

# Fitting Guide



## Roger and Cochlear Implants

This guide provides detailed information on how Roger should be used with the most popular cochlear implant sound processors to achieve the best possible performance.

A recent study by Dr. Jace Wolfe of Hearts for Hearing Foundation, Oklahoma City, revealed that the use of Roger systems in combination with cochlear implants resulted in significant improvements in speech recognition at high noise levels (70 to 80 dB (A)) over fixed gain FM and Dynamic FM technologies (see [www.phonakpro.com](http://www.phonakpro.com))<sup>1</sup>.

### Set-up

The table below shows what Roger receiver and/or adapter is required to use Roger with a sound processor.

Product name			
Advanced Bionics Naída CI Q70	Advanced Bionics Harmony™ / Auria™	Cochlear Nucleus 6 (CP910) / Nucleus 5 (CP810) <sup>4</sup>	MED-EL OPUS 2
			
Roger 17 <sup>2</sup> or ComPilot + Roger X	iConnect™ + Roger X <sup>3</sup>	Roger 14 or Euro accessory adapter + Roger X	FM battery door + Roger X
Receiver + Adapter			

Roger X is not compatible with the Advanced Bionics (AB) Neptune™ sound processor.

<sup>1</sup>Jace Wolfe (2013), Evaluation of speech recognition of cochlear implant recipients using a personal digital adaptive radio frequency system. Accepted by the *Journal of the American Academy of Audiology*.

<sup>2</sup>PowerCel™ 170 battery required.

<sup>3</sup>Roger X with SN > 1336NY560 only.

<sup>4</sup>Build Standard C or higher.

## Pre-fitting

Program the sound processor with the recommended settings according to the table below. This will ensure maximum benefit from the Roger system.

Model	Recommended sound processor setting
AB Naída CI Q70	Set the Audio Mixing Ratio (Mic/Aux) to 50/50
AB Naída CI Q70 via ComPilot	Set the ComPilot Mixing Ratio to either 50 or 75%
AB Harmony / Auria	Set the Audio Mixing Ratio (Mic/Aux) to 50/50
Cochlear Nucleus 6 / 5	Set Mixing Ratio to 1:1 and select Autosensitivity™ + ADRO configuration
MED-EL OPUS 2	None required
Bodyworn processors using ML CI S	If available, set the Mixing Ratio to 50/50 or 1:1 for the AI program

For Roger 14 and Roger 17, no pre-programming is required.

For MED-EL sound processor and CI systems using ML CI S, no Roger X pre-programming is required

For Cochlear's Nucleus 6, Nucleus 5, Freedom or the Advanced Bionics Harmony / Auria systems, Roger X\* must be pre-programmed. A Roger inspiro is required for programming Roger X.

1. Connect Roger X to the sound processor or ComPilot and switch it on.
2. Turn Roger inspiro on, hold it close to Roger X (less than 10 cm/4 inches) and select the function **Check**.
3. Click **Manage**, scroll to 'CI module' then click **OK**.
4. Scroll to the corresponding value as shown in the table below.
5. Scroll to EasyGain and click **OK**.
6. Set the EasyGain to the corresponding value as shown in the table below.

Model	Recommended CI module setting	Recommended EasyGain	AutoConnect
MED-EL OPUS 2 and ML CI S (automatic setting)	Default	0dB	ON
MED-EL OPUS 2 (manual setting)	Setting 2	0dB	OFF
AB Naída CI Q70 with ComPilot and Roger X	Setting 3	0dB	OFF
AB Harmony / Auria	Setting 4 or Setting 1	+8dB or 0dB	OFF
MicroLink CI S (manual setting)	Setting 5	0dB	OFF
Cochlear Nucleus 6 / 5	Setting 9	0dB	OFF

This will ensure that the Roger X output impedances match the input impedance of the sound processor. These settings have been thoroughly tested with CI recipients.

\* Available for Roger X (02) only

## Getting started

### Step 1: Attach Roger receiver

Switch all equipment off. If required, remove the standard cover or hook and attach the adapter to the sound processor. Now attach the Roger receiver to the sound processor, adapter, battery or to ComPilot.

### Step 2: Switching on

Ask the user to put on the sound processor and switch it on. If available switch also the ComPilot on. The sound processor should automatically detect the presence of the Roger receiver. If this is not the case, manually change to the program utilizing the recommended Roger program settings.

### Step 3: Connect

Hold the Roger microphone close to the Roger receiver (within 10 cm/4 inches) and press the Connect button on the Roger microphone. The user should now report that he/she has heard the confirmation beeps (a low tone followed by a high tone). If the user did not hear the confirmation beeps, you may need to manually switch the processor into the DAI, EXT, ComPilot or AUX program. Repeat this connect process until your patient hears the beeps.

### Step 4: Test the system

Consider testing the user's speech recognition in quiet with the CI alone by muting the Roger microphone and standing close to your patient. Then test the user's speech recognition through the Roger microphone while standing at least 3 meters away. Listening performance should be similar between these two conditions.

## Troubleshooting

### *Most probable cause*

### *Solution*

#### Signal from Roger microphone cannot be heard

Sound processor is set in the wrong program

Switch the sound processor to the dedicated DAI, EXT ComPilot or AUX program

Roger receiver is not connected to the Roger microphone

Connect Roger receiver with the Roger microphone (see Step 3)

Roger microphone is not switched on or is muted

Switch on the Roger microphone and make sure it is not muted

CI user is out of range of the Roger microphone

Ask the CI user to move closer to the Roger microphone to be within its operating range

Batteries are empty

Use fresh batteries or make sure the rechargeable battery pack is full charged

#### Processor microphones are attenuated

Mixing ratio

Make sure a mixing ratio other than 'Aux Only' is being utilized for AB users. Ensure a 1:1 mixing ration for Cochlear users is utilized (see recommended sound processor setting table)

Microphone sensitivity

Make sure microphone sensitivity has not been reduced in the DAI, EXT, ComPilot or AUX program

#### The Roger microphone's signal suffers from interruptions

The Roger microphone is too far away or shielded by obstacles (e.g., human body)

Reduce the distance between Roger receiver and the Roger microphone, and ensure both devices are in line of sight

## Special features for educational system\*

### Programming of EasyGain

If the volume of the Roger system is not satisfactory, you can change the gain of the receiver via Roger inspiro. Hold Roger inspiro close to Roger receiver (less than 10 cm/4 inches) and press **Check**. Roger receiver information will appear on the inspiro's screen.

Press **Manage**, scroll with the cursor to **EasyGain** and press **OK**. Now you can change the gain of the receiver in the range of -8 to +8 dB.

\*Available for Roger X (02) only.