

**PHILIPS**

HearLink

# Seamless connections with stronger AI sound technology

Introducing HearLink 40  
with SoundProtect



# Use less. Re-use more. Our plan that's built to last.

A growing number of consumers understand the value of sustainability and are conscious of their buying decisions. Understanding this and putting consumers at heart, Philips has been continuously pushing its sustainable initiatives forward.

With the aim to make the world more sustainable, Philips Hearing Solutions is no exception. To reduce the total environmental impact, we embed sustainability in our innovation processes and comply with the Philips EcoDesign\* requirements, which means:

- using more recycled content by having at least 50% recycled plastic in the hearing aid and charger packaging,
- avoiding the use of hazardous substances by shifting from PVC to more environmentally-friendly plastic in every corner possible,
- optimizing the energy efficiency of the charging system for our rechargeable hearing aids by 2024.

This is just the start of the journey towards a greener planet. To hold our brand promise to deliver innovation that matters to you, the users, and our earth. Together we make life better.

\*For more information, please go to [EcoDesign | Philips](#)



# Seamless connections, great conversations

Some things in life are best done together. Just like a great conversation with a friend or an inspiring workshop with the team. With the right people by your side, you can possibly achieve more than you can do on your own. This was our thinking at Philips Hearing Solutions. To give users a companion in their hearing journey with a Philips HearLink hearing aid that is designed to deliver a seamless listening experience.

This seamless experience is powered by SoundProtect, which aims to deliver irritation-free sound. This new feature strengthens our AI sound technology so Philips HearLink 40 now provides an even cleaner sound. Alongside a myriad of impactful features, the new HearLink 40 enhances the wearing experience for the users and helps them to connect to people and the world.

Philips HearLink

## Creating connections



# Introducing a winning combination

When Philips Hearing Solutions introduced artificial intelligence (AI) sound technology, it was the start of an incredible journey. AI sound technology makes things possible today that were previously impossible. AI learns how to master the noise reduction functions in Philips HearLink and delivers results beyond what had previously been achieved. Even with the advanced abilities of AI to reduce unwanted noise, there are still sounds that can occasionally present an obstacle.

To better manage these disruptive sounds, we developed SoundProtect. A unique feature of Philips HearLink, SoundProtect works to clean the signal pathway from these unwanted sounds. Wind noise, which is a phenomenon that often occurs when hearing aids are used outside, is now elegantly reduced by SoundProtect. Sudden sounds, loud and quiet, are also reduced. The result is a higher quality of signal for the partner AI Noise Reduction (AI-NR) and a cleaner sound for the user.



# Less distraction, more interaction

SoundProtect can quickly detect and identify a wide range of unwanted/irritating sounds including wind noise, handling noise and transient noise.

SoundProtect is constantly scanning for these sounds and can detect them using different strategies: wind noise is detected using the unique characteristic that it affects the front/rear microphone differently, creating an uncorrelated noise. This is caused by turbulent air, hitting the microphones at different times. Uncorrelated noise is also a characteristic of handling noise. Transient noise however is often characterized by its contrast from the background noise level plus its fast onset.

## A clear path with SoundProtect

Two strategies can be employed to counter these noises. Wind noise is managed by careful analysis of the noise level in each microphone. SoundProtect can then select the microphone with the lowest noise level for each band and will adjust this selection over time, ensuring that the cleanest signal is allowed to reach the AI-NR. Transient noises are managed with a fast, effective gain reduction to minimize the impact of the transient noise on the AI-NR.

Being able to detect this noise range and apply two strategies allows SoundProtect to reduce these unwanted/irritating sounds before the signal is further cleaned by the AI-NR. So, less sounds that hearing aid users don't want and more sounds they do.

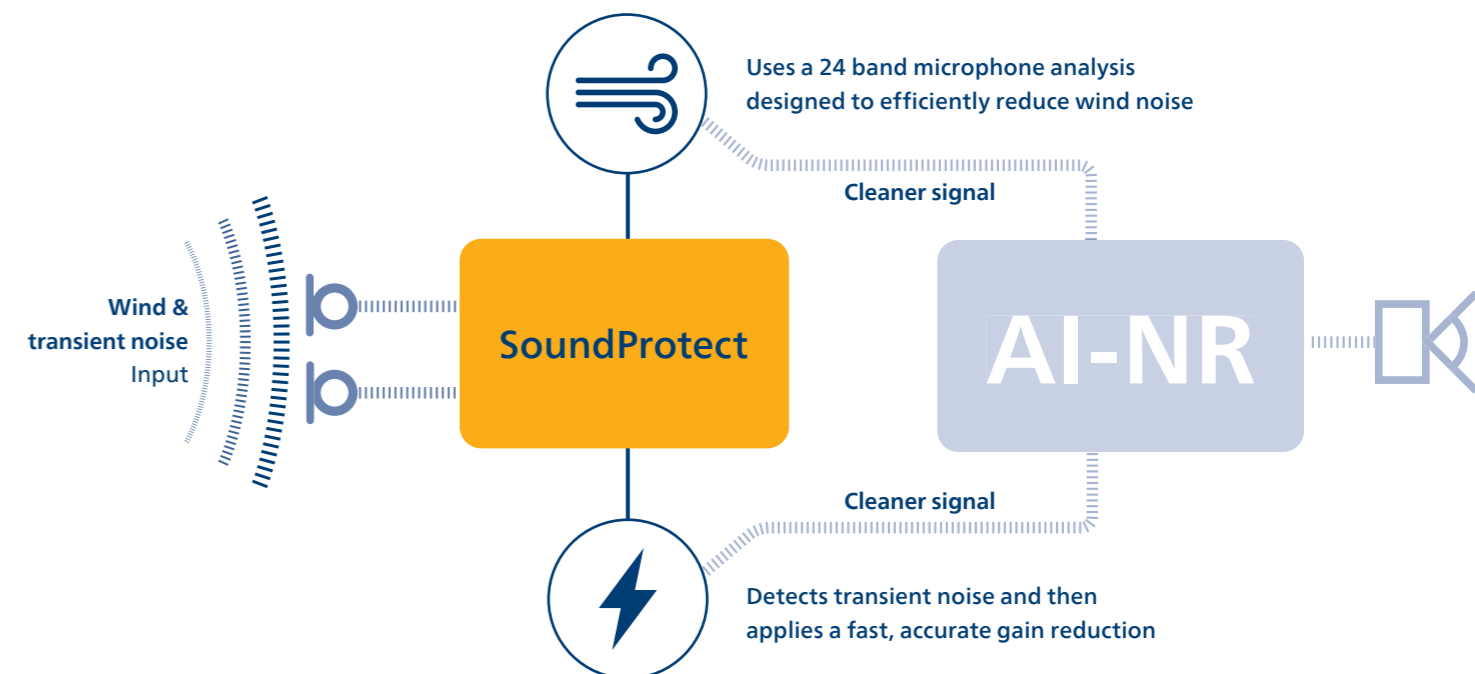


Figure 1: SoundProtect is designed to provide the AI-NR with a clean signal.

# Maximizing intelligence, minimizing noise

The new Philips HearLink uses AI sound technology now with SoundProtect to further improve its signal quality in noise. SoundProtect effectively and quickly reduces challenging noise sources delivering a cleaner signal to the AI sound processing. AI Noise Reduction can then use optimal self-taught approaches to continue to reduce noise.

The advantage of using AI is its superior coordination of the noise reduction effect across its 24 frequency bands, making AI-NR a more precise, more efficient and more powerful system for making speech clearer in noise.

## Powerful innovative technology

After SoundProtect has done its job, AI-NR gets to work. AI is a powerful innovative technology because it builds its own knowledge by sensing its surroundings. It amplifies human ingenuity by learning from huge amounts of data, efficiently organizing, and rapidly retrieving and processing all that information.

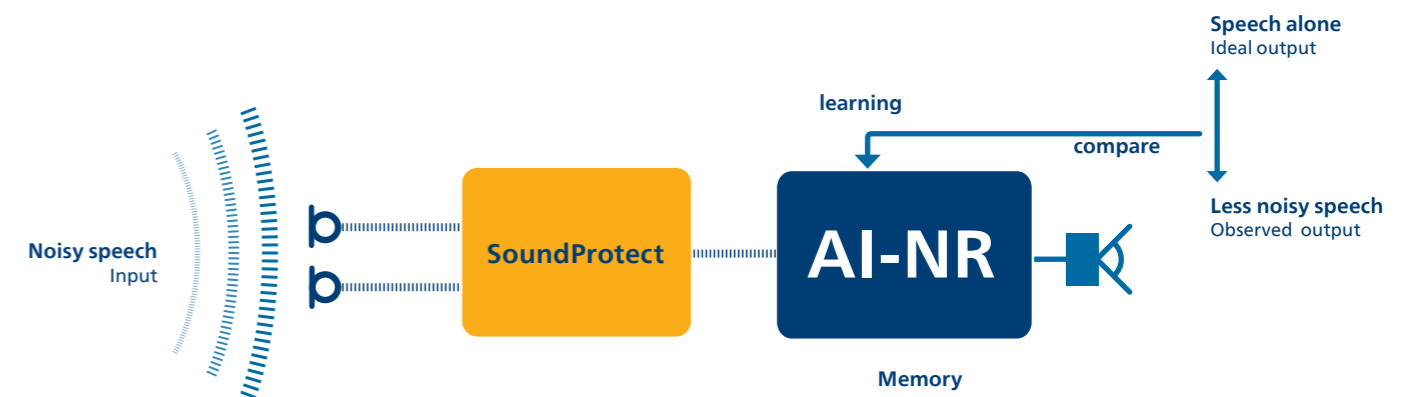


Figure 2: Training of the AI Noise Reduction

Without AI, the processing speed of noise reduction systems opens doors to potential artifacts due to the absence of coordination between frequency bands. AI coordinates noise reduction in all 24 frequency bands removing delay and minimizing potential artifacts. Having SoundProtect at the front of the signal path creates superior conditions for the AI-NR and sound processing by reducing unwanted sounds such as wind and handling noise, benefiting users many times every day.

# Even cleaner, even clearer

Philips HearLink complements the effect of directionality and noise reduction with Speech Clarifier. While directionality and noise reduction aim to preserve speech and attenuate noise, Speech Clarifier makes speech stand out in noise. SoundProtect ensures that fewer unwanted sounds continue through the signal processing, disrupting the benefits of Speech Clarifier.

Speech Clarifier leverages part of the noise attenuation obtained in the directionality and the AI-NR. This leveraging increases the level in frequency bands dominated by speech, between 1 and 5 kHz, thereby increasing the perceptual contrast between speech and noise.

## Beyond traditional directionality and noise reduction

Speech Clarifier consists of two sub-modules: the first placed after directionality and the second after SoundProtect and AI-NR. SoundProtect reduces unwanted sounds from potentially negating the effect of Speech Clarifier.

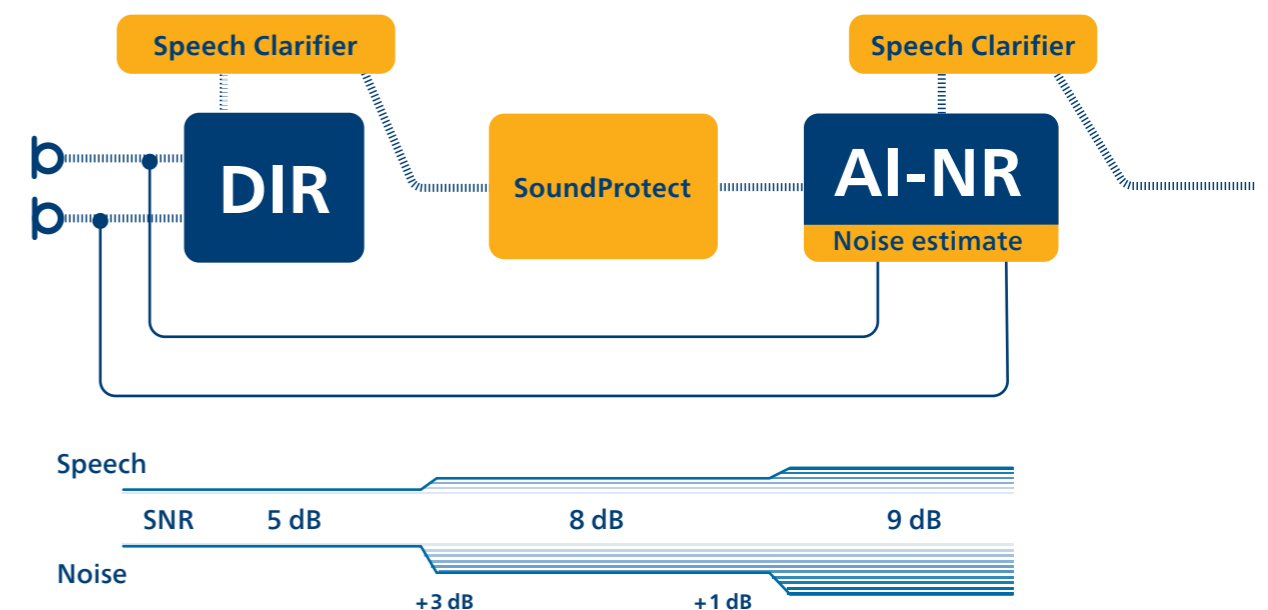


Figure 3: Effect of Speech Clarifier

# SoundMap 2 Plus

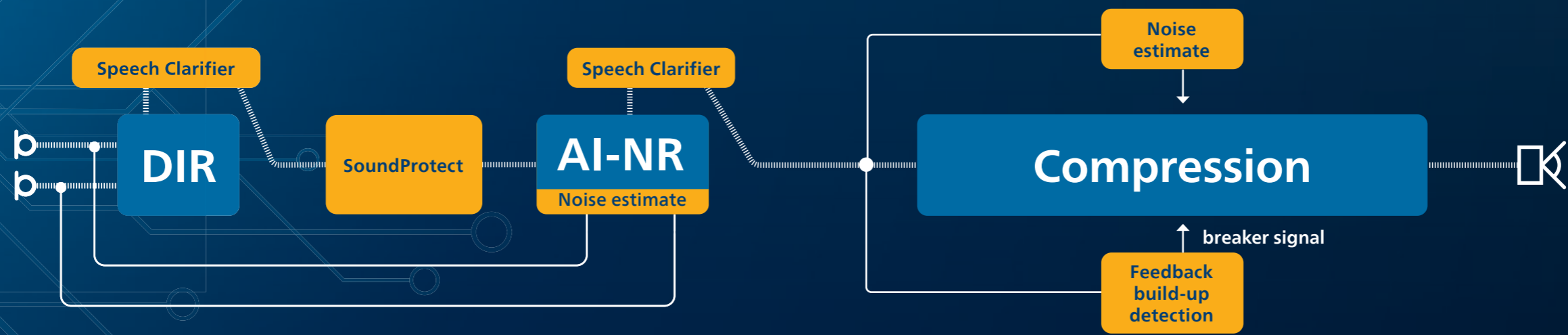
SoundMap 2 Plus continues to operate in 24 frequency bands with advanced directionality, designed to prioritize speech in noisy environments. Now it includes SoundProtect, improving the accuracy of the noise control, the amplification, and the feedback cancellation.

SoundProtect adds value throughout the signal processing of SoundMap 2 Plus. First, SoundProtect is effective in quickly reducing irritating noise sources delivering a cleaner signal to the AI-NR. Second, SoundProtect reduces unwanted sounds – sounds that may potentially negate the effect of Speech Clarifier. SoundProtect paired with our existing technology continues to deliver on our promise to help people connect.

## What else is in SoundMap 2 Plus?

The feedback cancellation system continues to be state-of-the-art with feedback detectors placed directly in the amplification which allows it to detect feedback build-up. It makes use of a breaker signal to prevent the growth of the feedback loop, oftentimes before the feedback loop becomes audible.

Additionally, Philips HearLink hearing instruments provide audibility not just to speech but also to diverse sounds in music with HiFi Music. This dedicated music rationale is free from the restrictions of a speech-optimized fitting rationale. It amplifies across a broader bandwidth and dynamic range to highlight the subtleties of music.



# SoundTie 2

SoundTie 2 technology allows users to comfortably connect and simply stay in touch with their loved ones and the wider world. It uses the latest generation of Bluetooth® Low Energy technology so that users can stream music, films, and calls from iPhone, iPad, iPod touch and Android™ devices directly to their Philips HearLink hearing aids.

## Hands-free communication

SoundTie 2 makes speech clearer for Philips HearLink users during phone calls. The hands-free communication feature for iPhone and iPad further elevates the Philips HearLink hearing aids to a wireless earphone, making calls as simple as “a, b, c”.

- a. Simply press the Philips HearLink push button to accept, reject or end calls.
- b. The user can start speaking and their voice will be picked up by the hearing aid’s microphone.
- c. Easily adjust the volume during the call with the phone.



Made for  
iPhone | iPad | iPod

Works with  
android

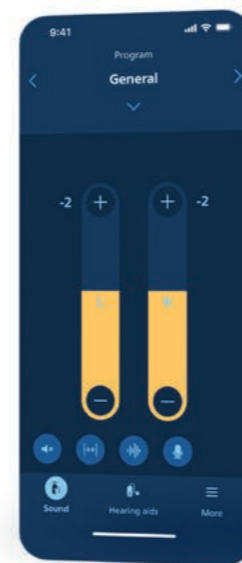
For information on compatibility, visit [hearingsolutions.philips.com/compatibility](https://hearingsolutions.philips.com/compatibility).

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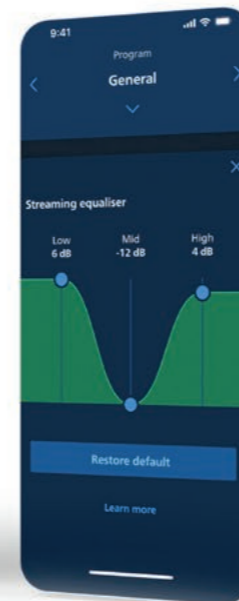


# New HearLink 2 app

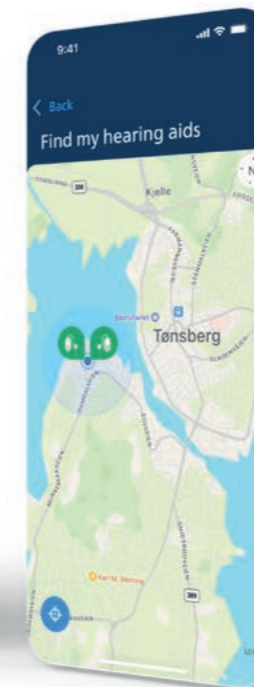
The new HearLink 2 app conveniently combines both remote control and remote fitting in just one app. It works with all generations of Philips HearLink hearing aids and requires no more than a download to get started.



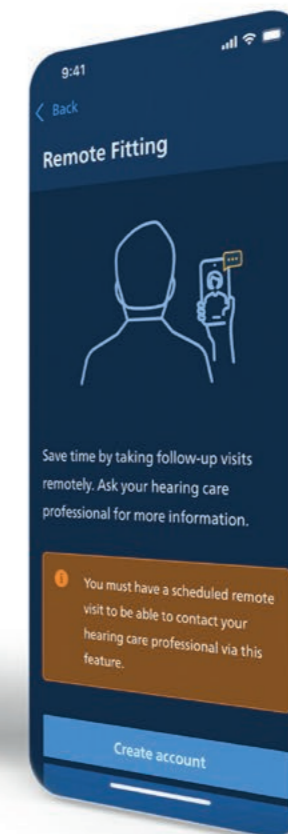
**Remote control**  
Changes the hearing aid volume and programs.



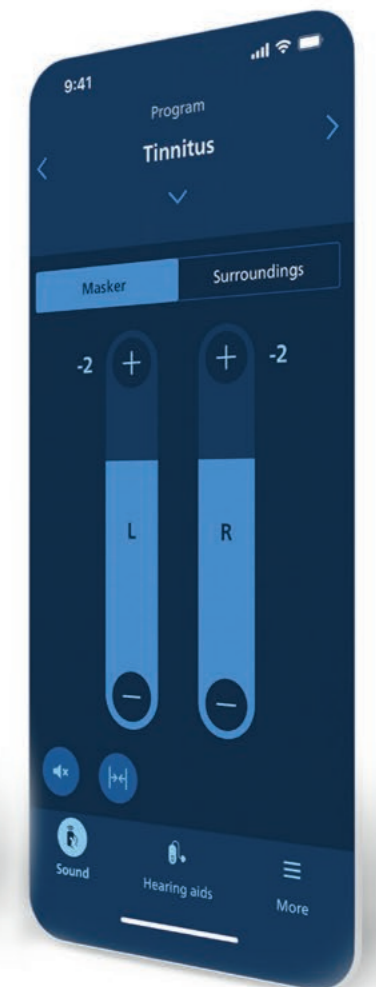
**Streaming equalizer**  
Adjusts music sounds according to the listening preference of the user.



**Find my hearing aids**  
A function just in case the user has misplaced their Philips HearLink.



**Remote fitting**  
Adjusts and fine-tunes the hearing aids in real time. Has video, audio, and chat functions to connect with the user.



**Tinnitus SoundSupport**  
Provides a volume control for tinnitus masking sounds when prescribed.

Try the app now and demonstrate how easy it is to use.

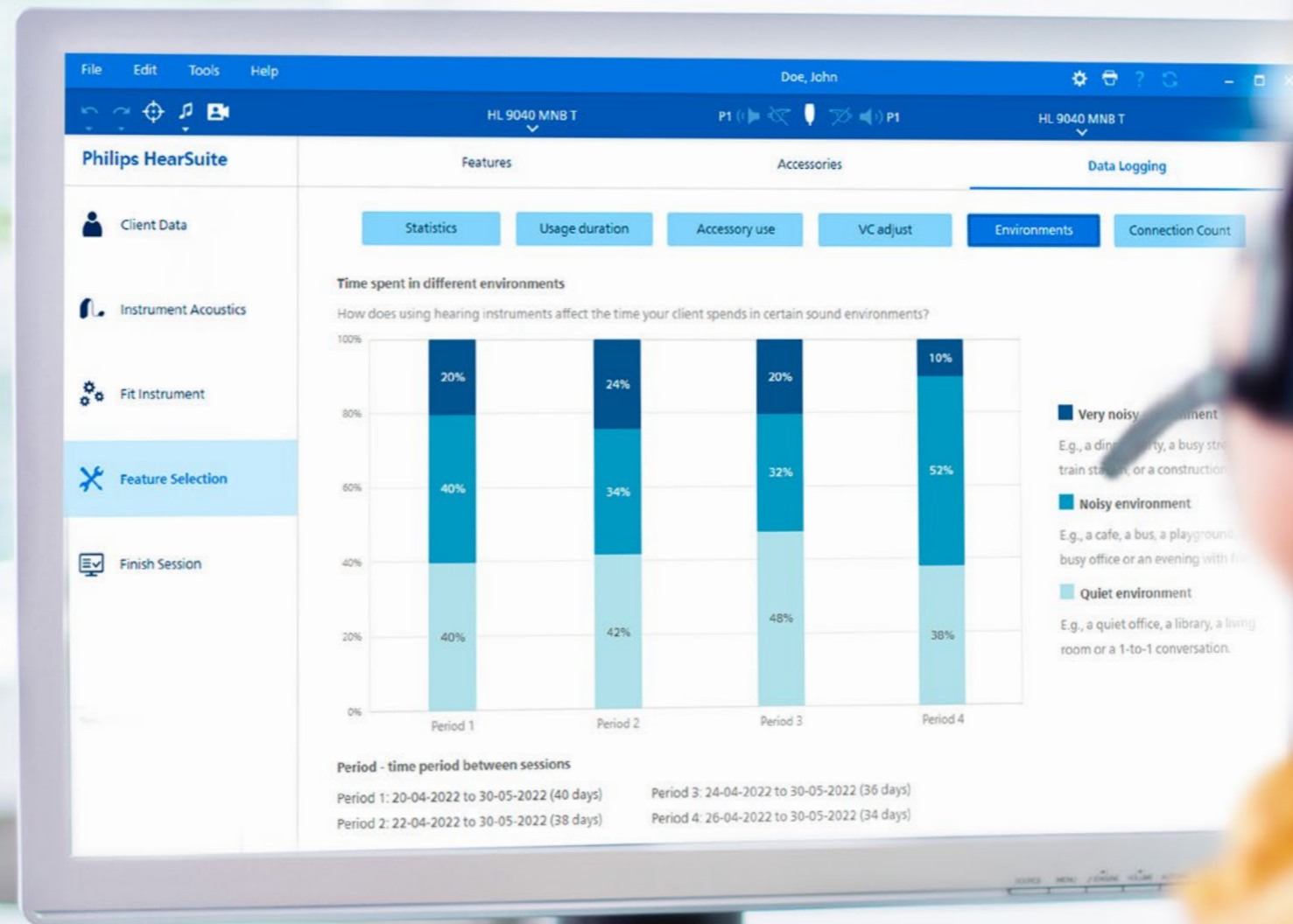
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# Philips HearSuite

The new Philips HearLink is introduced with an updated version of the fitting software HearSuite 2023.1.

HearSuite 2023.1 supports the new HearLink 9040|7040|5040 instruments and provides additional controls such as the SoundProtect feature for handling noise and sudden sounds. But that's not all. The latest fitting software version also comes with many new features.

- Turn on **Notify Me** to enable spoken alerts for the HearLink user when the instrument battery is low.
- Use **Connection Count** to have better insights about the user's conversation activity over time. This feature helps to follow up on the hearing progress by comparing conversation activity levels from past and present.
- Continue to support your clients remotely with **Remote Fitting** now found in the Philips HearLink 2 app.
- Experience the improvements of the trimmer grid alignment and in-situ background noise level estimations.
- Support users handling tinnitus with **Tinnitus SoundSupport**.



Download HearSuite 2023.1 now on the professional section of the Philips Hearing Solutions website.

### Colors

- beige | beige 
- dark brown | taupe 
- dark gray | dark gray 
- gray | dark gray 
- taupe | taupe 
- black | dark gray 

### LED

Battery and charging indicator

### Push buttons

Volume and program change

### Telecoil

### Notify Me

Voice alert when battery is low

### miniFit speakers

Speaker 60, 85, 100, 105

### Acoustic options

OpenBass dome with SoundTunnels™ and many more domes and earmolds

### SoundMap 2 Plus

AI sound technology now with SoundProtect

### SoundTie 2

Now with hands-free communication and direct streaming options

### HearLink MNR T

Model is also available with a 312 size zinc-air battery



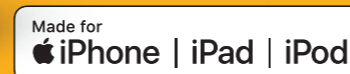
### Charger Plus

Portable and charges Philips HearLink within 3 hours



### Charger

Fully charges Philips HearLink within 3 hours



# Philips HearLink MNR T R

9040 | 7040 | 5040

### Earhook or miniFit thin tube

Thin tube 0.9 or 1.3 mm

### Acoustic options

Large range of domes and earmolds

### Notify Me

Voice alert when battery is low

### SoundMap 2 Plus

AI sound technology now with SoundProtect

### SoundTie 2

Now with hands-free communication and direct streaming options

### HearLink MNB T

Model is also available with a 312 size zinc-air battery

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Battery and charging indicator

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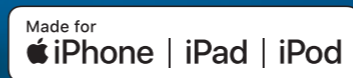
### Telecoil

### Charger Plus

Portable and charges Philips HearLink within 3.5 hours

### Charger

Fully charges Philips HearLink within 3.5 hours



# Philips HearLink MNB T R

9040 | 7040 | 5040

