Fitting Guide

Roger and Cochlear sound processors Nucleus 5 and Nucleus 6

This guide provides detailed information on how Roger receivers should be used with Cochlear sound processors Nucleus 5 (CP810) and Nucleus 6 (CP910) to achieve the best possible performance.

A 2013 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)1.

Set-up

The table below shows what is required to connect the sound processor to a Roger receiver.

<table>
<thead>
<tr>
<th>Sound processor</th>
<th>Adapter / Roger receiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochlear Nucleus 6 (CP910) / Nucleus 5 (CP810)2</td>
<td>Cochlear Euro Accessory Adapter and Roger X</td>
</tr>
<tr>
<td>Roger 14</td>
<td></td>
</tr>
</tbody>
</table>

1 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.
2 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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sound processor setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochlear Nucleus 6 / 5</td>
<td>Set Mixing Ratio to 1:1 and select Autosensitivity + ADRO configuration</td>
</tr>
</tbody>
</table>

For Roger 14, no pre-programming is required. Roger X must be pre-programmed. A Roger inspiro is required for programming Roger X.

1. Connect Roger X to the sound processor.
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 ‘Setting 9’ and click OK again.

<table>
<thead>
<tr>
<th>Model</th>
<th>Recommended CI module setting</th>
<th>Recommended EasyGain</th>
<th>AutoConnect status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochlear Nucleus 6 / 5</td>
<td>Setting 9</td>
<td>0 dB</td>
<td>OFF</td>
</tr>
</tbody>
</table>

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.

3Available for Roger X (02) only

Getting started

Attaching Roger 14:

Step 1: Attach receiver
Roger X
Switch all equipment off. Attach the adapter to the sound processor. Now attach Roger X to the adapter.

Roger 14
Switch all equipment off. Attach the Roger 14 to the sound processor.

Step 2: Switching on
Ask your patient to put on the sound processor and switch it on. The sound processor should automatically detect the presence of the Roger receiver.

Step 3: Connect
Hold the Roger microphone close to Roger X / Roger 14 (within 10 cm/4 inches) and press the Connect button. Your patient should now report that he/she has heard the confirmation beeps (a low tone followed by a high tone).
If your patient didn’t hear the confirmation beeps, you may need to manually switch the processor into the DAI program. Repeat this connect process until your patient hears the beeps.

Step 4: Test the system
Test the patient’s speech recognition in quiet with the CI alone by muting the Roger microphone and standing close to your patient. Then test the patient’s speech recognition through the Roger microphone while standing at least 3 meters away. Listening performance should be similar between these two conditions.
Using Roger via the T-Coil

Alternatively, the receiver Roger MyLink can be used after activating the T-Coil on the sound processor.

Troubleshooting

**Signal from Roger microphone cannot be heard**

- Sound processor is set in the wrong program: Switch the sound processor to the dedicated FM 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 (refer to User Guide)
- 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: Ensure a 1:1 mixing ratio for Cochlear users is utilized (see recommended sound processor setting table)
- Microphone sensitivity: Make sure microphone sensitivity has not been reduced in the FM 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.

Listening check

<table>
<thead>
<tr>
<th>Listening option</th>
<th>MLx Audio Checker and Roger 14</th>
<th>MLx Audio Checker and Roger X</th>
<th>Cochlear Monitor Earphones and Roger 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roger 14 attached to the “Phonak Roger 14 / ML 14i Checker” and plugged into the MLx Audio Checker</td>
<td>Roger X plugged directly into the MLx Audio Checker</td>
<td>Roger 14 plugged directly into Cochlear Monitor Earphones</td>
<td></td>
</tr>
</tbody>
</table>
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 Roger 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.

NOTE: Deactivation of the audio input is possible by using the Cochlear remote control.

*Available for Roger 14 (02) and Roger X (02) only.*