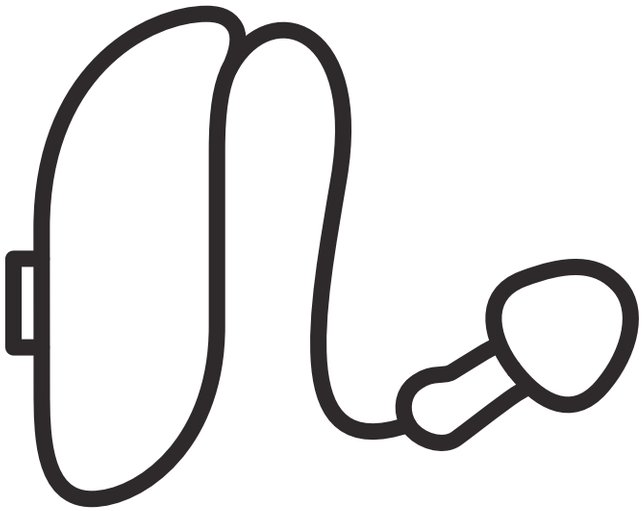


Receiver-In-Ear hearing aids, Rechargeable

Beltone Serene ™

User guide

Made for iPhone | iPad

Works with Android

Hearing aid information

Left hearing aid		Right hearing aid	
Serial number		Serial number	
Model number		Model number	
Battery type	☐ Rechargeable		

Dome/ earmould type	Closed dome ☐ Small ☐ Medium ☐Large	Open dome ☐ Small ☐ Medium ☐Large	Power dome ☐ Small ☐ Medium ☐ Large	☐ Tulip dome	☐ Earmould

Program	Beep	Description
1	One beep	
2	Two beeps	
3	Three beeps	
4	Four beeps	

Table of Contents

Hearing aid information 2
Introduction 4
Getting to know your hearing aid 8
Preparing your hearing aids for use 11
Placing your hearing aids in your ears 14
Removing your hearing aids from your ears 18
Using your hearing aids 20
Cleaning and caring for your hearing aids 26
Advanced options 37
Wireless accessories 42
Tinnitus management 44
General warnings and cautions 53
Cybersecurity 57
Troubleshooting 63
Regulatory information 66
Technical specifications 71
Additional information 74

! Before using your hearing aids and associated devices, ensure that you read "General warnings and cautions", page 53. You should also pay close attention to warnings embedded throughout this user guide.

Introduction

This user guide is written for both your hearing care professional and for you as a hearing aid user (and, if relevant, for a guardian). Hearing care professionals have a responsibility to:

- Provide you and, if relevant, a guardian with clear, personalised instructions and guidance that match your individual needs.
- Advise you and, if relevant, a guardian to read this user guide for safety information and instructions for use.

Read this user guide carefully before using your hearing aids for the first time. Note that the illustrations may vary from your hearing aids and their components. We recommend that you use your hearing aids every day to fully benefit from them.

Intended purpose

The hearing aid is intended to compensate for hearing impairment by amplifying and transmitting sound to the ear.

User profile

- The hearing aid is intended to be used by adults and children 12 years of age or older.
- The hearing aid is intended to be used by lay persons.
- The hearing aid is intended to be fitted by qualified hearing care professionals.

Therapeutic indications

Sensorineural, conductive or mixed hearing loss.

Contraindications

A hearing care professional should advise a prospective hearing aid user to consult promptly with a licensed physician (preferably an ear specialist) before dispensing a hearing aid, if the hearing aid dispenser determines through inquiry, actual observation, or review of any other available information concerning the prospective user, that the prospective user has any of the following conditions:

- Visible, congenital or traumatic deformity of the ear.
- History of active drainage from the ear within the previous 90 days.
- History of sudden or rapidly progressive hearing loss within the previous 90 days.
- Acute or chronic dizziness.
- Unilateral hearing loss of sudden or recent onset within the previous 90 days.
- Audiometric air-bone gap equal to or greater than 15 dB at 500 Hertz (Hz), 1000 Hz, and 2000 Hz.
- Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
- Pain or discomfort in the ear.

Side effects

If you experience side effects, contact a hearing care professional or a physician. Possible side effects from wearing a hearing aid may be:

- Dizziness
- Tinnitus
- Perceived worsening of hearing loss
- Nausea
- Headache

- Skin reaction
- Ear wax accumulation

Symbols

The symbols below are used in this user guide, on the device, or on the packaging.

CAUTION: Indicates a situation that could lead to minor and moderate injuries.

WARNING: Points out a situation that could lead to serious injuries.

Date of manufacture.

Legal manufacturer.

CE 0297

Regulatory compliance mark for EU with notified body number.

Follow instructions for use. (Logo in blue)

UDI

Unique Device Identification.

MD

Medical device.

Consult electronic instructions for use.

REF

REF Catalogue number.

Regulatory compliance mark for Australia and New Zealand.

Product is a Type B applied part.

Follow local regulations when disposing of electronic devices.

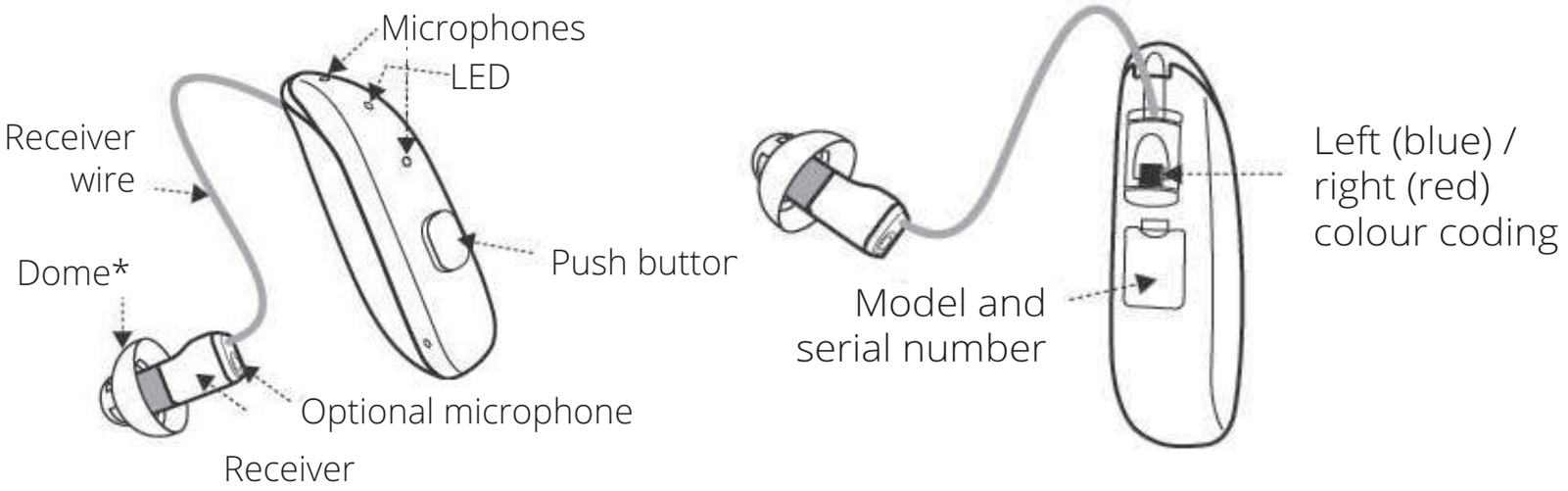
Equipment includes an RF transmitter.

Complies with IMDA Standards DA105282

IMDA label for Singapore.

Getting to know your hearing aid

Hearing aid

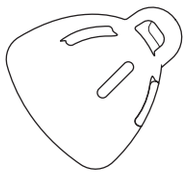


*Open dome is shown. Yours may look different.

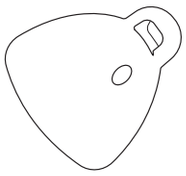
Domes and earmoulds

Domes and earmoulds help to direct sound from the hearing aid into your ear canal.

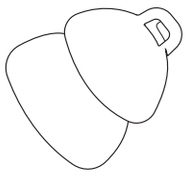
All domes come in different sizes.Consult your hearing care professional regarding which kind of dome is suitable for you.



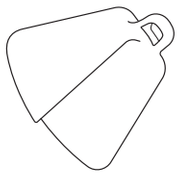
Open dome



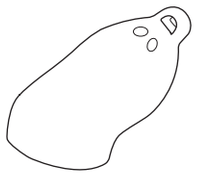
Closed dome



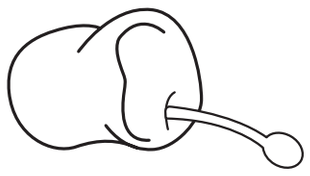
Power dome



Tulip dome

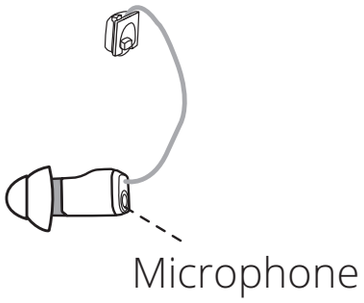


Sleeve dome

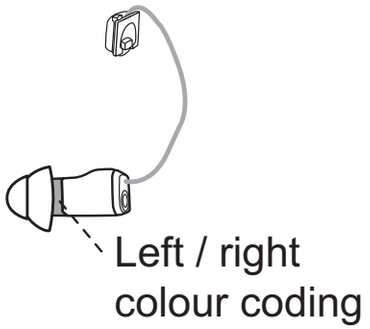


Custom earmould

Receivers



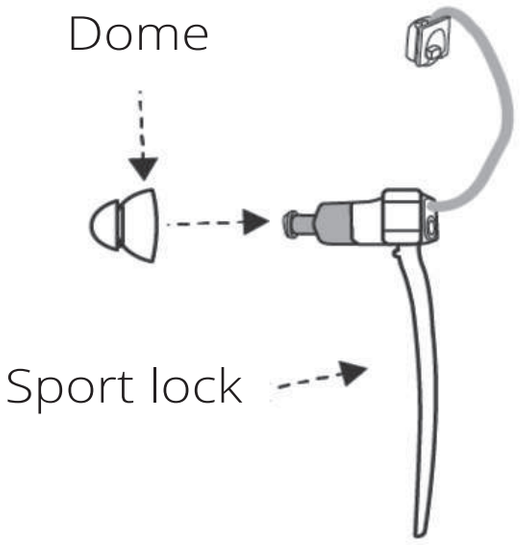
Your receiver may have a microphone as shown here.



Your hearing aids are colour coded.
Left = blue. Right = red.

Sport lock

The sport lock helps keep your hearing aids in place when you are physically active.



Preparing your hearing aids for use

Battery warnings



WARNING:

- Rechargeable hearing aids are supported by a non-removable rechargeable lithium-ion battery cell. Exposure or ingestion can be seriously harmful.
- Never put your rechargeable hearing aid in your mouth.
- Never swallow lithium-ion batteries nor place them inside any part of your body as this may lead to fatal injuries in two hours or less. If a rechargeable hearing aid or a lithium-ion battery is swallowed or placed inside any part of the body, seek immediate medical attention.
- If the outer casing of your rechargeable hearing aid is broken, the rechargeable battery inside may leak. Do not use the hearing aid. Contact your hearing care professional.
- Battery leakage can cause chemical burns. If you get exposed to battery leakage material, rinse immediately with warm water. If you get chemical burns, redness or skin irritation from battery leakage, seek medical attention.
- Batteries are harmful to the environment. Therefore, never try to burn them. Dispose of your used rechargeable hearing aids according to your country's regulations or return them to your hearing care professional.

- For safety reasons, use only the charger provided with your hearing aids.
- When traveling, consult your airline about any rules for transportation of your hearing aid and charger. Your hearing aid charger contains a Li-Ion battery.

NOTE: To save battery, turn off your hearing aids when they are not in use.

Charging your hearing aids

We recommend that you fully charge your hearing aids before using them. This is just a precaution to make sure that you don't run out of power unexpectedly. To learn how to charge your hearing aids, please consult the user guide for your hearing aid charger.

Low battery alert

When the batteries are low on power, the volume in your hearing aids will reduce and a melody will play every 15 minutes until there is no more power - then your hearing aids will turn off.

Low battery alert when paired with wireless accessories

NOTE:

The battery will drain faster when you use wireless functions like streaming from your smart device or from your TV with our TV streamer. As the battery power declines, the wireless functions stop working. A short melody will play every five minutes to let you know that the battery power is low. The table below shows the functionality with different battery charge levels.

Battery level	Signal	Hearing aid	Remote control	Streaming
Fully charged		✓	✓	✓
Low	 4 even tones	✓	✓	x
Depleted	 3 even tones and 1 longer tone	✓	x	x

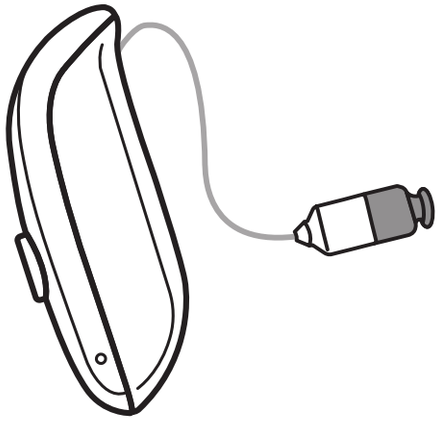
These will work again when you charge the hearing aid.

You can check the battery status by placing the hearing aid in the hearing aid charger (premium charger only). You can also check the battery status in the Beltone HearMax™ app.

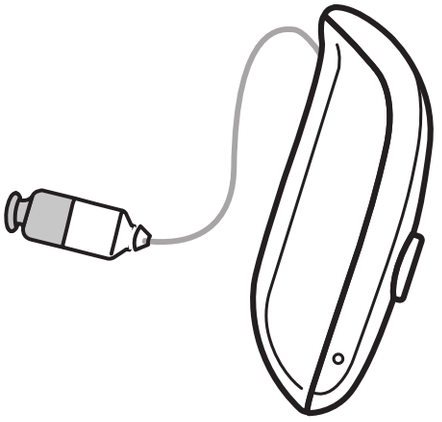
Placing your hearing aids in your ears

How to tell left from right

Left hearing aid
(blue marking on the receiver)



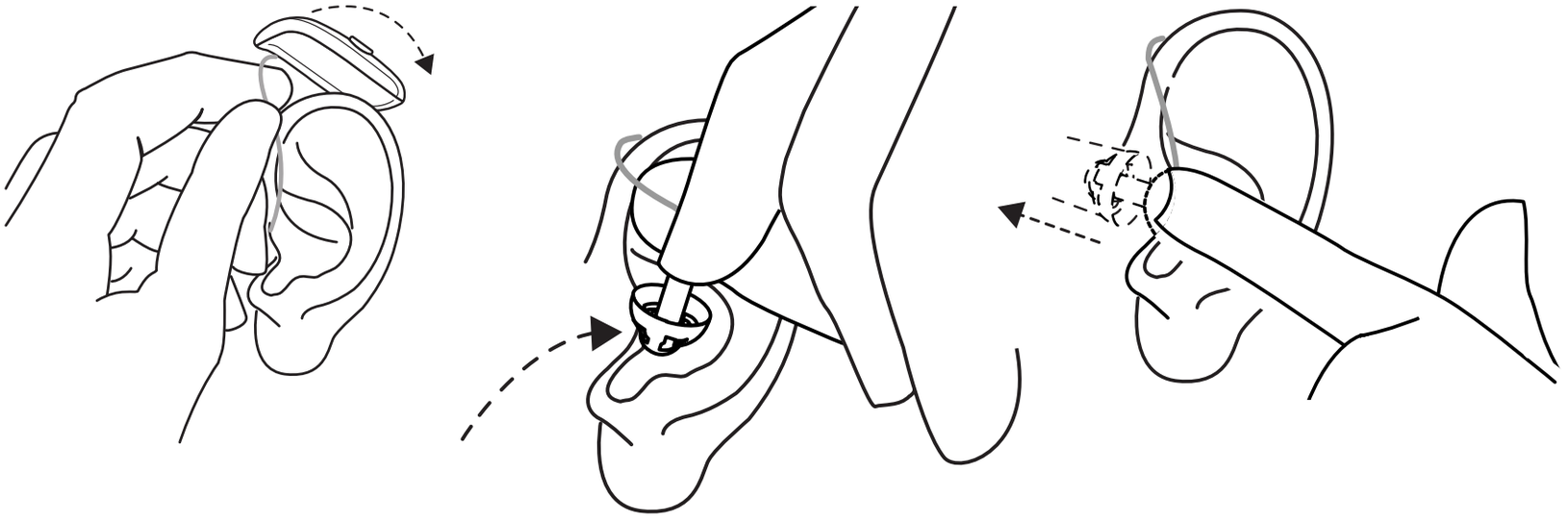
Right hearing aid
(red marking on the receiver)



CAUTION: If you have two hearing aids, they may be programmed differently. Do not swap them as this could damage your hearing.
Your hearing aids are colour coded. Left = blue. Right = red.
If your hearing aids are not colour coded, ask your hearing care professional to add colour coding.

Inserting the receiver dome into your ear

If your hearing aids have domes, follow these instructions:



1. Hang the hearing aid over the top of your ear.
2. Hold the receiver wire where it bends and gently place/push the receiver dome into your ear canal.
3. Push the dome far enough into your ear canal so that the receiver wire rests against your head. You can check in a mirror.

NOTE:

- To avoid whistling, ensure that the receiver wire and dome fit correctly into your ear. If you continue to experience whistling, check the troubleshooting guide for other possible reasons and solutions.

CAUTION: Never attempt to bend or modify the shape of the receiver wire.

Sport lock

If you are very active, your hearing aids may move from the correct position. To avoid this situation, your hearing care professional can attach and adjust a sport lock to the receiver.

To insert a hearing aid with a sport lock:

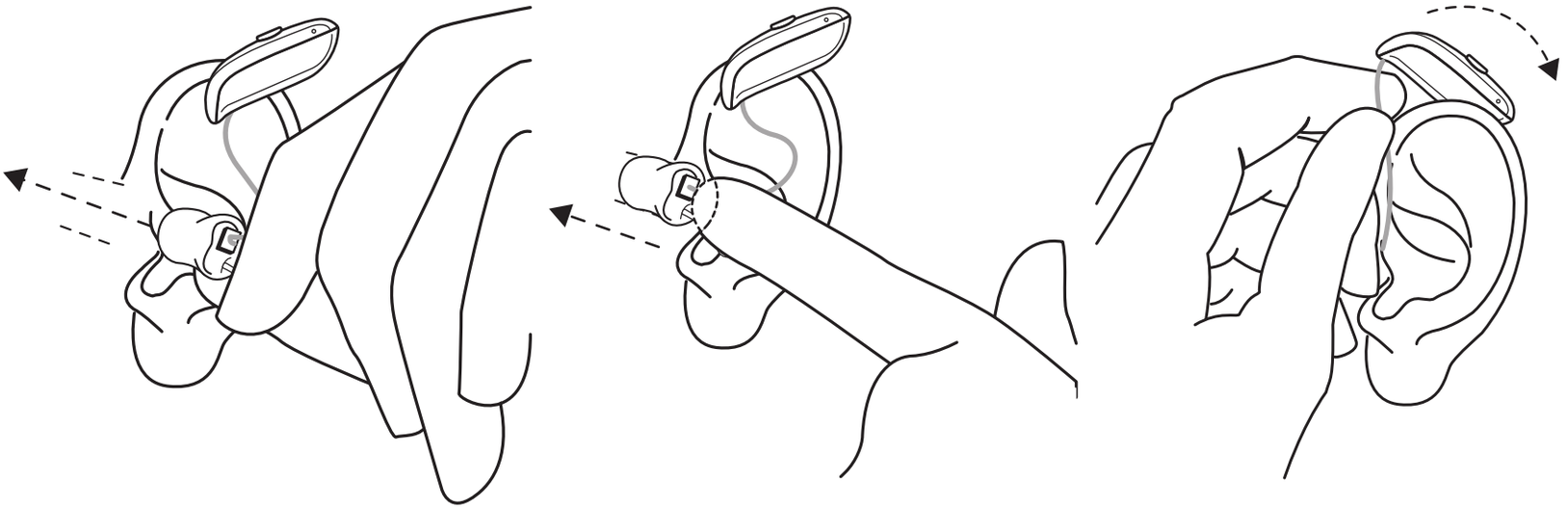
1. Insert the hearing aid as usual
2. Tuck the sport lock into the bottom of the concha (the part of your ear just outside the ear canal).



NOTE: Sport locks may become stiff, brittle, or discoloured over time. Contact your hearing care professional for a replacement. Your hearing care professional will help you replace it.

Inserting earmoulds into your ears

If your hearing aids have earmoulds, follow these instructions:



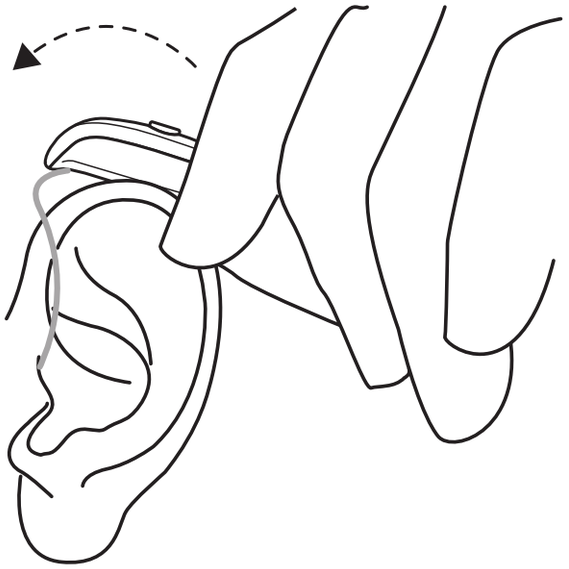
1. Hold the earmould between your thumb and index finger and position the sound outlet into your ear canal.
2. Slide the earmould into your ear with a gentle, twisting movement. Move the earmould up and down and press gently. Opening and closing your mouth may assist.
3. Place the hearing aid behind your ear and ensure it is secure. When properly inserted, your hearing aids should fit snugly and comfortably.

NOTE: When inserting an earmould, it may help to pull your ear up and back with the opposite hand.

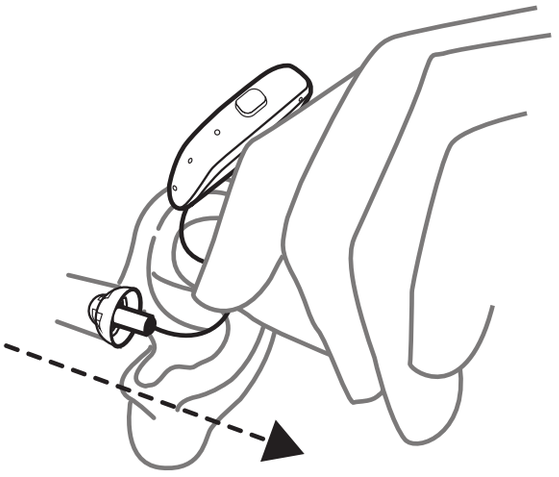
Removing your hearing aids from your ears

Removing receiver domes from your ears

If your hearing aids have domes, follow these instructions:



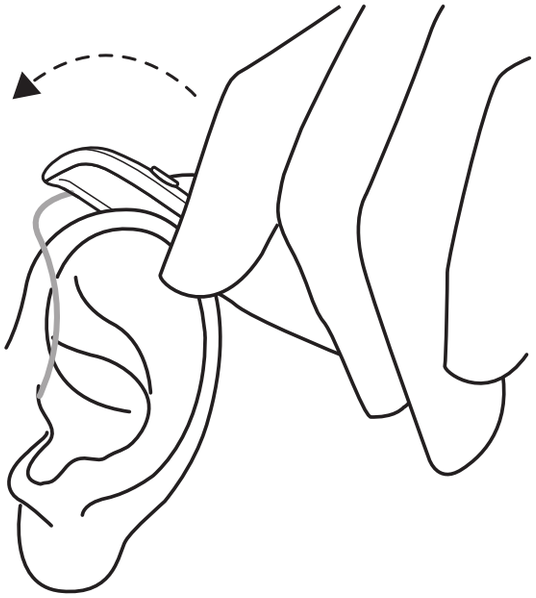
1. Lift the hearing aid off your ear.



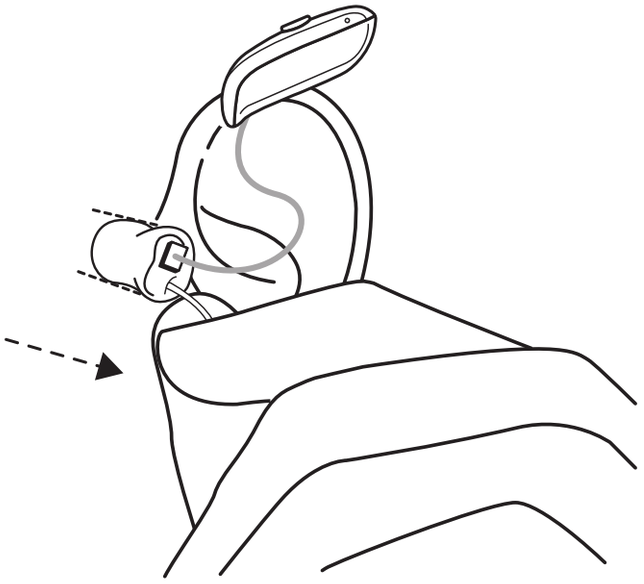
2. Hold the receiver wire with your thumb and index finger where it bends and pull the dome out of your ear canal.

Removing earmoulds from your ears

If your hearing aids have earmoulds, follow these instructions:



1. Lift the hearing aid from behind your ear. Let it hang beside your ear momentarily.

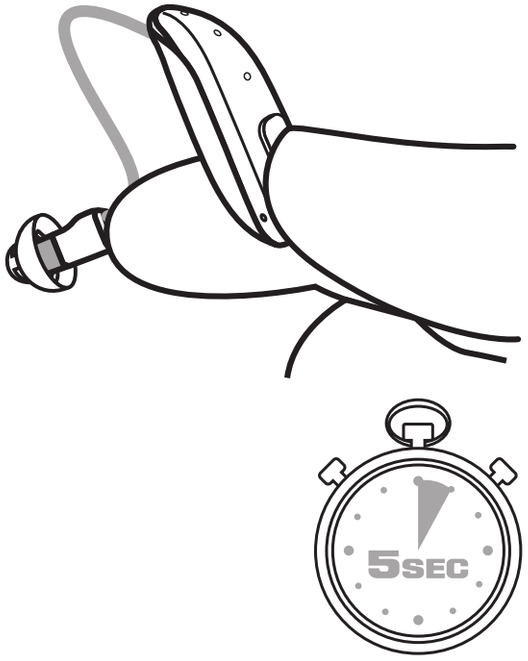


2. Using your thumb and index finger, gently pull the earmould (not the hearing aid or the wire) loose from your ear. If your earmould has a removal cord, pull it gently to assist. The removal cord is a separate line that is additionally attached to the earmould if requested. Remove the earmould completely by twisting it gently.

Using your hearing aids

Turning your hearing aids on and off

To turn your hearing aids on or off, press the push button for **5 seconds**.



Pressing the button for different lengths of time enables other functions such as flight mode and streaming. These are described elsewhere in this manual.

Your hearing aids will automatically go into sleep mode when you place them in the turned-on charger, and they will automatically reactivate when you remove them from the turned-on charger.

Your hearing aids always start in program 1 at the pre-set volume.

Explanation of LED indicator lights on the hearing aid:

- One 2-second green blink: The hearing aid turns on and is in operating mode.
- Three 1-second green blinks: The hearing aid turns off.
- When the hearing aid is present in the charger, green indicator lights pulsate: The hearing aid is recharging.
- When the hearing aid is present in the charger, green indicator lights are steadily on: The hearing aid is fully charged.

Delayed Activation

Delayed Activation delays the time before your hearing aid turns on after you remove the hearing aid from the charger. With this function activated, you will hear a beep for each second of the delay period (either 5 or 10 seconds).

Delayed Activation delays when sound comes through your hearing aid. It gives you time to put on the hearing aid without whistling or other issues.

NOTE: If you do not want to use this function, ask your hearing care professional to deactivate it.

Listening programs

Your hearing care professional can activate one or more listening programs in your hearing aids. These programs can help you in specific situations. Ask your hearing care professional about which programs could be useful for you.

Programs	Use
All-Around	Dynamic adaptation - the best option if you want only one program.
Hear in Noise	Dedicated program for hearing speech in very noisy places such as restaurants or social gatherings.
Music	For listening to music.
Acoustic phone	A special program for phone conversations.
Outdoor	For outdoor use (to reduce wind noise).

Apps

We have an app that you can use to control your hearing aids. You can use the app to adjust the volume, change programs and stream from another device. See "Advanced options", page 37.

Using the push button  and tap control

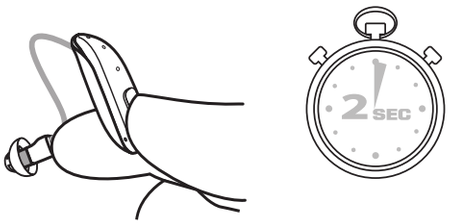
Changing programs

- Push the button for 1-2 seconds to switch from one program to the next. Your hearing aids will beep to confirm the change. The number of beeps indicates which program you have selected.
- To get back to the default listening program, keep scrolling, or turn your hearing aids off and on again.

NOTE: If you have two hearing aids with synchronisation enabled, changing the program on one hearing aid automatically applies the change to the second hearing aid as well.

Streaming sound to your hearing aids

Press the button and keep it pressed for 2 seconds. Your hearing aids will start streaming from the audio device you have chosen.



NOTE: Before you can stream to your hearing aids, you must pair them with your audio device. For more information on how to do this, consult the user instructions for your audio device.

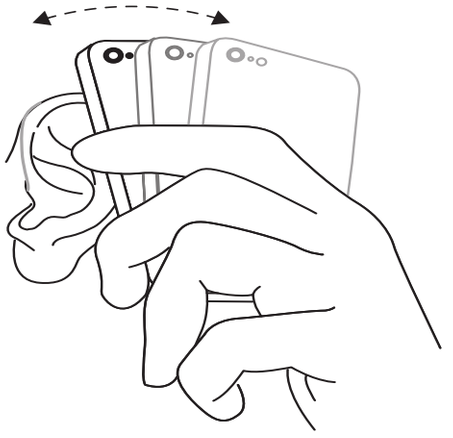
Taking mobile phone calls

- To take an incoming phone call, double-tap on the upper part of your outer ear.
- To reject an incoming phone call, press the push button on the hearing aid for approx. 2 seconds.
- To end a phone call, use a single, short press on the push button of the hearing aid.

NOTE:

- Before you can use this function, you must pair your hearing aids with your mobile device. For more information on how to do this, consult the user instructions for your mobile device.
- You can use the Beltone HearMax™ app to configure the function of the tap control.

Using a telephone



Your hearing aid allows you to use your telephone as you normally do. Finding the optimal position for holding the phone may require practice.

The following suggestions may be helpful:

1. Hold the telephone up to your ear canal or hold it close to the hearing aid microphones as illustrated.
2. If you hear whistling, try holding the telephone in the same position for a few seconds. The hearing aid may be able to cancel the whistling.
3. You can also try holding the telephone slightly away from the ear.

NOTE: Depending on your needs, your hearing care professional may activate a function specifically for telephone use.

Mobile phones

Your hearing aids comply with the most stringent Standards of International Electromagnetic Compatibility. Any degree of disturbance can be due to the nature of your particular mobile phone or of your wireless telephone service provider.

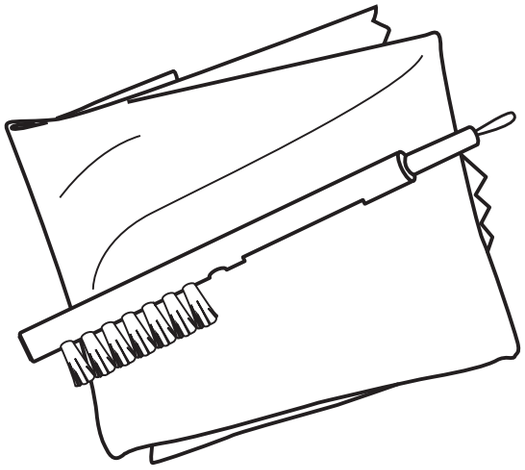
NOTE:

- If you have a mobile device, you can pair it to connect directly to your hearing aids. See "Advanced options", page 37.
- If you find it difficult to get a good result while using your mobile phone, your hearing care professional can give you advice on available wireless accessories to enhance listening capabilities. See also "Wireless accessories", page 42.

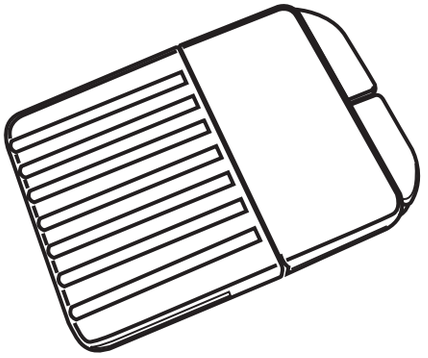
Cleaning and caring for your hearing aids

Cleaning tools

These cleaning tools come with your hearing aids:



- Soft cloth.
- A brush with a battery magnet.



Your hearing care professional may give you a set of wax filters.

General instructions for care and maintenance

To ensure you get the highest quality experience and longest useful lifetime out of your hearing aids, it is important to clean and care for them.

To maintain your hearing aids, clean and disassemble them one at a time to prevent mixing them up.

Follow these steps:

1. When you remove your hearing aids, turn them off.
2. After removing your hearing aids, wipe them with a soft cloth to keep them clean and dry.
3. If you use a drying agent, only use recommended products.
4. Apply cosmetics, perfume, after-shave, hairspray, lotions etc. before putting on your hearing aids. These products can damage or discolour your hearing aids.



NOTE:

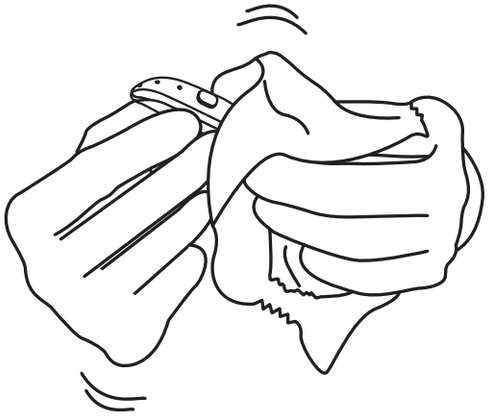
- Never immerse your hearing aids in liquid.
- Keep your hearing aids away from excessive heat and direct sunlight.
- The hearing aids are dust, splash, and water resistant:
  - The hearing aids have IP6X dust resistance. Avoid exposure to extensive dust.
  - The hearing aids have IPX8 water resistance. Avoid exposure to liquids, and do not swim, shower or sauna while wearing the hearing aids.

CAUTION:

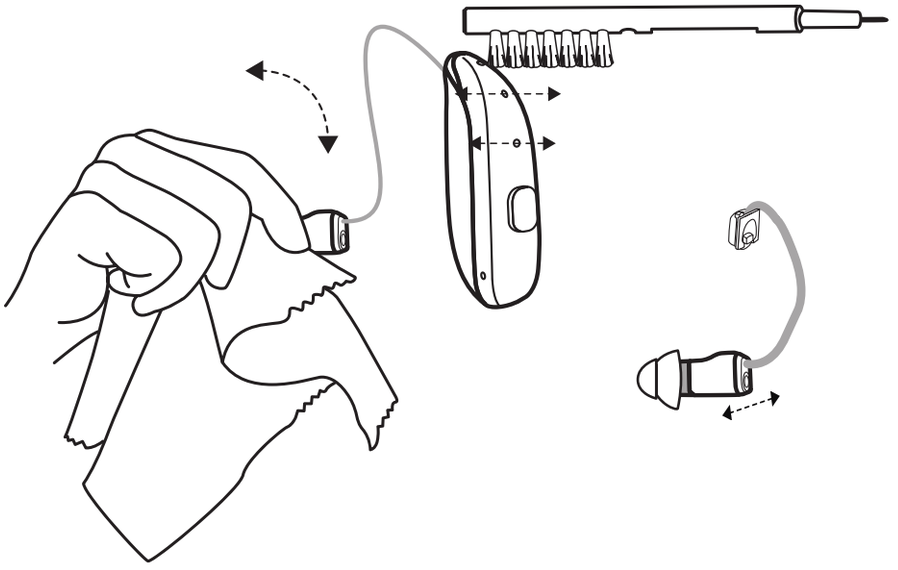
- Only use recommended drying agents.
- Never use alcohol or other cleaning solutions to clean your hearing aids. This can damage your hearing aids and may cause a skin reaction.
- Ear wax or other residue on your hearing aids can cause an infection. To avoid this, clean your hearing aids as instructed.

Daily care and maintenance

It is important to keep your hearing aids clean and dry on a daily basis. Use a cloth and brush to clean the hearing aids.



1. Wipe your hearing aids with a cloth.



2. Swipe a small brush across the microphones. If your receiver has a microphone, remember to brush that one as well.

NOTE:

- Never try to put the brush bristles or the cleaning wire into the microphone inlets. This can damage your hearing aids.
- Do not use water to clean your receiver wires and domes or earmoulds.
- Use a soft, dry cloth to wipe your receivers and earmoulds clean.

Cleaning the earmould

Use a soft, dry cloth to wipe the earmould clean.

NOTE: If the receiver wire for your earmould gets stiff, brittle or discoloured, it needs to be replaced. Consult with your hearing care professional.

Changing your hearing aid domes

We recommend that your hearing care professional shows you how to change domes. You should change your domes every 3 months or more often according to the advice of your hearing care professional.

NOTE:

- Incorrect dome replacement can result in a dome being left in your ear when you remove your hearing aid.

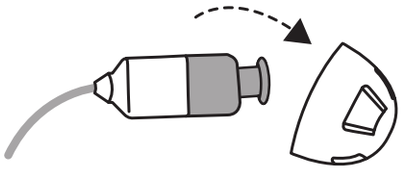


CAUTION:

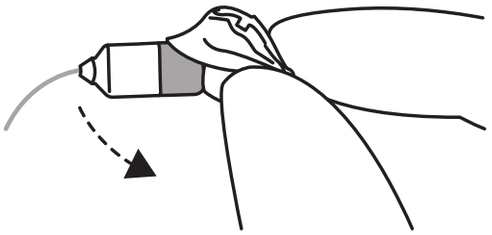
- If you suspect that you have a dome, wax filter, or other object in your ear canal, consult a hearing care professional or a physician. These objects can be harmful and can cause an infection in your ear.

Standard domes

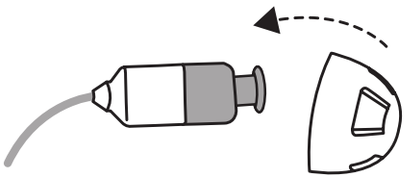
The illustrations show an open dome, but the procedure is the same for closed domes. Follow these instructions to replace your domes.



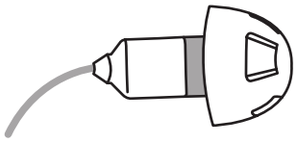
1. Remove the used dome by pulling it off the receiver and then discard it. This may require a bit of force.



3. Carefully pull the dome to check that it is secure.



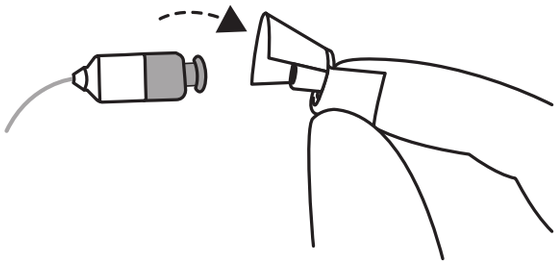
2. Push the new dome over the end of the receiver until you feel a click.



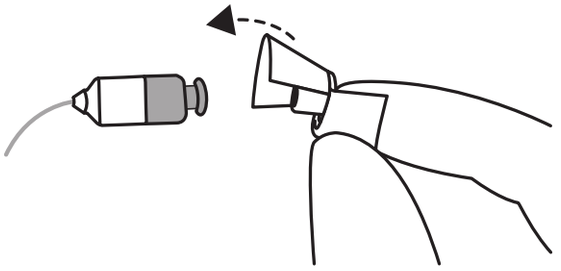
4. When placed correctly, the dome will appear slightly angled.

Tulip domes

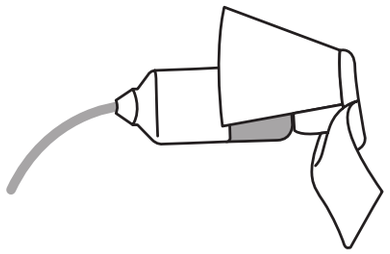
To change a tulip dome, follow these instructions:



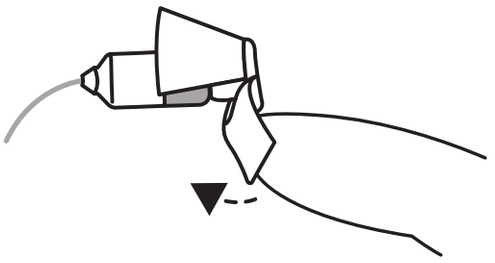
1. Remove the used dome by pulling it off the receiver and discard. This may require a bit of force.



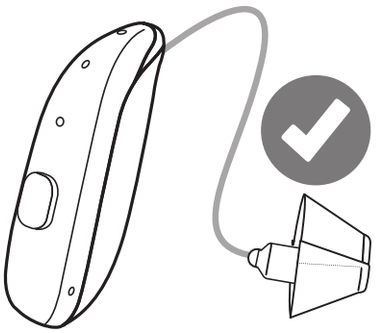
2. Push the largest petal back, then press the tulip dome over the ribbed end of the receiver.



3. Check that the tulip dome is securely mounted by verifying that the collar completely covers the ribbed end of the receiver.



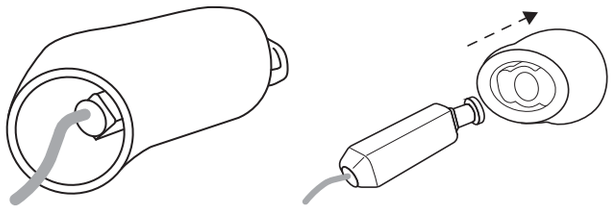
4. Push the larger petal toward the receiver.



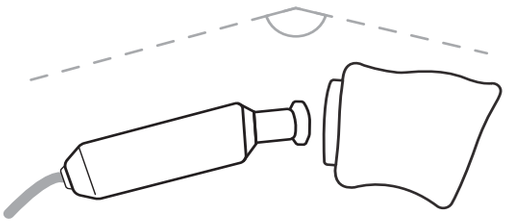
This illustration shows a correctly mounted tulip dome. Ensure the large petal is outside the small petal.

Sleeve domes

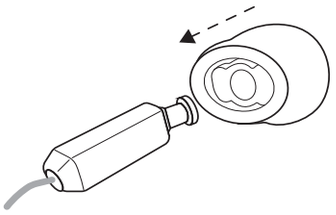
To change a sleeve dome, follow these instructions.



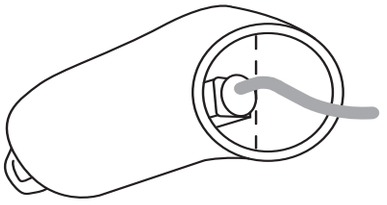
1. Carefully turn the used dome inside out. Remove the dome and dispose of it according to local guidelines for plastic waste.



2. Carefully turn the new dome inside out. Position the receiver with the dome at the angle shown in the illustration.



3. Push the new dome over the end of the receiver until you feel a click. Turn the dome back to its original shape.



4. Carefully pull the dome to check that it is secure. Ensure that the receiver wire is in the middle of the dome opening.

NOTE: For more information on Warnings and Cautions, check the user guide that came with your hearing aids.

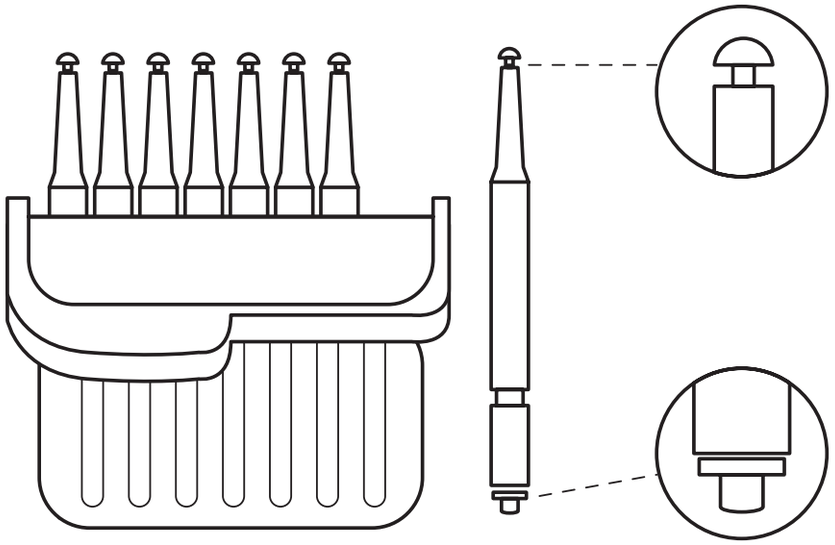
Changing the wax filter

The wax filter is located at the inward end of the receiver or custom earmould.

It helps keep earwax away from the components of your hearing aid. You must replace it on a regular basis. Consult your hearing care professional for advice on how often you need to replace it. It will depend on how much wax your ears produce.

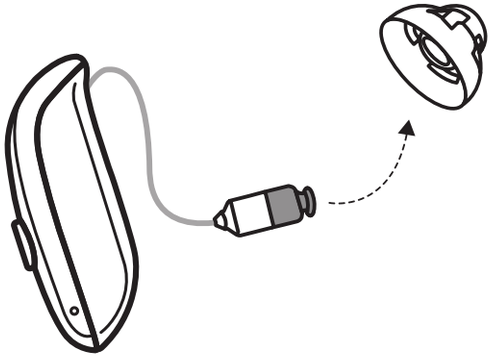
If you wear a dome, remove it before following this process for replacing the wax filter. See "Changing your hearing aid domes", page 30.

To replace a wax filter, you will need your box of wax filter tools.

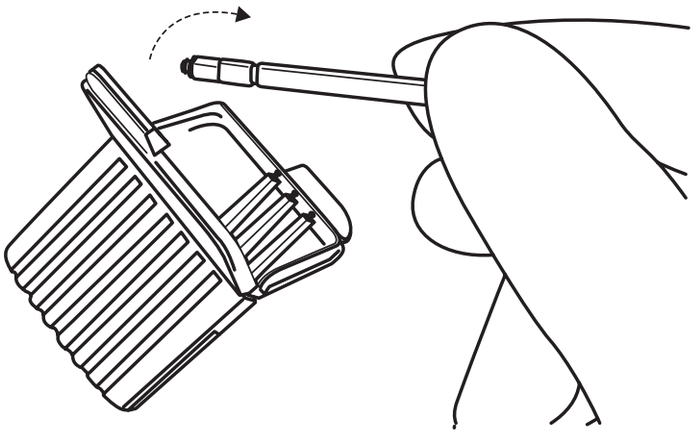


Box of 8 wax filter tools.
The wax filter tool has two functions: a removal tip at the top to collect the used filter, and a replacement tip at the bottom with a white filter.

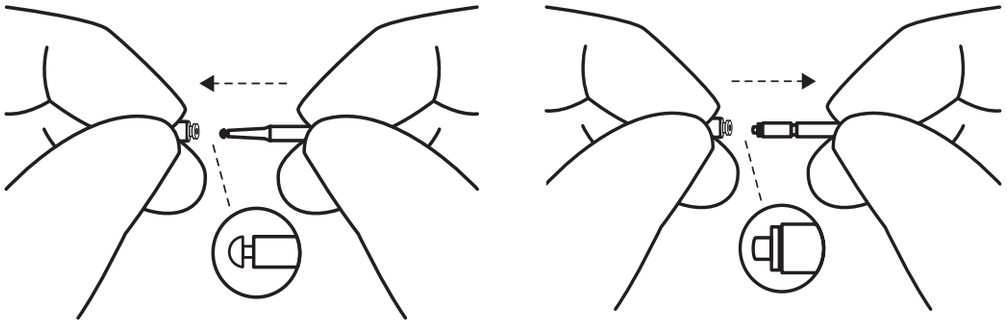
Removing the old wax filter



1. Remove the dome from the receiver.

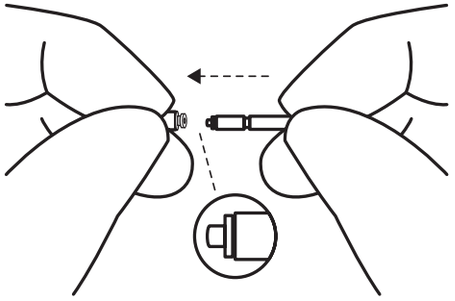


2. Open the wax filter case and take out one of the tools. Each tool has a small hook (removal tip) in one end and a new wax filter in the other.

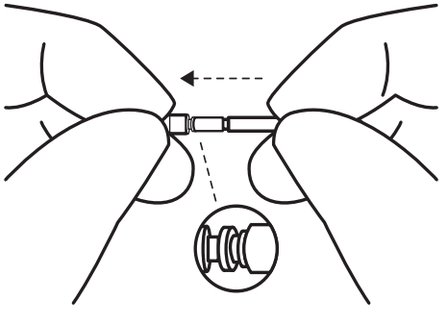


3. Insert the removal tip into the used wax filter and then pull the tool straight out. It is important to pull it straight and not in an angle.

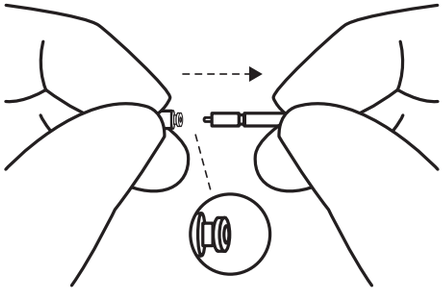
Inserting the new wax filter



1. Insert the other end of the tool into the sound outlet (the end with the replacement filter).



2. Gently press the replacement filter straight into the sound outlet until the outer ring is touching the sound outlet.



3. Pull the tool straight out. Your new wax filter will remain in place. Re-attach your dome or a replacement dome.

Advanced options

Using your hearing aids with iPhone, iPad, and iPod touch (optional)

Your hearing aids are Made for iPhone®, iPad®, and iPod touch®, which allow for direct audio streaming , including hands-free phone calls from the latest iPhone and iPad models[1], and control from these mobile devices.

Streaming from an Android™ smartphone

Your device must be running Android 10 or newer and it must have the Android Streaming for Hearing Aids feature as well. Some Android smartphones can stream audio, including phone calls, directly to your hearing aids.

NOTE: For assistance with pairing and using these products with your hearing aids, contact your hearing care professional or visit our support site. See the back page of this user guide.

[1] Hands-free calls are compatible with iPhone 11 or later, iPad Pro 12.9-inch (5th generation), iPad Pro 11-inch (3rd generation), iPad Air (4th generation), iPad mini (6th generation), iPad (10th generation) or later, with software updates iOS 15.3 and iPadOS 15.3 or later.

Controlling your hearing aids with the mobile device app (optional)

The Beltone HearMax™ app enables you to control your hearing aids from mobile devices. You can use the Beltone HearMax™ app designed for your hearing aids to obtain updates to your hearing aids, find your hearing aids, check their battery status, or as a remote control to change programs or adjust the volume.

NOTE:

- The app must only be used with Beltone hearing aids for which they are intended, and Beltone takes no responsibility if the app is used with other hearing aids.
- Do not disable app notifications.
- Install updates to keep the app working correctly.
- If you want a printed version of the user guide for the app, please go to our website (see the back page of this user guide) or consult customer support.
- For assistance with pairing and using these products with your hearing aids, contact your hearing care professional or visit our support site.

- If your Bluetooth® enabled Android mobile device does not stream directly to your hearing aids, you can use our Beltone Direct Phone Link 2 for streaming capabilities and for hands-free conversations.





Beltone Remote Care and Beltone Remote Care Live (optional)

Beltone Remote Care

If you have signed up to use Beltone Remote Care available with your hearing aids, you can allow your hearing aids to be adjusted remotely without having to visit your hearing care professional.

All you need is a compatible mobile device with internet enabled. This allows you to:

- Request assistance remotely to adjust your hearing aids to be a better fit for you.
- Keep your hearing aids up to date with the latest software to ensure the best performance possible.

This service only works if your mobile device is connected to the internet. Your hearing care professional will provide information regarding this option, and how it works with the Beltone HearMax™ app.

For optimum performance, make sure the hearing aids are connected to the Beltone HearMax™ app and placed close to the iPhone, iPad, iPod touch, or the Android smartphone before applying the changes.

NOTE: Your hearing aids shut down during the installation and update process.

Beltone Remote Care Live

This service also includes Beltone Remote Care Live. With this service you can get face-to-face assistance from your hearing care professional from home.

Flight Mode / Wireless Communication Off Mode (optional)

Your hearing aids can receive wireless signals. For example, they can be controlled from your mobile device or remote control. Information transmission can also take place between your hearing aids. However, in some areas you are requested to turn off wireless communication.



CAUTION: This hearing aid contains a radio frequency (RF) transmitter. When boarding a flight, follow airline instructions and turn off the hearing aid wireless functionality when this is required.

NOTE: You must follow the processes below for both hearing aids, even if synchronisation is enabled.

Turning off wireless communication (activating Flight Mode)

1. Turn off your hearing aid.

2. Press the button for 9 seconds.
3. Your hearing aid will double-flash four times. If you are wearing your hearing aids at the time, you will hear double tones (♫♫) for about 10 seconds, meaning the hearing aid is now in Flight Mode.

Activating wireless communication (turning off Flight Mode)

1. Turn your hearing aid off and then on.
2. Wireless communication will be activated after 10 seconds.

Wireless accessories

A variety of wireless accessories is available as an enhancement to your hearing aids. These accessories enable direct streaming of sound and speech to your hearing aids, enhancing your ability to hear and communicate in various everyday situations.

Available wireless accessories and their features

- **A TV streamer** streams audio from a TV and most other audio sources to your hearing aids at a volume that suits you.
- **A basic remote control** adjusts volume, mutes your hearing aids and changes programs.
- **An advanced remote control** adjusts volume, mutes your hearing aids, changes programs and displays your settings.
- **A phone clip** streams phone conversations and stereo sound to both hearing aids and doubles as a remote control.
- **A body-worn microphone** is a microphone that can be worn by others. It improves speech comprehension in noisy situations.
- **A wireless microphone.** It works like the **body-worn microphone**, but doubles as a table microphone. Furthermore, it has a built-in telecoil that allows it to connect with a teleloop system, a connector for a FM receiver, and a mini-jack input for wired streaming of audio from a computer or music player.
- **An app** which you can install on your mobile device to enable streaming and control directly from your mobile device. See "Advanced options", page 37.

Accessing wireless accessories

To access a wireless accessory that has already been paired with your hearing aids, press the push button for 2 seconds. The hearing aid will emit a sound to confirm the connection.



NOTE:

- Please contact your hearing care professional for an overview of compatible wireless accessories that are approved by GN Hearing A/S.
- You should only use GN Hearing A/S wireless accessories with your wireless hearing aids. For information about how to pair your hearing aids with a wireless accessory, see the user guide for the relevant wireless accessory.

Tinnitus management

Tinnitus Breaker Pro module

Your Beltone hearing aid includes the Tinnitus Breaker Pro (TBP) module, a tool for generating sounds to be used in tinnitus management programs to temporarily relieve suffering from tinnitus. The TBP can generate sounds adjusted to the specific therapeutic needs and your personal preference as determined by your doctor, audiologist, or hearing care professional. Depending on the selected hearing aid program and the environment you are in, you will sometimes hear the therapeutic sound resembling a continuous or fluctuating noise.

Indications for use of the TBP module

The Tinnitus Breaker Promodule is a tool to generate sounds to be used in a Tinnitus Management Program to temporarily relieve patients suffering from Tinnitus. The target population is primarily the adult population over 18 years of age. This product may also be used with children 12 years of age or older.

For healthcare professionals

The Tinnitus Breaker Pro module is targeted for healthcare professionals who are treating patients suffering from Tinnitus, as well as conventional hearing disorders. The initial fitting of the Tinnitus Breaker Pro module must be done during an in-office visit by a hearing professional participating in a Tinnitus Management Program. If deemed feasible by the hearing professional, subsequent fittings of the Tinnitus Breaker Pro module may

be performed remotely and in real time while having live communication via live audio, video and chat on the user's dedicated app.

User instructions for the TBP module

Description of the device

The Tinnitus Breaker Pro(TBP) Module is a software tool that generates sounds to be used in tinnitus management programs to temporarily relieve suffering from tinnitus.

Explanation of how the device functions

The TBP module is a frequency and amplitude shaped white-noise generator. Noise signal level and frequency characteristics can be adjusted to the specific therapeutic needs as determined by your doctor, audiologist or hearing care professional.

Your doctor, audiologist or hearing care professional can modulate the generated noise to make it more pleasant. The noise can then resemble, for example, breaking waves on a shore.
Modulation level and speed can also be configured to your likes and needs. An additional feature can be enabled by your hearing care professional that allows you to select predefined sounds that simulate sounds from nature, such as breaking waves or running water..

If you have two wireless hearing aids that support ear-to-ear synchronisation, this functionality can be enabled by your hearing care professional. This will cause the Tinnitus Breaker Pro to synchronise the sound in both hearing aids.

If your tinnitus troubles you only in quiet environments, your doctor, audiologist or hearing care professional can set the TBP Module so that it becomes audible exclusively

in such surroundings. The overall sound level can be adjusted via a volume control. Your doctor, audiologist or hearing care professional will review with you the need for having such a control.

For hearing aids where ear-to-ear synchronisation is enabled, your hearing care professional can also enable environmental monitoring synchronisation so that the TBP noise level is automatically adjusted simultaneously in both hearing aids dependent on the background sound level. Additionally, since the hearing aid has a volume control, the background noise level is monitored by the hearing aid and the volume control can be used simultaneously to adjust the generated noise level in both hearing aids.

The scientific concepts that form the basis for the device

The TBP module provides sound enrichment intending to surround the tinnitus sound with a neutral sound which is easily ignored. Sound enrichment is an important component of most approaches to tinnitus management, such as Tinnitus Retraining Therapy (TRT).

To assist habituation to tinnitus, this needs to be audible. The ideal level of the TBP module, therefore, should be set so that it starts to blend with the tinnitus, and so that you can hear both your tinnitus as well as the sound used.

In most instances, the TBP module can also be set to mask the tinnitus sound, to provide temporary relief by introducing a more pleasant and controllable sound source.

TBP volume control

The sound generator is set to a specific loudness level by the hearing care professional. When switching the sound generator on, the volume will have this optimal setting. Therefore, it might not be necessary to control the volume (loudness) manually. However,

the volume control provides the ability to adjust the volume, or amount of stimulus, to the liking of the user. The tinnitus sound generator volume can only be adjusted within the range set by the hearing care professional.

The volume control is an optional feature in the TBP module used for adjusting the sound generator output level.

Using TBP with smartphone apps

The tinnitus sound generator control via hearing aid push buttons can be enhanced with wireless control from a TBP control app on a smartphone or mobile device. This functionality is available in supported hearing aids when a hearing care professional has enabled the TBP functionality during the fitting of the hearing aid.

NOTE: To use smartphone apps, the hearing aid must be connected with the smartphone or mobile device.

TBP - Technical specifications

Audio signal technology

Digital.

Available sounds

White noise signal which can be shaped with the following configurations:

High-pass filter	Low-pass filter
500 Hz	2000 Hz
750 Hz	3000 Hz
1000 Hz	4000 Hz
1500 Hz	5000 Hz
2000 Hz	6000 Hz
-	8000 Hz

The white noise signal can be modulated in amplitude with an attenuation depth of up to 14 dB.

⚠ WARNING

Prescription use of this device

The TBP module should be used as prescribed by your doctor, audiologist or hearing healthcare professional. In order to avoid permanent hearing damage, the maximum daily usage depends on the level of the generated sound.

To adjust TBP, please consult your hearing healthcare professional.

Should you develop any side effects from using the sound generator, such as dizziness, nausea, headaches, perceived decrease in auditory function or increase in tinnitus

perception, you should discontinue the use of the sound generator and seek medical evaluation.

Target population

The target population is primarily the adult population over 18 years of age. This product may also be used with children 12 years of age or older. However, children and physically or mentally challenged users will require training by a doctor, audiologist, hearing care professional or the guardian for the insertion and removal of the hearing aid containing the TBP module.

Important notice for prospective sound generator users

A tinnitus masker is an electronic device intended to generate noise of sufficient intensity and bandwidth to mask internal noises. It is also used as an aid in hearing external noises and speech.

Good health practice requires that a person with a tinnitus condition have a medical evaluation by a licensed physician (preferably a physician who specializes in diseases of the ear) before using a sound generator. Licensed physicians who specialize in diseases of the ear are often referred to as otolaryngologists, otologists or otorhinolaryngologists.

The purpose of medical evaluation is to ensure that all medically treatable conditions that may affect tinnitus are identified and treated before the sound generator instrument is used.

The sound generator instrument is a tool to generate sounds to be used with appropriate counselling and/or in a tinnitus management program to relieve patients suffering from tinnitus.

Warning information

WARNING:

- Sound generators can be dangerous if improperly used.
- Sound generators should be used only as advised by your doctor, audiologist, or hearing care professional.
- Sound generators are not toys and should be kept out of reach of anyone who might cause themselves injury (especially children and pets).

CAUTION:

- Should the user develop any side effects from using the sound generator, such as dizziness, nausea, headaches, perceived decrease in auditory function or increase in tinnitus perception, the user should discontinue use of the sound generator and seek medical evaluation.
- Discontinue use of the sound generator and consult promptly with a licensed physician if you experience any of the following conditions:
    a. Visible, congenital or traumatic deformity of the ear.
    b. History of active drainage from the ear within the previous 90 days.
    c. History of sudden or rapidly progressive hearing loss within the previous 90 days.
    d. Acute or chronic dizziness.
    e. Unilateral hearing loss of sudden or recent onset within the previous 90 days.
    f. Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
    g. Pain or discomfort in the ear.

- Discontinue use of the sound generator and consult promptly with your hearing care professional if you experience changes in the tinnitus perception, discomfort or interrupted speech perception, while using the tinnitus sound generator.
- The volume control is a feature in the TBP module used for adjusting the sound generator output level. To prevent unintended usage by paediatric or physically or mentally disabled users, the volume control must be configured to only provide a decrease of the sound generator output level.
- Children and physically or mentally disabled users will require guardian supervision while wearing the TBP hearing aid.
- Adjustment of the tinnitus sound generator settings, using a smartphone app, should only be performed by the parent or legal guardian in cases where the user is a minor.
- Use of the Beltone Remote Care for remote settings of the tinnitus sound generator should only be performed by the parent or legal guardian in cases where the user is a minor.

⚠ Tinnitus Breaker Pro warning to hearing care professionals

A hearing care professional should advise a prospective sound generator user to consult promptly with a licensed physician (preferably an ear specialist) before getting a sound generator. If the hearing care professional determines through inquiry, actual observation, or review of any other available information concerning the prospective user that the prospective user has any of the following conditions:

1. Visible, congenital or traumatic deformity of the ear.

2. History of active drainage from the ear within the previous 90 days.
3. History of sudden or rapidly progressive hearing loss within the previous 90 days.
4. Acute or chronic dizziness.
5. Unilateral hearing loss of sudden or recent onset within the previous 90 days.
6. Audiometric air-bone gap equal to or greater than 15 dB at 500 Hertz (Hz), 1000 Hz, and 2000 Hz.
7. Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
8. Pain or discomfort in the ear.



CAUTION: The maximum output of the sound generator falls into the range that can cause hearing loss according to OSHA regulations. In accordance with NIOSH recommendations, the user should not use the sound generator for more than eight (8) hours a day when this is set to a level of 85 dB SPL or above. When the sound generator is set to levels of 90 dB SPL or above the user should not use the sound generator for more than two (2) hours per day. In no case should the sound generator be worn at uncomfortable levels.

General warnings and cautions

WARNING:

- Consult a hearing care professional or a physician:
  - If you think there may be a foreign object in your ear canal
  - If you experience skin irritation
  - If excessive ear wax accumulates with the use of the hearing aid

  See also "Contraindications", page 5

- Seek immediate medical help if a hearing aid, a device, their parts, battery, or magnet is swallowed, as it can cause choking and harm your health.
- Keep your hearing aids and devices, along with any parts, batteries, and magnets, away from pets, children, and people with cognitive, intellectual, or mental health challenges.
- Always supervise children or individuals with cognitive, intellectual, or mental health challenges when they are using their hearing aids. Hearing aids contain small pieces that can be dangerous if swallowed.
- Do not wear your hearing aids while exposed to radiation. Some types of radiation, including MRI or CT scanners, can affect the settings in your hearing aids. This may cause malfunction and potentially damage your hearing.
- Other types of radiation, such as burglar alarms, room surveillance systems, mobile phones, metal detectors, and radio equipment will not damage your hearing aids. However, they may briefly affect the sound quality in your hearing aids and may create undesired sounds.

- Never use your hearing aids in places with explosive gases such as mines, oil fields, or similar unless these areas are certified for hearing aid use. Using your hearing aids in places that are not certified for hearing aid use can be dangerous.
- Do not dry your hearing aids in an oven, microwave oven, or other heating equipment. This will cause them to melt and may cause burns to your skin.
- In general, exposure to loud sounds can damage your hearing. This could be loud music or loud environments. You can best protect your hearing by reducing exposure to loud sounds and environments or by using hearing protection.
- External devices connected to the electrical input must be safe according to the requirements of IEC 60601-1:2005+AMD1:2012+AMD2:2020, IEC 60065, or IEC 60950-1, IEC 62368-1 as appropriate.
- Your hearing aids have been fitted to amplify soft and loud sounds according to your needs. If the amplification seems too loud or you suspect the hearing aid is malfunctioning (e.g. you hear distorted or unusual sound), contact your hearing care professional. A malfunctioning hearing aid can damage your hearing.
- Only use original consumables with your hearing aids (e.g. tubes, wax filters, domes etc.). Consult your hearing aid professional for more information.
- When wearing the hearing aid, make sure to stay alert to sounds around you.
- No modification of this hearing aid is allowed.
- Do not use glue or tape to attach loose parts to the hearing aid. Contact your hearing care professional if any parts become loose.

Warning related to power hearing aids

- A power hearing aid can produce very loud sound to compensate for severe or profound hearing loss. There is a risk that the loud sound can further impair the user's hearing.



CAUTION:

- Use your hearing aids as your hearing care professional recommends. Incorrect use may damage your hearing.
- Do not use a broken or modified hearing aid. It may not work properly and may be harmful to your hearing. It may also cause scratches or sores due to sharp edges.
- Do not modify the shape of your hearing aid or its accessories. This can cause skin reactions or sharp edges leading to scratches or sores.
- If you suspect that you have a dome, wax filter, or other object in your ear canal, consult a hearing care professional or a physician. These objects can be harmful and can cause an infection in your ear.

- If you have a sore or injury where your hearing aid touches your ear or head, continued use of the hearing aid may cause it to worsen or prevent it from healing. Consult a hearing care professional for assistance.
- Your hearing aids are tuned to your hearing. Do not allow others to use your hearing aids as this can damage their hearing.
- When using wireless functions, your hearing aid uses low-powered digitally coded transmissions to communicate with other wireless devices. It is possible, but not likely, that other electronic devices will be affected. If this happens, move the hearing aid away from the affected electronic device.
- Immediately discontinue using the hearing aid and contact a physician if experiencing discomfort or ringing in the ears. Prolonged use can cause damage to the residual hearing, tinnitus or hyperacusis.

For hearing care professionals

 WARNING:

- The developed sound pressure level in the ears of children can be substantially higher than in average adults. It is recommended to perform an RECD measurement to ensure the correct target for the fitted OSPL90.
- Special care should be exercised in selecting and fitting hearing aids with a maximum sound pressure level (maximum OSPL90) of 132 dB SPL or higher (IEC 60318-5:2006) as there may be a risk of further impairing the remaining hearing of the hearing aid user.

 CAUTION: Do not change the outer casing or any parts of a hearing aid unless appropriately protected against ESD.

Cybersecurity

Hearing aid system

The following diagram illustrates the communication interfaces of the hearing aid system. The hearing aid system consists of several devices, such as the hearing aids, charger[1], app, fitting software, external microphone, and TV streamer.

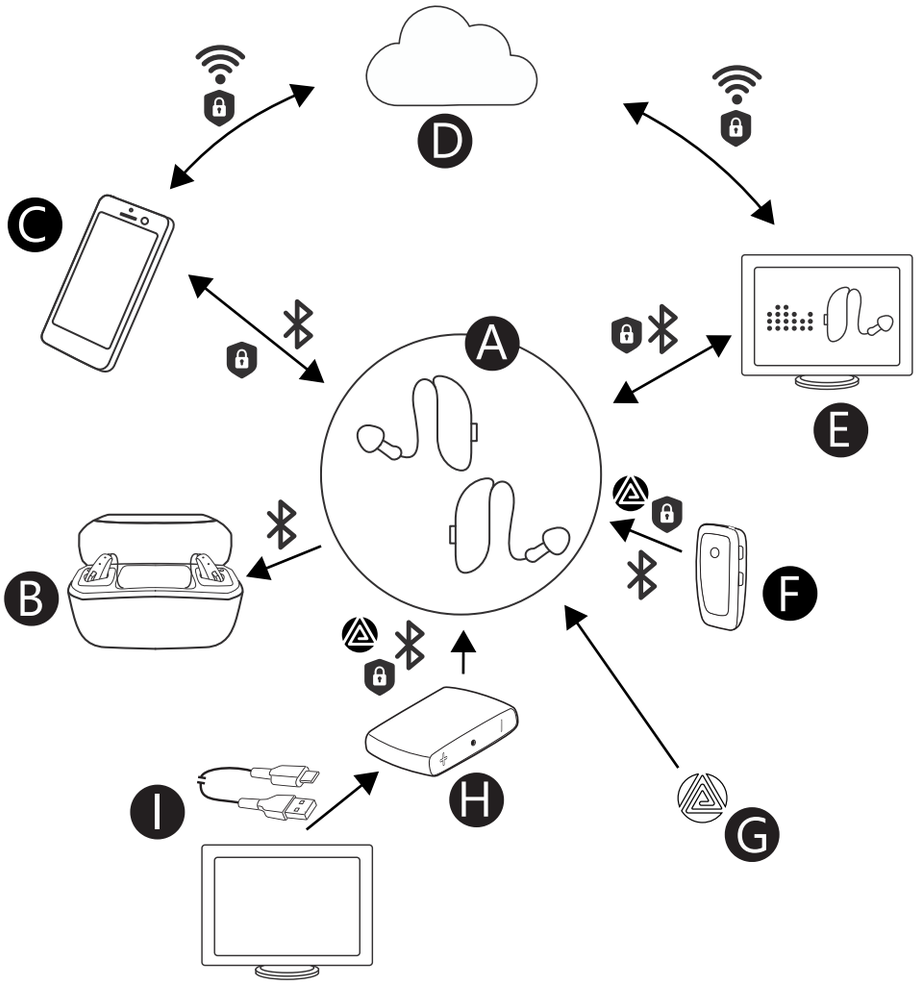
The diagram shows how these devices communicate with each other, how data is stored in the cloud, and how a TV streamer connects to the television. It also shows that the TV streamer and external microphone can also be used for Auracast broadcasts.

Devices not described in detail in this user guide are covered in their own user guides.

Communication only takes place if you consent and if the hearing aids are paired with a mobile device.

To ensure data security and patient confidentiality, the hearing aid system employs standard cybersecurity measures built into the protocols, along with additional security features such as authentication, data encryption, data integrity protection, and data validation.

[1] Chargers are only available for rechargeable hearing aids. If your hearing aids use replaceable zinc-air batteries, a charger is not part of your hearing aid system.



A. Hearing aids
B. Charger
C. Mobile device
D. Cloud
E. Fitting software
F. External microphone
G. External Auracast transmitter
H. TV streamer
I. TV

Communication between the various devices is undertaken by one of the following:

- Bluetooth®
- Wireless
- Cable
- Auracast

The diagram illustrates whether the connection is encrypted .

The following table explains the data exchange between the various devices referenced in the diagram.

Connection from	Connection to	Exchanged data
Hearing aids	Charger	• Current battery level • Verifies whether a proper hearing aid is inserted into in the charger
	Mobile device	• Current settings, including volume and listening programs
	Fitting software	• Current settings
Mobile device	Hearing aids	• New settings • Firmware updates
	Cloud	• Current settings • End user registration • Requests for remote fine tuning (if applicable)
Cloud	Mobile device	• Latest settings • Firmware updates • Remote fine tuning (if applicable)
	Fitting software	• Firmware update • Requests for remote fine tuning (if

Connection from	Connection to	Exchanged data
		applicable)
Fitting software	Hearing aids	• New fitting settings • Firmware updates
	Cloud	• Current settings • Remote fine tuning (if applicable)
TV streamer	Hearing aids	• Encoded audio
External microphone	Hearing aids	• Encoded audio

Failing to follow these cautions can compromise the information security of your hearing aid and potentially cause hearing loss or tinnitus.

⚠ CAUTION:

- Once turned on, your hearing aids are open to connections from other devices for a few minutes. Never restart the hearing aids on request from a device you do not recognize as this may compromise the safety of the hearing aids.
- If your device plays the pairing sound at an unexpected time, this could indicate someone has gained access to your device.
- Only connect your hearing aid to the official Beltone app.
- Only apply expected remote fine-tuning updates.
- Always use the latest available software update for your hearing aid.
- Only accept expected live assistance calls from the hearing care professional.

- Only connect your hearing aid to a trusted device.

  A trusted device is one that you control and must meet these conditions:

  - **Secure and up to date:** Ensure it runs the latest operating system and security updates available for its model.
  - **Official software only:** Use only the official app downloaded from recognised app stores (for example, Apple App Store or Google Play). For more information, see the user guide for the app.
  - **No unverified pairings:** It should not have any active pairings with unknown or unverified sources.
  - **Unmodified system:** It should not be jailbroken or rooted.

Pay attention to the following information related to hearing aids:

- Contact your hearing care professional if your device is malfunctioning.
- When you connect the device to the fitting software or the app you will get notified about new software updates, if available.
- If the hearing aids consistently fail to connect to or continuously disconnect from the app or fitting software, contact your hearing care professional
- Data stored in the GN system is protected against unauthorised access.
- All wireless communications in the Beltone system are encrypted and authenticated to protect your data and prevent unauthorised access to the system.
- The firmware is secured with code signing to guarantee that it has not been altered or compromised.
- The device comes signed and has certificates, and no further configuration is required.

- If you want to remove personalised programming from your hearing aids, contact your hearing care professional.
- When using wireless communication of your hearing aid, it is possible, but not likely, that other electronic devices affect this communication. If this happens, move away from the interfering electronic device.

Troubleshooting

Issue	Potential cause	Potential solution
Feedback or "whistling"	Is your earmould or dome inserted correctly in your ear?	Re-insert it.
	Is the volume very loud?	Reduce the volume.
	Is the receiver wire broken or the earmould clogged?	Visit your hearing care professional.
	Are you holding an object (e.g. a hat or a telephone mouthpiece) close to the hearing aid?	Move your hand away to create more space between the hearing aid and the object.
	Is your ear full of wax?	Visit your physician.

Issue	Potential cause	Potential solution
No sound	Is the hearing aid turned off?	Turn it on.
	Is the hearing aid charged?	Charge the hearing aid. (See the user guide for your charger.)
	Is the hearing aid charger charged? (Rechargeable model)	Charge the hearing aid charger. (See the user guide for your charger.)
	Is the receiver wire broken or the earmould clogged?	Visit your hearing care professional.
	Is your ear full of wax?	Visit your physician.
Battery drains very quickly.	Did you leave your hearing aid switched on for long periods of time?	Always turn off your hearing aids when you are not using them, or place them in the charger for charging. The battery will drain faster when you use wireless functions like streaming from your smart device or from your TV with our TV streamer.
	Is the hearing aid 3-4 years old?	Visit your hearing care professional.

Issue	Potential cause	Potential solution
Hearing aid is not charging	Is the hearing aid correctly inserted in the charger?	Reinsert the hearing aid in the charger.(See the user guide for your charger.)
	Is the hearing aid charger charged (Premium charger only) or plugged into a power source?	Charge the hearing aid charger. (See the user guide for your charger.)

Regulatory information

Warranties and repairs

The manufacturer provides a warranty on hearing aids in the event of defects in workmanship or materials, as described in applicable warranty documentation. In its service policy, the manufacturer pledges to secure functionality at least equivalent to the original hearing aid. As a signatory to the United Nations Global Compact initiative, the manufacturer is committed to doing this in line with environment-friendly best practices. Hearing aids therefore, at the manufacturer's discretion, may be replaced by new products or products manufactured from new or serviceable used parts, or repaired using new or refurbished replacement parts. The warranty period of hearing aids is designated on your warranty card, which is provided by your hearing care professional.

For hearing aids that require service, please contact your hearing care professional for assistance.

Hearing aids that malfunction must be repaired by a qualified technician. Do not attempt to open the case of hearing aids, as this will invalidate the warranty.

Ambient conditions

Temperature test

Our hearing aids are subjected to various tests in temperature and damp heating cycling between **-**25 °C (**-**13 °F) and +70 °C (+158 °F) according to internal and industry standards.

During use

During normal operation the temperature should not exceed the limit values of +5 °C (+41 °F) to +40 °C (104 °F) at a relative humidity range of 15% to 90%, non-condensing, but not requiring a water vapour partial pressure greater than 50 hPa. An atmospheric pressure between 700 hPa and 1060 hPa is appropriate.

While charging, the ambient temperature should be within the limit values of +5 °C (41 °F) to +35 °C (95 °F).

Charging your hearing aids at ambient temperatures over +35 °C (+95 °F) may lead to extended charging times.



CAUTION: During use, your hearing aids may reach temperatures up to +43 °C (+109 °F).

During transport or storage

During transport or storage, the temperature should not exceed the limit values of:

- -25 °C (-13 °F) to +5 °C (41 °F)
- +5 °C (41 °F) to +35 °C (95 °F) at a relative humidity up to 90 %, non-condensing
- >+35 °C (+95 °F) to +60 °C (+140 °F) at a water vapour pressure up to 50 hPa.

Warm-up time: (from -25 °C (-13 °F) when placed at 20 °C (68 °F)): 15 minutes.
Cool-down time: (from +60 °C (140 °F) when placed at 20 °C (68 °F)): 20 minutes.

Expected service lifetime

The expected service lifetime for the product when used as intended is:

Product	Lifetime
Hearing aid	5 years
Built-in rechargeable battery	5 years
Dome	3 months
Receivers	2 years
Electronic accessories (e.g., wireless accessories)	5 years

Statement

This device complies with Part 15 of the FCC rules and Innovation, Science and Economic Development Canada's license-exempt RSSs.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

The device complies with FCC & Innovation, Science and Economic Development Canada's rules for RF radiation exposure limits set forth for an uncontrolled environment.

Changes or modifications made to this equipment not expressly approved by manufacturer may void the FCC authorization to operate this equipment.

The products are in compliance with the following regulatory requirements:

- In the EU: The device conforms to the General Safety and Performance Requirements according to Annex I of the EU Medical Device Regulation 2017/745 (MDR)
- Hereby, GN Hearing A/S declares that the radio equipment types DURR1 are in compliance with Directive 2014/53/EU.
- The full text of the EU declaration of conformity is available at the following internet address:
  www.beltone.com/en/declarations.
- In the US: FCC CFR 47 Part 15, subpart C.
- In Canada: these hearing aids are certified under the rules of ISED.
- Japanese Radio Law and Japanese Telecommunications Business Law Compliance: This device has been certified pursuant to the Japanese Radio Law (電波法) and the Japanese Telecommunications Business Law (電気通信事業法). This device should not be modified (otherwise the granted designation number will become invalid).
- For other international regulatory requirements, please refer to the regulatory requirements of the specific country.

Type designations

Hearing aid type designations for models included in this user guide are:

DURR1, FCC ID: X26 DURR1, IC: 6941C-DURR1.

Hearing aid variants

Availability of models may vary by country.

Mini Receiver In-the-Ear (RIE) hearing aids of type **DURR1** with FCC ID: X26DURR1, IC number 6941C-DURR1 and rechargeable Li-Ion battery are available in the following variants:

SER1762S-DRWC, SER962S-DRWC, SER662S-DRWC, SER462S-DRWC, CSE162S-DRWC

The BLE nominal RF output power transmitted ismax **-**7.8 dBm EIRP per FCC 47 C.F.R part 15.209, 15.247.

The hearing aid transmits and receives RF signals in the frequency range of 2.4 GHz - 2.48 GHz.

All above-mentioned hearing aids contain a magnetic induction radio operating at the 10.66 MHz frequency. The magnetic field strength of the radio is: Max. **-**24 dBµA/m at a 10 m distance per FCC 47 C.F.R part 15.209.

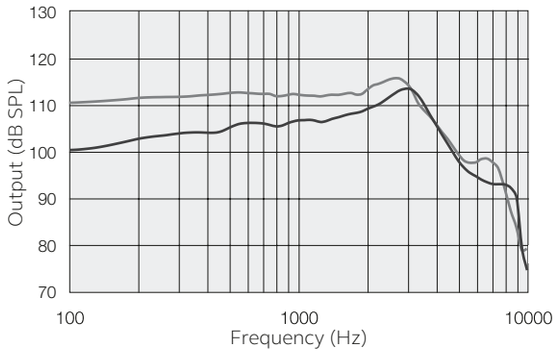
Technical specifications

RIE — LP/MP receiver

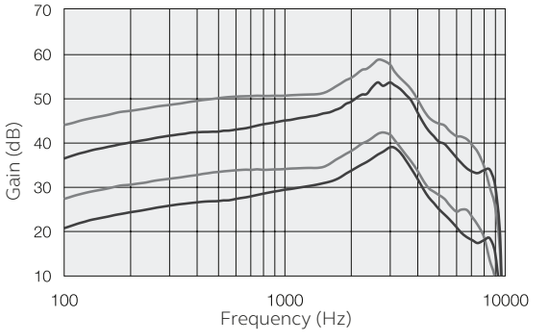
Models: SER1762S-DRWC, SER962S-DRWC, SER662S-DRWC, SER462S-DRWC, R NX RCSE162S-DRWC

		LP	MP	
Reference test gain (60 dB SPL input) (The 2 lower curves in the Full-On and Ref.Test.Gain chart)	HFA	32	37	dB
Full-on gain (50 dB SPL input) (The 2 upper curves in the Full-On and Ref.Test.Gain chart)	Max. HFA	54 48	59 53	dB
Maximum output (90 dB SPL input)	Max. HFA	114 109	116 113	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz 3200 Hz	0.6 0.8 0.8 0.2	0.9 1.0 0.8 0.2	%
Equivalent input noise, w/o noise reduction 1/3 Octave Equivalent input noise, w/o noise reduction	HFA 1600 Hz	22 9	21 10	dB SPL
Frequency range IEC 60118-0: 2015	HFA	>8000	>8000	Hz
Battery lifetime (Battery type Rechargeable)*	typical Max.	24 30	24 30	Hours

Maximum Output (OSPL90)



Full-On and Reference Test Gain



Measured according to ANSI S3.22-2014, IEC 60118-0:2015, JIS C 5512: 2015, 2cc coupler.

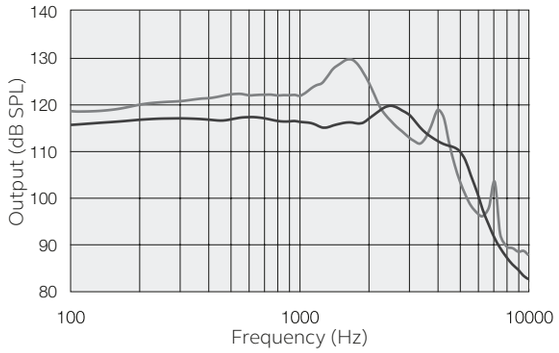
* Expected operating time of the rechargeable battery depends on active features, the use of wireless accessories, hearing loss, battery age and sound environment.

RIE — HP/UP receiver

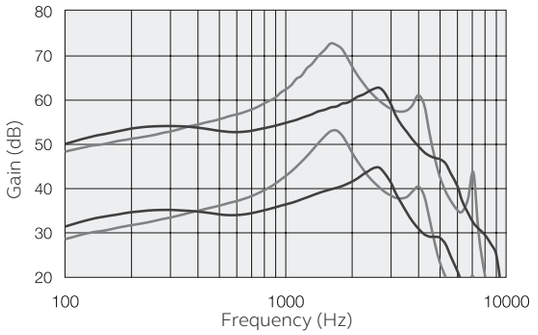
Models: SER1762S-DRWC, SER962S-DRWC, SER662S-DRWC, SER462S-DRWC, CSE162S-DRWC*

		HP	UP	
Reference test gain (60 dB SPL input) (The 2 lower curves in the Full-On and Ref.Test.Gain chart)	HFA	40	46	dB
Full-on gain (50 dB SPL input) (The 2 upper curves in the Full-On and Ref.Test.Gain chart)	Max. HFA	63 59	73 65	dB
Maximum output (90 dB SPL input)	Max. HFA	120 117	130 123	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz 3200 Hz	0.4 0.5 0.5 0.1	0.3 0.4 0.1 0.0	%
Equivalent input noise, w/o noise reduction 1/3 Octave Equivalent input noise, w/o noise reduction	HFA 1600 Hz	19 10	23 10	dB SPL
Frequency range IEC 60118-0: 2015	HFA	100-6090	100-4850	Hz
Battery lifetime (Battery type Rechargeable)**	typical Max.	24 30	24 30	Hours

Maximum Output (OSPL90)



Full-On and Reference Test Gain



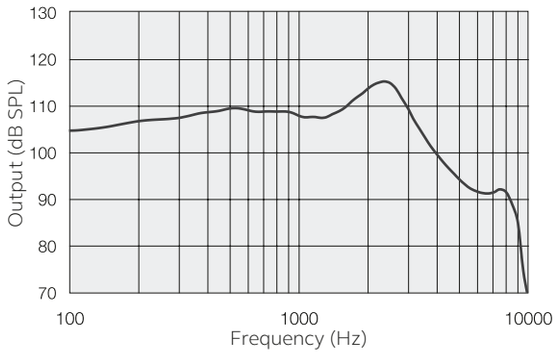
Measured according to ANSI S3.22-2014, IEC 60118-0:2015, JIS C 5512: 2015, 2cc coupler.
* CSE162S-DRWC is not available in the UP version.
** Expected operating time of the rechargeable battery depends on active features, the use of wireless accessories, hearing loss, battery age and sound environment.

RIE — MM receiver

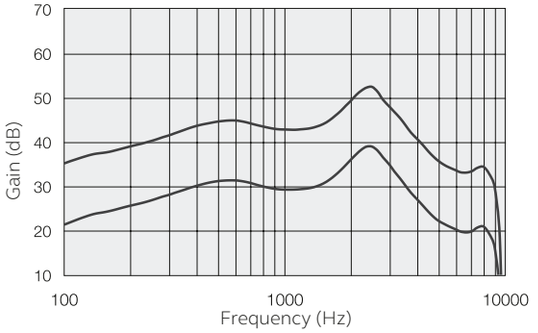
Models: SER1762S-DRWC, SER962S-DRWC, SER662S-DRWC, SER462S-DRWC

		MM	
Reference test gain (60 dB SPL input) (The lower curve in the Full-On and Ref.Test.Gain chart)	HFA	33	dB
Full-on gain (50 dB SPL input) (The upper curve in the Full-On and Ref.Test.Gain chart)	Max. HFA	53 47	dB
Maximum output (90 dB SPL input)	Max. HFA	115 111	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz 3200 Hz	0.4 0.7 0.3 0.1	%
Equivalent input noise, w/o noise reduction 1/3 Octave Equivalent input noise, w/o noise reduction	HFA 1600 Hz	19 6	dB SPL
Frequency range IEC 60118-0: 2015		<200 to >8000	Hz
Battery lifetime (Battery type Rechargeable)*	typical Max.	24 30	Hours

Maximum Output (OSPL90)



Full-On and Reference Test Gain



Measured according to ANSI S3.22-2014, IEC 60118-0:2015, JIS C 5512: 2015, 2cc coupler.

* Expected operating time of the rechargeable battery depends on active features, the use of wireless accessories, hearing loss, battery age and sound environment.

Additional information

Acknowledgements

Portions of this software are written by Kenneth MacKay (micro-ecc) and licensed under the following terms and conditions:

Copyright ® 2014, Kenneth MacKay. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS “AS IS” AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)

ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NOTE: Use of the Made for Apple badge means that an accessory has been designed to connect specifically to iPhone, iPad, and iPod touch models, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

© 2026 GN Hearing A/S. All rights reserved. Beltone is a trademark of GN Hearing A/S. Apple, the Apple logo, iPhone, iPad, iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc., registered in the US and other countries. Android, Google Play and the Google Play logo are trademarks of Google LLC. The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc.

Manufacturer according to
EU Medical Device Regulation
2017/745:

GN Hearing A/S
Lautrupbjerg 7
DK-2750 Ballerup
Denmark
beltone.com

Local contacts:

United Kingdom
GN Hearing UK Ltd
Unit 13 Talisman Business Centre
Bicester OX26 6HR
United Kingdom
Tel.: +44 1869 352 800
beltone.com

Australia
GN Hearing Australia Pty Ltd
Suite 1001, Level 1
1 Julius Avenue
North Ryde, NSW 2113
Australia
Tel.: (free) 1800 658 955
beltone.com

New Zealand
GN Hearing New Zealand Limited
4 Fred Thomas Drive
Takapuna, Auckland, 0622
Tel.: (free) 0800 900 126
beltone.com

402643000GB- 26.06 - Rev. D (Date of issuance: 2026.06.01)

CE 0297

Any serious incident that has occurred in relation to the device should be reported to the Legal manufacturer GN Hearing A/S and the competent authority of the EU Member State in which the user and/or patient is established.