

Genie Medical Fitting Guide

Ponto™ – The Bone Anchored Hearing System

Genie
MEDICAL



Ponto 3 • Ponto 3 Power • Ponto 3 SuperPower
Ponto Plus • Ponto Plus Power • Ponto • Ponto Pro
Ponto Pro Power • Oticon Medical Streamer • Ponto Streamer

oticon
MEDICAL

Sound Processor Features

Features	Ponto 3 Ponto 3 Power Ponto 3 SuperPower	Ponto Plus Ponto Plus Power	Ponto Pro Ponto Pro Power	Ponto
Sound processing features				
15 sound processing channels	✓	✓	✓	✓
Multiband Adaptive Directionality	Automatic	Automatic	Automatic	Manual
FreeFocus	✓			
Tri-state Noise Reduction	✓	✓	✓	
Wind Noise Reduction	✓	✓	✓	✓
Dynamic Feedback Cancellation (DFC)	✓	✓	✓	✓
Feedback shield	Inium Sense	Inium		
Speech Guard	✓	✓	✓	✓
Learning Volume Control	✓	✓	✓	
Binaural processing	✓			
Fitting features				
BC In-situ Audiometry	✓	✓	✓	✓
Feedback Manager	✓	✓	✓	✓
Verification tool	✓	✓	✓	✓
Data Logging	✓	✓	✓	
Oticon Medical Streamer Settings tool	✓	✓		
The physical product and accessories				
Wireless capabilities	✓	✓		
OM Streamer incl. T-coil & FM input	✓	✓		
Up to 4 programs	✓	✓	✓	✓
Start-up delay and Low battery warning	✓	✓	✓	✓
Telecoil/DAI/FM input			✓	✓



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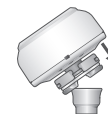
Fitting Guide (1/2)

Selection

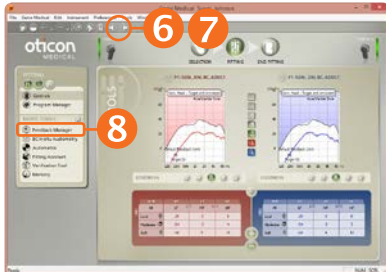


How to program a Ponto instrument

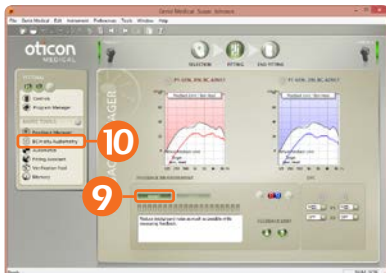
1. Insert a battery in the instrument.
2. Connect the instrument.
3. **Select instrument:** Click Detect and Continue.
4. **Type of Fitting**
 - Single-sided deafness: If the instrument is fitted to stimulate the cochlea on the other side, check the box for Single-sided deafness.
 - Soft band: If the instrument is fitted on soft band, head band or test band, check the box for Soft band.
5. Click Fitting step.
In the 'Choose setting' dialog, select Genie Medical.
6. Mute  the instrument.
Put the instrument on the client's abutment.
7. Click  to un-mute the instrument.
8. Click **Feedback Manager**.
9. Click Start to measure the individual feedback limit.
10. Click **BC In-situ Audiometry**.



Fitting

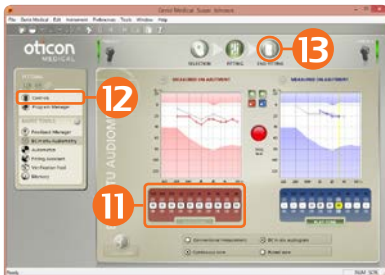


Feedback Manager



Fitting Guide (2/2)

BC In-situ Audiometry



11. Conduct the BC In-situ measurement.
12. Click Controls and evaluate the setting and, if necessary, adjust the controls.
13. Click End Fitting step.

End Fitting



14. Click Save, Program and Exit.

Oticon Medical Streamer comes OPEN, meaning that it works directly out of the box with the wireless Ponto sound processor.



Linking an Oticon Medical Streamer (optional)

End Fitting



1. Select Streamer in End Fitting step
2. Click ConnectLine

ConnectLine



3. Click Settings
4. Connect the Streamer to the PC

Ponto Streamer Settings



5. Select Linked
6. Close Oticon Medical Streamer Settings
7. Click End Fitting step

End Fitting



8. Enter the Oticon Medical Streamer serial number by either:
Using HI-PRO:
Enter the serial number manually. It can be found on the bottom of the Streamer or on the Oticon Medical Streamer box.
Using NOAHlink or EXPRESSlink:
Place the Streamer close to the wireless Ponto sound processor, and click 'READ SERIAL NUMBER'.
9. Click Save, Program and Exit

Oticon Medical Streamer

The Oticon Medical Streamer can wirelessly connect wireless Ponto sound processors to different audio sources, such as mobile, TV or computer. The Oticon Medical Streamer also works as a remote control.



Oticon Medical Streamer works out of the box

Oticon Medical Streamer works out of the box with any wireless Ponto sound processor without being linked to the fitted instrument(s).

Open Oticon Medical Streamer (as it comes from factory)	Linked Oticon Medical Streamer (see page 6)
Sends signals to wireless Ponto sound processors within approx 1 m.	Sends signals only to the fitted instrument(s).
Wear with the neckloop.	Wear with or without the neckloop.

Pairing Oticon Medical Streamer and cell phone:
The pin code for the Streamer is 0000 (four zeros).

The remote functionality of the Oticon Medical Streamer can be customized in the Oticon Medical Streamer Setting tool, see page 45.



4



5



1



5

FITTING

P1 P2

Controls
Program Manager

MORE TOOLS

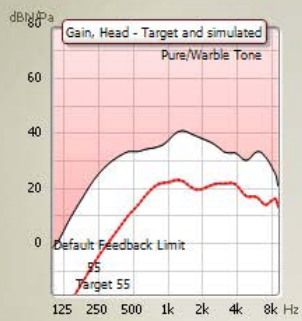
- Feedback Manager
- BC In-situ Audiometry
- Automatics
- Fitting Assistant
- Verification Tool
- Memory

2

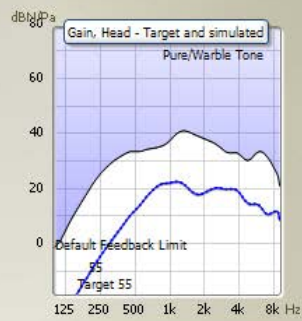
3

CONTROLS

P1: GEN., DSL BC, ADULT



P1: GEN., DSL BC, ADULT



LOUDNESS [-2] [-1] [0] [1] [2]

LOUDNESS [-2] [-1] [0] [1] [2]

	All	LF	675	MF	1875	HF
Loud	-28	-5	1			
Moderate	-24	-2	4			
Soft	-10	5	15			

	All	LF	675	MF	1875	HF
Loud	-28	-5	0			
Moderate	-24	-3	3			
Soft	-10	4	11			

Introduction to the Genie Medical screen

The elements on the screen

- 1 The Organizer steps will guide you through the fitting process
- 2 Program selection
- 3 The task pane gives access to tools and links related to where you are in the fitting process
- 4 Toolbar
- 5 Connection status



Connection status

Green: The instrument is connected, and has the setting shown on the screen; the setting is saved in the instrument.

Yellow: The instrument is connected, and has the setting shown on the screen, but the setting is not saved.

Gray: The instrument is not connected.



The steps in the fitting process

Selection

- Select instrument and type of fitting:
 - Single-sided deafness or not
 - Fitted on soft band or not



Fitting

- Measure individual feedback limit
- Conduct BC In-situ Audiometry
- Add or change programs
- Evaluate the instrument setting; fine tune if needed



End Fitting

- Specify the client's operation of the instrument (e.g. turn off VC)
- Individualize Oticon Medical Streamer and Connect-Line program, see page 43 and 45
- Save the settings to the instrument and Genie Medical

While the instrument is connected to Genie Medical, the pushbutton and volume control are deactivated.



PONTO 3 POWER



SELECTION



FITTING



END FITTING

PONTO 3 POWER



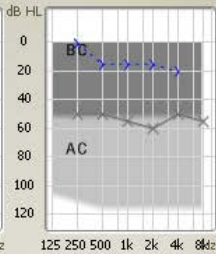
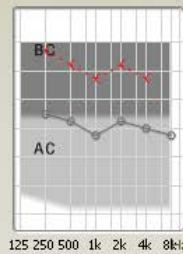
SELECTION

SELECTION

- Select Instruments
- Program Manager

LINKS

- Colour Overview
- Cable Overview
- Accessories
- Instruction Videos



DETECT

STYLE

- None
- Ponto 3
- Ponto 3 P**
- Ponto 3 SP
- Ponto Plus
- Ponto Plus P
- Ponto

FEATURES

- Volume Control
- Noise Reduction
- Logging
- VC Learning
- DAI
- Streamer
- Battery 675

- Single-sided deafness
- Soft band

STYLE

- None
- Ponto 3
- Ponto 3 P**
- Ponto 3 SP
- Ponto Plus
- Ponto Plus P
- Ponto

FEATURES

- Volume Control
- Noise Reduction
- Logging
- VC Learning
- DAI
- Streamer
- Battery 675

- Single-sided deafness
- Soft band

Pre-operative Evaluation

We recommend:

- Fitting the instrument individually to the client, also for the pre-operative demonstration.
- Activating the Soft band box whenever the instrument is fitted on soft band, head band or test band.
- Conducting BC In-situ. See page 25.



Soft band fitting mode

Sound (vibration) is damped when passing through skin and tissue. This transcutaneous attenuation varies from person to person, but occurs mainly in the high-frequency area.

- Single-sided deafness
- Soft band

Activating the Soft band box ensures that:

- The hearing threshold measured with BC In-situ tool with the instrument on soft band will not be 'reused' when the instrument is fitted on the abutment, as the threshold differs for the two measurement conditions.



- The attenuation via skin and tissue is compensated for when the hearing threshold is not measured with the BC In-situ tool.

Note: An instrument demonstrated on a head band or soft band will not sound the same as when worn on an abutment.



SELECTION

FITTING

END FITTING

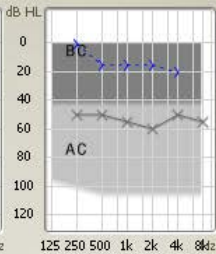
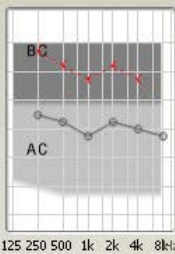
SELECTION

- Select Instruments
- Program Manager

LINKS

- Colour Overview
- Cable Overview
- Accessories
- Instruction Videos

SELECTION



DETECT

STYLE

- None
- Ponto 3**
- Ponto 3 P
- Ponto 3 SP
- Ponto Plus
- Ponto Plus P
- Ponto

FEATURES

- Volume Control
- Noise Reduction
- Logging
- VC Learning
- DAI
- Streamer
- Battery 13

- Single-sided deafness
- Soft band

STYLE

- None
- Ponto 3**
- Ponto 3 P
- Ponto 3 SP
- Ponto Plus
- Ponto Plus P
- Ponto

FEATURES

- Volume Control
- Noise Reduction
- Logging
- VC Learning
- DAI
- Streamer
- Battery 13

- Single-sided deafness
- Soft band

Selection and Getting Started

Genie Medical can run under NOAH or alone with its own database.



Cables

HI-PRO and EXPRESSlink use Oticon #3 (2 m).

NOAHLink uses NOAHLink #2 (50 cm).

Take care to align the red dots when connecting the cable plug to the instrument.



If you use the Detect function, the instrument will automatically be connected upon entering the Fitting step.

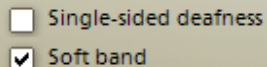
Single-sided Deafness fitting

- Select the instrument on the side with the implant and enter a check in the Single-sided deafness box.
- In Single-sided deafness fittings, the graph is displayed for the side where the client hears the sound.



Pre-operative demonstration or fitting on soft band

Check the Soft band box if an instrument is fitted on soft band, head band or test band. See page 11.



Selection



oticon
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PONTO 3



SELECTION



FITTING



END FITTING

PONTO 3



SELECTION

- Select Instruments
- Program Manager

LINKS

- Colour Overview
- Cable Overview
- Accessories
- Instruction Videos

PROGRAM MANAGER

RIGHT

LEFT

General, NAL-NL1

P1

General, NAL-NL1

General, DSL BC, Adult

P2

General, DSL BC, Adult

P3

P4

ADD

COPY

DELETE

OPTIONS FOR PROGRAM 2

MAIN OPTIONS

General

ADDITIONAL OPTIONS

NAL-NL1
DSL BC, Paediatric
DSL BC, Adult

Programs

Up to 4 programs which the client can operate on the instrument's push button can be defined. Select among:

- General (microphone)
- T/DAI/FM*
- T/DAI/FM+M*

**for Ponto, Ponto Pro and Ponto Pro Power.*

For Ponto Plus and Ponto 3 families of sound processors:

T, DAI and FM programs are automatically present in the instrument when the signal is activated from the Oticon Medical Streamer.

The programs can be adjusted in Connectline tool, see page 43.

Programs in an individual fitting

All instruments but Ponto have, by default, 1 program:

- P1: General microphone with Automatic Directionality and Tri-state Noise Reduction

Ponto has, by default, 2 programs:

- P1: General, omni
- P2: General, Full directionality

DSL-BC

Ponto sound processors fit using Genie Medical 2016.1 have the option of using the fitting rationale DSL-BC. For more information about DSL-BC, please see page 54.

General microphone programs can be defined for special purposes.

To change Directionality and Noise Reduction, go to Automatics in the Fitting step.

In the Preferences menu, you can set DSL-BC as the default fitting rationale.



Selection

File Genie Medical Edit **Instrument** Preferences Tools Window Help

Calculate Prescribed Settings
 Program Instruments
 Connect Instruments
 Mute
 Upgrade Instrument Firmware



SELECTION



FITTING



END FITTING

PONTO 3



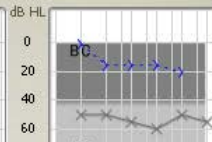
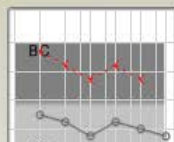
SELECTION

Select Instruments
 Program Manager

LINKS

Colour Overview
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 Accessories
 Instruction Videos

SELECTION



UPGRADE INSTRUMENT FIRMWARE

PONTO 3



INSTRUMENT HAS NEWEST FIRMWARE

PONTO 3



INSTRUMENT HAS NEWEST FIRMWARE

UPGRADE...

DETAILS

HELP

CLOSE

STYLE

None
 Ponto
 Ponto
 Ponto
 Ponto
 Ponto
 Ponto

Streamer



Battery

13



Ponto

Streamer



Battery

13

 Single-sided deafness

 Soft band

 Single-sided deafness

 Soft band

NUM SCRL

Firmware Upgrade

Open the Upgrade Instrument Firmware tool in the Selection step from the Instrument menu.

Upgrade Instrument Firmware

The Upgrade Instrument Firmware tool lets you upgrade instruments with new features and functionality when new instrument firmware (software) is available.

The client's individual setting in the instrument is retained when the firmware is upgraded, but Activity Analyzer/Memory and learned setting will be cleared.

Oticon Medical Streamer

The firmware in the Oticon Medical Streamer is updated in the Oticon Medical Streamer Settings tool, accessible from the ConnectLine tool in the End Fitting step, see page 45.

How to see whether an instrument can be upgraded?

Attach the programming cable to the instrument and open the tool. Automatically the instrument is detected and the tool informs you whether the instrument's firmware is the newest or an upgrade is available.

Always insert a fresh battery in the instrument before running the Upgrade Instrument Firmware tool.
Place the instrument on the table – not on the client's abutment while the instrument is upgraded.



Selection



PONTO 3



SELECTION



FITTING



END FITTING

PONTO 3



FITTING



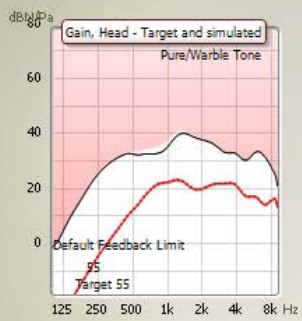
- Controls
- Program Manager

MORE TOOLS

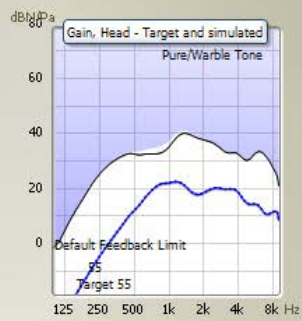
- Feedback Manager
- BC In-situ Audiometry
- Automatics
- Fitting Assistant
- Verification Tool
- Memory

CONTROLS

P1: GEN., DSL BC, ADULT



P1: GEN., DSL BC, ADULT



LOUDNESS [-2] [-1] [0] [1] [2]

	All	LF	675	MF	1875	HF
Loud	-28	-5	1			
Moderate	-24	-2	4			
Soft	-10	5	15			

LOUDNESS [-2] [-1] [0] [1] [2]


	All	LF	675	MF	1875	HF
Loud	-28	-5	0			
Moderate	-24	-3	3			
Soft	-10	4	11			

Controls

Graph types

- Head: Simulates gain/output for the instrument as it would be on an abutment on the head.
- Skull: Simulates gain/output for the instrument as measured on a skull simulator.

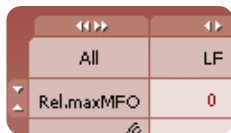
Controls

Click  to expand the controls to 10 bands.

MFO control*

MFO (Maximum Force Output) is always prescribed to max setting. Some clients (for example clients with bilateral atresia) may prefer temporarily – while they adapt to the output – to have the MFO decreased a few dB.

* *In Ponto Plus family and Ponto 3 family sound processors.*

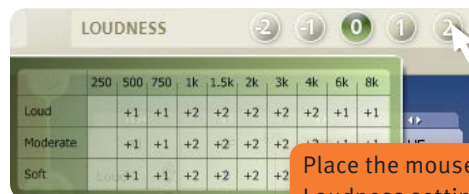


Loudness control

Use the Loudness control to manage the client's initial reactions. The control is by default set to "0" in new fittings.

Decrease the setting if the client finds that the sound too loud, or own voice is too boomy/loud; primarily, the LF gain is reduced.

Increase the setting if the client finds the instrument too soft; primarily the HF gain is increased.



Place the mouse over the Loudness setting to display the control adjustments.



Use the Calculate Prescribed Settings tool in the toolbar to reset the instrument setting to target.



Fitting



PONTO 3



SELECTION



FITTING



END FITTING

PONTO 3



FITTING

P1 P2

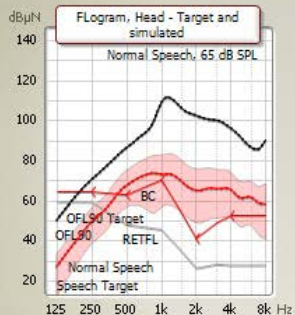
- Controls
- Program Manager

MORE TOOLS

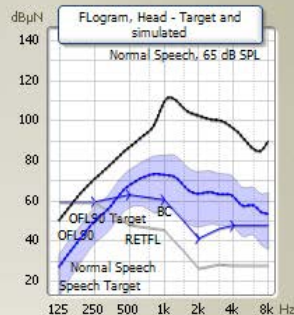
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- BC In-situ Audiometry
- Automatics
- Fitting Assistant
- Verification Tool
- Memory

CONTROLS

P1: GEN., DSL BC, ADULT



P1: GEN., DSL BC, ADULT



LOUDNESS

-2 -1 0 1 2

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Moderate	-24	-2	4			
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LOUDNESS

-2 -1 0 1 2

	All	LF	675	MF	1875	HF
Loud	-28	-5	0			
Moderate	-24	-3	3			
Soft	-10	4	11			

FLogram

What is the FLogram?

The FLogram is to BAHS as the SPLogram is to air conduction hearing aids. It illustrates the patient's auditory dynamic range for Ponto fittings on abutment.

This new graph visualizes the relationship between the patient's BC hearing threshold level and the sound processor's output response, which makes it simple to evaluate audibility with the sound processor settings.

What does the graph illustrate?

Grey line: Bone conduction hearing thresholds for normal-hearing persons when BC is stimulated directly on the abutment (RETFLdbc- Reference Equivalent Threshold Force Levels for direct bone conduction)

Coloured lines with markers: Patient's BC hearing threshold level as used for gain prescription

Solid Coloured lines: Simulated aided long-term average spectrum for a selected signal type

Shaded areas: Simulated aided dynamic range of the signal

Solid black curve: Sound processor's output force level for a 90 dB SPL input signal (OFL 90)

The FLogram represents output force level on the abutment as perceived by the patient. The FLogram should not be used for the evaluation of soft band fittings, as the force coupling to the head is different.

In the Preferences menu, you can set FLogram as the default view when entering the Controls screen.



Fitting



PONTO 3



SELECTION



FITTING



END FITTING

PONTO 3



FITTING



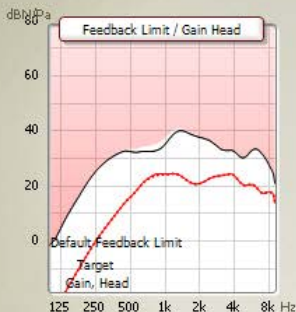
- Controls
- Program Manager

MORE TOOLS

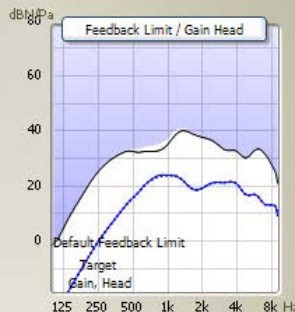
- Feedback Manager
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- Memory

FEEDBACK MANAGER

P1: GEN., DSL BC, ADULT



P1: GEN., DSL BC, ADULT



FEEDBACK MEASUREMENT

START RESET



Reduce background noise as much as possible while measuring feedback.



FEEDBACK LIMIT



DFC

MED. P1 MED.
 OFF P2 OFF

Feedback Manager

The 2-stage Feedback Management system consists of Feedback Manager and Dynamic Feedback Cancellation (DFC). Due to updates in sound processor prescription, it is now recommended that the Feedback Manager be run prior to BC In-situ measurement.

The Feedback Manager

In the Feedback Manager the client's feedback limit is measured. This is important as the limit varies from client to client, and the individual feedback limit maximizes the capacity of the DFC system. The feedback limit is also used to optimize the volume control functionality.

Inium and Inium Sense feedback shield

The feedback shield in Ponto Plus instruments limits feedback through a variety of advanced signal processing, including frequency shift and an advanced decision making scheme.



Phase inversion



Frequency shift



Feedback limit estimation

DFC settings

The DFC in the Ponto Plus and Ponto 3 families of sound processors automatically prescribed to either:

- Off
- Medium - feedback shield without frequency shift
- Maximum - feedback shield including frequency shift

The DFC prescription is based on prescribed HF gain and the type of hearing loss.

Fitting tips

In case DFC is at Medium and the client is bothered by feedback, then the client may prefer DFC at Maximum setting.

You can open the Feedback Manager from P1. Measured feedback limits are applied to all programs in the instrument.



Fitting



PONTO 3



SELECTION



FITTING



END FITTING

PONTO 3



FITTING

P1 P2

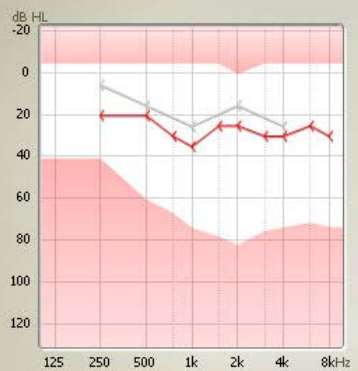
- Controls
- Program Manager

MORE TOOLS

- Feedback Manager
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BC IN-SITU AUDIOMETRY

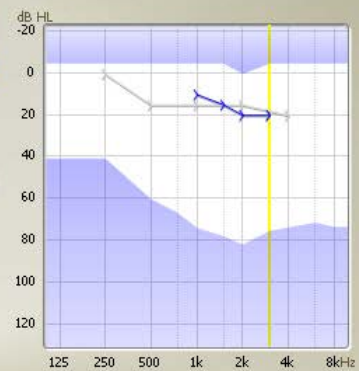
MEASURED ON ABUTMENT



250	500	750	1k	1.5k	2k	3k	4k	6k	8k
20	20	30	35	25	25	30	30	25	30
+	+	+	+	+	+	+	+	+	+

PLAY TONE

MEASURED ON ABUTMENT



250	500	750	1k	1.5k	2k	3k	4k	6k	8k
-	-	-	10	15	20	20	-	-	-
+	+	+	+	+	+	+	+	+	+

PLAY TONE

- Conventional measurement
- BC In-situ audiogram
- Continuous tone
- Pulsed tone

BC In-situ Audiometry

Use the BC In-situ Audiometry tool to measure the BC hearing threshold via the Ponto sound processors. We recommend using BC In-situ at the start of all fittings.

Presenting the stimulus

You can use the mouse or keyboard to present the stimulus:

- Use the arrow keys to change the presentation level and frequency.
- Press the space bar (or PLAY TONE) as long as you want to present the stimulus.



Store value: The last tone you play at each frequency is the value that is stored.

Bilateral fittings: Both instruments need to be connected to conduct BC In-situ.

Don't let the client see the flashing lamps on HI-PRO, EXPRESSlink or NOAHLink, because they reveal when the stimulus is presented.

Talk Over

When you open the tool, the instrument's microphones are automatically muted to avoid interference from the surroundings; press the Talk Over button to talk to the client.

If the fitting is changed from a soft band/head band to an abutment, then you must again measure the hearing threshold with the BC In-situ tool, as the result will be different.

Noise Level

While it is not essential for BC In-situ to be measured in a sound treated room or booth, the testing environment should be quiet. The indicator will turn red if there is background noise present. Attempt to reduce background noise prior to proceeding with the test if the patient has a good ear that will hear the background noise.



Fitting



PONTO 3



SELECTION



FITTING



END FITTING

PONTO 3



FITTING



- Controls
- Program Manager

MORE TOOLS

- Feedback Manager
- BC In-situ Audiometry
- Automatics
- Fitting Assistant
- Verification Tool
- Memory

AUTOMATICS

P1: GEN., DSL BC, ADULT

P1: GEN., DSL BC, ADULT

Multiband Adaptive Directionality

Multiband Adaptive Directionality



Directionality Auto (tri-mode)

Directionality Auto (tri-mode)

Surround mode Speech Omni

Surround mode Speech Omni

Noise Management On

Noise Management On

BINAURAL BROADBAND ON

Automatics

Automatic Directionality (tri-mode)*

Automatically one of the three modes (Surround, Split or Full directionality) will be selected based on the mode that provides the best Signal-to-Noise Ratio.

Consult the Analyzer/Memory to see how often automatic tri-mode directionality has been in Surround, Split and Full directional modes.

Ponto 3 with FreeFocus

The FreeFocus directionality system differs from the directionality modes in Ponto Plus on the following parameters:

- All omni-directional patterns are optimised to take into account reflections from head and torso
- A new mode called Speech Omni is added

Wind Noise Reduction

Depending on the wind noise level, sounds will be attenuated. The more wind, the more attenuation. In programs with automatic directionality the Wind Noise Reduction system will – in addition – force the instrument into Surround mode.

Tri-state Noise Reduction*

The Tri-state Noise Reduction system utilizes 15 bands. Different noise reduction schemes are automatically applied for speech in noise and noise-only situations.

Binaural synchronization

For patients who wear two Ponto 3 family sound processors, the directionality modes and noise management systems will be synchronised, to ensure they are aligned between the left and right side devices.

** Not available in the Ponto instrument.*



Fitting



PONTO 3



SELECTION



FITTING



END FITTING

PONTO 3



FITTING



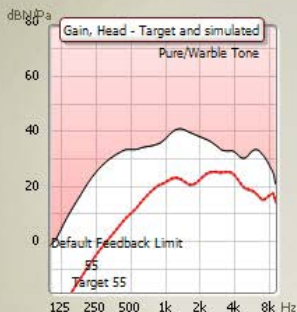
- Controls
- Program Manager

MORE TOOLS

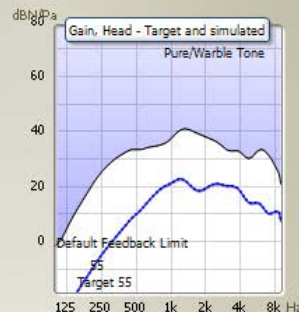
- Feedback Manager
- BC In-situ Audiometry
- Automatics
- Fitting Assistant
- Verification Tool
- Memory

FITTING ASSISTANT

P1: GEN., DSL BC, ADULT



P1: GEN., DSL BC, ADULT



FITTING ASSISTANT

Fuller SOFT SOUND PERCEPTION Brighter

Softer LF COMPRESSION RATIO Louder

Brighter LF ROLL-OFF Fuller

Fuller SOFT SOUND PERCEPTION Brighter

Softer LF COMPRESSION RATIO Louder

Brighter LF ROLL-OFF Fuller

Fitting Assistant Tool

The Fitting Assistant Tool allows for supported fine tuning of the following parameters

- Low Frequency Roll-Off
 - Reduces LF gain linearly over all input levels
- Low Frequency Compression Ratio
 - Decreases moderate and loud gain settings for increasing low frequency compression ratio
- Soft Sound Perception
 - Can increase high frequency soft gain



For specific information on what is being changed, mouse-over the trimmer to see a chart which indicates the adjustment made at each frequency.



Fitting



PONTO 3

PONTO 3



FITTING

- P1
- P2

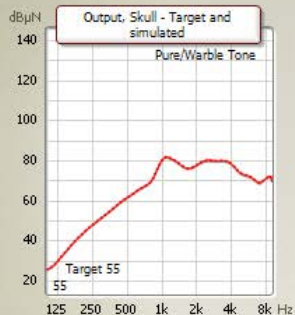
- Controls
- Program Manager

MORE TOOLS

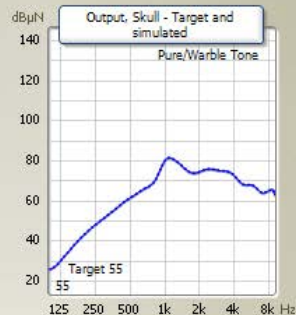
- Feedback Manager
- BC In-situ Audiometry
- Automatics
- Fitting Assistant
- Verification Tool
- Memory

VERIFICATION

P1: GEN., DSL BC, ADULT



P1: GEN., DSL BC, ADULT



LOUDNESS

- 2
- 1
- 0
- 1
- 2

LOUDNESS

- 2
- 1
- 0
- 1
- 2

VERI. SETTINGS

- NM
- AD
- DFC
- VCL

DEFAULT

	All	LF	675	MF	1875	HF
Loud	-28	-4	1			
Moderate	-25	-2	6			
Soft	-11	4	19			

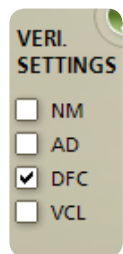
Verification

Use the Verification tool to easily set-up the instruments' advanced features for skull simulator measurements.



Define advanced feature settings

Use the Verification setting panel to activate and deactivate advanced features that might disturb measurements. When a setting is checked, it is activated.



NM: Noise Management
AD: Automatic Directionality
DFC: Dynamic Feedback Cancellation
VCL: Learning Volume Control

The panel reflects the advanced features' settings only while working within the Verification tool.

When leaving the Verification tool the advanced feature settings will always be re-set to how they were when entering the tool.



When using Interacoustics Affinity measurement equipment and Genie Medical through Noah, then automatically the Affinity measurement module will be launched when the Verification tool is opened.



Compare the measured responses

Simulated responses from Ponto sound processors are displayed in Genie Medical, and can be compared to the measured skull simulator output responses.

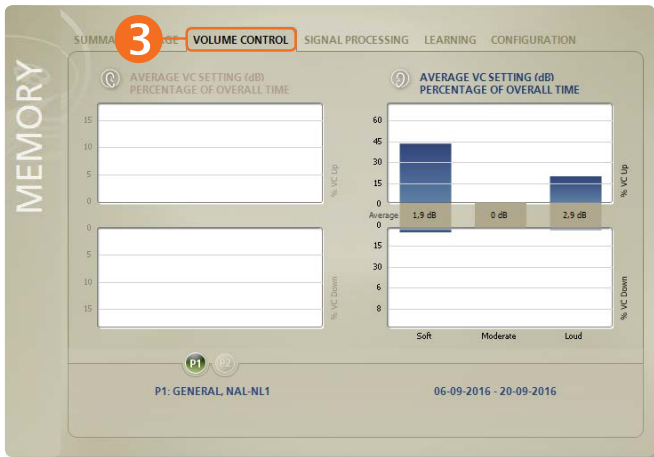
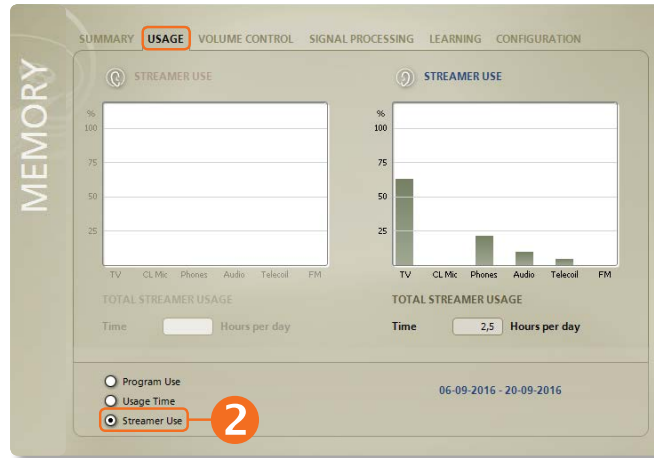
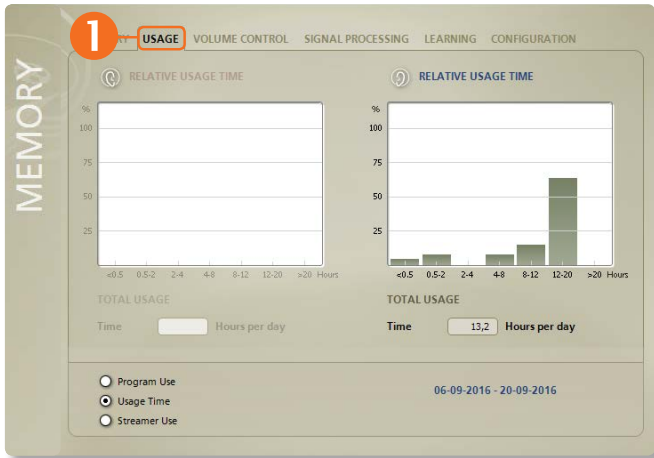
Simply choose the “Output, Skull” graph in Genie Medical, selecting the signal type and input levels which are identical to those used in the Affinity measurements.

- Signal type  : choose amongst others between Pure/Warble Tone; White Noise; ANSI S3.42.
- Input levels  dB : choose any levels between 45 and 90 dB SPL input.

For more information about the skull simulator, find the Skull Simulator Guide online at www.oticonmedical.com



Fitting



Memory/Analyzer (1/3)

The Memory/Analyzer tool

The tool displays the client's usage of the instrument, the type of environments the client has been exposed to, and how often the advanced automatic features have been active.

The tool is not available in the Ponto instrument.

Summary tab

Provides an overview of how many hours the client has used the instrument, and at which sound levels.

1 Usage tab

Displays how long the instrument has been turned on each time it has been used.

It also reveals the percentage of time each program has been used.

2 For Oticon Medical Streamer the usage of telecoil and the different ConnectLine solutions is displayed.

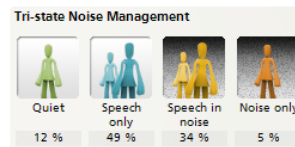
3 Volume Control tab

The VC usage is shown for soft, moderate and loud environments.

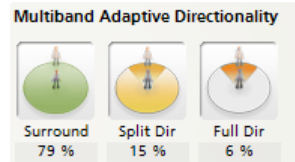
Within each environment, the percentage of time the VC has been turned up or down is displayed. The average deviation from the last programmed setting is given in dB.

4 Signal Processing tab

Tri-state Noise Management shows how long the client has been in quiet, speech only, speech in noise and noise-only environments.



Multiband Adaptive Directionality shows how long the instrument has been in Surround, Split and Full directional modes.



Fitting

MEMORY

SUMMARY USAGE VOLUME CONTROL SIGNAL PROCESSING **LEARNING** CONFIGURATION

CURRENT

	Soft	Moderate	Loud
Speech Only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speech in Noise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noise Only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1

Current

Volume Control

History

P1 P2

P1: GENERAL, NAL-NL1

MEMORY

SUMMARY USAGE VOLUME CONTROL SIGNAL PROCESSING **LEARNING** CONFIGURATION

HISTORY



2

Current

History

Volume Control

Click RESET to remove changes derived from Learning.

RESET

P1 P2

P1: GENERAL, NAL-NL1

RESET

06-09-2016 - 20-09-2016

Memory/Analyzer (2/3)

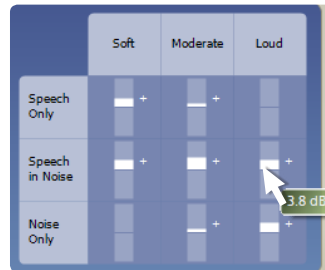
Learning based on the client's use of the volume control

The client's VC adjustments are logged in 9 different environments. The 9 environments are characterized by the sound level (soft, moderate and loud) and type (speech only, speech in noise and noise only).

Learning (adjustment of gain) takes place individually for each of the 9 environments and reflects the client's use of the VC in these environments.

1 Current view of VC Learning

Changes from the initial setting are shown by vertical white bars; place the mouse over the bars to see how much the gain has changed within each environment.



2 History view of VC Learning

The screen shows the development over time for VC Learning. VC learning is converted into a single number.

Click Reset to delete changes derived from Learning.



Fitting

Genie Medical Susan Johnson

File Genie Medical Edit Instrument Preferences Tools Window Help

oticon MEDICAL

PONTO 3

SELECTION FITTING END FITTING

PONTO 3

FITTING

- P1
- Controls
- Program Manager

MORE TOOLS

- Feedback Manager
- BC In-situ Audiometry
- Automatics
- Fitting Assistant
- Verification Tool
- Memory

MEMORY

SUMMARY USAGE VOLUME CONTROL SIGNAL PROCESSING LEARNING **CONFIGURATION**

Memory Learning

Memory Learning

Hours per day

Session period	Hours per day
09-09-2016 - 09-20-2016	13.3
08-12-2016 - 09-09-2016	15.6
07-14-2016 - 08-12-2016	15.3
06-29-2016 - 07-14-2016	13.4

Ready NUM | SCRL

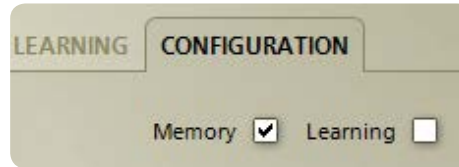
Memory/Analyzer (3/3)

Configuration tab

Logging is active and VC Learning is deactive by default. In this tab you can deactivate/activate them. Load logged data from older sessions, to see possible changes in the client's usage pattern, volume control or program operation.



Click the Delete all Memory/Analyzer data icon to clear the data logged in the instrument.



Logging is active and VC Learning is deactivated by default. You can change the default to set-up in Preferences/Specific Preferences/Fitting Step.



Fitting



oticon
MEDICAL

PONTO 3



SELECTION



FITTING



END FITTING

PONTO 3



END FITTING

- Save and Exit
- Buttons and Beeps
- ConnectLine

LINKS

- Accessories
- Instruction Videos

SAVE AND EXIT

PONTO 3



Serial: 43624250
Logging: On
Learning: Off
Volume Control: On
Mute: On

Battery Life: Typically 70-130 hours
P1: Gen., DSL BC, Adult, Auto (tri-mode)
P2: Gen., NAL-NL1, Auto (tri-mode)

PONTO 3



Serial: 43501795
Logging: On
Learning: Off
Volume Control: On
Mute: On

Battery Life: Typically 70-130 hours
P1: Gen., DSL BC, Adult, Auto (tri-mode)
P2: Gen., NAL-NL1, Auto (tri-mode)

OTICON MEDICAL STREAMER

Serial number (optional)

READ SERIAL NUMBER

 OTICON MEDICAL STREAMER

Serial number (optional)

Serial number (optional)

READ SERIAL NUMBER

SAVE, PROGRAM AND EXIT

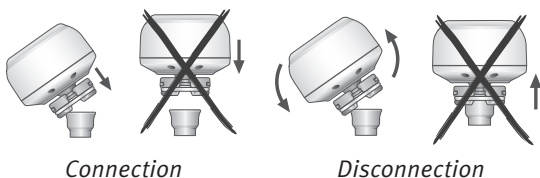
Save and Exit

Gives an overview of the fitting and displays:

- the serial number of the instrument(s)
- the programs the client can select when the instrument is programmed and disconnected
- the directional setting in the programs
- possibility to link a Ponto Plus instrument to the Ponto Streamer, notice it is not required (see page 7).

Click Save, Program and Exit to store the setting in the instrument and in NOAH or stand-alone database.

Show the client how to connect/disconnect the instrument.



Instruct the client in the use of the instrument

Change program

Briefly press and release the push-button. Beeps played after the release indicate the program number.



Mute/stand-by

To mute or put the instrument on stand-by, press and hold the pushbutton until it emits 2 beeps. Release the button; the instrument is muted. Press briefly to un-mute the instrument.



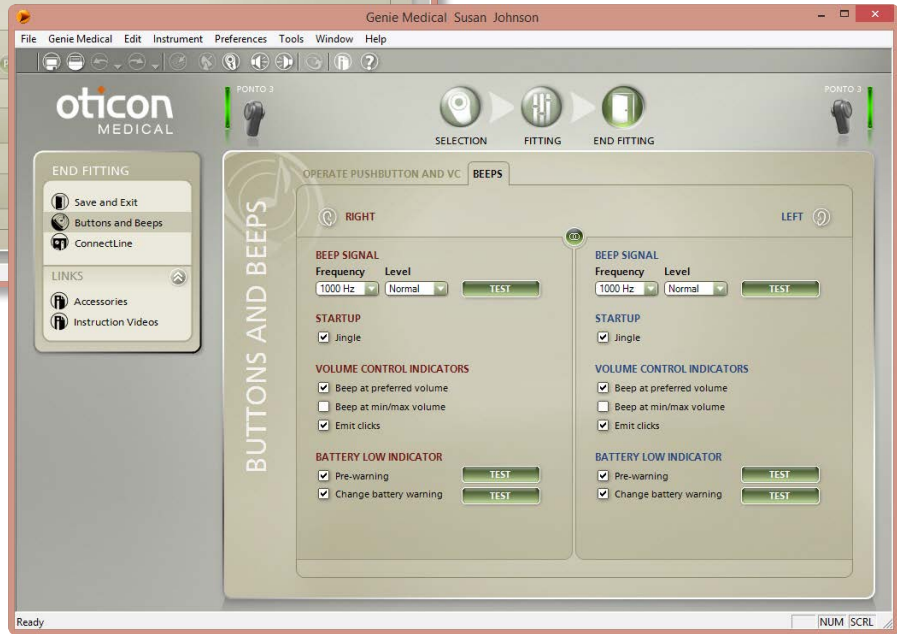
Start-up level

The instrument starts up at a gain level that matches the individual setting in the instrument. If VC learning is active, the start-up level will adapt to the client's preferred VC setting.

See the Instructions for Use for more information.



End Fitting



Buttons and Beeps

Pushbutton

The pushbutton is used to operate the programs and mute the instrument.

- The pushbutton's program functionality is, by default, active when multiple programs are defined in the instrument.
- The mute/stand-by functionality is, by default, active.

Volume control

- Is by default active; you can deactivate it here.

Binaural coordination

Ponto 3 sound processors have binaural coordination capabilities, meaning that for patients wearing two sound processors, an action such as changing the volume level or program in one sound processor will also be reflected in the other sound processor.

Beeps

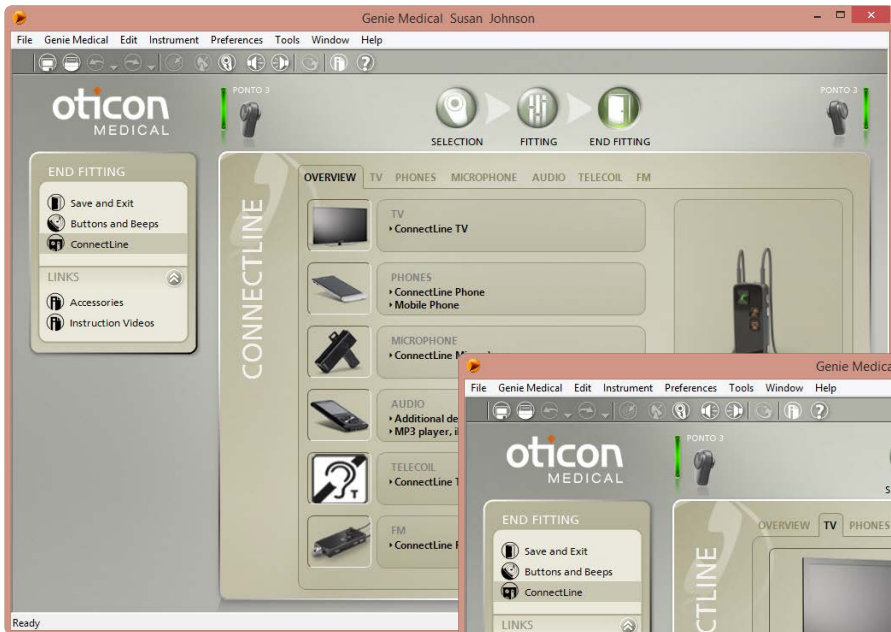
Go to the Beeps tab to select the beep function or change frequency and beep level.

By default, the following are active:

- Start-up jingle
- Beep at preferred VC volume
- Clicks indicating the VC step when volume is changed
- Battery low pre-warning
- Change battery warning



End Fitting



ConnectLine

The ConnectLine tool lets you fine tune the client's listening experience when using a ConnectLine solution. Using ConnectLine also gives access to the Oticon Medical Streamer Setting tool for customization of the Streamer (see page 45).

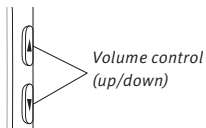
When an Oticon Medical Streamer is selected, then the ConnectLine tool is accessible in End Fitting step.

Instructional videos

Genie Medical contains a number of instructional videos demonstrating how to pair the Oticon Medical Streamer to the ConnectLine products, and how to install the ConnectLine products. The videos are accessible within both the Selection and End Fitting steps.

Activate/deactivate the microphones

When listening to signals from the Streamer, the microphone on the wireless Ponto sound processor(s) can be turned on/off by pressing the volume up AND volume down buttons simultaneously for 1 second.



Fine tuning of ConnectLine solutions

The settings for listening to the following ConnectLine solutions can be fine tuned: TV, Phones, Microphone, Audio, Telecoil and FM. The settings are automatically activated when the listening program is activated on the Oticon Medical Streamer.



Fitting tips:

If the client complains that the ambient sound picked up by the wireless Ponto sound processor is too low when watching TV (with the TV adapter), and

- The 'Instrument Mic level' is already set at 0 dB: set 'Streamer Level' at a lower/softer setting, which lowers the TV sound and keeps the ambient sound at the same level as before.
- The 'Instrument Mic level' is not set to 0 dB: set the 'Instrument Mic level' to a higher/louder setting.

See www.oticonmedical.com for information on how to use Oticon Medical Streamer.



End Fitting



Connected Device

SERIAL	VERSION	FW AVAILABLE
● 1137437	OM STREAMER	



CONFIGURATION

FIRMWARE UPGRADE

Preferred Settings ▾

STREAMER SETTINGS

- Remote Control Volume control
 Change program
 Mute
 Remote on when Streamer off
- Lights/jack Visual indicators
 Autostart from mini-jack / head set
- Side button Tcoil (long press) - Audio (short press)
 Tcoil (short press) - Audio (long press)

STREAMER FUNCTIONALITY

- Full functionality
 Phone only
 Microphone only
 TV only
 Remote only

PHONE SETTINGS

- Landline Tone B ▾ Mobile Tone A ▾
- Any front button answers call
 Voice dial
 Redial
 Transfer call
 Reject call
 Music and notifications from mobile phone

STREAMER MODE

- Linked Open

STREAMER RESET

- Keep pairings between Streamer and connectivity products

Restore to factory settings

Oticon Medical Streamer Settings

Settings tool

The Oticon Medical Streamer Settings tool makes it possible to configure the Streamer to the individual user, enable advanced features and change the link status from Open to Linked.

The Streamer Settings tool is accessible from the ConnectLine tool (see page 43).



Built-in T-coil



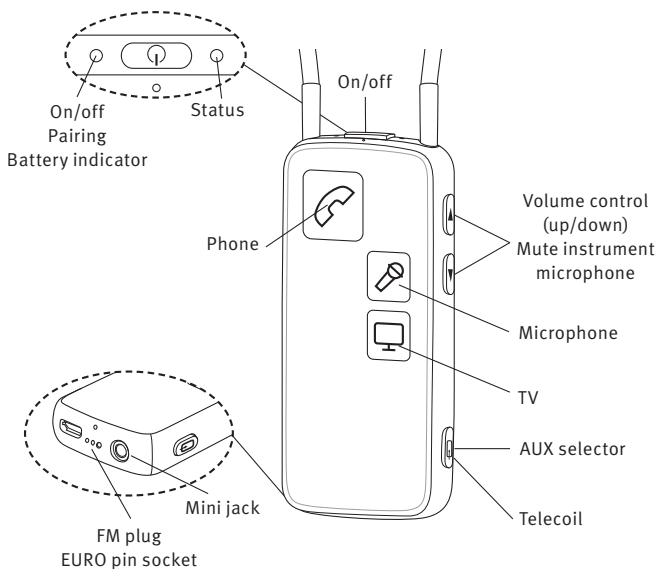
The Oticon Medical Streamer has a built-in tele loop receiver (T-coil).

By default the T-coil is activated by pressing and holding the AUX selector for approx. 2 seconds. This can be changed so the T-coil is activated by a brief press instead.

Demo Oticon Medical Streamer

When using a Demo Oticon Medical Streamer, the box called "Streamer Mode" will not appear in the Streamer

Settings Tool. This is because the Demo Streamer is permanently OPEN, meaning that it is impossible to link that Streamer to any specific sound processor.



For more information on Oticon Medical Streamer please visit www.oticonmedical.com



End Fitting

Reset to Factory Settings...




Technical Measurements...





PONTO 3



END FITTING

-  Save and Exit
-  Buttons and Beeps
-  ConnectLine

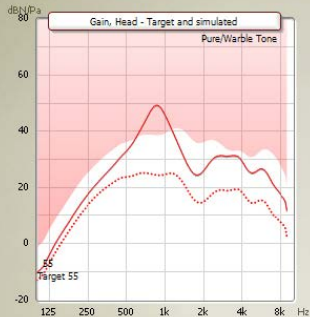
LINKS

-  Accessories
-  Instruction Videos

SAVE AND EXIT

RESET TO FACTORY SETTINGS

FACTORY SETTINGS



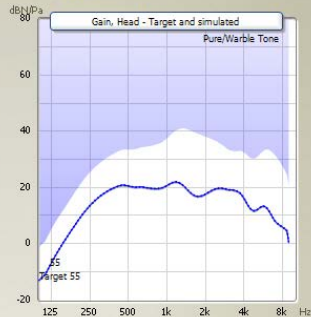
PONTO 3

User settings
Factory settings

Factory settings are stored in the instrument and logged data in the instrument has been deleted.
The instrument is disconnected from Genie Medical.

PROGRAM

USER SETTINGS



PONTO 3

User settings
Factory settings

User settings are stored in the instrument.
To replace them with factory settings, select Factory Settings and click Program.

PROGRAM

HELP

CLOSE

SAVE, PROGRAM AND EXIT

Factory Settings

Open the Reset to Factory Settings tool in the End Fitting step from the Tools menu.

Reset to Factory Settings

Use this tool to reset the instrument to its factory settings. For various reasons, you may wish to use the factory settings in the pre-operative evaluation.

1. Select Factory Settings

2. Click Program

The logged data is now cleared from the instrument and the settings are reset. The instrument is automatically disconnected from Genie Medical.

3. Click Close

The client data will be saved when you close Genie Medical.

You can always read the logged data from an instrument, including an instrument with factory settings.

Factory Settings

The instruments are delivered with the following programs and settings:

Ponto 3, Ponto 3 Power, Ponto 3 SuperPower, Ponto Plus, Ponto Plus Power, Ponto Pro and Ponto Pro Power

P1: General mic. (Wideband amplification, Automatic directionality, Noise Reduction)

P2: General mic. (High-frequency emphasis, Automatic directionality, Noise Reduction)

P3*: T/DAI/FM, microphone Off

** only in Ponto Pro and Ponto Pro Power*

Ponto

P1: General mic. (Wideband amplification, omni directionality)

P2: General mic. (High-frequency emphasis due to Full directionality)

P3: T/DAI/FM, microphone Off



- Reset to Factory Settings...
- Technical Measurements...



SAVE AND EXIT

END FITTING

- Save and Exit
- Buttons and Beeps
- ConnectLine

LINKS

- Accessories
- Instruction Videos

TECHNICAL MEASUREMENTS

A0: OMNI

USER SETTINGS

PONTO 3

User settings

- Full on Gain (A0)
- IEC Reference Gain (B0)
- ANSI Reference Gain (N0)

PROGRAM RESET

PONTO 3

User settings

- Full on Gain (A0)
- IEC Reference Gain (B0)
- ANSI Reference Gain (N0)

PROGRAM RESET

OPEN HIT MODULE

HELP CLOSE

SAVE, PROGRAM AND EXIT

Technical Measurements

Open the Technical Measurements tool in the End Fitting step from the Tools menu.

Technical Settings

Use this tool to program the instrument with a technical setting for skull simulator measurements in an Interacoustics acoustic measurement box.



The instruments can be programmed with the following IEC or ANSI standard settings as defined for air conduction hearing aids:

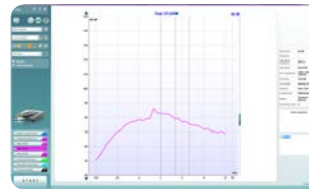
- Full on Gain (A0)
- IEC Reference Gain (B0)
- ANSI Reference Gain (N0)

The programs below can be activated with the instrument's push button once a technical setting is programmed into the instrument:

- P1 – Omni (all instruments)
- P2 – Directional (all instruments)
- P3 – DAI (only Ponto, Ponto Pro and Ponto Pro Power)
- P4 – DAI + M (only Ponto, Ponto Pro and Ponto Pro Power)

Compare the measured curves

You can compare the measured skull simulator responses with the graphs in the Technical Measurements tool (as shown above) or with the Oticon Medical Product Information sheets.



Measured output response



End Fitting

Client – stand-alone database

Genie Medical can run stand-alone with its own database, in which client data and instrument settings are stored.

Select Client

1. Click New to start entering a new client
2. Fill in the client data
3. Click Save
4. Go to Audiogram to enter BC and AC thresholds

Audiogram

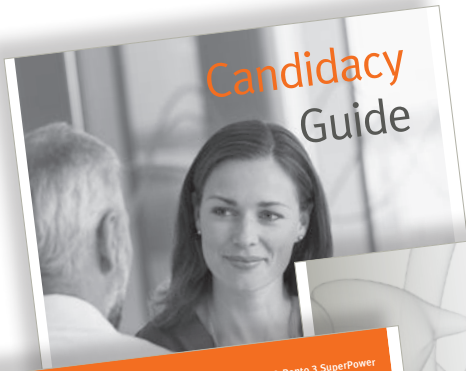
Enter the BC and AC values either in the audiogram or in the table below. Right click in the graph to delete a tag or to indicate that it is unmeasurable.

BC unmasked symbol

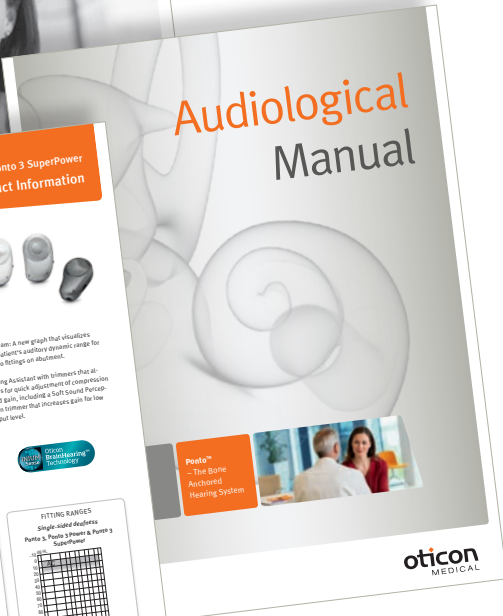
In the menu Preferences/Specific Preferences/Graph Format you can choose the symbol for unmasked BC: Either < > (default) or [].



Client



See the Candidacy Guide for information on who is a candidate for Ponto, pre-operative trial, counseling and fitting on a softband.



See the Audiological Manual for more information about the fitting process, follow-up evaluation and paediatrics.

See the Product Information for more information about instrument data.

You can download these and other relevant documents from www.oticonmedical.com

Ponto 3, Ponto 3 Power & Ponto 3 SuperPower
Product Information

Ponto 3 – The Definition of Power
Ponto 3 is the most powerful family of abutment level bone anchored sound processors in the market, offering candidates with bone conduction thresholds up to 65 dB HL the benefits of bone anchored hearing technologies. The Ponto 3 family consists of 3 powerful sound processors and accommodates individual fitting through Genie Medical 2016.1 or later fitting software.

Powerful sound quality
With Ponto 3 SuperPower, we introduce the world's first single-unit, abutment level QuadraPower processor with a fitting range up to 65 dB HL. The new Ponto 3 family of sound processors is based on the latest Genie platform. This, together with the unique QuadraPower technology, delivers a higher output across the entire bandwidth.

Began Hearing the BARS
BrainLinking™ is a groundbreaking listening experience for every patient. Oticon Medical's Ponto System uses Direct

Sound Transmission and advanced signal processing to make it as easy as possible to decode sound. The BrainLinking suite includes Flex Focus, a directional system with Speech Focused modes that provides improved speech understanding in everyday listening situations.

Several new fitting tools
OSL:BC fitting estimator: Oticon Medical is the first in the industry to provide this resource. Initially developed for conventional hearing aids, it has now been developed specifically for the needs of bone anchored sound.

Flagman: A new graph that visualizes the patient's auditory dynamic range for Ponto fittings on abutment.

Fitting Assistant with 3 modes that allows for quick adjustment of compression and gain, including a Soft Sound Protection trimmer that increases gain for low input levels.

OSL:BC BrainLinking

Ponto™
- The Bone Anchored Hearing System

FITTING RANGES

Conductive / mixed hearing loss

Processor	Frequency (Hz)	HL
Ponto 3	125	20-55
	250	20-55
	500	20-55
Ponto 3 Power	125	20-65
	250	20-65
	500	20-65
Ponto 3 SuperPower	125	20-65
	250	20-65
	500	20-65

BC hearing (max up to 65 dB HL and individual hearing up to 65 dB HL)
*range of 0.5, 1, 2 and 3 kHz

FITTING RANGES

Single sided deafness

Processor	Frequency (Hz)	HL
Ponto 3, Ponto 3 Power & Ponto 3 SuperPower	125	20-65
	250	20-65
	500	20-65

BC hearing (max up to 65 dB HL and individual hearing up to 65 dB HL)
*range of 0.5, 1, 2 and 3 kHz

oticon
MEDICAL

Paediatrics – useful functions in Genie Medical

Soft band fitting mode

We recommend activating the Soft band box in the Selection task when fitting the instrument on a soft band. This will compensate for the damping of the signal via skin and tissue. See also Pre-operative Evaluation, page 11.

Soft band

Fitting infants

For infants wearing the instrument on a soft band on the forehead, ensure that the instrument has a fixed omni program:

In Fitting step, Automatics, set Directionality to Surround.

Directionality

Surround

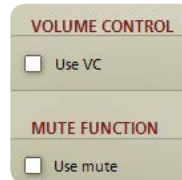
Analyzer/Memory

You can at any time connect a Ponto instrument to Genie Medical and, in Analyzer/Memory, see how long the instrument has been turned on, and in which environments.

Deactivate pushbutton and VC

Go to End Fitting/Button and Beeps to deactivate:

- Program operation
- Volume control
- Mute/Stand-by



Only a T/DAI/FM+M program*

If you want the child to have only a T/DAI/FM+M program, then:

1. In Program Manager, click Add to add a P2. Select the T/DAI/FM+M program for P2.
2. In End Fitting step/Buttons and Beeps, choose Select default program, and click P2.



* for Ponto, Ponto Pro and Ponto Pro Power

For more information on Paediatric fittings, download the Paediatric Guide from www.oticonmedical.com

Fitting Strategy

Modified NAL

- Conductive and mixed losses
The prescription of gain for conductive losses is based upon published studies and internal tests. The prescribed gain is linear, as there is no hearing loss in the cochlea. In mixed hearing losses, the sensorineural part of the hearing loss is compensated for according to modified NAL-NL1, so little compression is prescribed.
- Single-sided deafness
Compared to a conductive hearing loss, reduced low-frequency amplification is provided as there is no head shadow effect at low frequencies. The low-frequency reduction lowers interference in the good ear. In addition, more high-frequency amplification is provided to compensate for the transcranial attenuation.

DSL-BC

The DSL rationale was developed at the University of Western Ontario. DSL stands for “Desired Sensation Level”.

The rationale maps a natural dynamic range to the client’s dynamic range (residual auditory area). DSL-BC is adapted from DSL v5.0a m[i/o] and optimised for bone-anchored hearing systems. DSL v5.0a m[i/o] is the newest version of DSL and prescribes amplification in four stages - expansion, linear, compression and output limiting. DSL corrects differently for monaural and binaural fittings, and has one prescription for children and another for adults.

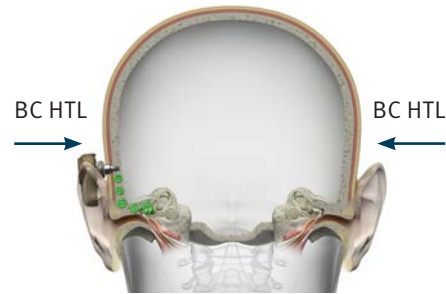
Compared to the air-conduction version (DSL v5.0a m[i/o]), the DSL-BC utilises the sound processor’s maximum force output level as upper limit of the patient’s auditory dynamic range, instead of UCL values.

Conventional BC Audiometry Thresholds

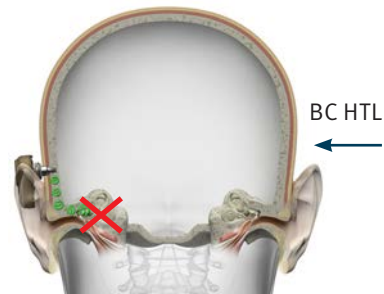
We recommend measuring the hearing threshold with the BC In-situ tool; if this tool is not used and the fitting thus is based upon conventional BC audiometry thresholds, then the gain prescribed for

- conductive and mixed hearing losses is based upon BC thresholds entered for both left and right sides. This takes into account the fact that sounds always cross from one side of the skull to the other in a bone-anchored hearing solution. For asymmetrical BC thresholds, gain is prescribed to the cochlea with the lowest gain prescription.
- single-sided deafness fittings are based upon the BC threshold for the good ear.

We recommend entering the BC threshold for both sides also when performing a monaural fitting.



*Conductive/mixed HL:
Measure BC on both sides*



*Single-sided deafness:
Measure BC on the good ear side*

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Datavägen 37B
SE-436 32 Askim
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