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How to print Handouts

On a Mac

- Open PDF in Preview
- Click File
- Click Print
- Click dropdown menu on the right "preview"
- Click layout
- Choose # of pages per sheet from dropdown menu
- Checkmark Black & White if wanted.

On a PC

- Open PDF
- Click Print
- Choose # of pages per sheet from dropdown menu
- Choose Black and White from "Color" dropdown

Next-era hearing

Every step of the way

Erica Koehler, AuD
GN Hearing

Outcomes

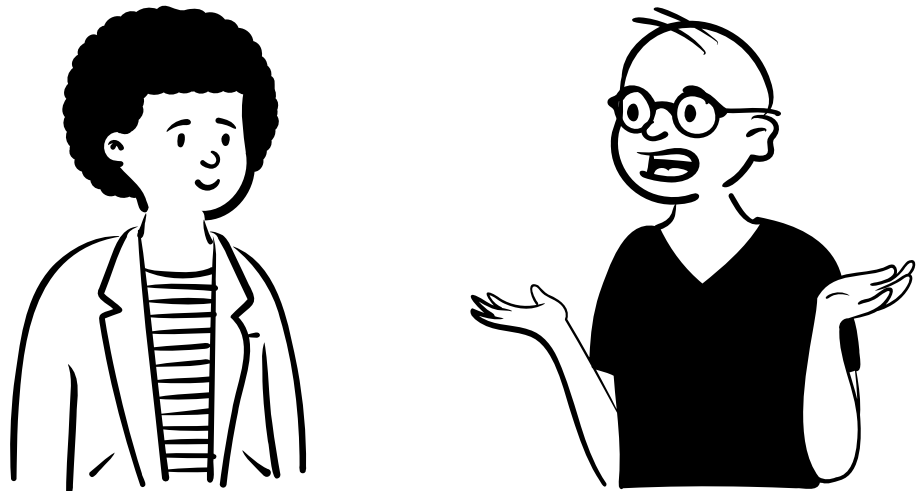
After this course, participants will be able to…

- Identify which rechargeable hearing aid styles were added to the ReSound Nexia family
- Name a launch feature that impacts each part of the hearing aid fitting process
- State a fine-tuning tip provided in ReSound Smart Fit 1.18

Overview

- Intro
- Hearing Aid Selection
  - Line extension offerings
- Hearing Aid Dispensing
  - Eco-friendly packaging
- Hearing Aid Fitting
  - Remote Service Consent
  - AutoREM
  - Reports
- Hearing aid Fine-tuning
  - Awareness of vent impact and tools within SmartFit
  - Gain handle mapping changes
  - First Time User – Onboarding Profile
- Lightning Quiz
- Summary

Hearing Aid Selection



Now available in all styles

Custom

NXCIC

CIC

10A battery

NXITC-DWC

ITC

Rechargeable

NXITE-DWC

ITE

Rechargeable

RIE

NX60S-DRWC

Micro RIE

Rechargeable

NX61-DRW

NX62-DRW

Standard RIE

312, 13 battery

BTE

NX77-DWC

BTE

NX88-DWC

PBTE

Rechargeable

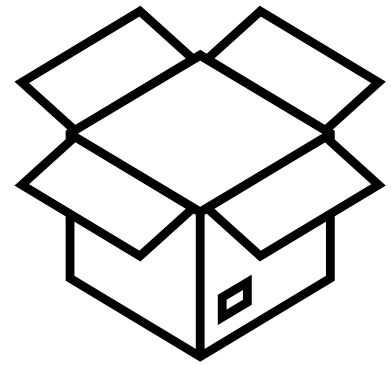
In technology levels 9,7,5

	Resound OMNIA							ReSound Nexia						
Form factors														
	Custom		RIE-C	RIE-13		PBTE		Custom		RIE-312		BTE		
			Mini RIE		RIE-312		BTE			Micro RIE		RIE-13		PBTE
MFi/Android streaming	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Bluetooth LE Audio / Auracast								●	●	●	●	●	●	●
Telecoil					●	●	●					●	●	●
CROS transmitter										●				
TapControl										●				
Wireless accessories														
TV-Streamer+ (Bluetooth LE Audio)														

Resound Nexia Features

	 microRIE	 RIE 312	 RIE 13	 BTE RHI	 PBTE RHI	 ITE/ITC RHI	 CIC nonWL
Bluetooth LE Audio	✓	✓	✓	✓	✓	✓	✗
Auracast	✓	✓	✓	✓	✓	✓	✗
TV Streamer+ (Incl. OneTouch Pairing	✓	✓	✓	✓	✓	✓	✗
CROS/BiCROS	✓ *CROS transmitter and receiver*	(✓) *CROS receiver*	(✓) *CROS receiver*	✗	✗	✗	✗
TapControl	✓	✗	✗	✗	✗	✗	✗

Hearing Aid Dispensing



Unboxing… it's something to think about

Oxford definition: *an act or instance of removing a newly purchased product from its packaging and examining its features, typically when filmed and shared on a social media site.*

Great things come in 100% recyclable packaging

47% Reduced CO2 emissions compared to previous

80% Target reduction of carbon emissions in in-house operations by 2030

Towards a circular economy by giving more products a second life through repair and recycling

*Compared to previous packaging

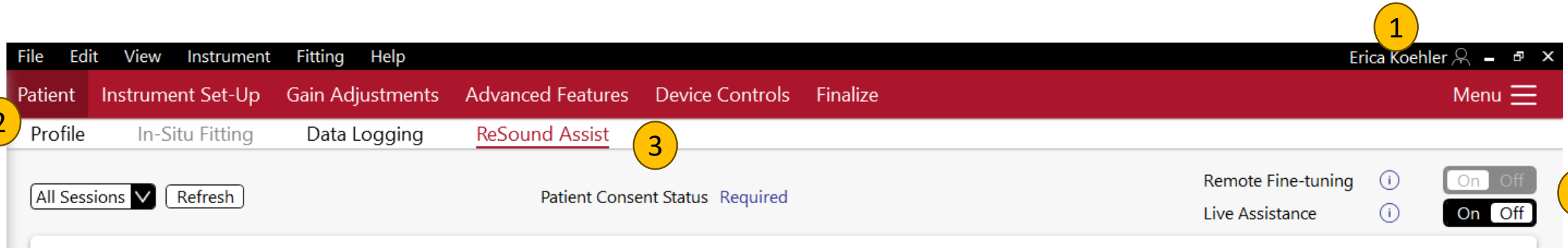
Hearing Aid Fitting

Smart Fit 1.18 enhancements

- Remote consent from fitting software to app
- AutoREM additions
- Patient and clinician reports

Remote Assist Consent

- Required for services to use the cloud
- While data is not stored it is transferred



1. Log into GNOS
2. Patient tab
3. ReSound Assist tab
4. Select appropriate options for assistance

Consent previous flow


• 1 Enable Remote Fine Tuning


• 2 Print consent for patient signature


• 3 Sign consent form


• 4 Grant consent on behalf of patient

OPTIONAL



• 5 Download App and pair HIs


• 6 Ready for Remote Fine Tuning

Challenges with steps 2 thru 4

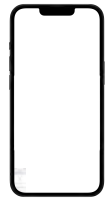
- Time consuming
- Fitting software is HCP facing

Consent current flow

• 1 Enable Remote Fine Tuning

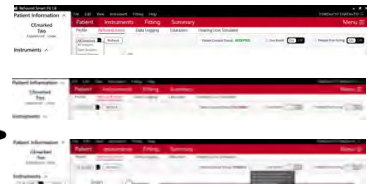
OPTIONAL

• 2 Download App and pair HIs



• 3 Grant consent in App

• 4 Ready for Remote Fine Tuning

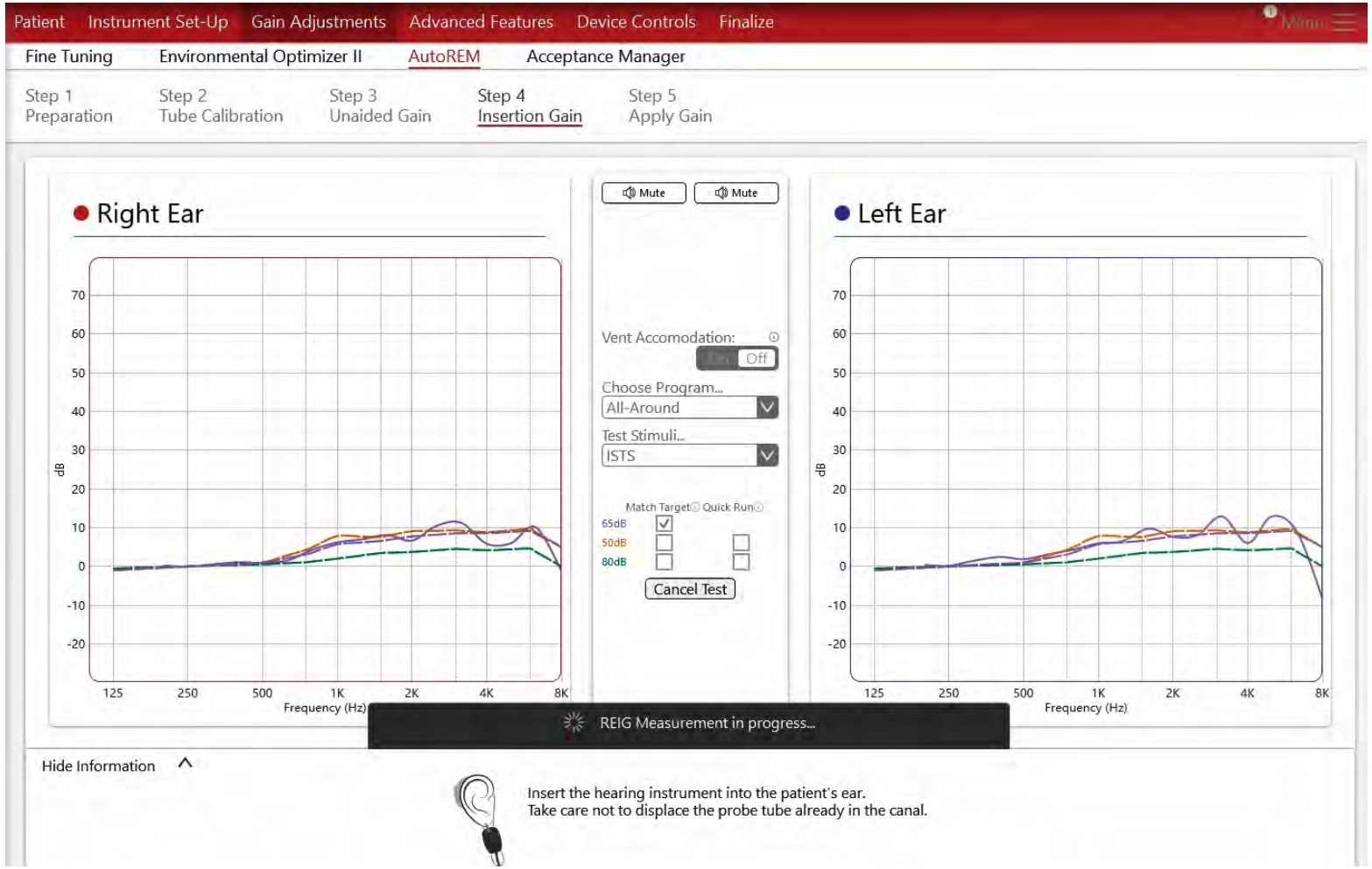


Consent received

Steps 2 thru 4 removed placing the patient consent in the hand of the patient via the app while clinician can monitor status from the software

AutoREM enhancements

- Affinity Suite 2.18.0
  - Compact 4
- Maestro 1.23.0
  - Trumpet



ReSound Smart Fit 1.18 | File | Edit | View | Instrument | Fitting | Help | GN Online Services Login

Patient Information

mild
N2
First Time User

Instruments

Noahli... | Connect

Right Connected | Left Connected

NX962-DRW RIE 2 MP Receiver | Mute

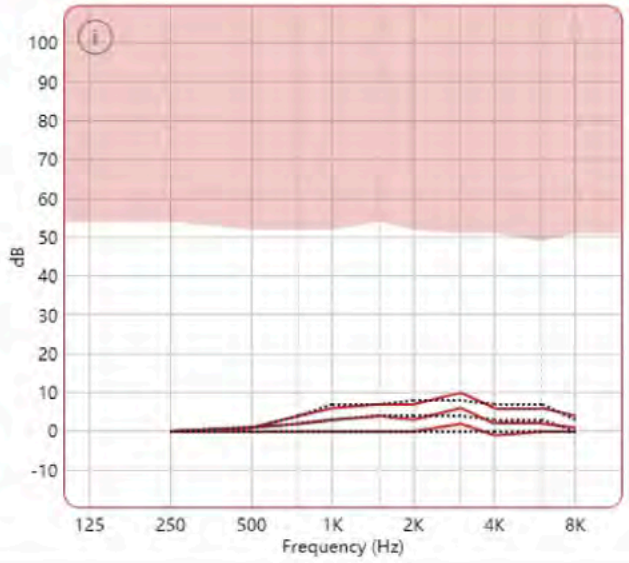
NX962-DRW RIE 2 MP Receiver | Mute

Media Player

Collapse Sidebar

Patient | Instrument Set-Up | Gain Adjustments | Advanced Features | Device Controls | Finalize | Menu

Fine Tuning | Environmental Optimizer II | AutoREM | Acceptance Manager



Mute | Mute

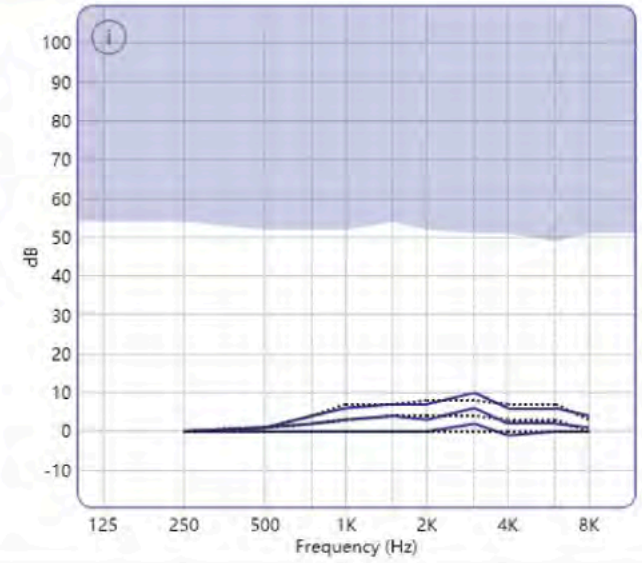
Display Options

Linked

Gain % 100%

Legend

Above FOG



All-Around | Hear in Noise | Tools

All	250	500	750	1K	1.5K	2K	3K	4K	6K	8K
50	0	1	4	6	7	7	10	6	6	4
65	0	1	2	3	4	3	6	2	2	1
80	0	0	0	0	0	0	2	-1	0	0
CR	1	1	1.2	1.3	1.3	1.4	1.4	1.3	1.3	1.1
MPO	96	99	100	102	104	107	108	109	110	110

Handles: 6 10

1 2 3

All	250	500	750	1K	1.5K	2K	3K	4K	6K	8K
50	0	1	4	6	7	7	10	6	6	4
65	0	1	2	3	4	3	6	2	2	1
80	0	0	0	0	0	0	2	-1	0	0
CR	1	1	1.2	1.3	1.3	1.4	1.4	1.3	1.3	1.1
MPO	96	99	100	102	104	107	108	109	110	110

Handles: 6 10

ReSound GN

Calibrate DFS | Save

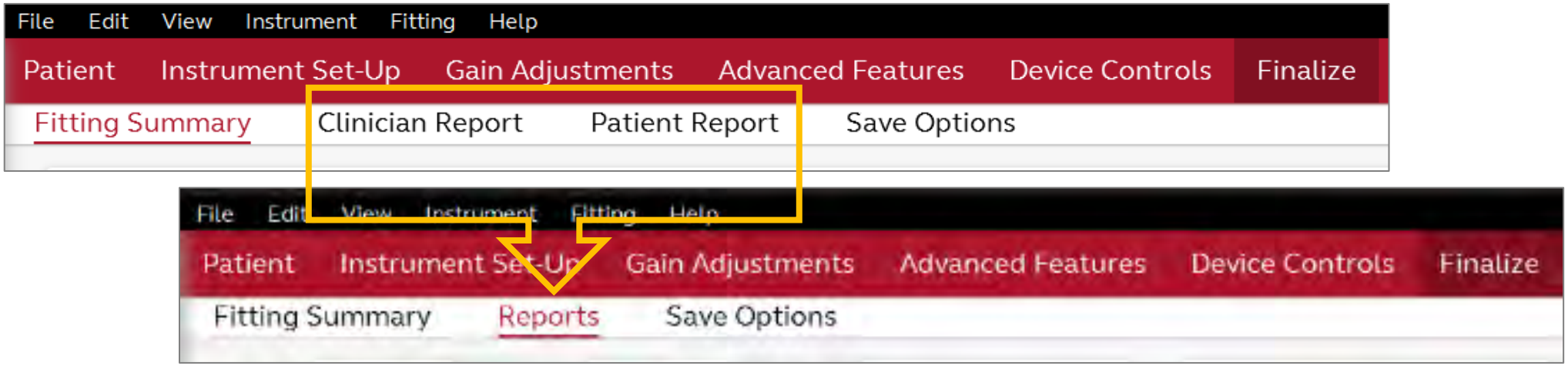
Report building and accessibility

Previous Challenges

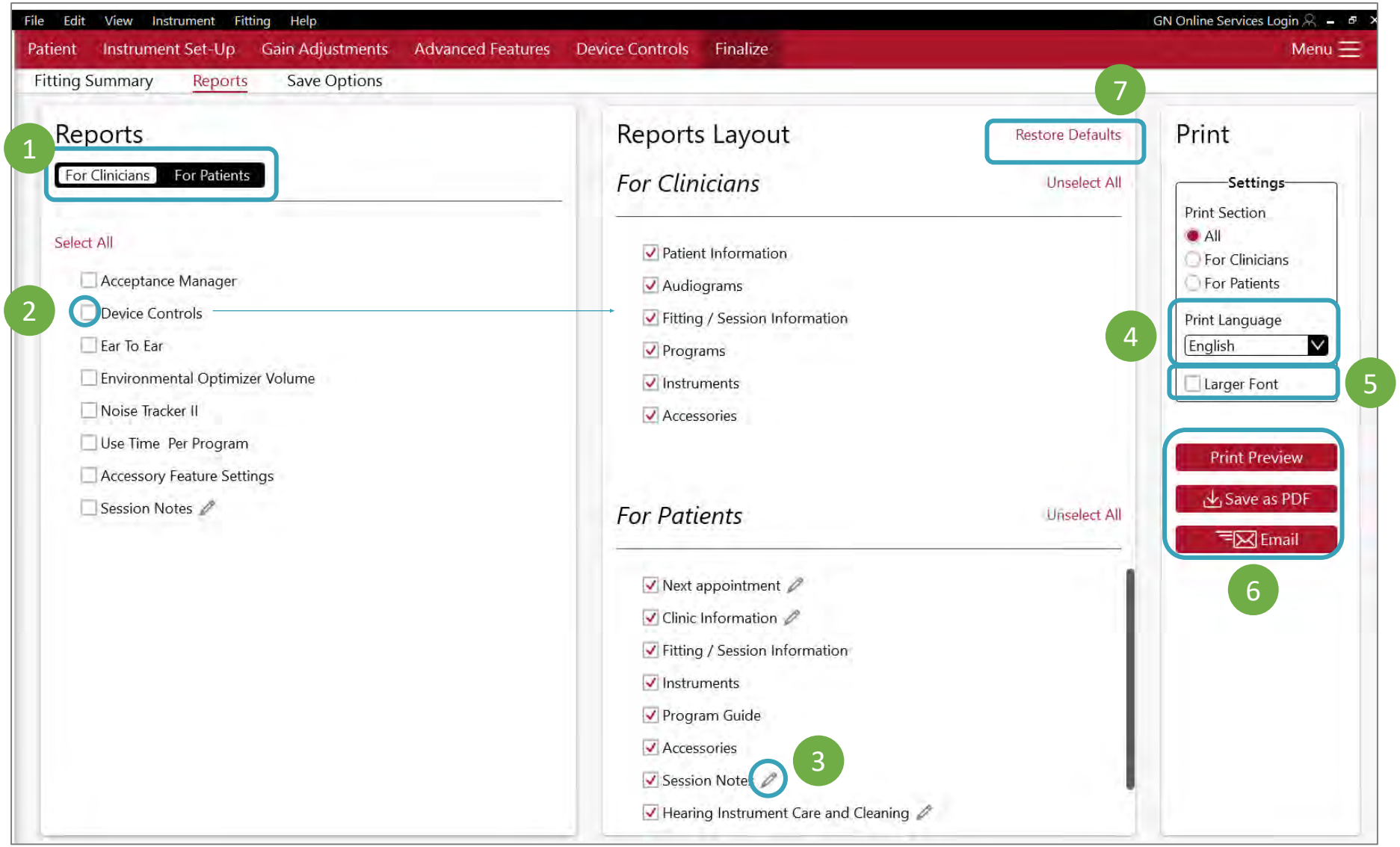
- Separate screens to manage for patient and clinician reports
- Prints in HCP selected language
- Print size is not adjustable

Current Solutions

- Both reports can be edited from same screen
- Option to select print language
- Large font option

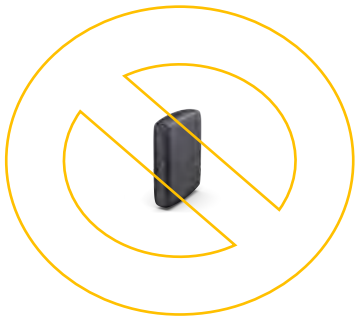


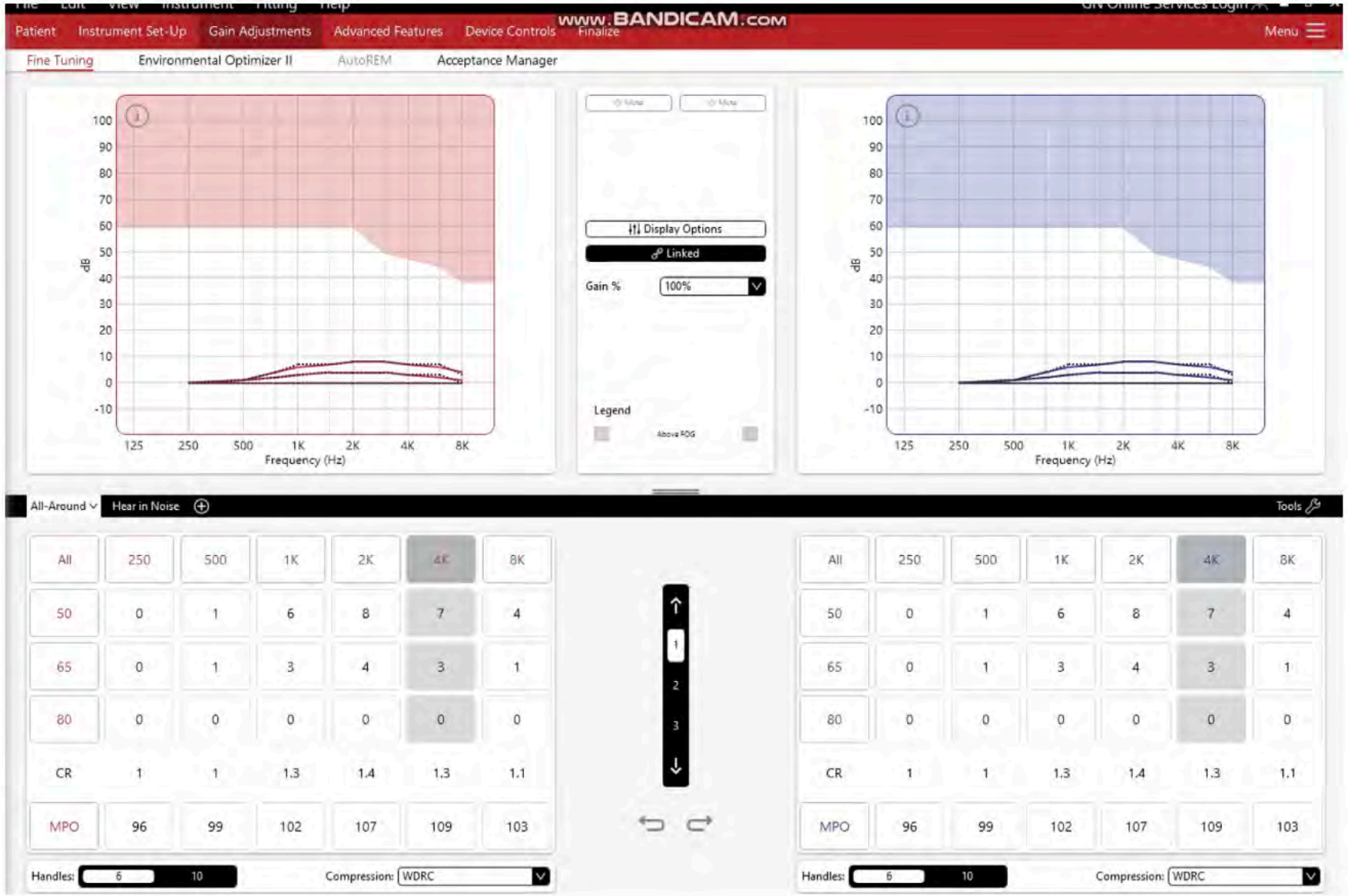
Step by step personalization for you and your patients



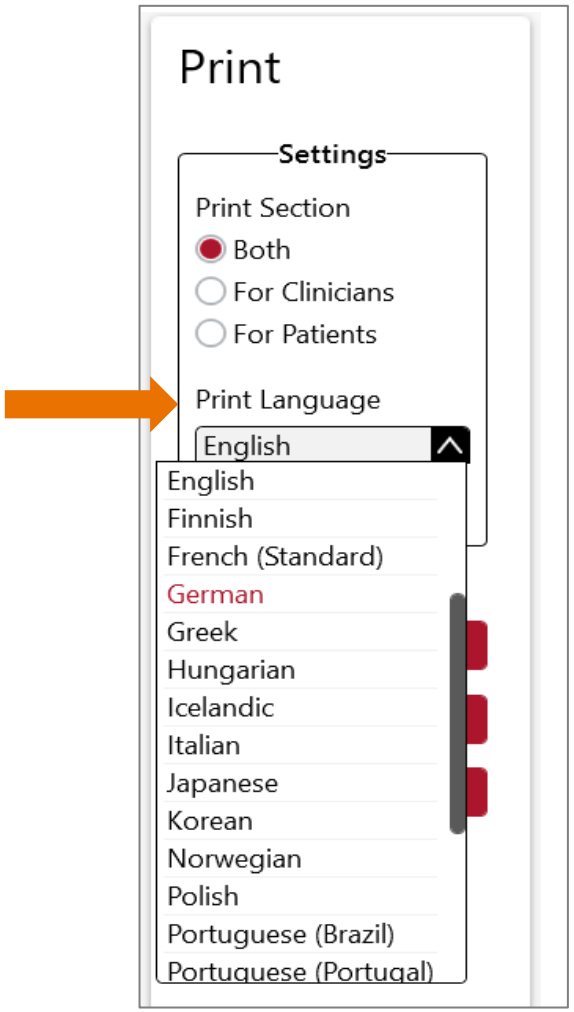
1. Select the report
2. Select topics to add to the report
3. Customize editable topics
4. Select the language
5. Select a larger font size
6. Preview, save as a pdf, and/or email
7. *restore defaults if changes are not applicable to next patient


ReSound




www.BANDICAM.com
Patient
Instrument Set-Up
Gain Adjustments
Advanced Features
Device Controls
Finalize
Menu
Fine Tuning
Environmental Optimizer II
AutoREM
Acceptance Manager
dB
Frequency (Hz)
125 250 500 1K 2K 4K 8K
Display Options
Linked
Gain %
100%
Legend
All-Around
Hear in Noise
Tools
All 250 500 1K 2K 4K 8K
50 0 1 6 8 7 4
65 0 1 3 4 3 1
80 0 0 0 0 0 0
CR 1 1 1.3 1.4 1.3 1.1
MPO 96 99 102 107 109 103
Handles: 6 10
Compression: WDRC

Report details

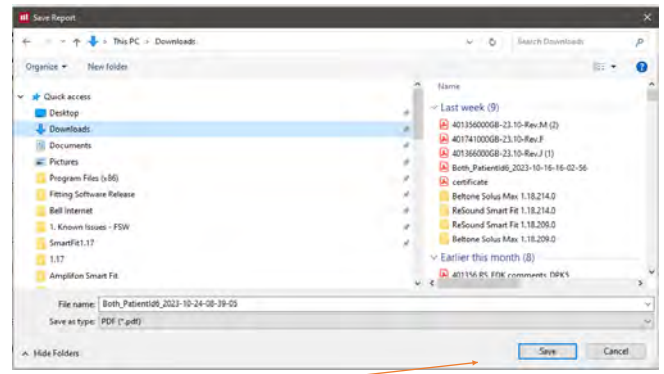


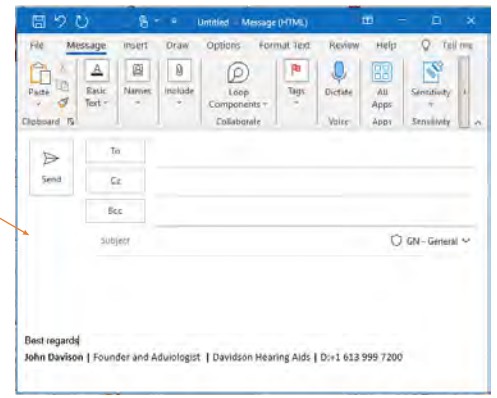
Font sizes are dynamic and vary depending on if you maximize the screen

Previous standard was 16 pixel

Current standard is 19 pixel

"Larger Font" is 22 pixel





Hearing Aid Fine-tuning

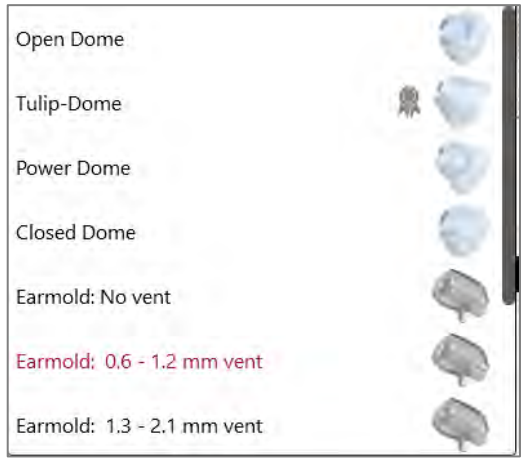
Smart Fit 1.18 tools

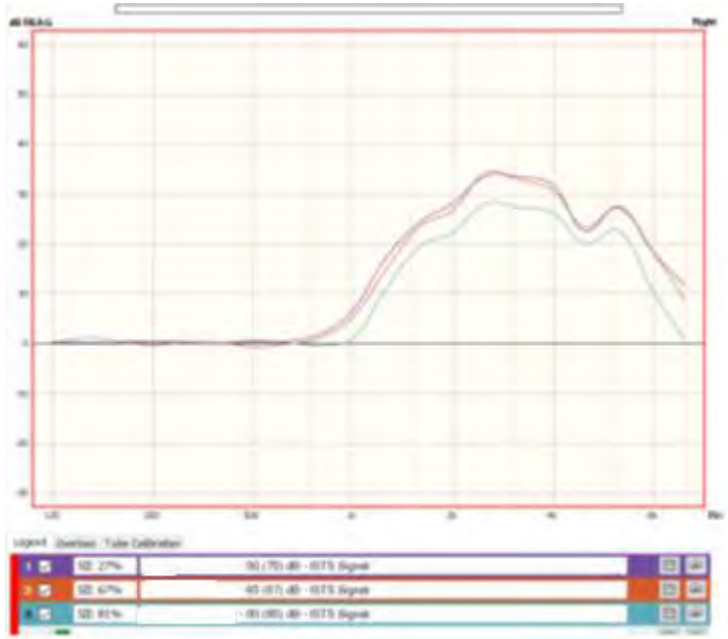
- Vent effect awareness
- Fine tuning gain with WARP compressor
- First Time User – Onboarding profile

Earpiece selection and vent effects

Ear coupling has a dramatic effect on the fitting

- Open-type domes do not trap low frequency energy in the ear canal
- The phenomenon will cause REMs to show no low frequency gain and thin or tinny sound quality



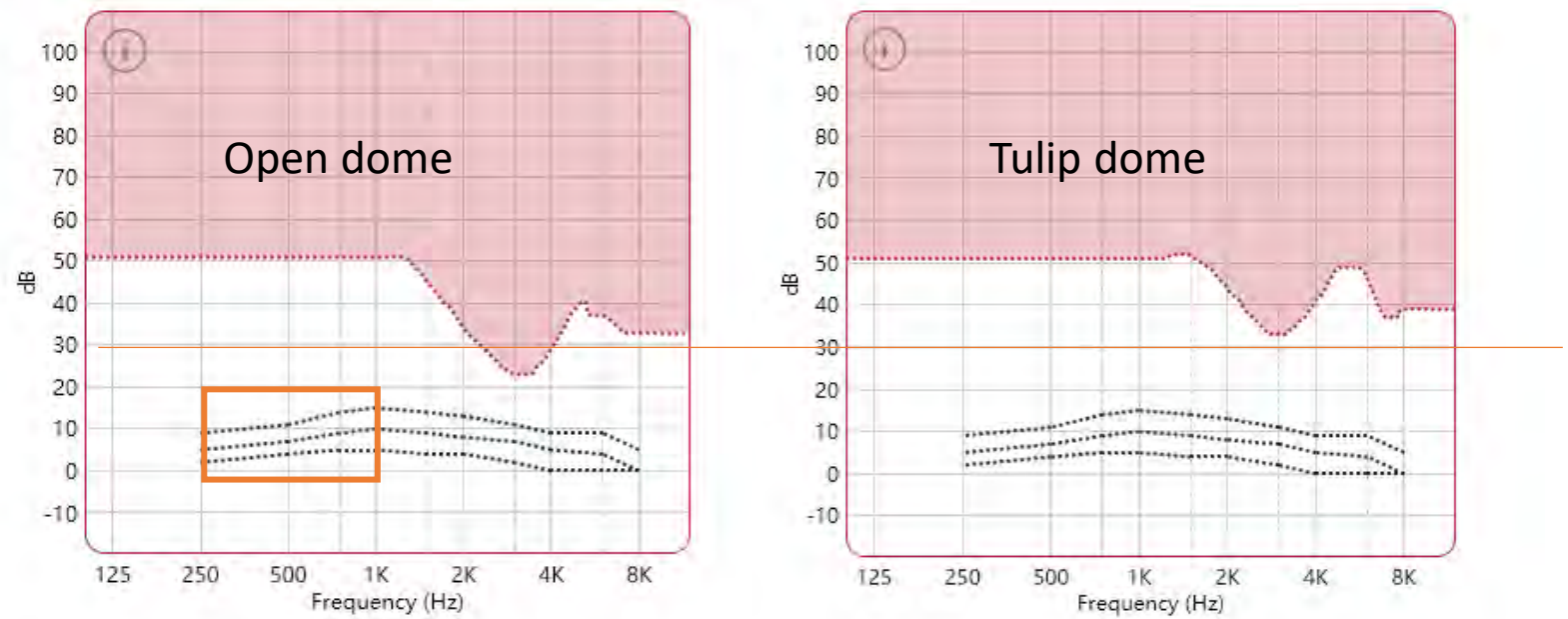


		Vent effect by frequency and dome/mold					
		250	500	750	1000	1500	2000
RIE open	*Open Dome*	*-31*	*-23*	*-16*	*-10*	*-4*	*0*
	Tulip & Closed Dome	*-18*	*-10*	*-3*	*-1*	*0*	*0*
	3 mm Mold	*-25*	*-12*	*-4*	*0*	*0*	*0*

Fitting software tips and tricks for vent effects

Calibration screen

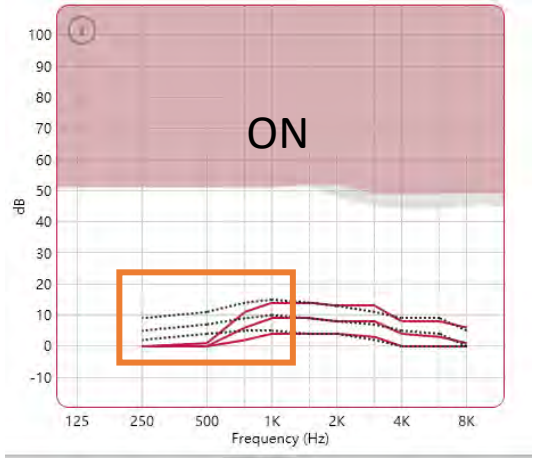
- Target curves
- Calibration curves



Fitting software tips and tricks for vent effects

Vent correction in Display options

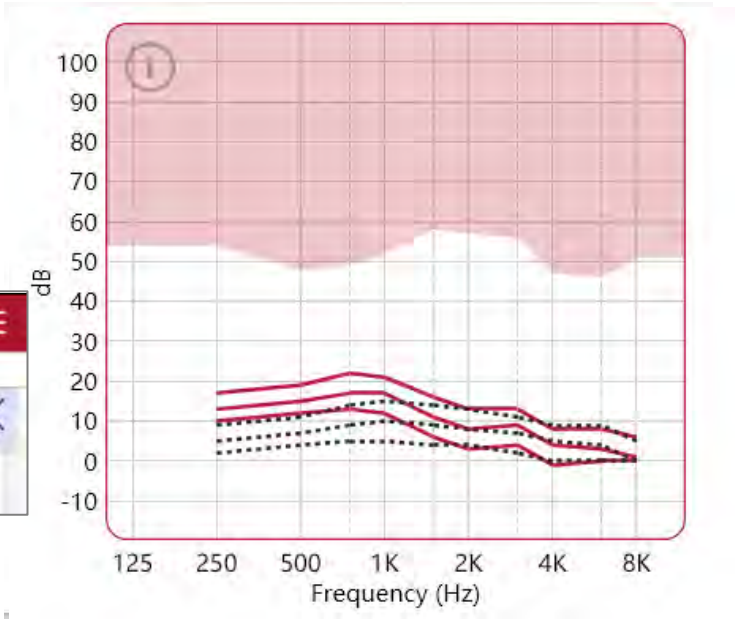
- ON setting offsets gain curves for simulated vent
- OFF setting displays gain from the hearing instrument
- Targets are not affected by the feature, use the gain and targets curves to set expectations



Fitting software tips and tricks for vent effects

Low frequency gain alert

- Changing gain with vent simulation ON combined with intense gain changes can hide gain related issues that affect sound quality
- Best use is to view if earpiece is appropriate for fitting and not to be left ON during REM or gain adjustments
- Should this occur there is a new alert



WARP compression

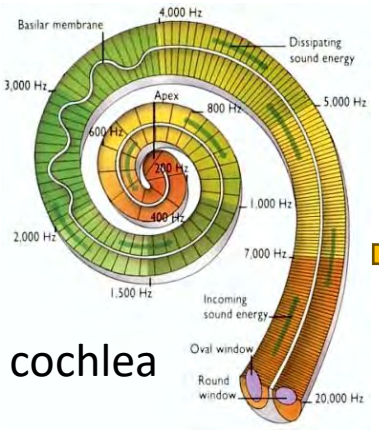
Frequency warping

- Audio processing technique
- Used in conjunction with WDRC
- Warping in used in other audio applications outside the hearing instrument industry
- Designed to mimic non-linear frequency coding within the cochlea

WARP compression

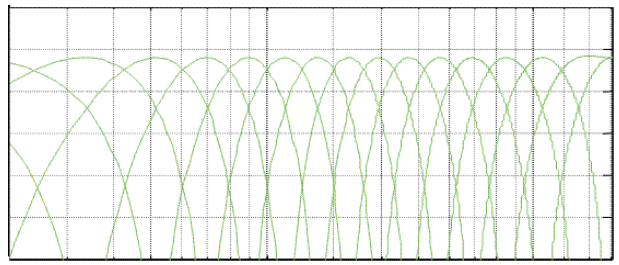
Frequency bands mimics that of the auditory system

- Due to the basilar membrane's logarithmic coding, the ear's ability to resolve sound is best modeled by a system with constant bandwidth in low frequencies and increasing in the highs
- Mathematical warping closely matches frequency components to the auditory Bark scale mimicking the function of the human cochlea to restore its compressive function by using multiple overlapping frequency



cochlea

auditory filters

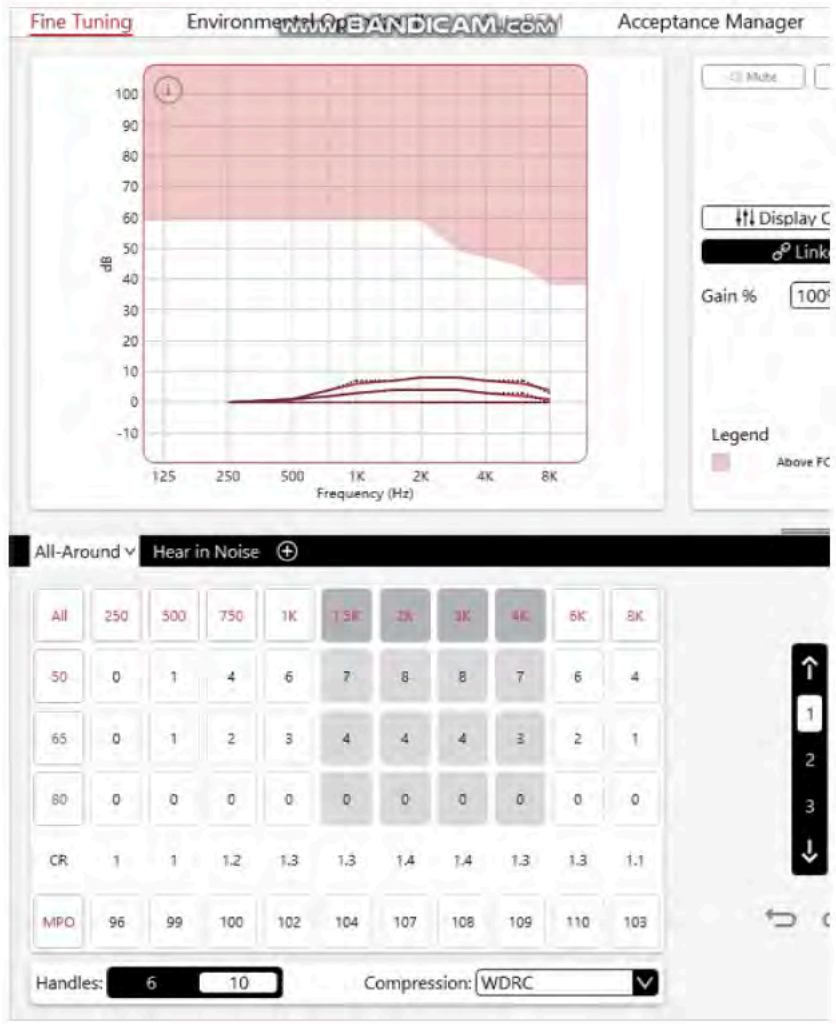


warp bands

Gain handle mapping

Overlapping bands have benefits

- Reduce introduction of incorrect gains
  between bands
- Reduce band edge-effect



Example: FSW 1.17

6 Handles	
250	250
500	500, 750
1000	750, 1000, 1500
2000	1500, 2000, 3000
4000	4000
8000	6000, 8000

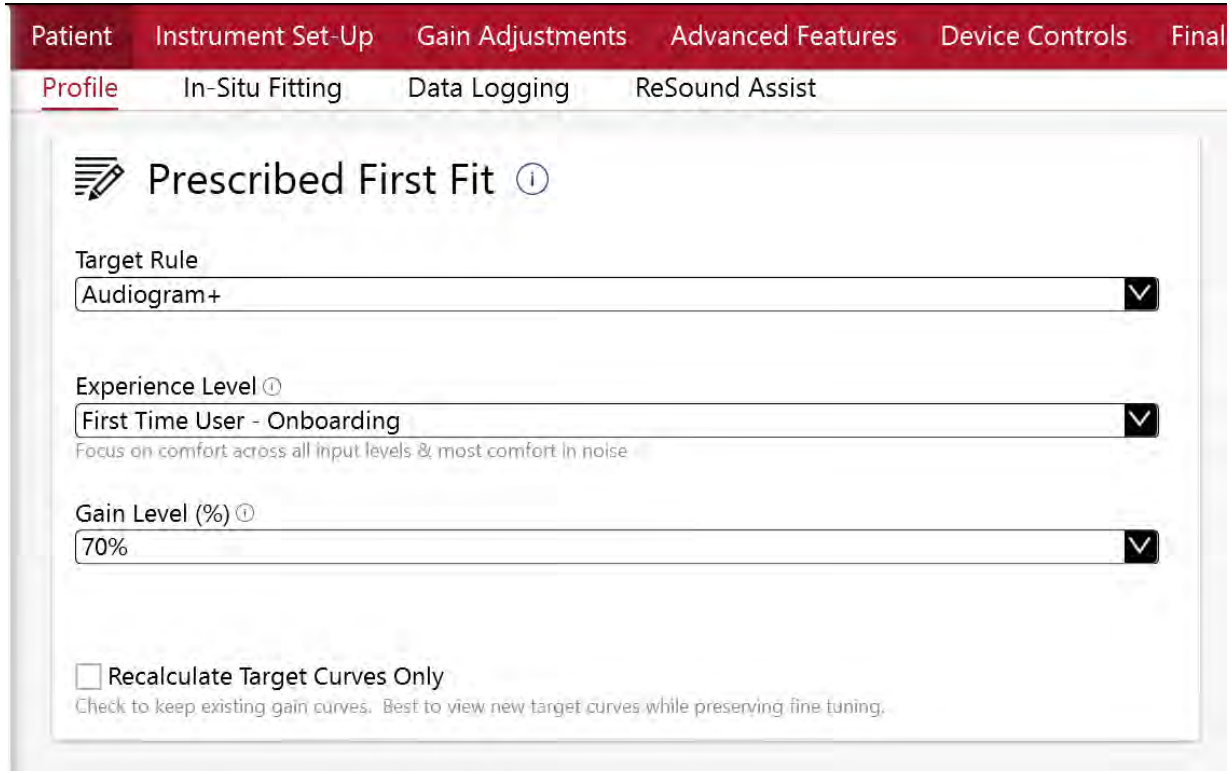
FSW 1.18

6 Handles	
250	250
500	500, 750
1000	~~750,~~ 1000, 1500
2000	~~1500,~~ 2000, 3000
4000	4000
8000	6000, 8000

First Time User – Onboarding profile

New profile for patients who prefer a more comfortable sound experience at first fit

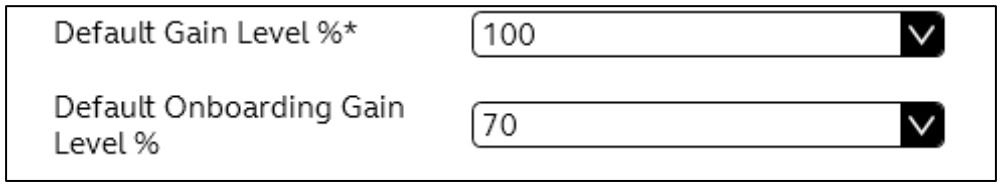
- Replaced “Comfort User” profile
- Sets gains at 70% of First Time User targets reducing overall loudness
- Increased noise reduction for comfort
- Acts as a stepping-stone for adaptation



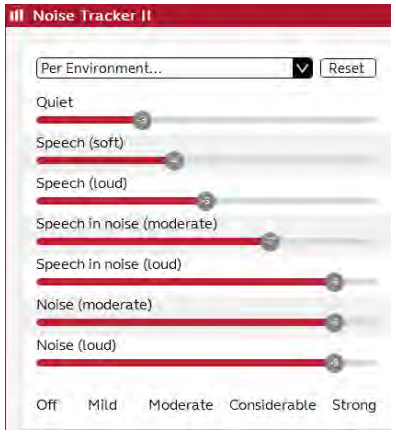
First Time User – Onboarding Profile migration

Changing TO Onboarding profile

- Dictated by preference settings (default 70%), automatic change

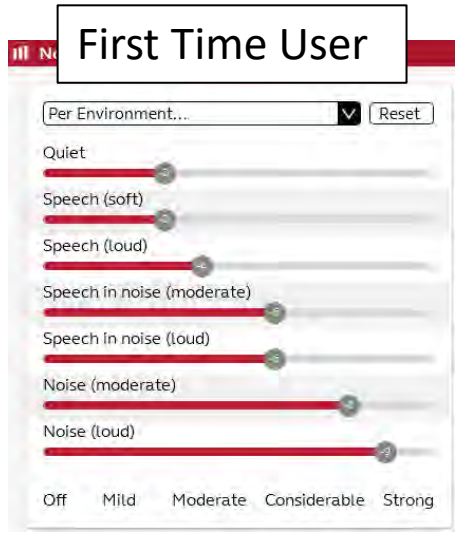


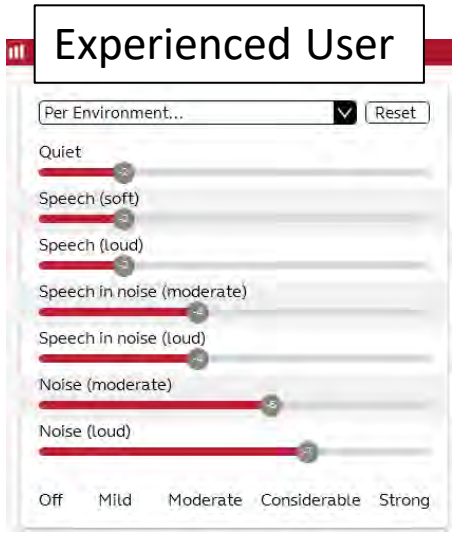
- Noise reduction setting increase



Changing FROM Onboarding profile

- Manual change required to adjust Gain % settings
- Noise reduction settings decrease





Lightning Quiz & Summary

The ReSound Nexia line extension includes which set of hardware?

A. RIEs and M&RIE receivers

B. Rechargeable BTEs and customs

The Nexia family offers which form of Bluetooth which is not offered in the OMNIA line?

A. Bluetooth LE Audio

B. MFi and Android Streaming

Hearing aids now arrive in packaging which is eco-friendly as it has which quality?

A. It is 100% smaller

B. It is 100% recyclable

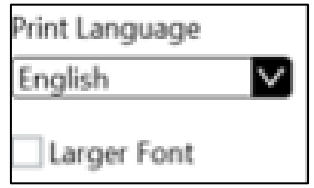
New remote services consent flow

A. Allows the remote services to be used without patient consent

B. Allows patient to consent in the app, with consent monitoring for HCP in software

Changes made to the reports increase patient accessibility with which 2 features?

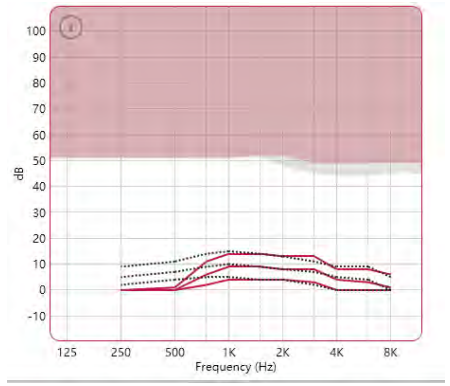
A. Options for increased print size and print language selection



B. The ability to print the clinician and patient reports in the same document

What are 2 tools in the fitting software can assist with earpiece selection?

A. The simulated vent effect with the Vent Corrections checkbox and the targets gain curves



B. The gray recommendation badge and collapsing from 10 gain handle to 6

The calibration curve, Vent Correction view and the low frequency gain notification are tools to assist in which acoustic phenomenon?

A. Identifying the vent effects or lack of low frequency gain reaching the eardrum

B. Converting dB HL to dB SPL

The First Time User – Onboarding profile maybe used to make the adjustment to hearing aids more comfortable. After an adaptation period which steps are recommended?

A. Increase the experience level profile and DO NOT increase the Gain % feature to 100%

B. Increase the experience level profile and increase the Gain % feature to 100%

Summary

	Enhancement	Location	Impact
Hearing Aid Selection	Nexia line extension	Product catalog	Ability to offer Nexia in rechargeable BTE & custom form factors
Hearing Aid Dispensing	Paper box packaging	Shipped start of 2024	100% recyclable packaging
Hearing Aid Fitting	Consent in app	From FSW to app	Patient is in control of consent for remote services therefore reduced workflow for HCP
	AutoREM additions	Gain Adjustments tab	Additional REM equipment options verified (newest Affinity Suite & Maestro)
	Reports	Finalize tab	Quicker report building and great patient accessibility though larger font, language selection & options to send via email
Hearing Aid Fine Tuning	Low frequency gain alert	Appears on Gain Adjustments tab as needed	Additional tool for awareness of vent effect & loss of low frequency energy in the canal
	Elimination of unnecessary overlap in gain handle assignments in collapsed view	Gain Adjustments tab	More control of gain changes in collapsed view
	Moving from First Time User - Onboarding	Patient tab	Used for sensitive first-time wearers to be changed to 100% on increased profile after adaptation period

Thank You!

ekoehler@gnresound.com