# User guide

Custom hearing aids

GN Making Life Sound Better

resound.com

Hearing instrument type designations for models included in this user guide are: **DA312r**, FCC ID: X26DA312r, IC: 6941C-DA312r; **DA13r**, FCC ID: X26DA13r, IC: 6941C-DA13r; **DA312i**, FCC ID: X26DA312i, IC: 6941C-DA312i; and **DA13i**, FCC ID: X26DA13i, IC: 6941C-DA13i. Please see page 8, 10 and 12 for lists of models referring to these types.

## Statement:

This device complies with part 15 of the FCC rules and ICES-003 of the IC rules.
Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 and ICES-003 of the IC 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 in accordance with 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 into an outlet on a circuit different from the one in 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.

## Intended use

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

The products are in compliance with the following regulatory requirements:

- In US: FCC CFR 47 Part 15, subpart C.
- Other identified applicable international regulatory requirements in countries outside the US. Please refer to local country requirements for these areas.
- In Canada: these hearing instruments are certified under the rules of IC.
- Japanese Radio Law and Japanese Telecommunications Business Law Compliance. This device is granted 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).
- **Patents:**
  US 7,593,537 US 8,00,849

## Introduction

Congratulations on the purchase of your new hearing instruments. ReSound's innovative sound technology and design, combined with the customized device programming selected by your hearing care professional, will make hearing a more enjoyable experience. Hearing instruments will enable you to hear sounds that you may not have heard in years because of your hearing loss. Practice and a positive attitude are important in learning to use hearing instruments. Your ReSound instruments have been adjusted according to your individual hearing loss and needs. Some people adjust quickly to wearing hearing instruments in their ears and hearing new sounds; other people may need more time.

This product is a custom-made device.

Please read this manual carefully in order to wholly benefit from the use of your hearing instruments. With proper care, maintenance, and usage, your hearing instruments will aid you in better communication for many years. Ask your hearing care professional if you have any questions.

Hearing instrument model: _____

☐ Model IIC: Battery size 10

☐ Model CIC: Battery size 10

☐ Model ITC: Battery size 13 or 312 (circle one)

☐ Model ITE: Battery size 13 or 312 (circle one)

☐ Model MIH: Battery size 13, 312, or 10 for MIH-S (circle one)

Left serial number: _____

Right serial number: _____

## Specific features supported by your hearing system:



Ask your hearing care professional to mark the options supported by your hearing system.

# Contents

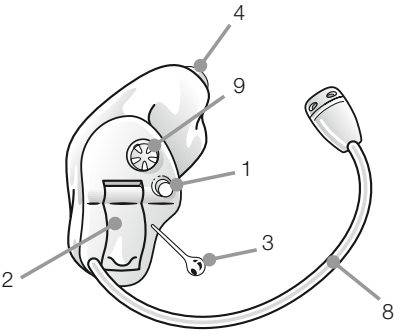
**Mic in Helix (MIH-S)** hearing instrument models with size **10A** battery are available in the following variants:

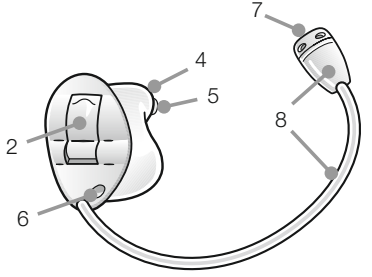
**LS9MIH-S UP, LS9MIH-S HP, LS9MIH-S MP, LS9MIH-S LP, LS7MIH-S UP, LS7MIH-S HP, LS7MIH-S MP, LS7MIH-S LP, LS5MIH-S UP, LS5MIH-S HP, LS5MIH-S MP, LS5MIH-S LP**

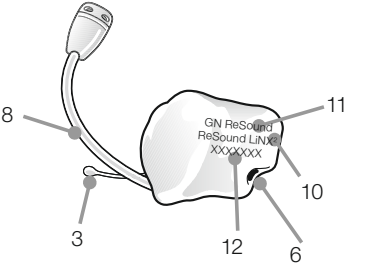
**Mic in Helix (MIH)** hearing instruments (including type **DA312r** with FCC ID X26DA312r, IC number 6941C-DA312r models designated by a "W") with size **312** battery and Custom Mic in Helix hearing instruments (including type **DA13r** with FCC ID X26DA13r, IC number 6941C-DA13r models designated by a "W") with size **13** battery are available in the following variants:

**LS9MIH-W UP, LS9MIH-W HP, LS9MIH-W MP, LS9MIH-W LP, LS9MIH UP, LS9MIH HP, LS9MIH MP, LS9MIH LP, LS7MIH-W UP, LS7MIH-W HP, LS7MIH-W MP, LS7MIH-W LP, LS7MIH UP, LS7MIH HP, LS7MIH MP, LS7MIH LP**
**LS5MIH-W UP, LS5MIH-W HP, LS5MIH-W MP, LS5MIH-W LP, LS5MIH UP, LS5MIH HP, LS5MIH MP, LS5MIH LP**

1. Program button (optional)
2. Battery compartment and On/Off switch
3. Removal cord (optional)
4. Sound outlet
5. Wax filter
6. Vent
7. Microphone sound inlet
8. Remote microphone and tubing (for remote microphone devices)
9. Volume control (optional)
10. Model
11. Manufacturer
12. Serial number



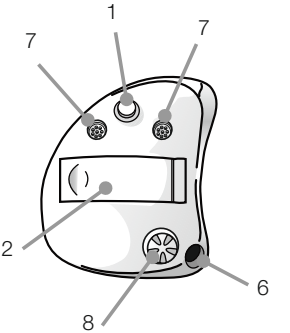
**Invisible-in-the-canal (IIC) and completely-in-the-canal (CIC)** hearing instruments with size **10A** battery are available in the following variants:

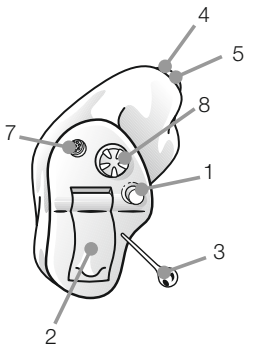
**LS9IIC, LS7IIC, LS5IIC, LS9CIC UP, LS9CIC HP, LS9CIC MP, LS9CIC LP, LS7CIC UP, LS7CIC HP, LS7CIC MP, LS7CIC LP, LS5CIC UP, LS5CIC HP, LS5CIC MP, LS5CIC LP, EY3CIC UP, EY3CIC HP, EY3CIC MP, EY3CIC LP, EY2CIC UP, EY2CIC HP, EY2CIC MP, EY2CIC LP.**

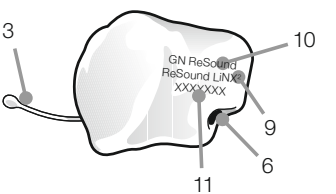
**In-the-canal (ITC**) hearing instruments (including type **DA312i** with FCC ID X26DA312i, IC number 6941C-DA312i models designated by a "W") with size **312** battery and **In-the-canal (ITC)** hearing instruments (including type **DA13i** with FCC ID X26DA13i, IC number 6941C-DA13i models designated by a "W") with size **13** battery are available in the following variants:

**LS9ITC-DW UP, LS9ITC-DW HP, LS9ITC-DW MP, LS9ITC-DW LP, LS9ITC-DWE MP, LS9ITC-D UP, LS9ITC-D HP, LS9ITC-D MP, LS9ITC-D LP, LS9ITC-W UP, LS9ITC-W HP, LS9ITC-W MP, LS9ITC-W LP, LS9ITC UP, LS9ITC HP, LS9ITC MP, LS9ITC LP, LS7ITC-DW UP, LS7ITC-DW HP, LS7ITC-DW MP, LS7ITC-DW LP, LS7ITC-D UP, LS7ITC-D HP, LS7ITC-D MP, LS7ITC-D LP, LS7ITC-W UP, LS7ITC-W HP, LS7ITC-W MP, LS7ITC-W LP, LS7ITC UP, LS7ITC HP, LS7ITC MP, LS7ITC LP, LS5ITC-DW UP, LS5ITC-DW HP, LS5ITC-DW MP, LS5ITC-DW LP, LS5ITC-D UP, LS5ITC-D HP, LS5ITC-D MP, LS5ITC-D LP, LS5ITC-W UP, LS5ITC-W HP, LS5ITC-W MP, LS5ITC-W LP, LS5ITC UP, LS5ITC HP, LS5ITC MP, LS5ITC LP EY3ITC-DW UP, EY3ITC-DW HP, EY3ITC-DW MP, EY3ITC-DW LP, EY3ITC-D UP, EY3ITC-D HP, EY3ITC-D MP, EY3ITC-D LP, EY3ITC-W UP, EY3ITC-W HP, EY3ITC-W MP, EY3ITC-W LP, EY3ITC UP, EY3ITC HP, EY3ITC MP, EY3ITC LP, EY2ITC-DW UP, EY2ITC-DW HP, EY2ITC-DW MP, EY2ITC-DW LP, EY2ITC-D UP, EY2ITC-D HP, EY2ITC-D MP, EY2ITC-D LP, EY2ITC-W UP, EY2ITC-W HP, EY2ITC-W MP, EY2ITC-W LP, EY2ITC UP, EY2ITC HP, EY2ITC MP, EY2ITC LP.**

1. Program button (optional)
2. Battery compartment and On/Off switch
3. Removal cord (optional)
4. Sound outlet
5. Wax filter
6. Vent
7. Microphone sound inlet(s)
8. Volume control (optional)
9. Model
10. Manufacturer
11. Serial number



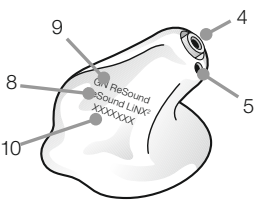



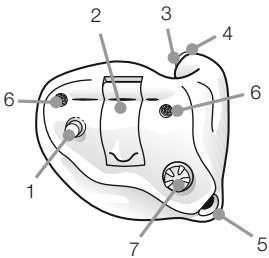
**In-the-ear (ITE)** hearing instruments (including type **DA13i** with FCC ID X26DA13i, IC number 6941C-DA13i models designated by a "W") with size **13** battery and **In-the-ear (ITE)** hearing instruments (including type **DA312i** with FCC ID X26DA312i, IC number 6941C-DA312i models designated by a "W") with size **312** battery are available in the following variants:

**LS9ITE-DW UP, LS9ITE-DW HP, LS9ITE-DW MP, LS9ITE-D UP, LS9ITE-D HP, LS9ITE-D MP, LS9ITE-W UP, LS9ITE-W HP, LS9ITE-W MP, LS9ITE UP, LS9ITE HP, LS9ITE MP, LS7ITE-DW UP, LS7ITE-DW HP, LS7ITE-DW MP, LS7ITE-D UP, LS7ITE-D HP, LS7ITE-D MP, LS7ITE-W UP, LS7ITE-W HP, LS7ITE-W MP, LS7ITE UP, LS7ITE HP, LS7ITE MP, LS5ITE-DW UP, LS5ITE-DW HP, LS5ITE-DW MP, LS5ITE-D UP, LS5ITE-D HP, LS5ITE-D MP, LS5ITE-W UP, LS5ITE-W HP, LS5ITE-W MP, LS5ITE UP, LS5ITE HP, LS5ITE MP**

**EY3ITE-DW UP, EY3ITE-DW HP, EY3ITE-DW MP, EY3ITE-D UP, EY3ITE-D HP, EY3ITE-D MP, EY3ITE-W UP, EY3ITE-W HP, EY3ITE-W MP, EY3ITE UP, EY3ITE HP, EY3ITE MP, EY2ITE-DW UP, EY2ITE-DW HP, EY2ITE-DW MP, EY2ITE-D UP, EY2ITE-D HP, EY2ITE-D MP, EY2ITE-W UP, EY2ITE-W HP, EY2ITE-W MP, EY2ITE UP, EY2ITE HP, EY2ITE MP.**

1. Program button (optional)
2. Battery compartment and On/Off switch
3. Sound outlet
4. Wax filter
5. Vent
6. Microphone sound inlet(s)
7. Volume control (optional)
8. Model
9. Manufacturer
10. Serial number

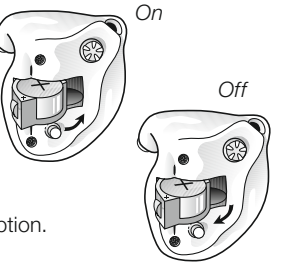


## Getting started

*On/Off function*

1. When the battery door is closed, the hearing instrument will turn on, and the default program will be activated.
2. To turn the hearing instrument off, open the battery door. Many individuals can use their fingernail to pull it open.



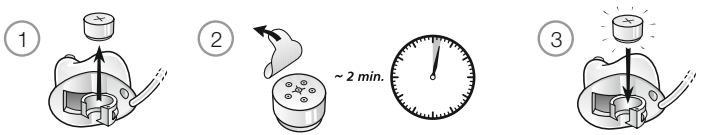

Tip: Whenever the hearing instruments are not in use, remember to open the battery doors to avoid unnecessary battery consumption.

## SmartStart

Hearing instruments can be turned on once you have placed them on your ears. If you prefer to turn them on just prior to placing them in your ears, your hearing care professional can activate a function called SmartStart. This function will delay the time in which the hearing instruments turn on by several seconds after the battery compartment is closed. With SmartStart, a beep will be heard for each second of the delay period.

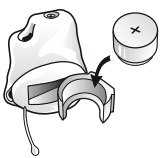
## Inserting/Replacing the battery

1. Open the battery door completely by using your fingernail. Remove the used battery if present.
2. Prepare the new battery (please refer to page 5 for information on appropriate battery type/size for your hearing instrument). Remove the protective foil and wait 2 minutes before inserting the battery into the hearing instrument to allow activation of the battery.
3. Insert the new battery with the positive side in the correct position.
4. Gently close the battery door.




Tip:

1. Always use new Zinc-Air batteries that have a minimum remaining shelf life of 1 year.
2. Whenever the hearing instruments are not in use, remember to turn them off to avoid unnecessary battery consumption.



## Low battery indicator

Your hearing care professional can activate a low battery indicator in your hearing instruments. The hearing instrument will reduce amplification and emit a beep signal if battery power gets too low. This signal will recur every 15 minutes until the hearing instrument automatically switches off. The low battery indicator can vary slightly, depending on the type of battery used. It is recommended that you keep spare batteries on hand.

## Low battery indicator when paired with wireless accessories only

Active usage of the ReSound Unite accessories (Remote Control 2, Phone Clip+, TV Streamer 2 and Mini Microphone) requires more battery power from the hearing instruments than when these are working without accessories which means that battery life is highly dependent on the amount of wireless accessory usage. When the battery in the hearing instrument has depleted to a level at which use of the ReSound Unite TV Streamer 2, Phone Clip+ and Mini Microphone cannot be supported, the hearing instrument will play two sets of descending tones.

After this, your hearing instrument and ReSound Unite Remote Control 2 will continue to work as usual, but you will not be able to use your ReSound Unite TV Streamer 2, Phone Clip+ and Mini Microphone. At some point the battery level will also be too low to support the remote control as well and you will once again hear the descending tones. The hearing instruments will continue to work as usual. Once a new battery is inserted, full operation of the accessories will resume.

## Inserting/Removing hearing instruments

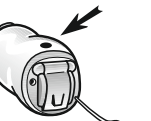
*Insertion (Mic in Helix)*

1. Hold the hearing instrument between your thumb and index finger, either above and below or on the sides.
2. Place the sound outlet portion into your ear canal. Turn the top part of the hearing instrument gently backwards and forwards so that it tucks behind the fold of skin above your ear canal.
3. Insert the hearing instrument into your ear canal. Opening and closing your mouth may ease insertion.
4. Gently push the microphone into the creased area of the ear that is located above the microphone entrance, and make sure the tubing is in place.

*Insertion (IIC, CIC, ITC, and ITE)*

1. Hold the hearing instrument between your thumb and index finger, either above and below or on the sides. For IIC, there is a dot on the top side of the shell to show orientation for insertion.
2. Place the sound outlet portion into your ear canal. Turn the top part of the hearing instrument gently backwards and forwards so that it tucks behind the fold of skin above your ear canal.
3. Insert the hearing instrument into your ear canal. Opening and closing your mouth may ease insertion.

By experimenting, an easier method may be discovered. With proper insertion, hearing instruments should fit snugly but comfortably. If the hearing instruments cause irritation of the ears, contact your hearing care professional.



*IIC*

Never attempt to modify the shape of the hearing instrument yourself.

Tip: It may be helpful to pull your ear up and outward with your opposite hand during insertion.

*Removal options (IIC, CIC and Mic in Helix)*

1. Hold the removal cord with your thumb and index finger and pull outward.
2. Hold the edges of the hearing instrument with your thumb and forefinger and pull outward while slightly rotating your hand forward.
3. If Mic in Helix hearing instruments do not have a removal cord, gently pull outward with the microphone tubing.

*Removal (ITC and ITE)*

1. Hold the edges of the hearing instrument with your thumb and forefinger.
2. Pull outward while slightly rotating your hand forward.

⚠ Note: Consult your hearing care professional if you have difficulty removing the hearing instruments.

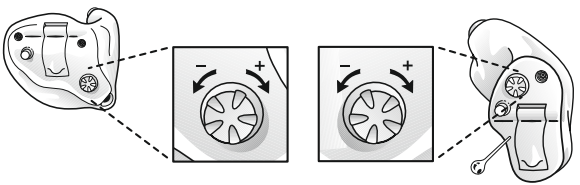
## Operation of the hearing instrument

*Volume control (Optional)*

The volume control will allow the volume of hearing instruments to be increased or decreased.

1. To increase the volume, rotate the volume control forward (towards your face when you are wearing the hearing instruments).
2. To decrease the volume, rotate the volume control backward (away from your face).

When volume is increased or decreased, a beep signal will be heard for each incremental change. When the upper or lower limits of the volume range are reached, a beep signal with a longer duration will be heard.



*Program button (Optional)*

Depending on your experience level with hearing instruments, individual hearing needs, and the type of listening environments you experience, your hearing care professional may activate additional programs in the hearing instrument. If additional programs have been activated, the following list explains how they work.

1. You can switch between programs by pushing the push button once.
2. You will then hear one or more beeps. The number of beeps indicates which program you have selected (one beep=program one, two beeps=program two, etc.).
3. When the hearing instruments are turned off and then back on, the hearing instrument always returns to the default setting (program one).
4. If you have two hearing instruments with the synchronization function enabled, program changes to one instrument will automatically repeat in the second instrument. When a program change is made in one instrument, you will hear the same amount of confirmation beeps in the second instrument.

Your hearing care professional can fill out the following table for you.

| Program | Description of when to use |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

## ⚠ Flight mode*

When boarding a flight **or entering an area where RF transmitters are prohibited**, wireless functionality must be deactivated, as it is not allowed to radiate radio signals during flights or in otherwise restricted areas.

**For wireless hearing instruments follow the following steps to enter and leave flight mode:**
It is possible to disable wireless operation by opening and closing the battery compartment three times within a ten second period (open-close, open-close, open-close). Your instruments will now be in flight mode.

If the hearing instrument is in flight mode, the hearing instrument must have been operating in flight mode for at least 10 seconds before attempting to enable wireless again. It is possible to re-enable wireless operation by opening and closing the battery door once. 10 seconds after this operation is completed, wireless operation will begin again.

ℹ Note: It is important to wait an additional 15 seconds after wireless function resumes before opening and closing the battery compartment again for any reason. If the battery compartment is opened and closed during this 15 second window, flight mode will resume.

* For wireless models only

## Telephone use

Finding the optimal position for holding a telephone may require practice for some individuals, and one or more of the following suggestions may be helpful.

- Hold the telephone as you would normally.
- Hold the telephone towards the top of the ear (closer to where the microphones are).
- If whistling occurs, holding the telephone in the same position may help the hearing instrument to eliminate the feedback.
- Any whistling may also be decreased by holding the telephone slightly away from the ear.
- Depending on your individual needs, your hearing care professional may activate a program specifically for telephone use.

## Telecoil *(optional on some ITC, ITE, and Mic in Helix models)*

If equipped, a telecoil can be activated by your hearing care professional and accessed through one of the additional programs. A telecoil picks up a telephone's magnetic signal and converts it to sound. An optional telephone program may help to improve speech understanding on the telephone. When using a telecoil program, the receiver of the telephone may need to be held closer to the hearing instrument. The handset of the telephone may need to be moved to slightly different positions in order to find the best reception.

## Listening to radio or TV

When listening to the TV or the radio, start out by listening to news commentators since they usually speak clearly, then try other programs.
If you find it difficult to listen to TV or radio, your hearing care professional will be able to give you advice on available wireless accessories to enhance your listening capabilities for TV and radio.

## Using ReSound hearing instruments with smart phone apps

Intended use of smart phone apps:
GN ReSound smart phone apps are intended to be used with GN ReSound wireless hearing aids. GN ReSound smart phone apps send and receive signals from the GN ReSound wireless hearing aids via smart phones for which the apps have been developed.

Use with smart phone apps:

- Notifications of app updates should not be disabled, and it is recommended that the user installs all updates to ensure that the app will function correctly and will be kept up to date.
- The app must only be used with GNR devices for which it is intended, and GNR take no responsibility if the app is used with other devices.
- If you would like a printed version of the user guide for a smart phone app please consult customer support or our website to obtain a printed user guide.

## Using ReSound Hearing Instruments with iPhone®, iPad®, and iPod touch®

ReSound LiNX$^2$ is a Made for iPhone instrument and allows for direct communication and control with an iPhone, iPad, or iPod touch. For assistance in pairing and using these products with your ReSound LiNX$^2$ wireless device, please contact your hearing care professional.

## Cellular phones

Your hearing instrument is designed to comply with the most stringent Standards of International Electromagnetic Compatibility. However, not all cell phones are hearing instrument compatible. The varying degree of disturbance can be due to the nature of your particular cellular phone or of your wireless telephony service provider.

If you find it difficult to obtain a good result while using your cellular phone, your hearing care professional will be able to give you advice on available wireless accessories to enhance listening capabilities.

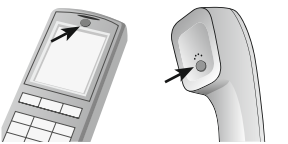
## **PhoneNow** *(not available in IIC instruments)*

The PhoneNow function, allows your hearing instrument to automatically switch to your telephone program when a telephone receiver is raised to the ear. When the telephone receiver is removed from the ear, the hearing instrument automatically returns to the previous listening program.

*Placement of PhoneNow magnets*

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

1. Clean the telephone receiver thoroughly.
2. Hold the telephone vertically, in a position similar to when making a telephone call.
3. Place the magnets just below the telephone receiver. Make sure not to cover the microphone openings. If necessary, move the magnet to another position to improve ease of use and comfort while speaking.
4. If you are not satisfied with the strength of PhoneNow, you can reposition the PhoneNow magnet or add additional PhoneNow magnets.



Only use recommended cleaning agent to clean the telephone prior to placing the magnet on the phone in order to obtain best possible adherence.

*PhoneNow usage*

Telephones can be used in a normal manner. A short melody will indicate that the PhoneNow feature has automatically switched the hearing instrument to your telephone program. Initially, you may need to move the telephone receiver slightly to find the best position for reliable PhoneNow activation and good hearing on the telephone.

*PhoneNow warnings*

1. Keep magnets out of reach of pets, children and individuals who are mentally challenged. If a magnet is swallowed, please seek advice from a medical practitioner.
2. The magnet may affect some medical devices or electronic systems. The manufacturer of any magnetically sensitive devices (e.g. pacemakers) should advise you regarding appropriate safety precautions when using your hearing instrument and magnet in close proximity to the medical device or electronic system 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).

*PhoneNow precautions*

1. High distortion during dialing or phoning may mean that the magnet is not in the optimal position relative to the telephone receiver. To avoid the issue, please move the magnet to another place on the telephone receiver.
2. Only use magnets supplied by ReSound.

## Tele-loop systems

Many places, such as theatres, houses of worship, and schools are equipped with tele-loop systems. When using a telecoil program with tele-loop systems, sound is picked up directly and may improve speech understanding. If there is no sound from the hearing instruments in a tele-loop system and with a telecoil program activated, the tele-loop system may not be turned on or is not operating correctly. If a facility is not equipped with a tele-loop system, sitting as close as possible to the front may be helpful.

## Care and maintenance

Please follow the following instructions to prolong the durability of your hearing instruments:

1. Keep your hearing instrument clean and dry. Wipe the case with a soft cloth or tissue after use to remove grease or moisture. Do not use water or solvents, as these can damage the hearing instrument(s).
2. Never immerse hearing instruments in water or other liquids, as liquids may cause permanent damage to the hearing instruments.
3. Avoid rough handling of hearing instruments or dropping them on hard surfaces or floors.
4. Do not leave hearing instruments in or near direct heat or sunlight, such as in a hot, parked car, as excessive heat can cause damage or deform the casing.
5. Do not wear your instrument while showering, swimming, in heavy rain or in a moist atmosphere such as a steam bath or sauna.
6. If your instrument does get wet, or if it has been exposed to high humidity or perspiration, it should be left to dry out overnight with the battery out and the battery compartment open. It is also a good idea to put the instrument and battery in a sealed container together with a drying agent (desiccator) overnight. Do not use the instrument until it is completely dry. Consult your hearing care professional as to which drying agent to use.
7. Remove your hearing instrument when applying such things as cosmetics, perfume, aftershave, hair spray, and suntan lotion. These might get into the instrument and cause damage.

## Daily maintenance

It is important to keep your hearing instrument clean and dry. On a daily basis, clean the hearing instruments using a soft cloth or tissue. Remove any wax or debris from hearing instruments using a brush and/or a wire loop. In order to avoid damage due to humidity or excessive perspiration, the use of a drying kit is recommended.

## Replacing wax filters

Custom hearing instruments may have wax filters that protect against wax and moisture. It is recommended that these are changed as needed.

For changing HF3 wax filters, the following steps are needed:

1. Brush the sound outlet area with the sound outlet pointed down.
2. Insert the threaded end of the wax filter tool into the used wax filter, and gently rotate clockwise.
3. Gently pull until the used filter is removed.
4. Discard the used filter in the slot located in the wax filter kit by pressing it into the center, sliding it to one end of the slot, and pull until the filter is discarded.
5. Flip the wax filter tool around, locate a new filter in the dial, and press the tip of the tool into the center of the dial.
6. Gently pull the new filter out of the dial.
7. Align the new filter to the sound outlet.
8. Press the new filter into the opening, and simultaneously pull and rock back and forth until the new wax filter is in place.

For changing Cerustop (white) wax filters, the following steps are needed:

1. To remove the old wax guard, insert the removal side of the wax guard tool into the used wax guard so that the shaft of the tool is touching the rim of the wax guard. Slowly pull the wax guard straight out.
2. To insert the new wax guard, gently press the replacement side of the wax guard tool straight into the hole of the sound outlet until the outer ring lies flush with the outside of the receiver. Pull the tool straight out -the new wax guard will remain in place.

Tip: Pressing on the new filter with the flat side of the wax filter tool can ensure that the filter is correctly in place.

Note: If a different type of wax filter is used for your hearing instruments, or if your hearing instruments do not use wax filters, consult your hearing care professional for guidance.

Use only original ReSound consumables e.g. wax filters.

## General precautions

1. When wireless function is activated, the device uses low-powered digitally coded transmissions in order to communicate with other wireless devices. Although unlikely, nearby electronic devices may be affected. In that case, move the hearing instrument away from the affected electronic device.
2. When using wireless functionality and the devices are affected by electromagnetic interference, move away from the source.
3. Only connect ReSound hearing instruments to ReSound accessories intended and qualified to be used with ReSound hearing instruments.
4. Never attempt to modify the shape of the hearing instrument, earmolds, or tubing yourself.
5. For use of wireless functionality only use ReSound Unite accessories. For further guidance please refer to the user guide of the relevant ReSound Unite accessory.

## ⚠ General warnings

1. Special care should be exercised in selecting and fitting a hearing instrument(s) who's maximum sound pressure level exceeds 132 dB SPL (with an IEC 60711:1981 occluded ear simulator), because there may be a risk of impairing the remaining hearing of the hearing instrument user.
2. Consult a hearing care professional if you discover a foreign object in your ear canal, if you experience skin irritation, or if excessive ear wax accumulates with the use of the hearing instrument.
3. Different types of radiation, for example, from NMR, MRI or CT scanners, may damage hearing instruments. It is recommended not to wear hearing instruments during these or other similar procedures. Other types of radiation, such as burglar alarms, room surveillance systems, radio equipment, mobile telephones, contain less energy and will not damage hearing instruments. However, they have the potential to momentarily affect the sound quality or temporarily create strange sounds from hearing instruments.
4. Do not wear hearing instruments in mines, oil fields, or other explosive areas unless those areas are certified for hearing instrument use.
5. Do not allow others to use your hearing instruments. This may cause damage to the hearing instruments or to the hearing of the other individual.
6. Instrument usage by children or mentally challenged persons should be supervised at all times to ensure their safety. The hearing instrument contains small parts that could be swallowed by children. Please be mindful not to leave children unsupervised with this hearing instrument.
7. Hearing instruments should be used only as prescribed by your hearing care professional. Incorrect use may result in hearing loss.
8. If device is broken, do not use.
9. When boarding flights remember to deactivate the wireless functionality. Turn off your wireless functionality by using the flight mode in areas where radio frequency emission is prohibited.

10. Keep magnets out of reach of pets, children and individuals who are mentally challenged. If a magnet is swallowed, please seek advice from a medical practitioner.
11. External devices connected to the electrical input must be safe according to the requirements of IEC 60601-1-1, IEC 60065, or IEC 60950-1, as appropriate (wired connection, f.ex. HI-PRO), SpeedLink).

Note:

- ReSound wireless devices operate in the frequency range of 2.4 GHz - 2.48 GHz.
- ReSound wireless devices include a RF transmitter that operates in the range of 2.4 GHz - 2.48 GHz.
- For use of wireless functionality only use ReSound Unite accessories. For further guidance regarding e.g. pairing, please refer to the user guide of the relevant ReSound Unite accessory.

# Tinnitus Sound Generator (TSG) module

## Intended use for the TSG module

Your ReSound hearing instruments may also include the Tinnitus Sound Generator function, a tool for generating sounds to be used in tinnitus management programs to relieve suffering from tinnitus. The Tinnitus Sound Generator can generate sounds adjusted to the specific therapeutic needs and your personal preference as determined by your doctor, audiologist, or hearing healthcare professional. Depending on the selected hearing instrument program and the environment you are in, you will sometimes hear the therapeutic sound resembling a continuous or fluctuating whistling.

## Prescription use of this TSG hearing instrument

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

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 sound generator and seek medical evaluation.

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. However, children and physically or mentally challenged users will require training by a doctor, audiologist, hearing healthcare professional or the guardian for the insertion and removal of the hearing instrument 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 assure 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.

## 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 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 healthcare professional.

Your doctor, audiologist or hearing healthcare professional can modulate the generated noise with the purpose of making it more pleasant. The noise can then resemble, for example, crashing 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 healthcare 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 healthcare professional. This will cause the Tinnitus Sound Generator to synchronize the sound in both hearing aids.

For hearing aids where ear to ear synchronization is enabled your hearing healthcare 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 if the hearing aid has a volume control then the background noise level monitored by the hearing aid and the volume control can be used simultaneously to adjust the generated noise level in both hearing aids.

If your tinnitus troubles you only in quiet environments, your doctor, audiologist or hearing healthcare professional can set the TSG Module so that it becomes audible exclusively in such surroundings. The overall sound level can be adjusted via an optional volume control. Your doctor, audiologist or hearing healthcare professional will review with you the need for having such a control.

***TSG volume control***

The sound generator is set to a specific loudness level by the hearing healthcare 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.

## Using TSG with smart phone apps

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

To use smart phone apps the hearing aid must be connected with the smart phone or mobile device.

## The scientific concepts that form the basis for the device

The TSG module provides sound enrichment with the aim of surrounding 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, tinnitus 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 a majority of instances, the TSG Module can also be set to mask the tinnitus sound, so to provide temporary relief by introducing a more pleasant and controllable sound source.

## 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 |

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

## ⚠ TSG warnings

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

## ⚠ TSG precautions

- 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.
- Children and physically or mentally challenged users will require guardian supervision while wearing the TSG hearing instrument.
- The volume control is an optional feature in the TSG module used for adjusting the sound generator output level. To prevent unintended usage by pediatric or physically or mentally challenged users, the volume control must, if enabled, be configured to only provide a decrease of the sound generator output level.

## ⚠ TSG warning to hearing healthcare professionals

A hearing healthcare 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 healthcare 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:

(i) Visible congenital or traumatic deformity of the ear.
(ii) History of active drainage from the ear within the previous 90 days.
(Iii) History of sudden or rapidly progressive hearing loss within the previous 90 days.
(iv) Acute or chronic dizziness.
(v) Unilateral hearing loss of sudden or recent onset within the previous 90 days.
(vi) Audiometric air-bone gap equal to or greater than 15dB at 500 hertz (Hz), 1000 Hz, and 2000 Hz.
(vii) Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
(viii) 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 85db SPL or above. When the sound generator is set to levels of 90db 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.

## ⚠ Battery warning information

Batteries, although very small, contain dangerous substances, and should be disposed of carefully. This is for the safety of you and the environment. Please note:

1. Do not attempt to recharge batteries (Zinc Air) which are not specifically designated as rechargeable because they may leak or explode.
2. DO NOT attempt to dispose of batteries by burning them. Used batteries are harmful to the environment. Please dispose of them according to local regulations or return them to your hearing care practitioner.
3. DO NOT place batteries in your mouth. Consult a physician immediately if a battery has been swallowed, as they can be harmful to your health.
4. Keep batteries away from pets, children and individuals who are mentally challenged.
5. Remove the batteries to prevent leakage when the hearing instruments are not in use for an extended period of time.

## Hearing instrument expectations

A hearing instrument will not restore normal hearing and will not prevent or improve a hearing impairment resulting from organic conditions. Consistent use of the hearing instrument is recommended. In most cases, infrequent use does not permit you to attain full benefit from it.

The use of a hearing instrument is only part of hearing rehabilitation and may need to be supplemented by auditory training and instructions in lip-reading.

## ⚠ Warning to hearing aid dispensers (US Only)

A hearing aid dispenser 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:

(i) Visible congenital or traumatic deformity of the ear.
(ii) History of active drainage from the ear within the previous 90 days.
(iii) History of sudden or rapidly progressive hearing loss within the previous 90 days.
(iv) Acute or chronic dizziness.
(v) Unilateral hearing loss of sudden or recent onset within the previous 90 days.
(vi) Audiometric air-bone gap equal to or greater than 15 decibels at 500 hertz (Hz), 1,000 Hz, and 2,000 Hz.
(vii) Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
(viii) Pain or discomfort in the ear.

## Important notice for prospective hearing aid users (US Only)

Good health practice requires that a person with a hearing loss have a medical evaluation by a licensed physician (preferably a physician who specializes in diseases of the ear) before purchasing a hearing aid. 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 assure that all medically treatable conditions that may affect hearing are identified and treated before the hearing aid is purchased.

Following the medical evaluation, the physician will give you a written statement that states that your hearing loss has been medically evaluated and that you may be considered a candidate for a hearing aid. The physician will refer you to an audiologist or a hearing aid dispenser, as appropriate, for a hearing aid evaluation.

The audiologist or hearing aid dispenser will conduct a hearing aid evaluation to assess your ability to hear with and without a hearing aid. The hearing aid evaluation will enable the audiologist or dispenser to select and fit a hearing aid to your individual needs. If you have reservations about your ability to adapt to amplification, you should inquire about the availability of a trial-rental or purchase-option program. Many hearing aid dispensers now offer programs that permit you to wear a hearing aid for a period of time for a nominal fee after which you may decide if you want to purchase the hearing aid.

Federal law restricts the sale of hearing aids to those individuals who have obtained a medical evaluation from a licensed physician. Federal law permits a fully informed adult to sign a waiver statement declining the medical evaluation for religious or personal beliefs that preclude consultation with a physician. The exercise of such a waiver is not in your best health interest and its use is strongly discouraged.

## Children with hearing loss (US Only)

In addition to seeing a physician for a medical evaluation, a child with a hearing loss should be directed to an audiologist for evaluation and rehabilitation since hearing loss may cause problems in language development and the educational and social growth of a child. An audiologist is qualified by training and experience to assist in the evaluation and rehabilitation of a child with a hearing loss.

## Troubleshooting Guide

| SYMPTOM | CAUSE |
|---|---|
| No sound | Not turned on |
| | Dead battery |
| | Battery door will not close |
| | Blocked wax filter |
| Not loud enough | Incorrect earmold placement |
| | Blocked sound outlet filter |
| | Change in hearing sensitivity |
| | Excessive ear wax |
| | Volume set too low |

| POSSIBLE REMEDY |
| --- |
| Turn on by closing the battery door |
| Replace battery |
| Insert battery properly |
| Replace wax filter or consult your hearing care professional |
| Reinsert hearing instrument carefully |
| Change filter or consult your hearing care professional |
| Consult your hearing care professional |
| Consult your physician |
| Increase the volume control if available or consult your hearing care professional |

## Troubleshooting Guide

| SYMPTOM | CAUSE |
|---|---|
| Excessive whistling / feedback | Incorrect custom placement in ear |
| | Excessive ear wax |
| | Feedback control may need adjustment |
| | Hearing instrument settings not optimal |
| Sound distorted / not clear | Weak battery |
| | Improper fit |
| | Hearing instrument damaged |
| | Hearing instrument settings not optimal |
| Wireless does not work | Possible Root Cause - Device is in flight mode |

** If there are any other problems not mentioned in this guide, please contact your hearing care professional.*

| POSSIBLE REMEDY |
| --- |
| Re-insert custom product carefully |
| Consult your hearing care professional |
| Consult your hearing care professional |
| Consult your hearing care professional |
| Replace battery |
| Consult your hearing care professional |
| Consult your hearing care professional |
| Consult your hearing care professional |
| Open and close the battery compartment once. Wireless will reactivate 10 seconds later. (If Root Cause is device in flight mode) |

## Technical Data

| HEARING INSTRUMENT MODEL | MAXIMUM OUTPUT (2ccCoupler / IEC 60118-7 and ANSI S3.22-2009) |
|---|---|
| All Low Power (LP) models including IIC | 115 dB SPL (typical) |
| All Medium Power (MP) models | 119 dB SPL (typical) |
| All High Power (HP) models | 121 dB SPL (typical) |
| All Ultra Power (UP) models | 130 dB SPL (typical) |

## Warranty and repairs

ReSound provides a warranty on hearing instruments in the event of defects in workmanship or materials, as described in applicable warranty documentation. In its service policy, ReSound pledges to secure functionality at least equivalent to the original hearing instrument. As a signatory to the United Nations Global Compact initiative, ReSound is committed to doing this in line with environment-friendly best practices. Hearing instruments therefore, at ReSound'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 instruments is designated on your warranty card, which is provided by your hearing care professional.

For hearing instruments that require service, please contact your hearing care professional for assistance. ReSound hearing instruments that malfunction must be repaired by a qualified technician. Do not attempt to open the case of hearing instruments, as this will invalidate the warranty

## Temperature test, transport and storage information

GN ReSound Hearing Instruments are subjected to various tests in temperature and damp heating cycling between -25 C and +70 C according to internal and industry standards. During transport or storage, the temperature should not exceed the limit values of -20 C to 60 C and relative humidity of 90% RH, non condensing (for limited time). The air pressure between 500 and 1100 hPa is appropriate.

Be aware of information marked with the warning symbol

**WARNING** points out a situation that could lead to serious injuries,
**CAUTION** indicates a situation that could lead to minor and moderate injuries.

Advice and tips on how to handle your hearing instrument better.

Equipment includes RF transmitter.

“Made for iPhone” means that an electronic accessory has been designed to connect specifically to iPhone 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. Please note that the use of this accessory with iPhone may affect wireless performance.


ReSound LiNX² is compatible with iPhone 6, iPhone 6 Plus, iPhone 5s, iPhone 5c, iPhone 5, iPad Air 2, iPad Air, iPad (4th generation), iPad mini 3, iPad mini 2, iPad mini with Retina display, iPad mini and iPod touch (5th generation) using iOS 7.X or later. Apple, the Apple logo, iPhone, iPad and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.

Please ask your local hearing care professional
concerning disposal of your hearing instrument

400332011-US-16.11-Rev.F

Manufacturer according to FDA:

**ReSound North America**
8001 Bloomington Freeway
Bloomington, MN 55420
1-888-735-4327
resound.com

**ReSound Government Services**
8001 Bloomington Freeway
Bloomington, MN 55420
1-800-392-9932
resound.com/veterans

Manufacturer according to Health Canada:

**ReSound Canada**
303 Supertest Road
Toronto, Ontario M3J 2M4
1-888-737-6863
resound.com

ReSound GN