



BTE

BEHIND-THE-EAR

OPERATIONS MANUAL



Radius™

[with BluWave™ SP]

Congratulations!

You've just taken the first step on your journey toward better hearing. Use this manual as a guide to the use and care of your new hearing instruments. If you have questions, your hearing professional is trained and willing to help.



Your new hearing instruments are customized to your hearing loss and lifestyle. Your hearing professional can make changes to the instruments to match your needs. He or she will make note of these changes in boxes like the one shown below.

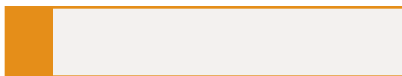


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You have Behind-The-Ear (BTE) hearing instruments. Your hearing instruments were chosen for you, to treat your hearing loss. Your hearing professional will select the features specific to your hearing instruments.

Your hearing instrument style is:

- BTE with custom earmold (page 12)
- BTE with open fit earbud (page 13)
- BTE with open custom earmold (page 13)

Your hearing instrument features include:

- Multimemory settings
- Automatic telephone response
- Automatic telecoil
- Telecoil
- Directional microphones

ABOUT YOUR HEARING INSTRUMENTS

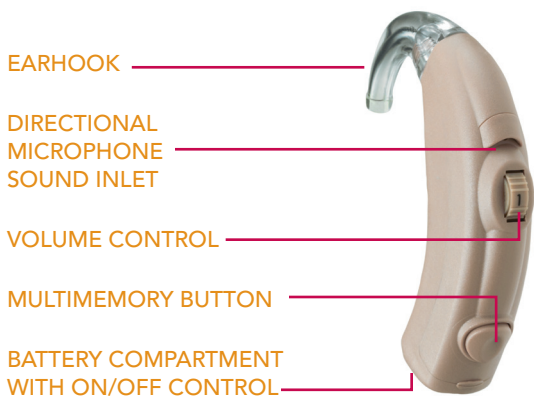
Your BTE has two controls that operate the instrument: a volume control and a multimemory button.

It is important that you are familiar with the control locations and functions on your instrument.



BTE WITH CUSTOM EARMOLD

FEATURES AND CONTROLS



Your BTE may be configured for an open fitting. This method of fitting uses one of two different ear configurations, a soft earbud or an open custom earmold.

- Your hearing instrument is configured for an open fitting.



**BTE OPEN FITTING
WITH EARBUD**



**BTE OPEN FITTING WITH
OPEN CUSTOM EARMOLD**

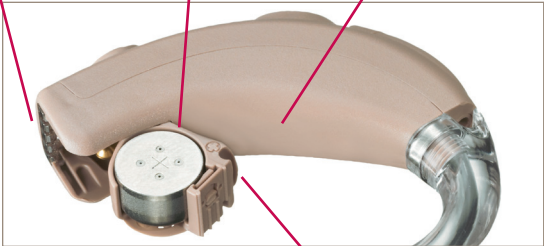
IDENTIFICATION

Serial Number and Identification

Each instrument can be identified by its serial number, located on the inside of the battery compartment.

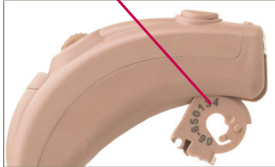
Left and right hearing instruments are identified by the color of an indicator on the battery compartment.

DIRECT AUDIO INPUT CONTACT	BATTERY COMPARTMENT	MANUFACTURER'S NAME MODEL NAME
-------------------------------------	------------------------	-----------------------------------




SERIAL NUMBER	LEFT/RIGHT INDICATOR
------------------	-------------------------

00-000000



RED is for
RIGHT ear,
BLUE is for
LEFT ear.



Battery Size

Your hearing instruments use a size 13 battery. Your batteries have an orange mark on the package.

It is very important to use the correct size and type battery for your hearing instrument.

Because of their size, it's a good idea to change and replace batteries at a table or desk to reduce the risk of dropping the instrument or battery.



To insert or replace the battery, open the battery compartment by placing your fingernail under the edge of the swing-out door and gently pull away from the instrument. **Do not** open the battery door too far or damage is likely to occur.



BATTERIES

Changing Batteries

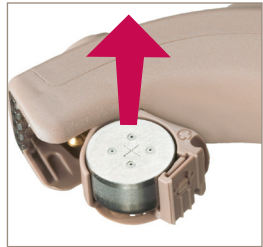
Remove the old battery by pushing it out the top of the fully opened door.

DO NOT pull it out the side of the door.

Place the new battery in the compartment with the plus (+) sign facing up.

Close the battery compartment by swinging the door until it snaps shut. **NEVER FORCE THE DOOR SHUT.** This could result in serious damage. If the door

will not close easily, check that the battery is placed properly in the compartment and is not upside down.



Low Battery Indicator

Your hearing professional will check the box below if the low battery indicator for your instruments is turned on.

The low battery indicator is turned on.

When the low battery indicator is turned on, your hearing instruments will beep four times going from a high-to-low pitch when the battery's voltage is low. Replace the battery when you hear these tones.

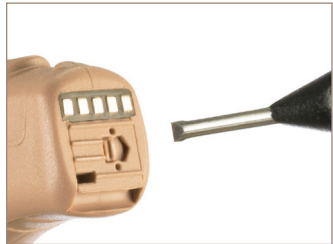
When the battery is too weak to power the hearing instrument, you will hear a tone for two seconds and the instrument will shut down. Replace the battery when this happens.

Locking the Battery Compartment

Your BTE has a tamper-resistant, locking battery compartment. The lock switch is located on the bottom of the battery door. Locking the battery compartment is not necessary for normal operation.



To lock the door, use an appropriate tool to slide the recessed switch to the left until it “clicks” and the colored mark is visible.



Battery Caution

Because batteries can vary in performance, your hearing professional is your best source for lifespan estimates and verification that you are using the proper size and type.



WARNING:

**HEARING INSTRUMENT BATTERIES ARE
DANGEROUS IF SWALLOWED.**

**National Button Battery
Ingestion Hotline (202) 625-3333**

To help prevent the accidental ingestion of batteries, keep them out of the reach of children and pets.

Always check your medication before ingesting – batteries have been mistaken for pills.

Never put batteries in your mouth for any reason, as they can easily be unintentionally swallowed.



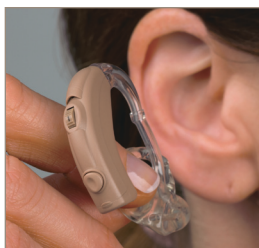
Dispose of used batteries immediately, using the proper waste or recycling receptacle.

EARMOLD INSERTION AND REMOVAL

- Your hearing instrument is connected to a custom earmold.

Before placing the BTE with an earmold into your ear, be sure the battery is inserted and the battery door is closed securely.

To insert the earmold, hold it with your thumb and forefinger on the outer side near the tubing. Gently insert the canal tip into your ear canal.



Then gently press the earmold into place with your finger.



Carefully place the instrument over the top of the ear until it rests securely in place.

To remove, take the instrument from behind your ear and gently pull the earmold outward. Pulling down on the earlobe may help loosen the earmold as it is removed.

OPEN EARMOLD INSERTION AND REMOVAL

- Your hearing instrument is connected to an open earbud or open custom earmold.

To insert the open earbud or open custom earmold, be sure the battery is inserted and the battery door is closed securely.

Hold the thick grab handle outside of the earbud or open custom earmold, where the retention lock meets the tubing.

Gently insert the tip into your canal.

Carefully place the instrument over the top of your ear until it rests securely in place.



With your fingertips, move the flexible retention lock into place by first curling and lifting the lock tip into the bowl of your ear.



Use your fingertip to push the lock into a secure position in the bowl of your ear.



To remove the earbud or open custom earmold, perform the insertion steps in reverse order.

Be sure you are holding the thick grab handle where it connects to the retention lock as you gently pull the earmold outward.



ON, OFF AND VOLUME CONTROL

Your hearing instrument is “on” any time a functioning battery is properly placed in the compartment and the battery door is closed.

Some hearing instruments are programmed to have a power on delay. The power on delay means that your instruments will take several seconds to power up once they have been turned on. This feature allows you to get the hearing instruments in your ear before they start to amplify sound.

- Your hearing instruments have a power on delay.

To turn the instrument “off,” partially open the battery compartment door until you feel it “click.”

In this position, the battery is not in contact with the inside of the compartment.



ON, OFF AND VOLUME CONTROL

If you open the door further, be careful that the battery does not accidentally fall out. To preserve battery life, it is recommended that you turn your instrument "off" any time it is not in use.

The volume control enables you to adjust the amount of amplification provided by the instrument.

Your normal volume control setting is _____.

You may wish to change volume levels as you encounter different listening situations. To change the volume, use your fingertip to rotate the vertical volume control. Your hearing instruments may be programmed to "beep" when you reach the correct setting.

ON, OFF AND VOLUME CONTROL

The numbers on the control provide an orientation for the proper volume setting. When the control is set at "4," the volume is at the maximum level. To make sounds louder, rotate the control upward.



To make sounds softer, rotate the control downward. The softest level is set at "1."

A non-removable protective cover may be placed over the volume control to prevent inadvertent adjustment.



Your hearing professional can provide further instruction regarding volume adjustment with the cover.

MULTIMEMORY SETTINGS

While your hearing instruments have many adjustments that are made automatically, the multimemory push button gives you control by letting you select a different setting for your current listening environment; for example, when you are using the telephone or sitting in a noisy restaurant.



When first turned on, your instruments are most likely programmed for normal listening environments. The additional settings are accessed by pressing the button on the hearing instrument.

Your hearing professional will check the box below if your hearing instruments have a multimemory push button.

- Your hearing instruments have a multimemory push button.

MULTIMEMORY SETTINGS

When changing between memory settings, there may be an audible beep or indicator to let you know where each memory is located. For example, the hearing instrument will beep twice for memory 2. Your hearing professional will work with you to set the memories to your preference. With your hearing professional, use the table below to write in the memory settings for your instruments.

MEMORY NO.	ENVIRONMENT/ LISTENING SITUATION	BEEP/ INDICATOR
1		
2		
3		
4		

MULTIMEMORY SETTINGS

Special Instructions:

DIRECTIONAL MICROPHONES

Your hearing instruments may be equipped with directional microphones to help improve understanding in noisy situations like restaurants, parties, and other crowded environments. Your hearing professional will check the appropriate box below:

- Your hearing aid has a directional microphone.
- Your directional microphones are activated automatically.
- Your directional microphones are activated by pushing the multimemory push button. The memory position is _____ .
- Your hearing aid does not have a directional microphone.

When the directional microphones are automatically activated, or activated by pushing the multimemory push button, sounds that are in front of you will become more audible, while sounds from the sides and behind you will be reduced.



DIRECTIONAL MICROPHONES



When your instruments are in the directional mode, it is especially important that you face people you are listening to and keep them in your direct line of sight.

Special Instructions:

Your hearing instruments are equipped with tools to help you effectively communicate on the telephone. Your hearing professional will check the box/boxes below that represent the telephone settings in your instruments.

Your hearing instruments have the following telephone setting(s):

- Automatic telephone response
- Automatic telecoil
- Telecoil. The telecoil is located in memory position _____.
- A beep or indicator tone is enabled on your instruments to signal you when the device switches to the telephone setting

Automatic Telephone Response and Automatic Telecoil

These options activate the telephone response automatically when used with a hearing aid compatible telephone. To use, place the telephone

USING THE TELEPHONE

receiver on your ear as you normally would and the hearing instrument will select the telephone setting. Then, move the receiver back slightly to activate the phone response. Once the telephone is removed from the ear, the hearing instrument will switch back to the previous listening mode.

Note: If you have a hearing aid compatible phone, but your automatic telephone response or automatic telecoil does not switch to the telephone setting automatically, your hearing professional can provide you with a small magnet to place on your telephone receiver. This magnet will help activate your automatic telephone option.

Telecoil and Manual Switching

Hearing instruments with a manual telecoil allow you to switch the devices to telephone mode when needed.

Manually switched telecoils are activated by pressing the multimemory button.



USING THE TELEPHONE

Special Instructions:

USING THE TELEPHONE

Your hearing professional can provide you with additional information regarding devices and techniques for connecting with a variety of cordless and mobile telephones.

Your BTE can connect directly to Bluetooth® compatible mobile phones and devices through the ELI™ Bluetooth module.



Connected to your instrument through the direct audio input (DAI) boot (see page 27), ELI provides hands-free communication with Bluetooth devices up to 30 feet away.

Its single button lets you answer and disconnect calls without touching your mobile phone.

Ask your hearing professional about ELI and other telephone solutions.

DIRECT AUDIO INPUT

Your BTE is compatible with direct audio input (DAI). This allows you to connect your instrument to another electronic sound source, such as a wireless FM system or audio and video equipment.

To use DAI, slide the DAI module onto the bottom of the BTE, until it “clicks” into place.

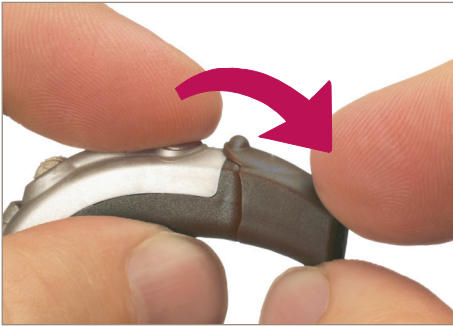
The DAI’s gain control should be turned fully counterclockwise.



DIRECT AUDIO INPUT

When the DAI module is attached, the instrument's telephone coil memory is available via the multimemory control.

To remove the module, hold the BTE and DAI module, push from the underside of the boot and gently snap the two apart.



Feedback is caused by amplified sounds escaping from the ear canal that make their way back to the instrument's microphone. Your new instruments use the most advanced digital technology available with a unique feedback suppression program. If feedback occurs after the instrument has been inserted correctly and the volume set to a comfortable level, contact your hearing professional.

HANDLING AND CARE

Your hearing instruments represent the ultimate in miniature technology, especially when you consider the environment in which they function. Heat, moisture and foreign substances can result in degraded performance.

Proper care and maintenance go a long way toward ensuring trouble-free performance. Do your best to keep the hearing instruments clean at all times. Handling the hearing instruments with clean hands is a good starting point.

Follow the instructions for cleaning your type of earmold.

Your hearing instrument style is:

- BTE with custom earmold
- BTE with open fit earbud
- BTE with open custom earmold

Custom Earmold Cleaning and Care

- Separate the hearing instrument from the earmold for cleaning
- Clean the earmolds daily using a soft, damp cloth



- You may use warm soapy water to clean the earmold; be certain that the instrument is detached and far away from any moisture before washing the earmold

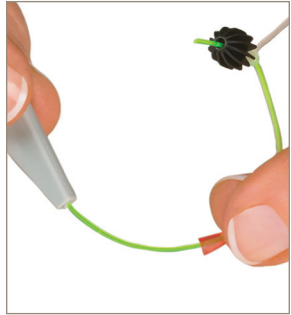
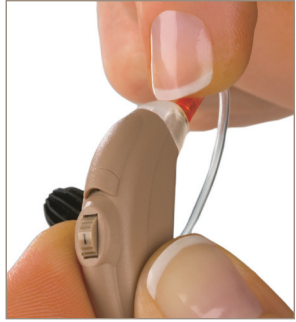
Open Earbud or Open Custom Earmold Cleaning and Care

An extensive cleaning for an open fit consists of removing the tubing and/or earbud.

Note: Replace the earbuds and tubing every 6-8 weeks or as advised by your hearing professional.

HANDLING AND CARE

- Remove the tubing from the BTE by using your fingernail to pull the colored nose cone **AWAY** from the instrument; **DO NOT PULL ON THE TUBING**
- Holding the tubing by the thicker area where the retention lock joins the tubing, gently pull the earbud or open custom earmold off the tube
- Use the wax reamer to remove wax and debris from the inside of the tubing; once the tubing is disconnected from the BTE, insert the wax line end into the nose cone. Push the line through the entire tubing length; remove



General Cleaning Information

- It is a good idea to perform all cleaning and battery changes above a soft cloth on a desk or table; this will keep the instrument from a damaging fall to a hard surface if dropped



- Never use water, solvents, cleaning fluids or oil to clean your instruments
- Be careful not to insert the cleaning tools into the inside of the hearing aid and never take your hearing instruments apart

General Care Information

- Store your hearing instruments in a dry, safe place away from direct sunlight or heat to avoid extreme temperature
- When not wearing your hearing instruments, turn them off and open the battery compartment door

- Do not wear your hearing instruments while using hair spray, spray paint, or any other sticky sprays that can clog the microphone



- Store your instruments where you can easily find them, but safely out of reach of pets and children; hearing instruments can attract curious pets resulting in possible damage or being chewed beyond repair



Keep Your Hearing Instruments Away From Moisture

- Your instruments may be so comfortable that you forget you are wearing them; develop the habit of checking your ears before going swimming or taking a shower; do the same with clothing pockets before they are washed



- Should your hearing instruments get wet, dispose of the battery and set the instrument on a towel in a safe place, leaving the battery compartment door open to promote air drying overnight



- Never try to dry out hearing instruments by putting them in a microwave or oven, or using a blow dryer
-

When to Call Your Hearing Professional

- Severe reactions, discharge from the ear, excessive wax, or other unusual conditions warrant immediate medical attention
- Pain or soreness in or around the ear is normally caused by pressure from the earmold on a particularly sensitive area, and may easily be corrected through trimming and polishing by your hearing professional
- If for any reason an instrument fails, do not attempt to fix it yourself; this will likely violate any applicable warranties. Should your instruments fail or perform unsatisfactorily, first check the troubleshooting guide on page 37; if problems persist, contact your hearing professional

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSES	SOLUTIONS
Not Working	Low battery	Replace battery
	Blocked earmold tubing or canal opening	Clean the devices (see page 30)
Not Loud Enough	Blocked earmold tubing or canal opening	Clean the devices (see page 30)
	When was your hearing last checked?	Contact your hearing professional
Intermittent	Moisture	Follow instructions on page 33
	Defective device	Contact your hearing professional
Automatic Telephone Response or Automatic Telecoil Not Switching	Telephone does not have a strong enough signal to activate the switching	See your hearing professional for magnet

Helpful Reminders for You

How quickly you adjust to your hearing instruments depends on how often you wear them. However, don't assume that you will hear and understand all speech with your hearing instruments. When you first start, you will notice an increase in the noise levels around you. This noise has probably always been there, but with your hearing loss, you might not have noticed this background noise. Remember that it may take awhile to get used to hearing sounds louder than before. As with anything new, it will take time and patience as you adapt to this new way of hearing.

Hearing is only part of how we exchange thoughts, ideas and feelings. Reading lips, facial expressions and gestures can enhance the learning process and supplement what amplification alone may miss. It is important to keep in mind that the best way to communicate is by:

COMMUNICATION STRATEGIES

- Looking at the person who is speaking and sitting face-to-face in a quiet room
- Minimizing distractions; for example, doing dishes at the sink and trying to have a conversation is difficult even for those with normal hearing
- Moving closer to the speaker and within sight
- Trying different locations in a room that has poor acoustics



- Letting others know what you need; remember that most people don't know you and cannot "see" your hearing problem
- Remembering you might have a memory setting for a specific situation

Helpful Reminders for Your Friends and Family

Many people initially treat hearing problems as an individual matter, something that can be dealt with by themselves. Remember that communication involves more than just one person. The continued understanding and support of family and friends are crucial as you pursue improved hearing. Your friends and family can help by:

- Being sure they have your full attention before beginning to speak
- Looking at you or sitting face-to-face in a quiet room



COMMUNICATION STRATEGIES

- Speaking clearly and at a normal rate; shouting or talking directly into the ear can actually make understanding more difficult
- Rephrasing rather than repeating the same words over, as you may find it easier to understand different words
- Minimizing distractions by not speaking with a full mouth, covering their mouth, or with distractions such as a television or radio



NOTES

FDA 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.

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 of impairing the remaining hearing of the hearing aid user.

RF IMMUNITY LEVEL. These hearing aids have a cell phone immunity rating of M3/T3. For your cell phone to be compatible with these hearing instruments, the cell phone needs an immunity rating of M2/T2 or higher. Please consult your cell phone specifications for your cell phone immunity rating.

IMPORTANT NOTICE FOR PROSPECTIVE HEARING AID USERS. Good health practice requires that a person with a hearing loss have a medical evaluation by a licensed physician (preferably a physician who specializes in diseases of the ear) before purchasing a hearing aid. Licensed physicians who specialize in diseases of

the ear are often referred to as otolaryngologists, otologists, or otorhinolaryngologists. The purpose of 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.

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.

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