

## How to fit Micro Receiver DT20 to Cochlear Nucleus CP800 Series

Cochlear Nucleus® CP810 is built in three different versions: A, B and C. Only Cochlear Nucleus® CP810 Version C supports the use of Micro Receiver DT20. The version of the CP810 is identified is by the last letter in the serial number on the sound processor. The serial number is located in the curved inside edge of the CP810. See the pictures to the right.



Notice: In order to ensure that the sound processor is configured in accordance to the guide lines in **Step 2** (*Preparing the Sound processor*) in this guide, please contact the responsible personnel at the CI center, before you visit the CI user.

### Required parts

1. Micro Receiver DT20
2. Programmer DT20
3. Euro Accessory Adaptor
4. Monitor Headphones for Cochlear Nucleus® series



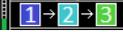
### Before fitting Micro Receiver DT20 to Cochlear Nucleus® ver. C

Please ensure that each step below is carefully followed before making any attempt to connect Micro Receiver DT20 to the sound processor.

### 1. Preparing Micro Receiver DT20

In this step you will use Programmer DT20 to configure Micro Receiver DT20 for optimal performance when being used with Cochlear Nucleus CP810.

a. Start Programmer DT20 and attach the Micro Receiver DT20 into its Europlug.

b. Select the **Step-by-Step Guide**  and press .

c. Skip the Scan instruction animation and scroll to the next step by pressing .

d. Check that Comfort Digisystem Microphone is turned off.  
On Programmer DT20 select  and press .

e. In this step the radio environment will automatically be scanned by the DT20 Programmer's built-in spectrum analyser and the value of the radio interferences will be presented on the screen.

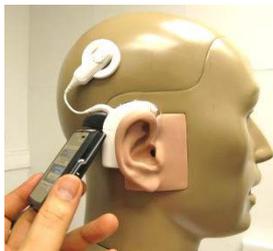


Ensure that there are no radio interferences in your radio environment, before you go to the next step.

*Green colour indicates acceptable radio interference level.*

*If any radio interferences higher than -91 dBm is indicated in your radio environment, you need to find the interference sources and eliminate them.*

f. Scan the CI processor; see the picture.



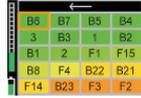
g. A typical interference level about **-85 dBm** will usually be indicated and the background colour turns orange/ yellow. Press  to go to the next step.



- h. The picture shows that a moderate interference level has been indicated. Select  Press  to go to the next step.



- i. In this step a selection of those most appropriate radio channels is shown. Use  to select one channel and then press it to go to the next step. Notice: The greener channel, the less interference.



- j. Enable  Micro Receiver DT20's Push Button.

- k. Turn on your Comfort Digisystem microphone and configure it with a channel from the recommended channel list in **step i**. On Programmer DT20 select  and press .

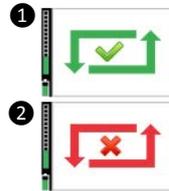
- l. Press DT20's Push button and hold it down for more than 2 sec in order to set Micro Receiver DT20 in pairing mode. You will then automatically be guided to the next step.



- m. Send the pairing information from Comfort Digisystem Microphone to Micro Receiver DT20.



- n. Depending on whether the pairing procedure has been successful **1** or not **2**, one of the symbols shown in the pictures to the right will appear and you will be guided to:



- i. The **Step o** if the pairing has been successful.  
ii. The **Step l** if the pairing has not been successful. Press  to go to the next step.

- o. Press  to skip the Volume Adjustment Animation.

- p. Flick down  until the volume of R-mode is turned off . Select  and press . You will now be presented a chequered flag. Press  to go to the next step. You will then be guided to the **Main menu**.



- q. In the Main menu adjust the volume of R+M = +2 dB. Enable **Auto Sleep** . Choose if "Pairing by push button" may be enabled  or disabled . Select High sensitivity .



- r. The settings can be transferred and saved in any computer via USB. Connect Programmer DT20 to the computer. Select **USB** and press .



- s. Make a brief listening test through a pair of headphones connected to Programmer DT20, in order to ensure that entire Comfort Digisystem is working properly.

The Comfort Digisystem is now prepared to be used with the CI processor.

## **2. Preparing the sound processor**

For optimal performance ensure that the sound processor is programmed with the following settings:

- a. Smartsound Environment = ASC+ADRO. Use default Everyday Environment setting and the default sensitivity setting of 12.
- b. Mixing ratio = 1:1
- c. Auto Telecoil = Off

## **3. Connecting Micro Receiver DT20 to Cochlear Nucleus®810 Ver. C and performing functional listening evaluation**

- a. Insert Micro Receiver DT20 into the Euro Accessory Adaptor. Insert the Euro Accessory Adaptor into the sound processor's accessory socket, while the sound processor is still switched on.
- b. CP810 will automatically detect the Receiver DT20.
- c. Perform a functional listening evaluation as follows:
  - Turn off Micro Receiver DT20. Conduct a listening test in quiet, at a Speaker-to-Listener distance of 1 meter.
  - Turn on Micro Receiver DT20. Using the Remote Assistant CR110 change the Mixing Ratio to **6:0**. Repeat the same listening test in quiet, at a Speaker-to-Listener distance of several metres this time.
  - The user's speech recognition performance should be almost the same in the both cases.
  - If not, use the Programmer DT20 to optimize the output level of Micro Receiver DT20 until almost the same performance is obtained.
  - Note: A mixing ratio of 1:1 is recommended for a good compromise between the input signal from Micro Receiver DT20 and the input signal from the Sound processor's internal microphone in quiet. A mixing ratio of 2:1 or 3:1 can give a good speech recognition performance in noise.