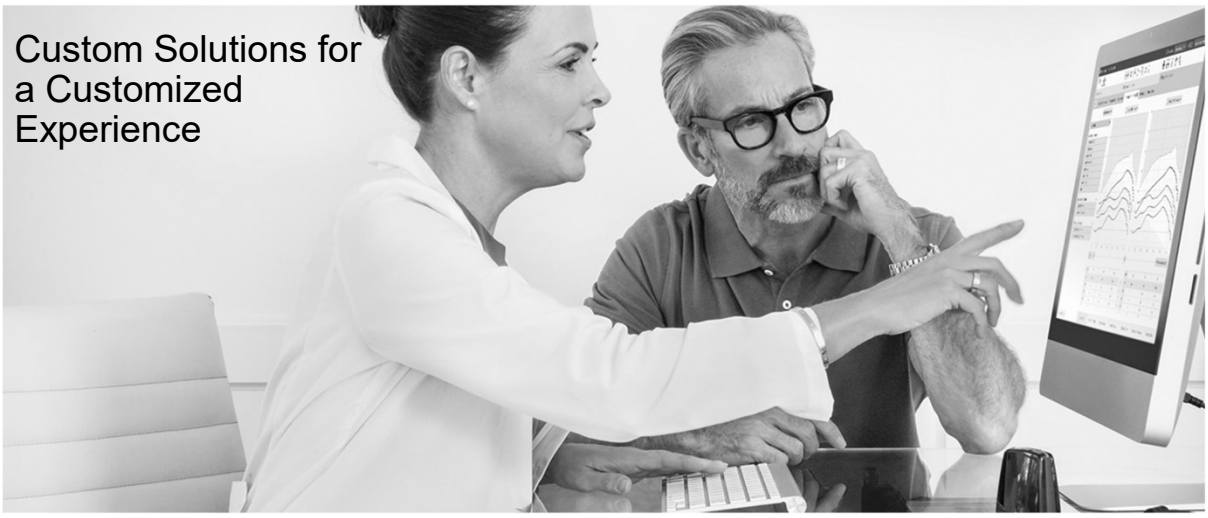

A Sonova brand

70 years PHONAK life is on

Disclosure in accordance with CEU guidelines

- Cheri Hebeisen, is a clinical trainer with Phonak. She joined Phonak in 2011. Cheri earned her Doctor of Audiology degree in 2003 from the University of Florida and her Masters of Communication Disorders in 2000 from Louisiana State University Health Science Center in New Orleans. Prior to working as a trainer for Phonak, her clinical experience included diagnostics for pediatrics through geriatrics, newborn hearing screenings, hearing aid and FM fittings, as well as, auditory processing disorder evaluations.
- Financial- Phonak employee who receives a salary for employment.
- Nonfinancial- No relevant nonfinancial relationships exists.

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Learning Objectives

After this course, participants will be able to…

…list uses and benefits of custom instruments in a predominantly RIC market.

…identify the best custom solution for appropriate patients.

…identify the benefits of Biometric Calibration.

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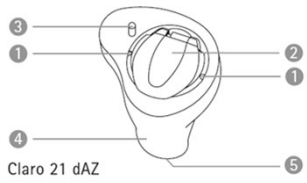
We have come a looooong way….



Claro 21 dAZ


Audéo B-10 Audéo B-312 Audéo B-312T Audéo B-13 Audéo B-R

changing lives PHONAK 70 years

PHONAK life is on

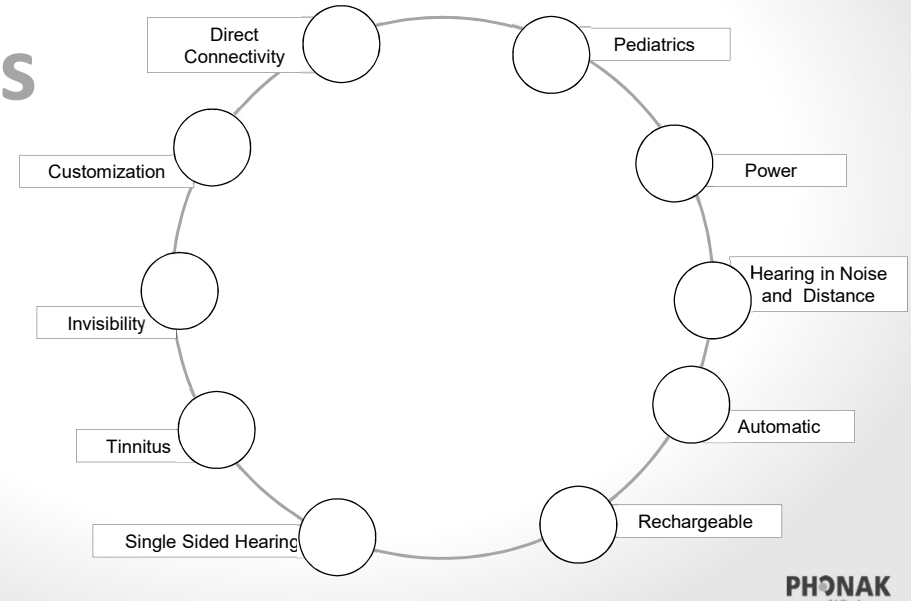
For people who live life with energy and passion, Phonak is the brand that is continuously pioneering hearing solutions that are life-changing.

PHONAK
life is on

By creating leading hearing solutions that empower people to thrive socially and emotionally.

We offer the broadest portfolio of innovative hearing solutions

Patient Needs



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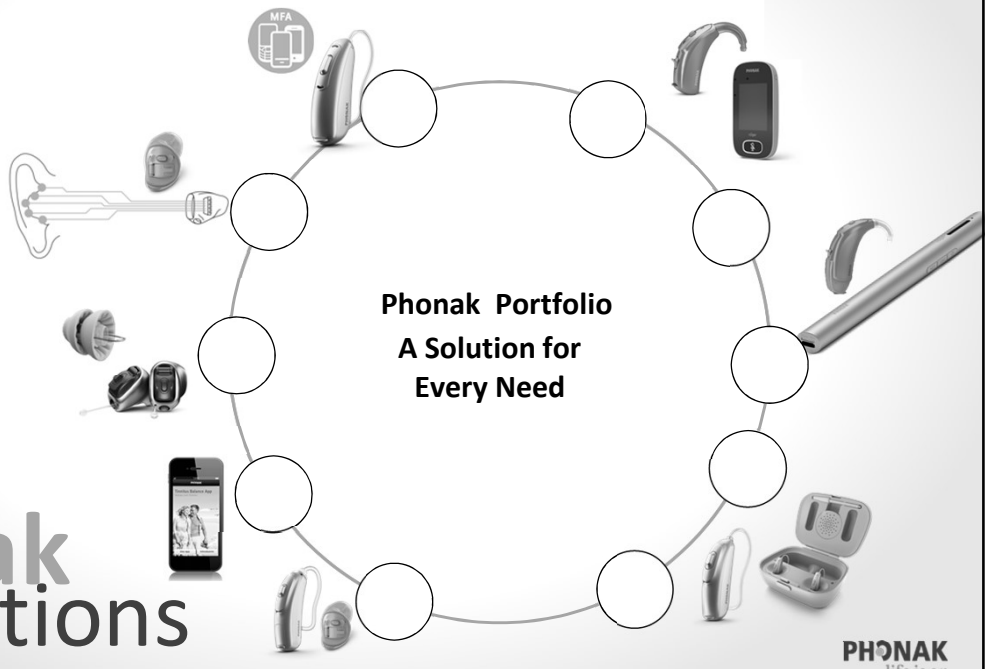
Phonak Solutions



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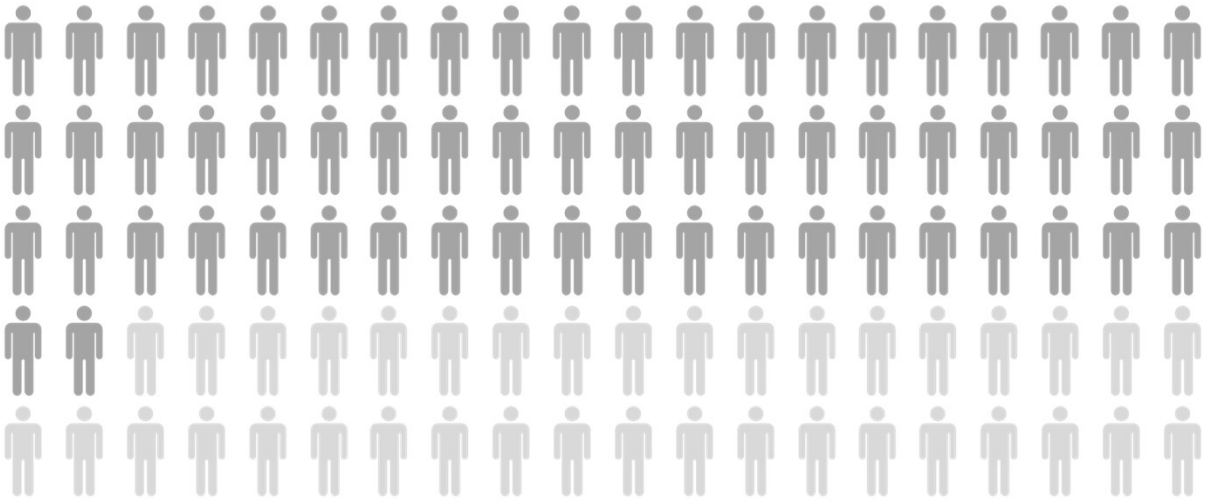
62% of client‘s first choice is an invisible device



Phonak needs survey, Project #862, March-April 2016, N=160

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Discover the benefits

High-tech titanium custom hearing aids

- The **smallest** Phonak custom products ever
- Made from **medical grade titanium** using sophisticated 3D printing technology
- **64% increased** IIC fitting rate[1]
- Up to 26% smaller thanks to
  - 50% thinner shell
  - Smaller electronics
  - Battery module with integrated microphone

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Microphone integrated battery module saves even more space

no more MicGuards

microphone

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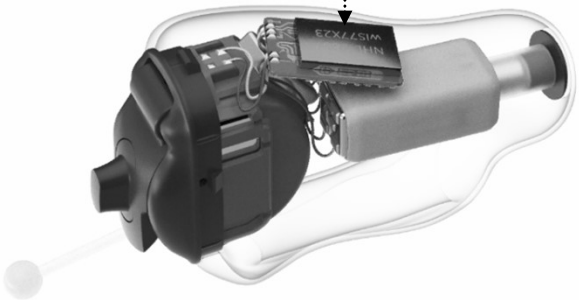
As small as it gets

Virto V-nano

60% smaller electronics

Virto B-Titanium



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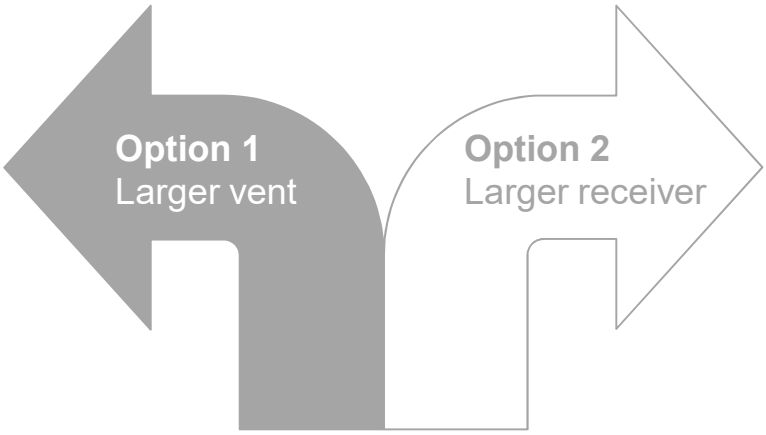
Additional space = Options for fitting



Without an increase in size vs. current IIC solutions

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More venting without an increase in size

Virto B-Titanium

Virto V-nano

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Additional venting options

AOV

- **Default** venting
- Optimized for size and performance
- Best for **size priority**

AOV0

- **Additional** ordering **option**
- Optimized to reduce occlusion
- Best for **comfort priority**

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More power without an increase in size

Virto B-Titanium

Virto V-nano

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A Sonova brand

70 years

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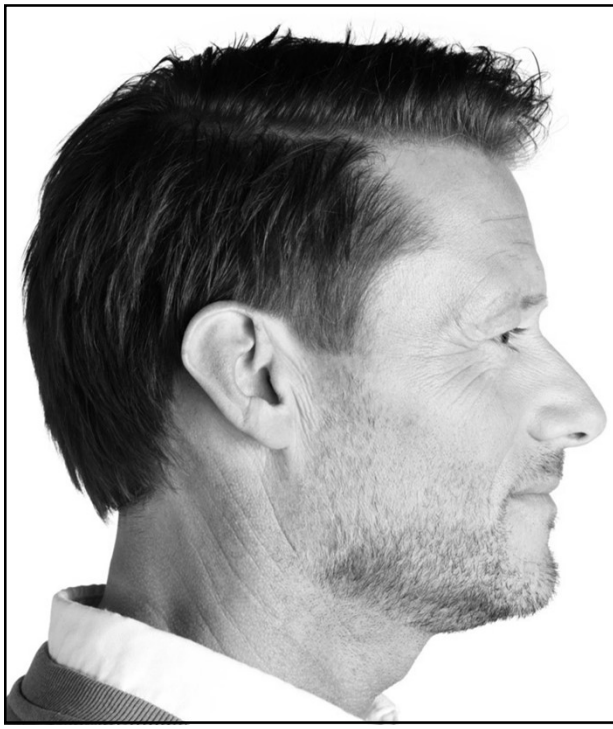
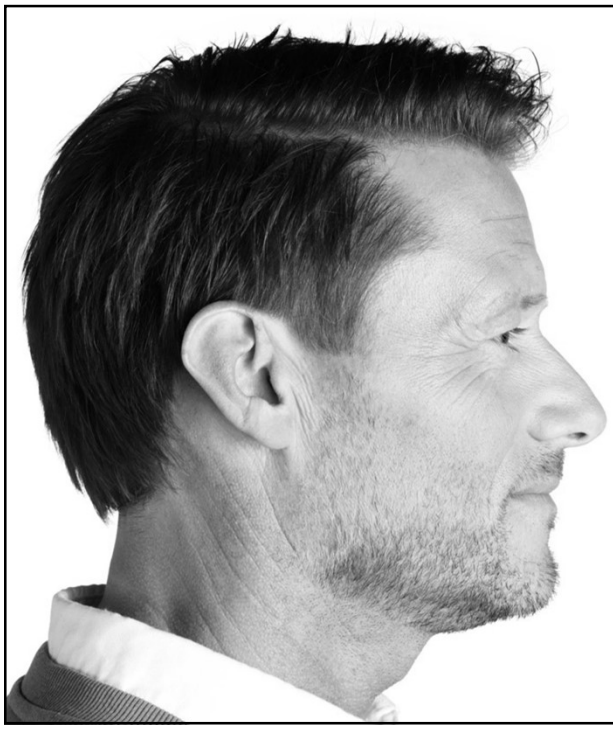


Each ear is unique, each ear hears differently



Welcome to the next level of customization

YESTERDAY

Physically customized on the outside

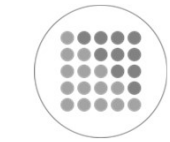
TODAY

Physically customized on the outside

and acoustically customized
on the inside

Let's talk about beamformers

It **automatically** begins to blend into a **more directional beam former**



AutoSense OS

Omni

UltraZoom

StereoZoom

Results in improvement in signal-to-noise ratio
in noisy environments

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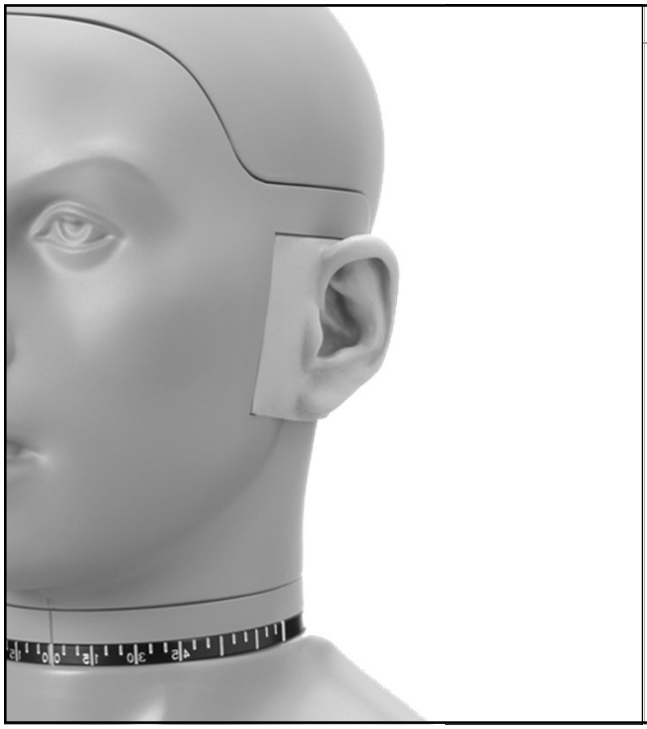

Currently: microphone depth calculations based on KEMAR

Phonak Virto B: The world's first hearing aid with Biometric Calibration

- **Precisely calibrated** to your clients' individual ear
- **2 dB improvement** in directionality
- **Fully automatic** for effortless listening everywhere

When a biometric hearing aid gives you access to better hearing performance,

life is on

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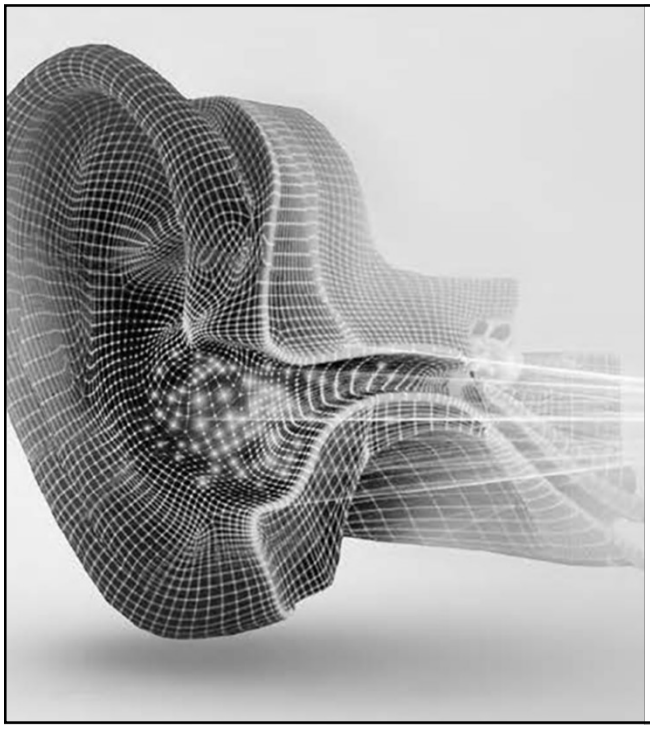
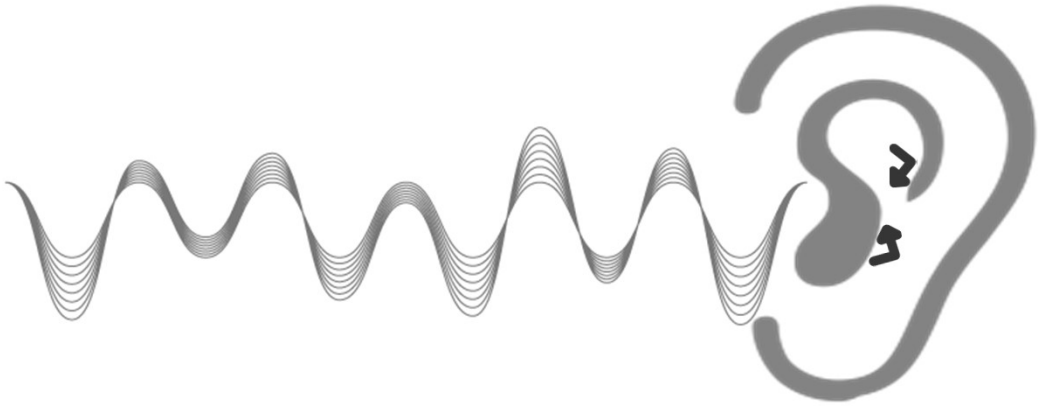


How does Biometric Calibration work?

Virto B: concha reflections are known



Reflections are known and taken into account to calibrate the device

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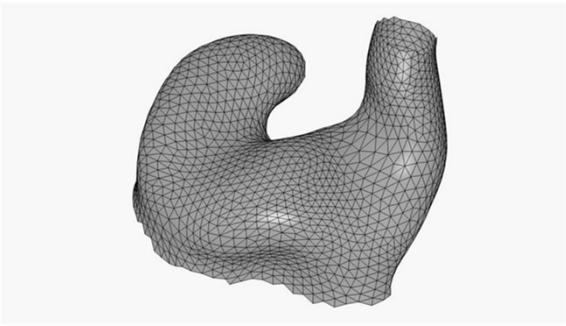
How Biometric Calibration work?



- Client's **biometric data points are compared** to a general ear model
- Then **an algorithm determines the differences** (delta) between the model and the individual's anatomy
- Then the beam former is **permanently calibrated to the client's anatomy**, rather than the general ear model

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Biometric Calibration **process**

1. It all starts with a complete **ear impression**

2. **3D scanning** of patient's ear impression

3. Over **1600 biometric data points extracted and saved** into the modelling software

4. The algorithm knows how the ear reflects sound so it **adjusts the polar plot** to the optimized cardioid for their ear

5. Resulting beam **improves directionality by 2 dB** in UltraZoom compared to without Biometric Calibration

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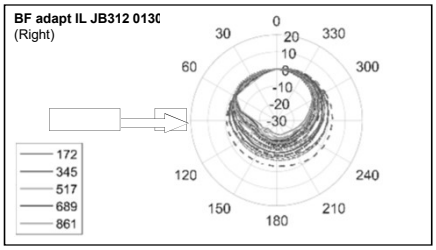
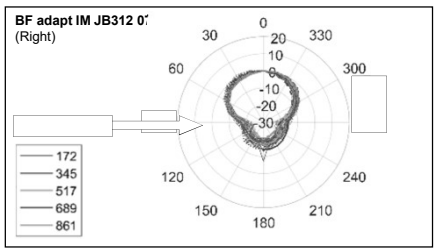
Without Biometric Calibration



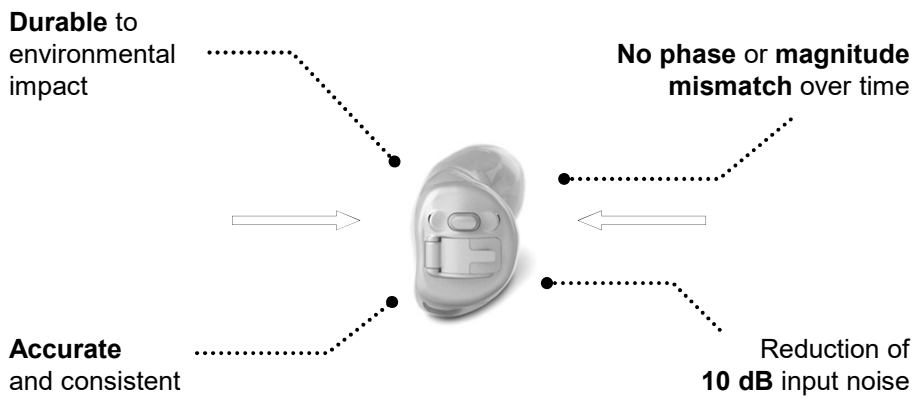
With Biometric Calibration



Biometric Calibration provides a 2dB improvement in directionality leading to **better hearing performance**

Innovative beamformer leverages new hardware

Benefits of the PU mic



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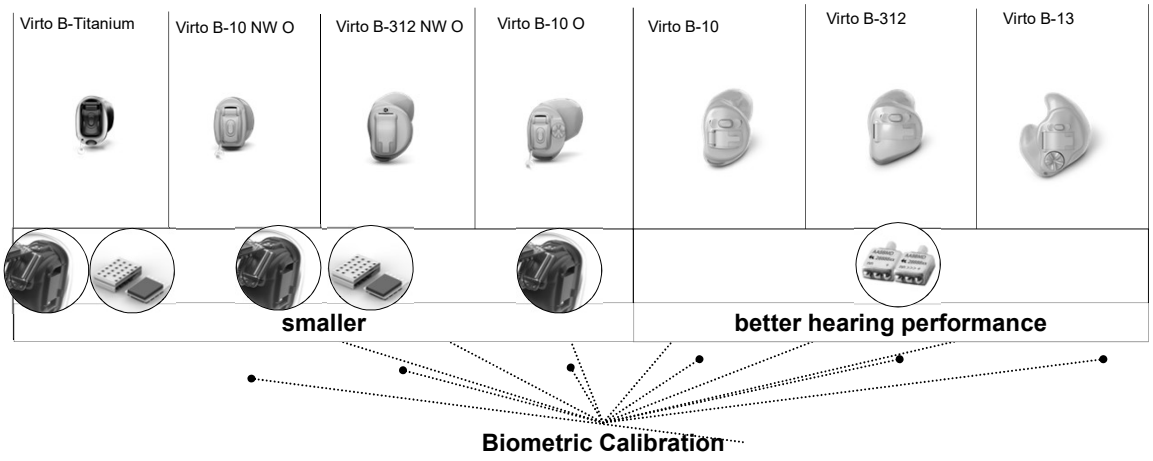
Meet the new **Virto B family**



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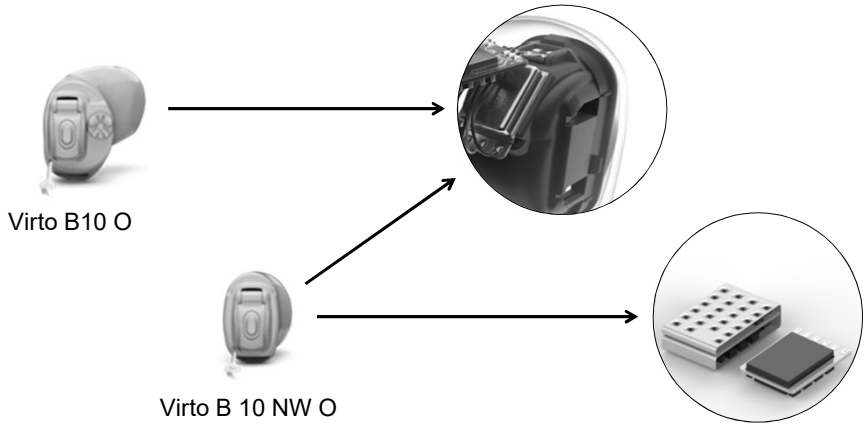
Small models get smaller

Thanks to leveraging **Virto B-Titanium** electronics



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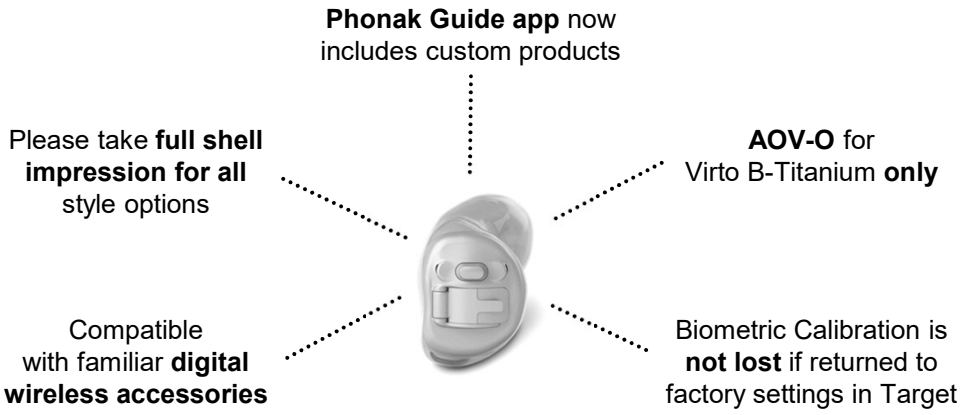
Additional tips and tricks



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CROS compatibility with all directional, wireless Virto B

CROS B-312 Custom

CROS B-13 Custom

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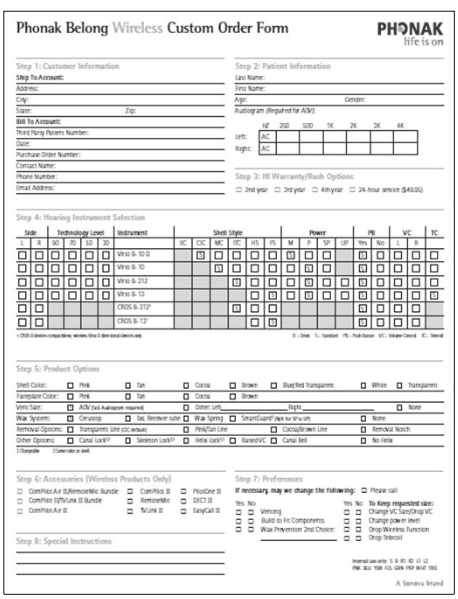

Phonak Belong Wireless Custom Order Form

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Step 1: Customer Information

Ship To Account:
Address:
City:
State: Zip:
Bill To Account:
Third Party Patient Number:
Date:
Purchase Order Number:
Contact Name:
Phone Number:
Email Address:

Step 2: Patient Information

Last Name:
First Name:
Age: Gender:
Audiogram (Required for AOV):

	HZ	250	500	1K	2K	3K	4K
Left:	AC						
Right:	AC						

Step 3: HI Warranty/Rush Options

☐ 2nd year ☐ 3rd year ☐ 4th year ☐ 24-hour service ($49.95)

Step 4: Hearing Instrument Selection

Side		Technology Level				Instrument	Shell Style						Power				PB		VC		TC
L	R	90	70	50	30		IIC	CIC	MC	ITC	HS	FS	M	P	SP	UP	Yes	No	L	R	
☐	☐	☐	☐	☐	☐	Virto B-10 O		S	☐	☐	☐	☐	S	☐	☐		S	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	Virto B-10			S	☐	☐	☐	☐	S	☐		S	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	Virto B-312				S	☐	☐	☐	S	☐	☐	S	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	Virto B-13					☐	S	☐	S	☐	☐	S	☐	☐	☐	S
☐	☐					CROS B-312[1]				S	☐	☐					S	☐	☐	☐	
☐	☐					CROS B-13[1]					☐	S					S	☐	☐	☐	

Step 5: Product Options

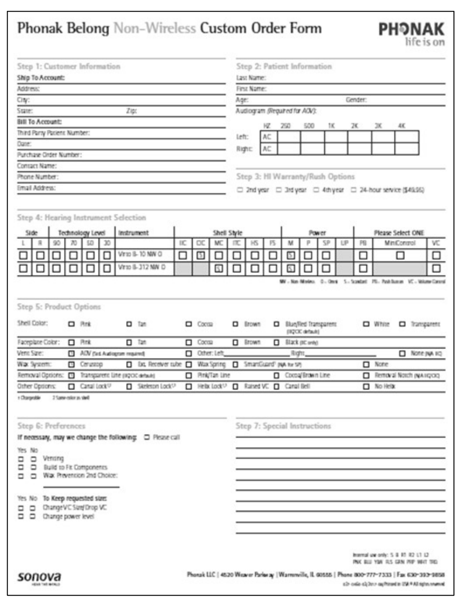
Shell Color: ☐ Pink ☐ Tan ☐ Cocoa ☐ Brown ☐ Blue/Red Transparent ☐ White ☐ Transparent
Faceplate Color: ☐ Pink ☐ Tan ☐ Cocoa ☐ Brown

Step 6: Accessories (Wireless Products Only)

Step 7: Preferences

Step 8: Special Instructions

A Sonova brand



Phonak Belong Non-Wireless Custom Order Form

PHONAK life is on

Step 1: Customer Information

Step 2: Patient Information

Step 3: HI Warranty/Rush Options

Step 4: Hearing Instrument Selection

Step 5: Product Options

Step 6: Preferences

Step 7: Special Instructions

sonova

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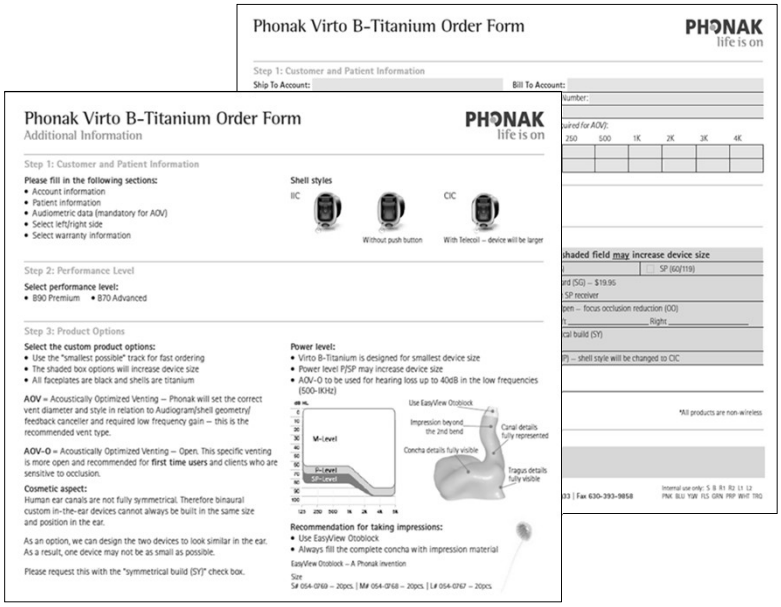

Phonak Virto B-Titanium Order Form

PHONAK life is on

Step 1: Customer and Patient Information

Ship To Account: Bill To Account:

Phonak Virto B-Titanium Order Form

Additional Information

PHONAK life is on

Step 1: Customer and Patient Information

Please fill in the following sections:
- Account information
- Patient information
- Audiometric data (mandatory for AOV)
- Select left/right side
- Select warranty information

Shell styles

IIC CIC

Without push button With Telecoil – device will be larger

Step 2: Performance Level

Select performance level:
- B90 Premium • B70 Advanced

Step 3: Product Options

Select the custom product options:
- Use the "smallest possible" track for fast ordering
- The shaded box options will increase device size
- All faceplates are black and shells are titanium

AOV = Acoustically Optimized Venting – Phonak will set the correct vent diameter and style in relation to Audiogram/shell geometry/ feedback canceller and required low frequency gain – this is the recommended vent type.

AOV-O = Acoustically Optimized Venting – Open. This specific venting is more open and recommended for **first time users** and clients who are sensitive to occlusion.

Cosmetic aspect:
Human ear canals are not fully symmetrical. Therefore binaural custom in-the-ear devices cannot always be built in the same size and position in the ear.

As an option, we can design the two devices to look similar in the ear. As a result, one device may not be as small as possible.

Please request this with the "symmetrical build (SY)" check box.

Power level:
- Virto B-Titanium is designed for smallest device size
- Power level P/SP may increase device size
- AOV-O to be used for hearing loss up to 40dB in the low frequencies (500-1KHz)

M-Level

P- evel

SP-Level

Use EasyView Otoblock

Impression beyond the 2nd bend

Canal details fully represented

Concha details fully visible

Tragus details fully visible

Recommendation for taking impressions:
- Use EasyView Otoblock
- Always fill the complete concha with impression material

EasyView Otoblock – A Phonak invention

Size

S# 054-0769 – 20pcs. | M# 054-0768 – 20pcs. | L# 054-0767 – 20pcs.

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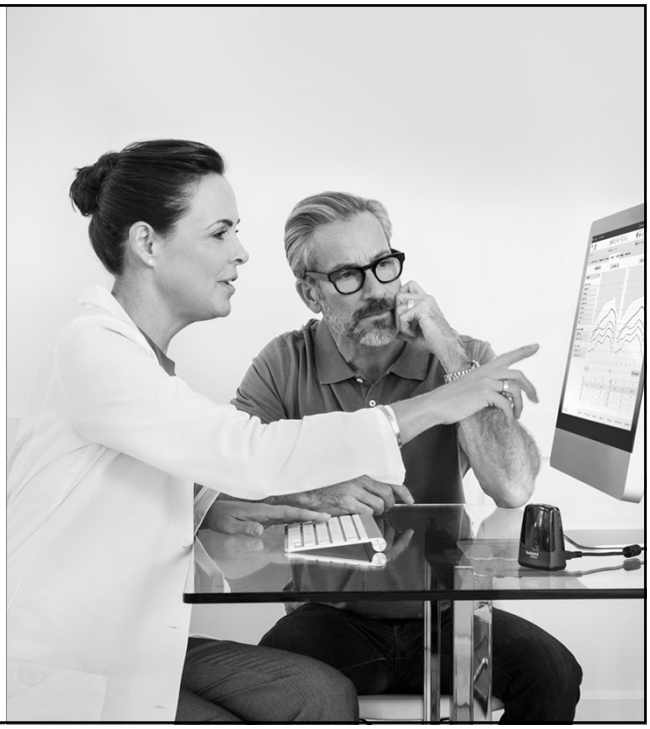
Benefits for you

- Better **directionality** "out of the box"
- No more **MicGuards**
- **Colored** battery door inlays
- **Same cables and wax protection** system at Venture
- **No changes** to the Target fitting process
- Potentially **less fine tuning** changes and higher first fit acceptance
- All Belong custom products have the push button option



Benefits for your patients

Better hearing performance

Discreet options available

Dust tight and water resistant only omni models without VC

Longer battery life due to 312 battery in 312 NW O

No MicGuards = **easy cleaning**

AutoSense OS

Seamlessly adapt to any listening situation automatically and provide best sound quality.

Patient benefit:

- Improved speech understanding by 20%
- No need to think about their hearing aid

Provider benefit:

- More satisfied clients
- Less time creating and explaining manual programs

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Research FINDINGS

20% better speech understanding thanks to the automatic selection of the best setting for everyday listening situations.

Better speech and sound performance in everyday listening situations compared to other automatic technology.

60% improvement in speech understanding by zooming in on a single voice in a noisy environment - versus without hearing aids.

37% reduction in effort when listening to conversations in cars compared to other automatic technologies

Calm 10% improvement in soft speech understanding with our newest products.

Most natural music experience. Top rated hearing aid for music sound quality.

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hearing aid users should not have to **think** about their hearing

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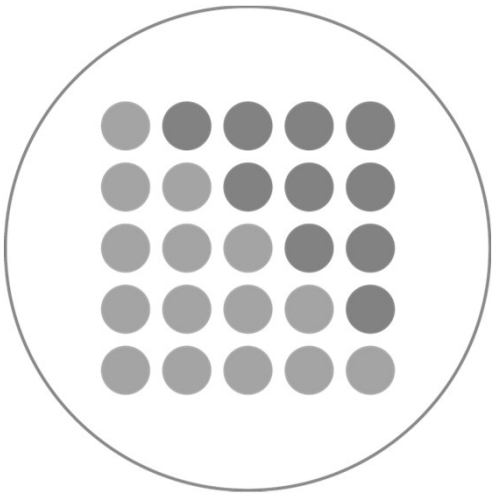

AutoSense OS is making life easier for the hearing aid wearer by dynamically choosing the settings that optimizes best speech understanding, comfort and sound quality in any listening environment.

Phonak market insight online survey 2014 US n192

SoundRecover 2

- **Maximize stimulation of the hearing nerve** by setting the Maximum Output Frequency at the upper limit of the individual's audible bandwidth.
- **Protect the mid and low frequencies** by setting **(CT2 or upper cut-off)** high enough so that audibile speech (without compression) is <u>not</u> affected.
- If enough high frequency gain can be provided to make high frequency speech sound audible then **frequency compression is often not needed for mild hearing losses**.

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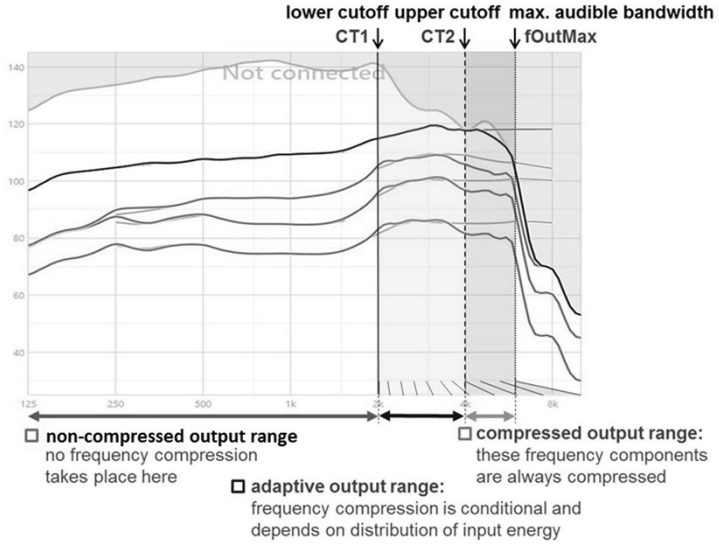
SoundRecover2 - intelligent adaptive frequency lowering algorithm



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SoundRecover2 on or off?

Steps used to determine the SoundRecover 2 on/off default

Step	Audiogram dB	Default
1	Normal high frequency hearing (8kHz HL<=25 dB)	OFF
2	Reverse slope. (HL at 8kHz is >=30dB better than at 3kHz)	OFF
3	Reverse slope but poor high frequency hearing (HL at 8kHz >= 45dBHL)	ON
4	None of the above (calculation based on HL at 3kHz to 8kHz)	ON/OFF

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SoundRecover2 summary

Restores access to high-frequency information, preserving high-frequency discrimination and sound quality.

Utilizes an adaptive algorithm, maintaining the familiarity of low- and mid-frequency sounds.

~~Extends benefits to~~ those with more severe and profound hearing losses, using a lower cut-off frequency and weaker ~~compression.~~

SoundRecover2 – the first adaptive frequency compression algorithm

More audibility of high frequency sounds

Introduction

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PHONAK life is on

Target 5.2: What's new?

1. New products available
2. No new cables
3. Convenient online software update via the [Updates] tab

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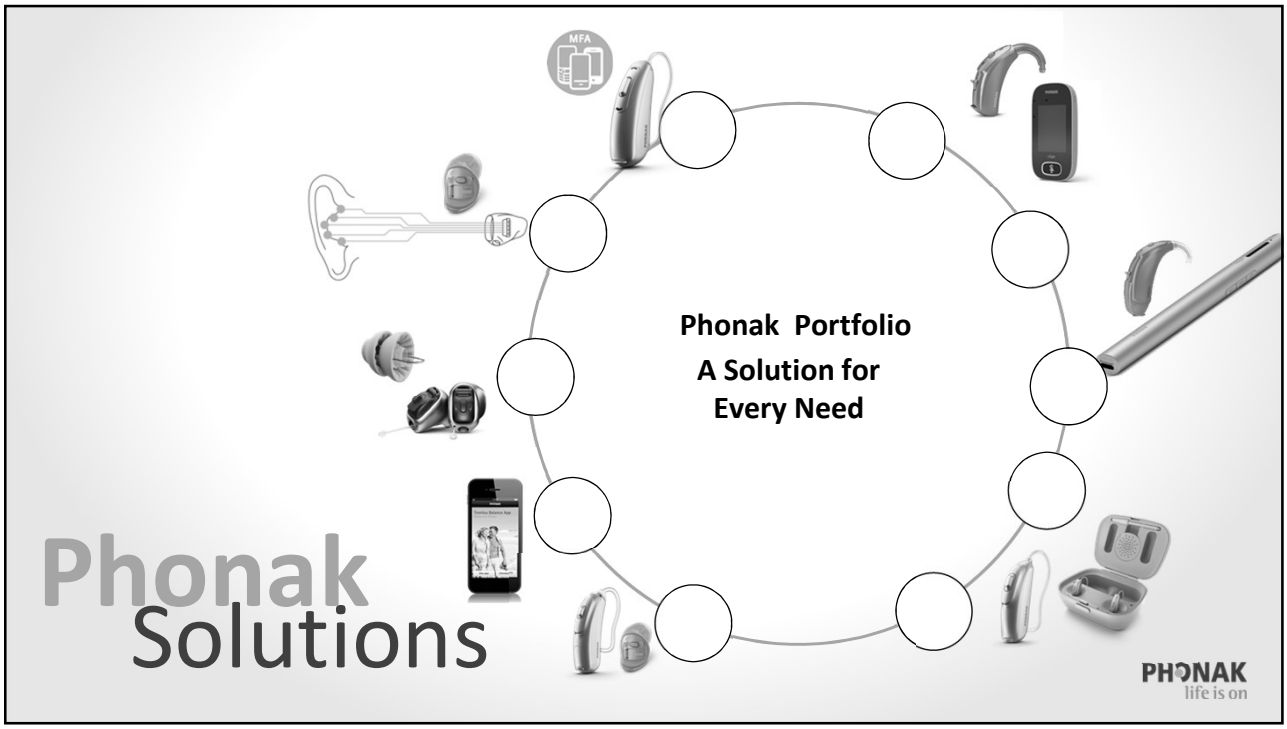

Together, we change lives