Custom Products

**OPERATIONS MANUAL**

**ITE** (In-The-Ear),
**ITC** (In-The-Canal),
**CIC** (Completely-In-Canal),
**IIC** (Invisible-In-Canal)
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td></td>
</tr>
<tr>
<td>ITE Overview</td>
<td>4</td>
</tr>
<tr>
<td>ITC Overview</td>
<td>5</td>
</tr>
<tr>
<td>CIC Overview</td>
<td>6</td>
</tr>
<tr>
<td>IIC Overview</td>
<td>7</td>
</tr>
<tr>
<td>Preparation</td>
<td></td>
</tr>
<tr>
<td>Batteries/Battery Indicators</td>
<td>8</td>
</tr>
<tr>
<td>Insertion and Removal</td>
<td>11</td>
</tr>
<tr>
<td>Operation</td>
<td></td>
</tr>
<tr>
<td>On &amp; Off</td>
<td>13</td>
</tr>
<tr>
<td>Volume Control</td>
<td>13</td>
</tr>
<tr>
<td>Multimemory</td>
<td>15</td>
</tr>
<tr>
<td>Directional Settings</td>
<td>16</td>
</tr>
<tr>
<td>Telephone Use</td>
<td>16</td>
</tr>
<tr>
<td>Accessories</td>
<td></td>
</tr>
<tr>
<td>Wireless Accessories</td>
<td>18</td>
</tr>
<tr>
<td>Hearing Aid Care</td>
<td></td>
</tr>
<tr>
<td>Hearing Aid Care</td>
<td>19</td>
</tr>
<tr>
<td>Hear Clear</td>
<td>20</td>
</tr>
<tr>
<td>Service and Repair</td>
<td>25</td>
</tr>
<tr>
<td>Troubleshooting Guide</td>
<td>26</td>
</tr>
<tr>
<td>Tips for Better Communication</td>
<td>27</td>
</tr>
<tr>
<td>Regulatory Information</td>
<td></td>
</tr>
<tr>
<td>Safety Information</td>
<td>29</td>
</tr>
<tr>
<td>FDA Information</td>
<td>31</td>
</tr>
<tr>
<td>FCC Information</td>
<td>33</td>
</tr>
</tbody>
</table>
My hearing aid uses a:
- 13 battery (ITE) – Orange
- 312 battery (ITC) – Brown
- 10 battery (CIC) – Yellow
- 10 battery (IIC) – Yellow

My hearing aid is a/an:
- □ ITE (In-The-Ear) see page 4.
- □ ITC (In-The-Canal) see page 5.
- □ CIC (Completely-In-Canal) see page 6.
- □ IIC (Invisible-In-Canal) see page 7.
Features, Controls and Identification

Your hearing aid controls include:

1. Microphone opening(s)
2. Battery compartment (on/off control)
3. Vent (optional)
4. Sound outlet (receiver) and wax protection system

Your hearing aid can be identified by:

5. Location of serial number: RED Right  BLUE Left

ITE Battery Size: 13
Features, Controls and Identification

Your hearing aid controls include:
1. Microphone opening(s)
2. Battery compartment (on/off control)
3. Vent (optional)
4. Sound outlet (receiver) and wax protection system

Your hearing aid can be identified by:
5. Location of serial number:
   RED Right     BLUE Left

Dual Control (Optional)
Multifunction Button (Optional)
Volume Control (Optional)

ITC Battery Size: 312
Features, Controls and Identification

Your hearing aid controls include:

1. Multifunction button (optional)
2. Microphone opening
3. Sound outlet (receiver) and wax protection system
4. Battery compartment (on/off control)
5. Removal handle
6. Vent (optional)

Your hearing aid can be identified by:

7. Location of serial number:
   RED Right    BLUE Left
Features, Controls and Identification

Your hearing aid controls include:

1. Microphone opening
2. Sound outlet (receiver)
3. Battery compartment (on/off control)
4. Removal handle
5. Vent (optional)

Your hearing aid can be identified by the white R for the right ear and L for the left ear and the serial number:

6. Location of serial number
**Batteries**

Your hearing aid uses a battery as its power source. This battery size can be identified by the orange (13), brown (312) or yellow (10) 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. Wait 3-5 minutes after removing tab before inserting 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 will 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.
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 hearing aid:

1. Hold the hearing aid with your thumb and forefinger on the outer edges of the case.

2. Tilt your hand slightly forward and gently insert the canal tip of the hearing aid into your ear canal and rotate the hearing aid backward. Softly press the hearing aid into place with your fingertip.

To remove the hearing aid:

Grasp the hearing aid with your thumb and forefinger; gently rotate it as you pull outward.

Hearing aids with removal handle: grasp removal handle and gently remove from ear.
Helpful Hints

- Minor irritation and 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 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. Your hearing aid has a power-on delay which may require a few seconds. You may hear a tone series indicating that your hearing aid is powering on.

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

Volume Control

☐ My hearing aid volume is set automatically. See below.

☐ My hearing aid uses the multifunction button for volume control. See next page.

☐ My hearing aid has a rotary volume control. See next page.

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.
Multifunction Button – Volume Control

Your hearing aid uses the button to control volume. Press then release the button until the desired volume level is reached. Each press/release changes the volume one increment.

<table>
<thead>
<tr>
<th>Volume Level</th>
<th>Tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 5 (More volume)</td>
<td>Five beeps plus tone</td>
</tr>
<tr>
<td>Level 4</td>
<td>Four beeps</td>
</tr>
<tr>
<td>Level 3 (Power-on volume level)</td>
<td>Three beeps</td>
</tr>
<tr>
<td>Level 2</td>
<td>Two beeps</td>
</tr>
<tr>
<td>Level 1 (Less volume)</td>
<td>One beep plus tone</td>
</tr>
</tbody>
</table>

Rotary Volume Control

Use your fingertip to rotate the volume control.

1. To make sounds louder, continue to rotate the control forward, toward your face.
2. To make sounds softer, use your fingertip to rotate the control toward the back of your head.
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.

**Multimemory**

- My multifunction button is set for multimemory. See below.

Your hearing professional can set up to four hearing programs for you. These additional programs are accessed by pressing the multifunction button inward.
When you press the multifunction button, you may hear an indicator or a tone series indicating the hearing aid has changed to the next program.

Ask your hearing professional about your specific hearing programs.

**Directional Settings**

Your hearing aid may have a directional microphone to help improve speech understanding in noisy situations. Ask your hearing professional about your particular directional settings.

**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. See next page.
- Automatic Telecoil. See next page.
- Telecoil and Manual Switching. See next page. (Program # _____________________________).
**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.

**Telecoil and Manual Switching**

Hearing aids with a manual telecoil allow you to switch the hearing aids to telephone mode when needed.

Manually switched telecoils are activated by choosing the telecoil setting using the Multifunction button.
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.

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 entertainment system. Consult with your hearing professional to determine which accessories may be best for you.

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

Keep your hearing aid clean at all times. Heat, moisture and foreign substances can result in poor performance.

• Clean daily over a soft cloth to prevent damage from a fall to a hard surface.

• Use a cleaning brush to clean debris from around the microphone, receiver and battery compartment.

• Never use water, solvents, cleaning fluids or oil to clean your hearing aid.

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

Helpful Hints

• When not wearing your hearing aids, 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 aids 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

Hear Clear™ Receiver Wax Guards
The hearing aid integrates disposable Hear Clear earwax protection. The innovative wax guards prevent earwax accumulation in the hearing aid receiver. When you need to replace your wax guards, please follow the instructions below.

1. Insert yellow end of the application stick into used wax guard in hearing aid.
2. Pull outward on stick to remove used wax guard.
3. Use opposite end of stick to firmly insert clean wax guard into hearing aid.
4. Pull outward to remove stick and discard.
Custom Microphone Covers

The custom microphone cover protects the microphone from wax and debris. Your hearing professional will instruct you on maintenance of the microphone cover.

There are two sizes of custom microphone covers: one is small and one is large. The size of the microphone cover determines the method for removing and replacing.
Small

Custom Microphone Cover – Small

1. 

2. 

3. 180°

4. 

5. 
Custom Microphone Cover – Large

Custom
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 in your hearing professional’s office or clinic.
# Troubleshooting Guide

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>POSSIBLE CAUSES</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Loud Enough</td>
<td>Low battery</td>
<td>Replace battery</td>
</tr>
<tr>
<td></td>
<td>Blocked microphone or receiver</td>
<td>Clean or replace wax guard as needed</td>
</tr>
<tr>
<td></td>
<td>Hearing change</td>
<td>Contact your hearing professional</td>
</tr>
<tr>
<td></td>
<td>Debris buildup</td>
<td>Clean both microphone and receiver with brush</td>
</tr>
<tr>
<td>Inconsistent</td>
<td>Low battery</td>
<td>Replace battery</td>
</tr>
<tr>
<td>Performance</td>
<td>Blocked microphone or receiver</td>
<td>Clean or replace wax guard as needed</td>
</tr>
<tr>
<td>Unclear, Distorted</td>
<td>Low battery</td>
<td>Replace battery</td>
</tr>
<tr>
<td>Performance</td>
<td>Blocked microphone or receiver</td>
<td>Clean or replace wax guard as needed</td>
</tr>
<tr>
<td></td>
<td>Blocked vent</td>
<td>Clean vent</td>
</tr>
<tr>
<td></td>
<td>Defective hearing aid</td>
<td>Contact your hearing professional</td>
</tr>
<tr>
<td>Dead</td>
<td>Low battery</td>
<td>Replace battery</td>
</tr>
<tr>
<td></td>
<td>Blocked microphone or receiver</td>
<td>Clean or replace wax guard as needed</td>
</tr>
</tbody>
</table>
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 operate in public and residential environments and are designed to comply with International Electromagnetic Compatibility emissions and immunity standards for medical devices. 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 instruments on an aircraft.

**International Use***

The optional wireless capabilities that may be featured in your hearing aids are approved to operate at a radio frequency 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 devices, or other electronic devices 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 Hearing Aid 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.
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 -18 dBm with transmission modulation type of 342KFXD. The receiver section of the radio has a bandwidth of 300 kHz.

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 10 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-HA
IC: 6903A-ZSERIESHA

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

FCC ID: EOA-IRIS-HA
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 custom product family 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 from docs.starkeyhearingtechnologies.com
Waste from electronic equipment must be handled according to local regulations.
