

USER GUIDE

CUSTOM HEARING INSTRUMENTS



ReSound



rediscover hearing

Hearing instrument type designations for models included in this user guide are: **BO312**, FCC ID: X26BO312, IC: 6941C-BO312; **BO13**, FCC ID: X26BO13, IC: 6941C-BO13; **PH312**, FCC ID: X26PH312, IC: 6941C-PH312; and **PH13**, FCC ID: X26PH13, IC: 6941C-PH13. Please see page 10 and 14 for lists of models referring to these types.

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, 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. 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.

List of countries:

Products without wireless functionality are intended for worldwide sales.

Products with wireless functionality are intended for sale in countries within the European Economic Area as well as Switzerland.

Specification of restrictions: You are not allowed to operate the equipment within 20 km of the centre of Ny Ålesund, Norway.

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) and essential requirements and other relevant provisions of Directive 1999/5/EC (R&TTE). The declaration of conformity may be consulted at www.resound.com
- In US: FCC CFR 47 Part 15, subpart C, section 15.249.
- Other identified applicable international regulatory requirements in countries outside the EU and US. Please refer to local country requirements for these areas.
- Products are categorized as receiver category 2 according to EN 300 440
- In Canada these hearing instruments are certified under models: **BO312**/IC: 6941C-BO312; **BO13**/IC: 6941C-BO13; **PH312**/IC: 6941C-PH312; and **PH13**/IC: 6941C-PH13.
- This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
- Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

In Japan, this device has been granted a designation number by Ministry of Internal Affairs and Communications under „Ordinance concerning Technical Regulations Conformity Certification etc. of Specified Radio Equipment (特定無線設備の技術基準適合証明等に関する規則) “Article 2-1-19“ This device should not be modified (otherwise the granted designation number will be invalid)“

Introduction

Congratulations on the purchase of your new hearing instruments. ReSound's innovative sound technology and design, combined with the customised 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 10/20: Battery size 10

Model 30: Battery size 13 or 312 (circle one)

Model 40/50: Battery size 13 or 312 (circle one)

Left serial number: _____

Right serial number: _____

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Custom **remote microphone** hearing instrument models with size **10A** battery are available in the following variants:

AL910-MP, AL910-M
AL710-MP, AL710-M
AL510-MP, AL510-M
VO910-MP, VO910-M
VO710-MP, VO710-M
VO510-MP, VO510-M

Custom **remote microphone** hearing instruments (type **BO312** with FCC ID X26BO312, IC number 6941C-BO312 models designated by a “W” at the end of the model number) with size **312** battery are available in the following variants:

AL930-MUW, AL930-MPW, AL930-MW,
AL930-MU, AL930-MP, AL930-M
AL730-MUW, AL730-MPW, AL730-MW,
AL730-MU, AL730-MP, AL730-M
AL530-MUW, AL530-MPW, AL530-MW,
AL530-MU, AL530-MP, AL530-M
ALT930-MUW, ALT930-MPW, ALT930-MW
ALT730-MUW, ALT730-MPW, ALT730-MW
ALT530-MUW, ALT530-MPW, ALT530-MW
VO930-MUW, VO930-MPW, VO930-MW,
VO930-MU, VO930-MP, VO930-M
VO730-MUW, VO730-MPW, VO730-MW,
VO730-MU, VO730-MP, VO730-M

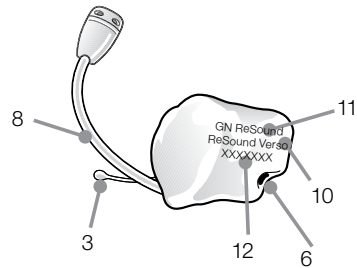
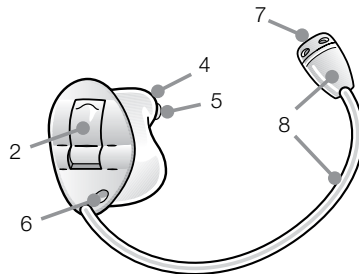
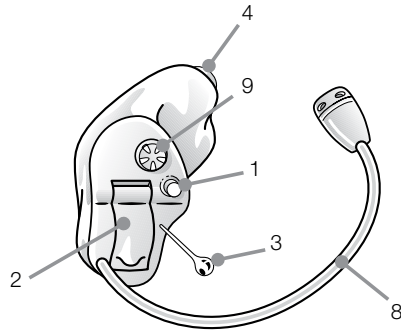
VO530-MUW, VO530-MPW, VO530-MW,
VO530-MU, VO530-MP, VO530-M
VOT930-MUW, VOT930-MPW, VOT930-MW,
VOT730-MUW, VOT730-MPW, VOT730-MW

Custom **remote microphone** hearing instruments (type **BO13** with FCC ID X26BO13, IC number 6941C-BO13 models designated by a “W” at the end of the model number) with size **13** battery are available in the following variants:

AL950-MUW, AL950-MPW, AL950-MW,
AL950-MU, AL950-MP, AL950-M
AL750-MUW, AL750-MPW, AL750-MW,
AL750-MU, AL750-MP, AL750-M
AL550-MUW, AL550-MPW, AL550-MW,
AL550-MU, AL550-MP, AL550-M
VO930-MUW, VO930-MPW, VO930-MW,
VO930-MU, VO930-MP, VO930-M
VO730-MUW, VO730-MPW, VO730-MW,
VO730-MU, VO730-MP, VO730-M
VO530-MUW, VO530-MPW, VO530-MW,
VO530-MU, VO530-MP, VO530-M

The identification number for the BO312 and B013 device models can be found at location “10” as indicated in the illustrations on the next page.

1. Programme 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. Remote microphone and tubing (for remote microphone devices)
9. Volume control (optional)
10. Model
11. Manufacturer
12. Serial number



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

VO910-C, VO710-C

AL910, AL910-P, AL920, AL920-P

AL710, AL710-P, AL720, AL720-P

AL510, AL510-P, AL520, AL520-P

AL410, AL410-P, AL420, AL420-P

VO910, VO910-P

VO710, VO710-P

VO510, VO510-P

In-the-canal (ITC) hearing instruments (type PH312 with FCC ID X26PH312, IC number 6941C- PH312 models designated by a “W” at the end of the model number) with size **312** battery are available in the following variants:

AL930, AL930-P, AL930-D, AL930-DP

AL730, AL730-P, AL730-D, AL730-DP

AL530, AL530-P, AL530-D, AL530-DP

AL430, AL430-P, AL430-D, AL40-DP

VO930, VO930-P, VO930-D, VO930-DP

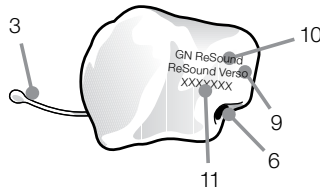
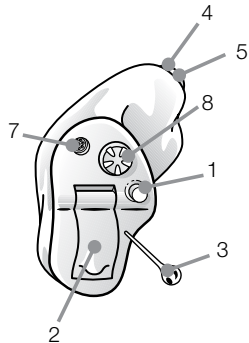
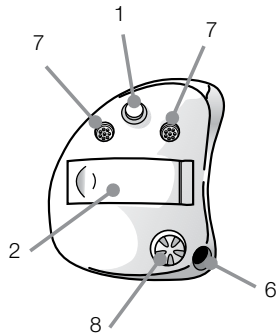
VO730, VO730-P, VO730-D, VO730-DP

VO530, VO530-P, VO530-D, VO530-DP

AL930-W, AL930-PW, AL930-DW, AL930-DPW
AL730-W, AL730-PW, AL730-DW, AL730-DPW
AL530-W, AL530-PW, AL530-DW, AL530-DPW
AL430-W, AL430-PW, AL430-DW, AL40-DPW
VO930-W, VO930-PW, VO930-DW, VO930-DPW
VO730-W, VO730-PW, VO730-DW, VO730-DPW
VO530-W, VO530-PW, VO530-DW, VO530-DPW

The identification number for the PH312 device models can be found at location “9” as indicated in the illustration on the next page.

1. Programme 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



Continued from the previous page ...

Custom **in-the-ear (ITE)** hearing instruments (type **PH312** with FCC ID X26PH312, IC number 6941C-PH312 models designated by a “W” at the end of the model number) with size **312** battery are available in the following variants:

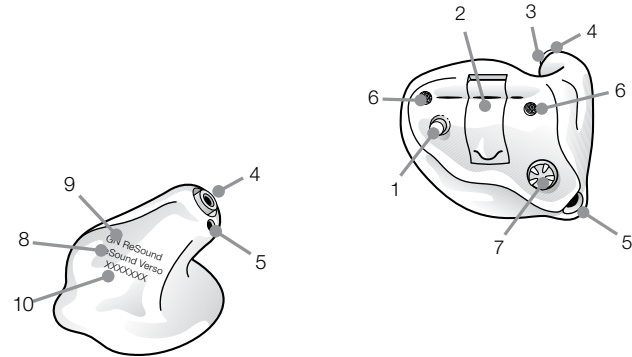
AL940, AL940-P, AL940-D, AL940-DP
AL740, AL740-P, AL740-D, AL740-DP
AL540, AL540-P, AL540-D, AL540-DP
AL440, AL440-P, AL440-D, AL440-DP
AL940-W, AL940-DW, AL940-PW, AL940-DPW
AL740-W, AL740-DW, AL740-PW, AL740-DPW
AL540-W, AL540-DW, AL540-PW, AL540-DPW
AL440-W, AL440-PW, AL440-DW, AL440-DPW
VO950, VO950-P, VO950-D, VO950-DP
VO950-W, VO950-PW, VO950-DW, VO950-DPW
VO750, VO750-P, VO750-D, VO750-DP
VO750-W, VO750-PW, VO750-DW, VO750-DPW
VO550, VO550-P, VO550-D, VO550-DP
VO550-W, VO550-PW, VO550-DW, VO550-DPW

Custom **in-the-ear (ITE)** hearing instruments (type **PH13** with FCC ID X26PH13, IC number 6941C-PH13 models designated by a “W” at the end of the model number) with size **13** battery are available in the following variants:

AL950, AL950-P, AL950-D, AL950-DP
AL950-W, AL950-PW, AL950-DW, AL950-DPW
AL750, AL750-P, AL750-D, AL750-DP
AL750-W, AL750-PW, AL750-DW, AL750-DPW
AL550, AL550-P, AL550-D, AL550-DP
AL550-W, AL550-PW, AL550-DW, AL550-DPW
AL450, AL450-P, AL450-D, AL450-DP
AL450-W, AL450-PW, AL450-DW, AL450-DPW
VO950, VO950-P, VO950-D, VO950-DP
VO950-W, VO950-PW, VO950-DW, VO950-DPW
VO750, VO750-P, VO750-D, VO750-DP
VO750-W, VO750-PW, VO750-DW, VO750-DPW
VO550, VO550-P, VO550-D, VO550-DP
VO550-W, VO550-PW, VO550-DW, VO550-DPW

The identification number for the PH312 and PH13 device models can be found at location “8” as indicated in the illustrations on the next page.


1. Programme 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

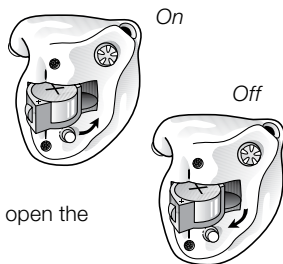
On/Off function

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.

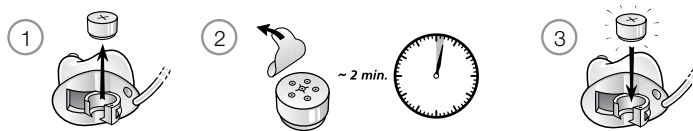
SmartStart

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.



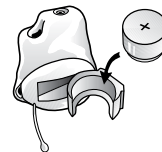
Inserting/Replacing the battery

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 7 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 five 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 (instruments paired with accessories only)

Active usage of the ReSound Unite accessories (Remote Control, Phone Clip, TV Streamer 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, 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 will continue to work as usual, but you will not be able to use your ReSound Unite TV Streamer, 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 (remote microphone)

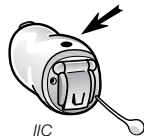
1. Hold the hearing instrument between your thumb and index finger, either above and below or on the sides.
2. Place the sound outlet portion into your ear canal. Turn the top part of the earmould gently backwards and forwards so that it tucks behind the fold of skin above your ear canal.
3. Insert the 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.



 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 remote microphone)

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 remote microphone 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.



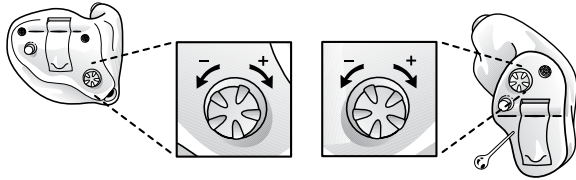
Operation of the hearing instrument

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.



Programme 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 programmes in the hearing instrument. If additional programmes have been activated, the following list explains how they work.

1. You can switch between programmes by pushing the push button once.
2. You will then hear one or more beeps. The number of beeps indicates which programme you have selected (one beep=programme one, two beeps=programme two, etc.).
3. When the hearing instruments are turned off and then back on, the hearing instrument always returns to the default setting (programme one).

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

Programme	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 Alera 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 of the hearing instrument while at the same time pressing the push button.

When disabled manually, wireless operation may be re-enabled by opening and closing the battery compartment normally, (i.e. without at the same time pressing the push button).

For devices without a push button: It is possible to disable wireless operation by opening and closing the battery door twice within 10 seconds. Repeat this procedure to enable wireless again.

For Verso 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 opera-

* For wireless models only

tion by opening and closing the battery door once. 10 seconds after this operation is completed, wireless operation will begin again.

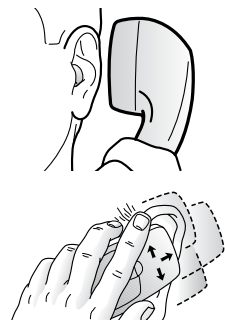


Note: It is important to wait an additional 15 seconds after wireless function resumes before opening and closing the battery compartment again for any reason. If the battery compartment is opened and closed during this 15 second window, flight mode will resume.

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 programme specifically for telephone use.



Telecoil (optional on some ITC, ITE, and remote microphone models)

If equipped, a telecoil can be activated by your hearing care professional and accessed through one of the additional programmes. A telecoil picks up a telephone's magnetic signal and converts it to sound. An optional telephone programme may help to improve speech understanding on the telephone. When using a telecoil programme, 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.

Listen 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 programmes.

If you find it difficult to listen to TV or radio, your hearing care professional will be able to give you advice on available accessories to enhance your listening capabilities for TV and radio.

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 accessories to enhance listening capabilities.

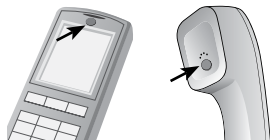
PhoneNow (not available in VO910-C and VO710-C instruments)

The PhoneNow function, allows your hearing instrument to automatically switch to your telephone programme 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 programme.

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 programme. 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 precautions

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).
3. 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.
4. 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 programme 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 programme 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

Your hearing instrument is protected by a layer of protective, hydrophobic nanocoat material.

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.

To change these 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.



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 utilise wax filters, consult your hearing care professional for guidance.



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

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.



General precautions

1. Do not leave hearing instruments in the sun, near an open fire, or in a hot, parked car.
2. Do not wear hearing instruments while showering, swimming, in heavy rain, or in a moist atmosphere

such as a steam bath or sauna.

3. Should the hearing instrument become moist, remove the battery and place the hearing instrument in a closed container with a drying agent. Your hearing care professional can provide options for drying containers or kits.
4. Remove the hearing instruments when applying items such as cosmetics, perfume, after shave, hair spray, and suntan lotion.
5. 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.
6. When using wireless functionality and the devices are affected by electromagnetic interference, move away from the source.
7. Only connect ReSound hearing instruments to ReSound accessories intended and qualified to be used with ReSound hearing instruments. Never attempt to modify the shape of the hearing instrument, ear-moulds, or tubing yourself.
8. 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. 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.
2. 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.

3. Do not wear hearing instruments in mines, oil fields, or other explosive areas unless those areas are certified for hearing instrument use.
4. 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.
5. 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.
6. Hearing instruments should be used only as prescribed by your hearing care professional. Incorrect use may result in hearing loss.
7. If device is broken, do not use.
8. Be careful when boarding flights to deactivate the wireless functionality.
9. 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.
10. Turn off your wireless functionality by using the flight mode in areas where radio frequency emission is prohibited.



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 programmes to relieve suffering from tinnitus.



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).

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 programmes 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, crushing waves on a shore. Modulation level and speed can also be configured to your likes and needs.

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.



Caution

- 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 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 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, 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 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.

Significant physical characteristics

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.

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.

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. The user should not use the sound generator for more than eight (8) hours a day when this is set below 90 dB SPL. Above that level, the device should not be used 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	POSSIBLE REMEDY
No sound	Not turned on	Turn on by closing the battery door
	Dead battery	Replace battery
	Battery door will not close	Insert battery properly
	Blocked wax filter	Replace wax filter or consult your hearing care professional
Not loud enough	Incorrect earmould placement	Reinsert hearing instrument carefully
	Blocked sound outlet filter	Change filter or consult your hearing care professional
	Change in hearing sensitivity	Consult your hearing care professional
	Excessive ear wax	Consult your physician
	Volume set too low	Increase the volume control if available or consult your hearing care professional

Troubleshooting Guide

SYMPTOM	CAUSE	POSSIBLE REMEDY
Excessive whistling / feedback	Incorrect earmould placement	Re-insert earmould carefully
	Excessive ear wax	Consult your hearing care professional
	Feedback control may need adjustment	Consult your hearing care professional
	Hearing instrument settings not optimal	Consult your hearing care professional
Sound distorted / not clear	Weak battery	Replace battery
	Improper earmould or dome fit	Consult your hearing care professional
	Hearing instrument damaged	Consult your hearing care professional
	Hearing instrument settings not optimal	Consult your hearing care professional
Wireless does not work	Possible Root Cause - Device is in flight mode	For Alera devices with push button: Open and close the battery compartment. For Alera devices without push button: Open and close the battery door twice within 10 seconds For all Verso devices: Open and close the battery compartment once. Wireless will reactivate 10 seconds later. (If Root Cause is device in flight mode)

Technical Data (Custom remote mic)

HEARING INSTRUMENT MODEL	MAXIMUM OUTPUT (2ccCoupler / IEC 60118-7 and ANSI S3.22-2013)
AL910-M, AL710-M, AL510-M AL910-MP, AL710-MP, AL510-MP	112 dB SPL (typical) 117 dB SPL (typical)
AL930-M, AL730-M, AL530-M, AL930-MW, AL730-MW, AL530-MW ALT930-MW, ALT730-MW, ALT530-MW AL930-MP, AL730-MP, AL530-MP, AL930-MPW, AL730-MPW, AL530-MPW, ALT930-MPW, ALT730-MPW, ALT530-MPW AL930-MU, AL730-MU, AL530-MU, AL930-MUW, AL730-MUW, AL530-MUW, ALT930-MUW, ALT730-MUW, ALT530-MUW	112 dB SPL (typical) 117 dB SPL (typical) 128 dB SPL (typical)
AL950-M, AL750-M, AL550-M, AL950-MW, AL750-MW, AL550-MW AL950-MP, AL750-MP, AL550-MP, AL950-MPW, AL750-MPW, AL550-MPW AL950-MU, AL750-MU, AL550-MU, AL950-MUW, AL750-MUW, AL550-MUW	112 dB SPL (typical) 117 dB SPL (typical) 128 dB SPL (typical)
VO910-M, VO710-M, VO510-M VO910-MP, VO710-MP, VO510-MP	113 dB SPL (typical) 117 dB SPL (typical)
VO930-M, VO730-M, VO530-M, VO930-MW, VO730-MW, VO530-MW, VOT930-MW, VOT730-MW VO930-MP, VO730-MP, VO530-MP, VO930-MPW, VO730-MPW, VO530-MPW, VOT930-MPW, VOT730-MPW VO930-MU, VO730-MU, VO530-MU, VO930-MUW, VO730-MUW, VO530-MUW, VOT930-MUW, VOT730-MUW	112 dB SPL (typical) 118 dB SPL (typical) 130 dB SPL (typical)

Technical Data (CIC, mini-canal, ITC and ITE)

HEARING INSTRUMENT MODEL	MAXIMUM OUTPUT (2ccCoupler / IEC 60118-7 and ANSI S3.22-2013)
AL910, AL710, AL510, AL410	112dB SPL (typical)
AL910-P, AL710-P, AL510-P, AL410-P	116dB SPL (typical)
AL920, AL720, AL520, AL420	112dB SPL (typical)
AL920-P, AL720-P, AL520-P, AL420-P	116dB SPL (typical)
AL930, AL730, AL530, AL430 AL930-D, AL730-D, AL530-D, AL430-D AL930-W. AL930-DW, AL730-W. AL730-DW, AL530-W. AL530-DW, AL430-W. AL430-DW	114dB SPL (typical)
AL930-P, AL730-P, AL530-P, AL430-P AL930-DP, AL730-DP, AL530-DP, AL430-DP, AL-930-PW, AL930-DPW, AL-730-PW, AL730-DPW, AL-530-PW, AL530-DPW, AL-430-PW, AL430-DPW	117dB SPL (typical)
VO910-C, VO710-C VO910, VO710, VO510 VO910-P, VO710-P, VO510-P VO930, VO730, VO530, VO930-D, VO730-D, VO530-D VO930-W, VO730-W, VO530-W, VO930-DW, VO730-DW, VO530-DW VO930-P, VO730-P, VO530-P, VO930-DP, VO730-DP, VO530-DP VO930-PW, VO730-PW, VO530-PW, VO930-DPW, VO730-DPW, VO530-DPW	111dB SPL (typical) 112dB SPL (typical) 117dB SPL (typical) 114dB SPL (typical) 114dB SPL (typical) 118dB SPL (typical) 118dB SPL (typical)

Technical Data (ITCs and ITEs)

HEARING INSTRUMENT MODEL	MAXIMUM OUTPUT (2cc Coupler / IEC 60118-7 and ANSI S3.22-2013)
AL940, AL740, AL540, AL440, AL940-D, AL740-D, AL540-D, AL440-D AL940-W, AL940-DW, AL740-W, AL740-DW, AL540-W, AL540-DW, AL440-W, AL440-DW	117dB SPL (typical)
AL940-P, AL740-P, AL540-P, AL440-P, AL940-DP, AL740-DP, AL540- DP, AL440-DP, AL-940-PW, AL940-DPW, AL-740-PW, AL740-DPW, AL-540-PW, AL540-DPW, AL-440-PW, AL440-DPW	129dB SPL (typical)
AL950, AL750, AL550, AL450, AL950-D, AL750-D, AL550-D, AL450-D, AL950-W, AL750-W, AL550-W, AL450-W, AL950-DW, AL750-DW, AL550-DW, AL450-DW	117dB SPL (typical)
AL950-P, AL750-P, AL550-P, AL440-P, AL950-DP, AL750-DP, AL550- DP, AL450-DP, AL950-PW, AL750-PW, AL550-PW, AL450-PW, AL950-DPW, AL750-DPW, AL550-DPW, AL450-DPW	129dB SPL (typical)
VO950, VO750, VO550, VO950-D, VO750-D, VO550-D VO950-W, VO750-W, VO550-W, VO950-DW, VO750-DW, VO550-DW VO950-P, VO750-P, VO550-P, VO950-DP, VO750-DP, VO550-DP VO950-PW, VO750-PW, VO550-PW, VO950-DPW, VO750-DPW, VO550-DPW	118dB SPL (typical) 118dB SPL (typical) 130dB SPL (typical) 130dB 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 +70C according to internal and industry standards. During transport or storage, the temperature should not exceed the limit values of -20C to 60C 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.



Product is a Type B applied part.



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



Faceplate/Electronics by: ReSound A/S

Any issues relating to the EU Medical Device Directive 93/42/EEC, or Council Directive 1999/5/EC on Radio Equipment and Telecommunications terminal equipment should be directed to ReSound A/S

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ReSound

rediscover hearing