Standard Products

OPERATIONS MANUAL

BTE (Behind-The-Ear)

Select Hearing Aid

☐ 

Size 312 Battery - Brown

☐ 

Size 13 Battery - Orange

☐ 

Size 13 Battery - Orange

☐ 

Size 312 Battery - Brown

☐ 

Size 13 Battery - Orange

Select Aid Controls

☐ Rocker Switch Controls p. 17

☐ Control Surface Controls p. 17

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Features, Controls and Identification

Your hearing aid controls include:

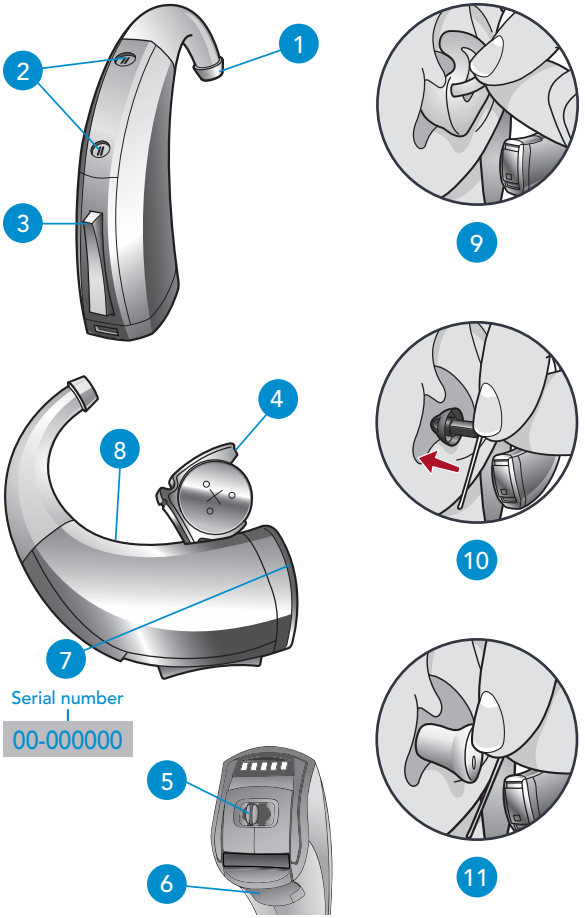
1. Earhook
2. Microphones
3. Rocker Switch
4. Battery compartment (on/off control)
5. Tamper resistant battery compartment lock (not available on all hearing aids)
6. Side indicator:
   RED is for **right ear**, **BLUE** is for **left ear**

Your hearing aid can be identified by:

7. Location of serial number
8. Location of manufacturer's name and model name

Comfort fit solutions:

9. Standard earmold with tubing
10. Thin tube with instant fit earbud
11. Thin tube with custom eartip



Features, Controls and Identification

Your hearing aid controls include:

1. Earhook
2. Microphones
3. Control Surface: Volume and/or Memory control
4. Battery compartment (on/off control)
5. Tamper resistant battery compartment lock (BTE, Power BTE and Power Plus BTE only)
6. Side indicator:
   RED is for **right ear**, **BLUE** is for **left ear**

Your hearing aid can be identified by:

7. Location of serial number
8. Location of manufacturer's name and model name

Comfort fit solutions:

9. Standard earmold with tubing
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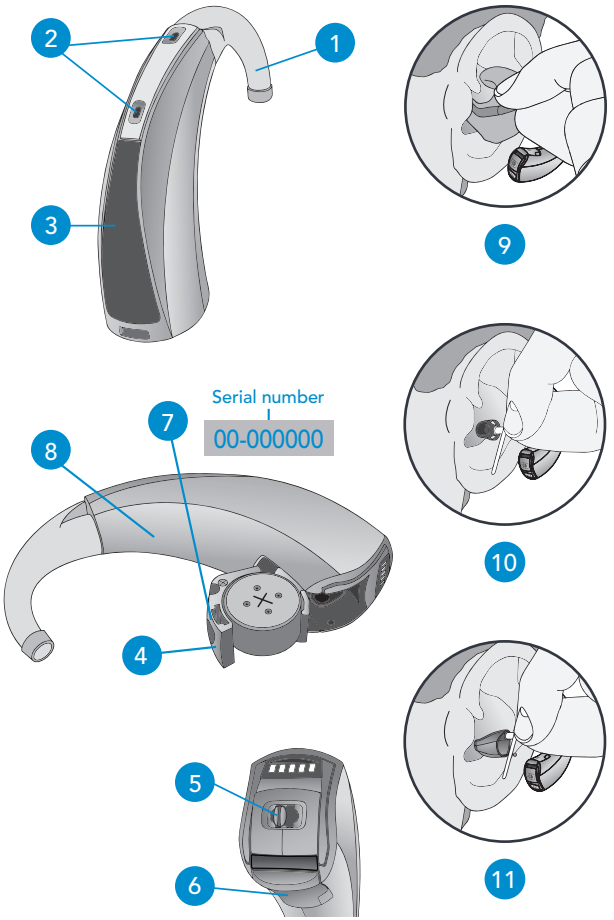


Batteries

Your hearing aid uses a battery as its power source. This battery size can be identified by the orange (13) or brown (312) color code on the packaging.

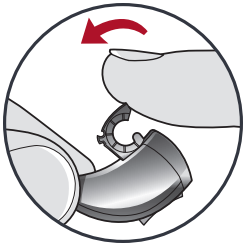
To insert or replace the battery:

1. Use the finger pick on the battery door.
2. Open the battery door gently and remove the old battery.
3. Remove the tab from the new battery.
4. Line up the battery's "+" sign (flat side of the battery) with the "+" on the battery door.
5. Close the battery door.

Battery Indicators

An indicator will sound when the battery voltage is low. You have approximately five minutes* to replace the battery. An indicator may also sound just before the battery stops working.

** Actual time between low battery indicator and shut down will vary depending on environmental noise levels and brand of battery used.*



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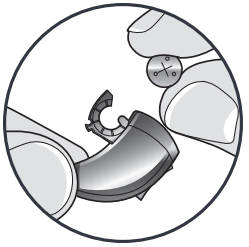

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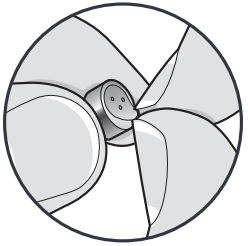

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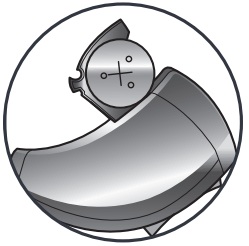

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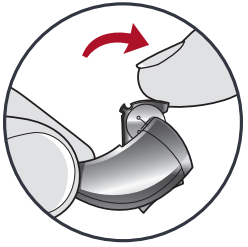

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☐ My hearing aid has a tamper resistant battery compartment. See below.

Tamper Resistant Battery Compartment

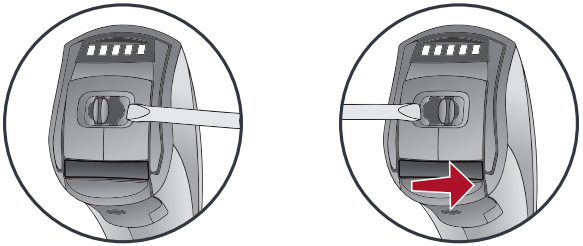
To lock the battery door:

Use an appropriate tool to slide the recessed switch to the left until it "clicks" and the colored mark is visible.

To unlock the battery door:

Slide the recessed switch to the right until it "clicks" and the colored mark disappears.

Locking the door is not required for operation.



Helpful Hints

- NEVER FORCE THE BATTERY DOOR SHUT. This could result in serious damage; if the door will not close securely, check that the battery is inserted correctly.
- Do not open the battery door too far or damage is likely to occur.
- Dispose of used batteries immediately in the proper waste or recycling container.
- Batteries vary in size and performance. Your hearing professional is your best source for lifespan estimates and verification that you are using the proper size and type.

WARNINGS

Batteries are dangerous if swallowed. To help prevent the accidental ingestion of batteries:

⚠ Keep out of reach of children and pets

⚠ Check your medications before taking them – batteries have been mistaken for pills

⚠ Never put batteries in your mouth, as they can easily be swallowed

NATIONAL BUTTON BATTERY INGESTION HOTLINE: 202-625-3333

Insertion and Removal

To insert the custom earmold and hearing aid:

1. Hold the custom earmold with your thumb and forefinger on the outer side near the tubing.
2. Tilt your hand slightly forward and gently insert the canal tip of the custom earmold into your ear canal.
3. Rotate the custom earmold backward.
4. Softly press the custom earmold into place with your fingertip.
5. Carefully place the BTE behind your ear wrapping the earhook over the top of your ear.

To remove the hearing aid and custom earmold:

Take the hearing aid from behind your ear and gently pull the custom earmold outward. Pulling lightly down on the earlobe may help loosen the custom earmold as it is removed.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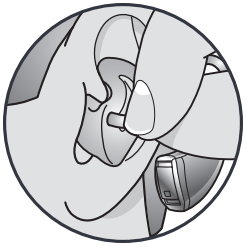
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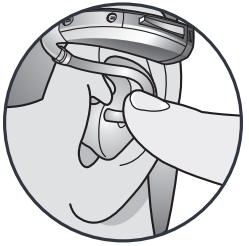
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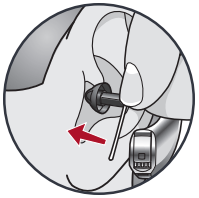
Instant Fit Earbud or Custom Eartip

To insert the instant fit earbud or custom eartip:

1. Insert the instant fit earbud/ custom eartip into your ear canal.
2. Gently wrap the BTE over your ear until it rests securely behind your ear.
3. Place the lock in the concha bowl of your ear.



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To remove the hearing aid and instant fit earbud or custom eartip:

1. Remove the lock from the concha bowl of your ear.
2. Remove the hearing aid from behind your ear.
3. Gently grasp the tubing at the opening of the ear canal and pull outward.

3

Helpful Hints

- Minor irritation and/or inflammation may occur as your ear becomes accustomed to having an object in it; if so, please contact your hearing professional.
- If an actual allergic reaction occurs, alternative earmold materials are available; contact your hearing professional.
- Severe swelling, discharge from the ear, excessive wax or other unusual conditions warrant immediate consultation with a physician.

On & Off

To turn ON: Insert a battery and completely close the battery door.

To turn OFF: Open the battery door until the battery is no longer touching the battery contacts.

Your hearing aid has a Power-On delay and may require a few seconds to power on. You may hear a tone series indicating that your hearing aid is fully powered on.

Your switch can be set to perform different functions. Ask your hearing professional how your hearing aid is set.

Volume Control

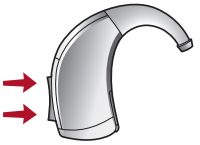
Your hearing aid uses the following volume controls:

- ☐ Automatic Volume Control.
- ☐ Rocker Switch Volume Control.
- ☐ Sweep Volume Control.
- ☐ Touch and Release Volume Control.

Automatic Volume Control

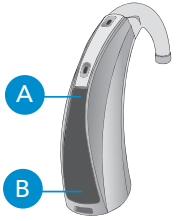
Your hearing aid has been set to a specific volume level by your hearing professional. If sounds are generally too loud or too soft, please contact your hearing professional for advice and adjustment.

Rocker Switch Volume Control



Your hearing aid uses the rocker switch to control volume. To increase volume, press then release the top part of the switch. To decrease volume, press then release the bottom part of the switch.

Sweep Volume Control



Your volume control is a Sweep volume control. To make sounds louder, sweep your finger from B to A. Each sweep increases the volume one step until you reach the desired volume or the maximum setting. To make sounds softer, sweep your finger from A to B. Each sweep decreases the volume one step until you reach the desired loudness or the minimum setting.

Touch and Release Volume Control

Your volume control is configured as a Touch and Release volume control. Each time you touch anywhere on the control surface the volume of your hearing aid changes.

The Touch and Release volume control is configured to automatically decrease in volume before it increases. To make sounds louder, touch and release the control surface. Repeat this motion until you are

at the minimum setting. The next time you touch the control surface, the volume will increase one step. Continue to touch and release until you reach the desired loudness.

NOTE: If 10 minutes or more have passed since the last volume change, the volume will automatically decrease before it increases.

Volume Settings

Some hearing aids can be set for the Right hearing aid to increase the volume and the Left hearing aid to decrease the volume. Ask your hearing professional if this setting would benefit you.

Your hearing aid will always power-on to the optimal volume setting determined by your hearing professional. The minimum and maximum steps will have an additional tone following the beeps.

Ask your hearing professional about your specific hearing programs.

Volume Level	Tone
Level 5 **(More volume)**	Five beeps plus tone
Level 4	Four beeps
Level 3 **(Power-on volume level)**	Three beeps
Level 2	Two beeps
Level 1 **(Less volume)**	One beep plus tone

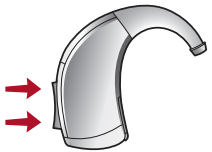
Memory

Your hearing professional can set up to four hearing programs for you. These additional programs are accessed by pressing the control surface/rocker switch.

Your hearing aid uses the following controls:

- ☐ Rocker Switch Memory Control.
- ☐ Touch and Release Memory Control.

Rocker Switch Memory Control



When you press the switch, you may hear an alert indicating the hearing aid has changed to the next program. To advance through programs, press the top part of the switch. To reverse cycle through programs, press the bottom part of the switch. Ask your hearing professional about your specific hearing programs.

Touch and Release Memory Control

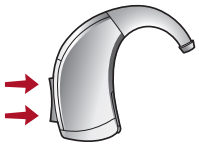
Your memory control is configured as a Touch and Release memory control. Each time you touch anywhere on the control surface the memory of your hearing aid changes.

Combined Volume and Memory Control

Your hearing aid uses the following controls:

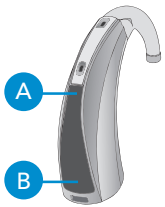
- ☐ Combined Rocker Switch Volume and Memory Control.
- ☐ Combined Sweep Memory and Volume Control.

Combined Rocker Switch Volume and Memory Control



Your hearing aid is set up to adjust volume and programs. To adjust volume, press then release the switch (up to increase and down to decrease). To change programs, press and hold the switch (either up or down to cycle). The hearing aid will cycle through the programs and present indicators. Release the switch when you are at the desired program. The upper part of the switch increases volume and advances through programs. The lower part of the switch decreases volume and reverse cycles through programs.

Combined Sweep Volume and Memory Control



Your control surface is set up to allow changes for both volume and memory/program. To make sounds louder, sweep your finger from B to A.

To make sounds softer sweep your finger from A to B. To change memory/program, touch anywhere on the control surface.

Telephone Use

Your hearing aids are equipped with tools to help you effectively communicate on the telephone. Ask your hearing professional about your telephone solution.

My hearing aids have the following telephone setting(s):

- ☐ Automatic Telephone.
- ☐ Automatic Telecoil.
- ☐ Telecoil and Manual Switching. (Program # _____).
- ☐ None

Automatic Telephone and Automatic Telecoil

These options activate the telephone response automatically when used with a hearing aid compatible telephone. To use, place the telephone receiver on your ear as you normally would and the hearing aid will select the telephone setting. It might be necessary to move the telephone receiver slightly to find the best reception.

Once the telephone is removed from the ear, the hearing aid will switch back to the normal listening mode.

NOTE: Consult with your hearing professional if your hearing aid does not seem to switch to the telephone setting automatically.

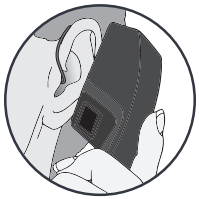
Manual Switching

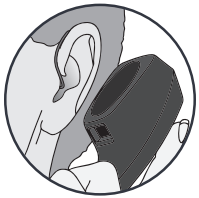
Manual switching allows you to switch the hearing aids to telephone mode when needed.

Ask your hearing professional which program you should access for manual telephone use.

General Telephone Use

Some hearing aids work best by holding the phone close to, but not fully covering your ear. In some instances, if you encounter whistling (feedback), tilt the receiver at an angle until the whistling stops. Additionally, the hearing aid in the non-phone ear (ear opposite the phone) may switch to a telephone setting to reduce background sounds. Your hearing professional can provide instructions and techniques for your specific needs.





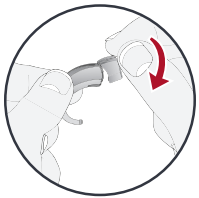
Direct Audio Input (DAI)

☐ My hearing aid is set up for DAI use.
☐ My hearing aid is not set up for DAI use.

Your hearing aid has full direct audio input (DAI) capability. This allows you to connect your hearing aid to an electronic sound source such as a wireless FM system, computer audio or an MP3 player. DAI can improve communication and sound quality when reverberation, distance and background noise compete with what you want to hear.

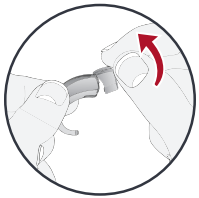
To attach the DAI shoe:

Snap the DAI shoe on the bottom of the BTE.



To access the battery with the DAI shoe attached:

Hold the BTE and DAI shoe and press the lower part of the DAI shoe, then open the battery door.



To remove the DAI shoe:

Turn the BTE on the side. Grasp the BTE in one hand and the DAI shoe in the other. Gently bend at the seam between the DAI shoe and the hearing aid.

There are many FM systems available to help improve communication in challenging environments. Ask your hearing professional about personal FM systems.

Wireless Accessories*

There are several wireless accessories that allow you to control and maximize the full potential of your hearing aid. These include a remote control as well as wireless connection to your cell phone and entertainment system. Consult with your hearing professional to determine if your hearing aids have wireless capabilities and which accessories may be best for you.

**Wireless accessories are only compatible with hearing aids that have 900 MHz wireless technology.*

Hearing Aid Care

Do your best to keep your hearing aid clean at all times. Heat, moisture and foreign substances can result in poor performance.

- Use a cleaning brush or soft cloth to clean debris from around the switches, microphone and battery compartment.
- Never use water, solvents, cleaning fluids or oil to clean your hearing aid.

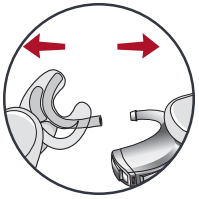
My hearing aid has:

☐ Standard tubing.

☐ Thin tubing.

Standard Tubing

1. Separate the custom earmold from the BTE by gently pulling the tubing away from the earhook.
   - Use a soft, damp cloth or a cleaning brush to clean debris from the custom earmold.
   - Wash the custom earmold with warm soapy water.
   - Never use solvents.
2. Slide the custom earmold tubing onto the BTE earhook when completely dry.



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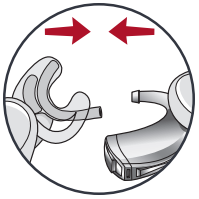

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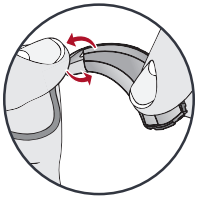
Your hearing professional can provide further information on additional maintenance procedures for your hearing aid if needed.

Thin Tubing

1. Unscrew the tubing from the tip of the hearing aid.
2. Thread the cleaner through the tubing, starting at the end just removed from the hearing aid, until it extends from the other end of the tubing.



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3. Brush the debris off prior to removing the cleaner.
4. Clean the earbud/eartip with a dry cloth or brush.
5. If necessary, the earbud/eartip may be washed in warm, soapy water. Remove the earbud/eartip from the tubing prior to washing. Allow to dry overnight.

Helpful Hints

- Make sure the custom earmold/earbud/eartip and tubing are completely dry before reconnecting to your hearing aid earhook.
- When not wearing your hearing aid, open the battery door to allow any moisture to evaporate.
- Do not take apart your hearing aids or insert the cleaning tools inside them.
- When not in use, remove the batteries completely; place your hearing aid in the storage container and store:
  - In a dry, safe place
  - Away from direct sunlight or heat to avoid extreme temperatures
  - Where you can easily find them
  - Safely out of reach of children and pets

Service and Repair

If, for any reason, your hearing aid does not operate properly, do NOT attempt to fix it yourself. Not only are you likely to violate any applicable warranties or insurance, you could easily cause further damage.

Should your hearing aid fail or perform poorly, check the guide on the next page for possible solutions. If problems continue, contact your hearing professional for advice and assistance. Many common problems may be solved right in your hearing professional's office or clinic.

Troubleshooting Guide

SYMPTOM	POSSIBLE CAUSES	SOLUTIONS
Not Loud Enough	Low battery	Replace battery
	Blocked earmold/tubing/ earbud	Clean or replace wax guard as needed
	Hearing change	Contact your hearing professional
	Debris buildup	Clean both microphone and receiver with brush
Inconsistent Performance	Low battery	Replace battery
	Blocked earmold/tubing/ earbud	Clean or replace wax guard as needed
Unclear, Distorted Performance	Low battery	Replace battery
	Blocked earmold/tubing/ earbud	Clean or replace wax guard as needed
	Defective hearing aid	Contact your hearing professional
Dead	Low battery	Replace battery
	Blocked earmold/tubing	Clean or replace wax guard as needed
	Crimped tubing	Contact your hearing professional

Your hearing professional will recommend an appropriate schedule to help you adapt to your new hearing aid. It will take practice, time and patience for your brain to adapt to the new sounds that your hearing aid provides. Hearing is only part of how we share thoughts, ideas and feelings. Reading lips, facial expressions and gestures can help the learning process and add to what amplification alone may miss.

Please review the following simple communication tips:

For You

- Move closer to and look at the speaker
- Sit face-to-face in a quiet room
- Try different locations to find the best place to listen
- Minimize distractions
- Background noises may be frustrating at first; remember, you have not heard them for a while
- Let others know what you need; keep in mind that people cannot "see" your hearing loss
- Develop realistic expectations of what your hearing aids can and cannot do
- Better hearing with hearing aids is a learned skill combining desire, practice and patience

For Your Family and Friends

Your family and friends are also affected by your hearing loss. Request that they:

- Get your full attention before beginning to speak
- Look at you or sit face-to-face in a quiet room
- Speak clearly and at a normal rate and level; shouting can actually make understanding more difficult
- Rephrase rather than repeat the same words; different words may be easier to understand
- Minimize distractions while speaking

Safety Information

INTENDED USE: An air conduction hearing aid is a wearable sound-amplifying device intended to compensate for impaired hearing. Hearing aids are available in multiple gain/output levels appropriate to treat hearing losses ranging from mild-to-profound. Your hearing aids are designed to comply with the most stringent Standards of International Electromagnetic Compatibility. However, it is still possible that you may experience interference caused by power line disturbances, airport metal detectors, electromagnetic fields from other medical devices, radio signals and electrostatic discharges.

If you use other medical devices or wear implantable medical devices such as defibrillators or pacemakers and are concerned that your hearing aids might cause interference with your medical device, please contact your physician or the manufacturer of your medical device for information about the risk of disturbance.

Your hearing aids should not be worn during an MRI procedure or in a hyperbaric chamber. Your hearing aids are classified as a Type B applied part under the IEC 60601-1 medical device standard. Your hearing aids are not formally certified to operate in explosive atmospheres such as may be found in coal mines or certain chemical factories.

Your hearing aids should be stored within the temperature and humidity ranges of -40°C (-40°F) to +60°C (140°F) and 10%-95% rH.

Your hearing aids are designed to operate beyond the range of temperatures comfortable to you, from very cold up to 50°C (122°F).

Use on Aircrafts*

The optional wireless capabilities that may be featured in your hearing aids can be used on an aircraft as hearing aids are exempt from the rules applied to other personal electronic aids on an aircraft.

International Use*

Your hearing aids are approved to operate at a radio frequency that is specific to your country or region and might not be approved for use outside your country or region. Be aware that operation during international travel may cause interference to other electronic instruments, or other electronic instruments may cause interference to your hearing aids.

**Applies to wireless hearing aids only.*

We are required by regulations to provide the following warnings:

WARNING: Use of wireless hearing aids directly next to other electronic equipment should be avoided because it could result in improper performance. If such use is necessary, note as to whether your hearing aids and the other equipment are operating normally.

WARNING: Use of accessories, components or replacement parts other than those provided by the manufacturer of your hearing aids could result in increased electromagnetic emissions and decreased electromagnetic immunity and could result in degradation of performance.

WARNING: If Portable Radio Frequency communications equipment is used closer than 30 cm (12 inches) from your hearing aid, degradation of the performance of your hearing aid could result. If this occurs, move away from the communications equipment.

Required Information

The following additional information is provided in compliance with U.S. Food and Drug Administration (FDA) regulations:

WARNING TO HEARING AID DISPENSERS:

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:

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 otorhynolaringologists. The purpose of the 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 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 program. Many

hearing aid dispensers now offer programs that permit you to wear a hearing aid for a period of time for a nominal fee after which you may decide if you want to purchase the hearing aid.

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

A hearing aid will not restore normal hearing and will not prevent or improve a hearing impairment resulting from organic conditions. Use of a hearing aid is only part of hearing habilitation and may need to be supplemented by auditory training and instruction in lip reading. In most cases infrequent use of a hearing aid does not permit a user to attain full benefit from it. Special care should be exercised in selecting and fitting a hearing aid whose maximum sound pressure level exceeds 132 decibels because there may be risk in impairing the remaining hearing of the hearing aid user.

Some hearing aid users have reported a buzzing sound in their hearing aid when they are using mobile phones, indicating that the mobile phone and hearing aid may not be compatible. According to the ANSI C63.19 standard (ANSI C63.19-2007 American National Standard Methods of Measurement of Compatibility Between Wireless Communications Devices and Hearing Aids), the compatibility of a particular hearing aid and mobile phone can be predicted by adding the rating for the hearing aid immunity to the rating for the mobile phone emissions. For example, the sum of a hearing aid rating of 2 (M2/T2) and a telephone rating of 3 (M3/T3) would result in a combined rating that equals at least 5 would provide “normal use”; a combined rating of 6 or greater would indicate “excellent performance”. See the Product Card included with your hearing aids for the exact M/T rating of your hearing aids.

CHILDREN WITH HEARING LOSS:

In addition to seeing a physician for a medical evaluation, a child with a hearing loss should be directed to an audiologist for evaluation and rehabilitation 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.

IMPORTANT NOTE: Power BTE hearing aids are not intended for patients under 36 months old.

WIRELESS TECHNICAL DESCRIPTION

Your hearing aids may contain a radio transceiver operating in the 902-928 MHz (North America) or 863-865 MHz (EU) frequency band with a maximum effective radiated power of -20 dBm with transmission modulation type of 342KFXD. The receiver section of the radio has a bandwidth of 300kHz.

This hearing aid model has been tested to, and has passed, the following emissions and immunity tests:

- IEC 60601-1-2 radiated emissions requirements for a Group 1 Class B device as stated in CISPR 11.
- RF radiated immunity at a field level of 3 V/m between 80 MHz and 2.7 GHz.
- Immunity to power frequency magnetic fields at a field level of 3 A/m.
- Immunity to ESD levels of +/- 8 kV conducted discharge and +/- 15 kV air discharge.

Regulatory Notices

FCC ID: EOA-ZSERIES-HI
IC: 6903A-ZSERIESHI

FCC ID: EOA-IRIS-HA
IC: 6903A-3SER312

FCC ID: EOA-3SERMINI
IC: 6903A-3SER312

FCC Notice

This device complies with part 15 of the FCC rules and with ISED Canada's license-exempt RSS standard(s). 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 of the device.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Hereby, Starkey Hearing Technologies declares that the BTE is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. A copy of the Declaration of Conformity can be obtained from the addresses on the next page or docs.starkeyhearingtechnologies.com

Starkey Hearing Technologies
6700 Washington Ave. South
Eden Prairie, MN 55344 USA

EC REP

Wm. F. Austin House, Bramhall Technology Park
Pepper Road, Hazel Grove, Stockport SK7 5BX
United Kingdom

Waste from electronic equipment must be handled according to local regulations

Consult Operations Manual

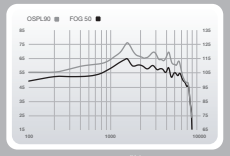
Starkey Labs Canada Co.
2476 Argentia Road, Suite 301
Mississauga, ON L5N 6M1

MINI BTE 312

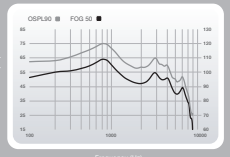
BEHIND-THE-EAR

i110 | i90 | i70 | i30 | i20

- **Matrices: 126/65**
- **Battery Size: 312**

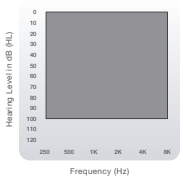


OSPL90 (gray) and Full-On Gain (black) curves for the mini BTE 312 with Earhook.



OSPL90 (gray) and Full-On Gain (black) curves for the mini BTE 312 with Thin Tube.

Fitting Range



mini BTE 312 fitting range


SurfLink Mini Mobile System


SurfLink Remote Microphone 2


SurfLink Media 2


SurfLink Mobile 2


SurfLink Remote


SurfLink Programmer

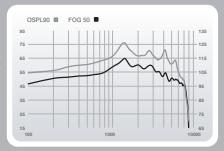
Measurement	Earhook ANSI/IEC 2cc Coupler	Earhook IEC OES Coupler	(Size 3, Occluded) Thin Tube ANSI/IEC 2cc Coupler	(Size 3, Occluded) Thin Tube IEC OES Coupler
Peak OSPL90 (dB SPL)	126	131	120	124
HFA OSPL90 (dB SPL)	118	N/A	108	N/A
RTF OSPL90 (dB SPL)	N/A	130	N/A	112
Peak Gain (dB)	65	70	64	68
HFA Full-On Gain (dB)	60	N/A	52	N/A
RTF Full-On Gain (dB)	N/A	69	N/A	57
Frequency Range (Hz)	<100-7400	<100-7400	<100-7200	<100-7400
Reference Test Freq. (kHz)	N/A	1.6	N/A	1.6
HFA Frequencies (kHz)	1.0,1.6,2.5	N/A	1.0,1.6,2.5	N/A
Reference Test Gain (dB)	41	53	31	37
Equivalent Input Noise (dB)	<24	<24	<24	<24
Harmonic Distortion				
500 Hz (%)	<5	<5	<2	<2
800 Hz (%)	<3	<3	<1	<1
1600 Hz (%)	<3	<3	<2	<2
Induction Coil Sensitivity				
HFA SPLITS (ANSI) (dB SPL)	97	N/A	87	N/A
MASL (IEC) (dB SPL)	N/A	92	N/A	86
ANSI/IEC Battery Current (mA)	1.5	1.5	1.5	1.5
Idle Current (mA)	1.3	1.3	1.3	1.3
Estimated Battery Life for 16-Hour Day				
312 Zinc Air (days)	6-8	6-8	6-8	6-8

BTE 13

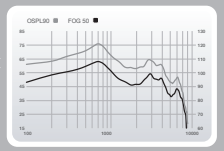
BEHIND-THE-EAR

i110 | i90 | i70 | i30 | i20

- **Matrices: 126/65**
- **Battery Size: 13**

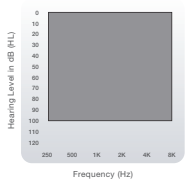


OSPL90 (gray) and Full-On Gain (black) curves for the BTE 13 with Earhook.



OSPL90 (gray) and Full-On Gain (black) curves for the BTE 13 with Thin Tube.

Fitting Range



BTE 13 fitting range

SurfLink Mini Mobile System · SurfLink Remote Microphone 2 · SurfLink Media 2 · SurfLink Mobile 2 · SurfLink Remote · SurfLink Programmer

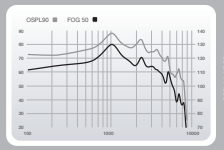
Measurement	Earhook		(Size 3, Occluded) Thin Tube	
	ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	126	131	121	124
HFA OSPL90 (dB SPL)	119	N/A	108	N/A
RTF OSPL90 (dB SPL)	N/A	130	N/A	112
Peak Gain (dB)	65	70	63	68
HFA Full-On Gain (dB)	59	N/A	52	N/A
RTF Full-On Gain (dB)	N/A	70	N/A	57
Frequency Range (Hz)	<100-7400	<100-7400	<100-7200	<100-7400
Reference Test Freq. (kHz)	N/A	1.6	N/A	1.6
HFA Frequencies (kHz)	1.0,1.6,2.5	N/A	1.0,1.6,2.5	N/A
Reference Test Gain (dB)	42	55	31	37
Equivalent Input Noise (dB)	<24	<24	<24	<24
Harmonic Distortion				
500 Hz (%)	<5	<4	<2	<2
800 Hz (%)	<3	<4	<1	<1
1600 Hz (%)	<3	<3	<2	<2
Induction Coil Sensitivity				
HFA SPLITS (ANSI) (dB SPL)	102	N/A	87	N/A
MASL (IEC) (dB SPL)	N/A	100	N/A	86
ANSI/IEC Battery Current (mA)	1.7	1.7	1.7	1.7
Idle Current (mA)	1.3	1.3	1.3	1.3
Estimated Battery Life for 16-Hour Day				
13 Zinc Air (days)	9-11	9-11	9-11	9-11

BTE 13 POWER PLUS

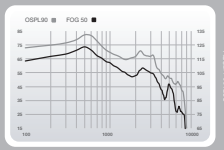
BEHIND-THE-EAR

i110 | i90 | i70 | i30 | i20

- **Matrices: 140/80**
- **Battery Size: 13**

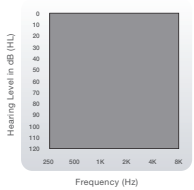


OSPL90 (gray) and Full-On Gain (black) curves for the Power Plus BTE 13 with Earhook.



OSPL90 (gray) and Full-On Gain (black) curves for the Power Plus BTE 13 with Thin Tube.

Fitting Range



Power Plus BTE 13 fitting range

SurfLink Mini Mobile System

SurfLink Remote Microphone 2

SurfLink Media 2

SurfLink Mobile 2

SurfLink Remote

SurfLink Programmer

Earhook

Measurement	ANSI/IEC 2cc Coupler	IEC OES Coupler	ANSI/IEC 2cc Coupler	IEC OES Coupler
Peak OSPL90 (dB SPL)	140	142	133	137
HFA OSPL90 (dB SPL)	131	N/A	118	N/A
RTF OSPL90 (dB SPL)	N/A	136	N/A	124
Peak Gain (dB)	80	84	73	77
HFA Full-On Gain (dB)	72	N/A	58	N/A
RTF Full-On Gain (dB)	N/A	76	N/A	63
Frequency Range (Hz)	<100-5400	<100-5700	<100-4300	<100-5700
Reference Test Freq. (kHz)	N/A	1.6	N/A	1.6
HFA Frequencies (kHz)	1.0,1.6,2.5	N/A	1.0,1.6,2.5	N/A
Reference Test Gain (dB)	54	61	41	49
Equivalent Input Noise (dB)	<26	<26	<26	<26
Harmonic Distortion				
500 Hz (%)	<5	<5	<5	<5
800 Hz (%)	<2	<2	<2	<2
1600 Hz (%)	<1	<1	<1	<1
Induction Coil Sensitivity				
HFA SPLITS (ANSI) (dB SPL)	104	N/A	90	N/A
MASL (IEC) (dB SPL)	N/A	101	N/A	87
ANSI/IEC Battery Current (mA)	2.1	1.8	2.1	1.8
Idle Current (mA)	1.5	1.5	1.5	1.5
Estimated Battery Life for 16-Hour Day				
13 Zinc Air (days)	8-12	8-12	8-12	8-12

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