DANAVOX GN

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XA BTE

Danavox Barani User guide

Behind-the-Ear hearing aids

GN Making Life Sound Better

Hearing aid information

Left hearing aid		Right hearing aid	
Serial number		Serial number	
Model number		Model number	
Battery type	☐ 312 ☐ 13		

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

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Introduction

We recommend that you use your hearing aids every day. This way you will fully benefit from them.

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

Intended use

Generic air-conduction hearing aids are wearable sound-amplifying devices intended to compensate for impaired hearing. The fundamental operating principle of hearing aids is to receive, amplify, and transfer sound to the eardrum of a hearing impaired person.

For devices including a Tinnitus Sound Generator 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 with children 12 years of age or older.

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.



Legal manufacturer.



Follow instructions for use. (Logo in blue)



Medical device.



Serial number.



Regulatory compliance mark for Australia and New Zealand.



Equipment includes an RF transmitter.



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



Date of manufacture.



Regulatory compliance mark for EU with notified body number.



Unique Device Identification.



Product is a Type B applied part.



IMDA label for Singapore.

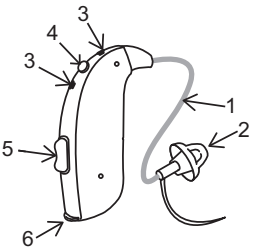


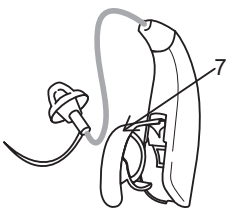
Follow local regulations when disposing of electronic devices.

Your hearing aid

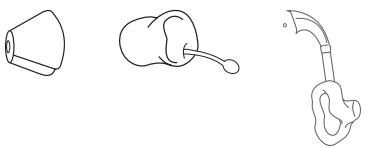
88 and 77 models

1. Thin tube
2. Open dome
3. Microphone inlets
4. Push button
5. Volume control
6. Battery compartment
7. Direct Audio Input
8. Battery door lock (optional)



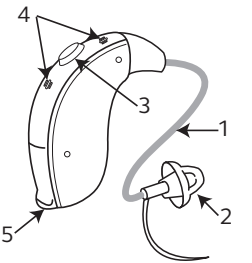


The hearing aids in the illustrations are shown with a thin tube and an open dome, but they can also be fitted with other types of domes/earmoulds:

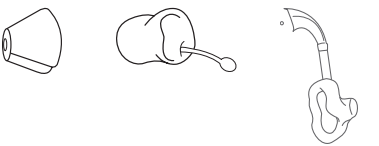


67 models

1. Thin tube
2. Open dome
3. Push button
4. Microphone inlets
5. Battery compartment



The hearing aids in the illustrations are shown with a thin tube and an open dome, but they can also be fitted with other types of domes/earmoulds:



How to get your hearing aid ready for use

Battery warnings

WARNING:

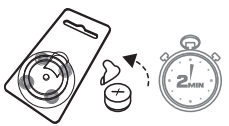
- Batteries may leak. If you are not going to use your hearing aids for a few days, you must remove the batteries.
- Battery leakage can cause chemical burns. If you get exposed to battery leakage material, rinse immediately with warm water. If you get chemical burns, redness, or skin irritation from battery leakage, seek medical attention.
- Never try to charge hearing aids with zinc-air batteries as this can cause leakage or a small explosion.
- Never swallow batteries nor place them inside any part of the body, as the battery can cause serious injuries. If a hearing aid or battery has been swallowed or placed inside any part of the body, seek immediate medical attention.
- Batteries are harmful to the environment. Therefore, never try to burn them. Dispose of your used batteries according to your country's regulations or return them to a hearing care professional.

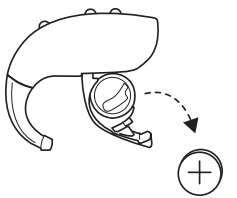
NOTE:

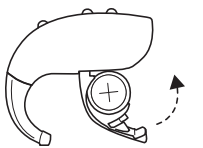
- Always use zinc-air batteries with at least one year left before they expire.
- To save battery, turn off your hearing aids when they are not in use.

How to change the battery

1. Prepare the new battery. Remove the protective foil to activate the battery - wait for **two minutes** before inserting the battery into the hearing aid.
2. Open the battery door completely using your fingernail.
3. Remove the used battery.
4. Insert the new battery with the positive side (+) facing upwards. Always insert the battery in the door, never directly into the hearing aid.
5. Close the battery door.







NOTE:

- To save battery power, turn off your hearing aids when they are not in use.
- At night, turn off the hearing aids. Open the battery door completely to allow moisture to evaporate and prolong the hearing aids' life span.
- If the hearing aid frequently loses connection with wireless accessories, contact your hearing care professional for a list of appropriate batteries.

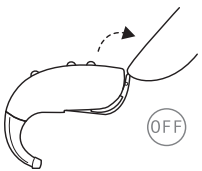
Battery door lock

If the hearing aid is going to be used by a child or a mentally disabled person, you can ask your hearing care professional to make a battery door lock available for you. You can turn the hearing aid on and off as you usually do, but you will have to unlock the battery door every time you need to change the battery.

How to use the battery door lock

To lock the battery door:

1. Open the battery door to the OFF position.



2. Use the tool provided with your battery door lock to push the slider from the left side to the right side.



To unlock the battery door simply repeat the same procedure but pushing the slider to the right instead. You can now change the battery as described in How to change the battery.

NOTE: The battery lock is not available for 67 models.

Low battery warning

When the batteries are low on power, your hearing aids reduce the volume, and play a melody every 15 minutes until they are completely drained and turn off.

Low battery indicator when paired with wireless accessories (optional)

The batteries drain faster when you use wireless functionalities like direct streaming from your smartphone or streaming sound from your TV with our TV Streamer 2. When the batteries deplete, the support of some wireless accessories shut down. Full functionality returns when you insert a new battery. The table below shows how the functionality changes with the battery level.

Battery level	Signal	Hearing aid	Remote control	Streaming
New battery		✓	✓	✓
Low		✓	✓	x
Depleted (change battery)		✓	x	x

How to place the hearing aids in your ears

How to tell left from right



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 earmoulds into your ears

1. Hold the earmould between your thumb and index finger and position its sound outlet in your ear canal.
2. Slide the earmould all the way into your ear with a gentle, twisting movement.



3. Turn the top part of the earmould gently backwards and forwards so it tucks behind the fold of skin above your ear canal. Move the earmould up and down and gently press it to place it correctly in the ear.



4. Place the hearing aid firmly behind the ear and make sure it sits securely.



NOTE: It may be helpful to pull your ear up and outward with your opposite hand during insertion. By experimenting, you may discover an easier method.

CAUTION: Never attempt to modify the shape of the hearing aid, earmoulds or tubing yourself.

How to remove the hearing aids from your ears

1. Lift the hearing aid from behind the ear
2. Using your thumb and index finger, take hold of the earmould (not the hearing aid or the tubing)
3. Gently twist and pull the earmould to remove it from the ear

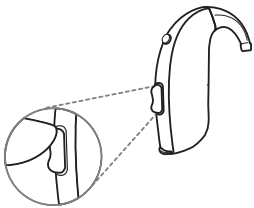
How to use your hearing aids

How to adjust the volume

Your hearing aid automatically adjusts the volume depending on your listening situation.

However, if your hearing aid has a volume control, you can adjust the volume according to your preferences.

1. To increase the volume, briefly press the **top** part of the button.
2. To decrease the volume, briefly press the **bottom** part of the button.



When you change the volume, the hearing aid responds with a beep. When you reach the upper or lower limits, the hearing aid responds with a low-pitched beep.

NOTE: Not available for 67 models.

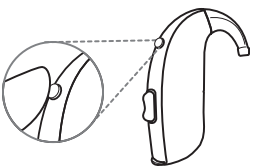
NOTE:

- If you have two hearing aids with the Synchronised Volume Control function enabled, volume control adjustments to one hearing aid automatically repeats in the second hearing aid. When you change the volume in one of the hearing aids, it responds with one or more beeps. A beep in the second hearing aid follows.
- Your hearing care professional can disable the volume control or replace it with a non-functional cover.

How to change program

Your hearing aid has a push button which allows you to select from several listening programs.

Push the button to change program. You will then hear one or more beeps. The number of beeps indicates which program you have selected (one beep = program 1, two beeps = program 2 and so on).



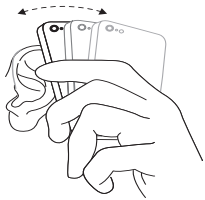
You can also change programs using our wireless acessories and smartphone apps.

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. The same number of beeps will then sound in the second hearing aid.

- When you turn the hearing aids off and on again, they always start up in program 1 and your pre-set volume level.

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:

- Hold the telephone up to your ear canal or hold it close to the hearing aid microphones as illustrated.
- 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.
- 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.

Telecoil

Your hearing aid may have a telecoil. The telecoil function may help to improve understanding of speech with Hearing Aid Compatible (HAC) telephones and in theatres, cinemas, houses of worship, etc. that have a teleloop installed.

When you select the telecoil program, your hearing aid picks up signals from the teleloop or HAC telephone. Your hearing care professional can activate the telecoil program.

NOTE:

- The telecoil does not work without a teleloop (that is, an induction loop) or a HAC telephone.
- If you are having trouble hearing with the telecoil, ask you hearing care professional to adjust the program.
- If there is no sound from your hearing aids in a teleloop system with an active telecoil function, the teleloop system may not be turned on or may not be operating correctly.
- The sound from the teleloop and the hearing aids' microphones can be mixed according to your preference. Ask your hearing care professional for more details.

HAC telephone

Some smartphones are hearing aid compatible (HAC). The HAC phone establishes a small hearing loop that your hearing aids can connect to. The telecoil picks up the HAC phone's signal and converts it to sound.

To use a HAC phone, follow these steps:

1. Switch your hearing aid to the Telecoil program.
2. Pick up the phone and make a call or answer a call.
3. Hold the phone close to the hearing aid and tilt it slightly outwards.
4. Listen to the dial tone and move the telephone to get the best reception.
5. If needed, adjust the volume.
6. When you hang up, switch back to your preferred program.

NOTE:

- If the phone has a poor telecoil signal, use the microphone program. To avoid whistling, do not hold the handset too tightly against your ear.
- Ask your hearing care professional to enable the Telecoil programme in your hearing aids.
- If you see a “M3”, “M4”, “T3”, or “T4” on the box, then the smartphone is HAC compliant. If you find it difficult to obtain a good result while using your smartphone, your hearing care professional will be able to give you advice on available wireless accessories to enhance listening capabilities. Ask your hearing care professional for advice regarding HAC smartphones.

Hearing loop systems

To use hearing loop systems, follow these steps:

1. Switch your hearing aid to the Telecoil program.
2. Find a good spot. Reception is not clear in all locations, it depends on the hearing loop. Look for signs or find another spot.
3. If needed, adjust the volume.
4. When you leave, switch to your preferred program.

Direct Audio Input

(Optional for model 77 and 88)

You can connect a DAI (Direct Audio Input) adapter to the bottom of your hearing aid. Once connected, the hearing aid automatically switches to DAI. The sound is then sent directly to your hearing aid using a cable or a wireless FM system.

If you want to be able to hear what happens around you, you can combine the DAI input with the sounds picked up by your hearing aid's microphones.

NOTE: Your hearing aid's battery will drain faster if you use the DAI functionality.

How to connect a DAI adapter



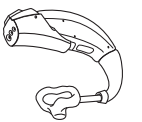
1. Align the tip of your DAI adapter with the groove on top of the battery door.



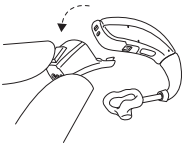
2. Move the adapter towards the battery door.



3. Click the adapter onto the hearing aid.



How to disconnect a DAI adapter



- Press the small latch downwards and gently remove the adapter from the hearing aid.

⚠ CAUTION

- Do not use two transmitters on the same FM channel.
- Do not use water or fluids for cleaning the FM click-on receiver.
- Do not use an FM transmitter in locations where it is forbidden to use electronic devices, for instance in airplanes.
- Be aware that FM signals might also be picked up and overheard by other receivers.
- Before using the system in another country, contact your hearing care professional to make sure your radio channel is permitted in that country.
- Your FM boot and transmitter may only be repaired by an authorised service centre.

Advanced options

Phone Now (optional)

If you place a magnet on the telephone receiver, your hearing aids will automatically switch the telephone program on when the receiver is close to your ear. When you remove the receiver from your ear, the hearing aids automatically return to the previous listening program.

NOTE: Ask your hearing care professional to enable Phone Now as one of your programs.

⚠ **WARNING:** The Phone Now magnet may affect sensitive medical devices/electronic systems. Seek advice from the manufacturers regarding appropriate safety measures when using the Phone Now solution near the sensitive device/equipment (pacemakers and defibrillators) in question. If the manufacturer cannot issue a statement, we recommend keeping the magnet or a telephone equipped with the magnet 30 cm (12”) away from magnetically sensitive devices (e.g. pacemakers).

⚠ **CAUTION:**

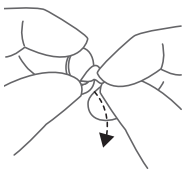
- If you experience frequent signal loss or noise during calls, move the magnet to another place on the telephone receiver.
- Only use original magnets supplied by the manufacturer.

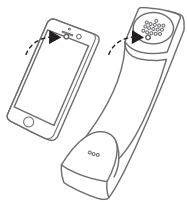
Place the Phone Now magnet

Place the magnet on your telephone receiver to allow operation of the Phone Now function. In order to place the magnet properly:

1. Clean the telephone thoroughly
2. Remove foil from magnet
3. Place the magnet







NOTE: If you are not satisfied with the strength of Phone Now, you can reposition the magnet or add additional magnets.

Prior to placing the magnet on the telephone or cell phone, use a recommended cleaning agent to clean the telephone.

How to use Phone Now

1. Lift the telephone to your ear.
2. When you hear a short melody, the phone program is active.

NOTE: You may need to move the telephone receiver slightly to find the best position for a reliable Phone Now activation and a good hearing experience on the telephone.

If your hearing aids have enabled the Comfort Phone functionality, the hearing aid on the non-phone ear automatically turns down the volume.

Ask your hearing care professional to enable Phone Now as one of your programmes.

Do not cover the loudspeaker opening with the magnet.

If the programme does not work to your satisfaction, moving the magnet to another position may improve ease of use and comfort while speaking.

If the hearing aids do not switch to the telephone programme every time, you can reposition the magnet or add additional magnets.

Use a recommended cleaning agent.

Flight Mode (optional)

Your hearing aid allows you to control it from your mobile device or Remote Control. However, in some areas you are requested to turn off wireless communication.



CAUTION: When boarding a flight or entering an area where RF transmitters are prohibited, wireless functionality must be deactivated.

Follow these steps to turn off wireless mode:

1. For each hearing aid, open and close (open-close, open-close, open-close) the battery door three times within a 10-second period.
2. Double-dings for ten seconds (♫♫ etc.) indicate that your hearing aid is in Flight mode.

NOTE: Both hearing aids must be set in Flight mode - even with synchronisation enabled.

Follow these steps to activate wireless mode:

1. For each hearing aid, open and close the battery door once.
2. Your hearing aids are in wireless mode after 10 seconds.

It is important to wait an additional 15 seconds after wireless function resumes before opening and closing the battery compartment again for any reason. Flight mode will resume if you open and close the battery compartment during this 15 second window.

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 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 36.

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 and control from these devices.

Streaming from an Android smartphone (optional)

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

NOTE: For assistance with pairing and using these products with your hearing aids, contact your hearing care professional.

Using your hearing aid with smartphone apps (optional)

Our smartphone apps are intended to be used with our wireless hearing aids. The smartphone apps send and receive signals from the hearing aids via smartphones.

- Do not disable app notifications
- Install updates to keep the app working correctly

- Only use the app with hearing aids from the same manufacturer. We take no responsibility if the app is used with other hearing aids
- If you want a printed version of the smartphone app user guide, please go to our website or consult customer support

NOTE: For assistance with pairing and using these products with your hearing aids, please contact your hearing care professional or visit our support site.

NOTE: If your Bluetooth® enabled Android smartphone does not stream directly to your hearing aids, you are able to answer the telephone if you use Phone Clip+.





Assist (optional)

If you have signed up to use Assist 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.

How to clean and maintain your hearing aids

Care and maintenance

Please follow the advice below to have the best user experience and to prolong the life of your hearing aids.

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

- Keep your hearing aids dry and clean.
- Open the battery door to dry your hearing aids when you are not wearing them.
- Wipe the hearing aids with a soft cloth after use to remove grease or moisture.
- Do not wear your hearing aids when putting on cosmetics, perfume, aftershave, hairspray, suntan lotion, etc. These might discolour the hearing aid or get into the hearing aid causing damage.
- Do not immerse your hearing aid in any liquid.
- Keep your hearing aids away from excessive heat and intense direct sunlight. The heat may deform the shell, damage the electronics and deteriorate the surface.
- Do not swim, shower or steam bathe while wearing your hearing aids.



CAUTION: Ear wax or other residue on your hearing aids can cause an infection. To avoid this, clean your hearing aids as instructed.

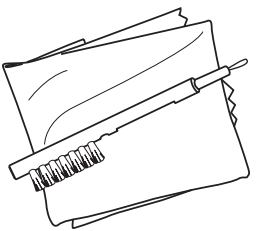
Daily maintenance

NOTE: It is important to keep your hearing aid clean and dry. On a daily basis, clean the hearing aids using a soft cloth or tissue. In order to avoid damage due to humidity or excessive perspiration, the use of a drying kit is recommended.

NOTE: Do not use alcohol or any other solvents to clean your hearing aids - the protective coating will be damaged.

Cleaning tools

- Soft cloth.
- Brush for cleaning. Use the brush on all surfaces and orifices. Also use your brush for daily cleaning and battery handling.
- Wire loop. Use the wire loop to clean the earmould.
- Magnet. Use the magnet to lift and replace the battery.



If the microphone inlets are clogged, gently brush across the microphone inlets with the brush.

NOTE: Do not use the wire loop to clean the microphone inlets. If the microphone inlets remain clogged after brushing the exterior, ask a hearing care professional to help you clean them.

NOTE: The wire loop is only intended for earmoulds.

How to clean your hearing aid

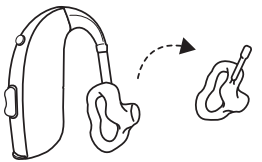
Wipe your hearing aid clean with a soft cloth after use.

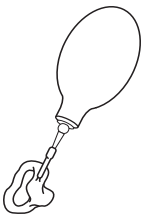


WARNING: Always turn your hearing aids off while cleaning and maintaining them.

The earmould

1. Remove the earmould and tubing from the hearing aids prior to cleaning.
2. Clean the earmould using a mild soap, and rinse with lukewarm water.
3. After cleaning, dry the earmoulds thoroughly and remove any residual water and debris from the tubing utilising a small blower and wire loop.

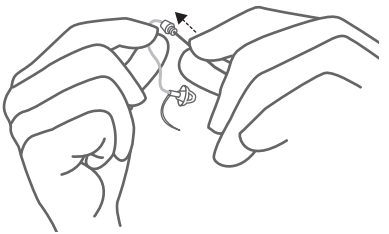




NOTE: If your earmould tubing gets stiff, brittle or discoloured, it needs to be replaced. Contact your hearing care professional.

Thin tubes and domes

1. Remove the thin tubes from the hearing aids by unscrewing them counter-clockwise.
2. Wipe down thin tubes and domes with a damp cloth.
3. In order to clear the thin tube of moisture and debris, push the black cleaning wire through the thin tube, beginning at the opposite end of the dome.



NOTE: We recommend that you change the thin tube and dome systems every three months. If the components get stiff or brittle, change them sooner.

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.

- **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 24.

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:

- Ask your hearing care professional for more information on the range of available wireless accessories.
- You should only use recommended 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 Sound Generator module

Your hearing aid includes the Tinnitus Sound Generator (TSG) module. The Tinnitus Sound Generator (TSG) Module is a tool that generates sounds to be used in tinnitus management programmes to temporarily relieve suffering from tinnitus. The TSG can generate sounds adjusted to your personal preference and your specific therapeutic needs 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 - (US only)

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 with children 5 years of age or older.

TheTinnitus Sound Generator Module is targeted for healthcare professionals, which are treating patients suffering from Tinnitus, as well as conventional hearing disorders. The fitting of the Tinnitus Sound Generator Module must be done by a hearing professional participating in a Tinnitus Management Program.

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 works

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 synchronisation, this functionality can be enabled by your hearing care professional. This will cause the Tinnitus Sound Generator 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 TSG 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 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.

⚠ Prescription use of a Tinnitus Sound Generator hearing aid

The TSG 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 care 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 use of the sound generator and seek medical evaluation.

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 counselling and/or in a tinnitus management program to relieve patients suffering from tinnitus.

⚠ Tinnitus Sound Generator warnings

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

⚠ Tinnitus Sound Generator precautions

1. 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.
2. Discontinue use of the sound generator and consult promptly with a licensed physician if you experience one 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.

3. 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.
4. The volume control is a feature in the TSG 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.
5. Children and physically or mentally disabled users will require guardian supervision while wearing the TSG hearing aid.
6. 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 minor. Use of the Assist for remote settings of the tinnitus sound generator, should only be performed by the parent or legal guardian in cases where the user is 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), 1,000 Hz, and 2,000 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:

- 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, e.g. 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.
- External devices connected to the electrical input must be safe according to the requirements of IEC 60601-1:2005+A1:2012+A2:2020-1, 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.
- No modification of this hearing aid is allowed.

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.
- Use only original consumables from the manufacturer, e.g. tubes and earmoulds or domes.

- 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 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.

NOTE: For use of wireless functionality, only use supported wireless accessories. For further guidance e.g. regarding pairing, please refer to the user guide of the relevant wireless accessory.

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 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.

Troubleshooting

Issue	Potential cause	Potential solution
Feedback, "whistling"	Is your earmould or dome inserted correctly in the ear?	Re-insert it.
	Is the volume very loud?	Reduce the volume.
	Are you holding an object (e.g. a hat or a phone) close to a 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.
No sound	Is the hearing aid turned off?	Turn it on.
	Is the hearing aid in telecoil mode?	Switch to the microphone program.
	Is there a battery in the hearing aid?	Insert a new battery
	Is the battery still good?	Replace with a new battery
	Is the plastic tube, earmould or dome clogged or broken?	Consult your hearing care professional.
	Is your ear full of wax?	Visit your physician.

Issue	Potential cause	Potential solution
Sound is distorted, spluttering or weak	The battery is dead	Replace it with a new one
	Is the battery dirty?	Clean it or replace it with a new one
	Is the plastic tube or earmould clogged or broken?	Consult your hearing care professional.
	Did your hearing aid get moist?	Use a desiccant (drying kit).
Battery drains very quickly	Did you leave your hearing aid turned on for long periods of time?	Always turn off your hearing aid when you are not using it, e.g. at night.
	Is the battery old?	Check the date on the battery package.

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.

Temperature test, transport and storage information

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 0 °C (+32 °F) to +45 °C (+113 °F) at a relative humidity of 90%, non-condensing. An atmospheric pressure between 500 hPa and 1100 hPa is appropriate.

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 -20 °C (-4 °F) to +60 °C (+140 °F) at a relative humidity of 90% RH, non-condensing (for a limited time). An atmospheric pressure between 500 hPa and 1100 hPa is appropriate.

Statement

This device complies with part 15 of the FCC rules. 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:

- Reorient 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 EU: The device conforms to the Essential Requirements according to Annex I of Council Directive 93/42/EEC for medical devices (MDD).
- Hereby, GN Hearing A/S declares that the radio equipment types BEB60, BEB70 and BEB80 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.declarations.resound.com/en.
- In the US: FCC CFR 47 Part 15, subpart C.
- Other identified applicable international regulatory requirements in countries outside the EU and US. Please refer to local country requirements for these areas.
- 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).

Type designations

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

BEB60, FCC ID: X26BEB60, IC: 6941C-BEB60; **BEB70**, FCC ID: X26BEB70, IC: 6941C-BEB70; **BEB80**, FCC ID: X26BEB80, IC: 6941C-BEB80.

This device includes an RF transmitter that operates in the range of 2.4 GHz - 2.48 GHz.

Hearing aid variants

Availability of models may vary by country.

Behind-the-ear (BTE) hearing aids of type **BEB60** with FCC ID X26BEB60, IC number 6941C-BEB60 and size 312 battery are available in the following variants:

XA967-DWT, XA767-DWT, XA567-DWT

Nominal RF output power transmitted is: -1 dBm.

Behind-the-ear (BTE) hearing aids of type **BEB70** with FCC ID X26BEB70, IC number 6941C-BEB70 and size 13 battery are available in the following variants:

XA977-DWT, XA777-DWT, XA577-DWT

Nominal RF output power transmitted is: -2 dBm.

High Power Behind-the-Ear (BTE) hearing aids of type **BEB80** with FCC ID X26BEB80, IC number 6941C-BEB80 and size 13 battery are available in the following variants:

XA988-DWT, XA788-DWT, XA588-DWT

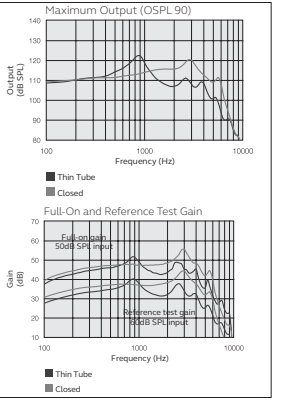
The nominal RF output power transmitted is: - 2 dBm.

Technical specifications

Mini BTE

Models: XA967-DWT, XA767-DWT, XA567-DWT

		Thin tube	Closed	
Reference test gain (60 dB SPL input)	HFA	36	39	dB
Full-on gain (50 dB SPL input)	Max. HFA	52 47	56 49	dB
Maximum output (90 dB SPL input)	Max. HFA	123 113	121 116	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz 3200 Hz	0.4 0.1 0.4 0.2	0.7 0.6 0.6 0.1	%
Telecoil sensitivity (1 mA/m input) HFA - SPLIV @ 31.6 mA/m (ANSI) Full-on telecoil sensitivity @ 1 mA/m	Max. HFA HFA	81 96 77	85 99 79	dB SPL
Equivalent input noise, w/o noise reduction 1/3 Octave Equivalent input noise, w/o noise reduction		22 10	23 10	dB SPL
Frequency range IEC 60118-0: 2015		100-7800	100-6800	Hz
Current Drain (Quiescent/Operating)		1.17/1.22	1.18/1.34	mA

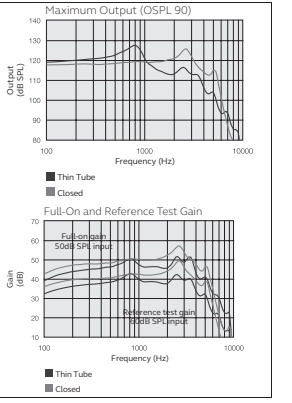


Data in accordance with ANSI S3.22-2014, IEC 60118-0:2015

BTE

Models: XA977-DWT, XA777-DWT, XA577-DWT

		Open	Closed	
Reference test gain (60 dB SPL input)	HFA	40	45	dB
Full-on gain (50 dB SPL input)	Max. HFA	52 49	57 52	dB
Maximum output (90 dB SPL input)	Max. HFA	128 117	126 122	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz 3200 Hz	0.5 0.1 0.6 0.2	0.7 0.9 0.6 0.2	%
Telecoil sensitivity (1 mA/m input) HFA - SPLIV @ 31.6 mA/m (ANSI) Full-on telecoil sensitivity @ 1 mA/m	Max. HFA HFA	83 101 79	88 105 83	dB SPL
Equivalent input noise, w/o noise reduction 1/3 Octave Equivalent input noise, w/o noise reduction		22 10	22 11	dB SPL
Frequency range IEC 60118-0: 2015		100-7170	100-6170	Hz
Current Drain (Quiescent/Operating)		1.18/1.2	1.2/1.29	mA

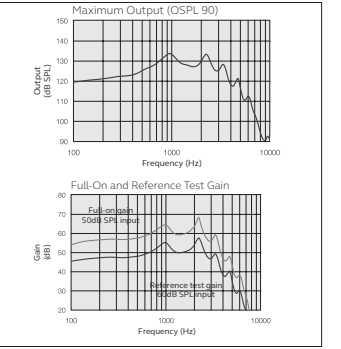


Data in accordance with ANSI S3.22-2014, IEC 60118-0:2015

Power BTE

Models: XA988-DWT, XA788-DWT, XA588-DWT

Reference test gain (60 dB SPL input)	HFA	53	dB
Full-on gain (50 dB SPL input)	Max. HFA	68 62	dB
Maximum output (90 dB SPL input)	Max. HFA	134 130	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz 3200 Hz	2.6 0.2 0.5 0.2	%
Telecoil sensitivity (1 mA/m input) HFA - SPLIV @ 31.6 mA/m (ANSI) Full-on telecoil sensitivity @ 1 mA/m	Max. HFA HFA	97 113 92	dB SPL
Equivalent input noise, w/o noise reduction 1/3 Octave Equivalent input noise, w/o noise reduction		23 13	dB SPL
Frequency range IEC 60118-0: 2015		100-5160	Hz
Current Drain (Quiescent/Operating)		1.18/1.4	mA



Data in accordance with ANSI S3.22-2014, IEC 60118-0:2015

Additional information

Acknowledgements

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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.

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Notes

Notes

Manufacturer according to EU Medical Device Directive 93/42/EEC:

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

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.

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