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Labeling

Below are samples of the labeling on the package of the BTE Sound Processor.

The symbols below are used on the labeling for the product and for transportation, and their meanings are as follows:

**CAUTION:** Federal law restricts this device to sale, distribution and use by or on the order of a physician.

**European Community Mark of Conformity**
Authorized to affix the CE Mark in 1995

<table>
<thead>
<tr>
<th>REF</th>
<th>Model Number</th>
<th>SN</th>
<th>Serial Number</th>
</tr>
</thead>
<tbody>
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- **See Instructions for Use**

  Store at temperatures between 0°C and +50°C

- **Fragile**

  Date of Manufacture

- **Type of Protection: BF**

  Do not get wet

EN60601-1 Classification Information:
Ordinary Construction
Continuous Operation
BTE Sound Processors

This User Guide provides information on the use and maintenance of the following CLARION® Behind-the-Ear (BTE) processor models:

Platinum BTE™ (CI-5210) - designed for use with the CLARION® 1.0, CLARION® 1.2, and CLARION® S-Series internal implants (typically those implanted from 1990-April 2001).

CII BTE™ (CI-5220) - designed for use with the CLARION® CII Bionic Ear™ System (typically those implanted from April 2001 on).

BTE Sound Processor Kit Contents

Your BTE Sound Processor Kit may include the following:

<table>
<thead>
<tr>
<th>Description</th>
<th>Model #</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTE Sound Processor</td>
<td>CI-5210/CI-5220</td>
</tr>
<tr>
<td>PowerCel™ Charger</td>
<td>CI-5600</td>
</tr>
<tr>
<td>Charger Power Supply</td>
<td>CI-5610</td>
</tr>
<tr>
<td>Power Supply Adapters</td>
<td>CI-5630</td>
</tr>
<tr>
<td>Slim PowerCel</td>
<td>CI-5518</td>
</tr>
<tr>
<td>Plus PowerCel</td>
<td>CI-5535</td>
</tr>
<tr>
<td>User Reference Binder</td>
<td>CI-8220</td>
</tr>
<tr>
<td>3 inch Cable</td>
<td>CI-5403</td>
</tr>
<tr>
<td>4 inch Cable</td>
<td>CI-5404</td>
</tr>
<tr>
<td>9.5 inch Cable</td>
<td>CI-5409</td>
</tr>
<tr>
<td>Earhook</td>
<td>CI-5700</td>
</tr>
<tr>
<td>Carrying Case</td>
<td>CI-7410</td>
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<tr>
<td>Dri-Aid Kit</td>
<td>CI-7301</td>
</tr>
<tr>
<td>Charger Travel Case</td>
<td>CI-7250</td>
</tr>
<tr>
<td>PowerCel Wallet</td>
<td>CI-7110</td>
</tr>
<tr>
<td>Audio Interface Cable</td>
<td>CI-5815</td>
</tr>
<tr>
<td>Auxiliary Microphone</td>
<td>CI-5810</td>
</tr>
<tr>
<td>Auxiliary Audio Earhook</td>
<td>CI-5705</td>
</tr>
<tr>
<td>Platinum Headpiece &amp; Caps/Clip/Tool</td>
<td>CI-8230</td>
</tr>
<tr>
<td>BTE Instructional Video</td>
<td>CI-5825</td>
</tr>
<tr>
<td>T-Mic™</td>
<td>CI-5820</td>
</tr>
<tr>
<td>System Sensor</td>
<td>CI-7300</td>
</tr>
<tr>
<td>FireFly™</td>
<td>CI-5705-001</td>
</tr>
</tbody>
</table>

Please refer to the form that accompanies your BTE Sound Processor kit to verify the actual contents.
BTE Sound Processor Components

Your BTE Sound Processor has the same processing capabilities as the CLARION body-worn sound processors and is available in beige or brown. Your CLARION BTE consists of an earhook, electronics module, microphone, toggle switch, rechargeable PowerCel™, cable and headpiece.

Earhook
The earhook is designed to hold the BTE Sound Processor in place behind the ear. Two sizes are provided to accommodate your ear comfortably - a standard earhook and a small earhook. Your audiologist can assist you in determining which is more appropriate for you. Generally, the larger earhook suits adult CLARION users while the smaller earhook is most appropriate for children.

Electronics Module
The electronics module houses the operating electronics of your BTE Sound Processor. The cable connection port is on the back of
the electronics module. You will attach one end of the headpiece cable to this port.

**Microphone**

The microphone captures sound and is located on the electronics module behind the earhook. Because the BTE Sound Processor contains its own forward facing microphone, the microphone in the headpiece is automatically de-activated when used with the BTE Sound Processor.

**Toggle Switch**

The BTE Sound Processor has one toggle switch which is located on the back side of the BTE Sound Processor. This toggle switch serves as both a program selector switch and as a volume or sensitivity control.

**Rechargeable PowerCel™**

A custom Lithium-Ion rechargeable PowerCel module powers your BTE Sound Processor. The rechargeable PowerCel module comes in different sizes with different operating times that depend on your unique program, implant type and other user variables.

There are two PowerCel sizes, plus and slim. The optimal PowerCel for your implant type is included in your kit. You may purchase additional or different PowerCels if you wish. Actual use time for each PowerCel size will vary depending on the type of sound processing program you use.

**WARNING:** Your BTE Sound Processor should be serviced only by Advanced Bionics. Do not attempt to open or repair the processor. Unauthorized opening of the processor will void the warranty.

**Headpiece**

Your headpiece is held in place by a magnet, which lines up with an internal magnet that is located in the implant. When placing the headpiece on your head, the headpiece centers itself as the two magnets attract each other. The headpiece comes with an adjustable magnetic strength. Your audiologist will determine the most appropriate magnetic strength for you at the time of programming.

The Platinum Headpiece™ is supplied to all new CLARION users. Existing CLARION users can continue to use their current headpiece.

**NOTE:** The microphone on the headpiece is not activated when used in conjunction with the CLARION BTE. Only the forward facing microphone located within the BTE is operational.

Your headpiece is designed to operate with both your BTE and body-worn processor.

**Headpiece Cable:**

A headpiece cable connects the BTE Sound Processor to the headpiece. A connector is located just below the toggle switch. The cable connects the Headpiece to the BTE Sound Processor.

**WARNING:** Your headpiece should be serviced only by Advanced Bionics. Do not attempt to open or repair the headpiece base. Unauthorized opening of the headpiece base will void the warranty.
Assembling your BTE Sound Processor

Attaching the Earhook

The earhook is easily screwed on and off. You should turn the earhook until it is tight and flush with the electronics module of your BTE. The earhook is designed NOT to tighten completely in order to ensure easy repositioning for comfort. Don’t hesitate to turn it an additional turn if you prefer it tighter. Turning additional turns will NOT cause damage to the earhook or electronics module.

Connecting the Headpiece and Cable

At one end of the headpiece cable is a two-pin plug that you will insert into the cable connector on the headpiece. The pins have different diameters that match the two holes in the cable connector.

At the other end of the headpiece cable is a two-hole plug that connects to the two-pin headpiece cable connector on the back of the BTE Sound Processor. The female end of the cable contains a raised area that will align with a groove on the cable connection port of the electronics module.

Connecting the cable:

1. Align the raised area on the end of the cable with the groove on the cable connector on the BTE electronics module and slide in place until it is secure.

2. Orient the connector so that the large pin on the cable matches the large hole size on the headpiece and insert into the holes.

Removing the cable:

1. Remove the PowerCel from the electronics module (see details on page 15).

2. Hold the cable's strain relief (the plastic plug) and gently pull it away.
Changing the Platinum Headpiece Color Cap:

1. Disconnect the headpiece cable from the headpiece.

2. Locate the cable connector.

3. Insert the Headpiece Color Cap Removal Tool as shown below into the slot above the headpiece cable connector.

4. Push the tool straight back to lift the color cap as shown.

5. Close the headpiece by carefully aligning the Headpiece Color Cap on the Headpiece and pressing both parts together to snap them back into place.

**NOTE:** Each kit contains a 3” (7.6 cm) and a 4” (10.2 cm) cable and a 9.5” (24.1 cm) cable. The longer cable allows you to wear the BTE Sound Processor on the opposite ear.

**NOTE:** Be sure that you turn off the processor by disconnecting the PowerCel before you remove the cable from the headpiece.

Connecting the Rechargeable PowerCel to the Electronics Module

To attach the rechargeable PowerCel module:

1. Locate the slide tracks on the underside of the electronics module and the top of the PowerCel module.

2. Position the PowerCel module so the contacts are positioned toward the back of the BTE processor.

3. Guide the PowerCel module into the tracks on the electronics module.

4. Slide the PowerCel module onto the electronics module until it stops and the PowerCel and electronics module are aligned.

**NOTE:** Do not force the PowerCel module onto the BTE electronics module. The PowerCel is designed to be inserted in only one direction.

Customizing the Platinum Headpiece - Color Caps

Your Platinum Headpiece comes with six interchangeable color caps, a Headpiece Color Cap Removal Tool to change the Color Cap, and a Headpiece Clip. In addition, extra headpiece magnets and felt disks to secure the magnets in place are included.
Turning your BTE Sound Processor On/Off

You will use the PowerCel module to turn your BTE Sound Processor on and off.

- To turn off the BTE Sound Processor, you must remove the PowerCel (see details on page 14).
- To turn on the BTE Sound Processor, attach the PowerCel (see details on page 8).

When you are not using your BTE Sound processor, you should remove the PowerCel module; otherwise, the processor will remain on and the PowerCel will continue to drain.

Putting on your BTE Sound Processor

1. Check that a charged PowerCel module has been correctly mounted onto the BTE.

2. Check that the headpiece cable is properly plugged into the cable connector on the processor.

3. Place the BTE over your ear and the headpiece on your head over the implant.

IMPORTANT! Use only the BTE Sound Processor that has been programmed especially for you. Using a different processor, which has been loaded with a different program, may be ineffective in providing sound information and may cause physical discomfort.

Using the Toggle Switch

Changing programs:

Your audiologist can store multiple programs on your BTE Sound Processor during your fitting session. These programs may represent different sound processing strategies or variations of a single sound processing strategy.

- You can change from one program to the next by pressing and holding the toggle switch in the upward direction for more than one second.
To return to previous programs, you must press and hold the toggle switch in the downward direction for more than one second.

You will notice a brief moment of silence as you change from one program to the next. The program changes when you release the switch and it springs back to the midpoint.

The last position is a reserved for the future implementation of the microphone test position and is not programmed to provide stimulation. You will hear silence when you toggle to this position.

NOTE: The toggle switch does not have a round-robin capability; i.e., when you toggle upward to the last program (or microphone test position), you must toggle downward to use the first program again.

Controlling volume or sensitivity:
The toggle switch can function as either a volume or sensitivity control and is set as one or the other on a program-by-program basis during your fitting session. Your audiologist will let you know how the toggle switch function was set for each program on your BTE Sound Processor.

There are 20 possible steps for volume or sensitivity, 10 in the upward direction and 10 in the downward direction.

The volume control determines the amount of amplification applied to the acoustic input. Decreasing the volume will make sounds softer, while increasing the volume will make sounds louder.

The sensitivity control determines the quietest level of sound that will be picked up from the environment by the microphone. Decreasing the sensitivity level makes softer sounds less audible and may help eliminate background noise. Increasing the sensitivity level makes softer or more distant sounds more audible.

Increasing/Decreasing Volume or Sensitivity
- You can increase the volume or sensitivity by pressing and quickly releasing the toggle switch in the upward direction for less than one second.

To decrease the volume or sensitivity you must press and quickly release the toggle switch in the downward direction for less than one second.

Initial Volume or Sensitivity Settings
When you first attach a PowerCel module to the BTE Sound Processor, which causes the processor to turn on, the volume is set to the most comfortable level. This most comfortable level is established during your programming session. If you prefer to reduce volume you can toggle the volume down before putting on your BTE.

The sensitivity is automatically set to the optimum level for everyday environments. The most comfortable volume level corresponds to the 12:00 position on the volume control and the optimum sensitivity level corresponds to the 12:00 position on the sensitivity control on the body-worn processor.

Adjusting for Background Noise
In some situations, background noise may interfere with your ability to hear clearly. Background noise can be particularly distracting in situations where a large number of people are speaking at once or in a noisy environment. Decreasing the sensitivity on the BTE Sound Processor may help eliminate some of the background noise.

Remember that the toggle switch only functions as a sensitivity control if it has been set to the sensitivity function by your audiologist during your fitting session.

Using an alternate microphone such as the T-Mic in noisy situations may also be helpful.
Changing the Rechargeable PowerCel

Typically, you will only change the rechargeable PowerCel when it has depleted its charge. However, you may also wish to return to the start-up settings of the BTE by disconnecting, waiting 5 seconds and then reconnecting the PowerCel. For example, if you are unsure of which program you are on (listening to) or of the settings, by removing and then reattaching the rechargeable PowerCel, your BTE will automatically return to the first program at a comfortable loudness level.

When you are not using your BTE, you should remove the PowerCel. Removing the PowerCel turns off the BTE. As long as the PowerCel is connected, the BTE continues to operate, so the PowerCel life continues to drain.

NOTE: Make sure that you rotate usage of your PowerCels. This will ensure optimal PowerCel life.

Removing the rechargeable PowerCel module:
1. Slide the PowerCel in a forward direction until it releases from the BTE electronics module.

Attaching the rechargeable PowerCel module:
1. Locate the slide tracks on the underside of the BTE electronics module and the top of the PowerCel module.
2. Position the PowerCel module so the PowerCel contact is toward the back of the BTE electronics module (see the photo above).
3. Guide the PowerCel module into the tracks on the BTE electronics module.

NOTE: Do not force the PowerCel module onto the BTE electronics module; the PowerCel is designed to be inserted in only one direction.

Using the Telephone

Your audiologist will indicate when you should begin to use the telephone with your new BTE. You can use the telephone by placing the speaker directly over the microphone located within your BTE at the base of the earhook, over the auxiliary microphone, or over the microphone at the end of the T-Mic accessory (See BTE Sound Processor Accessories).

Remember, the headpiece microphone is not activated and therefore, placing the telephone over the headpiece will not assist you in listening to a caller on the telephone. You should practice with several telephones, some with adjustable volume, to find what works best for you. Initially, you may want to practice using the...
Care and Maintenance of your BTE Sound Processor

Although your CLARION BTE Sound Processor has been designed and built to withstand daily wear and tear, care must be taken to protect both the implanted and external components of the device. For a detailed discussion of clinical results, warnings and precautions please refer to the Package Insert located at the back of this guide. It is a good idea to carry the User Identification Card, which was provided with your documentation, with you at all times.

Cleaning

If necessary, the BTE Sound Processor and Headpiece can be cleaned with a slightly dampened cloth or tissue. Take care that water does not drip into any connectors or the microphone. Water or other fluids should never enter the BTE Sound Processor or the Headpiece.

CAUTION: Immersion in water will damage the BTE Sound Processor and Headpiece electronics!

To prevent intermittent operation of the processor, the PowerCel contacts on the PowerCel module and on the processor should be kept free from dirt, dust, perspiration or moisture. Clean the contacts with a dry cotton swab at least once a month and immediately after exposure to moisture or perspiration.

BTE Sound Processor Protection

Your BTE Sound Processor contains advanced electronics that can be damaged. Care should always be taken when using or handling. If the processor is dropped, check it for proper functioning. If you suspect that the processor has been damaged, contact your cochlear implant center or service centre.

Care should be taken to avoid the following:

- Dropping the processor.
- Leaving the processor any place where it can come in contact with water or moisture. Remember to remove the processor and headpiece before bathing, showering, or swimming.

Using digital cellular phones:

Using or being in close vicinity to someone who is using certain digital cellular phones may cause interference with the cell phone's reception or problems with the quality of sound from your device. If such interference occurs, you can turn off your processor or move a greater distance from the source. Before purchasing a digital cellular phone, you should evaluate whether or not interference is evident. No such interference has been noted with cellular phones that use older analog technology.
- Exposing the processor to extreme temperatures (below 32°F Fahrenheit [0° Celsius] or above 122°F Fahrenheit [50° Celsius]) (e.g., a closed car on a hot day or near a heater/radiator).

- Static electricity has the potential of damaging the electrical components of the processor. Care should be taken to avoid situations in which static electricity is commonly created. If static electricity is present, touch something conductive (e.g., a metal object) prior to handling the external equipment or before your BTE contacts another person or object. Children should remove their BTE before engaging in activities that commonly create static electricity, such as playing on plastic play equipment.

While the processor is extremely durable, it should be treated with care and attention. Additionally, you should check your cable regularly (every month or so) to see if it is frayed or damaged. If your cable appears to be damaged, it should be replaced.

Dri-Aid Kit:
A Dri-Aid Kit is included in your BTE Sound Processor Kit. Regularly place the BTE Sound Processor and Headpiece (without the PowerCel module) into the Dri-Aid Kit to help prevent moisture build-up in the electronic components. The Dri-Aid Kit includes the plastic bag and crystal container.

Using the Dri-Aid Kit:
1. Remove the labels on both sides of the crystal container to expose the crystals.
2. Observe the color of the crystals through the openings.
   - If they are Blue:
     The crystals are unsaturated and ready to be used.
   - If they are Pink:
     The crystals are saturated and you will first need to regenerate the crystals.

   Note: If the crystals have not been used for a while, they may appear dark in color; they are fine and can be used.

3. Remove the PowerCel and place the crystal container, headpiece and BTE in the plastic bag.
4. Leave in the plastic bag overnight. The crystals turn pink as moisture is absorbed.

Regenerating the Crystals:
Place the crystal container in a pre-heated oven at 350°F / 176°C for 30-45 minutes until the crystals have turned blue. The crystals can be regenerated indefinitely. However, if they remain pink after heating, you must replace the Dri-Aid Kit.

Rechargeable PowerCels
When you are not using your BTE Sound Processor, you should remove the rechargeable PowerCel module; otherwise, the processor will remain on and the PowerCel will continue to drain.

PowerCel capacity decreases with age. This is normal for all rechargeable PowerCels and should not be considered a defect. You may begin to notice a small decrease following approximately 2-3 months of use.

   NOTE: Remove PowerCel module from the BTE when equipment is not likely to be used for an extended period of time.

To prevent intermittent operation of the BTE Sound Processor, the PowerCel contacts on the rechargeable PowerCel and on the processor should be kept free from dirt and dust. Clean the contacts with a dry cotton swab at least once a month and immediately after exposure to moisture or perspiration.

If the rechargeable PowerCel is dropped, inspect it for evidence of damage or cracking. If any evidence of damage is seen, the PowerCel should be disposed of immediately.

WARNING: The PowerCel used in this device may present risk of fire or chemical burn if mistreated. Do not disassemble, heat above 100°C (212°F), or incinerate. Dispose of used PowerCels properly and promptly. Never put PowerCels in mouth. If swallowed, contact your physician or local poison control center.

WARNING: To prevent injury or burns, do not allow metal objects, such as keys or coins, to contact or short circuit the PowerCel terminals. PowerCel wallets are provided to carry and protect the PowerCel.
Rechargeable PowerCel Wallet

Rechargeable PowerCel wallets are provided with each BTE. The wallets allow you to carry multiple PowerCels safely and conveniently on your key chain, in your pocket, or in your purse.

PowerCel Charger and Power Supply

The PowerCel charger provided with the BTE Sound Processor is designed to recharge four PowerCel modules simultaneously. It takes approximately 3-5 hours to fully recharge a PowerCel.

PowerCel modules do not need to be fully depleted before recharging.

CAUTION: Only use the PowerCel charger for charging the CLARION BTE PowerCel modules. DO NOT use it to charge any other PowerCels.

LED indicators

A green LED illuminates when the charger is connected to a power source and indicates power flowing to the unit. Along the side of the charger are 4 LED (Light-Emitting Diode) indicators, one for each PowerCel module that indicate charge status. The LED is yellow when the PowerCel charging cycle is in process. The LED turns off when the PowerCel modules are fully charged.

Charging the PowerCels:

The following section describes assembling the PowerCel charger and inserting the rechargeable PowerCels in the charger.

Assembling the Charger:

1. Place the charger on a flat surface.
You must recharge your PowerCels at least once every 3 months even if you are not using them.

Removing the PowerCel modules from the charger:
1. Gently press down the tab that holds the PowerCel module in place.
2. Gently slide the PowerCel module up and out of the slide tracks.

The rechargeable PowerCel module and PowerCel charger contacts should be kept free from dirt and dust. Dirty contacts can result in PowerCel charger malfunction. Clean the contacts at least once a month using a dry cotton swab.

If the PowerCel charger or power supply is dropped, inspect it for evidence of damage or cracking. If any evidence of damage is seen, the PowerCel charger or power supply should be replaced. Prior to use, you should inspect the PowerCel charger cable to ensure that it is not frayed or damaged and that the plug is not broken. If your power cord appears to be damaged, it should be replaced.

Inserting the PowerCels modules in the PowerCel charger:
1. Locate the slide tracks on the PowerCel charger.
2. Position the PowerCel module so that the PowerCel contact is facing the vertical wall of the charger where the pins reside.
3. Slide the PowerCel module onto the charger until it engages.

You can insert up to four PowerCel modules in the charger. The charger is designed so the PowerCel modules can only be inserted in one direction.

- PowerCel modules will start charging automatically. The yellow LED indicator will illuminate to signal that charging is in progress.
- When a PowerCel module is fully charged, the LED indicator for that module will turn off.

Note: If you place a partially charged PowerCel module in the charger, the PowerCel module may be fully charged in a lesser period of time. You can remove the PowerCel module at any time. The PowerCel charger and PowerCels will not be damaged if the PowerCel modules remain in the charger longer than the required charging time.

It is a good idea to use the PowerCel modules on a rotating basis to maximize PowerCel life. You can label the PowerCel modules (1, 2, 3, etc.) to keep track of the rotation.
BTE Sound Processor Accessories

A variety of accessories are available for use with your BTE Sound Processor. Some or all of the following accessories can be found in your processor kit:

- Auxiliary Audio Earhook
- BTE Auxiliary Microphone
- Audio Interface Cable
- T-Mic

**Auxiliary Audio Earhook**

You can connect your BTE Sound Processor to an external input such as the Auxiliary Microphone or an assistive listening device (e.g. FM system). The standard earhook is designed to be removable, and can be replaced with an Auxiliary Audio Earhook. An external input cable is permanently attached to this earhook. This cable terminates in a 3.5 mm (1/8”) female stereo connector that can connect to the Auxiliary Microphone or with other audio equipment or assistive listening technology (in conjunction with the Audio Interface Cable).

**Auxiliary Microphone**

You may prefer using the Auxiliary Microphone in some listening environments. The Auxiliary Microphone can be hand-held or worn on your lapel or collar. You may want to experiment with several microphone positions to determine which location is best for you.

**NOTE:** It is not necessary to use the Audio Interface Cable when using the Auxiliary Microphone.

**Using the Auxiliary Microphone:**

1. Remove the standard earhook and replace it with the Auxiliary Audio Earhook.

2. Plug the Auxiliary Microphone into the connector located on the end of the Auxiliary Audio Earhook cable.
Other External Auditory Input Devices

In addition to the accessories that are provided with the BTE Sound Processor, you may want to connect other external auditory input devices to your processor. The Audio Interface Cable can be used to connect other external auditory input devices with the BTE Sound Processor. One end of the Audio Interface Cable connects to the end of the Auxiliary Audio Earhook cable. The other end of the Audio Interface Cable is designed to connect with battery-powered FM systems, tape recorders, telephone adapters or television audio amplifiers.

**NOTE:** The connector on the Auxiliary Audio Earhook is set up for a stereo input. The use of an auxiliary input whose cables terminate in a male mono plug may cause reduced volume, reduced clarity or both. Contact the manufacturer of the auxiliary input device (e.g. FM system) or Advanced Bionics for assistance.

Please contact Advanced Bionics prior to using such external auditory input devices to verify that the devices in question are compatible with the CLARION system.

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T-Mic

The T-Mic can be used in place of the standard BTE earhook. To place the T-Mic on the BTE, remove the standard earhook by unscrewing. Screw the T-Mic onto the BTE until it is tightly in place and the earhook portion is oriented correctly to fit over the ear.

The T-Mic should rest inside the open bowl of the ear. The stalk of the microphone can be bent so the microphone points downward and toward the outer rim of the ear.

For many BTE users the T-Mic can be satisfactorily used without reprogramming. However you and your audiologist can discuss various programming options for optimization of the T-Mic (e.g. use of an auxiliary only mixing setting) after you have had some experience with this accessory.
Pediatric BTE Accessories

The following accessories are available for use with small children. These accessories are designed to allow parents audiologists and educators to easily determine the status of a child’s BTE system.

**BTE System Sensor**

The System Sensor is a handheld accessory which checks:

- BTE Sound Processor communication with the implant
- BTE Sound Processor PowerCel operation with the System Sensor. The child’s BTE does not need to be removed before testing its functionality. Simply hold the tip of the BTE System Sensor up to the headpiece, depressing the button on the sensor. The Sensor will then display various colored LED patterns (refer to chart below).

<table>
<thead>
<tr>
<th>Green LED</th>
<th>Orange LED</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>On</td>
<td>System OK</td>
</tr>
<tr>
<td>Blinks (few seconds)</td>
<td>On</td>
<td>BTE establishing communications link (lock) with Implant</td>
</tr>
<tr>
<td>Blinks (continuously)</td>
<td>On</td>
<td>Troubleshoot (refer to BTE User Manual)</td>
</tr>
<tr>
<td>Off</td>
<td>On</td>
<td>Troubleshoot (refer to BTE User Manual)</td>
</tr>
<tr>
<td>Off</td>
<td>Off</td>
<td>BTE System Sensor needs replacing</td>
</tr>
</tbody>
</table>

**BTE FireFly™**

The FireFly is a special earhook that can be used in place of the standard BTE earhook. The FireFly contains an LED that when powered emits an amber colored light indicating:
The following is a description of how to troubleshoot your CLARION BTE Sound Processor. If a problem persists after trying the remedies below, contact your implant center, service centre or Advanced Bionics Corporation for support.

**No sound heard; no response from user**

- Ensure that the cable is inserted into the processor, and the headpiece is properly positioned.
- Ensure that a charged PowerCel module is being used.

*If the PowerCel module is charged:*

- Replace the headpiece cable.
- Try auxiliary microphone connected to the audio earhook with a program that is set up to allow auxiliary input and repeat the process.

If this fixes the problem, place the BTE in Dri-Aid kit overnight. If there is still no sound heard, then call your audiologist.

**NOTE:** If the FireFly earhook is attached or if the System Sensor is available, observe the status indicators and act accordingly.

**Static heard**

- Ensure that the sensitivity control is not set too high, if it is enabled.
- Clean contacts on PowerCel and BTE.
- Replace the headpiece cable.
- Try auxiliary microphone connected to the audio earhook with a program that is set up to allow auxiliary input and repeat the process.

*NOTE: Please verify that your program is set by the audiologist to allow for external audio input.*
If this fixes the problem, place the BTE in Dri-Aid kit overnight. If there is still no sound heard, then call your audiologist.

**Muffled or distorted sounds heard**
- Ensure that the sensitivity control is properly set, if it is enabled.
- Remove any material (hats, headbands, etc.), which may be covering the BTE microphone.
- Try the auxiliary microphone connected to the audio earhook with a program that is set up to allow auxiliary input and repeat the process.

If this fixes the problem, place the BTE in the Dri-Aid Kit overnight. If there is still no sound heard, then call your audiologist.

**Headpiece or BTE gets wet**
- Remove the PowerCel module immediately.
- Place BTE and/or headpiece in the Dri-Aid Kit.
- Contact your cochlear implant center, service center or Advanced Bionics Corporation for further instructions.

**IMPORTANT!**
*Do not attempt to clean or dry the headpiece or processor. Do not use if exposure to fluids is suspected. Do NOT try to speed up the drying process with the use of a microwave, oven or hair dryer, as these may further damage the internal electronics.*

**WARNING:** If your system appears to be working, but you experience a deterioration in the volume or the quality and clarity of sound, contact your audiologist, as your processor may need to be reprogrammed.

**WARNING:** Your processor should be serviced only at Advanced Bionics. Do not attempt to open or repair the processor. Do not continue to use the processor if any part of it is damaged. Unauthorized opening of the processor, or other equipment, will void the warranty and may compromise system performance.

**Blinking Yellow LED on PowerCel Charger**
- Indicates that the charger or PowerCel is faulty
- Try the PowerCel in a different position. If the PowerCel charges properly when moved to a new position, the charger may have a faulty position.
- Contact your cochlear implant center, service center or Advanced Bionics Corporation for further instructions.

**No Green LED on PowerCel Charger**
- Verify charger is connected to power.
- Replace power supply, adapters, charger

**Problems with Adherence of the Headpiece to the Head**
*Increase Magnet Strength*
If your headpiece frequently falls off during normal activities, you may need a stronger magnet in the headpiece.

- Contact your cochlear implant center.

**Use Earmold**
- Use an Earmold to further secure the BTE.

**Use Headpiece Clip**
You can use the headpiece clip to increase adherence of the headpiece to the head in cases where the magnet strength is not sufficient.

**Attaching the Clip to the Headpiece:**
1. Open the headpiece (see Changing the Platinum Headpiece Color Cap instructions, pg 7).

2. Position the headpiece clip so that the flexible metal hinge fits between grip tabs on the headpiece cap - from the bottom view, approximately the 2:00 position for a left side implant or the 10:00 position for a right side implant.
3. Carefully fit the Headpiece Color Cap over the clip's hinge and snap it into place.

Using the Headpiece with the Clip:

1. Grip the headpiece and open the clip between your fingers and thumb as shown.

2. Hold the hair over the implant flat to the skull with the index finger of one hand.

3. Guide the clip along the skin and under the hair, then release when the headpiece is positioned over the implant.

NOTE: The clip works best when it is placed perpendicular to the direction of the hair (see photo step 2).

Be sure the BTE is turned off before removing the cable from the Headpiece.