

 $ReSound\ LiNX\ Quattro^{\!{}^{\scriptscriptstyle{\mathsf{M}}}}$

User guide

Receiver-In-Ear hearing aids

GN Making Life Sound Better

Left Hearing Aid			Right Hearing Aid			
Serial number			Serial n	umber		
Model number			Model n	number		
Receiver type	Low Power Medium Po High Powe Ultra Powe	ower r	Receive	r type	П м	ow Power edium Power igh Power ltra Power
Receiver length	□ 0 □ 1 □ 2	□ 3 □ 4	Receive	r length		1
Battery size	13					
Open/standard [[[Small Medium Large Open dome	Small Medium Large Power dom		Tulip Tulip dome		Earmold

program	Веер	Description
1	•	
2	1 1	
3	7 7 7	
4	7 7 7 7	

Specific features supported by your hearing system:

Smart Start on page 12	
Phone Now on page 22	L
Tinnitus Sound Generator on page 25	

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

BER13, FCC ID: X26BER13, IC: 6941C-BER13.

Please see page 7 for list of models referring to all types.

This device includes an RF transmitter which operates in the frequency band of 2.4 GHz – 2.48 GHz. Nominal RF output power transmitted is +1.1 dBm.

1 Introduction

Congratulations on the purchase of your new hearing aids. ReSound's innovative sound technology and design, combined with the customized programming selected by your hearing care professional, will make hearing a more enjoyable experience.

Please read this manual carefully in order to wholly benefit from the use of your hearing aids. With proper care, maintenance, and usage, your hearing aids will serve you in better communication for many years.

Ask your hearing care professional if you have any questions.

2 Intended use

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

3 Becoming accustomed to amplification

While purchasing a hearing aid is a major step, it is only one step in a process toward more comfortable hearing. Successfully adapting to the amplification your hearing aid provides takes time and consistent use.

You will enjoy more benefits from your ReSound hearing aid by taking the following actions:

- Wear the hearing aid regularly in order to get comfortable with using it.
- It takes time to get used to a hearing aid. It may help to begin by wearing your hearing aid for short periods even as little as 15 minutes and then gradually increasing your wearing time. In a way, it is no different from adjusting to contact lenses. Speak to your hearing care professional, who can design a schedule tailored just for you.
- As you get more comfortable with the hearing aid, increase the wearing time and wear your hearing aid in multiple types of listening environments.

It may take as long as several months for your brain to get used to all the "new" sounds around you. Following these suggestions will give your brain time to learn how to interpret amplification and increase the benefits you get from using a ReSound hearing aid.

4 Statement

This device complies with part 15 of the FCC rules and ISED rules.

Operation is subject to the following two conditions:

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



NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules and ISED 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

The products are in compliance with the following regulatory requirements:

- In EU: the device conforms to the Essential Requirements according to Annex I of Council Directive 93/42/EEC for medical devices (MDD)
- Hereby, GN ReSound A/S declares that the radio equipment types BRIE are in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.declarations.resound.com
- In US: FCC CFR 47 Part 15, subpart C
- Other identified applicable international regulatory requirements in countries outside the EU and US. Please refer to local country requirements for these areas
- In Canada: these hearing aids are certified under the rules of ISED
- Japanese Radio Law and Japanese Telecommunications Business Law Compliance. This device
 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)

Receiver-in-the-ear (RIE) hearing aids of type BER13 with FCC ID X26BER13, IC number 6941C-BER13 and size 13 battery are available in the following variants:

RE962-DRW, RE762-DRW, RE562-DRW

5 Contents

1	Introduction	4
2	Intended use	
3	Becoming accustomed to amplification.	
4	Statement	6
5	Contents	8
6	Descriptions	10
6.1	Your hearing aid	10
6.2	Recognizing left and right hearing aid	1
7	Getting started	12
7.1	On/Off function	12
7.1.1	Smart Start	12
7.2	Inserting/Replacing the battery	12
7.3	Low battery indicator	13
7.3.1	Low battery indicator when paired with	
	wireless accessories only	14
7.4	Insert/Remove hearing aid	15
7.4.1	Insert earmold	15
7.4.2	Remove earmold	16
7.4.3	Insert wire with dome	16
7.4.4	Remove wire with dome	17
7.4.5	Sports lock	17
7.5	Operation of the hearing aid	17
7.5.1	Multi-function button	17

8	Telephone use	. 20
8.1	Using ReSound Smart Hearing Aids with	
	iPhone®, iPad®, and iPod touch® (optional)	20
8.2	Using ReSound hearing aids with	
	smartphone apps	21
8.2.1	Intended use of ReSound apps for	
	smartphones	21
8.3	Cellular phones	
8.4	Phone Now	22
8.4.1	Place the Phone Now magnet	22
8.4.2	How to use Phone Now	23
8.5	Flight mode (optional)	24
9	Tinnitus Sound Generator (TSG) module	. 25
9.1	Indication for use of the TSG module	25
9.2	User instructions for the TSG module	25
9.2.1	Description of device	25
9.2.2	Explanation of how the device functions	26
9.2.3	The scientific concepts that form the basis	
	for the device	27
9.2.4	TSG volume control	27
9.2.5	Using TSG with smartphone apps	28
9.3	Technical Specifications	28
9.3.1	Audio signal technology	28
	Available sounds	

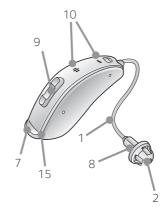
9.4	Prescription use of a Tinnitus Sound	
	Generator (TSG) hearing aid	29
9.3.4	Important notice for prospective sound	
	generator users	30
9.4	Tinnitus Sound Generator warnings	30
9.4.1	Tinnitus Sound Generator precautions	31
9.4.2	Tinnitus Sound Generator warning to	
	hearing care professionals	31
10	The receiver	33
11	How to apply domes	33
11.1	Standard domes	33
11.2	Tulip domes	34
12	Wireless accessories	
13	ReSound Assist (Optional)	36
14	Care and maintenance	
14.1	Daily maintenance	37
14.2	Cleaning earmolds	
	(does not apply for UP molds)	37
14.4	Changing wax guards	38
15	General warnings	39
16	General precautions	40
17	Phone Now warnings	41
17.1	Phone Now precautions	41
18	Battery warnings	
19	Hearing aid expectations	43

20	Warning to hearing aid professionals	
	(US Only)	44
21	Important notice for prospective	
	hearing aid users (US Only)	44
22	Children with hearing loss (US Only)	45
23	Technical specifications	46
24	Troubleshooting guide	50
25	Warranties and repairs	54
26	Temperature test, transport and storage	
	information	54
27	Advisories	55
28	Acknowledgments	56

6 Descriptions

6.1 Your hearing aid

- Receiver wire
- Open Dome
- Tulip Dome
- Power Dome
- RIF mold
- Sports lock
- Battery door
- 8. Receiver
- Multi-function button
- 10. Microphones
- 11. Low Power (LP) receiver
- 12. Medium Power (MP) receiver
- 13. High Power (HP) receiver
- 14. Ultra Power (UP) receiver
- 15. Model, and serial number (in battery chamber)





















6.2 Recognizing left and right hearing aid

If you have two hearing aids, they may be tuned differently. One for your left ear, the other for your right. Do not swap them. Please pay attention to this when cleaning, storing and inserting the hearing aids.



You might want to ask your hearing care practitioner to mark your hearing aids with a colored Left and Right indication: Left is blue and Right is red.

7 Getting started

Once you have placed the hearing aids on your ears, you can turn them on. The hearing aid always starts in program 1 and with the preset volume.

7.1 On/Off function

- 1. Close the battery door to turn on the hearing aid in program 1 (one).
- 2. Open the battery door to turn off the hearing aid. Use your fingernail to pull it open.



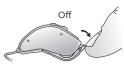
Smart Start delays the time before the hearing aid turns on after you close the battery door. With Smart Start, you will hear a beep (JJJJ etc.) for each second of the delay period (5 or 10 seconds delay).

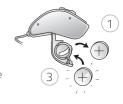
If you want your hearing aids to turn on immediately, when you close the battery door, ask your hearing care professional to deactivate Smart Start.

7.2 Inserting/Replacing the battery

- Open the battery door completely by using your fingernail. Remove the used battery if present.
- 2. Prepare the new battery (please refer to page 2 for information on appropriate battery type/size for your hearing aid). Remove the protective foil to activate the battery.
- 3. Wait for 2 minutes before inserting the battery into the hearing aid.









- 4. Insert the new battery with the positive side in the correct position. Always insert the battery in the door: never directly into the hearing aid.
- 5. Gently close the battery door.



- Always use new Zinc-Air batteries that have a minimum remaining shelf life of 1 year.
- 2. To save battery, turn off your hearing aids when they are not in use.
- 3. At night, switch off the hearing aid and open the battery door completely to allow moisture to evaporate and prolong the hearing aid's lifespan.
- 4. If the hearing aid is experiencing frequent loss of connection to ReSound wireless accessories, contact your hearing care professional for a list of low impedance batteries.



WARNING: Batteries contain dangerous substances and should be disposed of carefully in the mentally disabled persons.

7.3 Low battery indicator

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



NOTE: Keep spare batteries on hand.

7.3.1 Low battery indicator when paired with wireless accessories only

The batteries drain faster when you use wireless functionalities like streaming from your smartphone or from your TV via our TV Streamer 2.

As the battery power goes down, the wireless functions stop working. A short melody every five minutes indicates that battery power is too low.

The table below shows how the functionality shifts with the power level of the battery.

Battery level	Signal	Hearing aid	Remote Control	Streaming
Fully charged		✓	✓	✓
Low	111	✓	✓	×
Depleted (change battery)	 o	✓	×	×

7.4 Insert/Remove hearing aid

For comfort, always turn off your hearing aids before you insert or remove them.

7.4.1 Insert earmold

- 1. Hold the earmold between your thumb and index finger and position its sound outlet in your ear canal.
- Slide the earmold all the way into your ear with a gentle, twisting movement.
- 3. Move the earmold up and down and gently press to place it correctly in the ear. Opening and closing your mouth can ease insertion.
- 4. Make sure the hearing aid sits firmly behind the ear.

By experimenting, you may discover an easier method. With proper insertion, hearing aids should fit snugly but comfortably.



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









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

7.4.2 Remove earmold

- 1. Lift the hearing aid from behind the ear. For a moment, let it hang beside your ear.
- 2. Gently pull the removal cord (not the hearing aid or the tubing) to pull the hearing aid from the ear.



NOTE: For custom earmolds, grasp the removal cord and pull the earmold outward.

3. Remove the earmold completely by gently twisting it.

7.4.3 Insert wire with dome

- 1. Hang the hearing aid over the top of the ear.
- Hold the wire where it bends and gently place/push the dome into the ear canal. Push the dome far enough into the ear canal so that the wire lies flush with the head (check with a mirror).









NOTE: To avoid whistling, it is important that the wire and the dome fit correctly into your ear. For other possible reasons, check with the Troubleshooting guide.



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

7.4.4 Remove wire with dome

1. Hold the wire with your thumb and forefinger and remove it.

7.4.5 Sports lock

If needed, your hearing care professional will apply and adjust the Sports lock.

7.5 Operation of the hearing aid

7.5.1 Multi-function button

The multi-function button will allow you to use up to four different listening programs, each of them suitable for certain situations.

- 1. Press upward to switch between programs.
- 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 you turn the hearing aids off and then back on, they always return to the default setting (program one and preset volume).

Your hearing care professional can configure your multi-function button so that you can control the volume and switch between listening programs.



Multi-function button

If necessary, your hearing care practitioner can change the default settings for the multi-function button and fill in the following table to indicate the new settings:

Multi-function button action	Default setting	New setting
Short press up	Increases volume	
Short press down	Decreases volume	
Long press up (3 seconds)	Changes program	
Long press down (3 seconds)	Activates streaming	



NOTE: If you have two hearing aids with the Synchronized Push Button enabled, program changes to one hearing aid automatically repeats in the second hearing aid. When you change a program in one hearing aid, it responds with one or more beeps. The same number of confirmation beeps follow in the second aid. This Synchronized Push Button can also be configured to allow one side to control volume increase and the other side to control volume decrease. The volume changes to one hearing aid are repeated on the other side to keep the levels the same.

8 Telephone use

Your hearing aid allows you to use the telephone as you normally do. However, finding the optimal position for your telephone may require practice.

The following suggestions may be helpful:

- Dependent on your fitting and hearing status, either hold the telephone up to your ear canal or hold it close to the hearing aid microphones as illustrated.
- If whistling occurs, try holding the telephone in the same position for a few seconds as the hearing aid may be able to cancel the whistling.
- 3. Holding the telephone slightly away from the ear can also stop any whistling.



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

8.1 Using ReSound Smart Hearing Aids with iPhone®, iPad®, and iPod touch® (optional)

ReSound LiNX Quattro hearing aids are Made for iPhone[®], and allow for direct communication and control with an iPhone[®], iPad[®], or iPod touch[®].



NOTE: For assistance with pairing and using these products with your ReSound LiNX Quattro device, please contact your hearing care professional.



8.2 Using ReSound LiNX Quattro with smartphone apps

8.2.1 Intended use of ReSound apps for smartphones:

ReSound smartphone apps are intended to be used with ReSound wireless hearing aids. ReSound smartphone apps send and receive signals from the ReSound wireless hearing aids via smartphones for which the apps have been developed.

- Do not disable app notifications.
- Install updates to keep the app working correctly.
- Only use the app with hearing aids from ReSound. ReSound takes no responsibility if the app is used with other hearing aids.
- If you want a printed version of the smartphone app user guide, please go to our website at www. resound.com or consult customer support.



NOTE: For assistance with pairing and using these products with your ReSound hearing aids, please contact your hearing care professional or visit our support site at www.resound.com. NOTE: If you have a Bluetooth enabled smartphone, you are able to answer the telephone if you use ReSound's Phone Clip+.

8.3 Cellular phones

Your hearing aid complies with the most stringent Standards of International Electromagnetic Compatibility.

Any degree of disturbance can be due to the nature of your particular cellular phone or of your wireless telephone service provider.



NOTE: 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.

8.4 Phone Now

By placing a magnet on the telephone receiver, your hearing aids automatically switch the telephone program on when the receiver is close to your ear.

When you remove the receiver from your ear, the hearing aids automatically return to the previous listening program.



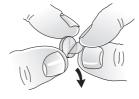
NOTE: Ask your hearing care professional to enable Phone Now as one of your programs.

8.4.1 Place the Phone Now magnet

Follow these steps in order to place the Phone Now magnet properly:



Clean the telephone thoroughly.



Remove foil from magnet.



Place the magnet.



WARNING: IF A MAGNET IS SWALLOWED, SEEK IMMEDIATE ASSISTANCE FROM A MEDICAL PRACTITIONER.



NOTE: Ask your hearing care professional to enable Phone Now as one of your programs. **NOTE:** Do not cover the loudspeaker opening with the magnet.

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

NOTE: If the hearing aids do not switch to the telephone program every time, you can reposition the Phone Now magnet or add additional magnets.

NOTE: Use a recommended cleaning agent.

8.4.2 How to use Phone Now

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



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



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

8.5 Flight mode (optional)



WARNING: When boarding a flight or entering an area where RF transmitters are prohibited, deactivate wireless functionality.

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

Follow these steps to turn off wireless mode:

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

Follow these steps to activate wireless mode:

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



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

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

9 Tinnitus Sound Generator module

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

The TSG can generate sounds adjusted to the specific therapeutic needs and your personal preference as determined by your doctor, audiologist, or hearing care professional.

Depending on the selected hearing aid program and the environment you are in, you will sometimes hear the therapeutic sound resembling a continuous or fluctuating noise.

9.1 Indication for use of the TSG module

The Tinnitus Sound Generator Module is a tool to generate sounds to be used in a Tinnitus Management Program to relieve patients suffering from Tinnitus. The target population is primarily the adult population over 18 years of age. This product may also be used with children 5 years of age or older.

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

9.2 User instructions for the TSG module

9.2.1 Description of 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.

9.2.2 Explanation of how the device functions

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

Your doctor, audiologist or hearing care professional can modulate the generated noise with the purpose of making it more pleasant. The noise can then resemble, for example, breaking waves on a shore.

Modulation level and speed can also be configured to your likes and needs. An additional feature can be enabled by your hearing care professional that allows you to select predefined sounds that simulate sounds from nature, such as breaking waves or running water.

If you have two wireless hearing aids that support ear-to-ear synchronization, this functionality can be enabled by your hearing care professional. This will cause the Tinnitus Sound Generator to synchronize the sound in both hearing aids.

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

For hearing aids where ear-to-ear synchronization is enabled your hearing care professional can also enable environmental monitoring synchronization so that the TSG noise level is automatically adjusted simultaneously in both hearing aids dependent on the background sound level.

Additionally since the hearing aid has a volume control 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.

9.2.3 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.

9.2.4 TSG volume control

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

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

9.2.5 Using TSG with smartphone apps

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



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

9.3 Technical specifications

9.3.1 Audio signal technology

Digital.

9.3.2 Available sounds

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

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

High-pass filter	Low-pass filter
500 Hz	2,000 Hz
750 Hz	3,000 Hz
1,000 Hz	4,000 Hz
1,500 Hz	5,000 Hz
2,000 Hz	6,000 Hz
-	8,000 Hz

9.3.3 Prescription use of a Tinnitus Sound Generator hearing aid

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, head-aches, 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.

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

9.4 Tinnitus Sound Generator warnings

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

9.4.1 Tinnitus Sound Generator precautions

- 1. Should the user develop any side effects from using the sound generator, such as dizziness, nausea, headaches, perceived decrease in auditory function or increase in tinnitus perception, the user should discontinue use of the sound generator and seek medical evaluation.
- 2. The volume control is a feature in the TSG module used for adjusting the sound generator output level. To prevent unintended usage by paediatric or physically or mentally disabled users, the volume control must be configured to only provide a decrease of the sound generator output level.
- 3. Children and physically or mentally disabled users will require guardian supervision while wearing the TSG hearing aid.



9.4.2 Tinnitus Sound Generator warning to hearing care professionals

A hearing care professional should advise a prospective sound generator user to consult promptly with a licensed physician (preferably an ear specialist) before getting a sound generator.

If the hearing care professional determines through inquiry, actual observation, or review of any other available information concerning the prospective user that the prospective user has any of the following conditions:

- 1. Visible, congenital or traumatic deformity of the ear.
- 2. History of active drainage from the ear within the previous 90 days.
- 3. History of sudden or rapidly progressive hearing loss within the previous 90 days.
- 4 Acute or chronic dizziness
- 5. Unilateral hearing loss of sudden or recent onset within the previous 90 days.
- 6. Audiometric air-bone gap equal to or greater than 15 dB at 500 hertz (Hz), 1,000 Hz, and 2,000 Hz.

- 7. Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
- 8. Pain or discomfort in the ear.



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

10 The receiver

The receiver delivers the sound to the ear canal. It is important that the receiver and the dome/earmold fit correctly in your ear. If the receiver or the dome/earmold irritate your ear in any way and prevent you from wearing your hearing aid, please contact your hearing care professional.

You should never attempt to modify the shape of the receiver yourself. The receiver and the dome/ear-mold should be cleaned regularly.

11 How to apply domes

It is recommended that your hearing care professional shows you how to change the domes, because incorrect dome replacement could result in the dome being left in the ear when you remove the hearing aid.

11.1 Standard domes

Follow these steps to mount domes:

- 1. Push the new dome over the ribs flange on the wire.
- 2. Make sure that the new dome is properly and securely mounted.

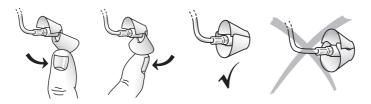


11.2 Tulip domes

The Tulip domes are mounted in a similar manner to the ordinary domes, but a few extra steps are required. The Tulip domes consist of two "petals".

Follow these steps to mount domes:

- 1. Push the largest petal away from the wire using a finger. This bends the petal forward.
- 2. Push the new tulip dome over the flange.
- 3. Then push the largest petal backwards, and it will be placed on top of the smaller petal.





NOTE: It is important to verify that the largest petal is the outermost petal.

4. Make sure that the new dome is properly and securely mounted.

12 Wireless accessories

ReSound's wireless eco-system features a comprehensive range of seamlessly integrated wireless accessories. This allows you to control and stream high quality stereo sound and speech directly to your hearing aids.

Please find the list of available wireless accessories below:

ReSound TV Streamer 2 allows you to stream the audio from TV sets and virtually any other audio source to your hearing aids at a volume level that suits you.

ReSound Remote Control 2 allows you to adjust the volume or mute your hearing aids, change programs, and see all your settings at a glance on its display.

ReSound Phone Clip + streams phone conversations and stereo sound directly to both hearing aids, and it doubles as a simple remote control.

ReSound Micro Mic is a body worn microphone for your friend or colleague. It significantly improves speech understanding in noisy situations.

ReSound Multi Mic works like the Micro Mic but doubles as a table microphone. Connects with loop and FM systems, and has a mini-jack input for streaming audio from a computer or music player.



NOTE: Ask your hearing care professional for more information on the range of ReSound wireless accessories.

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

13 ReSound Assist (Optional)

If you sign up to use the ReSound Assist service available with your hearing aids, you can allow your hearing aids to be adjusted remotely without even having to travel from where you are at the moment. This allows you to experience unprecedented freedom and flexibility:

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



NOTE: Your hearing aids shut down during the install and update process. For optimum performance, make sure the hearing aids are connected to the ReSound Smart $3D^{TM}$ app and placed close to the iPhone or Android smartphone before applying the changes.

Your hearing care professional will gladly provide information regarding ReSound Assist and how it works with the ReSound Smart 3D app.



Please follow the instructions below to have the best user experience and to prolong the durability of your hearing aids:

- 1. Keep your hearing aids dry and clean.
- 2. Open the battery door to dry out your hearing aids when you are not wearing them.
- 3. Wipe the hearing aids with a soft cloth after use to remove grease or moisture.
- 4. Do not wear your hearing aids when putting on cosmetics, perfume, after-shave, hairspray, suntan lotion etc. These might discolor the hearing aid or get into the hearing aid causing damage.

- 5. Do not immerse your hearing aid in any liquid.
- 6. Keep your hearing aids away from excessive heat and direct sunlight. The heat may deform the shell, damage the electronics and deteriorate the surfaces.
- 7. Do not swim, shower or steam bathe while wearing your hearing aids.

14.1 Daily maintenance

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

14.2 Cleaning earmolds

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

14.3 Cleaning the receiver wires and domes

The receiver wire and the receiver dome should be cleaned regularly.

1. Use a damp cloth to clean the receiver wire and receiver dome on the outside.



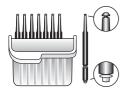
NOTE: Do not use water when you are cleaning the receiver wires or the receiver domes.

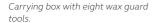


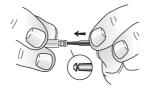
NOTE: Receiver wires may become stiff, brittle, or discolored over time. Contact your hearing care professional regarding receiver changes.

14.4 Changing wax guards

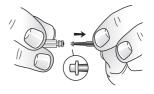
If you wear a dome, remove it before following this procedure. To replace wax guards:





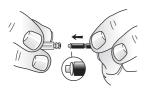


Insert the removal tip of the tool into the used wax guard so that the shaft touches the rim of the wax guard.

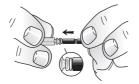


Slowly pull the wax guard straight out.

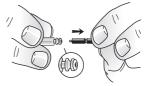
The wax guard tool has two functions: a removal tip to collect the used filter, and a replacement tip with a white filter. To insert the new wax filters, follow these steps:



Insert the replacement tip of the tool into the sound outlet.



Gently press the replacement tip straight into the sound outlet until the outer ring lies flush with the sound outlet.



Pull the tool straight out - the new wax guard will remain in place. Please remember to re-attach dome again, or a fresh dome.

15 A General warnings

- 1. Consult a hearing care professional if you think there may be a foreign object in your ear canal, if you experience skin irritation, or if excessive earwax accumulates with the use of the hearing aid.
- 2. Different types of radiation, from e.g. NMR, MRI, or CT scanners, may damage hearing aids. It is recommended not to wear hearing aids 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 aids. However, they have the potential to momentarily affect the sound quality or temporarily create undesired sounds from hearing aids.
- 3. Do not wear hearing aids in mines, oil fields, or other explosive areas unless those areas are certified for hearing aid use.
- 4. Do not allow others to use your hearing aids.
- 5. Hearing Aid usage by children or mentally disabled persons should be supervised at all times to ensure their safety. The hearing aid contains small parts that could be swallowed by children. Please be mindful not to leave children unsupervised with this hearing aid.
- 6. Hearing aids should be used only as prescribed by your hearing care professional. Incorrect use may result in hearing loss.
- 7. Warning to hearing care professionals: Special care should be exercised in selecting and fitting hearing aids with maximum sound pressure level that exceeds 132 dB SPL with an IEC 60711:1981 occluded ear simulator. The remaining hearing may risk further impairment.
- 8. Turn off your wireless functionality by using the flight mode in areas where radio frequency emission is prohibited.
- 9. If a hearing aid is broken, do not use.
- 10. External devices connected to the electrical input must be safe according to the requirements of IEC 60601-1, IEC 60065, or IEC 60950-1, as appropriate (wired connection, for example HI-PRO, SpeedLink).

39



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



16 A 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 aid 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. Use only original ReSound consumables e.g. wires and domes.
- Only connect ReSound hearing aids to ReSound wireless accessories intended and gualified to be used with ReSound hearing aids.

17 A Phone Now warnings

- 1. Keep magnets out of reach of pets, children and people with mental disabilities. If a magnet is swallowed, please seek advice from a medical practitioner.
- 2. The PhoneNow magnet may affect sensitive medical devices / electronic systems. Seek advice from the manufacturers regarding appropriate safety measures when using the Phone Now solution near the sensitive device / equipment (pacemakers and defibrillators) in question. If the manufacturer cannot issue a statement, we recommend keeping the magnet or a telephone equipped with the magnet 30 cm (12") away from magnetically sensitive devices (e.g. pacemakers).

17.1 Phone Now precautions

- 1. If you experience frequent signal loss or noise during calls, move the Phone Now magnet to another place on the telephone receiver.
- 2. Only use magnets supplied by ReSound.

18 🛕 Battery warnings

Batteries contain dangerous substances and should be disposed of carefully in the interest of your safety and for the environment. Please note:

- 1. Keep batteries away from pets, children and mentally challenged persons.
- 2. 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.
- 3. Do not attempt to recharge batteries (Zinc Air) which are not specifically designated as rechargeable because they may leak or explode.
- 4. DO NOT attempt to dispose of batteries by burning them.
- 5. Used batteries are harmful to the environment. Please dispose of them according to local regulations or return them to your hearing care professional.



WARNING: BATTERIES MAY LEAK. REMOVE THE BATTERY IF YOU LEAVE THE HEARING AIDS UNUSED FOR LONGER PERIODS.



WARNING: DO NOT RECHARGE ZINC AIR BATTERIES - THEY MAY LEAK OR EXPLODE.



WARNING: ZINC AIR BATTERIES CAN BE HARMFUL TO YOUR HEALTH: CONSULT A PHYSICIAN IMMEDIATELY IF A BATTERY HAS BEEN SWALLOWED. DO NOT PLACE ZINC AIR BATTERIES IN YOUR MOUTH. KEEP BATTERIES AWAY FROM CHILDREN, MENTALLY DISABLED PERSONS, AND PETS.



WARNING: IF THE BATTERIES ARE NOT INSERTED CORRECTLY, THE DEVICE WILL NOT WORK
AND THE BATTERIES MAY BUILD UP HEAT. IF THIS HAPPENS, PLEASE REMOVE THE BATTERIES.

19 Hearing aid expectations

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

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

20 Marning to hearing aid professionals (US Only)

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

- 1. Visible congenital or traumatic deformity of the ear.
- 2. History of active drainage from the ear within the previous 90 days.
- 3. History of sudden or rapidly progressive hearing loss within the previous 90 days.
- 4. Acute or chronic dizziness.
- 5. Unilateral hearing loss of sudden or recent onset within the previous 90 days.
- 6. Audiometric air-bone gap equal to or greater than 15 decibels at 500 hertz (Hz), 1,000 Hz, and 2.000 Hz.
- 7. Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
- 8. Pain or discomfort in the ear.

21 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 care professional, as appropriate, for a hearing aid evaluation. The audiologist or hearing care professional 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 hearing care professional 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 care professionals 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.

22 Children with hearing loss (US Only)

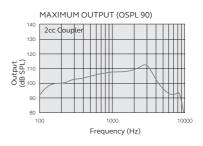
In addition to seeing a physician for a medical evaluation, a child with a hearing loss should be directed to an audiologist for evaluation and rehabilitation since hearing loss may cause problems in language development and the educational and social growth of a child. An audiologist is qualified by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

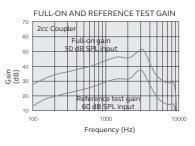
23 Technical specifications

RIE - LP receiver

Models: RE962-DRW, RE762-DRW, RE562-DRW

Reference test gain (60 dB SPL input)	HFA	32	dB
Full-on gain (50 dB SPL input)	Max. HFA	52 46	dB
Maximum output (90 dB SPL input)	Max. HFA	113 109	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz	0.5 0.8 0.5	%
Equivalent input noise, w/o Noise reduction		21	dB SPL
1/3 Octave Equivalent input noise, w/o Noise reduction	1600 Hz	9	dB SPL
Frequency range		100-9060	Hz
Current Drain (Quiescent / Operating)		1.13/1.28	mA

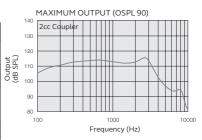


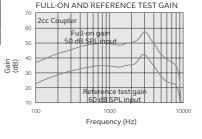


RIE - MP receiver

Models: RE962-DRW, RE762-DRW, RE562-DRW

Reference test gain (60 dB SPL input)	HFA	36	dB
Full-on gain (50 dB SPL input)	Max. HFA	58 50	dB
Maximum output (90 dB SPL input)	Max. HFA	116 113	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz	0.3 0.4 0.7	%
Equivalent input noise, w/o Noise reduction		24	dB SPL
1/3 Octave Equivalent input noise, w/o Noise reduction	1600 Hz	11	dB SPL
Frequency range		100-9000	Hz
Current Drain (Quiescent / Operating)		1.13/1.19	mA

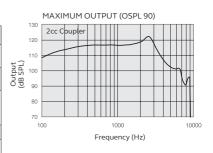


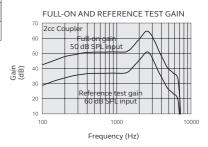


RIE - HP receiver

Models: RE962-DRW, RE762-DRW, RE562-DRW

Reference test gain (60 dB SPL input)	HFA	40	dB
Full-on gain (50 dB SPL input)	Max. HFA	65 57	dB
Maximum output (90 dB SPL input)	Max. HFA	120 117	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz	0.3 0.7 0.5	%
Equivalent input noise, w/o Noise reduction		22	dB SPL
1/3 Octave Equivalent input noise, w/o Noise reduction	1600 Hz	10	dB SPL
Frequency range		100-6750	Hz
Current Drain (Quiescent / Operating)		1.13/1.18	mA

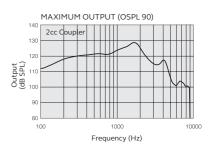


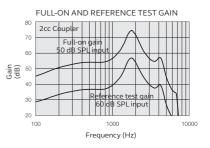


RIE - UP receiver

Models: RE962-DRW, RE762-DRW, RE562-DRW

Reference test gain (60 dB SPL input)	HFA	47	dB
Full-on gain (50 dB SPL input)	Max. HFA	75 65	dB
Maximum output (90 dB SPL input)	Max. HFA	128 124	dB SPL
Total harmonic distortion	500 Hz 800 Hz 1600 Hz	1.0 1.6 0.1	%
Equivalent input noise, w/o Noise reduction		21	dB SPL
1/3 Octave Equivalent input noise, w/o Noise reduction	1600 Hz	9	dB SPL
Frequency range		100-4920	Hz
Current Drain (Quiescent / Operating)		1.14/1.21	mA





24 Troubleshooting guide

SYMPTOM	CAUSE
Feedback, "whistling"	Is your earmold or dome inserted correctly?
	Is the volume very loud?
	Is the receiver wire broken or the earmold clogged?
	Are you holding an object (e.g. a hat, a telephone receiver) close to a hearing aid?
	Is your ear full of wax?
No sound	Is the hearing aid turned on?
	Is there a battery in the hearing aid?
	Is the battery still good?
	Is the receiver wire broken or the earmold clogged?
	Is your ear full of wax?

POSSIBLE REMEDY
Put it in again.
Reduce it.
Replace or visit your hearing care professional.
Move your hand away to create more space between the hearing aid and the object.
Visit your physician.
Switch it on.
Insert a new battery.
Replace with a new one.
Visit your hearing care practitioner.
Visit your physician.

SYMPTOM	CAUSE
Sound is distorted, splutter-	Is the battery dead?
ing or weak?	Is the battery dirty?
	Is the receiver wire broken or the earmold clogged?
	Did your hearing aid get moist?
Battery drains very quickly	Did you leave your hearing aid switched on for long periods of time?
	Is the battery old?

POSSIBLE REMEDY
Replace it with a new one.
Clean it or replace it with a new one.
Visit your hearing care professional.
Use a desiccant.
Always switch off your hearing aid when you are not using them, e.g. during the night.
Check the date on the battery packaging.

25 Warranties and repairs

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

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

26 Temperature test, transport and storage information

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

During transport or storage, the temperature should not exceed the limit values of -20 $^{\circ}$ C (-4 $^{\circ}$ F) to +60 $^{\circ}$ C (+140 $^{\circ}$ F) and relative humidity of 90% RH, non-condensing (for limited time). The air pressure between 500 hPa and 1100 hPa is appropriate.

27 Advisories

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 aid better.



Equipment includes an RF transmitter.



Please ask your local hearing care professional concerning disposal of your hearing aid.



NOTE: Country specific regulations apply.



Follow instructions for use.

28 Acknowledgments

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

Copyright ® 2014, Kenneth MacKay. All rights reserved.

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

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

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



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



(siPhone | iPad | iPod (siPhone | iPad (siPhone (si

© 2018 GN Hearing A/S. All rights reserved. ReSound is a trademark of GN Hearing A/S. Apple, the Apple logo, iPhone, iPad, iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Android is a trademark of Google Inc. The Bluetooth word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc.

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

Manufacturer according to Health Canada:

GN ReSound A/S

Lautrupbjerg 7 DK-2750 Ballerup Denmark Tel.: +45 4575 1111 resound.com

CVR no. 55082715

ReSound Canada

303 Supertest Road Toronto, ON M3J 2M4 Canada 1-888-737-6863 resound com

