

ReSound Key™

# User guide

ReSound Receiver-In-Ear hearing aids

**GN** Making Life Sound Better

# **Hearing aid information**

Left hearing aid

001101110111001							
Model number				Model number			
Battery type		□ 312 □13					
Dome/	Clos	sed dome	Open dome	Power dome	□т	ulip dome	☐ RIE earmould
earmould type	□s	mall	☐ Small	☐ Small			
	□M	edium	□ Medium	□ Medium			
	L	arge	□ Large	□ Large			
				II.			l
Program Beep		Description					
1	One	e beep					
2	Tw	o beeps					
3	Thr	ee beeps					
4	Fou	ır beeps					

Serial number

Right hearing aid

Serial number

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### Introduction

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

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

#### Intended use

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

#### For devices including a Tinnitus Sound Generator module

The Tinnitus Sound Generator module is a tool to generate sounds to be used in a Tinnitus Management Program to temporarily relieve patients suffering from Tinnitus.

#### For devices including a dome

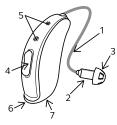
The dome is intended to be connected to a receiver tube on the hearing aid. The dome is intended to ensure that the sound outlet of the hearing aid is placed in the ear canal.

This accessory is intended to be used by the same age group as the hearing aid. The accessory is intended to be used by lay persons.

# Your hearing aid

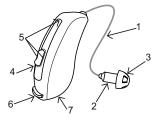
## Zinc-Air battery model (62)

- Receiver wire
- 2. Receiver
- 3. Dome (an open dome is shown)
- 4. Multi-function button
- 5. Microphone inlets
- 6. Battery compartment
- 7. Model and serial number (in the battery compartment)



### Zinc-Air battery model (61)

- Receiver wire
- Receiver
- Dome (an open dome is shown)
- Push button
- Microphone inlets
- Battery compartment
- Model and serial number (in the battery compartment)



#### **Domes and earmoulds**











Tulip dome

Closed dome

Open dome

Power dome

Custom earmould

The closed, open and power domes are available in different sizes. Tulip domes are one size. Domes are all light grey.

Only use domes supplied by ReSound.

# Preparing your hearing aids for use

#### **Battery warnings**



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

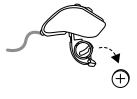
- 1. Keep batteries away from children, mentally disabled persons, and pets.
- Do not place batteries in your mouth. Consult a physician immediately if a battery has been swallowed, as they can be harmful to your health.
- 3. Do not recharge zinc-air batteries they may leak or explode.
- Do not attempt 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 professional.
- Batteries may leak. Remove the battery if you leave the hearing aids unused for longer periods.
- 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.



#### NOTE:

- Always use new zinc-air batteries that have a minimum remaining shelf life of one year.
- To save battery power, turn off your hearing aids when they are not in use.

### Inserting the battery into your hearing aid







- 1. Open the battery door with 2. your fingernail. Remove the old battery (if there is one).
- Remove the packaging and protective foil from the new battery. Wait for two minutes while the battery activates
- 3. Insert the new battery, with the plus (+) sign correctly positioned, into the battery compartment door. Do not insert it directly into the hearing aid.
- 4. Close the battery door.



#### NOTE:

- To save battery power, turn off your hearing aids when they are not in use.
- At night, turn off the hearing aids. Open the battery door completely to allow moisture to evaporate and prolong the hearing aids' lifespan.

### Low battery warning

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



NOTE: Keep spare batteries on hand.

## Low battery warning when paired with wireless accessories (optional)



NOTE: The batteries drain faster when you use wireless functionalities like streaming from your smartphone or from your TV via our TV streamer. 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 hearing aid functions are affected as the power level declines.

If the hearing aids are experiencing frequent loss of connection to wireless accessories, contact your hearing care professional for a list of low impedance batteries.

Battery level	Signal	Hearing aid	Remote control	Streaming
Fully charged		<b>√</b>	<b>✓</b>	✓
Low	4 even tones	<b>√</b>	<b>√</b>	х
Depleted	3 even tones and 1 longer tone	<b>√</b>	х	х

These will work again when you insert a new battery.

# Placing your hearing aids in your ears

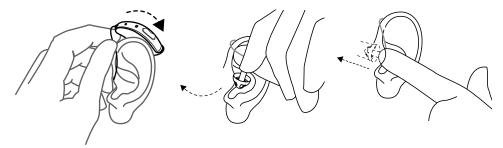
### How to tell left from right

If you have two hearing aids, they may be programmed 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 coloured Left and Right indication: Left is blue and Right is red.

#### Inserting the receiver dome into your ear

If your hearing aids have domes, follow these instructions:



- Hang the hearing aid over the top of your ear.
- Hold the receiver wire where it bends and gently place/push the receiver dome into your ear canal.
- Push the dome far enough into your ear canal so that the wire rests against your head. You can check in a mirror.



**NOTE:** To avoid whistling, ensure that the wire and dome fit correctly into your ear. If you continue to experience whistling, check the troubleshooting guide for other possible reasons and solutions.



CAUTION: Never attempt to modify the shape of the receiver wire yourself.

#### Sport lock

If you lead an active life, your hearing aids may come loose. To avoid this situation, your hearing care professional can attach and adjust a sport lock to the receiver



To insert a hearing aid with a sport lock:

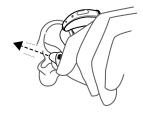
- Insert the hearing aid as usual
- Tuck the sport lock into the bottom part of the indentation above your earlobe.

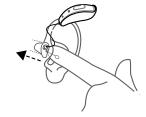


NOTE: Sport locks may become stiff, brittle or discoloured over time. Contact your hearing care professional for a replacement.

#### Inserting earmoulds into your ears

If your hearing aids have earmoulds, follow these instructions:







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



**NOTE:** When inserting an earmould, it may help to pull your ear up and outward with the opposite hand



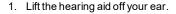
CAUTION: Never attempt to modify the shape of the hearing aids, earmoulds, domes or receiver wires yourself.

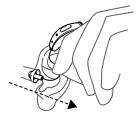
# Removing your hearing aids from your ears

#### Removing receiver domes from your ears

If your hearing aids have domes, follow these instructions:





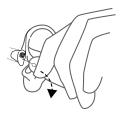


2. Hold the receiver wire with your thumb and forefinger where it bends and pull the dome out of your ear canal.

### Removing earmoulds from your ears

If your hearing aids have earmoulds, follow these instructions:





- 1. Lift the hearing aid from behind your ear. Let it hang beside your ear momentarily.
- Using your thumb and index finger, gently pull the earmould (not the hearing aid or the wire) loose from your ear. If your earmould has a removal cord, pull it gently to assist. The removal cord is a separate line that is additionally attached to the earmould if requested. Remove the earmould completely by twisting it gently.

# Using your hearing aids

#### Turning your hearing aids on and off

Once you have placed the hearing aids on your ears, you can turn them on.

Your hearing aids always start on program 1 at the pre-set volume.





To turn your hearing aid on, close the battery door.

To turn the hearing aid off, open the battery door (with your fingernail).

#### **Smart Start**

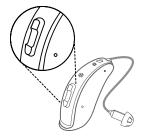
Smart Start delays the time before your hearing aid turns on after you close the battery door. With this function activated, you will hear a beep for each second of the delay period (this is either 5 or 10 seconds).



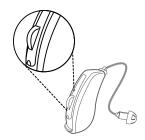
NOTE: If you do not want to use this function, ask your hearing care professional to deactivate it.

#### The push button/multi-function button

Your hearing aid has either a push button or a multi-function button. These buttons allow you to use a variety of listening programs. Each program is suitable for a different situation.







Push button (61 models only)

- 1. Push the program button to switch between programs
- 2. You will then hear one or more beeps. The number of beeps indicates which program you have selected
- 3. When you turn the hearing aids off and then back on, they always return to the default setting (program one and pre-set volume)

It should not be necessary to control the volume manually. However, in addition to controlling listening programs, the multi-function/push button provides you with the ability to adjust the amplification to your liking.

The multi-function/push button is designed to change the volume or listening programs of the hearing aid, based on different ways it is pressed.

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

Button action	Default setting	New setting
Short press up	Increases volume	
Short press down	Decreases volume	
Long press up (3 seconds)	Changes programme	
Long press down (3 seconds)	Activates streaming	

•

**NOTE:** If you have two hearing aids with the Synchronised Button feature enabled, program changes to one hearing aid automatically repeat 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 in the second aid follow. This function 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.

#### Telecoil

#### (Optional for 62 models only)

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

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



**NOTE:** The telecoil does not work without a teleloop (that is, an induction loop) or an HAC telephone.

If you are having trouble hearing with the telecoil, ask you hearing care professional to adjust the program.

If there is no sound from your hearing aids in a teleloop system with an active Telecoil function, the teleloop system may not be turned on or may not be operating correctly.

The sound from the teleloop and the hearing aids' microphones can be mixed according to your preference. Ask your hearing care professional for more details.

#### How to use the telecoil program

To use your telecoil program with hearing loop systems, follow these steps:

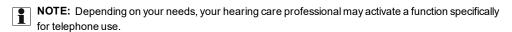
- Switch your hearing aids to the Telecoil program.
- Find a good spot. Reception is not clear in all locations, as it depends on the teleloop. Look for signals or find another spot.
- 3. If needed, adjust the volume.
- 4. When you leave, switch to your preferred program.

# Using a telephone

Your hearing aid allows you to use your telephone as you normally do. Finding the optimal position for holding the phone may require practice.

The following suggestions may be helpful:

- Hold the telephone up to your ear canal or hold it close to the hearing aid microphones as illustrated.
- If you hear whistling, try holding the telephone in the same position for a few seconds. The hearing aid may be able to cancel the whistling.
- 3. You can also try holding the telephone slightly away from the ear.





#### Mobile phones

Your hearing aids comply with the most stringent Standards of International Electromagnetic Compatibility. Any degree of disturbance can be due to the nature of your particular mobile phone or of your wireless telephone service provider.



**NOTE:** If you find it difficult to get a good result while using your mobile phone, your hearing care professional can give you advice on available wireless accessories to enhance listening capabilities.

#### Phone Now (optional)

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 programmes.



# Phone Now warnings

- If a magnet is swallowed, seek immediate advice from a medical practitioner.
- Keep magnets out of reach of pets, children and mentally disabled persons.
- The Phone Now magnet may affect sensitive medical devices/electronic systems. Seek advice from the manufacturers regarding appropriate safety measures when using the Phone Now solution near the

sensitive device/equipment (pacemakers and defibrillators) in question. If the manufacturer cannot issue a statement, we recommend keeping the magnet or a telephone equipped with the magnet 30 cm (12") away from magnetically sensitive devices (e.g. pacemakers).



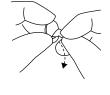
# Phone Now precautions

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

#### Placing the Phone Now magnet

Place the magnet on your telephone receiver as follows:







Clean the surface thoroughly. Use 2. Remove the foil from the a recommended cleaning agent.

magnet.

3. Place the magnet on the phone.



#### **CAUTION:**

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

#### How to use Phone Now

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



#### NOTE:

- You may need to move the telephone receiver slightly to find the best position for a reliable Phone Now activation and a good hearing experience on the telephone.
- If your hearing aids have enabled the Comfort Phone functionality, the hearing aid on the nonphone ear automatically attenuates.
- Do not cover the phone loudspeaker opening with the magnet.
- If the function does not work to your satisfaction, moving the magnet to another position may improve ease of use and comfort.
- If your hearing aids do not switch to the telephone program consistently, try repositioning the magnet or adding additional magnets.
- Use a recommended cleaning agent.

# **Direct Audio Input**

### (Optional for 62 models only)

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

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



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

## Connecting a DAI adapter



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



2. Move the adapter towards the battery door



3. Click the adapter onto the hearing aid

## Disconnecting a DAI adapter



Remove the adapter from the hearing aid and press the small latch downwards.



# Important points for FM

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

# **Advanced options**

### ReSound Assist and ReSound Assist Live (optional)

If you have signed up to use ReSound Assist available with your hearing aids, you can allow your hearing aids to be adjusted remotely without having to visit your hearing care professional.

This service also includes ReSound Assist Live. With this service you can get face-to-face assistance from your hearing care professional from home.

All you need is a smart device with Internet enabled. This allows you to:

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



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™ app and placed close to the iPhone, iPad, iPod touch or the Android™ smartphone before applying the changes.

This service only works if your smart device is connected to the Internet. Your hearing care professional will provide information regarding this option, and how it works with the ReSound Smart 3D™ app.





### Using your hearing aids with iPhone, iPad and iPod touch

The advanced models of our hearing aids are Made for iPhone, iPad and iPod touch, which allow for direct audio streaming and control from these devices.

### Streaming from an Android™ smartphone

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



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

### Using your hearing aid with smartphone apps (optional)

The smartphone apps send and receive signals to and from the hearing aids via smartphones. Our smartphone apps must only be used with our hearing aids, for which they were designed, and we take no responsibility if the app is used with other hearing aids.

- Do not disable app notifications.
- Install updates to keep the app working correctly.
- The app must only be used with ReSound hearing aids for which they are intended, and ReSound takes no responsibility if the app is used with other hearing aids.
- If you want a printed version of the smart phone app user guide, please go to our website (see the back page of this manual) or consult customer support.



#### NOTE:

- For assistance with pairing and using these products with your hearing aids, contact your hearing care professional or visit our support site.
- If your Bluetooth® enabled Android smartphone does not stream directly to your hearing aids, you can use our ReSound Phone Clip+ to answer the phone.

### Flight Mode (optional)

Your hearing aids can be controlled from your smartphone or Remote Control – this option can be added by your hearing care professional. However, in some areas you are requested to turn off wireless communication.



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

Turning off wireless communication (enter Flight Mode)

- 1. Open and close the battery door on each hearing aid three times within 10 seconds.
- 2. A 10-second double tone ( $\square \square$ ) means the hearing aid is now in Flight Mode.



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

### Activating wireless communication (exit Flight Mode)

- Open and close the battery door on each hearing aid once.
- Wireless communication will be activated after 10 seconds.

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. Flight mode will resume if you open and close the battery compartment during this 15 second window.

## 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 allows you to adjust the volume, mute your hearing aids and change programs.
- ReSound Remote Control 2 allows you to adjust the volume or mute your hearing aids, change programs, and see 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 ReSound 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
- For use of wireless functionality only use ReSound wireless accessories. For further guidance, please refer to the user guide of the relevant ReSound wireless accessory.

## Cleaning and caring for your hearing aids

#### Care and maintenance

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

- 1. Keep your hearing aids dry and clean.
- 2. Open the battery door to dry 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, aftershave, hairspray, suntan lotion, etc. These might discolour the hearing aid or get into the hearing aid causing damage.
- Do not immerse your hearing aid in any liquid.
- Keep your hearing aids away from excessive heat and intense direct sunlight. The heat may deform the shell, damage the electronics and deteriorate the surface.
- 7. Do not swim, shower or steam bathe while wearing your hearing aids.

### 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





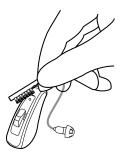
WARNING: Always turn your hearing aids off while cleaning and maintaining them.

### Cleaning tools

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



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





WARNING: Do not use force to press the bristles on the small brush into the inlets because the microphones may be damaged.



CAUTION: Do not use alcohol or other solvents to clean your hearing aid, the protective coating will be damaged.



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



**NOTE:** The wire loop is only intended for earmoulds.

## Changing your hearing aid domes

We recommend that your hearing care professional shows you how to change domes. You should change your domes every 3 months or more often according to the advice of your hearing care professional. Incorrect dome replacement can result in a dome being left in your ear when you remove your hearing aid. If you suspect that you have a dome stuck in your ear, contact your hearing care professional.

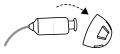
Only use original ReSound consumables, e.g. domes and wax filters.

### Open, closed and power domes

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



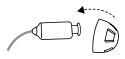
**NOTE:** Change the dome at least every three months. Ask your hearing care professional for advice.



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



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



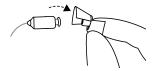
2. Push the new dome over the ribbed end of the receiver.

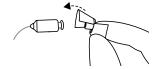


4. OK.

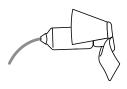
## Tulip domes

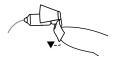
To change a tulip dome, follow these instructions:





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







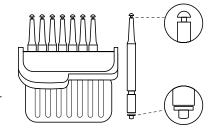
- 3. Check that the tulip dome is securely mounted by verifying that the collar completely covers the ribbed end of the receiver
- 4. Push the larger petal toward the receiver
- This illustration shows a correctly mounted tulip dome. Ensure the large petal is outside the small petal.

## Changing the wax filter

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

The wax filter helps keep earwax away from the components of the hearing aid. You must replace it on a regular basis. Consult your hearing care professional for advice on how often you need to do this. It will depend on how much earwax vour ears produce.

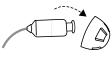
If you wear a dome, remove it before following this process for replacing the wax filter. You will need your box of wax filter tools



Box of 8 wax filter tools

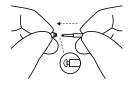
The wax filter tool has two functions: a removal tip to collect the used filter, and a replacement tip with a white filter.

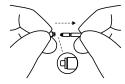
### Removing the old wax filter





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

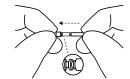


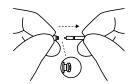


3. Insert the removal tip into the used wax filter and then pull the tool straight out. It is important to pull it straight and not on an angle.

### Inserting the new wax filter







- Insert the other end of the tool 2 into the sound outlet (the end with the replacement filter).
- Gently press the replacement 3. straight into the sound outlet until the outer ring is touching the sound outlet
  - Pull the tool straight out your new wax filter will remain in place. Re-attach your dome or a replacement dome.

Only use original ReSound consumables, e.g. domes and wax filters.

## General warnings and precautions



## General warnings

- 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.
- 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 the hearing aids.
- Do not wear hearing aids in mines, oil fields, or other explosive areas unless those areas are certified for hearing aid use.
- 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.
- Hearing aids should be used only as prescribed by your hearing care professional. Incorrect use may result in sudden and permanent 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 132dB SPL with an IEC 60711:1981 occluded ear simulator. There may be a risk of impairment of the remaining hearing.
- Turn off your wireless functionality by using the flight mode in areas where radio frequency emission is prohibited.
- If a hearing aid is broken, do not use it.
- 10. A power hearing aid can produce very loud sound to compensate for a severe or profound hearing loss. There is therefore a risk of further impairing the remaining hearing.
- 11. External devices connected to the electrical input must be safe according to the requirements of IEC 60601-1, IEC 60065, EN/IEC 62368-1, or IEC 60950-1, as appropriate (wired connection, for example HI-PRO, SpeedLink).

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



## 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
- Use only original parts from the manufacturer, e.g. wax guards.
- Only connect your hearing aids to accessories intended and qualified to be used with your hearing aids.

## 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 get 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.

## **Troubleshooting**

Issue	Potential cause	Potential solution
Feedback or "whistling"	Is your earmould or dome inserted correctly in your ear?	Re-insert it.
	Is the volume very loud?	Reduce the volume.
	Is the receiver wire broken or is the earmould clogged?	Visit your hearing care professional.
	Are you holding an object (e.g. a hat or a telephone mouthpiece) close to the hearing aid?	Move your hand away to create more space between the hearing aid and the object.
	Is your ear full of wax?	Visit your physician.

Issue	Potential cause	Potential solution
No sound	Is the hearing aid turned on?	Turn it on.
	Is there a battery in the hearing aid?	Insert a new battery.
	Is the battery still good?	Replace with a new battery.
	Is the receiver wire broken or the earmould clogged?	Consult your hearing care professional.
	Is your ear full of wax?	Visit your physician.
Sound is distorted, spluttering or weak?	Is the battery dead?	Replace with a new battery.
	Is the battery dirty?	Clean it or replace it with a new one.
	Is the receiver wire broken or the earmould clogged?	Consult your hearing care professional.
	Is there moisture in your hearing aid?	Use a desiccant (drying kit).

Issue	Potential cause	Potential solution
Battery drains very quickly.	Did you leave your hearing aid switched on for long periods of time?	Always turn off your hearing aids when you are not using them, e.g. during the night.
	Is the battery old?	Check the battery packaging.



## Warnings 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:

- 1. Visible congenital or traumatic deformity of the ear.
- 2. History of active drainage from the ear within the previous 90 days.
- 3. History of sudden or rapidly progressive hearing loss within the previous 90 days.
- 4. Acute or chronic dizziness.
- 5. Unilateral hearing loss of sudden or recent onset within the previous 90 days.
- 6. Audiometric air-bone gap equal to or greater than 15 dB at 500 Hertz (Hz), 1000 Hz, and 2000 Hz.
- 7. Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
- 8. Pain or discomfort in the ear.



## Important notice for prospective hearing aid users

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.



# Children with hearing loss

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 because 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 hearing loss.

## **Tinnitus Management**

### Tinnitus Sound Generator module

Your ReSound hearing aids include the Tinnitus Sound Generator (TSG) module. 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. The TSG can generate sounds adjusted to your personal preference and your specific therapeutic needs as determined by your doctor, audiologist or hearing care professional. Depending on the selected hearing aid program and the environment you are in, you may hear the therapeutic sound of a continuous or fluctuating noise.

## Indications for use of the TSG module - (US only)

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

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.

If deemed feasible by the hearing professional, subsequent fittings of the Tinnitus Sound Generator Module may be performed remotely and in real time while having live communication via live audio, video and chat on the user's dedicated app.

#### User instructions for the TSG module

### Description of the device

The Tinnitus Sound Generator (TSG) Module is a software tool that generates sounds to be used in tinnitus management programs to relieve suffering from tinnitus.

### Explanation of how the device works

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

Your doctor, audiologist or hearing care professional can modulate the generated noise 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 synchronisation, this functionality can be enabled by your hearing care professional. This will cause the Tinnitus Sound Generator to synchronise the sound in both hearing aids.

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

For hearing aids where ear-to-ear synchronization is enabled, your hearing care professional can also enable environmental monitoring synchronization so that the TSG noise level is automatically adjusted simultaneously in both hearing aids dependent on the background sound level. Additionally, since the hearing aid has a volume control, the background noise level monitored by the hearing aid and the volume control can be used simultaneously to adjust the generated noise level in both hearing aids.

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

The TSG module provides sound enrichment 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.

#### TSG volume control

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

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

### Using TSG with smartphone apps

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

hearing aids when a hearing care professional has enabled the TSG functionality during fitting of the hearing aid.



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

## TSG - Technical specifications

Audio signal technology: Digital.

#### Available sounds

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

High-pass filter	Low-pass filter
500 Hz	2000 Hz
750 Hz	3000 Hz
1000 Hz	4000 Hz
1500 Hz	5000 Hz
2000 Hz	6000 Hz
-	8000 Hz

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



## Prescription use of a Tinnitus Sound Generator hearing aid

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

To adjust TSG, please consult your hearing care professional.

Should you develop any side effects from using the sound generator, such as dizziness, nausea, headaches, perceived decrease in auditory function or increase in tinnitus perception, you should discontinue use of sound generator and seek medical evaluation.

Children and physically or mentally challenged users will require training by a doctor, audiologist, hearing care professional or the guardian for the insertion and removal of the hearing aid containing the TSG module

### Important notice for prospective sound generator users

A tinnitus masker is an electronic device intended to generate noise of sufficient intensity and bandwidth to mask internal noises. It is also used as an aid in hearing external noises and speech.

Good health practice requires that a person with a tinnitus condition have a medical evaluation by a licensed physician (preferably a physician who specializes in diseases of the ear) before using a sound generator. Licensed physicians who specialize in diseases of the ear are often referred to as otolaryngologists, otologists or otorhinolaryngologists.

The purpose of medical evaluation is to 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 programme to relieve patients suffering from tinnitus.

### Warning information



#### WARNING:

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



#### CAUTION:

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



#### WARNING TO THE HEARING CARE PROFESSIONAL:

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.
- History of active drainage from the ear within the previous 90 days.
- History of sudden or rapidly progressive hearing loss within the previous 90 days.
- Acute or chronic dizziness
- Unilateral hearing loss of sudden or recent onset within the previous 90 days.
- Audiometric air-bone gap equal to or greater than 15 dB at 500 Hertz (Hz), 1000 Hz, and 2000 Hz
- Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
- 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



## Tinnitus Sound Generator 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.
- Discontinue use of the sound generator and consult promptly with a licensed physician if you experience one of the following conditions:
  - a. Visible congenital or traumatic deformity of the ear.
  - b. History of active drainage from the ear within the previous 90 days.
  - c. History of sudden or rapidly progressive hearing loss within the previous 90 days.
  - d Acute or chronic dizziness

- e. Unilateral hearing loss of sudden or recent onset within the previous 90 days.
- f. Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
- g. Pain or discomfort in the ear.
- Discontinue use of the sound generator and consult promptly with your hearing care professional, if vou experience changes in the tinnitus perception, discomfort or interrupted speech perception, while using the Tinnitus Sound Generator.
- The volume control is a feature in the TSG module used for adjusting the sound generator output level. To prevent unintended usage by paediatric or physically or mentally disabled users, the volume control must be configured to only provide a decrease of the sound generator output level.
- Children and physically or mentally disabled users will require quardian supervision while wearing the TSG hearing aid.
- Adjustment of the Tinnitus Sound Generator settings, using a smartphone app, should only be performed by the parent or legal guardian in cases where the user is minor. Use of the ReSound Assist for remote settings of the tinnitus sound generator, should only be performed by the parent or legal guardian in cases where the user is minor.



## Tinnitus Sound Generator warning to hearing care professionals

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

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

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



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

## **Regulatory information**

## Warranties and repairs

The manufacturer provides a warranty on hearing aids in the event of defects in workmanship or materials, as described in applicable warranty documentation. In its service policy, the manufacturer pledges to secure functionality at least equivalent to the original hearing aid. As a signatory to the United Nations Global Compact initiative, the manufacturer is committed to doing this in line with environment-friendly best practices. Hearing aids therefore, at the manufacturer's discretion, may be replaced by new products or products manufactured from new or serviceable used parts, or repaired using new or refurbished replacement parts. The warranty period of hearing aids is designated on your warranty card, which is provided by your hearing care professional.

For hearing aids that require service, please contact your hearing care professional for assistance.

Hearing aids that malfunction must be repaired by a qualified technician. Do not attempt to open the case of hearing aids, as this will invalidate the warranty.

## Temperature test, transport and storage information

Our hearing aids are subjected to various tests in temperature and damp heating cycling between -25  $^{\circ}$ C (-13  $^{\circ}$ F) and +70  $^{\circ}$ C (+158  $^{\circ}$ F) according to internal and industry standards.

During normal operation the temperature should not exceed the limit values of 0 °C (+32 °F) to +45° C (+113°F), at a relative humidity of 90%, non-condensing. An atmospheric pressure between 500 hPa and 1100 hPa is appropriate.

During transport or storage, the temperature should not exceed the limit values of -20 °C (-4 °F) to +60° C (+140 °F) at a relative humidity of 90% RH, non-condensing (for a limited time).

#### Statement

This device complies with part 15 of the FCC rules and ISED rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference. 1.
- 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 the receiver

- Connect the equipment to an outlet or a circuit different from the one to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

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

### The products are in compliance with the following regulatory requirements:

- In 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 BER13 and VER12 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).

### Type designations

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

**BER13**, FCC ID:X26BER13, IC: 6941C-BER13 and **VER12**, FCC ID: X26VER12, IC: 6941C-VER12.

This device includes an RF transmitter which operates in the frequency band of  $2.4\,\mathrm{GHz} - 2.48\,\mathrm{GHz}$ .

### Hearing aid variants

**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:

KE462-DRW, KE362-DRW, KE262-DRW

Nominal RF output power transmitted is +1.1 dBm

Mini Receiver In-the-Ear (RIE) hearing aids of type VER12 with FCC ID X26VER12, IC number 6941C-VER12 and size **312** battery are available in the following variants:

KE461-DRW, KE361-DRW, KE261-DRW

Nominal RF output power transmitted is +1 dBm.

### **Symbols**



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.



Follow instructions for use



Do not dispose of your hearing aids and batteries with ordinary household waste. Your hearing aids and batteries should be disposed of at sites intended for electronic waste or returned to your hearing care professional for safe disposal. Please ask your local hearing care professional concerning disposal of your hearing aid.

**NOTE:** There may be specific regulations in your country.



Product is a Type B applied part.



Complies with ACMA requirements.

Complies with IMDA Standards DA105282

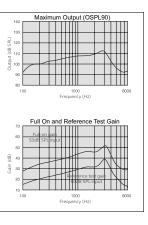
Complies with IMDA standards.

# **Technical specifications**

### RIE - LP receiver

Models: KE462-DRW, KE362-DRW, KE262-DRW KE461-DRW, KE361-DRW, KE261-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	%
Telecoil sensitivity (1 mA/m input)* HFA - SPLIV @ 31.6 mA/m (ANSI) Full-on telecoil sensitivity @ 1 mA/m	Max HFA HFA	82 91 76	dB SPL
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 IEC 60118-0: 2015		100-8000	Hz
Current Drain (Quiescent/Operating)		1.13/1.28	mA



<sup>\*</sup> Telecoil is only for the KE462-DRW, KE362-DRW, KE262-DRW.

### **RIE - MP receiver**

Models: KE462-DRW, KE362-DRW, KE262-DRWKE461-DRW, KE361-DRW, KE261-DRW

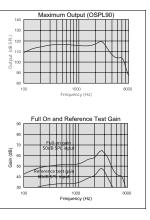
Reference test gain (60 dB SPL input)	HFA	36	dB	Maximum Output (OSPL90)
Full-on gain (50 dB SPL input)	Max. HFA	58 50	dB	130 1d 120 8
Maximum output (90 dB SPL input)	Max. HFA	116 113	dB SPL	B) 110
Total harmonic distortion	500 Hz 800 Hz 1600 Hz	0.3 0.4 0.7	%	80 100 1000 8000 Frequency (Hz)
Telecoil sensitivity (1 mA/m input)* HFA - SPLIV @ 31.6 mA/m (ANSI) Full-on telecoil sensitivity @ 1 mA/m	Max. HFA HFA	86 96 81	dB SPL	Full On and Reference Test Gain  Full-on lash  Sold SPUngut
Equivalent input noise, w/o noise reduction		24	dB SPL	(gp) 40
1/3 Octave Equivalent input noise, w/o Noise reduction	1600 Hz	11	dB SPL	30 Reference test gain
Frequency range IEC 60118-0: 2015		100-8060	Hz	100 1000 8000
Current Drain (Quiescent/Operating)		1.13/1.19	mA	Frequency (Hz)

<sup>\*</sup> Telecoil is only for the KE462-DRW, KE362-DRW, KE262-DRW.

### RIE - HP receiver

Models: KE462-DRW, KE362-DRW, KE262-DRWKE461-DRW, KE361-DRW, KE261-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	%
Telecoil sensitivity (1 mA/m input)* HFA - SPLIV @ 31.6 mA/m (ANSI) Full-on telecoil sensitivity @ 1 mA/m	Max. HFA HFA	95 100 89	dB SPL
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 IEC 60118-0: 2015		100-6750	Hz
Current Drain (Quiescent/Operating)		1.13/1.18	mA



<sup>\*</sup> Telecoil is only for the KE462-DRW, KE362-DRW, KE262-DRW.

### RIE - UP receiver

Models: KE462-DRW, KE362-DRW, KE262-DRWKE461-DRW, KE361-DRW, KE261-DRW

Reference test gain (60 dB SPL input)	HFA	47	dB	Maximum Output (OSPL90)
Full-on gain (50 dB SPL input)	Max. HFA	75 65	dB	130 Gd 120 B 110
Maximum output (90 dB SPL input)	Max. HFA	128 124	dB SPL	3) 110 100 90
Total harmonic distortion	500 Hz 800 Hz 1600 Hz	1.0 1.6 0.1	%	100 1000 8000 Frequency (Hz)
Telecoil sensitivity (1 mA/m input)* HFA - SPLIV @ 31.6 mA/m (ANSI) Full-on telecoil sensitivity @ 1 mA/m	Max. HFA HFA	105 108 96	dB SPL	Full On and Reference Test Gain
Equivalent input noise, w/o noise reduction		23	dB SPL	70 Full-bn (gain) 50dB \$PU input
1/3 Octave Equivalent input noise, w/o noise reduction	1600 Hz	9	dB SPL	(a) 60 Reference vert sain
Frequency range IEC 60118-0: 2015		130-4920	Hz	40 03dB PT Help 1
Current Drain (Quiescent/Operating)		1.14/1.21	mA	Frequency (Hz)

<sup>\*</sup> Telecoil is only for the KE462-DRW, KE362-DRW, KE262-DRW.

### **Additional information**

### Acknowledgments

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## **Notes**

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

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