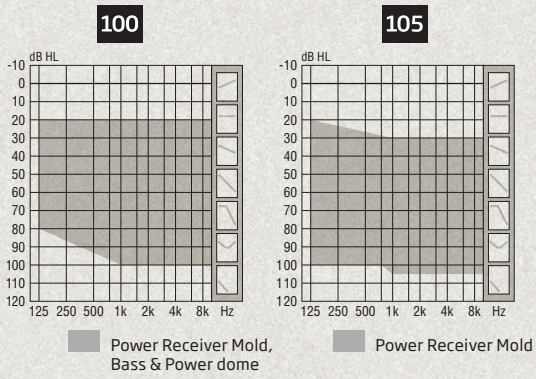
Battery size	312
Battery life (h)*	60-65
Wireless	•
Directional	•
Program control	•
Volume control	•
Made for iPhone	•
TV Adapter 3.0	•
Remote Control 3.0	•
Wireless fitting	Noahlink Wireless/ FittingLINK 3.0
Cable fitting	FlexConnect and Cable #3
Hardware certification	IP68

* 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 S 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 S 1. Details for Oticon Opn S 2 & Oticon Opn S 3 are available in Technical Data Sheets.

Easy, discreet miniRITE R

Oticon Opn S miniRITE R is a discreet rechargeable style with a lithium-ion battery and easy-to-use charger. The wireless charging is based on inductive technology and enables reliable and fast charging in just 3 hours for a full day of hearing, including streaming.* A quick recharge of 30 minutes gives an additional six hours of power. If a replacement is needed, the lithium-ion battery is easy to replace in the clinic. No need to send in for service.

With miniRITE R, patients with hearing loss up to 105 dB HL can choose a rechargeable hearing aid with a full set of features and functionalities, including 2.4 GHz wireless technology, Made for iPhone functionality, and Tinnitus SoundSupport.

Oticon Opn S miniRITE R features a telecoil and a convenient double push button for easy operation of volume and programs.

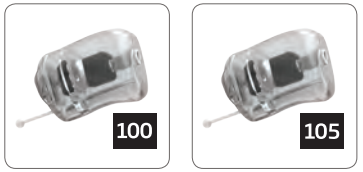
miniFit receivers

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
- ProWax miniFit filter
- Measuring tool

Power Receiver Mold

Select between two Power Receiver Molds. Power Receiver Molds have separate wires, available in length 1-5.



Accessories for Power Receiver Mold:
- ProWax filter
- Measuring tool
- Power Receiver Mold required for 105 receiver

* Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.

Standard earpieces

miniFit domes	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:
- Made of silicone
- 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.


No vent


Vent

Grip Tip:
- Color: clear
- More durable than domes
- Tacky texture to help prevent slippage

Customized earpieces[1]

MicroMold[2]		60 85
LiteTip		60 85
Power Receiver Mold		100 105
MicroMold, VarioTherm®		60 85
LiteTip, VarioTherm®		60 85

MicroMold and LiteTip:
- Made of acrylic
- ProWax filter

VarioTherm®:
- 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 mold with a hair dryer before insertion or removal of the receiver.

1) Requires taking an ear impression. 2) Uses ProWax filter.
® VarioTherm is a registered trademark of Dreve

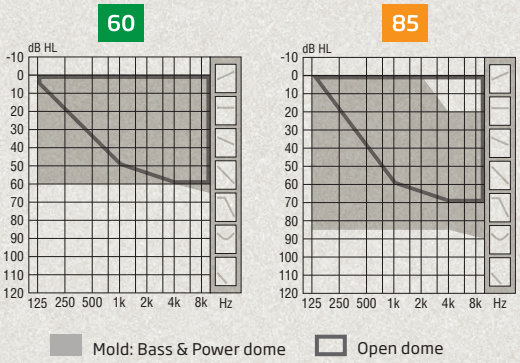
C090 Chroma Beige
C094 Terracotta
C093 Chestnut Brown

C063 Diamond Black
C092 Steel Grey
C091 Silver Grey
C044 Silver

Battery	Lithium-ion
Expected operating time (h)*	24
Rechargeable	•
Wireless	•
Directional	•
Program control	•
Volume control	•
Made for iPhone	•
TV Adapter 3.0	•
Remote Control 3.0	•
Wireless fitting	Noahlink Wireless/ FittingLINK 3.0
Cable fitting	FlexConnect and Cable #3
Hardware certification	IP68

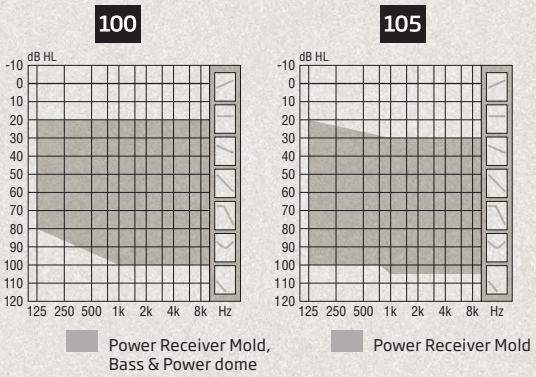
* Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.

Oticon Opn S 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 S 1. Details for Oticon Opn S 2 & Oticon Opn S 3 are available in Technical Data Sheets.

Sleek and discreet miniRITE T

Oticon Opn S 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, patients with hearing loss up to 105 dB HL can choose a discreet hearing aid with a full set of features and functionalities, 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.

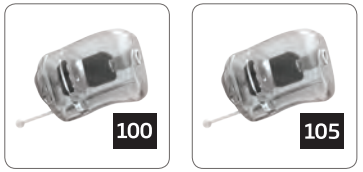
miniFit receivers

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
- ProWax miniFit filter
- Measuring tool

Power Receiver Mold

Select between two Power Receiver Molds. Power Receiver Molds have separate wires, available in length 1-5.



Accessories for Power Receiver Mold:
- ProWax filter
- Measuring tool
- Power Receiver Mold required for 105 receiver

Standard earpieces

miniFit domes	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:
- Made of silicone
- 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.


No vent


Vent

Grip Tip:
- Color: clear
- More durable than domes
- Tacky texture to help prevent slippage

Customized earpieces[1]

MicroMold[2] 	60 85
LiteTip 	60 85
Power Receiver Mold 	100 105
MicroMold, VarioTherm® 	60 85
LiteTip, VarioTherm® 	60 85

MicroMold and LiteTip:
- Made of acrylic
- ProWax filter

VarioTherm®:
- 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 mold with a hair dryer before insertion or removal of the receiver.

1) Requires taking an ear impression. 2) Uses ProWax filter.
® VarioTherm is a registered trademark of Dreve

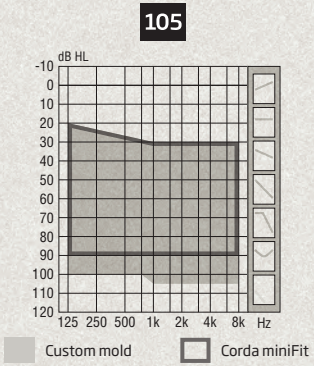
C090 Chroma Beige
C094 Terracotta
C093 Chestnut Brown

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	•
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 S 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

* Fitting range is based on Oticon Opn S 1. Details for Oticon Opn S 2 & Oticon Opn S 3 are available in Technical Data Sheets.

Powerful and compact BTE PP

Oticon Opn S BTE PP features a compact design with a tactile double push button for easy operation of volume and programs. BTE PP comes with telecoil and an optional discreet, two-color 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 features and functionalities, including 2.4 GHz wireless technology, Made for iPhone functionality, FM compatibility and Tinnitus SoundSupport.

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

Hook and Corda miniFit options

BTE 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 colors.

Tamper resistant (TAR) battery drawer

Adapter battery drawer with optional TAR function

Dedicated FM receiver Oticon Amigo R12G2

Universal FM adapter FM 10

Direct Audio Input adapter AP 1000

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:
- Made of silicone
- 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.


No vent


Vent

Grip Tip:
- Color: clear
- More durable than domes
- Tacky texture to help prevent slippage

Customized earpieces

MicroMold 	
MicroMold, VarioTherm® 	

Please note:
VarioTherm® requires gentle warming of the mold with a hair dryer before insertion or removal of the thin tube.

MicroMold:
- Made of acrylic
- ProWax filter

VarioTherm®:
- 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.

1) 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	•
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.

Connectivity & Accessories

TELL YOUR PATIENT

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

TELL YOUR PATIENT

Connects your iPhone or Android™ smartphone directly to your hearing aids so you can control volume, switch programs, adjust settings and more with just a tap of your fingers.

Made for iPhone

Oticon Opn S 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 S 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.

Made for iPod iPhone iPad

Oticon ON App

The Oticon ON App makes it easy for Oticon Opn S 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, HearingFitness, a patient information and education guide, links to hearing aid instructions and low battery notification.

With the OpenSound Booster function in the On App, the user has access to more noise reduction and balancing support from the OpenSound Navigator when needed in less complex sound environments.

Download on the App Store

GET IT ON Google Play

Oticon HearingFitness™

Like an excercise app for the ears, Oticon HearingFitness gives Opn S 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 analyzes 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.*

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

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

Internet Connectivity

Through a unique Oticon cloud solution, Oticon Opn S 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 S.

Explore the endless possibilities available when connecting Oticon Opn S to the Internet.

Visit oticon.com

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

TELL YOUR PATIENT

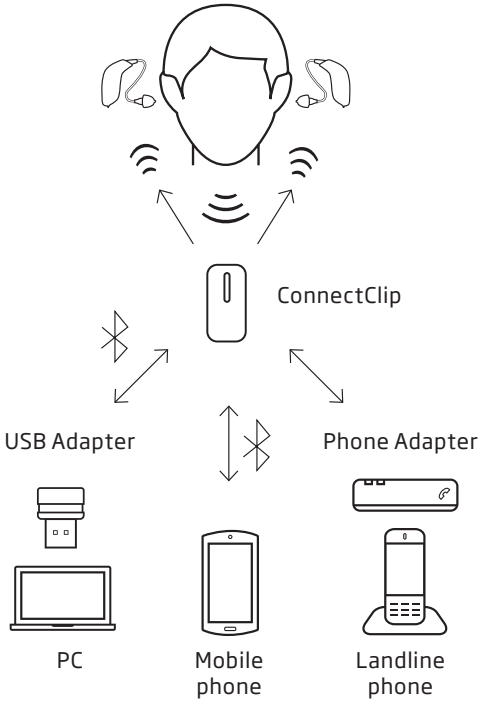
Turns your Oticon Opn S hearing aids into virtual wireless headphones by streaming conversation from practically any mobile phone directly to your hearing aids.

Learn more at oticon.com

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 S hearing aids from up to 65 feet.



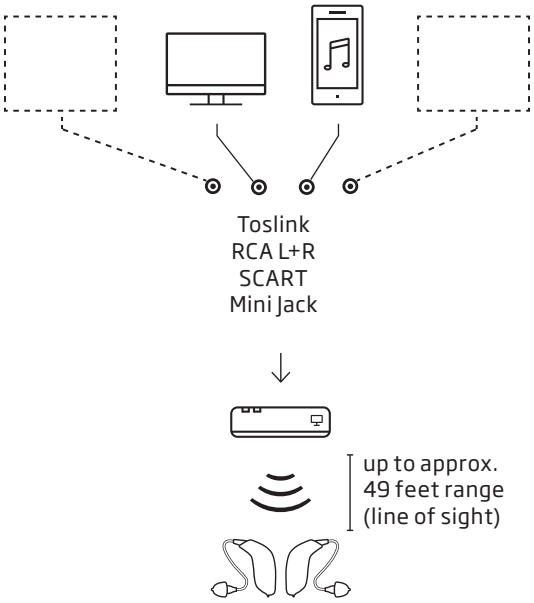
Phone Adapter 2.0

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.

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 S hearing aids at a distance of up to 49 feet. 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.

TELL YOUR PATIENT

With the TV Adapter you can enjoy TV sound directly in your hearing aids, at the volume you prefer without the distraction of surrounding noise.

TELL YOUR PATIENT

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

Remote Control 3.0

The Remote Control, roughly the size of a modern car key, gives users discreet control over Oticon Opn S 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 PATIENT

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.

Oticon Amigo T31/T30/T5 FM Transmitters

Amigo FM transmits the teacher's voice clearly and consistently to the student's Opn S 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 S BTE PP with an Amigo R12G2 FM receiver or the FM 10 adapter and a universal FM reciever. Like Opn S BTE PP, Opn S miniRITE T and miniRITE R can access an FM signal using the Amigo Arc neckloop FM receiver.

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.

TELL YOUR PATIENT

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.

Fitting


Speech Rescue
Data Logging
In-situ Audiometry
REM
40
20
0
125
250
500
1k
2k
4k
8k
10 kHz
GAIN CONTROLS
SOUND CONTROLS
1
2
3
125 250 500 625 750 1k 1.1 1.25 1.5 1.75 2k 3k 4k 5k 6k 8k
All
0 0 0 1 1 1 2 2 4 5 4 1 0 -1 -1 -1 Loud
0 0 0 1 1 1 2 3 5 6 5 5 5 4 4 3 Moderate
0 0 0 1 1 2 4 9 13 14 16 14 14 14 14 14 Soft
SoundStudio
Ctrl

Oticon Firmware Updater
Oticon Firmware Updater allows you to perform on-the-spot firmware updates to Oticon Opn S hearing aids, the TV Adapter 3.0 and the ConnectClip. The Oticon Firmware Updater provides these clear benefits:

- Access to the very latest platform features and performance improvements
- Convenience and time-savings with no need to send hearing aids and connectivity accessories for service

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

For more information go to oticon.com

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.

New features in Genie 2

Breakthrough technology in Oticon Opn S gives you a whole new level of fitting freedom
New features and enhancements in the updated Genie 2 let you take full advantage of the OpenSound Optimizer in the new Oticon Opn S products. Same acoustics now allow for more stable gain. Extra gain is automatically used to reach the rationale target when needed.

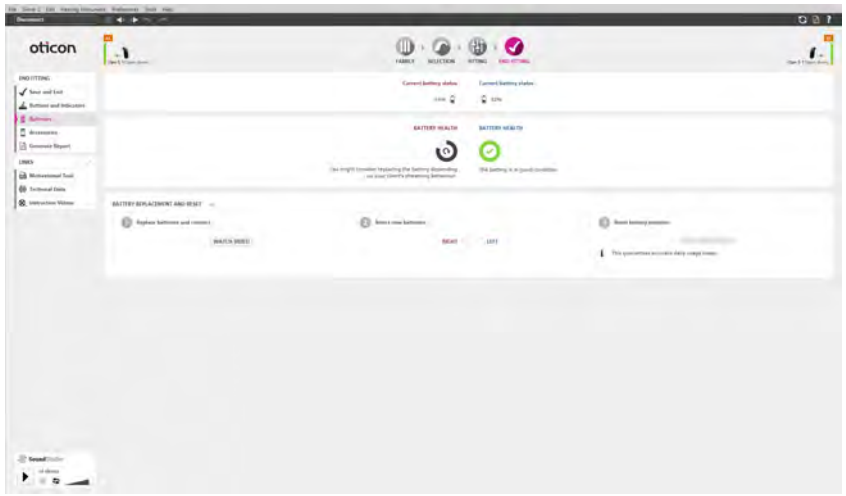
Predicted feedback limits have been replaced with an Unstable gain indicator that uses live measurements from the hearing aids, without affecting the fitting flow. The Unstable gain indicator also provides continuous visual indication of unstable gain or feedback risk.

When the feedback analysis is complete, Genie 2 shows the unstable gain or feedback risk in specific frequency bands.

To fully experience all the advantages of the Unstable gain indicator, the Opn S hearing aids must be connected to the fitting software. Not all of the new functionality is available in the simulation mode.

Fitting the new rechargeable miniRITE R
The new miniRITE R offers a unique combination of the open sound experience, superior connectivity and a state-of-the-art rechargeable lithium-ion solution. In addition to full-day operation, the miniRITE R offers market-leading charging time and an easy-to-use inductive charger.

In Genie 2, useful information about the rechargeable batteries is accessible in the End Fitting step, where you can find information about the current battery level as well as the general battery health. Daily battery use, streaming behavior and hearing loss all impact the need for battery capacity. With information about daily use provided by your patient, you can easily advise when the battery may need replacement. The battery can easily be replaced by you.



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 personalized 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 patient's listening preferences in the 'Personalized' menu to take individual preferences into account when prescribing gain and automatics.

Ⓐ Genie 2 features a personalized 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.

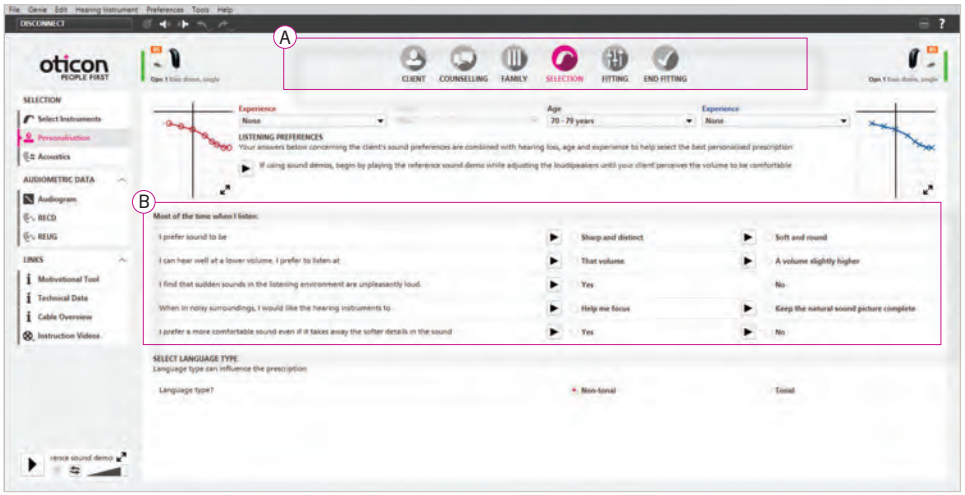
Ⓑ For best results, present the sound sample for each question while patients are wearing their hearing aids, through headphones, or via loudspeakers, depending on each patient's hearing loss and your clinical setup.

Once the personalization 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 patient preferences in the Fitting step.

The personalization 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.

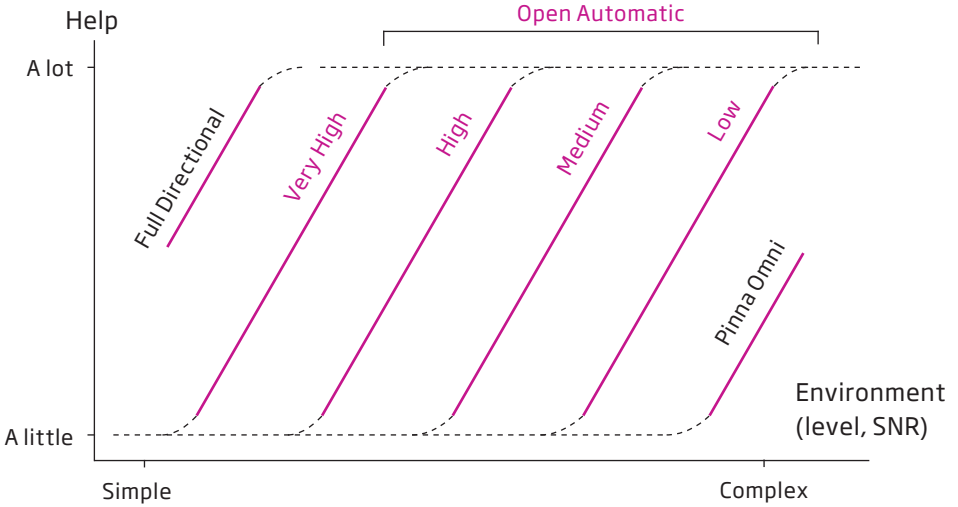
Ⓒ OpenSound – Transition: The control lets you choose how much help is needed in the stage between simple and complex environments. In other words, how early in this transition will your patient want the hearing aid to help more? You can choose between a Low, Medium, High, and Very High amount of help. 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.

Ⓓ Noise reduction controls: Adjustments to noise reduction are divided into Noise Reduction Simple and Noise Reduction Complex. Default settings are based on the patient's answers to the questions in 'Personalization/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.

Ⓔ 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.

Ⓕ Directionality setting: In addition to the four Open Automatics 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 OpenSound Navigator is optimized 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 four help profiles, Very High, High, Medium, or Low.

ConnectClip fitting
As with other accessories, ConnectClip is paired with Opn S hearing aids manually outside the Genie 2 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.

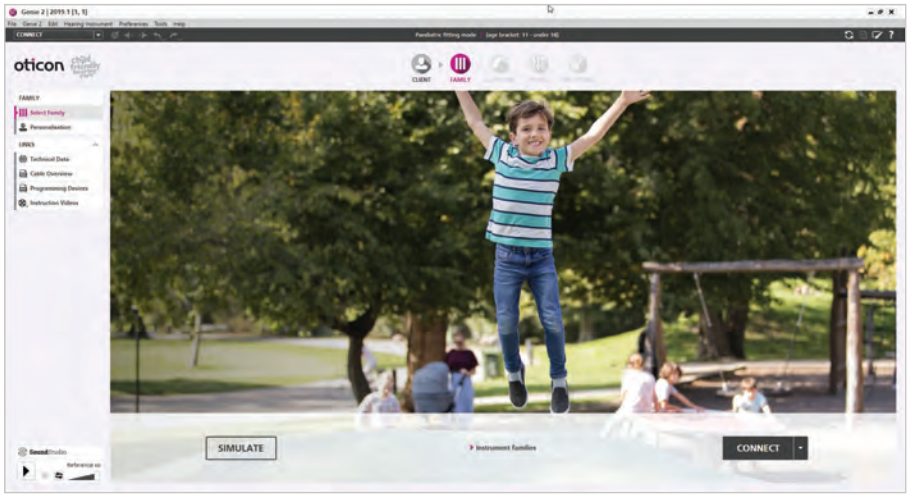
Pediatric fitting mode

Pediatric fitting mode in Genie 2 supports fitting of Opn S 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.

Pediatric fitting mode features the Pediatric panel that provides a centralized way to view and change the child's hearing aid settings.

The Pediatric 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, Pediatric fitting mode is enabled for all patients, age 17 and under, but can be changed in the Preferences section.



Programming Devices

In Genie 2, you can use a range of programming devices to program Oticon hearing instruments:

Wireless
- Noahlink Wireless*
- FittingLINK 3*

Wired
- ExpressLINK 3
- NOAHlink

Please see the Programming devices overview (available in Genie 2) for details on which instrument styles are compatible with which programming devices.

* Compatible with 2.4 GHz hearing instruments

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 patients 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 personalizes the fitting to the patient by inherently incorporating information about the patients' ears, and their specific hearing aids, into the fitting.

In-situ Audiometry in Genie 2 includes the following useful features:

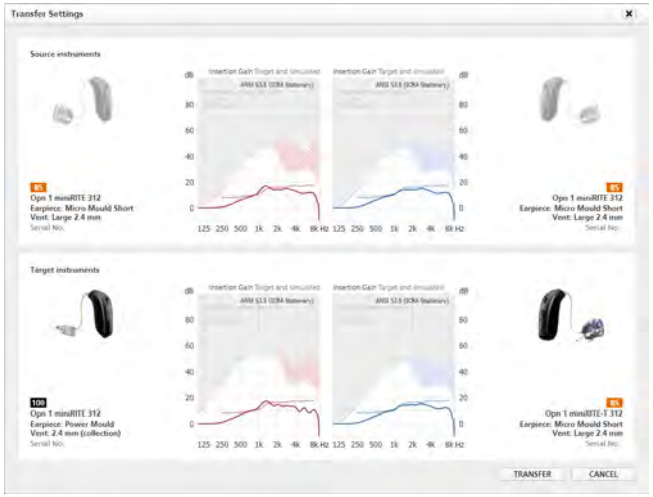
- Mouse-over presentation of sound stimuli for discreet presentation
- No restriction on measuring low frequencies
- Talk over for easy communication with your patient
- Configurable test process in Preferences
- Can be used in the oldest age bracket for pediatric fittings

Transfer gain-related settings

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 Transfer Settings functionality allows you to copy: Gain, MPO, Adaptation Step, Brightness and Soft Sound Perception of each assigned listening program, as well as the settings of acoustic and visual indicators 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, or when the settings of a new connected hearing aid differ from the existing Noah session. Please refer to the help files for details for how to use the new Transfer Settings function.



16699 15555-10367/04.19