# INSTRUCTIONS FOR USE

# Alpha XT miniRITE T R











# 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.

### WARNING 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 a 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

### WARNING to Hearing Aid Dispenser, 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.

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.

# Caution: 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.

# Caution: You might need medical help if a piece gets stuck in your ear.

If any part of your hearing aid, like the eartip, 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 farther into your ear, injuring your eardrum or ear canal, possibly seriously.

# Note: What you might expect when you start using a 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.

# Note: 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.

# Note: Hearing loss in people younger than 18

- People younger than 18 should see a doctor first, preferably an ear-nosethroat 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.

# **Model overview**

This booklet is valid for the following hearing aid models:

FW 1.1  ☐ Bernafon Alpha XT 7 MNR T R  ☐ Bernafon Alpha XT 5 MNR T R	GTIN: (01) 05714464122639 GTIN: (01) 05714464122646
FW 1.0	
☐ Bernafon Alpha XT 7 MNR T R	GTIN: (01) 05714464097371
☐ Bernafon Alpha XT 5 MNR T R	GTIN: (01) 05714464097388

The following speakers are available for the above models:
<ul> <li>□ Speaker 60</li> <li>□ Speaker 85</li> <li>□ Speaker 100 (Power Instrument)</li> <li>□ Power mold, speaker 100 (Power Instrument)</li> <li>□ Power mold, speaker 105 (Power Instrument)</li> <li>□ MicroShell 60</li> <li>□ MicroShell 85</li> </ul>

# Introduction to this booklet

This booklet guides you on how to use and maintain your new hearing aids. Ensure you read this booklet carefully, including the **Warnings** section. This will help you get the most benefit from your hearing aids.



### Warnings

Text marked with a warning symbol must be read before using the device.

Your hearing care professional has adjusted the hearing aids to meet your needs. If you have additional questions, contact your hearing care professional.

A hearing care professional\* (hearing aid professional, audiologist, ENT (ear, nose and throat) doctor, and hearing aid dispenser) is a person who is appropriately trained and has proven competency in professionally assessing hearing, selecting, fitting, and delivering hearing instruments and rehabilitation care to persons with hearing loss. The hearing care professional has been trained in accordance with national or regional regulations.

\*The job title may vary from country to country.

# Intended use

Intended use	The hearing aid is intended to amplify and transmit sound to the ear.
Indications for use	Bilateral or unilateral impaired hearing of sensorineural, conductive or mixed type ranging from a slight (16 dB HL*) to profound (95 dB HL*) degree of hearing loss, with an individual frequency configuration.
Intended user	Person with hearing loss using a hearing aid and their caregivers. Hearing care professional responsible for adjusting the hearing aid.
Intended user group	Adults and children older than 36 months.
Use environment	Indoor and outdoor.
Contraindications	Not suitable for infants below 36 months. Users of active implants must pay special attention when using the hearing aid. For more information read the <b>Warnings</b> section.
Clinical benefits	The hearing aid is designed to provide better speech understanding to help ease communication with the aim of improving quality of life.

<sup>\*</sup>As specified by the American Speech-Language-Hearing Association, asha.org, using pure-tone average of 0.5, 1 and 2 kHz.

# IMPORTANT NOTICE The hearing aid amplification is uniquely adjusted and optimized to your personal hearing capabilities during the hearing aid fitting performed by your hearing care professional.

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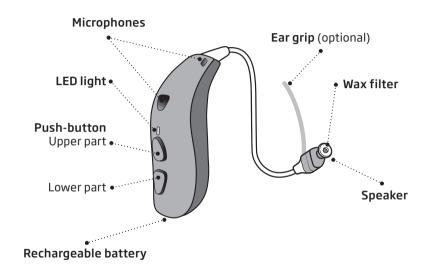
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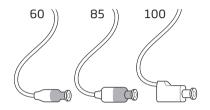
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# Your hearing aid, speaker and earpiece

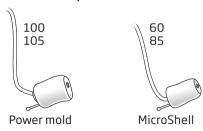


The hearing aids use one of the following speakers:

### Standard speakers



### **Customized speakers**



# The speakers use one of the following earpieces:

# Standard earpieces



□ OpenBass dome



☐ Bass dome, double vent



☐ Power dome



☐ Grip Tip

Available in small and large, left and right, with or without vent.

# **Customized earpieces**



□ LiteTip



☐ MicroMold



☐ VarioTherm® LiteTip



□ VarioTherm® MicroMold VarioTherm® is a registered trademark

of Dreve.

# Dome sizes

5 mm\* 6 mm



8 mm

10 mm

12 mm

### Note

For details on replacing the dome, see the Replace standard earpieces section.

<sup>\*</sup>Only as OpenBass dome for speaker 60

# **Charging time**

Ensure you fully charge your hearing aids before first use and charge them every night. In this way, you ensure that you start your day with fully charged hearing aids.

If your hearing aid's battery is completely drained, the normal charging time is:

3 hours	1 hour	0.5 hour
Fully charged	50% charged	25% charged

When the battery is fully charged, the charging process stops automatically.

Charging time may vary depending on the remaining capacity of the battery and between the left/right hearing aid.

For instructions on how to use your charger, see the charger's instructions for use.

# **Battery performance**

The battery performance varies depending on your individual use and hearing aid settings. Streaming sound from a TV, cell phone or connectivity devices can influence this performance.

# Rechargeable battery

If your rechargeable hearing aids do not perform for a full day, contact your hearing care professional.

If your hearing aids run out of battery, ensure you recharge them by placing them in the charger.

Be aware that restarting the hearing aids does not give you more usage time.

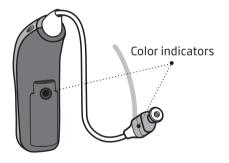
# Identify left and right hearing aids

It is important to distinguish between the left and the right hearing aid, as they may be programmed differently.

Color indicators mark the left and right hearing aids. A **RED** indicator marks the RIGHT hearing aid. A **BLUE** indicator marks the LEFT hearing aid.

You can find color indicators on the hearing aid itself and on 60 and 85 speakers as shown. They can also be found on 100 speakers and customized earpieces.

For 105 speakers, the color indicator is found on the earpiece.



# Turn hearing aids ON/OFF

# Using the charger

Your hearing aids automatically turn ON when removed from the charger.\*

The hearing aid LED light turns **GREEN** after a few seconds. Wait until the hearing aid LED light blinks **GREEN** twice, confirming that it is ready for use. Depending on your hearing aid settings, you may also hear a start-up jingle.

Your hearing aid automatically turns OFF and starts charging when placed in the charger. The hearing aid LED light turns **ORANGE**.

<sup>\*</sup> If the charger is disconnected from power or runs out of battery whilst charging your hearing aids, your hearing aids may turn OFF to save power. If your hearing aids do not automatically turn ON when removed from the charger, turn them on manually using the push-button.

### IMPORTANT NOTICE

If applicable, ensure that your charger is powered or that the charger's built-in battery is charged when the hearing aid is placed in the charging port. For more information, see your charger's instructions for use.

# Using the push-button

Your hearing aids can be turned ON/OFF using the push-button.



### To turn ON

Press and hold the lower part of the push-button for approximately two seconds until the hearing aid LED light turns **GREEN**.

Release the push-button and wait until the hearing aid LED light blinks **GREEN** twice.

The hearing aid is now turned ON.

### To turn OFF

Press and hold the lower part of the push-button for approximately three seconds until the hearing aid LED light turns **ORANGE**. The hearing aid plays four descending tones. Release the push-button and the hearing aid is turned OFF.

For information regarding tones, see the **Sound and LED light indicators** section.

# Low battery indication

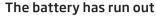
Your hearing aids indicate when the battery is running low either by playing three alternate tones or Spoken indicators (optional) in select languages. The indication is repeated periodically until the battery runs out. Your hearing care professional can set your hearing aids to match your preferences. To extend battery performance, ensure you stop any audio streaming.

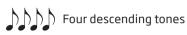
☐ MNR T R: Your hearing aid will indicate that the battery is running low. At this point, you may continue to stream audio for approximately one hour.

Just before the battery runs out completely, you will hear four descending tones.

# The battery is running low









**Hearing aid LED light**Continuous **ORANGE** blinks indicate low battery.

# Put on hearing aid

# Step 1



Place the hearing aid behind your ear.

You should always use the speaker with an earpiece attached.

Use only parts designed for your hearing aid.

### Step 2



Hold the bend of the speaker wire between your thumb and index finger.

The earpiece should point towards the opening of the ear canal.

# Step 3

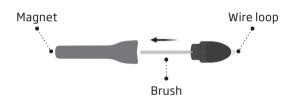


Gently push the earpiece into your ear canal until the speaker wire sits close to your head.

If the speaker has an ear grip, place it in the ear so it follows the contour of the ear.

# Cleaning

The MultiTool contains a brush and wire loop for cleaning and removing earwax. If you need a new MultiTool, contact your hearing care professional.



### IMPORTANT NOTICE

The MultiTool has a built-in magnet. Keep the MultiTool at least 30 centimeters (1 foot) away from credit cards and other magnetically-sensitive devices.

# Clean the hearing aid

When handling the hearing aid, hold it over a soft surface to avoid damage in case you drop it.

# Clean the microphone openings

Use the brush of the MultiTool to carefully brush debris away from the openings and the surface around the openings.

Ensure that you do not forcefully squeeze parts of the MultiTool into the microphone openings. This may damage the hearing aid.



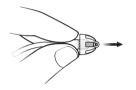
### IMPORTANT NOTICE

To clean the hearing aids, use a soft, dry cloth. The hearing aids must never be washed or immersed in water or other liquids.

# Replace standard earpiece

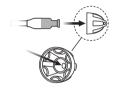
The standard earpiece (dome or Grip Tip) should not be cleaned. If the earpiece is filled with earwax, replace it with a new one. Grip Tips should be replaced at least once a month.

# Step 1



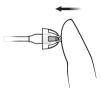
Hold on to the speaker and pull off the earpiece.

# Step 2



Insert the speaker exactly into the middle of the earpiece to get a secure fit.

# Step 3



Push firmly to ensure that the earpiece is securely fastened.

# **ProWax miniFit filter**

The speaker has a white wax filter attached to the end where the earpiece is attached. The wax filter keeps earwax and debris from damaging the speaker.

Ensure you replace the filter when clogged, or if the hearing aid does not sound normal. Alternatively, contact your hearing care professional. Ensure you remove the earpiece from the speaker before replacing the wax filter. To do this, see the **Replace standard earpieces** section.



### IMPORTANT NOTICE

Ensure you always use the same type of wax filter as originally supplied with the hearing aids. If you are in doubt about the use or replacement of wax filters, contact your hearing care professional.

# **Replace ProWax miniFit filter**

### 1. Tool



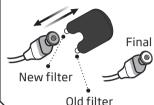
Remove the tool from the shell. The tool has two pins: one empty for removal and one with the new wax filter.

### 2. Remove



Insert the empty pin into the wax filter in the speaker and pull it out.

### 3. Insert



Insert the new wax filter using the other pin. Remove the tool and throw it out.

### Note

If you use a mold or LiteTip, your hearing care professional must replace the wax filter in the speaker.

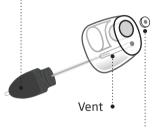
# Clean customized earpiece

The earpiece should be cleaned regularly.

The earpiece has a white wax filter\* that keeps earwax and debris from damaging the speaker. Ensure you replace the filter when clogged, or if the hearing aid does not sound normal.

Alternatively, contact your hearing care professional.

 Clean the vent by inserting the brush through the hole, twisting it slightly.



ProWax filter •

### Note

- If you use a mold or LiteTip, your hearing care professional must replace the wax filter in the speaker.
- \* VarioTherm MicroMold and LiteTip do not have a wax filter.

### **IMPORTANT NOTICE**

If the earpiece is not on the speaker when removed from the ear, the earpiece may still be in the ear canal. For further instructions, consult your hearing care professional.

# **Replace ProWax filter**

### 1. Tool



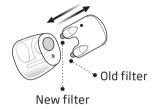
Remove the tool from the shell. The tool has two pins: one empty for removal and one with the new wax filter.

### 2. Remove



Insert the empty pin into the wax filter in the earpiece and pull it out.

### 3. Insert

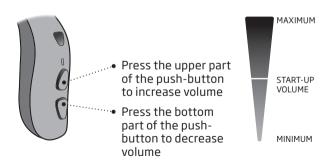


Insert the new wax filter using the other pin. Remove the tool, and throw it out.

### **Adjust volume**

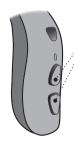
The push-button allows you to adjust the volume. When you increase or decrease the volume, you hear a beep.

For information regarding button press times, see the table **General** settings overview for your hearing aid, in the Your individual hearing aid settings section at the end of this booklet.



### Change program

Your hearing aid can have up to four different programs. These are programmed by your hearing care professional. You will hear one to four tones when you change program depending on the program.



• Press the push-button to switch between programs.

The program cycle switches one program forward when the upper part of the push-button is pressed, for example program 1 to 2 or program 4 to 1.

If the lower part of the push-button is pressed, the program cycle goes backward, for example 2 to 1 or program 1 to 4.

For information regarding tones, see the **Sound and LED light indicators** section.

For information regarding button press times see the table **General** settings overview for your hearing aid, in the Your individual hearing aid settings section at the end of this booklet.

# Store your hearing aids

When you are not using your hearing aids, the charger is the best place to keep them.

To ensure the longest life of the rechargeable battery in your hearing aids, do not expose them to excessive heat. For example, do not leave your hearing aids in the sun in front of a window or in a car, even if they are in the charger.

### Long-term storage

Before you put away or store your hearing aids for a prolonged period of time (more than 14 days), ensure you first fully charge them, and then turn them OFF. This way the battery can be charged again.

#### Note

To protect the rechargeable battery, it is necessary that you fully charge the hearing aid every six months. If a stored hearing aid is not charged within a six month period, the rechargeable battery must be replaced.

# Flight mode

When Flight mode is activated, Bluetooth connectivity is turned OFF. However, your hearing aids are still turned ON and functioning. Be aware that pressing the push-button on one hearing aid activates Flight mode on both hearing aids. For information about sounds and lights, see the **Sound and LED light indicators** section.



#### To activate and deactivate

Press and hold the lower part of the push-button for approximately seven seconds.

Four descending tones, a jingle and an LED light pattern confirm your action.

### Mute/unmute your hearing aids

You can mute your hearing aids by using one of the following optional app and devices:

- Bernafon App
- SoundClip-A
- RC-A

### How to unmute your hearing aids

You can unmute your hearing aids by using one of the optional app and devices or by briefly pressing the upper or lower part of the push-button on the hearing aids.

#### IMPORTANT NOTICE

Do not use the mute function as an OFF button, as the hearing aid is still using battery power in this mode.

# Use your hearing aids with iPhone, iPad and iPod

Your hearing aids are Made for iPhone® hearing aids and allow for direct streaming from select iPhone®, iPad® or iPod touch®.

Bernafon App can be used to control your hearing aids from your mobile device.\*

Additionally, your hearing aids offer hands-free communication with compatible iPhone and iPad devices.\*

For assistance in using your hearing aids with any of these products, contact your hearing care professional.

Use of the Made for Apple badge means that an accessory has been designed to connect specifically to the Apple product(s) identified in the badge, 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.

# Use your hearing aids with Android devices

Your hearing aids support Audio Streaming for Hearing Aids (ASHA) and allow for direct streaming from select Android™ devices.\*

Bernafon App can be used to control your hearing aids from your mobile device.\*

For assistance in using your hearing aid with Android devices, contact your hearing care professional.

<sup>\*</sup> For a list of compatible iPhone, iPad, iPod touch and Android devices, visit: www.bernafon.com/hearing-aid-users/hearing-aids/connectivity/compatibility.

# Pairing and compatibility

For instructions on how to pair your hearing aids with iPhone, iPad, iPod touch or Android devices, visit:

www.bernafon.com/hearing-aid-users/support/library/

For a list of compatible iPhone, iPad, iPod touch and Android devices, visit:

www.bernafon.com/hearing-aid-users/hearing-aids/connectivity/compatibility

### **Call handling**

You can answer, reject or end phone calls with the push-buttons on your hearing aids. For this functionality, your hearing aids must be paired with a compatible iPhone.\*



### To accept

Press briefly on either part of the pushbutton to accept a phone call. A short tone confirms your action.

### To reject

Press and hold on either part of the push-button to reject a phone call. Short, descending tones confirm your action.

#### To end

Press and hold on either part of the push-button to end a phone call. Short, descending tones confirm your action.

<sup>\*</sup> For a list of compatible iPhones, visit: www.bernafon.com/hearing-aid-users/hearing-aids/connectivity/compatibility.

# Wireless accessories and other options

There are a range of accessories available as enhancements to your wireless hearing aids. These enable you to hear and communicate better in everyday situations.

### SoundClip-A

A device that can be used as remote microphone and hands-free headset when paired to your cell phone.

### TV-A

A device that streams sound from a TV or electronic audio device to your hearing aids.

### RC-A

A device that lets you change program, adjust volume, or mute your hearing aids.

### **EduMic**

A device that can be used as a remote microphone in classrooms, work environments, public places (using Telecoil), and other settings.

### **Bernafon App**

An application that gives you wireless access to your hearing aids through a mobile device for control of functionality, and that allows your hearing aids to be updated remotely. For iPhone, iPad, iPod touch and Android devices. Ensure that you only download Bernafon App from the official app stores.

#### Telecoil

Telecoil can help you hear better when using a phone with a built-in loop or when in buildings with teleloop systems such as theaters, places of worship, or lecture rooms. This symbol is shown wherever a teleloop has been installed.

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# **Tinnitus SoundSupport**™ (optional)

### Intended use of Tinnitus SoundSupport

Tinnitus SoundSupport is a tool intended to generate sounds to provide temporary relief for patients suffering from tinnitus as part of a tinnitus management program.

The target population is the adult population over 18 years of age.

Tinnitus SoundSupport is targeted to licensed hearing care professionals (audiologists, hearing aid specialists, or otolaryngologists) who are familiar with the evaluation and treatment of tinnitus and hearing loss. Tinnitus SoundSupport must be fitted by a hearing care professional participating in a tinnitus management program.

# **Guidelines for Tinnitus SoundSupport users**

These instructions contain information about Tinnitus SoundSupport, which may have been enabled in your hearing aids by your hearing care professional.

Tinnitus SoundSupport is a tinnitus management device intended to generate sound of sufficient intensity and bandwidth to help manage tinnitus.

Your hearing care professional will also be able to offer the appropriate follow-up care. It is important to follow his/her advice and directions regarding such care.

### Prescription use only

Good health practice requires that a person reporting tinnitus have a medical evaluation by a licensed ear physician before using a sound generator. The purpose of such an evaluation is to ensure that any medically treatable condition that may cause tinnitus is identified and treated prior to using a sound generator.

# Sound options and volume adjustments

Tinnitus SoundSupport is programmed by your hearing care professional to match your hearing loss and preferences for tinnitus relief. It offers a number of different sound options. Together with your hearing care professional, you can select your preferred sound(s).

### Tinnitus SoundSupport programs

Together with your hearing care professional, you decide which programs you may want to have Tinnitus SoundSupport activated for. The sound generator can be activated in up to four different programs.

#### Mute

If you are in a program for which Tinnitus SoundSupport is activated, the mute functionality only mutes the environmental sounds, and not the sound from Tinnitus SoundSupport. For information on how to mute your hearing aids, see the **Mute your hearing aids** section.

### Volume adjustments with Tinnitus SoundSupport

When you select a hearing aid program for which Tinnitus SoundSupport is activated, your hearing care professional can only set the push-button on your hearing aid to work as a volume control for the tinnitus relief sound.

Your hearing care professional sets the volume control for the sound generator in one of two ways:

- A) Adjust volume in each ear separately, or
- B) Adjust volume in both ears simultaneously.

For more information about volume adjustments with Tinnitus SoundSupport, see the table **Tinnitus SoundSupport settings overview for your hearing aid** in the **Your individual hearing aid settings** section at the end of this booklet.

### Limitation on use time

### Daily use

The volume levels of Tinnitus SoundSupport can be set to a level which could lead to permanent hearing damage when used for a prolonged period of time. Your hearing care professional will advise you of the maximum amount of time per day you should use Tinnitus SoundSupport. It should never be used at uncomfortable levels.

See the table **Tinnitus SoundSupport: Limitation on use** in the **Your individual hearing aid settings** section at the end of this booklet to learn how many hours per day you can safely use the relief sound in your hearing aid.

# Important information for hearing care professionals about Tinnitus SoundSupport

### **Device description**

Tinnitus SoundSupport is a module function that can be enabled in the hearing aids by the hearing care professional.

### Maximum wearing time

The wearing time of Tinnitus SoundSupport will decrease as you increase the level above 80 dB(A) SPL. The fitting software automatically displays a warning when the hearing aid exceeds 80 dB(A) SPL. See **Max wearing time indicator** next to the tinnitus fitting graph in the fitting software.

#### If the volume control is deactivated

By default the volume control for the sound generator is deactivated in the hearing aid. Risk of noise exposure increases when the volume control is activated.

### If the volume control is activated

A warning may be displayed if you activate the tinnitus volume control in the **Buttons & Indicators** screen. This occurs if the relief sound can be listened to at levels that may cause hearing damage.

The **Max wearing time** table in the fitting software displays the number of hours the patient can safely use Tinnitus SoundSupport.

- 1. Note the max wearing time for each program for which Tinnitus SoundSupport is activated.
- 2. Write those values in the table **Tinnitus SoundSupport: Limitation on use**, in the back of this booklet.
- 3. Instruct your patient accordingly.



### Marnings related to tinnitus

If your hearing care professional has activated the sound generator Tinnitus SoundSupport, please pay attention to the following warnings.

There are some potential concerns associated with the use of any sound generated by a tinnitus management device. Among them are the potential worsening of tinnitus, and/or a possible change in hearing thresholds.

Should you experience or notice a change in hearing or tinnitus, or any dizziness, nausea, headaches, heart palpitations, or possible skin irritation at the point of contact with the device, you should immediately discontinue use of the device and consult a medical, audiology, or other hearing care professional.

As with any device, misuse of the sound generator feature may cause potentially harmful effects. Care should be taken to prevent unauthorized use and to keep the device out of reach of children and pets.

#### Maximum wearing time

Always follow the maximum wearing time per day of the Tinnitus SoundSupport advised by your hearing care professional. Prolonged use may lead to worsening of your tinnitus or to hearing loss.

# **⚠** General warnings

For your personal safety and to ensure correct usage, you should familiarize yourself fully with the following general warnings before using your hearing aids.

Consult your hearing care professional if you experience unexpected operations or serious incidents with your hearing aids during use or because of its use. Your hearing care professional will support you with issue handling and, if relevant, reporting to the manufacturer and/or the national authorities.

Note that hearing aids do not restore normal hearing and do not prevent or improve a hearing impairment resulting from natural conditions. Hearing aids are only a part of hearing habilitation and may need to be supplemented by auditory training and instruction in lipreading. Furthermore, note that in most cases, infrequent use of hearing aids does not permit a user to attain full benefit from it.

Only charge the hearing aids with a designated charger. Other chargers risk damaging the hearing aids and batteries.

This hearing aid is supported by a nonremovable rechargeable lithium-ion battery cell. Please ensure that you charge the hearing aid and familiarize yourself with the safety and handling information related to rechargeable hearing aids.

Do not try to get access to the battery inserted in the hearing instrument. The battery must only be replaced by your hearing care professional.

#### Usage of hearing aids

Hearing aids should be used only as directed and adjusted by your hearing care professional. Misuse can result in sudden and permanent hearing loss.

Never allow others to wear your hearing aid, as incorrect usage could cause permanent damage to their hearing.

# Choking hazards and risk of swallowing batteries or other small parts

Hearing aids, their parts and batteries should be kept out of reach of children and anyone who might swallow these items or otherwise cause injury to themselves.

If a battery, hearing aid or small part is swallowed, see a doctor immediately and contact the National Poison Center at 1-800-222-1222 or National Battery Ingestion Hotline at 1-800-498-8666.

#### **Explosives**

Your hearing aids are safe to use under normal usage conditions. The hearing aid has not been tested for compliance with international standards concerning explosive environments.

Therefore, do not use the hearing aid in environments with danger of explosions e.g. mines, oxygen rich environments or areas where flammable anesthetics are handled.

# Fatality hazards and risk of swallowing lithium-ion batteries or placing them in the ear or nose

Never swallow lithium-ion batteries nor place them in the ear or the nose as this may lead to serious injury or death in as little as two hours. This can be due to chemical burns, which can permanently damage the nose or ear or potentially lead to perforation of the inner organs. If a lithium-ion battery is swallowed or placed in the ear or nose, seek emergency medical treatment immediately. Keep the batteries in the original packaging until use. Dispose of used batteries immediately.

# **⚠** General warnings

#### Rechargeable battery

Do not attempt to open the hearing aid, as it may damage the battery.

Never attempt to replace the battery. If the battery needs to be replaced, please return your device to the supplier. The service guarantee is void if there are signs of tampering.

In case of battery leakage do not wear or carry your hearing aid, as it may cause skin irritation due to acids leaking from the battery. If your skin has been in contact with the leaked battery acids, use a wet cloth to wipe it off and ensure no acid is left on your skin. If you experience skin irritation, consult your doctor. For further handling instructions for your hearing aid, consult your hearing care professional.

The safety of recharging batteries using a USB connector is determined by the external signal source. When connected to external equipment plugged into a

power socket, this equipment must comply with IEC 62368-1 or equivalent safety standards.

#### Dysfunction

Be aware of the possibility that your hearing aids may stop working without notice. Keep this in mind when you depend on warning sounds (e.g. when you are in traffic). The hearing aids may stop functioning, for instance, if the batteries have expired or if the tubing is blocked by moisture or earwax.

### **Active implants**

The hearing aids have been thoroughly tested and characterized for human health according to international standards for human exposure (Specific Absorption Ratio - SAR), induced electromagnetic power and voltages into the human body.

The exposure values are well below internationally accepted safety limits for SAR, induced electromagnetic power and voltages into the human body defined in the standards for human health and coexistence with active medical implants such as pacemakers and heart defibrillators.

If you have an active brain implant, please contact the manufacturer of your implantable device for information about the risk of disturbance.

The Autophone magnet or MultiTool (which has a built-in magnet) should be kept more than 30 centimeters (1 foot) away from the implant, e.g. do not carry it in your breast pocket.

Follow the guidelines recommended by the manufacturers of implantable defibrillators and pacemakers regarding their use with magnets.

### **Cochlear implants**

If you are using a cochlear implant (CI) on one ear and a hearing aid on the other ear, make sure to always keep your CI at least a 1 centimeter (0.4 inches) distance from your hearing aid. The magnetic field from CI sound processors, coils and magnets may permanently damage the speaker unit in your hearing aid. Never place the devices close together on a table e.g. when cleaning or changing batteries. Do not carry the CI and the hearing aid together in the same hox.

#### Detached earpiece in ear canal

If the earpiece is not on the speaker when removed from the ear, the earpiece may still be in the ear canal. For further instructions, consult your hearing care professional.

# **⚠** General warnings

# X-ray/CT/MR/PET scanning, electrotherapy and surgery

Remove your hearing aid before X-ray examinations and CT/MR/PET scans, electrotherapy, surgery, etc. as your hearing aid may be damaged when exposed to strong electromagnetic fields.

#### Heat and chemicals

Your hearing aids must never be exposed to extreme heat, e.g. left inside a parked car in the sun.

The hearing aids must not be dried in microwave ovens or other ovens.

The chemicals in cosmetics, hairspray, perfume, aftershave lotion, sunscreen lotion, and insect repellent can damage the hearing aids. Always remove your hearing aids before applying such products and allow time to dry before use.

#### Connection to external equipment

The safety of the hearing aids when connected to external equipment with USB cable and/or directly is determined by the external signal source. When the hearing aids are connected to external equipment which is plugged into a power socket, this equipment must comply with IEC 62368-1 or equivalent safety standards.

#### Power hearing aid

Special care should be exercised in selecting, fitting, and using hearing aids where the maximum sound pressure capability exceeds 132 dB SPL as there may be a risk of impairing the remaining hearing of the hearing aid user.

For information on whether your instrument is a power hearing aid, see the model overview section in this booklet.

#### Possible side effects

Hearing aids, molds or domes may cause an accelerated accumulation of earwax.

The non-allergenic materials used in hearing aids may, in rare cases cause a skin irritation or other side effects.

If these conditions occur, seek consultation with a physician.

#### Use on aircraft

Your hearing aids have Bluetooth wireless technology. On board an aircraft, the hearing aids must be put into Flight mode to deactivate Bluetooth, unless Bluetooth is permitted by the flight personnel.

### Use of third-party accessories

Only use accessories, transducers or cables supplied by the manufacturer. Nonoriginal accessories may result in reduced electromagnetic compatibility (EMC) of your hearing aids.

# Modification of hearing aids is not allowed

Changes or modifications not expressly approved by the manufacturer will void the warranty of the equipment.

### $(((\bullet)))$ Interference

The hearing aids have been thoroughly tested for interference according to the most stringent international standards, including EN/IEC 60601-1-2 and its amendments.

Electromagnetic interference may occur in the vicinity of equipment with the symbol to the left. Portable and mobile RF (radio frequency) communications equipment can affect the performance of your hearing aids. If your hearing aids are affected by electromagnetic interference, move away from the source to reduce the interference.

# **Troubleshooting**

Symptom	Possible causes
	Hearing aid is out of power
	Dead battery
No sound	Clogged earpieces (dome, Grip Tip, or mold)
	Hearing aid microphone muted
Intermittent or reduced	Clogged sound outlet
sound	Moisture
Caucalina naisa	Hearing aid earpiece incorrectly inserted
Squealing noise	Earwax accumulated in ear canal
Beeping	If your hearing aid plays eight beeps, four times consecutively, your hearing aid needs a microphone service check
Pairing issue with	Bluetooth connection failed
smartphone	Only one hearing aid is paired

Solutions
Charge the hearing aid
Contact your hearing care professional
Clean mold Replace wax filter, dome, or Grip Tip
Unmute the hearing aid microphone
Clean mold or replace wax filter, dome, or Grip Tip
Gently wipe the hearing aid and let it dry
Re-insert the earpiece
Have ear canal examined by your doctor
Contact your hearing care professional
1) Unpair your hearing aid 2) On your phone, turn Bluetooth OFF and ON again 3) Turn the hearing aid OFF and then turn it back ON 4) Pair your hearing aid again (for guidance, visit: www.bernafon.com/hearing-aid-users/support/library/)

#### Note

If none of the above solutions work, consult your hearing care professional.

### **Troubleshooting**

To troubleshoot the charger, see your charger's instructions for use.

Symptom		Possible causes
		The charger is not turned ON
T b h	The hearing aid LED light remains turned OFF when	The hearing aid or charger's temperature is either too warm or too cold
	the hearing aid is placed in the charger	Charging is incomplete. The charger has stopped charging to protect the battery.
		The hearing aid is incorrectly seated in the charger
	The hearing aid LED light blinks GREEN when the hearing aid is placed in the charger	Hearing aid has not been in use for a prolonged period of time
	The hearing aid LED light blinks ORANGE when the hearing aid is placed in the charger	System error

Solutions
Verify that the charger's power plug is correctly connected or the power bank has enough battery
Move the charger and hearing aid to a location with a temperature between +5°C and +40°C (+41°F and +104°F)
Reinsert the hearing aid into the charger. This completes the charging within approximately 15 minutes.
Check the charging ports for foreign objects
Depending on how depleted the battery in the hearing aid is, the hearing aid automatically resumes normal charging mode after a timeframe of up to 10 minutes. Ensure you leave the hearing aids in the charger during this process.
Contact your hearing care professional

#### Note

If none of the above solutions work, consult your hearing care professional.

# Water and dust resistant (IP68)

Your hearing aid is dust tight and protected against ingress of water, which means it is designed to be worn in all daily life situations. Therefore, you do not have to worry about humidity or getting wet in the rain. Should your hearing aid come into contact with water and stop working, please follow these quidelines.

#### MNR T R

Before charging the hearing aid, make sure to wipe off any moisture.

#### IMPORTANT NOTICE

Do not wear your hearing aid while showering or participating in water activities. Do not immerse your hearing aid in water or other liquids.

# **Operating conditions**

Operating conditions	Temperature: +5°C to +40°C (41°F to 104°F) Humidity: 5% to 93% relative humidity, non-condensing Atmospheric pressure: 700 hPa to 1060 hPa
Charging conditions	Temperature: +5°C to +40°C (41°F to 104°F) Humidity: 5% to 93% relative humidity, non-condensing Atmospheric pressure: 700 hPa to 1060 hPa
Transportation and storage conditions	Temperature and humidity shall not exceed the below limits for extended periods during transportation and storage:  Transportation: Temperature: -20°C to +60°C (-4°F to 140°F) Humidity: 5% to 93% relative humidity, non-condensing Atmospheric pressure: 700 hPa to 1060 hPa Storage: Temperature: -20°C to +30°C (-4°F to 86°F) Humidity: 5% to 93% relative humidity, non-condensing Atmospheric pressure: 700 hPa to 1060 hPa

#### Note

For more information about the charger's operating conditions, see your charger's instructions for use.

# **Operating conditions**

(MNR T only)

Operating conditions	Temperature: +1°C to +40°C (34°F to 104°F) Humidity: 5% to 93% relative humidity, non-condensing Atmospheric pressure: 700 hPa to 1060 hPa	
Transportation and storage conditions	Temperature and humidity shall not exceed the below limits for extended periods during transportation and storage:	
	Transportation: Temperature: -25°C to +60°C (-13°F to 140°F) Humidity: 5% to 93% relative humidity, non-condensing Atmospheric pressure: 700 hPa to 1060 hPa Storage: Temperature: -25°C to +60°C (-13°F to 140°F) Humidity: 5% to 93% relative humidity, non-condensing Atmospheric pressure: 700 hPa to 1060 hPa	

### **Technical information**

The hearing aid contains the following two radio technologies:

The hearing aid contains a radio transceiver using short range magnetic induction technology operating at 3.84 MHz. The magnetic field strength of the transmitter is very weak and always below 15 nW (typically below -40 dBµA/m (-12.20 dBµA/ft) at 10 meters (33 feet) distance).

The hearing aid also contains a radio transceiver using Bluetooth Low Energy technology and a proprietary short-range radio technology, both operating at ISM band 2.4 GHz.

The radio transmitter is weak and always below 9 mW equal to 9.6 dBm in total radiated power.

Only use your hearing aids in areas where wireless transmission is permitted.

The hearing aid complies with international standards concerning radio transmitters, electromagnetic compatibility, and human exposure.

Due to the limited space available on the hearing aid, relevant approval markings can be found in this booklet. Additional information can be found in the Product Information Sheet on www.bernafon.com

#### MNR T R

This device contains a radio module with the following certification ID numbers: FCC ID: 2ACAHAU5MRTRC

# Radiofrequency radiation exposure information

This device complies with FCC RF exposure limits set forth for an uncontrolled environment and has been tested for portable use.

The device must not be co-loacated or used in conjunction with any other antenna or transmitter.

Use of other accessories not verified by the manufacturer may not ensure compliance with FCC RF exposure quidelines.

Note: This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device 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 quarantee that interference will not occur in a particular installation. If this device 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 that to which the receiver is connected.
- Consult the manufacturer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# **Cell phone**

Some hearing aid users have reported a buzzing sound in their hearing aid when using cell phones, indicating that the cell phone and hearing aid may not be compatible.

The ANSI C63.19 standard determines the prediction of compatibility between a specific hearing aid and a cell phone, thus hearing aid compliance is tested according to this standard. However, demonstrating compliance according to this standard cannot guarantee that all users will be satisfied.

Whereas all hearing aids have acoustic coupling, only the larger hearing aids have the physical space for telecoil (inductive) coupling.

The hearing aid is compliant with ANSI C63.19 in both microphone and telecoil mode.

### IMPORTANT NOTICE

The performance of an individual hearing aid may vary with individual cell phones. Therefore, ensure you try this hearing aid with your cell phone or, if you are purchasing a new phone, be sure to try it with your hearing aid prior to purchase. For additional guidance, please ask your cell phone provider for the booklet entitled "Hearing Aid Compatibility with Digital Wireless Cell Phones".

The manufacturer declares that this hearing aid is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

This medical device complies with Medical Device Regulation (EU) 2017/745.

Declaration of Conformity is available from the company headquarters.

Bernafon Kongebakken 9 DK-2765 Smorum Denmark www.bernafon.com/doc

Should your hearing aid require service or replacement, contact your hearing care professional for assistance. Many repair needs can be handled on-site at your local hearing care professional's office, and they will arrange for service with the manufacturer if required. You can also contact us at: 580 Howard Ave., Somerset, NI 08873.

**CE** 0123





SBO Hearing A/S Kongebakken 9 DK-2765 Smørum Denmark



Waste from electronic equipment must be handled according to local regulations.





## Description of symbols and abbreviations used in this booklet



### Warnings

Text marked with a warning symbol must be read before using the device.



#### Manufacturer

The device is produced by the manufacturer whose name and address are stated next to the symbol. Indicates the medical device manufacturer, as defined in EU Regulations 2017/745





**C** € 0123 The device complies with all required EU regulations and directives. The four digit number indicates the identification of the notified body.

#### Electronic waste (WEEE)



Recycle hearing aids, accessories or batteries according to local regulations. Hearing aid users can also return electronic waste to their hearing care professional for disposal. Electronic equipment covered by Directive 2012/19/EU on waste and electrical equipment (WEEE).



### Regulatory Compliance Mark (RCM)

The device complies with electrical safety, EMC and radio spectrum requirements for devices supplied to the Australian or New Zealand markets.

#### IP code



Indicates the class of protections against harmful ingress of water and particulate matter according to EN 60529. IP6X indicates total dust protection. IPX8 indicates the protection against the effects of continuous immersion in water.



#### Bluetooth logo

Registered trademark of Bluetooth SIG, Inc. where any use of such requires a license.

## Description of symbols and abbreviations used in this booklet

Made for Apple badges

android 🛎

 $(((\bullet))$ 

FW

FW

Indicates that the device is compatible with iPhone, iPad and iPod touch.

Android badge
Indicates that the device is compatible with Android.

Hearing loop

This logo incorporates the universal symbol for hearing assistance. The "T" signifies that a hearing loop is installed.

Radio Frequency (RF) transmitter
Your hearing aid contains an RF transmitter.

Global Trade Item Number

A globally unique 14-digit number used to identify medical device products including medical device software. GTIN in this booklet is related to medical device firmware (FW). GTIN on regulatory packaging label is related to medical device hardware.

Firmware version used in the device.

## Description of additional symbols used on labels



## Keep dry

Indicates a medical device that needs to be protected from moisture.



### Catalog number

Indicates the manufacturer's catalog number so that the medical device can be identified.



#### Serial number

Indicates the manufacturer's serial number so that a specific medical device can be identified



#### **Medical Device**

The device is a medical device.



## **Battery recycling symbol**

Li-ion battery recycling symbol.



### **Temperature limit**

Indicates the temperature limits to which the medical device can be safely exposed.



### **Humidity limitation**

Indicates the range of humidity to which the medical device can be safely exposed.



### Radio Frequency Identification

Indicates the presence of a passive radio-frequency identification tag incorporated into the device for manufacturing and service purposes.



### Unique device identifier

Indicates a carrier that contains unique device identifier information

# International warranty

Your device is covered by an international warranty issued by the manufacturer. This international warranty covers manufacturing and material defects in the device itself, but not in accessories such as batteries, tubing, speakers, earpieces and filters, etc. Problems arising from improper/incorrect handling or care, excessive use, accidents, repairs made by an unauthorized party, exposure to corrosive conditions, physical changes in your ear, damage due to foreign objects entering the device, or incorrect adjustments are NOT covered by the international warranty and may void it. The above international warranty does not affect any legal rights that you might have under applicable national legislation governing the sale of

consumer goods in the country where you have bought your device. Your hearing care professional may also have issued a warranty that goes beyond the clauses of this international warranty. Please consult him/her for further information.

## If you need service

Take your device to your hearing care professional, who may be able to sort out minor problems and adjustments immediately. Your hearing care professional may charge a fee for their services.

# Warranty

# Certificate

Name of owner:	
Hearing care professional:	
Hearing care professional's address:	
Hearing care professional's phone: _	
Purchase date:	
Warranty period:	Month:
Model left:	Serial no.:
Model right:	Serial no.:

# Your individual hearing aid settings

To be filled out by your hearing care professional.

Tinnitus SoundSupport: Limitation on use					
	No limitation on use				
	Program	Start-up volume (Tinnitus)	Max volume (Tinnitus)		
	1	Max hours per day	Max hours per day		
	2	Max hours per day	Max hours per day		
	3	Max hours per day	Max hours per day		
	4	Max hours per day	Max hours per day		

Tinnitus	SoundSupport settii	ngs overview for	your hearing a	nid	
Left			R	ight	
☐ Yes ☐ No	Tinnitus S	SoundSupport	☐ Yes	□No	
☐ A) How to adjust Tinnitus SoundSupport volume in each ear separately To increase or decrease the volume (on one hearing aid only), briefly press on the upper or lower part of the push-button repeatedly until you reach your desired level.					
simultaneously You can use one haids. When adjust hearing aid follow To increase volur repeatedly.	ust Tinnitus Sounds nearing aid to increas t the volume in one h vs. ne, briefly press on t me, briefly press on	se/decrease the earing aid, the v he upper part of	sound in both olume on the o the push-butt	other	

To be filled out by your hearing care professional.

General settings overview for your hearing aid					
Le	eft		Rig	jht	
☐ Yes	□No		☐ Yes	□No	
☐ Short	press	Change program	☐ Short	press	
☐ Long	press		☐ Long	press	
☐ Yes	□No	Adjust volume	☐ Yes	□No	
☐ Yes	□No	Mute (MNRT only)	☐ Yes	□No	
	Volume control indicators				
☐ On	☐ Off	Beeps at min/max volume	☐ On	☐ Off	
□ On	☐ Off	Beeps when changing volume	☐ On	☐ Off	
□ On	☐ Off	Beeps at start-up volume	☐ On	☐ Off	
		Battery indicators			
☐ On	☐ Off	Low battery warning	☐ On	☐ Off	

To be filled out by your hearing care professional.

# Sound and LED light indicators

Different sounds and light patterns indicate the hearing aid status. The different indicators are listed on the following pages. For light indicators on your charger, see the charger's instructions for use.

Your hearing care professional can set sound and LED light indicators to match your preferences.

Program	Sound	☐ LED light*	When to use
1	1 tone	0	
2	2 tones	00	
3	3 tones	000	
4	4 tones	0000	

Short GREEN blink

<sup>\*</sup>LED light blinks continuously or is repeated three times with short pauses.

ON/OFF	Sound	LED light	LED light comments	
ON	☐ Jingle			
OFF	4 descending tones			
Volume	Sound	LED light	Share we are	
Start-up volume	☐ 2 beeps		Shown once	
Minimum/maximum volume	☐ 3 beeps			
Volume up/down	☐ 1 beep			
Mute			Continuous or repeated three times	
Long GREEN blink Short GREEN blink Long ORANGE blink Short ORANGE blink				

Accessories	Sound	☐ LED light	LED light comments
TV-A	2 different tones		
EduMic	2 different tones		
SoundClip-A	2 different tones	0	Continuous or repeated three times
Flight mode	☐ Sound ☐ LED light		
Flight mode activated	4 descending tones + short jingle		
Flight mode activated Flight mode deactivated			Only available when three-time repetition is selected

Warnings	Sound	LED light	LED light comments
Low battery	☐ 3 alternate tones		Continuously
Low battery	Spoken Indicators		blinking
Battery shut down	4 descending tones		
Microphone service check needed	8 beeps repeated 4 times		Repeated four times
The hearing aid LED light does not turn ON when the hearing aid is placed in the charger		Turned OFF	See the <b>Trouble-</b> <b>shooting</b> section

Warnings	Sound	LED light	LED light comments
The hearing aid LED light blinks ORANGE when the hearing aid is placed in the charger			Continuously blinking. See the <b>Troubleshooting</b> section.
The hearing aid LED light blinks GREEN when the hearing aid is placed in the charger		0	Continuously blinking. See the <b>Troubleshooting</b> section.
Long GREEN blink Short GREEN blink Long ORANGE blink Short ORANGE blink			

# **Summary of relevant studies**

Clinical evaluations conducted by or for the manufacturer provide evidence to support the intended use and clinical benefits outlined in the IFU and demonstrate regulatory conformity. Clinical data is collected, assessed, and analyzed to support the performance of the hearing aids by validating that they provide sufficient audibility and hearing loss compensation based on best-practice prescriptive fitting rationales. The clinical data also demonstrate improved speech understanding and success with hearing aids using validated questionnaires and surveys.

Non-clinical data supporting the overall performance of the hearing aids includes software verification, electroacoustic verification, electrical and mechanical safety evaluation, electromagnetic compatibility (EMC) evaluation, and documentation of radio properties and performance. Additional information can be found in section Technical Information.



Measured according to American National Standard ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006

Supply voltage: Lithium-ion

#### 0 dB SPL ref. 20 µPa

OSPL90	Peak	106 dB SPL
USPL9U	HF Average	103 dB SPL
Full-on Gain	Peak	36 dB
Full-off dalif	HF Average	30 dB
Reference Test Gain		26 dB
Frequency Range		100-7500 Hz
Telecoil output	HF Average SPLITS (left/right ear)	83/83 dB SPL
	500 Hz	<2 %
Total Harmonic Distortion	800 Hz	<2 %
Bistortion	1600 Hz	<2%
Equivalent Input Noise Level	(omni/dir)	17/29 dB SPL
Attack Time		5 ms
Release Time	21 ms	

0 dB SPL ref. 20  $\mu Pa$ 

Expected operating time*	Hours	24 hrs
Latency		8.2 ms
	Measured output at 1 mA/m	58 dB SPL
Maximum Induction Coil Sensitivity	Measured output at 10 mA/m	75 dB SPL
Schistivity	Measured output at 31.6 mA/m	85 dB SPL

<sup>\*</sup>Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.



Measured according to American National Standard ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006

Supply voltage: Lithium-ion

### 0 dB SPL ref. 20 uPa

OSPL90	Peak	117 dB SPL
	HF Average	114 dB SPL
Full-on Gain	Peak	55 dB
	HF Average	48 dB
Reference Test Gain		37 dB
Frequency Range		100-7500 Hz
Telecoil output	HF Average SPLITS (left/right ear)	94/94 dB SPL
Total Harmonic Distortion	500 Hz	<2%
	800 Hz	<2%
	1600 Hz	<2 %
Equivalent Input Noise Level	(omni/dir)	18/27 dB SPL
Attack Time		5 ms
Release Time		18 ms

0 dB SPL ref. 20  $\mu Pa$ 

Expected operating time*	Hours	24 hrs
Latency		8.2 ms
Maximum Induction Coil Sensitivity	Measured output at 1 mA/m	77 dB SPL
	Measured output at 10 mA/m	94 dB SPL
	Measured output at 31.6 mA/m	104 dB SPL

<sup>\*</sup>Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.



Measured according to American National Standard ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006

Supply voltage: Lithium-ion

### 0 dB SPL ref. 20 µPa

OSPL90	Peak	124 dB SPL
	HF Average	120 dB SPL
Full-on Gain	Peak	57 dB
	HF Average	53 dB
Reference Test Gain		42 dB
Frequency Range		100-7500 Hz
Telecoil output	HF Average SPLITS (left/right ear)	100/100 dB SPL
Total Harmonic Distortion	500 Hz	<2 %
	800 Hz	<2 %
	1600 Hz	<2 %
Equivalent Input Noise Level	(omni/dir)	17/29 dB SPL
Attack Time		3 ms
Release Time		8 ms

0 dB SPL ref. 20  $\mu Pa$ 

Expected operating time*	Hours	24 hrs
Latency		8.2 ms
Maximum Induction Coil Sensitivity	Measured output at 1 mA/m	86 dB SPL
	Measured output at 10 mA/m	103 dB SPL
	Measured output at 31.6 mA/m	113 dB SPL

<sup>\*</sup>Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.



Measured according to American National Standard ANSI S3.22-2014, IEC 60118-0:2015 and IEC 60318-5:2006

Supply voltage: Lithium-ion

### 0 dB SPL ref. 20 µPa

Peak	127 dB SPL
HF Average	123 dB SPL
Peak	64 dB
HF Average	58 dB
Reference Test Gain	
Frequency Range	
HF Average SPLITS (left/right ear)	104/104 dB SPL
500 Hz	<2 %
800 Hz	<2 %
1600 Hz	<2%
(omni/dir)	16/28 dB SPL
Attack Time	
Release Time	
	HF Average Peak HF Average  HF Average  HF Average SPLITS (left/right ear)  500 Hz  800 Hz  1600 Hz

0 dB SPL ref. 20  $\mu Pa$ 

Expected operating time*	Hours	24 hrs
Latency		8.2 ms
Maximum Induction Coil Sensitivity	Measured output at 1 mA/m	89 dB SPL
	Measured output at 10 mA/m	106 dB SPL
	Measured output at 31.6 mA/m	116 dB SPL

<sup>\*</sup>Expected operating time for rechargeable battery depends on use pattern, active feature set, hearing loss, sound environment, battery age and use of wireless accessories.



