



TOOLS for SCHOOLS



Harmony[®] Sound Processor Product Guide

For Educators, Therapists, and Families

Harmony Sound Processor

The Harmony Sound Processor is uniquely designed to provide the latest in sound-processing technology with user functionality. Harmony features CD-quality processing as well as Autosound™ (a wide sound window), which allows children to hear in noisy classrooms and experience language naturally. Additionally, Harmony offers a multifunctional LED, improved battery life, and it is water resistant.



This guide provides information on the features, accessories, and use of the Harmony Sound Processor. Should you need support beyond this document, please contact us at 877.829.0026, Monday through Friday, 5 a.m. to 5 p.m. PST, and ask to speak with an audiologist, or you can visit our website at www.BionicEar.com.



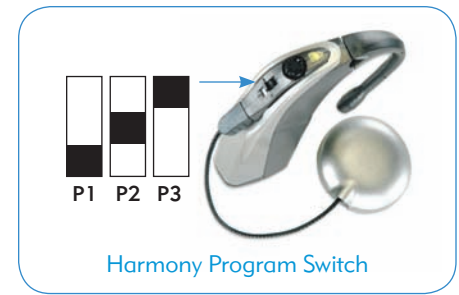
Quick-Start Guide and System Checks:

- Step 1:** Slide the fully charged **PowerCel** onto the **Processor Module**. This will turn on the Harmony Sound Processor. Check to ensure that the PowerCel is in a fully aligned position with the Processor Module and that the PowerCel is charged by verifying that the LED sequence displays three to four quick **ORANGE** blinks.
- Step 2:** Position the **Accent Color Cover** over the Harmony Processor and snap into place.
- Step 3:** Make sure that the **Headpiece Cable** is plugged into the Processor Module. Check that the Cable is not twisted or frayed.
- Step 4:** Align and gently snap into place the selected **Earhook**. Check to verify that the Earhook is properly positioned. To remove the Earhook, turn to the right or left until the Earhook releases from the post.
- Step 5:** Verify that the **Program Selector** and **Volume Control** are in the desired position.
- Step 6:** Ensure that the **Processor** is in a comfortable position behind the ear.
- Step 7:** Ensure that the **Headpiece** is positioned over the internal implant (you will feel the magnetic attraction).
- Step 8:** Perform a behavioral listening check, using the Ling Six sounds or another listening activity.

Harmony Features

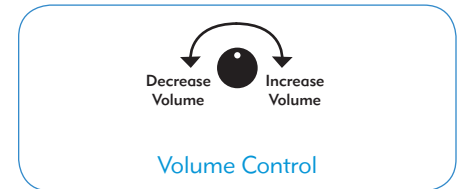
Program Switch

The Harmony Sound Processor can store up to three (3) programs (P1, P2, P3). The Program Switch has three positions to represent each program. P1 is at the bottom, P2 is in the middle, and P3 is at the top.



Volume Control

Volume Control allows the loudness level to be adjusted. Turning the control in a clockwise direction increases the loudness; turning the control counterclockwise decreases the loudness. The volume position is indicated by the white dot on the dial. The Volume Control is typically set at the 12 o'clock position.



The audiologist has the ability to restrict or limit the Volume Control dial. Although the dial will continue to work, a restricted range will limit the actual decrease or increase to sound as the dial is moved. Programming the Volume Control in this manner prevents accidental changes in loudness (either too soft or too loud), which could compromise the child's hearing.

Headpiece with Integrated Cable

The Headpiece contains the transmitter for sending sound information to the implant. There is no Microphone in the Headpiece. The Cable provides a relay for the transfer of signals between the Headpiece and the Harmony Sound Processor. The Headpiece and Cable are one unit and should not be separated. To connect the Headpiece to the Harmony Processor, simply align the raised area on the end of the Cable with the groove on the Headpiece Cable connection port located below the Program Switch on the body of the Processor, then slide into place until secure. To remove the Headpiece from the Harmony Sound Processor, hold the Cable's connector and gently pull it away.



Connecting and Removing the Headpiece

The Microphone

The Sound Processor Microphone is located directly behind the base of the Earhook positioned at the top of the Harmony Processor. Children may also use an integrated Earhook and Microphone called a T-Mic®. (For more information on the T-Mic, see the *Earhook* section of this guide.)

Telecoil

The Harmony Sound Processor contains a built-in Telecoil (T-Coil) option that can be enabled and downloaded to any of the Processor's three program locations. Contact the child's family or cochlear implant center to determine if this feature is active. In order for the T-Coil to be effective, the cochlear implant user must have access to a looped system or a hearing-aid-compatible telephone. This will allow the T-Coil to receive the electromagnetic field generated by these devices. If the cochlear implant user is attempting to use the T-Coil with a non-compatible audio device, they may hear no sound or a low-level humming or buzzing noise. (See *Audio Mixing* for more important information on this feature.)

NOTE: An external T-Coil can also be used with the Harmony Sound Processor and the Direct Connect Earhook.

Harmony Tri-Color Light Emitting Diode (LED)

The Harmony Sound Processor is equipped with a built-in Light Emitting Diode (LED) Status Indicator. The LED is a diagnostic light that provides parents and teachers with information regarding the functionality of the Harmony Sound Processor. The LED is located above the Volume Dial and can be programmed to provide the following information:

Feature	Color
PowerCel Status	Orange
Microphone Status	Green
Communication Status	Red



Sound Processor Microphone



Harmony Sound Processor Equipped with Built-in Light Emitting Diode Status Indicator

The orange LED communicates three (3) features about PowerCel Status

1. PowerCel Charge	The LED will flash ORANGE up to four (4) times to indicate the charge status of the PowerCel. • Three (3) to four (4) quick flashes indicate that the PowerCel is fully charged. • Two (2) quick flashes indicate the PowerCel is sufficiently charged to power the system. • One (1) quick flash indicates the PowerCel charge is nearly depleted. • Zero (0) flashes indicate that the battery needs to be changed immediately.
2. Change Battery Indicator	When the PowerCel is depleted to the point that it is unable to support stimulation but not completely depleted, the LED will flash ORANGE twice every three (3) seconds and no sound will be transmitted to the implant. This is a programmable feature and may not be activated on your child's sound processor. Contact the child's family or the cochlear implant center to have this feature activated.
3. Low Battery Indicator	When the PowerCel is near depletion, the LED will illuminate ORANGE steadily. Once the PowerCel is fully depleted, no light will emit from the LED. This is a programmable feature and may not be activated on your child's sound processor. Contact the child's family or cochlear implant center to have this feature activated.

The Green LED communicates two (2) features about Harmony's Microphone

1. Mic/System Status Indicator	The LED will flash GREEN in response to loud sounds presented near the Processor Microphone. This verifies that the Microphone is receiving sound, data is being transmitted to the implant, and the Harmony Sound Processor is receiving information back from the implant. The LED is not expected to flash GREEN in quiet environments. This is a programmable feature and may not be activated on your child's sound processor. Contact the child's family or cochlear implant center to have this feature activated.
2. Mic Test Mode Indicator	When an empty program slot is selected, the LED will illuminate GREEN steadily, indicating the Processor is ready for testing the built-in Microphone.

The red LED communicates three (3) features about Error Conditions

1. Lock Status Indicator	The term "lock" refers to the successful communication between the Processor and implant. The LED will flash RED at one (1) second intervals, indicating that the Processor is not communicating with the internal device.*
2. IntelliLink™ Indicator	Should a child accidentally attempt to use the wrong Processor, the LED will flash RED rapidly, indicating that the Processor is trying to lock with the wrong implant and no stimulation will occur resulting in no sound received. This may happen when a child who uses bilateral implants mistakenly puts his or her implants on the wrong ears or when two children switch Sound Processors.
3. Processor Error Indicator	In rare instances, the LED may emit a continuous RED light. This indicates a potential problem with the Harmony Processor. Remove and reinsert the PowerCel to reset the Processor. If the problem persists, proceed to <i>Troubleshooting</i>.

*Please note for those using SoundWave 1.4.98 the Lock Status Indicator is a programmable feature and may be disabled by the child's programming audiologist. SoundWave 1.6 is pending regulatory approval in the United States by the FDA.

Power Options

The PowerCel Battery is used to power the Harmony Sound Processor. There are two types of PowerCel Batteries that can be used with the Harmony Sound Processor: the PowerCel™ Slim or PowerCel™ Plus. The PowerCel Plus is larger than the PowerCel Slim and provides increased operating time before a battery change is needed. Individual operating times vary, depending on certain characteristics of the implant user's program settings, but, as a guideline, the PowerCel Slim and the PowerCel Plus should provide a full day of use. PowerCels can be fully recharged in 4–5 hours and do not need to be fully depleted before recharging.



How to Replace the PowerCel

1. Locate the tracks on the underside of the Processor and the top of the PowerCel. The Accent Color Cap will need to be removed.
2. Position the PowerCel so that the contact is toward the back of the Processor.
3. Guide the PowerCel onto the tracks on the Processor.
4. Slide the PowerCel onto the Processor until it stops and is aligned with the Processor. Do not force the PowerCel onto the Processor.

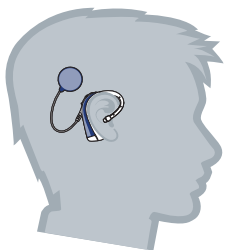


Connecting the PowerCel

NOTE: The Harmony Sound Processor is turned on and off by connecting or removing the PowerCel. When not in use, the parent or child should remove the PowerCel, otherwise the Harmony Sound Processor remains on, and the PowerCel continues to drain.

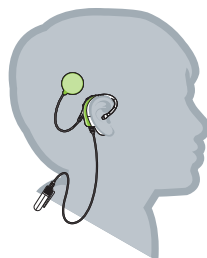
Flexible wearing options for the Harmony Sound Processor

(All-on-the-Ear)
Harmony BTE



This comfortable behind-the-ear option features a sleek and convenient design.

(Some-on-the-Ear)
Harmony BTE with PowerCel™ Adapter*



Ideal for small ears and active lifestyles! You can wear the battery completely off the ear. This bilateral-ready option can power two Harmony BTEs from a single battery for added comfort and convenience.

*The Some-on-the-Ear power option configuration of the Harmony Processor is not approved for use in the United States.

(Nothing-on-the-Ear)
Kinder Clip™*



The Kinder Clip allows Harmony to grow with your child, enabling the processor to be worn completely off the ear and on the collar or shirt instead. Customizable for your preferred battery.

*Under development.

Earhook Options

Standard Earhook

The standard Earhook is a basic hook that holds the Processor on the child's ear. With this Earhook in place, the built-in Microphone, located at the top of the Processor, is active. The Earhook comes in *Standard* and *Small* sizes.

T-Mic® Microphone

The T-Mic Microphone is an integrated Earhook and Microphone combination. The Microphone is omnidirectional (accesses sound from all directions) and is designed to fit in the open-bowl portion of the ear, near the entrance to the ear canal. The T-Mic is appropriate for everyday use and, due to the natural positioning of the Microphone, may provide improved benefit in difficult listening situations such as noisy environments or while on the telephone. The T-Mic requires a program setting with Audio Mixing to work properly. Check with the child's family or cochlear implant center for processor settings.

NOTE: Avoid bending the T-Mic in sharp angles (90° or greater), as this can shorten the lifespan of the T-Mic.

Direct Connect™ Earhook and Cable

The Direct Connect Earhook allows the user to connect to a variety of battery-powered audio devices—such as an iPod, MP3 player, or CD player—as well as other assistive-listening devices. To connect, a Direct Connect Cable and an Audio Interface Cable are required along with the Earhook. The Direct Connect Cable is available in the following lengths: 11, 24, and 36 inches. To use the Direct Connect Earhook:

1. Place the Direct Connect Earhook onto the Sound Processor post.
2. Snap the Direct Connect Cable onto the Earhook.
3. Using the Audio Interface Cable, connect the Direct Connect Cable (Audio Interface Jack) to the listening device audio output port.

NOTE: The auxiliary jack on both Cables is 3.5 mm in size and is designed for stereo input. A silver Adapter is provided with the Direct Connect System. This is required to connect a device with a mono output, such as an AM radio, to the Direct Connect Cable or Interface.

CAUTION: Only battery-powered devices should be connected into the Direct Connect, unless a patch cable with special electronic components is used.

NOTE: We recommend that an earmold, or Snuggie™, be utilized in addition to the Earhook to securely fasten the Sound Processor to the child's ear. Earmolds are custom made for the child and are available for all of the Earhooks we provide, including the T-Mic. For more information regarding earmolds, contact the child's audiologist.

NOTE: All of the Earhook options listed are compatible with the Auria Sound Processor.



Standard and Small Earhook



T-Mic Microphone
(Standard and Small)



Direct Connect Earhook
(Standard and Small)



Direct Connect Cable/Adapter



Audio Interface Cable



Snuggie™

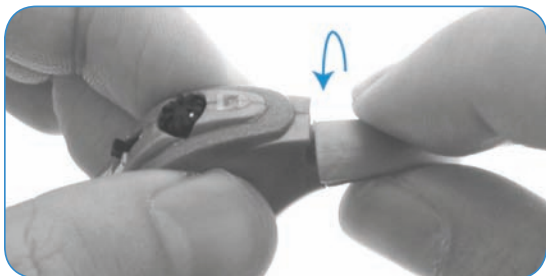
iConnect™ Adapter

The iConnect Adapter allows a wireless connection to a miniature personal FM receiver. The iConnect does not come standard in the child's Harmony Processor Kit but can be purchased separately through Advanced Bionics.

Attaching/Removing an Earhook

To Attach: Align the Earhook flush with the Harmony Sound Processor and push to snap in place. Gently pull back to confirm that the Earhook is secure.

To Remove: Turn the Earhook slightly more than $\frac{1}{4}$ turn in either direction until it releases.



Removing an Earhook



Audio-Mixing

Audio-Mixing refers to the amplification ratio between the Processor Microphone and an auxiliary input device. Audio-Mixing allows the child's Processor Microphone to remain on when connected to an auxiliary input, such as an active T-Coil, FM System, or auxiliary device. This is important because it enables the child to hear his own voice and sounds around him in addition to the input from the auxiliary device. The Audio-Mixing is set for each program on the Sound Processor by the audiologist during programming. The default Audio-Mixing recommendation is 50/50. For a description of the Audio-Mixing options, refer to the table below.

Audio-Mixing Options	Processor Microphone	Auxiliary Input (i.e. FM System)
Mic Only	On	Off
50/50 - Mic/Aux*	On	On
30/70 - Mic/Aux**	On (-10dB)	On
Aux Only (Atten.)	Off	On (-20dB)
Aux Only	Off	On

*For classroom use and the default programming setting

**For noisy environments where greater input is needed from the FM (i.e., theatre, church, noisy restaurant, etc.)

Accessories for the Harmony

Auxiliary Microphone

- The Auxiliary Microphone, also called a lapel microphone, is an additional microphone that can be used in a number of ways. The Auxiliary Microphone plugs into the auxiliary input jack of the Direct Connect Cable and is for use:
 - During therapy, or in noisy environments, as it improves the signal-to-noise (S/N) ratio.
 - As a way to troubleshoot the child's Processor. In the event that the child stops responding to sound with what looks like a functional Processor, plug in the Auxiliary Microphone and perform a simple listening check with the child.
 - As a secondary Microphone in the event that the child's Processor Microphone is not working.

The Auxiliary Microphone can be purchased by contacting Advanced Bionics.



Auxiliary Microphone

Carrying Case

The Carrying Case is designed to hold all of the basic Harmony Sound Processor components and serve as a Dri-Aid Kit. It is recommended that Harmony Sound Processor components be stored in the Carrying Case when not in use or in situations where the Harmony Processor was exposed to excessive moisture.

NOTE: The Drying Agent within the Carrying Case should be periodically reactivated.



Carrying Case

Accent Color Covers and Caps

A unique variety of snap-on Color Covers and Caps are available. These are easily snapped on or off of the Harmony Sound Processor or Headpiece and are sized to fit the Processor Module and battery, when attached.



Accent Color Covers and Caps

Harmony Processor Troubleshooting

Determining Device Function

Use the Harmony Processor's built-in Tri-Color LED to determine device function. For details on how to use the LED to determine device function, see the *Tri-Color Color LED* section below:

LED Sequence
1. When the PowerCel is first attached to the Harmony Processor, the LED will indicate the PowerCel charge status by flashing ORANGE. • Three (3) to four (4) quick ORANGE flashes indicate that the PowerCel is fully charged. • Two (2) quick ORANGE flashes indicate that the PowerCel is sufficiently charged to power the system. • One (1) quick ORANGE flash indicates that the PowerCel charge is nearly depleted. • Zero (0) ORANGE flashes indicate that the battery needs to be changed immediately.
2. Following the PowerCel charge status sequence the LED will indicate Lock Status by flashing RED. • The LED will flash RED approximately once per second until lock is achieved. • Once the Headpiece is properly positioned on the student's head, and information is transmitting to the implant, the RED flashing will stop.
3. When the PowerCel and Lock Sequences are complete, the LED will indicate Microphone and system status by flashing GREEN. • The LED will flash GREEN in response to loud sounds presented near the Processor Microphone. This verifies that the Microphone is receiving sound, data is being transmitted to the implant, and the Harmony Processor is receiving information back from the implant. • The LED is not expected to flash GREEN in quiet environments.

NOTE: The Low Battery Indicator, Change Battery Indicator, Lock Status Indicator (SoundWave 1.4.98 and subsequent builds), and Mic/System status Indicator are programmable features and may not be activated on the child's processor. These programmable features are often helpful for educators working with children who use the Harmony Processor. You can contact the child's family or cochlear implant center to request that these features be activated.

*NOTE: The System Sensor is **NOT compatible** with the Harmony Processor and may indicate that the Harmony Processor is functioning appropriately (solid green light) when Harmony is not transmitting a signal to the internal device. Use Harmony's built-in LED to determine the status of the Harmony Sound Processor.*



System Sensor

*NOTE: The FireFly (system status Earhook for the Auria BTE) is **NOT compatible** with the Harmony Processor. Use the Harmony's built-in LED to obtain information about the Harmony Processor's status.*

Completing a Microphone Check

To test the internal Microphone of Harmony, you will need a Direct Connect Earhook, Direct Connect Cable and Microphone Test Earphones.

You should perform a microphone test when the Processor is new, to establish a baseline from which to monitor the internal Microphone for any sound-quality issues. The microphone test only assesses the internal Microphone of the Processor and will not provide information about the Headpiece Cable or T-Mic.

Procedures

To assess the Microphone, you will need an empty program slot on the Harmony Processor. Speak with the child's family or audiologist to determine which program slot is empty. Harmony's built-in LED will illuminate **GREEN** steadily when an empty program slot is selected, indicating that the Processor is ready for testing the built-in Microphone.

1. Remove the Harmony Processor from the child. You will not hear any sound and will not be able to monitor the Microphone if the child is wearing the Processor.
2. Connect the Direct Connect Earhook and Direct Connect™ Cable to Harmony.
3. Insert the Microphone Test Earphones into the input jack on the Direct Connect Cable.
4. Place the Microphone Test Earphones on your ears.
5. Turn on the Processor (attach battery) and select the microphone test position (empty program slot), using the program control switch.
6. Monitor the sound output from the Processor as you speak clearly into the Microphone. Sounds and speech should be clear but amplified.



Troubleshooting

If you suspect a problem with the child's cochlear implant equipment, we recommend that you verify the following items before proceeding to the Troubleshooting chart located below:

1. Make sure the child's Processor is set to his/her user settings.
 - Is the battery in place and were there three (3) to four (4) **ORANGE** blinks from the LED following placement?
 - Is the Volume Control in the correct position? As a reminder, the Volume Control should be in the 12 o' clock position unless otherwise instructed by the child's programming audiologist.
2. Visually inspect the child's equipment.
 - Is the Cable twisted, frayed or broken?
 - Is the Headpiece cracked?

Recommended Troubleshooting Equipment:

1. HiRes 90K® Auria® Headpiece and Cable
2. Auria PowerCel® Charger



Harmony Troubleshooting Situations:

Problem	Action
Child cannot hear (No Sound)	1. Check your connections, including PowerCel, Earhook and Cables. 2. Check the Volume Dial. 3. Make sure the PowerCel is fully charged and inserted properly. Try another PowerCel. 4. Check the Microphone/System status, using the LED. To do this speak close to the child's Harmony Processor while it is properly positioned on the child and look for the LED to flash GREEN in response to your voice. 5. Replace Cable/Headpiece. 6. Perform a test of the built-in Microphone, using an empty program slot. Refer to the <i>Completing a Microphone Check</i> section listed above. 7. Contact programming center and/or child's family for further troubleshooting.
RED LED flashes rapidly and the child reports no sound.	1. This is the Intellilnk™ feature working and indicates that the Sound Processor is trying to lock with the wrong internal device. 2. Check Sound Processors to ensure you have the appropriate Processor in place.
RED LED continuously blinks at one-second intervals.	1. Make sure the Headpiece is on the child's head and positioned over the implant site. 2. Check Headpiece/Cable. 3. Determine if the Microphone is working by following the Microphone Test Procedures. 4. Replace Headpiece, if necessary. 5. Contact the programming center and/or child's family for further troubleshooting.
GREEN LED does not illuminate to loud speech close to Microphone.	1. Confirm that this option is enabled. 2. Recheck the PowerCel status. 3. Check Volume Control to ensure it is set correctly. 4. Try another program on the child's Processor. 5. Ensure Headpiece Cable is not damaged (kinked or frayed) and is properly inserted into the Sound Processor. 6. Check the Processor Microphone to determine functionality using the Microphone Test Procedures. 7. Contact the programming center and/or the child's parent for further troubleshooting.
Child reports hearing sounds that are distorted or static.	1. Ensure Headpiece Cable is not damaged (kinked or frayed) and is properly inserted into the Sound Processor. 2. Ensure the Volume is at the 12 o'clock position. 3. Try alternative program. 4. Listen for static using the Microphone Test procedures. 5. Contact the programming center and/or the child's family for further troubleshooting.
ORANGE LED on Harmony does not blink when the Processor is turned on.	1. Check your connections between the PowerCel and Processor. 2. Replace your PowerCel with one that is fully charged. 3. Clean PowerCel and Harmony Processor contacts using a hearing-aid brush. 4. Contact the programming center and/or the child's family for further troubleshooting.

Using Personal FM Systems with the Harmony® Sound Processor

What is an FM System?

An FM (Frequency Modulated) system is a wireless communication technology commonly used in the classroom to overcome the adverse effects of distance and competing noise.

Connecting the Child's Harmony to an FM System:

1. Ensure that you have obtained the appropriate FM equipment, such as iConnect Adapter, FM Receiver, FM Transmitter and Batteries (size 10 for the iConnect). Advanced Bionics can assist you in verifying that you have the necessary equipment via the Auditory Customer Service line at 877.829.0026 or at www.BionicEar.com.
2. Ensure that the FM System is functioning appropriately by listening to the FM System through an amplified speaker or Walkman-style earphones.
3. Keeping the FM System and Sound Processor in the "off" position, connect the Sound Processor and FM receiver.
4. Program or adjust the settings of the FM receiver per the child's audiologist or FM manufacturer's recommendations prior to connecting the Harmony Sound Processor.
5. Ensure that the volume on the FM receiver and the Volume Wheel on the Harmony Processor are both set to minimum.
6. Turn on the transmitter, receiver, and Sound Processor in that order.
 - NOTE: It is important that you turn on the equipment in the proper order to prevent the child from hearing any adverse sound percepts.
THE EXCEPTION TO THIS WOULD BE IF USING THE MLxi THE CONNECTION INSTRUCTIONS ARE DIFFERENT. IT IS IMPORTANT THAT THE HARMONY AND iConnect ARE ON PRIOR TO CONNECTING THE MLxi.
7. Gradually increase the volume on the child's Sound Processor to his/her everyday settings or as specified by the child's audiologist.
8. Gradually increase the volume on the FM receiver (if available) to a comfortable listening level or as specified by child's audiologist or the FM manufacturer.
9. Complete a functional listening check:
 - Administer a listening task that you know the child can perform close to 100%, such as, the Ling Six Sound Test and/or common phrases.
 - Perform these listening tasks in an auditory-only condition and in close proximity to the child. Repeat the task at a distance of several meters, noting that no changes in performance are observed with the FM System in quiet.
 - The functional listening check can also be repeated in noise to assess the effects of the cochlear implant + FM.



Harmony Sound Processor
with the iConnect™ Earhook
and the Phonak MLxS Receiver



Campus S Transmitter
courtesy of Phonak Corporation.

Tips to Reduce Interference:

1. Ensure that the transmission range is not exceeded. The broadcast range between FM transmitters and receivers may begin to break up at distances greater than 40 feet indoors and 120 feet outdoors.
2. Observe areas in the classroom, or other environments, that can cause “dead spots” in transmission. Complete a listening check with the FM System in the classroom to listen for any problem areas and avoid seating the child in these problem areas.

Troubleshooting the FM System and Cochlear Implant

Keep in mind you are working with two separate systems, an FM System and a cochlear implant Sound Processor. The best way to complete troubleshooting is to begin by separating the two systems and troubleshoot them separately.

Troubleshooting the FM System:

1. Disconnect the FM System from the child’s Sound Processor
2. Verify the FM System is working by listening to the FM System. To do this, plug the FM receiver into a small speaker (RadioShack) or a Headset FM Checker and verify the signal is being received and is clear.
3. If the FM System is not working, complete troubleshooting for the FM System as recommended by the FM manufacturer. Ask the following questions:
 - Are the FM transmitter and receiver on the same channel?
 - Are the cables on the FM transmitter or receiver frayed or kinked?
 - Has the transmitting distance been exceeded?
 - Do the batteries for the FM transmitter and/or receiver need to be replaced?
 - Is the microphone on the transmitter working?
 - Are the FM settings set appropriately?

Troubleshooting the Sound Processor:

1. Can the child hear clearly with the cochlear implant alone?
2. If the child cannot hear with the cochlear implant alone, complete troubleshooting for the Sound Processor as directed by the *Harmony Troubleshooting Situations* listed previously in this document.

FM Troubleshooting Situations:

Problem	Action
Child cannot hear when the FM System is connected	1. Verify that the Harmony Sound Processor is on and at user settings. 2. Verify that the FM System is working, check battery and settings. 3. Verify that your connections are secure. 4. If using the Direct Connect option, verify that you are using the proper FM Adapter Cable. 5. Verify that the Audio-Mixing ratio has been set for FM use (50/50 is recommended for classroom use). 6. Replace the Direct Connect Cable(s), if this is the connection option being used. 7. If using iConnect, verify that a charged battery is in use. 8. Replace the iConnect. 9. If problem cannot be determined, contact Advanced Bionics for support.
Child reports noise, static, or distortion with the FM System	1. Verify that you are using the proper FM Adapter Cable for the FM System and Harmony Sound Processor if using the Direct Connect feature. 2. Reduce the volume or gain on the FM receiver (if available). 3. Ensure that the transmission range is not exceeded—the broadcast range between FM transmitters and receivers may begin to break up at distances of 40 feet indoors; 120 feet outdoors. 4. Ensure that there are no “dead spots” in the classroom. 5. Ensure that the transmitter is worn properly. 6. Try a different FM channel. 7. If problem cannot be determined, contact Advanced Bionics for support.
GREEN LED on the Harmony flashes constantly (if enabled)	1. Reduce the volume and/or gain on the FM receiver. 2. Reduce the volume on the Harmony Processor.
Listening responses are poorer with the FM System and Harmony than with Harmony alone	1. Verify that Harmony is set to the appropriate program. 2. Verify that Harmony volume is set to the user settings. 3. Verify that the Audio-Mixing ratio has been set for FM use (50/50 is recommended for classroom use). 4. Increase the gain on the FM receiver (this may need to be completed by the audiologist as there is special software to adjust the parameters of the FM receiver). 5. Try a 30/70 mixing ratio. You may need to consult with the child’s programming audiologist or parents regarding program settings. 6. If problem cannot be determined, contact Advanced Bionics for support.
Child cannot hear his/her own voice or other’s voices in the environment	1. Verify the Audio-Mixing setting (should be set to either a 50/50 or 30/70 mixing ratio). 2. Verify the Processor and FM are at user settings. 3. Verify that the child isn’t experiencing any other complaints.

FM Manufacturer Resource Information

Phonak Inc, US

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www.phonak-us.com

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Tools for Schools is a free program designed by Advanced Bionics to help children with cochlear implants succeed in the classroom. The program provides education, support, and tools to educators, therapists, and families!