Our experience has shown us that the adaptation time for Nucleus® 22 recipients adjusting to the Freedom™ is slightly longer than it was for Nucleus® 24 recipients adjusting. Based on our experiences, we have compiled some brief counseling tips for key changes you may wish to incorporate into your fitting appointment.

**Controls**

- The controls take practice, just like learning to use any new device.
- The reason for the push buttons is for the water resistance and increased reliability.
- Refer to the user manual, quick reference guides, and keyring pocket guide.

**Using the Telecoil**

- The telecoil is in a different orientation than previous processors, which means you may need to change the positioning of the phone to get the best sound.
- Check to see if the telephone is compatible with the telecoil.
- Some recipients report using the microphone setting on telephone works well (this can be done for both telecoil and mixed telecoil settings).

**Battery Life**

- This is the first time ESPrit™ 22 and ESPrit™ 3G recipients have been able to use rechargeable or disposable batteries. There are two rechargeable batteries in the upgrade kit so one battery can be charging while another is in use. Encourage recipients to determine which battery option is best for them.
- The Freedom sound processor is fully digital, which requires more power to run. Recipients may experience a reduction of 10-30% of the battery life of their legacy processor, and a further 15-20% with accessory use (worse case scenario).
- Follow the battery suitability guidance provided by Custom Sound™ 2.0.

**Sound Differences — Sensitivity**

- Increased IIDR gives a wider window of sound and will initially be a big difference. Remind recipients that the new device will pick up more sound.
- If there is great concern, match sensitivity level initially to legacy processor, and encourage them over time to turn down the volume and increase sensitivity to within tolerance levels.
- Encourage recipients to gradually increase sensitivity level over time.

**Sound Differences — Frequency Allocation Tables (FATs)**

- Upgrade FAT will have a different sound quality and may initially sound different, but most recipients will adjust.
- FATs can be adjusted in Custom Sound 2.0 if required.
- Consult HearingMentor for guidance based on the sound description from the recipient.

**Available Resources:**

<table>
<thead>
<tr>
<th>Clinicians</th>
<th>Recipients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom Sound Electronic Help</td>
<td>Freedom DVD User Guide</td>
</tr>
<tr>
<td>Professional Information Series : Clinical Guidelines for Using the Telephone with Nucleus Freedom</td>
<td>Troubleshooting Guide</td>
</tr>
</tbody>
</table>

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Programming Guidelines
Freedom™ for Nucleus® 22
Quick Reference Programming Guidelines – Freedom™ for Nucleus® 22

1. Open preferred Nucleus 22 MAP. Optimize and save MAP, as required

   **TIP:** After converting or upgrading Nucleus 22 legacy processor MAPs to Freedom, the Freedom MAP cannot be converted back to the legacy processor.

2. Create both Upgrade and Convert MAPs for comparison

3. Add summary to session notes

4. Go Live on both MAPs
   >> Auto Skin Flap Measurement

   **TIP:** Recipient with no strong preference for either Upgrade or Convert MAP could be given both options to trial in the 'real world'.

5. Optimize sound quality

   **TIP:** Counsel on impact of wider IIDR, ie. hearing more sound

   **TIP:** "Too Much Sound" Decrease Sensitivity Level to no lower than 8. Decrease Volume if required

   **TIP:** Use HearingMentor for suggestions to optimize sound quality

   **TIP:** Reduce Instantaneous Input Dynamic Range (IIDR)

6. Determine suitable battery type

7. Add SmartSound™ Environment

   **TIP:** Set different environmental SmartSound options based on recipient’s needs.

   **NOTE:** Some recipients may only be able to adjust to new SmartSound programs after experience with the Freedom processor

8. Write MAPs
   >> Auto Battery Estimation

   **TIP:** Telephone use – Create MAP with Telecoil Always On if appropriate

9. Print Recipient Summary

   Counsel recipients on use and care of sound processor
Upgrade and Convert

<table>
<thead>
<tr>
<th>Upgrade</th>
<th>Convert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copies the existing T and C levels</td>
<td>✓</td>
</tr>
<tr>
<td>Applies 40 dB IIDR setting</td>
<td>✓</td>
</tr>
<tr>
<td>Increases maxima to 8</td>
<td>✓</td>
</tr>
<tr>
<td>Sets Volume and Sensitivity to Freedom defaults</td>
<td>✓</td>
</tr>
<tr>
<td>Copies input processing into SmartSound™ environments or None as appropriate</td>
<td>✓</td>
</tr>
<tr>
<td>Changes frequency allocation table to Freedom default</td>
<td>✓</td>
</tr>
<tr>
<td>Copies the frequency allocation boundaries</td>
<td>x</td>
</tr>
</tbody>
</table>

*If the upper frequency is greater than 7938Hz, Convert will most often set the boundary to 7938Hz. Some MAPs, however, may require the Freedom FAT to be used.

Using Freedom™ processor

1. Show LCD Display
   • Indicates which ear the processor is programmed for
2. Demonstrate controls: On/Off/Select Program/Increase/Decrease/Telecoil/Microphone
3. Demonstrate Reset, Lock and how to Connect accessories including Monitor Earphones
   • Reset = press and hold down ‘Select’ and both ‘Increase’ and ‘Decrease’ buttons together for more than one second
   • Lock/Unlock = press both ‘Select’ and ‘Decrease’ buttons together
   • Connect accessories = plug in accessory and push both ‘Increase’ and ‘Decrease’ buttons together (EA shows briefly) or start with processor off, plug in accessory (automatic detection occurs)
4. Explain Help Messages: H1, H2, H3, H4, H5, H6
   • H3 with Nucleus 22 implant only indicates the coil cable is damaged or coil is not properly attached to the processor

Taking care of Freedom processor

5. Discuss maintaining water resistance of processor
   • Check and change microphone covers when dirty or at least once every 3 months
   • Recommend daily use of Dry & Store
     • Battery holder and at least bottom battery should be removed
6. Demonstrate careful connection/disconnection of Bayonet Connector and removal of coil
   • Disconnection at the Bayonet not required unless changing controller
7. Advise recipients to save power by turning off processor before removing the coil

Counsel on new features of Freedom for Nucleus 22 processor

8. Explain Volume and Sensitivity

<table>
<thead>
<tr>
<th>Sensitivity: Controls how much sound is heard</th>
<th>Range: 0 - 20</th>
<th>Default: 12</th>
<th>Sensitivity is adjusted for different listening environments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume: Controls how loud the sound is heard</td>
<td>Range: 0 - 9</td>
<td>Default: 9</td>
<td>Volume is reduced if sounds are uncomfortably loud Volume is increased if speech, including own voice, is too soft</td>
</tr>
</tbody>
</table>

9. Demonstrate position of telephone with microphone and/or telecoil use
10. Discuss suitable battery options as recommended in Custom Sound™
11. Discuss SmartSound programs
12. Discuss access to more sounds because of wider IIDR