PHNAK hearing systems MicroField User Manual

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Introduction

Introduction

Welcome to the Phonak World of Wireless Communication!

Thank you for choosing MicroField! MicroField is a high-quality product from Phonak, a world leader in hearing technology innovation and reliability. MicroField automatically finds audio transmissions (such as from a teacher's wireless transmitter, a theater sound system, or other facilities providing wireless assistive listening) on any of three frequency bands. Once MicroField finds the transmission, it sends the audio signal to you in one of several ways:

- Directly to your hearing aid (when equipped with a Phonak MicroLink or other type 216MHz receiver)
- To your personal transmitter and FM receiver
- To an earphone or neckloop
- To an optional speaker

MicroField has been designed to give you the easiest possible way to receive wireless audio transmissions for personal use and in public facilities.

MicroField Key Features

Receives audio on three frequency bands

- 72-76MHz
- 216-217MHz
- Multiple Infrared (IR) Channels
- Can be used at literally thousands of facilities!
 - Classrooms, theaters, cinema, places of worship, courtrooms, etc.
 - Automatic and manual search modes
 - Quickly recognizes/locates an FM / IR signal in a facility
- Seven presets for regularly used transmission channels
- Ideal for classroom use, places of worship or your favorite theater
- Automatically remembers the last volume setting for each preset plus the last searched channel
- 50+ hours of battery life between charges
- Easy-to-use LCD display shows battery condition, channel number, preset number, volume setting and signal strength
- Digital design for stable, crystal clear reception
- Can be used indoors or outdoors

Important Notes About Your MicroField

- MicroField is a highly versatile product. It can receive various types of audio signals and uses a variety of methods to convert the signals to a form you can use. The unit can retransmit the signals directly to an FM or external receiver; it can send audio to a headset or an optional loudspeaker; or it can send audio signals via auxiliary connections to an external transmitter that transmits to an FM receiver.
- This manual frequently refers to "receive" and "transmit" channels. Please note that "receive" channels are frequencies received by MicroField from a portable, stationary or infrared transmitter in a room. A "transmit" channel is a channel MicroField uses to transmit to your MicroLink, MicroEar or other FM receiver.



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Important Notes About Your MicroField Cont.

- When shipped, your MicroField is set to send audio to the headset jack. If you are planning to use it with a MicroEar, MicroLink or other FM receiver, it must be set up for the way you will be using it. See page 20 for more information.
- Make certain that the batteries are charged overnight before using MicroField. See page 15.
- After extensive use of your MicroField, you might want to restore the factory default settings to give you a fresh start on programming the unit. See page 14.
- If you are planning to use MicroField in a theater or other location using infrared assistive listening, the supplied IR receiving cable must be connected to the unit. See page 33.

Important Notes About Your MicroField Cont.



MicroField Channels

There are many places you can use your MicroField. These places include places of worship, schools, cinemas, live theatres, stadiums, courtrooms and government meeting rooms. Many public facilities provide transmitters that use specific channels to send the audio from their sound systems to personal receivers or portable listening devices. Your MicroField is designed to search out these audio channels and then send them directly to your FM receiver.

Your MicroField can pick up signals in three frequency bands: 72-76 MHz, 216-217 MHz, and infrared. For all of the possible receiving channels, see the channel selection guide (Appendix B).

MicroField can also receive infrared signals. Infrared is available in many cinemas, live theatres and courtrooms. See page 33 for more information.

Instructions For First-Time Users

- Unpack your new Phonak MicroField and make sure all components were included in the shipment:
- 1. MicroField module (with 4 AA NiMH rechargable batteries pre-installed)
- 2. Nylon case
- 3. Infrared receiving cable
- 4. Power supply for re-charging and/or powering the unit
- 5. Headset (not shown)



If any components are missing, contact Phonak immediately. If any items were damaged in shipping, retain the packing materials for inspection and contact the shipper. Phonak is not responsible for damage incurred in shipment.

General Functions

Turning the Unit On and Off

To turn on your MicroField, press and hold the ON button until you see the Phonak logo on the display, and then release.

To turn the unit off, press and hold the OFF button until the display turns off.



If the I/O symbol is illuminated, your MicroField's auto-shutoff feature has been activated. See page 13 for more information.

General Functions

Operational Overview - Connections and Controls



General Functions

MicroField's Display



Adjusting Volume

To increase or decrease the volume, press the UP or DOWN keys.





If CH appears in your MicroField's display, your unit is in the search mode. Wait about 7 seconds until CH goes away, then you can adjust volume.

MicroField's display will show a number between 0 and 25 indicating the relative volume level. The unit will also remember volume settings for each preset. Once you adjust volume to the desired level, the volume level will automatically return the next time you select that preset.

When using the manual search function, the UP and DOWN keys momentarily become channel selection keys. To change back to volume controls, wait 7 seconds - the CH indicator will go out and you can again adjust volume.

Enabling the Automatic Shut-Off Function

Your MicroField can be set up so that after 30 minutes of no receive signal, it will turn itself off. To activate this feature, <u>quickly</u>* press and hold the On/Off button and then the UP button. The I/O symbol will be displayed.

To turn off the automatic shut-off function, <u>quickly</u>* press and hold the On/Off button and then press the DOWN button. The I/O symbol will be extinguished.

Note: Any time you plug a device into the AUX IN jack, the auto shut-off function is disabled.



The I/O symbol illuminates when the auto shut-off feature is activated.

*If you hold the On/Off button down too long, the unit will shut off. Turn it back on and try again.

General Functions

Returning to Factory Defaults

This feature restores the factory defaults to your MicroField. This is recommended if someone new is going to use the unit or if you simply want to start over. When you restore the factory default settings, the following occurs:

- All of the presets are programmed to channel 00 (they are all cleared).
- The transmitting channel is set to channel 00.
- The auto shut-off function is turned off.
- The preset lock function is turned off.

To restore factory defaults:

Turn the unit off.

Press and hold the Preset button.

- While holding the Preset button, press and hold the On/Off button until you see the Phonak logo.
- Release the On/Off button and the Preset button.00 will be displayed.





While holding the Preset button, turn the unit on to restore factory defaults.

Charging the Batteries

To charge your MicroField's batteries, connect the power supply to MicroField and then plug it into a wall outlet. You will notice that the battery symbol flashes while it is charging. It will take 13 hours to fully charge the batteries. When the batteries are fully charged, the unit will stop charging.

When not in use, it is best to leave your MicroField connected to the power supply to keep the batteries fully charged (the unit loses charge over time even when off). Leaving the unit connected to power will not damage the batteries.

You may use your MicroField unit while it is connected to the power supply.





The battery symbol flashes while charging.

General Functions

Using the Power Supply

Your MicroField unit may be operated with batteries or connected to the power supply. To use your unit with the power supply, simply connect the supply to the front of the MicroField unit and connect to AC power. Use ONLY the power supply provided with your MicroField unit.



Replacing the Batteries

You should change the batteries in your MicroField if the unit does not give you a sufficient amount of time for your needs after being fully charged. MicroField uses four (4) AA NiMH re-chargeable batteries. Only replace the batteries with the same type (NiMH) and a capacity of 1600mA or greater. Use good quality batteries.

To replace the batteries:

- Turn the unit off.
- Turn the unit upside down.
- Use a Phillips screwdriver to remove the four screws on the bottom of the unit.
- Turn the unit right side up.
- Carefully remove the lid.
- Remove the old batteries.

(continued on next page)



The batteries are accessed by removing four screws on the bottom of your MicroField

General Functions

Battery Replacement Continued



Charge the batteries for 13 hours before first use.

WARNING: do not use alkaline batteries in your MicroField. Charging alkaline batteries may result in physical harm, destruction of property and/or fire. Phonak is not responsible for any damage caused by improper battery use.

You can expect a new set of NiMH batteries to last between 1 and 3 years before requiring replacement, depending on the usage.

Using MicroField for Rebroadcasting

Setting Up The Transmit Channel

Important Notes

Your MicroField can receive audio signals and rebroadcast them directly to your MicroLink, MicroEar or other FM receiver. <u>However, when you first get your MicroField, it is set up only to</u> <u>send audio signals to the headset jack.</u> To use it with your MicroLink/MicroEar or with any other FM receiver, you will need to go through the setup process outlined in this section. Please refer to the following pages for more detailed information:



Transmitting to a Phonak MicroLink or MicroEar - Page 22



Transmitting to another brand 216 MHz FM Receiver - Page 23



Other Information

- Your MicroField's transmission range is normally about 5 10 feet (1.5 3 meters). If a cable is plugged into the AUX connector, the transmission range is increased to 30 40 feet (9 12 meters).
- When using MicroField for rebroadcasting, set its volume control at about 15 to ensure the best audio levels. To change volume, use the controls on your hearing aid or receiver.
- If you use your MicroField near a computer, the computer may cause interference which will result in a noisy audio signal or no signal at all.
- Note that the channel sequence is different when setting up the transmit channel than it is with searching for receive channels. Your MicroField will cycle through the Phonak frequencies (see Appendix B), then through the remaining frequencies.

Transmitting to a Phonak MicroLink or MicroEar Receiver

IMPORTANT: Before starting this procedure, verify that your Phonak transmitter is turned OFF and MicroField is not near a computer or other device that generates RF energy. Your MicroField must be running on batteries rather than the power supply.

- Determine the channel of your MicroLink or MicroEar (for example, 9).
 - Press PRESET and SEARCH at the same time on your MicroField. PGM will appear on the display, indicating the unit is ready to be programmed with a transmitting channel. The display will show the current transmit channel. If no channel is programmed, 00 will be displayed.
 - Press UP until your MicroLink's channel number appears in the display.
- Press PRESET. The channel will flash; the setting is stored for immediate use. You will hear a clicking sound during this process.





Transmitting to other 216MHz FM Receivers

If using a personal transmitter, turn it off; your MicroField must be running on batteries rather than the power supply.

Find your product in the channel selection tables in Appendix B, and determine the MicroField channel number that corresponds with your product. For example, Phonic Ear #51 = MicroField Channel #29.
 Press the PRESET and SEARCH buttons at the same time on your MicroField. PGM will appear on the display, indicating it is ready to program a channel for transmitting. The display will show the current transmit channel. If no channel is programmed, 00 will be displayed.





- Press UP until the desired MicroField channel number appears in the display.
- Press PRESET; the channel will flash and the setting is stored for immediate use. MicroField will now transmit on that 216MHz channel (example: it now broadcasts on channel 29).

Setting up MicroField For Use With an External 72MHz Transmitter and Receiver

If you are currently using a 72 MHz transmitter to broadcast signals to your FM receiver, you can set up MicroField to work with your existing transmitter.

Your external 72 MHz transmitter broadcasts on a specific frequency, which is then picked up by your FM receiver. In order for your transmitter to send the signal from MicroField to the FM receiver, you will need to connect it to your MicroField using an auxiliary cable from Phonak. You also must program MicroField so that it will work with your transmitter.



- Find your product in the channel selection tables starting on page A-2, and determine the MicroField channel number that corresponds with your product. For example, Listen channel 17 is MicroField channel 7P.
 - Turn on your 72 MHz transmitter and make sure it is set to the correct channel.
- 24 (continued on next page)

Setting up MicroField For Use With an External 72MHz Transmitter and Receiver cont.

- Connect your transmitter to MicroField using the optional transmitter cable* from Phonak. Plug in the cable between the headphone jack of your MicroField and the AUX (or mic) input on your transmitter.
- Press the Search and Preset buttons together. The PGM symbol on the display will appear. If no transmitting channel is selected, 00 will ap-

pear in the channel indicator; if your MicroField was previously programmed, the transmitting channel number will be displayed.

- Press the DOWN button to select the channel number of your transmitter.
- Press PRESET. The channel will flash and the setting is stored for immediate use.





*The optional cable should be purchased through Phonak.

Using MicroField For Rebroadcasting

Setting up the Receive Channel

Important Notes

MicroField will receive audio signals from a minimum of 5 feet (1.5 meters) from the transmitting antenna to a maximum of approximately 1000 feet (305 meters), depending on the type of transmitter used.

When searching for audio signals, make sure your MicroField unit is not near a computer. Computers cause interference which may prevent your unit from finding a signal. When searching, MicroField will step through all available channels in the sequence shown in the "MicroField" column of Appendix B.

Refer to the following pages for specific Receive Channel set-up information:

- Finding a Receive Channel Using Automatic Search page 28
- Finding a Receive Channel Using Manual Search page 29
- Storing, Using and Locking Presets page 30
 - Using the Infrared Cable page 33

Finding a Receive Channel Using Automatic Search

When CH is illuminated, your MicroField is in Search mode.



When SE is flashing, this indicates the unit is searching for a channel.

To find an audio signal automatically, press the SEARCH button momentarily. MicroField will search all available frequencies for valid audio signals. "SE" will flash in the display, indicating the unit is searching for a valid receive channel, and the CH indicator will illuminate. When it finds an audio signal^{*}, it will stop on that channel and display the channel number. Press the SEARCH button again within 5 seconds if this is not the receive channel you want (if you wait longer than 5 seconds, the unit will start over when you press SEARCH). If no receive signals are present, the unit will continue to search - press UP or DOWN to stop. CH is displayed when your MicroField is in the search mode. If you are not successful in finding an audio signal, the facility may be using infrared. See page 33 for more information.

*MicroField will not receive channels at or near its programmed transmit channel (see page 22). For example, if MicroField is programmed to transmit on channel 52, it will not be able to receive on channel 52 or nearby channels. See the Interference Chart in Appendix A for more information.

Finding a Receive Channel Using Manual Search

To find an audio signal* manually, press and HOLD the Search button until the CH symbol is shown on the display. Then, press the UP/DOWN keys repeatedly until you find the desired channel. Keep in mind that the first channel you find may not have the clearest signal; you should tune to the exact channel number of the desired audio signal by using the UP and DOWN buttons. (See Appendix B for MicroField channel numbers.) After you have selected your channel, do not press any buttons for 7 seconds; the UP/DOWN keys will revert to volume controls and the CH symbol will be extinguished.

If you are not successful in finding an audio signal, the facility may be using infrared. See page 33 for more information. When CH is illuminated, your MicroField is in Search mode. The CH indication will go out after 7 seconds of non-use. Press and hold SEARCH to re-enter the manual search mode.



search for the clearest channel.

*MicroField will not receive channels at or near its programmed transmit channel (see page 22). For example, if MicroField is programmed to transmit on channel 52, it will not be able to receive on channel 52 or nearby channels. See the Interference Chart in Appendix A for more information.

Storing a Preset Channel

MicroField allows you to store frequently-used channels into presets (P1 through P7). This gives you the ability to quickly find the channel you use frequently. To store a preset:

- Find the receive channel you want to store using the automatic or manual search function. For example, if you want to store channel 18, use search until channel 18 is displayed.
- Press and hold the Preset button. The display will flash between P1 and the stored channel; the factory default channel is 00.
- Momentarily press the Preset button to select the preset number you want to program. As you step through the presets, the display will alternately flash with the preset number and the programmed channel.
- Press and HOLD the Preset button until the display flashes momentarily. This will program your desired channel (example: channel 18) into the currently selected preset number.
- To keep users from inadvertently selecting a preset*, program 00 into the preset location by manually searching for channel 00.
- 30 *When 00 is programmed into a preset location, that preset is not available.



If the padlock symbol is displayed, the presets are locked and you cannot store new presets. You should consider locking the presets after storing them. See page 32 for more information.

Selecting a Preset Channel For Use

To select a preset, press and release the PRESET button repeatedly until the desired preset number appears in the display. There are a total of 7 preset locations available, P1 through P7. In addition to the 7 preset channels, the "last searched" channel is also displayed. For example: the first three presets are programmed and the last searched channel was channel 52. Repeated pressing of the preset button will result in the following selections: P1, P2, P3, 52, P1, P2, P3, 52.

If no presets are available, you may program them. See "Storing Presets" on the previous page.

Caution: if you hold the preset button down for more than two seconds, you will enter the preset programming mode. You may lock the presets after they have been stored to prevent this - see page 32.



Note: If channel 00 is stored in a preset location, that location will not be displayed when you step through the presets.

Locking Preset Channels

Locking presets will prevent accidental erasure or changing of stored receive channels in the presets. Press Preset and then the UP button to lock the presets. A padlock will appear in the display indicating the presets are locked.



Press PRESET, then UP to lock preset channels

Press PRESET, then DOWN to unlock preset channels

Padlock symbol indicates the presets are locked and new presets cannot be stored

To unlock the presets, press the Preset button and then the DOWN button. The padlock will disappear and you will be able to store new channels in the presets. When presets are locked, you cannot store any new presets. However, you can still find out what is in a preset location by pressing and holding the Preset button until the display flashes. This will cause MicroField to cycle between the preset number and the channel that is stored in the preset. Press Preset momentarily while the display is flashing to view what channels are stored in other presets.

Using the Infrared (IR) Receiving Cable

Many cinemas, live theaters, courtrooms or similar places transmit audio signals to portable receivers via infrared emitters. To receive these signals, you will need to use the infrared receiving cable with your MicroField. Be sure to position the IR sensor so that Microfield can pick up the signal. If you are not certain where the IR emitter is located, try different positions until you get the strongest signal.

- Plug the cable into the jack marked IR. —
 Attach the IR cable to your clothing, MicroField's nylon case, or other location.
 - Make sure the sensor is pointed toward the IR source (typically near the ceiling).
 - Use MicroField's search function to find the IR signal (see pages 28 and 29 for information on automatic and manual search functions).



MicroField as a Receiver

Important Notes

MicroField will receive audio signals from a minimum of 5 feet (1.5 meters) from the transmitting antenna to a maximum of approximately 1000 feet (305 meters), depending on the type of transmitter used.

When using your MicroField, make sure the unit is not near a computer. Computers cause interference which may disrupt your reception.



Using the Headset Jack - page 36



Using the Optional Speaker - page 37

MicroField as a Receiver

Using the Headset Jack Headset, Earphone, or Neckloop Use



MicroField can be connected to a headset, earphone or neckloop. Securely plug the device into the headset jack. Stereo or mono mini (3.5 mm) plugs can be used. Adjust the volume to a comfortable listening level using the UP / DOWN buttons.

MicroField as a Receiver

Using the Optional Speaker



Phonak offers an optional speaker for your MicroField unit which fits in the carrying case. This allows you to use your MicroField for personal soundfield applications. Plug the speaker cable into MicroField's headset jack. Position the speaker in the case so the speaker grid is facing outside.

After locating your receive audio signal (see pages 28-29), adjust volume to a comfortable level using the UP / DOWN buttons.

MicroField as a Transmitter

MicroField as a Transmitter

Using the Auxiliary Input With a Microphone

To use the optional microphone, securely plug it into the AUX IN jack. You should only use a microphone supplied by Phonak for this purpose.

When you plug a device into the AUX IN jack, two additional functions are triggered in MicroField:

- The transmission range of the internal transmitter is increased.
- The auto shut-off function (if enabled) is disabled.



MicroField as a Transmitter

Using the Auxiliary Input With Your TV or Other Device



MicroField can be directly connected to your TV set, DVD, CD player, computer or other similar devices. This allows you to listen to this device through your FM receiver via MicroField.

Connect the optional cable* to the AUX IN jack on your MicroField. Connect the other end to your TV or other device.

When you plug a device into the AUX IN, two additional functions are triggered in MicroField:

- The transmission range of the internal transmitter is increased.
- The auto shut-off function (if enabled) is disabled.

*The optional cable should be purchased through Phonak.

- When using MicroField for rebroadcasting, my MicroLink / MicroEar sounds distorted. Your MicroField's volume is too high. Set your MicroField's volume control at 15, then use the hearing aid to adjust volume.
- When I press the Preset button, the display reads 00 and I can't find any presets. This is normal. The unit has been set to factory defaults. No channel or preset has been programmed. You can find a channel using the Search functions - see pages 28 - 29; or you can program presets - see page 30.
- When I repeatedly press the Preset button, not all 7 presets are shown. This is normal. Only programmed presets (presets with channels other than 00) are shown.
- How do I find out what is stored in a preset channel? Press and hold the Preset button until it flashes. The display will alternately show the preset number and the channel stored in that preset. Repeatedly press the preset button to find your desired preset.

When I try to store a preset, the display flashes, but I cannot store the preset. The presets are probably locked (look for the padlock symbol in the display). To unlock the presets, see page 32.

The receive channel is shown in the Channel Selection Guide, but I cannot tune to this channel.

MicroField will not receive channels at or near its programmed transmit channel (see Appendix A for details). For example, if your MicroField is programmed to transmit on channel 52, it will not be able to receive on channel 52 or nearby channels. These channels are purposefully locked out by MicroField when you program the transmit channel.

Pressing Search causes the unit to search, but it never finds a channel. There are no FM channels available. Try plugging in the IR receiving cable; the facility may be using infrared transmission. If you still don't find any channels, ask someone at the facility whether they have a transmission available.

At a movie theater, we could not pick up the transmission. Make sure the IR cable is plugged in all the way. Point the sensor around the room until you get the signal. Sometimes the signal is behind you.

Tip: before entering the theater, set your MicroField to channel 91. Most theaters use channel 91 or 92 for infrared transmissions.

The audio signal is distorted.

When searching for a channel, your MicroField may not stop at the clearest channel. Press the Search button again within 5 seconds to find a clearer receive channel.

The channel indicator and signal strength dots go on and off. You are getting a weak signal from the transmitter. Try moving to a different location to receive a stronger signal.

- The batteries are not charging. Make sure you are using the correct power supply and that it is connected to a working power outlet.
- My batteries don't last very long. It is time to replace the batteries. See page 17.
- My MicroField keeps turning off by itself. The auto shut-off function may be enabled (the I/O symbol will be illuminated); see page 13. Or the batteries may be dead; try charging the batteries.
- The unit is not turning off automatically. Make sure the auto shut-off feature is enabled (the I/O symbol will be illuminated when it is enabled). If the auxiliary cable is plugged into the AUX IN jack, the auto shut-off feature is disabled.

- I need more transmission range on my MicroField. To increase the transmission range, plug the auxiliary cable into the AUX IN jack.
- How is the AUX IN jack wired? Tip is the microphone input; Ring is a line input.
- The microphone that is connected to the AUX IN does not work or is distorted. You may be using the wrong type of microphone. Contact Phonak for assistance.
- I can't get the audio from my TV to MicroField. This requires a special cable from Phonak.
- Can I charge my MicroField in my car? Yes. Use an adapter that provides a tip positive to the power jack.

Compliance Notice

Phonak MicroField

216 MHz transmission:

The MicroField transmitter is authorized by rule under the Low Power Radio Service (47 C.F.R. Part 95) and must not cause harmful interference to TV reception or United States Navy SPASUR installations. You do not need an FCC license to operate this transmitter. This transmitter may only be used to provide: auditory assistance to persons with disabilities, persons who require language translation, or persons in educational settings; health care services to the ill; law enforcement tracking services under agreement with a law enforcement agency; or automated maritime telecommunications system (AMTS) network control communications. Two-way voice communications and all other types of uses not mentioned above are expressly prohibited.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate Phonak equipment.

Compliance Notices

FCC Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Appendix

Appendix A: Interference Chart (Standard Phonak Frequencies 216 MHz)

	smitter																											
Receiver	Tran:	NO1	N02	N04	N05	N08	000	N12	N13	N16	N17	N18	N61	N62	N52	N64	N65	N68	N69	N55	N72	N73	N57	N76	N77	N79	N60	N80
f(MHz)		Frequ	Jencie	s used	l in otl	ner roo	oms													_								
216.0125	N01	0	25	75	100	175	200	275	300	375	400	425	500	525	563	575	600	675	700	713	775	800	813	875	900	950	963	975
216.0375	N02	0	0	50	75	150	175	250	275	350	375	400	475	500	538	550	575	650	675	688	750	775	788	850	875	925	938	950
216.0875	N04	75	50	0	0	50	75	150	175	250	275	300	375	400	437	450	475	550	575	587	650	675	687	750	775	825	837	850
216.1125	N05	100	75	25	0	25	50	125	150	225	250	275	350	375	412	425	450	525	550	562	625	650	662	725	750	800	812	825
216.1875	N08	125	100	50	25	0	25	100	125	200	225	250	325	350	388	400	425	500	525	538	600	625	638	700	725	775	788	800
216.2125	N09	150	125	75	50	0	0	75	100	175	200	225	300	325	362	375	400	475	500	512	575	600	612	675	700	750	762	775
216.2875	N12	275	250	200	175	100	75	0	0	50	75	100	175	200	237	250	275	350	375	387	450	475	487	550	575	625	637	650
216.3125	N13	300	275	225	200	125	100	25	0	25	50	75	150	175	212	225	250	325	350	362	425	450	462	525	550	600	612	625
216.3875	N16	325	300	250	225	150	125	50	25	0	25	50	125	150	188	200	225	300	325	338	400	425	438	500	525	575	588	600
216.4125	N17	400	375	325	300	225	200	125	100	25	0	0	50	75	112	125	150	225	250	262	325	350	362	425	450	500	512	525
216.4375	N18	425	400	350	325	250	225	150	125	50	25	0	25	50	87	100	125	200	225	237	300	325	337	400	425	475	487	500
216.5125	N61	450	425	375	350	275	250	175	150	75	50	25	0	25	63	75	100	175	200	213	275	300	313	375	400	450	463	475
216.5375	N62	475	450	400	375	300	275	200	175	100	75	50	0	0	38	50	75	150	175	188	250	275	288	350	375	425	438	450
216.575	N52	512	487	437	412	337	312	237	212	137	112	87	12	12	0	13	38	113	138	150	213	238	250	313	338	388	400	412
216.5875	N64	575	550	500	475	400	375	300	275	200	175	150	75	50	13	0	0	50	75	87	150	175	187	250	275	325	337	350
216.6125	N65	550	525	475	450	375	350	275	250	175	150	125	50	25	13	0	0	75	100	112	175	200	212	275	300	350	362	375
216.6875	N68	675	650	600	575	500	475	400	375	300	275	250	175	150	113	100	75	0	0	12	50	75	87	150	175	225	237	250
216.7125	N69	650	625	575	550	475	450	375	350	275	250	225	150	125	87	75	50	0	0	12	75	100	112	175	200	250	262	275
216.725	N55	662	637	587	562	487	462	387	362	287	262	237	162	137	100	87	62	12	12	0	63	88	100	163	188	238	250	263
216.7875	N72	775	750	700	675	600	575	500	475	400	375	350	275	250	212	200	175	100	75	62	0	0	13	50	75	125	137	150
216.8125	N73	750	725	675	650	575	550	475	450	375	350	325	250	225	187	175	150	75	50	37	0	0	13	75	100	150	163	175
216.825	N57	812	787	737	712	637	612	537	512	437	412	387	312	287	250	237	212	137	112	100	37	12	0	13	38	88	100	113
216.8875	N76	875	850	800	775	700	675	600	575	500	475	450	375	350	312	300	375	200	175	162	100	75	62	0	0	25	38	50
216.9125	N77	850	825	775	750	675	650	575	550	475	450	425	350	325	287	275	250	175	150	137	75	50	37	0	0	50	63	75
216.9625	N79	950	925	875	850	775	750	675	650	575	550	525	450	425	388	375	350	275	250	238	175	150	138	75	50	0	12	0
216.975	N60	962	937	887	862	787	762	687	662	587	562	537	462	437	400	387	362	287	262	250	187	162	150	87	62	12	0	13
216.9875	N80	925	900	850	825	750	725	650	625	550	525	500	425	400	363	350	325	250	225	213	150	125	113	50	25	0	12	0

Interference certain

Interference likely, keep max. distance

Reduced range, keep distance as large as possible

Potential interference in neighboring rooms Potential interference in the same room

No interference

To use this guide, find the channel number of your product and note the corresponding channel number in MicroField. You will use the MicroField channel number (first column) for programming or using your unit.

MicroField Channel	Frequency (MHz)	Phonak	Listen	Phonic Ear	Comtek	Telex	AVR	Williams	Light Speed	Drake	Gentner
1	216.0125	N01	1A				C01		N01		
41	216.0250		2A	41							1
2	216.0375	N02	3A								
21	216.0625		1B								
42	216.0750		2B	42							2
4	216.0875	N04	3B								
5	216.1125	N05	1C				C05				
43	216.1250		2C	43				А			3
22	216.1375		3C								
23	216.1625		1D								
44	216.1750		2D	44				В			4
8	216.1875	N08	3D								
9	216.2125	N09	1E				C09		N09		

216 MHz Channels

(continued on next page)

MicroField Channel	Frequency (MHz)	Phonak	Listen	Phonic Ear	Comtek	Telex	AVR	Williams	Light Speed	Drake	Gentner
45	216.2250		2E	45				С			5
24	216.2375		3E								
25	216.2625		1F								
46	216.2750		2F	46				D			6
12	216.2875	N12	3F				C12		N12		
13	216.3125	N13	1G								
47	216.3250		2G	47				E			7
26	216.3375		3G								
27	216.3625		1H								
48	216.3750		2H	48				F			8
16	216.3875	N16	3H				C16				
17	216.4125	N17	1J								
49	216.4250		2J	49				G			9
18	216.4375	N18	3J				C18		N18		
61	216.5125	N61	1K				C21				
29	216.5250		2K	51				Н			10
62	216.5375	N62	3K								

MicroField Channel	Frequency (MHz)	Phonak	Listen	Phonic Ear	Comtek	Telex	AVR	Williams	Light Speed	Drake	Gentner
28	216.5625		1L								
52	216.5750	N52	2L	52				I			11
64	216.5875	N64	3L				C24		N64		
65	216.6125	N65	1M				C25				
53	216.6250		2M	53				J			12
81	216.6375		3M								
82	216.6625		1N								
54	216.6750		2N	54				K			13
68	216.6875	N68	3N								
69	216.7125	N69	1P				C29				
55	216.7250	N55	2P	55				L			14
83	216.7375		3P								
84	216.7625		1R								
56	216.7750		2R	56							15
72	216.7875	N72	3R				C32		N72		
73	216.8125	N73	1S				C33				
57	216.8250	N57	2S	57							16

MicroField Channel	Frequency (MHz)	Phonak	Listen	Phonic Ear	Comtek	Telex	AVR	Williams	Light Speed	Drake	Gentner
76	216.8375	N76	3S								
85	216.8625		1T								
58	216.8750		2T	58							17
86	216.8875		3T								
77	216.9125	N77	1U				C37		N77		
59	216.9250		2U	59							18
88	216.9375		3U								
79	216.9625	N79	1V				C39				
60	216.9750	N60	2V	60							19
80	216.9875	N80	3V				C40		N80		
00	NONE										

72 MHz Channels

MicroField Channel	Frequency (MHz)	Phonak	Listen	Phonic Ear	Comtek	Telex	AVR	Williams	Light Speed	Drake	Gentner
1A	72.0250		1	1	1	1		11			
2A	72.0750		2	2	2	2		12			
А	72.1000		А	А	А	А		А		72.1	2
3A	72.1250		3	3	3	3		14			
4A	72.1750		4	4	4	4		15			
K	72.2000		K			В				72.2	4
5K	72.2250		5	5	5	5		16			
6K	72.2750		6	6	6	6		17			
В	72.3000		В	В	В	С		В		72.3	6
7B	72.3250		7	7	7	7		19			
8B	72.3750		8	8	8	8		20			
Ν	72.4000		Ν			D				72.4	8
9N	72.4250		9	9	9	9		21			
ON	72.4750		10	10	10	10		22			
С	72.5000		С	С	С	E		С		72.5	10
1C	72.5250		11	11	11	11		24			
2C	72.5750		12	12	12	12		25			

MicroField Channel	Frequency (MHz)	Phonak	Listen	Phonic Ear	Comtek	Telex	AVR	Williams	Light Speed	Drake	Gentner
0	72.6000		0			F				72.6	12
20	72.6250		13	13	13	13		26			
40	72.6750		14	14	14	14		27			
D	72.7000		D	D	D	G		D		72.7	14
5D	72.7250		15	15	15	15		29			
6D	72.7750		16	16	16			30			
Р	72.8000		Р			Н				72.8	16
7P	72.8250		17	17	17	17		31			
8P	72.8750		18	18	18	18		32			
E	72.9000		E	E	E	I		E		72.9	18
9E	72.9250		19	19	19	19		34			
OE	72.9750		20	20	20	20		35			
3E	74.6250		33	33	33	33		36			
4E	74.6750		34	34	34	34		37			
I	74.7000		I	I	I	0		L			21
51	74.7250		35	35	35	35		39			
61	74.7750		36	36	36	36		40			

MicroField Channel	Frequency (MHz)	Phonak	Listen	Phonic Ear	Comtek	Telex	AVR	Williams	Light Speed	Drake	Gentner
71	75.2250		37	37	37	37		41			
81	75.2750		38	38	38	38		42			
J	75.3000		J	J	J	Р		J			24
9J	75.3250		39	39	39	39		44			
OJ	75.3750		40	40	40	40		45			
R	75.4000		R			Q					26
1R	75.4250		21	21	21			46			
2R	75.4750		22	22	22			47			
F	75.5000		F	F	F	J		F		75.5	28
3F	75.5250		23	23	23			49			
4F	75.5750		24	24	24			50			
S	75.6000		S			Κ				75.6	30
5S	75.6250		25	25	25			51			
6S	75.6750		26	26	26			52			
G	75.7000		G	G	G	L		G		75.7	32
7G	75.7250		27	27	27			54			
8G	75.7750		28	28	28			55			

MicroField Channel	Frequency (MHz)	Phonak	Listen	Phonic Ear	Comtek	Telex	AVR	Williams	Light Speed	Drake	Gentner
Т	75.8000		Т			Μ				75.8	34
9T	75.8250		29	29	29			56			
OT	75.8750		30	30	30			57			
Н	75.9000		Н	Н		Ν		Н		75.9	36
1H	75.9250		31	31	31			57			
2H	75.9750		32	32	32			60			
00	NONE										

Channel Selection Guide - Infrared (IR)

MicroField Channel	Frequency (MHz)					
91	95kHz IR					
92	250kHz IR					
93	2.06MHz IR					
94	2.3MHz IR					
95	2.56MHz IR					
96	2.8MHz IR					
97	3.3MHz IR					
98	3.8MHz IR					





hearing systems

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