FAST, EFFICIENT, INNOVATIVE

SOUNDWAVE™

Improve Your Workflow, Enhance Your Productivity

Advanced Bionics
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Programming Guidelines:
New Patients and Return Patients
Get Started

- Launch SoundWave™.

- Connect the sound processor to the fitting hardware and place the headpiece on the patient's head.
  - Check the Fitting Hardware Task Group in the Ribbon Bar.
  - The task group should indicate the implant is ready.

Tip: Click on an icon in the Fitting Hardware task group to access hardware options. For example, click on the sound processor to initialize or backup the sound processor.
Programming Steps: New Patient

Step 1: Create the Patient File
- Select New in the Action Pane, enter the required information, and select OK.
- The New Implant Window will open. Enter the required information and select OK.

Step 2: Condition Electrodes
- Select the Impedances Tab and then click on Condition Right or Condition Left in the Action Pane. Alternatively, select to Run Conditioning from the implant icon in the Fitting Hardware Task Group.

  *Impedances run by default when communication is established between the patient file and the implant, and following Conditioning.*

Step 3: Create Programs
- Go to the Programs Tab and select New Right, New Left, or New Bilateral in the Action Pane.

Example: Program Window

- **Input Tab: Gain Adjustments**
- **Save, Copy, and Close Programs**
- **Program Parameter Groups**
- **Shaping Tools**
- **Global Tool**
- **Auto T**
- **Frequency Allocation**
• Select a Strategy (HiRes – P is the default).
• Verify Audio Mixing in Settings. Consider the following and refer to the SoundWave manual for detailed information on Audio Mixing:
  o T-Mic™ program: Select Aux Only
  o Program for use with FM or External Aux input: Select 50/50 – Mic/Aux
• Volume and Sensitivity dial setting
  o Harmony™, PSP, and PBTE
  o Neptune™

During programming, if the sound processor has a Volume or Sensitivity dial, this read out will reflect the dial setting.

Neptune Volume and Sensitivity dials are on the Neptune Connect, which is removed during programming. Therefore, these dial settings are managed in the Ribbon Bar.

In all cases, the read out in the Ribbon Bar is an absolute value between -100 and +100% independent of the program Volume and Sensitivity Settings.

• Set M levels with Speech Burst™ or Live Speech stimulation (Speech Burst is the default).
• Fine tune the settings, for example: increase the Input Dynamic Range from 60dB to 80dB to improve access to softer sounds or manage Gains from the Input Tab.
• Save the Program
  o Select Save and Close from the Program task group. The program will be assigned an ID in the Patient Management Window.
  o Create additional programs. Highlight a program and select Copy from the Action Pane or follow the previous steps for a new program.

Remember: A program remains editable until loaded to a sound processor, a report is generated, stimulated on within the Patient Record Window, or the patient file is closed.

Step 4: Initialize Processor
• Initialize to prepare the sound processor for programming or to download programs.
  o Select Initialize from the Processor Pane or the Fitting Hardware Task Group.
  o Enter the serial number if it is not already populated (optional).
  o Select side from the drop-down menu to assign processor for Left, Right, or Both ears.
  o Select Yes.
Step 5: Download Programs
- Click and drag or type the program ID into the desired program slot in the Processor Pane.
- Manage LEDs and/or alarms on a program-by-program basis as available in the sound processor by clicking on the status LED in the Processor Pane. *Status LED and alarm details for associated sound processors are available in the SoundWave manual.*
- Click Download in the Processor Pane.

Step 6: Generate Reports
The following reports are available in SoundWave: Program, Visit History, Impedance, and NRI.
- To generate a report, go to the associated tab.
  - For example, to generate a program report, go to the Programs Tab.
- Select the items in the Management Grid that will be included in the report.
  - For example, highlight programs 1, 2, and 3 in the Management Grid.
- Click on Report in the Action Pane.
- Select Print or Save. Reports can be saved as a .PDF.
Programming Steps: Return Patient

Step 1: Open the Patient File

- Select the patient name from the Patient Management Grid. *If this is a transfer patient, the patient name may be listed in the Action Pane.*
- Double click on the name or choose Open from the Action Pane.

Step 2: Review Impedances

- Impedances will run automatically by default when the patient file is opened and communication (lock) established with the implant.

Step 3: Manage Programs

- Select a program from the Patient Record Window and Copy or Open. Alternatively, select New and create a new program.
- Manage settings. Consider the following and refer to the SoundWave™ manual for detailed information on strategy, settings, and program management:
  - Audio Mixing
    - T-Mic™ program: select Aux Only
    - Program for use with FM or External Aux input: select 50/50 – Mic/Aux
  - Volume Range
    - Disable volume control using +/- 0% volume range
  - Sensitivity
    - Create environmental-specific programs by modifying this up to +/- 10 dB
  - Internal Telecoil (Harmony™ only)
    - Enable with appropriate Audio Mixing and provide access to auxiliary input via telecoil compatible devices
  - Input Dynamic Range
    - Expand to provide access to softer-level sounds and enhance music listening
- Save the Program
  - Select Save and Close from the Program task group. The program will be assigned an ID in the Patient Management Window.
  - Create additional programs. Highlight a program and select Copy from the Action Pane or follow the previous steps for a new program.

Remember: A program remains editable until loaded to a sound processor, a report is generated, stimulated within the Patient Record Window, or the patient file is closed.

Step 4: Download Programs

- Initialize the sound processor as required.
- Click and drag or type the program ID into the desired program slot in the Processor Pane.
- Manage LEDs and/or alarms on a program-by-program basis as available in the sound processor by clicking on the status LED in the Processor Pane. *Status LED and alarm details for associated sound processors are available in the SoundWave manual.*
- Click Download in the Processor Pane.

Load a back-up sound processor from the Visit History tab: click, drag, and drop a Visit History record onto the Processor Pane. Click Download.
Step 5: Generate Reports

- To generate a report, go to the associated tab.
  - For example, to generate a program report, go to the Programs Tab.
- Select the items in the Management Grid that will be included in the report.
  - For example, highlight programs 1, 2, and 3 in the Management Grid.
- Click on Report in the Action Pane.
- Select Print or Save. Reports can be saved as a .PDF.

Managing a Version 1 Sound Processor:

Data on a sound processor programmed in a previous version of SoundWave (e.g., version 1.1, 1.4, or 1.6) can be imported to the patient database.

The database will update with the imported information, and the sound processor icon will no longer display “Version 1” once initialization has been performed. Follow these steps:

Additional information is available in the associated manuals and user guides. Should you have questions or need programming support, please contact the Advanced Bions Audiologist-On-Call at 877.271.6727 (within the US and Canada) or contact your local AB representatives.
Neptune Programming Guidelines

Neptune Sound Processor
Flexible wearing options, advanced signal processing, and a waterproof design make Neptune™ an excellent choice for both pediatric and adult implant recipients.* Programming steps for Neptune will be similar to those followed with previously released sound processors from Advanced Bionics with a few distinctive considerations, which are outlined below.

*Compatible with the HiRes 90K, and CII Bionic Ear™ internal devices.

Fitting Hardware Configuration
The Neptune sound processor connects to the Clinician's Programming Interface (CPI) utilizing the Platinum Series™ Processor (PSP) Programming Cable, the Neptune Programming Cable Adapter, and the Neptune Programming Cable.

- Connect the Neptune Programming Cable as follows (the associated user guide provides additional detail):
  - Connect the PSP Programming Cable to the Neptune Programming Cable Adapter.
  - Connect the Neptune Programming Cable to the Adapter.
  - Remove the Neptune Connect or color cover from the Neptune sound processor.
  - Push the programming header snugly onto the Neptune sound processor. The circle on the underside of the header must align with the circular depression on the top of the Neptune sound processor.

Note: To remove the programming header, press the release latch until the header disconnects from the Neptune sound processor.
Verify that the Neptune sound processor appears in the SoundWave™ Fitting Hardware Task Group.

Programming Neptune
Neptune supports programming parameters and sound processing strategies that are available and approved for use with the Harmony™ sound processor including CIS, MPS, HiRes-P, HiRes-S, Fidelity 120™, and ClearVoice™. Following are unique considerations for programming the Neptune sound processor.

Volume and Sensitivity
- In fitting mode, Neptune does not have an available volume or sensitivity dial; therefore, adjustments are made via the Ribbon Bar. The sensitivity information in the Ribbon Bar overrides the sensitivity setting in the Program Window.

• Similar to other Advanced Bionics sound processors, volume range and sensitivity can be set on a program-by-program basis. For example:
  o **Disable the Volume Dial for a specific program:** Set the Volume (Min/Max) in the Program Window Settings to -/+ 0.
  o **Manage the Sensitivity Dial for a specific program:**
    - The Neptune Connect sensitivity dial is enabled by default. The sensitivity dial overrides a program-specific sensitivity setting.
    - To allow the recipient to utilize a program-specific sensitivity setting (-/+ 10 dB) disable the Neptune Connect sensitivity dial in the Processor Pane prior to download.
**Phonak MLxi and Battery-Operated External Audio Input**

During programming of a Neptune sound processor, Live Speech stimulation with real-time parameter adjustments is possible for an auxiliary input. Follow these steps:

- With Neptune attached to the Neptune Programming Cable and visible in the Fitting Hardware Task Group, connect the Phonak MLxi receiver or external audio input device per the steps outlined in the Neptune Programming Cable instructions for use.
- In the Program Window under settings, select **Audio Mixing**:

  **Audio Mixing**
  
  - Aux Only = Aux input on at 100%; Mic input off
  - 50/50 = Equal level from Mic input and Aux input
  - 30/70 = Mic input is approximately 10 dB less than Aux input
  - Aux Only (Atten.) = Aux input reduced by 20 dB; Mic input off

- Set the switch on the programming header to FM for the Phonak MLxi receiver or EXT for a battery-operated external audio input device.

- Select **Live Speech** stimulation from the Stimulation Task Group and select Start. Be aware that settings on the FM or external audio device may impact the sound delivered to the recipient.

**If the recipient does not hear FM input, verify that:**

- A Mic-only setting is NOT being used as the Audio Mixing setting in the active program in SoundWave.
- The programming header switch is in the FM position.
- The FM transmitter has been synced with the FM receiver.*

*Important: The Phonak MLxi should be programmed for an Advanced Bionsics sound processor via the Phonak SuccessWare. Programming support is available through the AB Audiologist-On-Call.
If the recipient does not hear input from the external audio device, verify that:
  - A Mic-only setting is NOT being used as the Audio Mixing setting in the active program in SoundWave.
  - The programming header switch is in the EXT position.
  - The external device is powered and set to an adequate volume level.

**Neptune Processor Pane Options**
Processor Pane options include status LED, audible alarms, and lock. In addition, there are options only available with Neptune.

- Status LED and audible alarms

**Program Slot Options**
- Clear Slot: Provides the ability to remove an already downloaded program from a specific program slot.
- Stimulate: Provides the ability to stimulate a specific program from the Processor Pane.
- Aux Source has three options: Auto-Detect, EXT, and FM.
  - Auto-Detect: This is the default setting and allows Neptune to automatically accept FM input* or Aux input from a device connected to the 3.5 mm Auxiliary Connector. FM input takes precedence over Aux input if both are connected to Neptune Connect. *FM receiver and transmitter must be synced
  - EXT: Transmits only input from a device connected to the 3.5 mm Auxiliary Connector as the Aux input. (No input from FM.)
  - FM: Transmits only FM input to the recipient as the Aux input. (No input from a device connected to the 3.5 mm Auxiliary Connector).
- Enable/Disable Sensitivity (described under managing volume and sensitivity) on a program-by-program basis.
- Enable/Disable IntelliLink™: Available on a program-by-program basis. This is an important safety feature for AB recipients. Contact the AB Audiologist-On-Call or your Clinical Specialist before disabling.

Additional information is available in the associated manuals and user guides. Should you have questions or need programming support, please contact the Advanced Bionics Audiologist-On-Call at 877.271.6727 (within the US and Canada) or contact your local AB representatives.
Harmony™ Upgrade for C1 Implant Recipients

SOUNDWAVE™

Programming Quick Reference Cards
Harmony™ Upgrade for C1 Implant Recipient

Getting Started

Print Program(s) from SCLIN.

Step 1: Open SoundWave™.
Step 2: Select New and enter patient and implant information.

Electrode array information is found in the upper right-hand corner of the SCLIN Report.

IntelliLink™ is not an available option for a C1 implant.

Select OK when done.

Step 3: Run Impedances and review values.

Run impedances from the Fitting Hardware Task Group in the Ribbon Bar or the Impedance Tab. By default, impedances will automatically run when a patient record is opened and the fitting hardware is locked to the implant.
Step 4: Initialize the Harmony™ sound processor.

Click on Harmony™ in the Fitting Hardware task group and then Initialize Processor from the drop-down menu.

Step 5: Create a program.

• Open a New Right or a New Left Program from the Action Pane in the Programs Tab.

• Enter the program settings from the SCLIN report.
  o Select strategy and settings in the Action Pane.
  o Enter Adjusted M and T levels from the SCLIN report.

*Important: When creating a program for a patient with an S-Series sound processor, select the S-Series Filter setting and the S-Series AGC.*

Step 6: Verify comfort in Live Speech.

• Select Live Speech Stimulation.

• Turn down the volume control on the sound processor or reduce M levels globally. Start stimulation.
• Gradually increase the sound processor volume control. Alternatively, slowly increase M levels to the user comfort level.
• Adjust program settings for sound quality.
Step 7: Set the RF level.
- Set RF level
  - Start Live Speech stimulation.
  - Decrease the RF value until lock is lost (Live Speech Stimulation stops).
  - Increase RF by two or three steps and restart stimulation.
  - Live Speech Stimulation should resume. Introduce a loud sound, such as clapping. Lock should be maintained, if not then increase RF one step and restart stimulation. Introduce a loud sound. Repeat until lock is maintained.

This level is expected to provide stable lock for the user; however, verify that stable lock is maintained in stand-alone (on battery power) before the patient leaves the clinic.

Step 8: Save and Close the Program

Step 9: Create Additional Programs as Desired
- Highlight the saved program from the Patient Record Window.
- Select Copy from the Action Pane.
- Consider:
  - A program with telecoil active and an Audio Mixing setting of 50/50.
  - A program for T-Mic™ use with an Audio Mixing setting of Aux Only.

Step 10: Download Programs to Harmony™.

Additional information is available in the associated manuals and user guides. Should you have questions or need programming support, please contact the Advanced Bionics Audiologist-On-Call at 877.271.6727 (within the US and Canada) or contact your local AB representatives.
Bilateral Patient Management

SOUNDWAVE™

Programming Quick Reference Cards
Management and programming of your bilateral patients have been elevated to new levels of care in SoundWave™. Using SoundWave, you can program both ears simultaneously in real-time, manage programs and hardware within the same Patient Record, and easily view or update patient details.

The Patient Record Window for a Bilateral Recipient

- Click to view/edit patient information specific to each ear within a single patient record.
- Verify hardware connections quickly for both ears.
- Initialize, download, and set LEDs/alarms for ear-specific sound processors with one click.
- View and manage programs for R & L ears.
The Bilateral Program Window*

Stimulate, Save, and Copy programs:

Purple means that options are available for both the right and left ear.

Click to choose a stimulation mode.

Click Start Bilateral to see a drop down menu of stimulation options.

*This feature available for HiRes 90K™ and CII implants only
Focus:
Focus for bilateral, right ear only, or left ear only stimulation. Program changes can be done with live stimulation, in real-time and are implemented on the ear or marker with focus:

- Select side from the Global Tools for stimulation.

- After selecting the area of focus for stimulation, refine the selection for adjustment by clicking on a level marker.
Synchronous Task Management for Bilateral Patients

- **Running Conditioning (CII/90K Recipients Only)**

- **Measuring Impedances**

- **Initializing the Sound Processor**

- **Downloading to the Sound Processor**
Programming Bilateral C1+CII/90K Recipients

Management of a C1+CII/90K recipient in SoundWave is similar to management of a bilateral CII/90K recipient. There is one important exception: to create a bilateral view of programs and make program adjustments to both, open two fitting windows (one for each implant), start stimulation for each, and independently modify program parameters.
Clinical Programming Tools

SOUNDWAVE™

Programming Quick Reference Cards
Sweep and Balance

Sweep and Balance utilizing **Tone Burst** or **Speech Burst™** stimulation modes.

**Sweep:** Delivers alternating stimulation across three or more selected electrodes or speech burst bands in an apical to basal direction.

**Balance:** Delivers alternating stimulation between two selected electrodes or speech burst bands.

*Note: The stimulation of adjacent electrodes is not required to sweep or balance.*
Steps to Sweep and Balance:
Step 1: Open a new or saved program.

Step 2: Select *Speech Burst* or *Tone Burst* in the Stimulation Task Group.

Step 3: Select the electrodes or speech burst bands for stimulation by clicking on the electrode contact number at the top of each channel in the Program Window.

*Note: The first electrode or Speech Burst selected retains focus.*

Step 4: Open the drop-down menu below the Start button to refine the stimulation level:

- Set stimulation level based on % M level
- Set number of presentations per electrode or Speech Burst band

Step 5: Select *Start*

Sweep and Balance Tips:
- Increase the number of presentations to allow more time to observe the patient response on each electrode or speech burst band.
- The electrode or speech burst band with focus responds to keyboard commands, such as "s" to start stimulation, ▲ arrow to increase stimulation, and ▼ arrow to decrease stimulation.
- Focus to a new electrode or speech burst band by clicking on a channel marker or using the left and right arrow keys.
- Adjustments to stimulation level can be done in real-time during stimulation.
- The Global Tool simultaneously adjusts all enabled electrode M or T levels.
Electrode Management Options

From the Program Window, right-click over the electrode contact or speech burst band to be managed. SoundWave™ displays the following menu:

- **Electrode**: Enable or disable selected electrodes.
- **Clipping**: Enable clipping to prevent stimulation from exceeding a specified level.
- **Interpolation**: Enable interpolation on one or more electrodes to establish M levels based on measured values in the Program Window. *This option is available only in Live Speech or Tone Burst stimulation.*
- **tNRI**: Display or hide tNRI markers.

Frequency Allocation Tables

**Extended Low Filter (default setting)**

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**Standard Filter**

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</tr>
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</table>

Center frequency information is available on the Output/Input Tabs of the Program Window and full frequency information is found in the Program Report.
NRI Steps and Procedures

SOUNDWAVE™

NRI Quick Reference Cards
NRI Steps and Procedures

NRI Measurement Window

To enlarge individual tracings, double-click on the tracing or select a tracing and click on the three small triangles.

KEY
- Indicates data point is included in the EP Growth Function
- Indicates data point is excluded from the EP Growth Function
- Represents N1
- Represents P2
- Indicates data point is selected

NRI Measurement Tab

ACTION PANE

Parameter Settings

Indicates Data Point is selected for N1/P2 adjustment

MANAGEMENT GRID

Preview Pane

Parameter Settings

Indicates Data Point is selected for N1/P2 adjustment
Step 1: Enter NRI Measurement Settings

Stimulating Electrode
- Select a stimulating electrode.

Note: If only conducting NRI measurements on a subset of electrodes, select electrodes that are distributed across the electrode array, such as 3, 7, 11, and 15.

Recording Electrode
- Set the electrode that SoundWave™ will use to measure the response during the NRI measurement.
  - The default setting is 2 apical unless the stimulating electrode is at the apical end of the array.

Note: Do not use extracochlear electrodes, electrodes with shorts, electrodes with opens, or electrodes exceeding compliance limits when conducting NRI measurements.

Stimulation Range:
- Set the starting and ending stimulation levels in Clinical Units (CU) as desired.
  - The default setting is from 100–200 CUs.

Note: Stimulation Range may be set as ascending or descending.

Data Points
- Set the number of points to achieve an increment step size of 20–30 CU.
  - The default setting is 5 data points.

Stimulation Sequence
- Set the polarity of the pulse used during NRI stimulation.
  - The default is Cathodic First.

Averages per Data Point
- Set the number of stimulus presentations that will be delivered and averaged at each stimulation level.
  - The default is 128 averages.
Recording Gain
• Set the gain applied by the recording amplifier.
  o The default is 300.

*Note: Recording Gain may need to be increased if NRI responses are noisy.*

Step 2: Run and Save NRI Measurement
• Select Start from the Recording Task Group in the Ribbon Bar.

• NRI will run on each data point until completion of the NRI measurement.

*Note: Select Next, found in the Data Point Task Group on the Ribbon Bar, to move on to the next data point if a response is obtained before 128 averages are completed.*

• Select Save from the NRI Measurement Task Group in the Ribbon Bar.

Step 3: Using Interpolation to Create Programs Based on NRI
• After completing NRI, go to the Programs Tab.

• Select New Right or New Left from the Action Pane to open a new program. If tNRI values are not displayed in the Fitting Window, perform the following steps to display them:
  o Right-click on any electrode.
  o Select tNRI – Show All.

*Note: By default, tNRI values will not display in a program window; however, this can be changed in Preferences.*
• Select Live Speech or Tone Burst from the Stimulation Task Group in the Ribbon Bar.
• Right-click on any electrode and select Interpolation – Enable All.
  o Select Yes when a pop-up window is displayed asking if you would like to only interpo-
late zero value channels.
• Set M levels for electrodes with tNRI measurements.
• Electrodes with set M values now have filled M markers and become anchors for interpolation.

  o M levels for the non-anchor electrodes will be automatically set based on the M levels
for anchor electrodes.
• Lower the volume control on the sound processor or reduce M levels globally and turn on
stimulation.
• Gradually increase volume control or M levels to user settings.

Note: M levels may be set initially at the more conservative 10–20% below tNRI. After verifying
comfort at the initial setting, increase Ms while monitoring performance.

• Verify settings (using Ling Sounds, for example).
• Select Save from the Program Task Group in the Ribbon Bar.

Step 4: Create Additional Programs Based on NRI

Use the following recommendations for creating programs using the data obtained using NRI.

If tNRI is <200 CU:
  Program 1: M levels set to tNRI
  Program 2: M levels set to 20% above tNRI
  Program 3: M levels set to 40% above tNRI

If tNRI is between 200–300 CU:
  Program 1: M levels set to tNRI
  Program 2: M levels set to 10% above tNRI
  Program 3: M levels set to 15% above tNRI

If Behavioral M level is significantly higher or lower than tNRI:
Create programs with gradually adjusted M levels (set to level of ESRT or tNRI) with the
Volume Control set to -50/0% and monitor performance.

Note: If tNRI cannot be measured, set M to behavioral levels obtained. If there are no reliable
behavioral measures, contact AB for assistance.
NRI Troubleshooting

SOUNDWAVE™

NRI Quick Reference Cards
NRI Troubleshooting

If NO NRI response is obtained, try the following:

1. Connect a Platinum Series™ sound processor (body worn), if you are not already using one, and repeat the measure.

2. Change the Recording Electrode. Start with the closest neighboring electrode (+1 apical, then basal).

3. Increase the number of averages.

4. Increase the maximum stimulation level.

5. Change the Stimulating Electrode and perform the NRI measurement on a different electrode.

For a clinical programming session, these additional troubleshooting steps may apply:

6. Increase Stimulation Range by 25 CU (set this new level in both Stimulation Range boxes and set to collect 1 Data Point).

7. Continue to increase in increments of 25 CU as needed. Do not exceed 600 CU (based on average compliance limits) or exceed compliance limits for stimulation of the selected electrode. Exceeding compliance limits is indicated by a warning message that appears to the right of the Stimulation Range.

Be cautious. Watch patient for any behavioral response suggesting stimulation is uncomfortable or loud.

Additional information is available in the associated manuals and user guides. Should you have questions or need programming support, please contact the Advanced Bionics Audiologist-On-Call at 877.271.6727 (within the US and Canada) or contact your local AB representatives.
Performing NRI in the OR

Getting Started
Set up fitting equipment as shown in the photo below. Be sure to connect the Clinician’s Programming Interface (CPI) to the power supply and to the computer. Then, connect the sound processor to the CPI via the programming cable.

Step 1: Open SoundWave™ and Select New in the Action Pane.

Step 2: Input Patient Information and Implant Information and select OK.
Step 3: Place the headpiece on the recipient’s head. Confirm that the fitting hardware (CPI, Processor, and Implant) is recognized as shown below.

![Image of fitting hardware with Implant Ready highlighted]

Step 4: Run Conditioning and review impedance values for each electrode.

![Image of impedance values for each electrode]

*Important: It is recommended that NRI is run on valid (green) electrodes only.*

Step 5: Go to the NRI Measurements Tab and select *New Left* or *New Right* from the Action Pane.

![Image of NRI Measurements Tab with New Left highlighted]

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Step 6: Under Settings, select the Stimulating Electrode from the drop-down menu. Set the Stimulation Range from 400 CU–50 CU. Use the default values for the remaining parameters.

![Stimulation Settings](image)

If the error message below appears next to the Stimulation Range, reduce the upper stimulation level.

Step 7: Select Start in the Recording Task Group in the Ribbon Bar. As the measurement is running, look for an NRI response (shown below).

![NRI Response](image)

Step 8: After a response is visible, stop stimulation by selecting Pause in the Recording Task Group in the Ribbon Bar or by pressing the Space Bar on the keyboard. The presence of an NRI response confirms that the auditory nerve responded to stimulation from the selected stimulating electrode.

Step 9: Select Save or Save and Copy (if you would like to make additional NRI measurements) in the Program Task Group in the Ribbon Bar.
- Run NRI on additional electrodes as desired.

![Save and Copy](image)

Step 10: Select Save and Close when NRI measurements are complete.

Additional information is available in the associated manuals and user guides. Should you have questions or need programming support, please contact the Advanced Bionics Audiologist-On-Call at 877.271.6727 (within the US and Canada) or contact your local AB representatives.
# Program Window Keyboard Shortcuts

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>KEY</th>
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<td>Page Down</td>
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<td>Adjust All Markers Up</td>
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<tr>
<td>Adjust Markers Down (M, T, Clipping, Gains)</td>
<td>Down Arrow</td>
</tr>
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<tr>
<td>Bilateral Window: Focus Left Side</td>
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<td>Bilateral Window: Focus Right Side</td>
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<tr>
<td>Data Entry</td>
<td>0–9</td>
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<tr>
<td>Move Entire Channel Selection to the Left</td>
<td>Alt + Left Arrow</td>
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<tr>
<td>Move Entire Channel Selection to the Right</td>
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<td>Move Selection Left</td>
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<td>Move Selection Right</td>
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<td>Select All Markers</td>
<td>Ctrl + A</td>
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<tr>
<td>Select Clipping Marker</td>
<td>C</td>
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<tr>
<td>Select Gain Marker</td>
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<tr>
<td>Select M Marker</td>
<td>M</td>
</tr>
<tr>
<td>Select Multiple Channels to the Left</td>
<td>Shift + Left Arrow</td>
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<tr>
<td>Select Multiple Channels to the Right</td>
<td>Shift + Right Arrow</td>
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<tr>
<td>Select T Marker</td>
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<td>Toggle Input/Output Tab</td>
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<tr>
<td>Toggle Stimulation On/Off</td>
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