

User guide

Digital Receiver In-the-Ear (RIE) Hearing Instruments

[Beltone.com](https://www.beltonemed.com)

FCC ID: X26BRIE, IC: 6941C-BRIE, Type Designation: BRIE
FCC ID: X26VE312, IC: 6941C-VE312, Type Designation: VE312
FCC ID: X26MRIE, IC: 6941C-MRIE, Type Designator MRIE

This device operates in the frequency range of 2.4 GHz - 2.48 GHz. This device includes an RF transmitter that operates in the range of 2.4 GHz - 2.48 GHz.

Statement:

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

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules and ISED rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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

Intended use:

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

Specification of restrictions:

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, Beltone A/S declares that the radio equipment types BRIE, VE312 and MRIE 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.beltone-hearing.com/en/declarations
- In US: FCC CFR 47 Part 15, subpart C.
- Other identified applicable international regulatory requirements in countries outside EU and US. Please refer to local country requirements for these areas.
- In Canada: these hearing instruments 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)
- Patents
US 7,593,537 US 8,00,849

Digital Receiver In-the-Ear (RIE) wireless hearing Instruments models (type BRIE) are available in the following variants: LND1764-DRW, LND964-DRW, LND664-DRW

Digital Receiver In-the-Ear (RIE) wireless hearing instrument models (type VE312) are available in the following variants: LND1763-DRW, LND963-DRW, LND663-DRW

Digital Receiver In-the-Ear (RIE) wireless hearing instrument models (type MRIE) are available in the following variants:
AY464-DRW, AY364-DRW.

A new Beltone hearing instrument

Congratulations on your choice of a Beltone hearing instrument!

This is an important step towards clearer hearing and better understanding. We have used all of our experience with hearing instruments to help you communicate, lead an enjoyable social life and listen to the world around you.

Your hearing instrument is a very advanced device. Your hearing care practitioner has tuned it to your individual needs. With a little devotion and patience, you will become familiar with it.

This booklet is a short guide to assist you in getting acquainted with your hearing instrument. Read it carefully and use it as a guideline.

We wish you happiness and pleasant listening with your new instrument.

Beltone

This booklet & your instrument

In this booklet you will find instructions for inserting and controlling your new hearing instrument. You will find explanations on controlling your instrument, on daily handling and on its use. Furthermore, you can read what to do if things do not live up to your expectations. We will give a few practical steps towards better hearing.

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Warning to hearing care professional

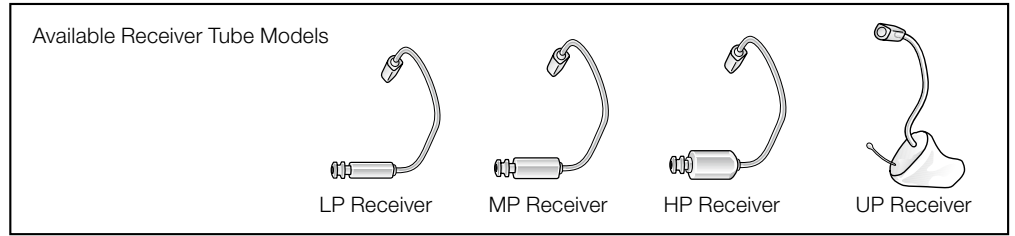
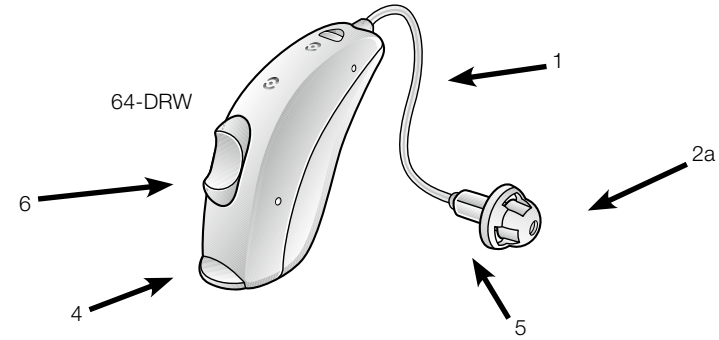
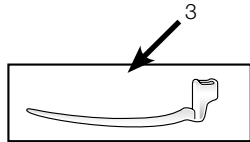
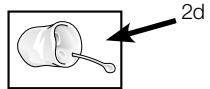
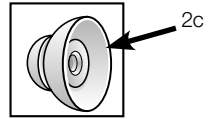
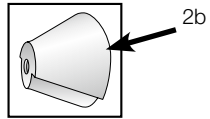
A hearing care professional should advise a prospective user to consult promptly with a licensed physician (preferably an ear specialist) before setting the instrument if the hearing care professional determines through inquiry, actual observation, or review of any other available information concerning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

- (i) visible congenital or traumatic deformity of the ear;
- (ii) history of active drainage from the ear within the previous 90 days;
- (iii) history of sudden or rapidly progressive hearing loss within the previous 90 days;
- (iv) acute or chronic dizziness;
- (v) unilateral hearing loss of sudden or recent onset within the previous 90 days;
- (vi) audiometric air-bone gap equal to or greater than 15dB at 500 Hz (hertz), 1000 Hz, and 2000 Hz;
- (vii) visible evidence of significant cerumen accumulation or a foreign body in the ear canal;
- (viii) pain or discomfort in the ear.

Your Hearing Instrument

(Please see page 63-64 for your selected model)

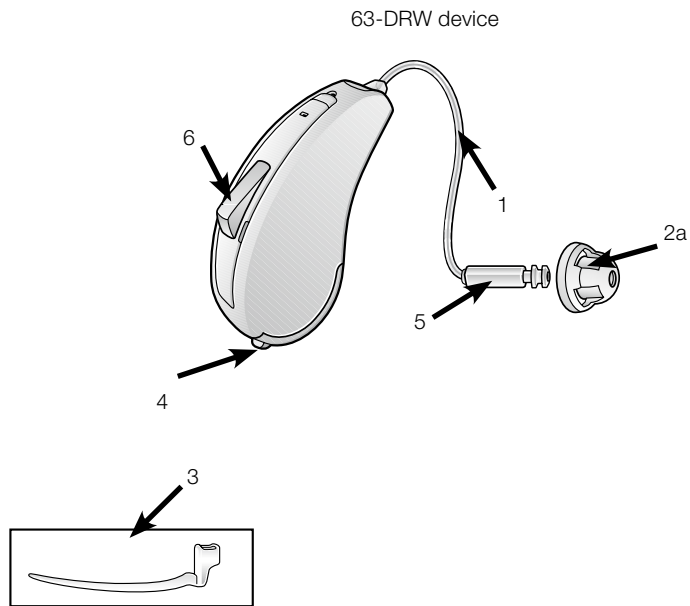
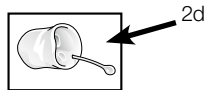
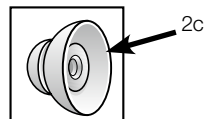
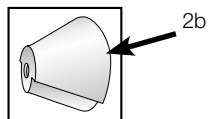
1. Receiver tube
- 2a. Receiver Open Dome
- 2b. Receiver "Tulip" Dome
- 2c. Receiver Power Dome
- 2d. Receiver
3. Sports lock
4. Battery compartment
5. Receiver
6. Multi-function button



Your Hearing Instrument

(Please see page 63-64 for your selected model)

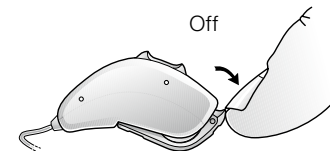
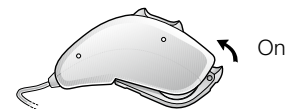
1. Receiver tube
- 2a. Receiver Open Dome
- 2b. Receiver "Tulip" Dome
- 2c. Receiver Power Dome
- 2d. RIE mold
3. Sports lock
4. Battery compartment
5. Receiver
6. Push button



On/Off function

Your hearing instrument is equipped with an on/off switch integrated into the battery compartment.

When the battery compartment is fully closed, the instrument is turned on. To turn the instrument off, grasp the battery compartment door with your fingernail and gently pull downwards. The power will switch off at the point where you can feel a small click. Whenever you are not wearing the instrument, remember to turn it off to reduce battery consumption.



Delayed Activation

Your hearing care professional may have activated the Delayed Activation function in your hearing instrument. The Delayed Activation delays the switch-on time after closing the battery compartment. This is indicated by beeps at one second intervals after closing the battery compartment.

If you wish, it can be deactivated by your hearing care professional.

Changing batteries

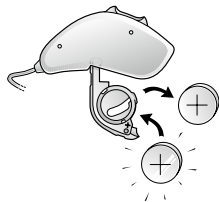
(Please see “Your selected model” for the battery size of your hearing instrument)

Low battery indication

Your hearing care professional can set your hearing instrument to give an acoustical indication when the battery is reaching its end of life. The hearing instrument will reduce amplification and emit a melody if battery power gets too low. This signal will recur every 15 minutes until the hearing instrument automatically switches off. It is recommended that you keep spare batteries on hand.

Low battery indicator (when paired with Direct Line accessories)

Active usage of Beltone Direct Line accessories (for example: Remote Control, TV Link, and Phone Link) requires more battery power from the hearing instrument than when these are working on their own. When the battery in the hearing instrument has depleted to a level at which use of the TV Link, and Phone Link or Personal Audio Link cannot be supported, the hearing instrument will play two sets of descending tones. At some point the battery level will not support the remote control either and you will once again hear the descending tones. The hearing instrument will continue to work as usual. Once a new battery is inserted, full operation of the wireless accessories will resume.



Replacing the battery

Open the battery compartment completely by using your fingernail. After removing the old battery (if present), insert the new one with the positive (+) side in the correct position. Please make sure that you have the correct size battery for your hearing instrument. Gently close the battery door. Do not force it closed. If door does not close easily, remove battery and try again.



For best performance, always use new Zinc-Air batteries that have a minimum remaining shelf life of 1 year.



Whenever the hearing instruments are not in use, remember to turn them off to avoid unnecessary battery consumption.

Battery warning information

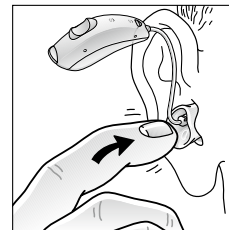
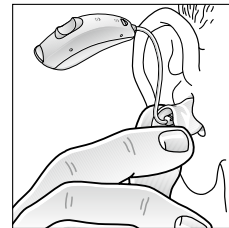
Batteries contain dangerous substances and should be disposed of carefully in the interest of your safety and for the environment.

- Keep batteries away from pets, children and mentally challenged persons.
- 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..
- DO NOT burn the batteries, as they could explode.
- DO NOT attempt to recharge batteries (Zinc Air) which are not specifically designated rechargeable as they may leak or explode.
- Replace spent batteries and do not leave them in the instrument for a prolonged period to prevent leakage.
- Used batteries are harmful to the environment. Please dispose of them according to local regulations or return them to your hearing care practitioner.
- Remove the batteries to prevent leakage when the hearing instruments are not in use for an extended period of time.

Inserting and removing the device

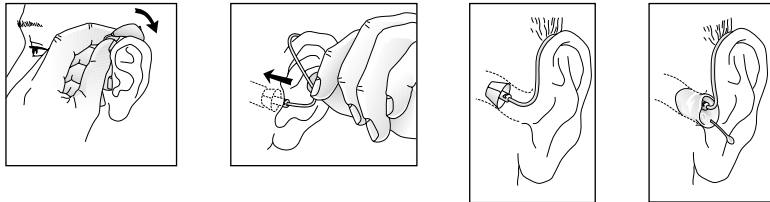
Inserting custom RIE and UP moulds:

1. Hold the RIE mould between your thumb and index finger and position its sound outlet in your ear canal.
2. Slide the RIE mould all the way into your ear with a gentle, twisting movement.
3. Move the RIE mould up and down and gently press to ensure it is positioned correctly in the ear. Opening and closing your mouth can ease insertion.
4. Make sure the hearing instrument is seated behind the ear.



Inserting receiver domes:

1. Hang the instrument over the top of the ear.
2. Grasp the receiver tube where it bends and place the receiver dome in your ear canal. The receiver dome should be placed far enough into the ear so that the receiver tube lies flush with your head.
3. If the hearing care professional has provided you with a sport lock on the receiver tube, make sure to position it into the indentation above the earlobe.
4. When the receiver dome is placed appropriately, you should not see the receiver tube sticking out when you look directly into a mirror.
5. If the device whistles, the most likely reason is that the receiver dome is not placed correctly in the ear canal. Other reasons can be build-up of earwax in the ear canal. It is also possible that the instrument settings are not optimal. To help you solve these issues it is recommended you contact your hearing care professional.

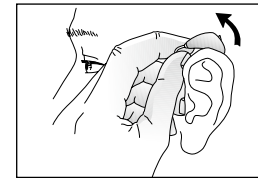
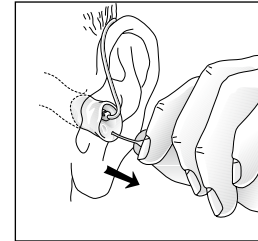
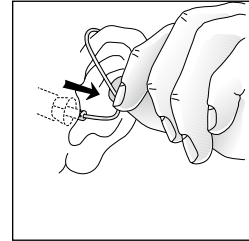


Removing:

1. Grasp the receiver tube where it bends, or pull-out cord when using an RIE or UP mold, and pull the receiver dome out of your ear canal.
2. Lift the hearing instrument of your ear.



Note: You should never attempt to bend or modify the shape of the hearing instrument, RIE molds, or receiver tubing yourself.



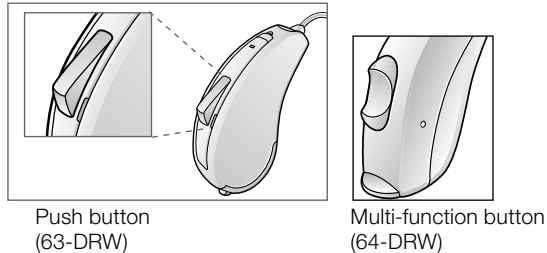
Push button and Multi-Function button

If you have a hearing aid with a push button or multi-function button, this will allow you to use up to four different listening programmes, each of them suitable for certain situations.

Your instrument has a fully automatic volume control.

Therefore, it should not be necessary to control the volume manually. However, in addition to controlling listening programmes, the multi-function button (64-DRW only) provides you with the ability to adjust the amplification to your liking.

The multi-function button is designed to change the volume or listening programmes of the hearing instrument, based on different ways it is pressed. If necessary, your hearing care practitioner can change these settings and fill in the following table to indicate the new settings:



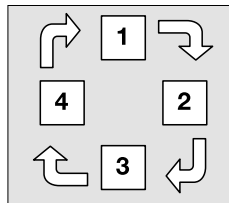
Multi-function button action	Default setting	New setting
Short press up	Increases volume	
Short press down	Decreases volume	
Long press up (3 seconds)	Changes programmes	
Long press down (3 seconds)	Activates streaming*	

*Wireless streaming only applicable when using Beltone Direct Line accessories.

Note: If you have two hearing instruments with the Ear to Ear Synchronization function enabled and you have the Multifunction Button set for volume control functionality, volume adjustments to one instrument will automatically repeat in the second instrument. When a volume control adjustment is made in one instrument, you will hear a confirmation beep. A beep in the second instrument will follow.

When using the push button or multi-function button to switch programmes, each press will move the instrument to the next programme. For example, if it was in programme 1 it will switch to programme 2, if it was in programme 2 it will switch to programme 3, etc. If programmes 2, 3 or 4 are not activated, nothing will happen. Your instrument will give an audible signal after pressing the push button or multi-function button. The instrument will produce:

- one single beep if set in programme 1
- two beeps if set in programme 2
- three beeps if set in programme 3
- four beeps if set in programme 4



When you close the battery door and switch the instrument on, it will start in programme 1. Press the push button or multi-function button if you want to move to a different listening programme.

Let your hearing care practitioner fill out the following table:

Programme number	Type of programme	Intended for
1		
2		
3		
4		

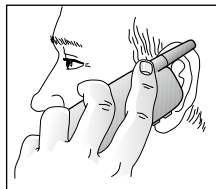
Note: If you have two hearing instruments with the Ear to Ear Synchronization function enabled, programme changes to one instrument will automatically repeat in the second instrument. When a programme change is made in one instrument, you will hear the same amount of confirmation beeps in the second instrument.

Telephone use

Your hearing instrument allows you to use the telephone as you ordinarily do. Hold the phone up to your ear as you normally would. It is possible you will hear clearer if you hold the phone towards the top of your ear (closer to where the microphones are located).

If you experience discomfort from the dome pressing in your ear canal, you may need a different size sound tube. In this case, contact your hearing care professional.

Your hearing care professional can design a telephone programme that you can switch to when using the phone. This programme is designed to ease listening on the phone. If you have a hearing instrument with a push button, you can switch to this programme manually. Your hearing care professional can also enable the AutoPhone function to switch to the telephone programme automatically.



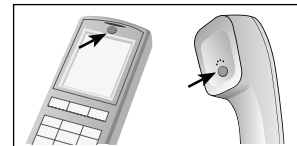
Auto-Phone

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

Placement of AutoPhone magnets

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

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



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

AutoPhone usage

Telephones can be used in a normal manner. A short melody will indicate that the AutoPhone feature has automatically switched to the programme designed specifically for listening on the phone. Initially, you may need to move the telephone receiver slightly to find the best position for reliable AutoPhone activation and good hearing on the telephone. If the switching mechanism is not reliable or consistent, additional magnets can be placed on the telephone.



AutoPhone warnings

1. Keep magnets out of reach of pets, children and mentally challenged persons. If a magnet is swallowed, please seek advice from a medical practitioner.
2. The magnet may affect some medical devices or electronic systems. The manufacturer of any magnetically sensitive devices (e.g. pacemakers) should advise you regarding appropriate safety precautions when using your hearing instrument and magnet in close proximity to the medical device or electronic system in question.
3. 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).



Auto Phone precautions

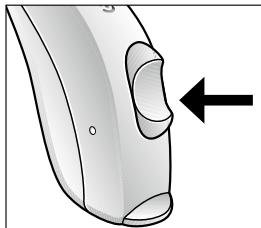
1. High distortion during dialing or phoning may mean that the magnet is not in the optimal position relative to the telephone receiver. To avoid the issue, please move the magnet to another place on the telephone receiver.
2. Only use magnets supplied by Beltone.

Telecoil-programme (64-DRW Only)

Your hearing instrument has a built-in function, enabling in many cases an improved use of the telephone and better hearing in churches or halls where an induction loop system is installed. In order to activate this function, the telecoil programme has to be selected. In this programme you will hear the tele-loop transmitted sounds through the telecoil and the environmental sounds through the hearing aid microphone. If you wish, your hearing care professional can change the settings in such a way that you will hear no sounds from the microphone.

Using the telephone with telecoil programme

- Switch your instrument to the telecoil programme.
- Hold your telephone handset behind your ear, close to the hearing instrument (2-3 cm) and slightly tilt the receiver outwards.
- Listen to the dial tone and move the handset a little to find the position that gives the best reception.
- After completing the phone call, switch your instrument back to the microphone programme.



If the phone has a poor telecoil signal, use the microphone programme. Do not hold the handset too tightly against your ear since this might cause 'whistling.'

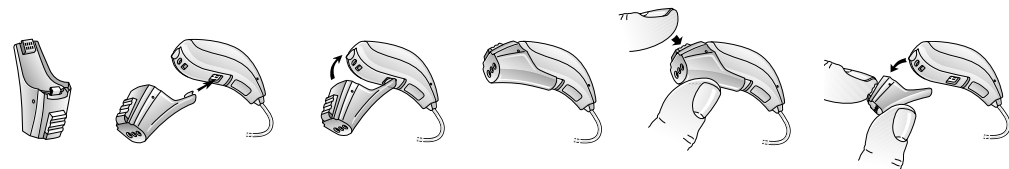
Audio input (64-DRW Only)

Your hearing instrument is equipped with a direct audio input facility. Direct audio input allows direct connection of sound sources, such as a radio, television or even school equipment, to your hearing instrument. Often, this will improve sound quality.

- The sound source is connected to your instrument with a cable and an audio shoe.
- The instrument automatically detects the direct audio input source. The direct audio input supports the systems for wireless use as well.
- In this programme you will hear no sounds from the microphone, therefore most environmental sounds will be lost. If you wish, your hearing care practitioner can change the setting in such a way that you hear the microphone and the direct audio input simultaneously.



External devices connected to the electrical input must be safe according to the requirements of IEC 60601-1-1, IEC 60065, or IEC 60950-1, as appropriate.



Hearing through an induction loop

Many public places, including churches, theatres and cinemas, have induction loops systems. In these particular rooms, they transmit, inductively, the sound of the presenter or show. At home, radio or television can be connected to an induction loop system. Sound quality through induction loop is often better because noises from the environment are not transmitted.

- Switch your instrument to the telecoil programme.
- Choose a good spot. Reception is not clear in all locations; it depends on the position of the induction loop. Watch for signs or try a different seat yourself.
- After the service or show, switch your instrument back to the microphone programme. You will now hear through the microphone again.
- If the sound of your hearing instrument in the telecoil programme is very soft all the time, ask your hearing care practitioner to make an adjustment.
- Your hearing care practitioner will gladly provide you with advice regarding an induction loop system at home. Please ask for it.

Listening to radio or tv


When listening to the TV or the radio, start out by listening to news commentators since they usually speak clearly, then try other programmes.

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

Using Beltone Hearing Instruments with iPhone®, iPad®, and iPod touch® (Beltone Legend)

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

Using Beltone hearing instruments with smart phone apps

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

Use with smart phone apps:

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

Cellular phones

Your hearing instrument is designed to comply with the most stringent Standards of International Electromagnetic Compatibility. However, not all cell phones are hearing instrument compatible. The varying degree of disturbance can be due to the nature of your particular cellular phone or of your wireless service provider. If you find it difficult to obtain a good result while using your cellular phone, your hearing care professional will be able to give you advice on available accessories to enhance listening capabilities.

Flight mode

When boarding a flight or entering an area where RF transmitters are prohibited, wireless functionality must be deactivated as it is not allowed to radiate radio signals during flights or in otherwise restricted areas. Follow these steps to enter and leave flight mode:

Note that this operation is the same for both hearing instruments with and without a push button.

1. Close the battery door (Hearing instrument is turned on)
2. Open the battery door within 10 seconds of doing operation #1 (Hearing instrument is turned off)
3. Close the battery door (Hearing instrument is turned on 2nd time)
4. Open the battery door within 10 seconds after doing operation #3 (Wireless is turned off 2nd time)
5. Close the battery door (Hearing instrument is turned on 3rd time)

When disabled manually, it is possible to re-enable wireless operation by opening and closing the battery door. 10 seconds after this operation is completed, wireless operation will begin again.

Daily maintenance

Keep your hearing instrument clean and dry. Wipe the case with a soft cloth or tissue after use to remove grease or moisture. You should avoid exposing your instrument directly to moisture such as rain or water from the shower. If your instrument does get wet or if it has been exposed to high humidity or perspiration, it should be left to dry out overnight with the battery out and the battery compartment open. It is also a good idea to put the hearing instrument in a sealed container together with a drying agent (dessicator) overnight. Consult your hearing care professional as to which drying agent to use.

However, to avoid the need for unwarranted repairs:

- Never immerse the instrument in water or other liquids since this may cause permanent damage to the circuitry.
- Protect your hearing instrument from rough handling, and avoid dropping it on hard surfaces or floors.
- Do not leave the instrument in or near direct heat or sunlight, since excessive heat can damage the instrument or deform the casing or the receiver tube.
- Remove your hearing instrument when applying such things as cosmetics, perfume, aftershave, hair spray, and suntan lotion. These might get into the instrument and cause damage.

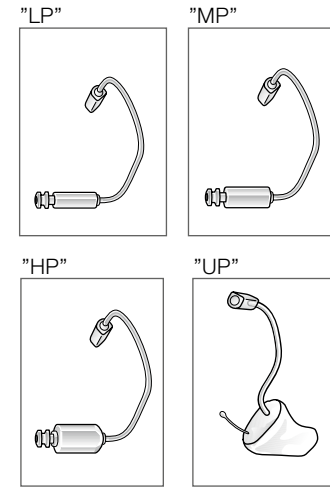
The receiver tube

The receiver tube comes in four different types; "LP" (Low Power), "MP" (Medium Power), "HP" (High Power) or "UP" (Ultra Power). Please see illustrations.

Depending on your hearing loss you have either been fitted with the "LP", "MP", "HP" or "UP" receiver type. Please see page 63-65 to see your selected type. The receiver tube contains the wiring to the receiver which delivers the sound direct in the ear canal. It is important that the receiver tube and the receiver dome/RIE mould fit correctly into your ear. If the receiver tube or the receiver dome/RIE mould irritate your ear in any way and prevent you from wearing your hearing instrument, please contact your hearing care professional. You should never attempt to modify the shape of the receiver tube yourself.

Cleaning the receiver tube and the receiver domes

The receiver tube and the receiver dome should be cleaned regularly. Use a damp cloth to clean the receiver tube and receiver dome on the outside. Do not use water when you are cleaning the receiver tubes or the receiver domes.



Cleaning the RIE or UP mould

We recommend that you use a damp cloth to clean the RIE mold after every time you use it. It is important to keep it clean from wax so that you will not have wax or bacteria building up on the mold.

If you no longer can clean the RIE mould using a damp cloth we recommend you to contact your hearing care professional for them to clean it. If desired, you can have your hearing care professional instruct you how to clean the RIE mould yourself.

The receiver domes

The receiver Mini Dome / Tulip Dome / Power Dome should be changed every third month or sooner if needed. We recommend that you have your hearing care professional change the receiver Mini Dome / Standard Dome / Power Dome for you. If your hearing care professional instructs you to change the receiver domes yourself, make sure that they are securely fastened to the receiver tube before inserting them in your ear. A failure to change the domes in accordance with the instructions could result in injury.

Wax guard filters

Your hearing instruments have been fitted with wax guard filters to increase the protection against wax and moisture from damaging the hearing instrument.

We recommend that your hearing care professional change them for you. If desired, you can have your hearing care professional instruct you how to change the wax guard filters yourself.

Tinnitus Sound Generator (TSG) module

Intended use for the TSG module

Your Beltone hearing instruments may also include the Tinnitus Sound Generator function, a tool for generating sounds to be used in tinnitus management programmes to relieve suffering from tinnitus.



TSG warnings

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

User instructions for the TSG module

Description of the device

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

Explanation of how the device functions

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

Your doctor, audiologist or hearing healthcare professional can modulate the generated noise with the purpose of making it more pleasant. The noise can then resemble, for example, crashing waves on a shore. Modulation level and speed can also be configured to your likes and needs.

An additional feature can be enabled by your hearing healthcare professional that allows you to select pre-defined sounds that simulate sounds from nature, such as breaking waves or running water.

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

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

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

TSG volume control

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

Using TSG with smart phone apps

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

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



Caution

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



TSG precautions

- Should the user develop any side effects from using the sound generator, such as dizziness, nausea, headaches, perceived decrease in auditory function or increase in tinnitus perception, the user should discontinue use of the sound generator and seek medical evaluation.
- Children and physically or mentally challenged users will require guardian supervision while wearing the TSG hearing instrument.

The scientific concepts that form the basis for the device

The TSG Module provides sound enrichment with the aim of surrounding the tinnitus sound with a neutral sound which is easily ignored. Sound enrichment is an important component of most approaches to tinnitus management, such as Tinnitus Retraining Therapy (TRT). To assist habituation to tinnitus, tinnitus needs to be audible. The ideal level of the TSG module, therefore, should be set so that it starts to blend with the tinnitus, and so that you can hear both your tinnitus as well as the sound used.

In a majority of instances, the TSG module can also be set to mask the tinnitus sound, so to provide temporary relief by introducing a more pleasant and controllable sound source.

Significant physical characteristics

Audio signal technology

Digital

Available sounds

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

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

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

Prescription use of this TSG hearing instrument

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

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

The target population is primarily the adult population over 18 years of age. This product may also be used with children 5 years of age or older. However, children and physically or mentally challenged users will require training by a doctor, audiologist, hearing healthcare professional or the guardian for the insertion and removal of the hearing instrument containing the TSG module.

Important notice for prospective sound generator users

A tinnitus sound generator 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.

TSG warning to hearing healthcare professionals

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

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

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

General precautions

- Wearing an instrument might cause an increased production of earwax. In rare cases, the anti-allergenic materials may cause skin irritation. If so, or if in doubt, consult your physician or ENT.
- Never attempt to modify the shape of the hearing instrument, earmoulds, or tubing yourself.
- Only use original Beltone consumables, e.g. tubes and domes.
- For use of wireless functionality, only use Beltone Direct Line accessories. For further guidance, please refer to the relevant Beltone Direct Line user guide.
- Only connect Beltone hearing instruments to Beltone accessories intended and qualified to be used with Beltone hearing instruments.
- When wireless function is activated, the device uses low-powered digitally coded transmissions in order to communicate with other wireless devices. Although unlikely, nearby electronic devices may be affected. In that case, move the hearing instrument away from the affected electronic device.
- When using wireless functionality and the devices are affected by electromagnetic interference, move away from the source of interference.



Beltone wireless devices operate in the frequency range of 2.4 GHz - 2.48 GHz.
Beltone wireless devices include a RF transmitter that operates in the range of 2.4 GHz - 2.48 GHz.
Nominal RF output power transmitted is 0 dBm.



Hearing instrument expectations

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

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



General warnings

Hearing instruments can be dangerous if improperly used.

- The instrument contains small parts that could be swallowed by children. Please be mindful not to leave children unsupervised with this hearing instrument.
- Turn off your wireless functionality by using flight mode in areas where radio frequency emissions are prohibited.
- Remember to deactivate the wireless functionality when boarding flights.
- If the device is broken, do not use.
- Special care should be exercised in selecting and fitting a hearing instrument(s) whose maximum sound pressure level exceeds 132 dB SPL (with an IEC 60711:1981 occluded ear simulator), because there may be a risk of impairing the remaining hearing of the hearing instrument user.
- Consult a physician if you find a foreign object in your ear canal, if you experience skin irritation or if excessive ear wax accumulates with the use of the instrument.
- Different types of radiation, (e.g. from X-ray, MRI, NMR, CT scans), may damage the instrument. Therefore, do not wear the instrument during these or other corresponding scanning procedures. Other types of radiation (burglary alarms, room surveillance systems, radio equipment, mobile telephones, etc.) will not damage the instrument. They could, however, momentarily affect the sound quality or create strange sounds from the instruments.
- Do not wear the instrument in mines or other explosive areas, unless those areas are certified for hearing instrument use.

- Do not allow others to use your hearing instrument. This may cause damage of the hearing instruments or to the hearing to the other individual.
- Instrument usage by children or mentally challenged persons should be supervised at all times to ensure their safety.
- Instruments should be used only as prescribed by your hearing care professional. Incorrect use may result in sudden and permanent hearing loss.



Warning to hearing aid dispensers (US Only)

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

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

Important notice for prospective hearing aid users (US Only)

Good health practice requires that a person with a hearing loss have a medical evaluation by a licensed physician (preferably a physician who specializes in diseases of the ear) before purchasing a hearing aid. Licensed physicians who specialize in diseases of the ear are often referred to as otolaryngologists, otologists or otorhinolaryngologists. The purpose of medical evaluation is to assure that all medically treatable conditions that may affect hearing are identified and treated before the hearing aid is purchased.

Following the medical evaluation, the physician will give you a written statement that states that your hearing loss has been medically evaluated and that you may be considered a candidate for a hearing aid. The physician will refer you to an audiologist or a hearing aid dispenser, as appropriate, for a hearing aid evaluation. The audiologist or hearing aid dispenser will conduct a hearing aid evaluation to assess your ability to hear with and without a hearing aid. The hearing aid evaluation will enable the audiologist or dispenser to select and fit a hearing aid to your individual needs. If you have reservations about your ability to adapt to amplification, you should inquire about the availability of a trial-rental or purchase-option programme. Many hearing aid dispensers now offer programmes that permit you to wear a hearing aid for a period of time for a nominal fee after which you may decide if you want to purchase the hearing aid.

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

Children with hearing loss (US Only)

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

Eight steps towards better hearing

When first beginning to wear a new hearing instrument, sounds will seem new and different. This is normal as you become more accustomed to your new hearing instrument. Every individual person will go through an acclimatization process that is unique, and may range in time from days to weeks.

After a while, you will notice you appreciate hearing with a hearing instrument and that you will find it quite normal. Below, eight steps are described that will guide you through the initial period. If you are not satisfied or keep experiencing problems, please consult your hearing care practitioner.

1. Get used to familiar sounds at home

Try to get used to the new sounds from a familiar environment. Listen to the different (background) sounds and try to recognise them. When you are tired from listening, remove your instrument and pause for a while. Talk or read aloud for a while. In that way you will familiarise yourself with the sound of your own voice. Gradually, you will learn to use the instrument for longer and become more comfortable with it.

2. Listen to sounds in different environments

Spend some time getting used to the sounds around you with your hearing instruments. Keep in mind that traffic and other loud sounds may be louder than you expect initially, but will seem more normal in loudness as time passes.

3. Have a conversation with a single person

Use your instrument in conversation with one person, a family member or a friend. Move to a quiet spot. Explain that you are now wearing a hearing instrument. Ask the other person to talk normally. Look at your conversation partner. Notice the change in your ability to hear the conversation.

4. Listen to radio or television

Listen to the radio or television. Start with the news, then turn to another programme. Ask a 'normal hearing' person to set the volume of your radio or television to a comfortable level. If necessary, adjust the volume on your hearing instrument.

If you cannot understand the radio or television, ask your hearing care practitioner to adjust your hearing instrument.

5. Get used to conversations in a group

Following conversations in a group is often difficult because of the background noise. Listen to the different voices. Try to recognise them by timbre or rhythm and link each voice to a person. Focus your attention on the person you want to understand. Practice this regularly.

If you did not understand something that was said, please ask for it to be repeated.

Ensure that you can see the face of your conversation partner(s) clearly and that there is sufficient light. This will help you to lipread. Position yourself with your back towards the window, so that you can see the other person(s) better. Ask others to talk slowly and clearly. Gently remind others that talking louder does not help.

6. Visit public venues and events

At public gatherings, try to sit near the speaker or be seated in the front rows in a show. Avoid a seat behind a pillar or in an alcove, you will be in a 'sound shadow.'

In a restaurant, sit with your back towards the wall. This avoids disturbing noises coming from behind you.

7. Use your telephone

Often, you can hear the telephone clearly with your hearing instrument in a microphone programme. Hold the telephone handset 1 inch (2-3cm) from your ear and tilt the receiver outwards a little.

Your hearing instrument meets strict international regulations. Therefore, it should be possible to use a mobile phone in most cases.

However, in some circumstances, interference might be audible through your hearing instrument.

8. Use your instrument all day

Using your hearing instrument and practicing with it is the best way to achieve the greatest benefit from amplification. Try to wear your instrument all day.

Of course, a hearing instrument cannot restore natural hearing, but it will help you hear sounds better.

Go beyond these eight steps and discover the world of sound around you. Do the things you enjoy and listen to the sounds in your environment.

TROUBLESHOOTING GUIDE

SYMPTOM	CAUSE	POSSIBLE REMEDY
Device is dead	Not turned on	Turn on
	Dead battery	Replace battery
	Battery improperly inserted	Insert battery properly
	Broken receiver or receiver tube	Consult your hearing care professional
	Blocked wax guard filter	Consult your hearing professional or if you have been instructed about how to change the receiver dome and/or wax guard filter
Not loud enough	Receiver dome not inserted properly	Reinsert carefully
	Blocked wax guard filter	Consult your hearing professional or if you have been instructed about how to change the receiver dome and/or wax guard filter
	Change in hearing	Consult your hearing care professional
	Excessive ear wax	Consult your physician
	Hearing instrument settings not optimal	Consult your hearing care professional

TROUBLESHOOTING GUIDE

SYMPTOM	CAUSE	POSSIBLE REMEDY
Whistles	Receiver tube and receiver dome are not inserted properly in the ear	Reinsert carefully
	Hearing instrument settings not optimal	Consult your hearing care professional
Not clear, distorted	Weak battery	Replace battery
	Poorly fitting receiver tube	Consult your hearing care professional
	Hearing instrument damaged	Consult your hearing care professional
	Hearing instrument settings not optimal	Consult your hearing care professional

Technical Data

Hearing instrument maximum output

Model	Hearing instrument max output (IEC 118-0 OES)	Hearing Instrument max output (IEC 60118-7 and ANSI S3.22-2009)
LNDx64-DRW UP	137 dB SPL	129 dB SPL
LNDx64-DRW HP	131 dB SPL	122 dB SPL
LNDx64-DRW MP	125 dB SPL	116 dB SPL
LNDx64-DRW LP	123 dB SPL	113 dB SPL
LNDx63-DRW UP	137 dB SPL	129 dB SPL
LNDx63-DRW HP	131 dB SPL	122 dB SPL
LNDx63-DRW MP	125 dB SPL	116 dB SPL
LNDx63-DRW LP	123 dB SPL	113 dB SPL
AYx64-DRW UP	137 dB SPL	129 dB SPL
AYx64- DRW HP	131 dB SPL	122 dB SPL
AYx64-DRW MP	126 dB SPL	116 dB SPL
AYx64-DRW LP	123 dB SPL	113 dB SPL

Temperature test, transport and storage information

Beltone Hearing Instruments are subjected to various tests in temperature and damp heating cycling between -25°C and +70°C according to internal and industry standards.

During transport or storage, the temperature should not exceed the limit values of -20°C (68°F) to 60°C (140°F) and relative humidity of 90% RH, non condensing (for limited time). The air pressure between 500 and 1100 hPa (mbar) is appropriate.

International warranty, service and repairs

Beltone provides a warranty on hearing instruments in the event of defects in workmanship or materials, as described in applicable warranty documentation

In its service policy, Beltone pledges to secure functionality at least equivalent to the original hearing instrument.

As a signatory to the United Nations Global Compact initiative, Beltone is committed to doing this in line with environmentally-friendly best practices. Hearing instruments therefore, at Beltone's discretion, may be replaced by new products or products manufactured from new or serviceable used parts, or repaired using new or refurbished replacement parts.

The warranty period of hearing instruments is designated on your warranty card, which is provided by your hearing care professional.

If your Beltone hearing instrument malfunctions, it must be repaired by a qualified technician. Do not attempt to open the case of the hearing instrument since this would invalidate the warranty. If your Beltone hearing instrument requires service, please contact your hearing care professional for assistance.

Your selected model

Your hearing care professional may place a check mark in the below table to identify the model you have received.

	Beltone Legend	Type	Battery size	Receiver tube type and length/size
<input type="checkbox"/>	LND1764-DRW UP	RIE	13	
<input type="checkbox"/>	LND1764-DRW HP	RIE	13	
<input type="checkbox"/>	LND1764-DRW MP	RIE	13	
<input type="checkbox"/>	LND1764-DRW LP	RIE	13	
<input type="checkbox"/>	LND964-DRW UP	RIE	13	
<input type="checkbox"/>	LND964-DRW HP	RIE	13	
<input type="checkbox"/>	LND964-DRW MP	RIE	13	
<input type="checkbox"/>	LND964-DRW LP	RIE	13	
<input type="checkbox"/>	LND664-DRW UP	RIE	13	
<input type="checkbox"/>	LND664-DRW HP	RIE	13	
<input type="checkbox"/>	LND664-DRW MP	RIE	13	
<input type="checkbox"/>	LND664-DRW LP	RIE	13	
<input type="checkbox"/>	LND1763-DRW UP	RIE	312	
<input type="checkbox"/>	LND1763-DRW HP	RIE	312	
<input type="checkbox"/>	LND1763-DRW MP	RIE	312	
<input type="checkbox"/>	LND1763-DRW LP	RIE	312	

	Beltone Legend/ Beltone Ally	Type	Battery size	Receiver tube type and length/size
<input type="checkbox"/>	LND963-DRW UP	RIE	312	
<input type="checkbox"/>	LND963-DRW HP	RIE	312	
<input type="checkbox"/>	LND963-DRW MP	RIE	312	
<input type="checkbox"/>	LND963-DRW LP	RIE	312	
<input type="checkbox"/>	LND663-DRW UP	RIE	312	
<input type="checkbox"/>	LND663-DRW HP	RIE	312	
<input type="checkbox"/>	LND663-DRW MP	RIE	312	
<input type="checkbox"/>	LND663-DRW LP	RIE	312	
<input type="checkbox"/>	AY464-DRW UP	RIE	312	
<input type="checkbox"/>	AY464-DRW HP	RIE	312	
<input type="checkbox"/>	AY464-DRW MP	RIE	312	
<input type="checkbox"/>	AY464-DWR LP	RIE	312	
<input type="checkbox"/>	AY364-DRW UP	RIE	312	
<input type="checkbox"/>	AY364-DRW HP	RIE	312	
<input type="checkbox"/>	AY364-DRW MP	RIE	312	
<input type="checkbox"/>	AY364-DRW LP	RIE	312	

Left serial number:	
Right serial number:	
Hearing care professional	
Battery size:	
Your hearing aid has Tinnitus Breaker Pro	<input type="checkbox"/>

Be aware of information marked with the warning symbol



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



Equipment includes RF transmitter.



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



Beltone Legend™ is compatible with iPhone 8 Plus, iPhone 8, iPhone 7 Plus, iPhone 7, iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6, iPhone SE, iPhone 5s, iPhone 5c, iPhone 5, iPad Pro (10.5-inch), iPad Pro (12.9-inch), iPad Pro (9.7-inch), iPad Air 2, iPad Air, iPad mini 4, iPad mini 3, iPad mini 2, iPad mini, iPad (5th generation), iPad (4th generation), iPod touch (6th generation) and iPod touch (5th generation) using iOS 8.0 or later. Apple, the Apple logo, iPhone, iPad Pro, iPad Air, iPad mini, iPad and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.



“Made for iPhone” means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPhone may affect wireless performance.



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



Any issues relating to the EU Medical Device Directive 93/42/EEC or EU Radio Equipment Directive 2014/53/EU should be directed to Beltone A/S

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

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