

ReSound Key

User guide

ReSound Custom hearing aids

GN Making Life Sound Better

resound.com

Hearing aid information

Left hearing aid		Right hearing aid	
Serial number		Serial number	
Model number		Model number	
Battery type	☐ CIC size 10A ☐ ITC, ITE size 312 ☐ ITE size 13		

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

FDA warnings and cautions (US only)

WARNING: People younger than 18 should go to a doctor before using this
People younger than 18 years old need specialized care, and using this without a medical evaluation may worsen impairment or disability. A hearing aid user who is younger than 18 should have a recent medical evaluation from a doctor, preferably an ear-nose-throat doctor (an ENT). Before using this, a doctor should determine that the use of a hearing aid is appropriate.

WARNINGS to Hearing Aid Dispensers
You should advise a prospective hearing aid user to consult promptly with a doctor, preferably an ear specialist such as an ENT, before dispensing a hearing aid if you determine 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:

- Visible deformity of the ear, either congenital or traumatic
- Fluid, pus, or blood coming out of the ear within the previous 6 months
- Pain or discomfort in the ear
- History of excessive ear wax or suspicion that something is in the ear canal
- Dizziness, either recent or long-standing
- Sudden, quickly worsening, or fluctuating hearing loss within the previous 6 months

- Hearing loss or ringing (tinnitus) only in one ear or noticeable difference in hearing between ears
- Audiometric air-bone gap equal to or greater than 15 dB at 500 Hz, 1000 Hz, and 2000 Hz.

Outputs over 132 dB SPL:
You should exercise special care in selecting and fitting a hearing aid with a maximum output that exceeds 132 dB SPL because it may impair the remaining hearing of the hearing aid user.

Sound pressure level in the ears of children:
The developed sound pressure level in the ears of children can be substantially higher than in average adults.It is recommended to perform an RECD measurement in order to ensure the correct target for the fitted OSPL90.

⚠ **CAUTION:**

This is not hearing protection
You should remove this device if you experience overly loud sounds, whether short or long-lasting. If you're in a loud place, you should use the right kind of hearing protection instead of wearing this device. In general, if you would use ear plugs in a loud place, you should remove this device and use ear plugs.

The sound output should not be uncomfortable or painful
You should turn down the volume or remove the device if the sound output is uncomfortably loud or painful. If you consistently need to turn the volume down, you may need to further adjust your device.

You might need medical help if a piece gets stuck in your ear
If any part of your hearing aid, like the eartip (dome), gets stuck in your ear, and you can't easily remove it with your fingers, get medical help as soon as you can. You should not try to use tweezers or cotton swabs because they can push the part further into your ear, injuring your eardrum or ear canal, possibly seriously.

NOTE:

What you might expect when you start using your hearing aid

- A hearing aid can benefit many people with hearing loss. However, you should know it will not restore normal hearing, and you may still have some difficulty hearing over noise. Further, a hearing aid will not prevent or improve a medical condition that causes hearing loss.
- People who start using hearing aids sometimes need a few weeks to get used to them. Similarly, many people find that training or counseling can help them get more out of their devices.
- If you have hearing loss in both ears, you might get more out of using hearing aids in both, especially in situations that make you tired from listening – for example, noisy environments.

Tell FDA about injuries, malfunctions, or other adverse events

- To report a problem involving your hearing aid, you should submit information to FDA as soon as possible after the problem. FDA calls them "adverse events", and they might include: skin irritation in your ear, injury from the device (like cuts or scratches, or burns from an overheated battery), pieces of the device getting stuck in your ear, suddenly worsening hearing loss from using the device, etc. Instructions for reporting are available at https://www.fda.gov/Safety/MedWatch, or call 1-800-FDA-1088. You can also download a form to mail to FDA.

Hearing loss in people younger than 18

- People younger than 18 should see a doctor first, preferably an ear-nose-throat doctor (an ENT), because they may have different needs than adults.
- The doctor will identify and treat medical conditions as appropriate.
- The doctor may refer the person to an audiologist for a separate test, a hearing aid evaluation.
- The hearing aid evaluation will help the audiologist select and fit the appropriate hearing aid.

A person who is younger than 18 years old with hearing loss should have a medical evaluation by a doctor, preferably an ENT, before buying a hearing aid. The purpose of a medical evaluation is to identify and treat medical conditions that may affect hearing but that a hearing aid won't treat on its own.

Following the medical evaluation and if appropriate, the doctor will provide a written statement that the hearing loss has been medically evaluated and the person is a candidate for a hearing aid. The doctor may refer the person to an audiologist for a hearing aid evaluation, which is different from the medical evaluation and is intended to identify the appropriate hearing aid.

The audiologist will conduct a hearing aid evaluation to assess the person's ability to hear with and without a hearing aid. This will enable the audiologist to select and fit a hearing aid for the person's individual needs. An audiologist can also provide evaluation and rehabilitation since, for people younger than 18, hearing loss may cause problems in language development and educational and social growth. An audiologist is qualified by training and experience to assist in the evaluation and rehabilitation of hearing loss in people younger than 18.

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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

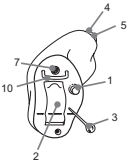
Generic air-conduction hearing aids are wearable sound-amplifying devices intended to compensate for impaired hearing. The fundamental operating principle of hearing aids is to receive, amplify, and transfer sound to the eardrum of a hearing impaired person.

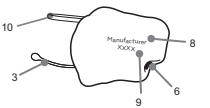
For devices including a Tinnitus Sound Generator module
The Tinnitus Sound Generator module is a tool to generate sounds to be used in a Tinnitus Management Program to temporarily relieve patients suffering from Tinnitus.

Your hearing aid

Your hearing aid – Completely-In-the-Canal (CIC)

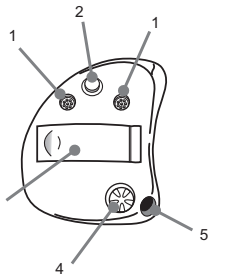
1. Push button (optional)
2. Battery door and On/Off switch
3. Removal cord
4. Sound outlet
5. Wax filter
6. Vent
7. Microphone inlets
8. Manufacturer
9. Model designation and serial number
10. Antenna





Your hearing aid – In-The-Canal (ITC)/In-The-Ear (ITE)

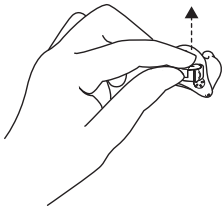
1. Microphone sound inlets
2. Push button (optional)
3. Battery door
4. Volume control (optional)
5. Vent



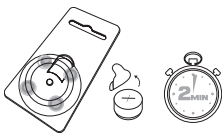
How to get your hearing aid ready for use

Replacing the battery

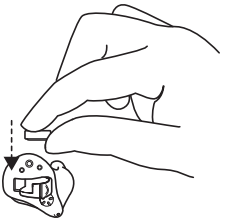
1. Open the battery door completely by using your fingernail. Remove the used battery if present.



2. Prepare the new battery. Remove the protective foil to activate the battery. Wait for 2 minutes before inserting the battery into the hearing aid.



3. 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. Gently close the battery door.



When the hearing aid is not in use, open the battery door to turn it off. Open the battery door completely to allow moisture to evaporate and prolong the hearing aids' life span.

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.

Keep extra batteries with you.

⚠ Battery warnings

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

NOTE: Always use new zinc-air batteries that have a minimum remaining shelf life of one year.

Low battery alert

When the batteries are low on power, the volume in your hearing aids will momentarily reduce and a melody will play every 15 minutes until there is no more power - then your hearing aids will turn off.

NOTE: Keep extra batteries with you.

Low battery alert when paired with wireless accessories (optional)

NOTE:

- Your batteries will run out faster when you use wireless functions like streaming from your mobile device or from your TV with our TV streamer. As the battery power declines, the wireless functions stop working. A short melody will play every five minutes to let you know that the battery power is low. The table below shows the functionality with different battery charge levels.
- 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		✓	✓	✓
Low	 4 even tones	✓	✓	x
Depleted	 3 even tones and 1 longer tone	✓	x	x

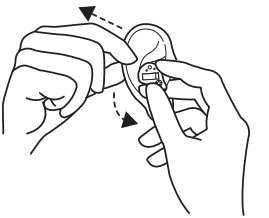
These will work again when you insert a new battery.

How to place the hearing aids in your ears

How to tell left from right

Your hearing aids are color-coded. Left = blue. Right = red. If your hearing aids are not color coded, ask your hearing care professional to add color coding.

Inserting the hearing aids



Insert Completely-In-The-Canal (CIC), In-The-Canal (ITC), and In-The-Ear (ITE)

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

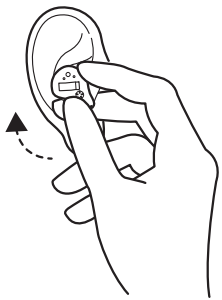
By experimenting, you may discover an easier method. With proper insertion, hearing aids should fit snugly but comfortably.

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

How to remove the hearing aids from your ears

Remove Completely-In-Canal hearing aids

1. Hold the removal cord with your thumb and index finger and pull outward.
2. Hold the edges of the hearing aid with your thumb and index finger. Pull out and slightly upward, while slightly rotating your hand forward.



Remove In-The-Canal (ITC) and In-The-Ear (ITE)

Hold the edges of the hearing aid with your thumb and index finger. Pull out and slightly upward, while slightly rotating your hand forward.

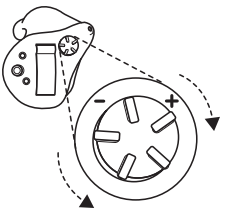


How to use your hearing aids

Operation of the hearing aid

The volume control (optional) allows you to adjust the volume of your hearing aids to your liking.

1. To increase the volume, turn the volume control up (+).
2. To decrease the volume, turn the volume control down (-).



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

NOTE: If you have two hearing aids with the Synchronized Volume Control function enabled, volume control adjustments to one hearing aid automatically repeats in the second hearing aid. When you change volume on one of the hearing aids, it responds with one or more beeps. A beep in the second hearing aid follows.

If your hearing aids support wireless remote control, you may use the ReSound Remote Control 2 or the ReSound Smart 3D™ app to adjust, for example, the volume.

Push button (optional)

Your hearing aid has a push button allowing you to use up to four different listening programs. The list on page 2 tells which programs have been enabled.

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 (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 1 and preset volume).

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. The same number of confirmation beeps will follow in the second hearing aid. This Synchronized Push Button can also be configured to allow one side to control volume increase and the other 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 ITC, ITE 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 theaters, cinemas, houses of worship, etc. that have a teleloop installed.

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

NOTE:

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

How to use the telecoil program

To use teleloop systems, follow these steps:

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

HAC telephone

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

To use a HAC phone, follow these steps:

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

NOTE:

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

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:

1. Hold the telephone up to your ear canal as usual.
2. 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.

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

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 have a mobile device, you can pair it to connect directly to your hearing aids. See "Advanced options", page 27.
- If you find it difficult to get a good result while using your mobile phone, your hearing care professional can give you advice on available wireless accessories to enhance listening capabilities. See also "Wireless accessories", page 31.

Phone Now (optional)

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

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

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.

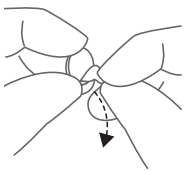
Place the Phone Now magnet

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

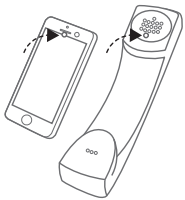
1. Clean the telephone thoroughly



2. Remove foil from magnet



3. Place the magnet



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

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

How to use Phone Now

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

NOTE:

- You may need to move the telephone receiver slightly to find the best position for reliable Phone Now activation and a good hearing experience on the telephone.
- If your hearing aids have the Comfort Phone functionality enabled, the hearing aid on the non-phone 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.

Advanced options

Using your hearing aids with iPhone, iPad, and iPod touch (optional)

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.

ReSound Assist and ReSound Assist Live (optional)

ReSound Assist
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.

All you need is a compatible mobile device with internet enabled. This allows you to:

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

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

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.

NOTE: Your hearing aids shut down during the installation and update process.

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

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.

Controlling your hearing aid with the mobile device app (optional)

The smartphone apps send and receive signals to and from the hearing aids via smartphones.

- 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 user's guide for the app, please go to our website (see the back page of this user guide) or contact customer service.

NOTE:

- For assistance with pairing and using these products with your hearing aid, 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+ for streaming capabilities.





Flight Mode (optional)

Your hearing aids can be controlled from your mobile device or Remote Control, an option that 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.

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

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 (♫♫) means the hearing aid is now in Flight Mode.

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

Activating wireless communication (exit Flight Mode)

1. Open and close the battery door on each hearing aid once.
2. 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

Our wireless eco-system features a comprehensive range of seamlessly integrated wireless accessories. These let you stream high quality stereo sound and speech directly to your hearing aids.

Available wireless accessories and their features

- **A TV streamer** streams audio from a TV and most other audio sources to your hearing aids at a volume that suits you.
- **A basic remote control** adjusts volume, mutes your hearing aids, and changes programs.
- **An advanced remote control** adjusts volume, mutes your hearing aids, changes programs, and displays your settings.
- **A phone clip** streams phone conversations and stereo sound to both hearing aids and doubles as a remote control.
- **A body-worn microphone** is a microphone that can be worn by others. It improves speech comprehension in noisy situations.
- **A wireless microphone.** It works like the **body-worn microphone**, but doubles as a table microphone. Furthermore, it has a built-in telecoil that allows it to connect with a teleloop system, a connector for a FM receiver, and a mini-jack input for wired streaming of audio from a computer or music player.

NOTE:

- Ask your hearing care professional for more information on the range of ReSound wireless accessories.
- You should only use ReSound wireless accessories with your wireless hearing aids.

How to clean and maintain your hearing aids

Daily maintenance

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

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

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 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 intense direct sunlight. The heat may deform the shell, damage the electronics, and deteriorate the surface.
7. Do not swim, shower, or take steam baths while wearing your hearing aids.

How to replace wax filters

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

Change HF3 wax filters

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

Change wax filters

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

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

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

CAUTION: Use only original consumables from the manufacturer (e.g., wax filters).

General warnings and precautions

⚠ 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, for example, 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, and 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.
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 careful 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 sudden and permanent hearing loss.
7. Turn off your wireless functionality by using the flight mode in areas where radio frequency emission is prohibited.
8. If a hearing aid is modified or broken, do not use it.

9. A power hearing aid can produce very loud sound to compensate for a severe or profound hearing loss. Therefore, there is risk of further impairing the remaining hearing.
10. 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 guidance regarding pairing etc., please refer to the user's guide for 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.
2. Use only original parts from the manufacturer (e.g., wax guards).
3. 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 will not allow you to get its full benefits.
- 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, "whistling"	Is the hearing aid inserted correctly?	Put it back in.
	Is the volume very loud?	Reduce it.
	Are you holding an object (e.g., a hat or a telephone receiver) 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 doctor.
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 one.
	Is your ear full of wax?	Visit your doctor.
Is sound distorted or weak?	Did your hearing aid get damp?	Use a desiccant (drying kit).
	Is the battery dirty?	Clean it or replace it with a new one.
	The battery is dead	Replace it with a new one.
Battery runs out very quickly	Did you leave your hearing aid turned on for long periods of time?	Always switch off your hearing aids when you are not using them (e.g., during the night).
	Is the battery old?	Check the date on the battery pack.

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.

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

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 temporarily relieve suffering from tinnitus.

Explanation of how the device works

The TSG module is a frequency and amplitude shaped white-noise generator. The 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 in order to make it more pleasant. The noise can then resemble, for example, breaking waves on a shore.

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

If you have two wireless hearing aids that support ear-to-ear 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 only troubles you 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 using 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 module should be used as prescribed by your doctor, audiologist, or hearing healthcare professional. In order to avoid permanent hearing damage, the maximum daily usage depends on the level of the generated sound.

To adjust TSG, please consult your hearing care professional.

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

Children and physically or mentally challenged users will require training by a doctor, audiologist, hearing care professional, or guardian in 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 counseling and/or in a tinnitus management program 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, a perceived decrease in auditory function or an increase in tinnitus perception, the user should discontinue use of the sound generator and seek medical evaluation.
- To prevent unintended usage by pediatric, 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.

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), 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.

CAUTION: The maximum output of the sound generator falls into the range that can cause hearing loss according to OSHA regulations. In compliance with NIOSH recommendations, the user should not use the sound generator for more than eight (8) hours a day when it 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 it for more than two (2) hours per day. In no case should the sound generator be worn at uncomfortable levels.

⚠ Tinnitus Sound Generator precautions

1. Should the user develop any side effects from using the sound generator, such as dizziness, nausea, headaches, perceived decrease in auditory function, or increase in tinnitus perception, the user should discontinue use of the sound generator and seek medical evaluation.
2. Discontinue use of the sound generator and consult promptly with a licensed physician if you experience any of the following conditions:
   a. Visible congenital or traumatic deformity of the ear.
   b. History of active drainage from the ear within the previous 90 days.
   c. History of sudden or rapidly progressive hearing loss within the previous 90 days.
   d. Acute or chronic dizziness.
   e. Unilateral hearing loss of sudden or recent onset within the previous 90 days.
   f. Visible evidence of significant cerumen accumulation or a foreign body in the ear canal.
   g. Pain or discomfort in the ear.
3. Discontinue use of the sound generator and consult promptly with your hearing care professional, if you experience changes in the tinnitus perception, discomfort, or interrupted speech perception, while using the Tinnitus Sound Generator.
4. The volume control is a feature in the TSG module used for adjusting the sound generator output level. To prevent unintended usage by pediatric, or physically or mentally disabled users, the volume control must be configured to only provide a decrease of the sound generator output level.
5. Children, and physically or mentally disabled users will require guardian supervision while wearing the TSG hearing aid.

6. Adjustment of the Tinnitus Sound Generator settings, using a smartphone app, should only be performed by the parent or legal guardian in cases where the user is minor. Use of the 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.

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 °C (-13 °F) and +70 °C (+158 °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. Its 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 according to 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:

- Redirect or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver
- Connect the equipment to an outlet or a circuit that is different from the one to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

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

Non-clinical testing (US only)

The devices covered within this user guide have undergone tests for the relevant non-clinical performance testing and biological endpoints in accordance with standards identified below:

- Electrical safety testing is performed according to IEC 60601-1:2005 + A1:2012+A2:2020, IEC 60601-2-66:2019, IEC 60601-1-11 Edition 2.0 2015-1, IEC 62133-2 Edition 1.0 2017- 02 and IEC 62368-1:2018/COR1:2020.
- Electromagnetic compatibility (EMC) testing is performed according to IEC 62479:2010, ANSI IEEE C63.19-2019 and IEC 60601-1-2:2014+A1:2020.
- Radio and Telecommunication testing is performed to be in compliance with applicable parts of the FCC rules in title 47 of the CFR.
- Electroacoustic testing is performed according to ANSI/ASA S3.22-2014 and ANSI/CTA 2051:2017
- Usability Engineering was performed in compliance with IEC 62366-1:2015

The devices covered in this user guide passed all tests for the relevant non-clinical performance testing and biological endpoints, namely cytotoxicity (ISO 10993-05:2009), sensitization, and intracutaneous reactivity (ISO 10993-10:2010).

Similarly, usability testing and software verification and validation demonstrated mitigation of risks to an acceptable level as well as reasonable assurance of safe and effective device performance.

Clinical data (US only)

The devices have been evaluated clinically through equivalence, and the devices have been compared to equivalent devices and similar devices on the market with similar intended purpose, e.g., to compensate for hearing impairment by amplifying and transmitting sound to the ear.

Based on technical and clinical data presented for the device in question, the equivalent predecessor and generally similar devices, it is concluded to support the clinical performance expressed in user needs and claims.

The clinical data leaves no questions open regarding clinical performance and is for this reason deemed sufficient.

The products are in compliance with the following regulatory requirements:

- In the US: FCC CFR 47 Part 15, subpart C.
- Other identified applicable international regulatory requirements in countries outside the EU and US. Please refer to local country requirements for these areas.
- In Canada: these hearing aids are certified under the rules of ISED.
- Japanese Radio Law and Japanese Telecommunications Business Law Compliance: This device has been certified pursuant to the Japanese Radio Law (電波法) and the Japanese Telecommunications Business Law (電気通信事業法). This device should not be modified (otherwise the granted designation number will become invalid).

Type designations

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

CSI12, FCC ID: X26CSI12, IC: 6941C-CSI12; **CSI13**, FCC ID: X26CSI13, IC: 6941C-CSI13, and **CSX10**, FCC ID: X26CSX10, IC: 6941C-CSX10.

This device includes an RF transmitter which operates in the frequency band of 2.4 GHz – 2.48 GHz.

Hearing aid variants

Completely-in-the-canal (CIC) hearing aids (including type CSX10 with FCC ID X26CSX10, IC number 6941C-CSX10 models) with size 10A battery, are available in the following variants:

*KE4CIC-W-LP, KE3CIC-W-LP,
*KE4CIC-W-MP, KE3CIC-W-MP,
*KE4CIC-W-HP, KE3CIC-W-HP

In-the-canal (ITC) hearing aids (including type CSI12 with FCC ID X26CSI12, IC number 6941C-CSI12 models) with size 312 battery, are available in the following variants:

*KE4ITC-DW-MP, KE3ITC-DW-MP, KE2ITC-DW-MP,
KE4ITC-DW-HP, KE3ITC-DW-HP, KE2ITC-DW-HP,
*KE4ITC-DW-UP, KE3ITC-DW-UP, KE2ITC-DW-UP

In-the-ear (ITE) hearing aids (including type CSI13 with FCC ID X26CSI13, IC number 6941C-CSI13 models) with size 312 or 13 battery, are available in the following variants:

*KE4ITE-DW-MP, KE3ITE-DW-MP, KE2ITE-DW-MP,
*KE4ITE-DW-HP, KE3ITE-DW-HP, KE2ITE-DW-HP,
*KE4ITE-DW-UP, KE3ITE-DW-UP, KE2ITE-DW-UP

Nominal RF output power transmitted is :

CSI12: + 1.36 dBm - **CSI13**: + 1.36 dBm - **CSX10**: + 2.5 dBm.

*) Key 4 variants are not available in Canada.

Symbols

WARNING: Points out a situation that could lead to serious injuries.

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

NOTE: Advice and tips on how to handle your hearing aid better.

Follow instructions for use.

Equipment includes an RF transmitter.

Product is a Type B applied part.

℞ ONLY By prescription only (US).

Do not dispose of your hearing aids and batteries with ordinary household garbage. 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 about the disposal of your hearing aid.
NOTE: There may be specific regulations in your country.

Legal manufacturer.

Date of manufacture.

UDI Unique Device Identification.

Complies with IMDA Standards DA105282 Complies with IMDA requirements.

Complies with ACMA requirements.

Additional information

Technical specifications

Hearing aid model	**Maximum output** (Data in accordance with IEC60118-0 Edition 3.0 2015-06, IEC60118-7 and ANSI S3.22-2009, supply Voltage 1.3V)
All Low Power (LP) models (CIC models)	114 dB SPL (typical)
All Medium Power (MP) models	118 dB SPL (typical)
All High Power (HP) models	120 dB SPL (typical)
All Ultra Power (UP) models (Not CIC models)	129 dB SPL (typical)

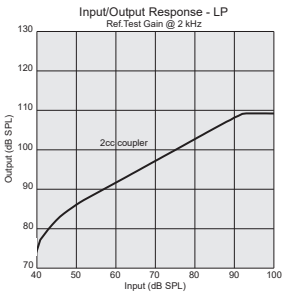
Low Power (LP) models (US only)

Additional technical data

Latency, mid frequency delay (2 kHz)	5.1	ms
Current Drain (Quiescent/Operating)	1.12 / 1.22	mA
Attack/release time (2 kHz syllabic)	12 / 70	ms

Input/Output response, measured in a 2cc coupler at the reference test gain @ 2 KHz

CIC



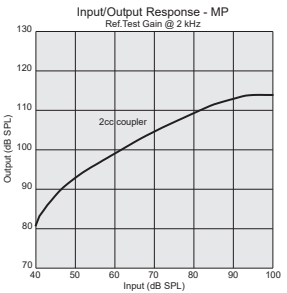
Medium Power (MP) models (US only)

Additional technical data

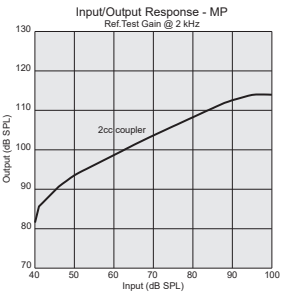
Latency, mid frequency delay (2 kHz)	5.1	ms
Current Drain (Quiescent/Operating)	1.17 / 1.31	mA
Attack/release time (2 kHz syllabic)	12 / 70	ms

Input/Output response, measured in a 2cc coupler at the reference test gain @ 2 KHz

CIC



ITC/ITE



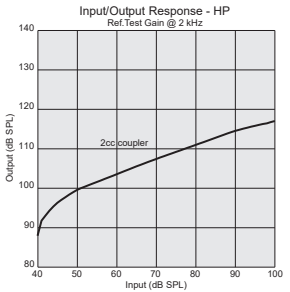
High Power (HP) models (US only)

Additional technical data

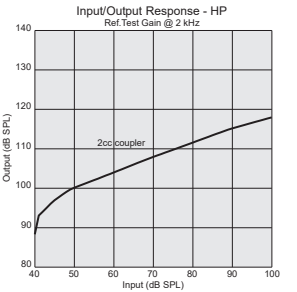
Latency, mid frequency delay (2 kHz)	5.1	ms
Current Drain (Quiescent/Operating)	1.15 / 1.25	mA
Attack/release time (2 kHz syllabic)	12 / 70	ms

Input/Output response, measured in a 2cc coupler at the reference test gain @ 2 KHz

CIC



ITC/ITE



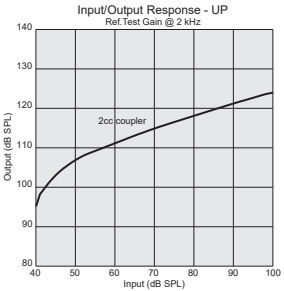
Ultra Power (UP) models (US only)

Additional technical data

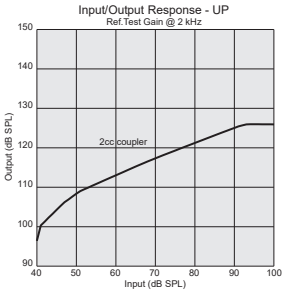
Latency, mid frequency delay (2 kHz)	5.1	ms
Current Drain (Quiescent/Operating)	1.17 / 1.21	mA
Attack/release time (2 kHz syllabic)	12 / 70	ms

Input/Output response, measured in a 2cc coupler at the reference test gain @ 2 KHz

CIC



ITC/ITE



Acknowledgements

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Notes

Notes

Manufacturer according to FDA:

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

Manufacturer according to Health Canada:

ReSound Canada
2 East Beaver Creek Road, Building 3
Richmond Hill, ON L4B 2N3
Canada
1-888-737-6863
resound.com

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

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