



Receiver-In-Ear hearing aids, Rechargeable

Beltone Celebrate XF

User guide



Hearing aid information

Left hearing aid		Right hearing aid	
Serial number		Serial number	
Model number		Model number	
Battery type	<input type="checkbox"/> Rechargeable		

Dome/ earmold type	Closed dome	Open dome	Power dome	<input type="checkbox"/> Tulip dome	<input type="checkbox"/> Earmold
	<input type="checkbox"/> Small	<input type="checkbox"/> Small	<input type="checkbox"/> Small		
	<input type="checkbox"/> Medium	<input type="checkbox"/> Medium	<input type="checkbox"/> Medium		
	<input type="checkbox"/> Large	<input type="checkbox"/> Large	<input type="checkbox"/> Large		

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

FDA warnings and cautions (US only)

WARNING: People younger than 18 should go to a doctor before using this

People younger than 18 years old need specialized care, and using this without a medical evaluation may worsen impairment or disability. A hearing aid user who is younger than 18 should have a recent medical evaluation from a doctor, preferably an ear-nose-throat doctor (an ENT). Before using this, a doctor should determine that the use of a hearing aid is appropriate.

**WARNINGS to Hearing Aid Dispensers**

You should advise a prospective hearing aid user to consult promptly with a doctor, preferably an ear specialist such as an ENT, before dispensing a hearing aid if you determine 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 deformity of the ear, either congenital or traumatic
- Fluid, pus, or blood coming out of the ear within the previous 6 months
- Pain or discomfort in the ear.
- History of excessive ear wax or suspicion that something is in the ear canal
- Dizziness, either recent or long-standing
- Sudden, quickly worsening, or fluctuating hearing loss within the previous 6 months

- Hearing loss or ringing (tinnitus) only in one ear or noticeable difference in hearing between ears
- Audiometric air-bone gap equal to or greater than 15 dB at 500 Hz, 1000 Hz, and 2000 Hz.

Outputs over 132 dB SPL:

You should exercise special care in selecting and fitting a hearing aid with a maximum output that exceeds 132 dB SPL because it may impair the remaining hearing of the hearing aid user.

Sound pressure level in the ears of children:

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.



CAUTION:

This is not hearing protection

You should remove this device if you experience overly loud sounds, whether short or long-lasting. If you're in a loud place, you should use the right kind of hearing protection instead of wearing this device. In general, if you would use ear plugs in a loud place, you should remove this device and use ear plugs.

The sound output should not be uncomfortable or painful

You should turn down the volume or remove the device if the sound output is uncomfortably loud or painful. If you consistently need to turn the volume down, you may need to further adjust your device.

You might need medical help if a piece gets stuck in your ear

If any part of your hearing aid, like the ear tip (dome), gets stuck in your ear, and you can't easily remove it with your fingers, get medical help as soon as you can. You should not try to use tweezers or cotton swabs because they can push the part further into your ear, injuring your eardrum or ear canal, possibly seriously.

NOTE:**What you might expect when you start using your hearing aid**

- A hearing aid can benefit many people with hearing loss. However, you should know it will not restore normal hearing, and you may still have some difficulty hearing over noise. Further, a hearing aid will not prevent or improve a medical condition that causes hearing loss.
- People who start using hearing aids sometimes need a few weeks to get used to them. Similarly, many people find that training or counseling can help them get more out of their devices.
- If you have hearing loss in both ears, you might get more out of using hearing aids in both, especially in situations that make you tired from listening – for example, noisy environments.

Tell FDA about injuries, malfunctions, or other adverse events

- To report a problem involving your hearing aid, you should submit information to FDA as soon as possible after the problem. FDA calls them “adverse events”, and they might include: skin irritation in your ear, injury from the device (like cuts or scratches, or burns from an overheated battery), pieces of the device getting stuck in your ear, suddenly worsening hearing loss from using the device, etc.

Instructions for reporting are available at

<https://www.fda.gov/Safety/MedWatch>, or call 1-800-FDA-1088. You can also download a form to mail to FDA.

Hearing loss in people younger than 18

- People younger than 18 should see a doctor first, preferably an ear-nose-throat doctor (an ENT), because they may have different needs than adults.
- The doctor will identify and treat medical conditions as appropriate.
- The doctor may refer the person to an audiologist for a separate test, a hearing aid evaluation.
- The hearing aid evaluation will help the audiologist select and fit the appropriate hearing aid.

A person who is younger than 18 years old with hearing loss should have a medical evaluation by a doctor, preferably an ENT, before buying a hearing aid. The purpose of a medical evaluation is to identify and treat medical conditions that may affect hearing but that a hearing aid won't treat on its own.

Following the medical evaluation and if appropriate, the doctor will provide a written statement that the hearing loss has been medically evaluated and the person is a candidate for a hearing aid. The doctor may refer the person to an

audiologist for a hearing aid evaluation, which is different from the medical evaluation and is intended to identify the appropriate hearing aid.

The audiologist will conduct a hearing aid evaluation to assess the person's ability to hear with and without a hearing aid. This will enable the audiologist to select and fit a hearing aid for the person's individual needs. An audiologist can also provide evaluation and rehabilitation since, for people younger than 18, hearing loss may cause problems in language development and educational and social growth. An audiologist is qualified by training and experience to assist in the evaluation and rehabilitation of hearing loss in people younger than 18.

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Introduction

We recommend that you use your hearing aids every day.

NOTE: Read this booklet carefully before using your hearing aids.

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
- Skin reaction
- Ear wax accumulation

Symbols

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



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



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



Legal manufacturer.



Follow instructions for use. (Logo in blue)



Date of manufacture.



Medical device.



Regulatory compliance mark for EU with notified body number.



Serial number.



Unique Device Identification.



By prescription only (US).



Product is a Type B applied part.



IMDA label for Singapore.



Regulatory compliance mark for Australia and New Zealand.



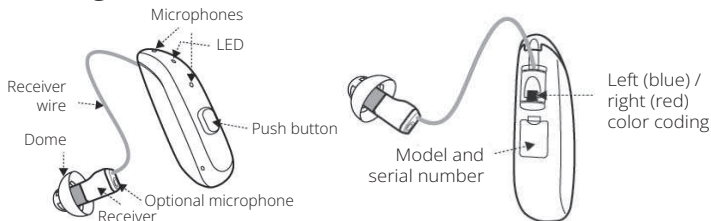
Follow local regulations when disposing of electronic devices.



Equipment includes an RF transmitter.

Getting to know your hearing aid

Hearing aid



*Open dome is shown. Yours may look different.

Domes and earmolds



Tulip
dome



Closed
dome



Open
dome



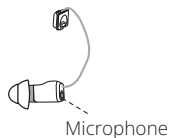
Power
dome



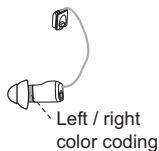
Custom
earmold

Domes are all light grey.

Receivers



Your receiver may have a microphone as shown here.



Your hearing aids are color-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 the 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. In this case, do not attempt to 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 charge your hearing aids fully 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.

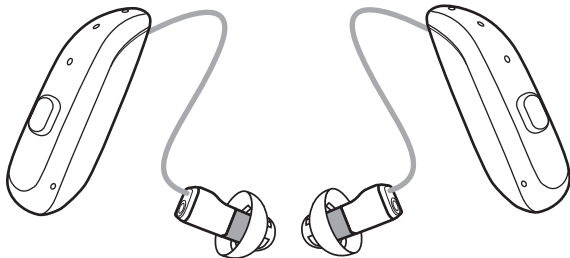
You can check the battery status by placing the hearing aid in the hearing aid charger (premium charger only). You can also check the battery status in the BeMore app.

Placing your hearing aids in your ears

How to tell left from right

Left hearing aid
(blue marking on the receiver)

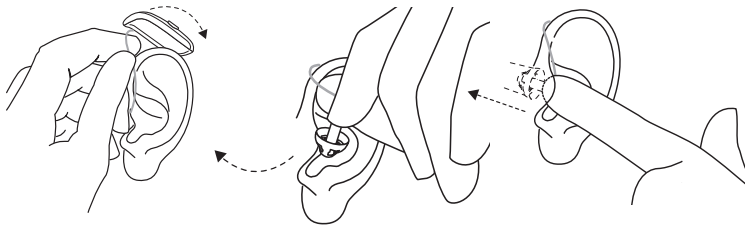
Right hearing aid
(red marking on the receiver)



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

To insert a hearing aid with a sports lock:

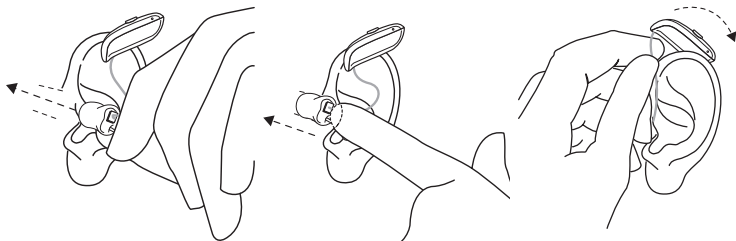
1. Insert the hearing aid as usual
2. Tuck the sports lock into the bottom of the concha (the part of your ear just outside the ear canal).



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

Inserting earmolds into your ears

If your hearing aids have earmolds, follow these instructions:



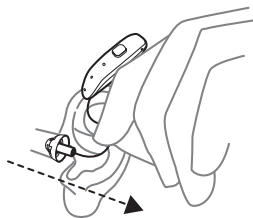
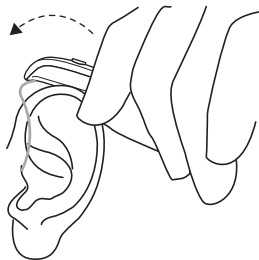
1. Hold the earmold between your thumb and index finger and position the sound outlet into your ear canal.
2. Slide the earmold into your ear with a gentle, twisting movement. Move the earmold up and down and press gently. Opening and closing your mouth may be helpful.
3. Place the hearing aid behind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

NOTE: When inserting an earmold, 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

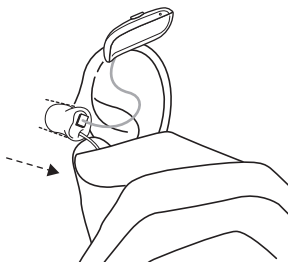
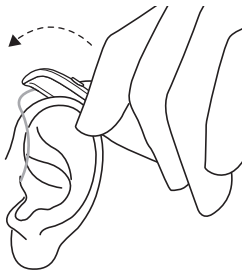
If your hearing aids have domes, follow these instructions:



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 earmolds from your ears

If your hearing aids have earmolds, 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 earmold (not the hearing aid or the wire) loose from your ear. If your earmold has a removal cord, pull it gently to assist. The removal cord is a separate line that is additionally attached to the earmold if requested. Remove the earmold completely by twisting it gently.

Using your hearing aids

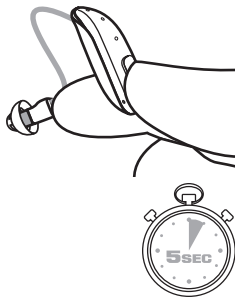
Turning your hearing aids on and off

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 on without blinking: The hearing aid is fully charged.

Smart Start

Smart Start 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).

Smart Start 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 41.

Using the push button and tap control

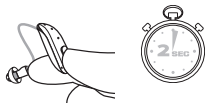
Changing programs

- 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 synchronization 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's 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:

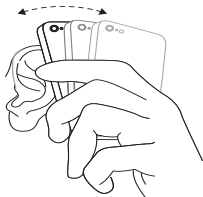
- Before you can use this function, you must pair your hearing aids with your mobile device. For more information on how to do this, consult the user instructions for your mobile device.
- You can use the BeMore app to configure the function of the tap control.

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.

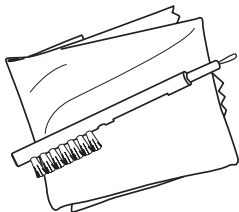
NOTE:

- If you have a mobile device, you can pair it to connect directly to your hearing aids. See "Advanced options", page 41.
- 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 46.

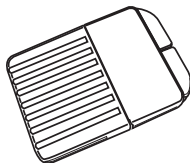
Cleaning and caring for your hearing aids

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 discolor your hearing aids.



NOTE:

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

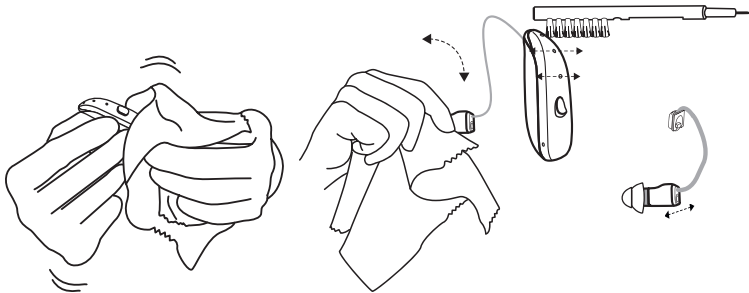


CAUTION:

- 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 earmolds.
- Use a soft, dry cloth to wipe your receivers and earmolds clean.

Cleaning the earmold

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

NOTE: If the receiver wire for your earmold gets stiff, brittle or discolored, it needs to be replaced. Consult 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.

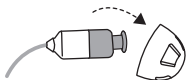


CAUTION:

- 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

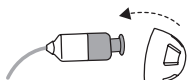
The illustrations show an open dome, but the procedure is the same for closed domes. Follow these instructions to replace your domes.



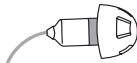
1. Remove the used dome by pulling it off the receiver and then discard it. This may require a bit of force.



3. Check that the dome is securely mounted by carefully lifting the lower part of the dome and verifying that the collar completely covers the ribbed end of the receiver.



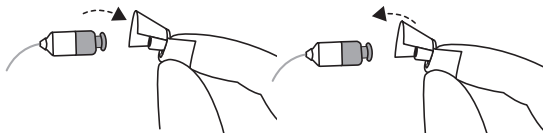
2. Push the new dome over the ribbed end of the receiver.



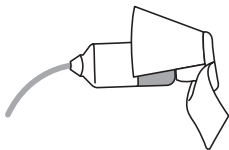
4. When placed correctly, the dome will appear slightly angled.

Tulip domes

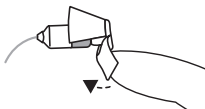
To change a tulip dome, follow these instructions:



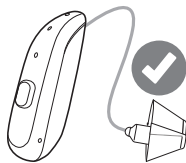
1. Remove the used dome by pulling it off the receiver and then discard it. This may require a bit of force.
2. Push the largest petal back, then press the tulip dome over the ribbed end of the receiver.



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.

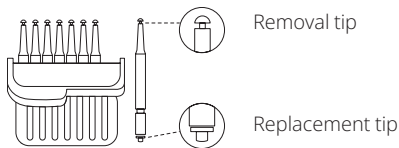
Changing the wax filter

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

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

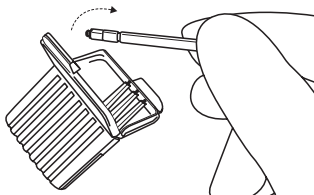
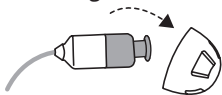
It helps keep earwax away from the components of your hearing aid. You must replace it on a regular basis. Consult your hearing care professional for advice on how often you need to replace it. It will depend on how much wax your ear produces.

If you wear a dome, remove it before following this process for replacing the wax filter. See "Changing your hearing aid domes", page 34.

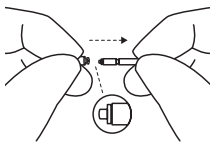
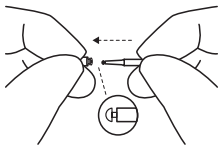


Box of 8 wax filter tools.
The wax filter tool has two functions: A removal tip to collect the used filter, and a replacement tip with a white filter.

Removing the old wax filter

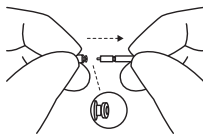
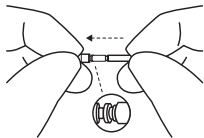
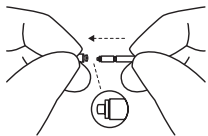


1. Remove the dome from the receiver.
2. Open the wax filter case and take out one of the tools. Each tool has a small hook (removal tip) in one end and a new wax filter in the other.



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 at 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 models¹, 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.

¹Hands-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)

Our dedicated mobile device app enables you to control your hearing aids from mobile devices. You can use the 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 the hearing aids for which they are intended, and the manufacturer 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 the Phone Clip+ for streaming capabilities and for hands-free conversations.



Online Services and Live Assist (optional)

Online Services

If you have signed up to use Online Services 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 BeMore app.

For optimum performance, make sure the hearing aids are connected to the BeMore 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.

Live Assist

This service also includes Live Assist. 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 synchronization 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 an 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 41.

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 recommended wireless accessories with your wireless hearing aids. For information on how to pair your hearing aids with a wireless accessory, see the user guide for the relevant wireless accessory.

Tinnitus management

R ONLY (US)

Tinnitus Sound Generator module

Your hearing aid includes the Tinnitus Sound Generator (TSG) module, a tool for generating sounds to be used in tinnitus management programs to temporarily relieve suffering from tinnitus. The TSG 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 TSG module

The Tinnitus Sound Generator module 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 for 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 TSG module.

For healthcare professionals

The Tinnitus Sound Generator 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 Sound Generator 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 Sound Generator 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 TSG module

Description of the device

The Tinnitus Sound Generator (TSG) 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 TSG 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 synchronization, this functionality can be enabled by your hearing care professional. This will cause the Tinnitus Sound Generator to synchronize the sound in both hearing aids.

If your tinnitus only troubles you in quiet environments, your doctor, audiologist, or hearing care professional can set the TSG Module so that it becomes audible exclusively in such surroundings. The overall sound level can be adjusted using 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 synchronization is enabled, your hearing care professional can also enable environmental monitoring synchronization so that the TSG 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 TSG 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 TSG 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 TSG module can also be set to mask the tinnitus sound, to provide temporary relief by introducing a more pleasant and controllable sound source.

TSG 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 TSG module used for adjusting the sound generator output level.

Using TSG with smartphone apps

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

TSG - 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 TSG 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 TSG, 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 for 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 TSG 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 counseling 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, a perceived decrease in auditory function or an 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 TSG module used for adjusting the sound generator output level. To prevent unintended usage by pediatric 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 TSG 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 Online Services 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 Sound Generator 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 compliance with NIOSH recommendations, the user should not use the sound generator for more than eight (8) hours a day when it 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 it 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 10

- Seek immediate medical help if a hearing aid, any of its parts, a battery, or a magnet is swallowed, as it can cause choking and harm your health.
- Keep hearing aids, their 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 being exposed to radiation. Some types of radiation, such as from MRI or CT scanners, can affect the settings in your hearing aids, causing malfunction and potentially damage to 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.
- Only use accessories intended for use with your hearing aids. Consult your hearing aid professional for more information.
- No modification of this hearing aid is allowed.

Warnings 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.
- Your hearing aids have been customized 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.



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 try to modify the shape of your hearing aid or accessories. This can cause skin reactions or sharp edges leading to scratches or sores.
- If you have two hearing aids, they may each be programmed differently. Do not swap them as this could damage your hearing. Your hearing aids are color-coded. Left = blue. Right = red.
If your hearing aids are not color coded, ask your hearing care professional to add color coding.
- 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.

For hearing care professionals



WARNING:

- Special care should be exercised in selecting and fitting hearing aids with a maximum sound pressure level that exceeds 132 dB SPL or higher maximum OSPL 90 measured with an IEC 60711:1981 occluded ear simulator. The remaining hearing may risk further impairment.



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

Cyber security

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



CAUTION:

- Only connect your hearing aid to a trusted computer or mobile device, or one used by a hearing care professional.
- For 3 minutes after being turned on, your hearing aid is open to connections. Do not restart your hearing aid if requested by someone you don't trust as this may compromise the safety of your device.
- 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 mobile device app.
- Only apply remote fine tuning updates that you are expecting.
- Always use the latest available software update for your hearing aid.
- Only accept live assistance calls from a hearing care professional that you are expecting.

Troubleshooting

Issue	Potential cause	Potential solution
Feedback or "whistling"	Is your earmold or dome inserted correctly in your ear?	Put it back in.
	Is the volume very loud?	Reduce the volume.
	Is the receiver wire broken or the earmold 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 doctor.

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 earmold clogged?	Visit your hearing care professional.
	Is your ear full of wax?	Visit your doctor.
Battery drains very quickly.	Did you leave your hearing aid 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?	Put the hearing aid back 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 vapor 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 vapor pressure up to 50 hPa.

Warm-up time: 5 minutes.

Cool-down time: 5 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

Non-clinical testing (US only)

The devices covered within this user guide have undergone tests for the relevant non-clinical performance testing and biological endpoints in accordance with standards identified below:

- Electrical safety testing is performed according to IEC 60601-1:2005 + A1:2012+A2:2020, IEC 60601-2-66:2019, IEC 60601-1-11 Edition 2.0 2015-1, IEC 62133-2 Edition 1.0 2017-02 and IEC 62368-1:2018/COR1:2020.
- Electromagnetic compatibility (EMC) testing is performed according to IEC 62479:2010, ANSI IEEE C63.19-2019 and IEC 60601-1-2:2014+A1:2020.
- Radio and Telecommunication testing is performed to be in compliance with applicable parts of the FCC rules in title 47 of the CFR.

- Electroacoustic testing is performed according to ANSI/ASA S3.22-2014 and ANSI/CTA 2051:2017
- Usability Engineering was performed in compliance with IEC 62366-1:2015

The devices covered in this user guide passed all tests for the relevant non-clinical performance testing and biological endpoints, namely cytotoxicity (ISO 10993-05:2009), sensitization, and intracutaneous reactivity (ISO 10993-10:2010).

Similarly, usability testing and software verification and validation demonstrated mitigation of risks to an acceptable level as well as reasonable assurance of safe and effective device performance.

Clinical data (US only)

The devices have been evaluated clinically through equivalence, and the devices have been compared to equivalent devices and similar devices on the market with similar intended purpose, e.g., to compensate for hearing impairment by amplifying and transmitting sound to the ear.

Based on technical and clinical data presented for the device in question, the equivalent predecessor and generally similar devices, it is concluded to support the clinical performance expressed in user needs and claims.

The clinical data leaves no questions open regarding clinical performance and is for this reason deemed sufficient.

Statement

This device complies with part 15 of the FCC rules. Its operation is subject to the following two conditions:

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

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used following the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Redirect or relocate the receiving antenna.
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet or a circuit that is different from the one to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications can void the user's authority to operate the equipment.

The products are in compliance with the following regulatory requirements:

- 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:

XF960S-DRWC, XF760S-DRWC, XF560S-DRWC, XF160S-DRWC

The nominal RF output power transmitted is -7.8 dBm.

70 Regulatory information

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

All of the 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 dB μ A/m at a 10 m distance.

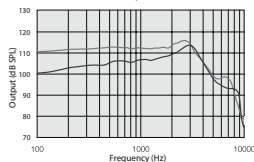
Technical specifications

RIE — LP/MP receiver

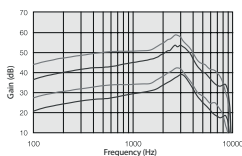
Models: XF960S-DRWC, XF760S-DRWC, XF560S-DRWC, XF160S-DRWC

		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	<200 to >8000	<200 to >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.

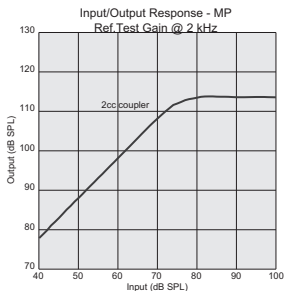
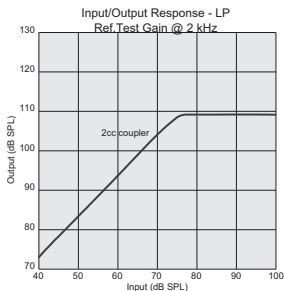
* The expected
operating time of the
rechargeable battery
depends on active
features, the use of
wireless accessories,
hearing loss, battery
age and sound
environment.

RIE — LP/MP receiver (US only)

Additional technical data

Latency, mid frequency delay (2 kHz)	5.1	ms
Battery current drain, LP (Battery type Rechargeable)	0.5	mA
Battery current drain, MP (Battery type Rechargeable)	0.5	mA
Attack/release time (2 kHz syllabic)	12 / 70	ms

Input/Output response, measured in a 2cc coupler at the reference test gain @ 2 KHz

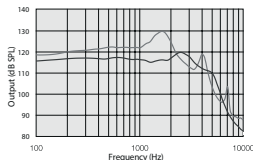


RIE — HP/UP receiver

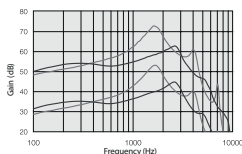
Models: XF960S-DRWC, XF760S-DRWC, XF560S-DRWC, XF160S-DRWC*

		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	<200 to >6090	<200 to >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.

* XF160S-DRWC is not
available in the UP
version .

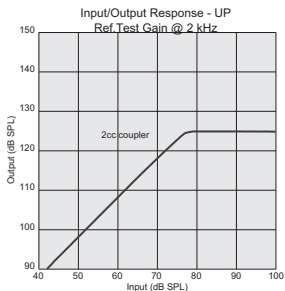
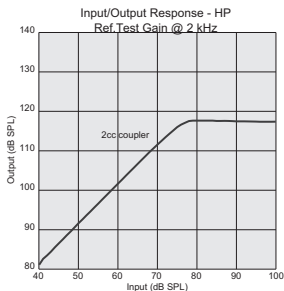
** The expected
operating time of the
rechargeable battery
depends on active
features, the use of
wireless accessories,
hearing loss, battery
age and sound
environment.

RIE — HP/UP receiver (US only)

Additional technical data

Latency, mid frequency delay (2 kHz)	5.1	ms
Battery current drain, HP (Battery type Rechargeable)	0.5	mA
Battery current drain, UP (Battery type Rechargeable)	0.5	mA
Attack/release time (2 kHz syllabic)	12 / 70	ms

Input/Output response, measured in a 2cc coupler at the reference test gain @ 2 KHz

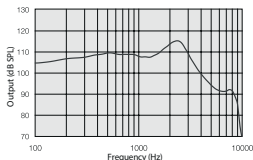


RIE — MM receiver

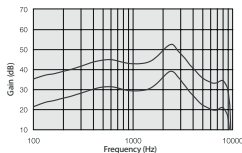
Models: XF960S-DRWC, XF760S-DRWC, XF560S-DRWC

		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.

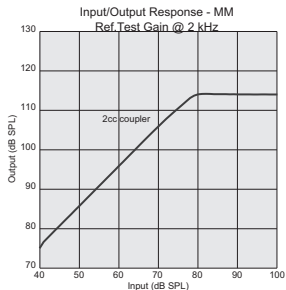
* The expected operating time of the rechargeable battery depends on active features, the use of wireless accessories, hearing loss, battery age and sound environment.

RIE — MM receiver (US only)

Additional technical data

Latency, mid frequency delay (2 kHz)	5.1	ms
Battery current drain, MM receiver (Battery type Rechargeable)	0.4	mA
Attack/release time (2 kHz syllabic)	12 / 70	ms

Input/Output response, measured in a 2cc coupler at the reference test gain @ 2 KHz



Additional information

Acknowledgements

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