

DaVinci PxP and PxPb Fitting Reference Guide

DaVinci PxP and PxPb Precision eXtreme Power



1. Initial Fitting Procedures:

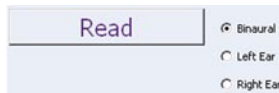
Enter patient information into the Standalone PFS (Standard ProHear) or NOAH database. Enter audiometric thresholds minimally at 500, 1000, 2000, and 4000 Hz. Insert a battery into the DaVinci PxP or PxPb hearing instrument.

2. Launch Hearing Aid Fitting Module and Read:

From the PFS Module Launchpad, double click on the Hearing Aid Fitting button to launch the Hearing Aid Fitting Module.



Select Binaural, Left Ear, or Right Ear. Click **Read** to establish communication with the hearing aid(s).



Click **Best Fit** to optimally adjust the programmable parameters to approximate the targets for the selected fitting formula. Best Fit buttons can be found in either the button panel in the center of the screen, or in the toolbar.



When communication is established, the Best Fit Optimization dialog box will appear. Select Adult or Child. If Adult is selected, choose the most appropriate Experience Level. The recommended Fitting formula for each Experience Level will be selected. To continue with the current Fitting Formula, uncheck the change to recommended Fitting Formula checkbox.



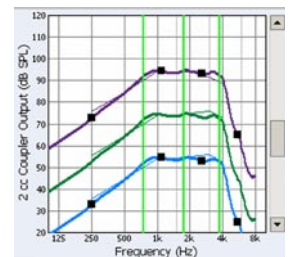
Note: Once the hearing aid is read, the external volume control will be disabled until the device is disconnected from the programming cable and reset.

3. Fine Tuning:

From the Adjust tab, access Frequency Shaping, Volume Control, and TK/CR by clicking on the appropriate subtab. Within each of these adjustment modes there are 3 main ways to fine-tune DaVinci PxP and PxPb.

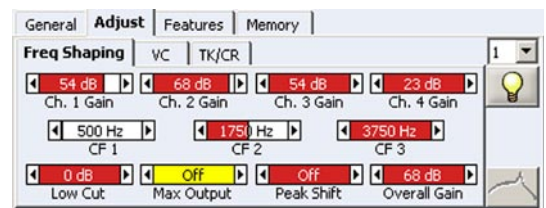
- 1) Drag and drop the curves on the fitting graph,
- 2) Adjust the slide controls on the control panel, or
- 3) Utilize the Expert Assistant fitting tool.

Drag and drop the curves of the fitting graph from either the General or Adjust tabs. Adjustments may be made by clicking and dragging a point within a channel or by dragging the crossover frequency line. Using the drag and drop function may ultimately adjust the gain, output, and compression characteristics.



DaVinci PxP and PxPb Frequency Shaping adjustments access the 4 compression channels and three crossover frequencies.

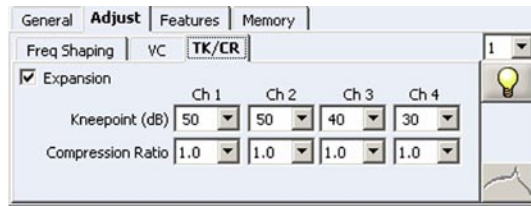
The DaVinci PxP and PxPb may be set as either WDRC, Output Compression Limiting, or Peak Clipping. Channel adjustments are made to the soft and/or loud curves (i.e. 50 and 90 dB). As the soft and loud responses are brought closer together, the compression ratio increases up to 3.0:1; separating the soft and loud responses decreases the compression ratio to 1.0:1 or linear. To program the DaVinci PxP or PxPb with Peak Clipping, select the rightmost position on the 'Max Output' slider to set to the Off position.



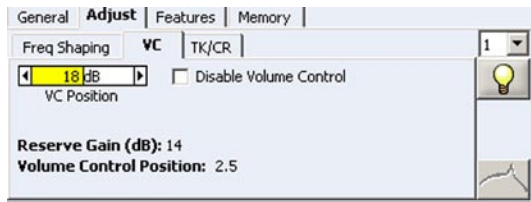
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Select the TK/CR subtab for direct access to the Channel Kneepoints and Channel Compression Ratios.



Click the VC subtab to make adjustments to the VC Position slider. These adjustments will be audible to the patient during programming.



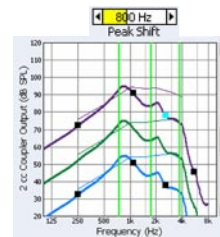
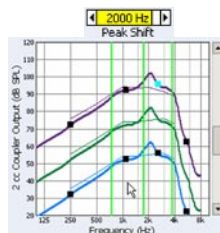
The DaVinci PxB and PxBb incorporate a Peak Shift slider control, which can be used to move the resonant peak of the frequency response from 2000 Hz down to 200 Hz. The default setting is Off. The Peak Shift feature is useful in the following cases:

It allows the bandwidth of the device to be limited for users with severe/profound high frequency hearing loss (thresholds are greater than 90 dB HL), as shown to the right, and for whom high frequency gain may be undesirable, unusable, and/or cause feedback. This functionality is shown below.

For unusual hearing loss configurations, such as a reverse slope, the Peak Shift control allows for more precise matching of the fitting formula targets.

The Peak Shift control also allows for more precise matching of the Real Ear Insertion Gain (REIG) target by providing a closer match to the frequency of the user's ear canal resonance.

To Optimize Target for Audibility, click on the Best Fit Optimization icon. The Best Fit Optimization dialog box will appear. Check the Optimize Target for Audibility checkbox. Optimized target will be indicated by diamonds.



Click on the Expert Assistant button, available on the Adjust tab. From the Expert Assistant window, select the patient's complaint (e.g., Tinny) and then click Begin. Follow the prompts within the window to complete the adjustment for the complaint.



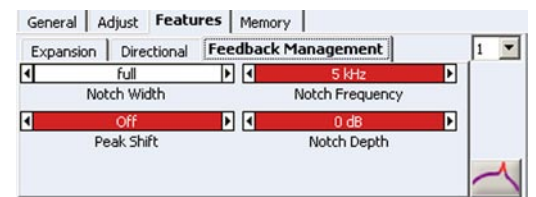
4. DaVinci PxB and PxBb Special Feature Adjustments:

From the Features tab, the following parameters are available:

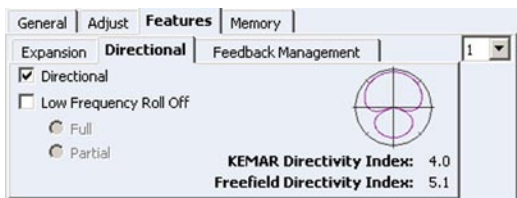
Expansion: To adjust the amount of gain for very soft inputs (below the expansion/ compression kneepoint), such as a refrigerator running or computer fan, Expansion may be set to On or Off by unchecking the Expansion Checkbox on the Expansion subtab. The default settings are On when any threshold is better than 40 dB HL and Off when all thresholds are poorer than 40 dB HL. This feature is adjustable per memory. Audio files are available to help determine the appropriate Expansion setting. Click on the Audio File Player button in the toolbar or select it from the Activity menu to use this fitting tool.



Feedback Management: Must be run in the patient's ear and should always be performed in a quiet environment. Prior to running the algorithm, ensure that the room is quiet and the hearing aids are fully inserted in the ears. Instruct the patient to be quiet and still for the entire sequence. Click the Feedback Management button from the Adjust tab or from the Feedback Management subtab of the Features tab to start the algorithm. The feedback algorithm automatically scans for feedback, adjusts the peak location, and implements a notch filter when necessary.



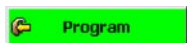
Precision Directional Imaging (PDI): The Directional response will default to Unchecked. To activate the Directional response for the selected memory, check the Directional Checkbox on the Directional subtab. Additional frequency response adjustments are available with the Low Frequency Roll Off checkbox. The Full Roll Off option provides maximum reduction of the low frequencies, while the Partial Roll Off option offers increased gain to provide audibility for the low frequencies while in the directional mode.



Programmable Indicator Tones: The Low Battery and MultiMemory beep tones are adjustable by selecting Indicator Tones from the Activity menu. Different frequencies and intensities are selectable for each tone. A tone can be disabled or a test tone can be presented through the hearing aid to verify audibility.

5. Program:

Click **Program**, either from the button panel in the center of the screen or from the toolbar, to store programming information into the hearing aid. After programming the device, set the user volume control to the position indicated on the VC subtab of the Adjust Tab in order for programmed gain to be achieved.



6. Accessories:

The DaVinci PxP has a two-position **Multifunction Switch** to turn the hearing aid "on" and "off." To turn on the PxP, push the switch to the "I" (in operation) position. To turn the hearing aid "off," push the switch back to the "O" (off) position. The DaVinci PxP on/off switch also works as the MultiMemory button.

The DaVinci PxPb incorporates the on/off switch within the volume control. To turn it off, rotate the volume control downward until it clicks. Memories are activated via the MultiMemory push button.

The DaVinci PxP and PxPb are **Direct Audio Input (DAI)** capable. If using the DAI feature, connect the DAI boot to your BTE and select the "I" switch position. The programmed memories, including the telecoil memory, will still be available via the hearing aid's MultiMemory push button.

The DaVinci PxP and PxPb BTE offer **Right and Left Identifiers** for ease in side identification. To insert the identifiers, push the appropriate identifier paddle into the groove of the battery door while the battery door is open and twist the handle off. To remove the identifier, insert a screwdriver tip or your fingernail behind the identifier marker and push it out.

The **Volume Control Cover** is an optional accessory for the DaVinci PxP and PxPb that when attached to the hearing aid allows for volume adjustments with a screwdriver. The Volume Control Cover cannot be removed in the field — it must be returned to the manufacturer for repair.

