

Equinox^{2.0}

PC-based audiometer



Time saving solutions



Interacoustics[®]

leading diagnostic solutions

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The best of two worlds

Equinox^{2.0} is a state of the art two channel clinical audiometer controlled from an external computer. It has all the features required for advanced clinical audiometry plus all the electronic functions needed to communicate directly with databases and medical record systems such as NOAH. Equinox^{2.0} performs equally well in both worlds.

Electronic data

Equinox^{2.0} sets the standard for a modern audiology clinic. It enables results to be output in electronic form to record systems or, equally easily, shared over a network. This means that information can follow the patient between departments and specialists and even across borders. Output is in XML or PDF format.

Flexibility

Flexible software control allows you to adapt tests to suit your specific needs. You have full control over all settings and immediate access to all information in the database. The Equinox^{2.0} also holds standard predefined tests for easy start up.

Future safe

Equinox^{2.0} is also future safe. The modular design protects your hardware investment. As new audiometric tests appear, they will become available as software upgrades for Equinox^{2.0}. With Equinox^{2.0} you also get high quality components and guaranteed precision.



Equinox^{2.0}

- Flexible configuration
- State of the Art
- Customizable
- Complete test battery
- Seamless electronic integration
- Future focused



Equinox^{2.0} for convenience

Equinox^{2.0} has a number of features that will make testing easier so you can concentrate on patient issues and results. Wall mounted or table top, Equinox^{2.0} fits everywhere with just a single USB cable to the computer.

Dedicated keyboard

It is easy to conduct a test using the keys on the pc keyboard. However, some audiologists prefer the controls on a traditional audiometer. To meet this preference Equinox^{2.0} has a specially designed audiometer keyboard with traditional controls and programmable function keys. With this dedicated keyboard all functions are at the clinician's fingertips.

Dedicated outlets

State of the art architecture makes Equinox^{2.0} compact, but it still features dedicated outlets for all transducers and accessories. No outlets are shared, so there is never any need to disconnect transducers between tests.

Integrated database

Equinox^{2.0} transfers all results to OtoAccess™ or another NOAH compatible database. There is no transcription of data, and results are available immediately in another department (e.g. for Hearing Aid fitting). And it is just as simple to send an electronic report to a colleague via email.

Equinox^{2.0} for functionality

Equinox^{2.0} has the full power of a two channel clinical audiometer. It has the standard tests for pure tone and speech audiometry and it has a full set of advanced audiometric tests. It features multiple transducers and amplification for free field speakers. And it includes report and comment features that ensure proper internal and external communication.

On screen comparison

Equinox^{2.0} is completely integrated into medical records. You can retrieve previous tests from a drop down list and even display them as background on the current test for comparison. This makes it easy to get an overview of the progression of the hearing loss.

Personal settings and protocols

The new generation of Interacoustics products permit personalized test configurations to match your clinical needs. The Equinox^{2.0} includes a set of tests that may be modified to quickly get you up and running to your own standards and stored for future use. These user defined protocols are saved under a unique name for easy recall via a drop down menu. This enables multiple users to make test selections that are suitable for their

own applications. Larger clinics or dispensing facilities will find this feature useful as these protocols can be downloaded and transferred to these sites over the internet.

Free field capability

The Equinox^{2.0} is supplied with built-in free field amplifiers and additional solutions are available to meet high powered free field applications.

Complete test battery

High frequency testing and speech material from the hard drive are just two of a whole range of options available for Equinox^{2.0}. There are also modules that support CAPD testing, counselling tools, tinnitus evaluation and other areas of audiology. And the Equinox^{2.0} concept is modular, so new modules will develop to follow the times.



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Pure tone audiometry

Equinox^{2.0} provides all the necessary air, bone and masking features required for clinical use.

Audiogram display modes

The audiogram can be displayed as separate or combined right and left ear. There are display modes for high frequency audiometry and for multi frequency tests where up to 24 frequencies can be tested per octave as well as all speciality tests.

Overlay function

Links to previous test sessions are stored on a drop down menu. You can scroll through previous audiograms and even select one to store as background to the current test. This is ideal for comparison and counselling.



Load all settings with a single click on the test protocol menu

Display previous audiograms as reference to the current test

Speech audiometry

Equinox^{2.0} has built in tests for Speech Discrimination and Word Recognition. SRT and running word scores are calculated automatically and there are full masking controls.

Two channels

As a true two channel audiometer, Equinox^{2.0} gives you full freedom to present speech in one or both ears simultaneously. This allows for a variety of advanced procedures as well as speech in noise tests.

SRT calculation

The speech reception threshold is calculated automatically from the two most suitable plotted points. If you test at an intensity between these two levels the SRT will be adjusted automatically.



Automatic calculation of SRT

Built-in media player

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Design your own reports

Although electronic communication plays an increasing role in audiology, the printable report is still important in communication. With the **print wizard** you can create reports that reflect the professional image of your clinic. You can combine patient information, test comments and all types of test information (e.g. impedance, audiometry, etc) on a single report.

When you print the report, the results from that patient and session are retrieved from the database and placed where you indicated. The report is then printed in full colour through Windows to your printer or can be saved as a pdf.

It takes only a few minutes to design and save a report. You simply select test elements (audiogram, tympanogram, speech test, etc.) from a menu, then place and resize them on the screen page. You can add your own logo and other elements.

Patient information

Place and resize elements

Interacoustics A/S
Drejervejrgt 8
DK-5610 Assens

19112008 055004.M

Left, RT1 Right, RT2

Transducer	Test type	Intensity	Masking	Score	Alert
Left	HL	65			
Right	HL	50			

Transducer	WPT	Intensity	Masking	Score	Alert
Right	WPT	65		54	
Left	WPT	65		50	
Left	WPT				X
Right	WPT	50		50	X

This patient was seen for a follow up hearing aid evaluation. Patient was last seen 4 years ago and test results indicate a significant threshold shift bilaterally. Recommend modification of earmolds and hearing aid settings to compensate for the shift in hearing. Also recommend a follow up visit in 6 months to monitor the change and do a follow up hearing aid consultation. Patient will be counseled on hearing protection.

Test Reliability: Good

Examiner: David P. Speidel, M.S., Audiologist

Add elements from different test types

Individual test settings

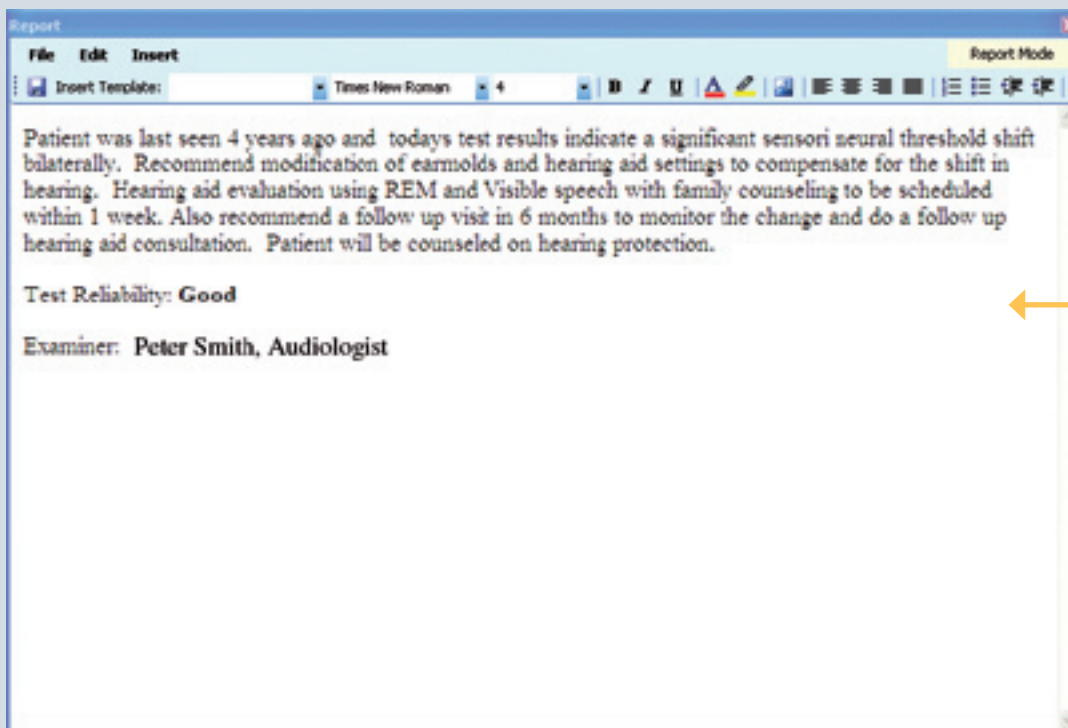
Individual test settings are a powerful and time saving way to customize tests for specific patient groups. Having established the appropriate settings, you save them under a name on the test protocol menu (e.g. "pediatric audiogram"). Next time you perform that test, you can load all the required settings with a single mouse-click.

Each protocol also defines the report for that test. Report design is fully under user control, but will typically contain a **report page** with special information required from that test or patient group. The clinician has one click access to the report

page during the test and can therefore also use it as a notepad to record events that may affect results. This feature is an excellent way of keeping valuable clinician observation with the results.

The report page is saved to the database with the results as part of the session data.

It also saves valuable time by reducing redundancy when generating common report dialogue.



Select standard pages from the template

Report page text



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High Frequency



Hearing Loss Simulation - HLS



A complete test battery

There are a variety of special tests for Equinox^{2.0}. The AC440 module is required as it contains the basic audiometric tests for pure tone and speech audiometry. Some of the special tests available are:

High Frequency (HF440)

The high frequency option on the AC440 software module permits an extended frequency range out to 20KHz which is typically used for ototoxic monitoring. When used with the Multi Frequency selection it becomes an even more powerful tool for discreet analysis of tinnitus.

Multi Frequency (MF440)

Enables Equinox^{2.0} to test at frequencies in fractions of an octave. Often used in tinnitus investigations to match pitch and steeply sloping hearing losses.

Hearing Loss Simulation (HLS440)

Primarily used in counseling and hearing aid selection, this module enables relatives to experience the effects of hearing loss.

Masking Level Difference (MLD440)

The MLD test is used as part of the CAPD test battery. Low frequency stimuli in combination with NB noise (binaurally) and acoustical phase differences will produce threshold shifts and may help identify persons with auditory binaural integration problems

Some other special tests

- Weber
- SISI
- SFH440 Speech from hard drive
- MHA440 Master hearing aid

Masking Level Difference - MLD



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Technical Specifications

Standards:	Safety: IEC 60601-1, Class I, Type B, UL 2601-1, CAN/CSA-C22.2 No. 601.1-M90, IEC 60601-1-1. EMC: IEC 60601-1-2.						
Audiometer standards:	Tone: IEC 60645-1/ANSI S3.6 Type 1; Speech: IEC 60645-2/ANSI S3.6 Type A or A-E						
Calibration:	AC: ISO389-1, ISO389-2; BC: ISO389-3.						
Extended range function:	If not activated, the AC output will be limited to 20 dB below maximum output.						
Input:	Tone, Warble Tone, NB, CD1, CD2, Mic1, Mic2, wave files.						
Masking stimulus:	Narrow Band Noise or White Noise or Speech Noise.						
Outputs:	AC Left + Right, BC Left + Right, Insert Phone Left + Right, Insert Masking, FF1 and FF2. (Line/power 2x10W/4Ω).						
Transducers:	TDH39 Audiometric headset, B71 Bone conductor.						
Tone presentation:	Manual or Reverse. Single or multiple pulses.						
Patient signal:	One or two (optional) hand held push button.						
Patient communication:	Talk Forward and Talk Back.						
Storage capacity:	Tone audiogram: dB HL, MCL, UCL, binaural, aided.						
Speech audiogram:	WR1, WR2, WR3, MCL, UCL, aided, unaided, binaural.						
Compatible software:	NOAH 3 compatible office systems, OtoAccess™.						
Maximum hearing levels:	Hz	AC(dBHL) TDH39	AC(dBHL) HDA200	AC(dBHL) EARTone5A	BC(dBHL) B71	NB(dBHL) TDH39	Extern FF (dBHL)
	125	90	100	95	-	75	80
	250	110	110	100	45	95	95
	500	120	115	110	65	110	100
	750	120	120	120	70	110	105
	1000	120	120	120	70	110	105
	1500	120	115	120	70	110	105
	2000	120	115	120	75	110	105
	3000	120	115	120	80	110	110
	4000	120	115	120	80	110	110
	6000	120	105	105	50	110	105
	8000	110	105	100	50	100	85
Dimensions and weight:	(LxWxH): 37x43,5x7,7 cm / 14.5x17x3 inches. Weight: 5.1 kg / 11.3 lbs.						

PC minimum requirements:

General: 1.2 GHz Pentium 4 class CPU (or better) with at least 512 MB ram, CD-ROM drive, USB connector.
Display: minimum resolution of 1024x768 with hardware accelerated DirectX/Direct3D graphics card.
Disk Space: At least 1 GB available space
System RAM: 128 MB

Included parts:

Audiometer module AC440 CD
OtoAccess™ database CD
TDH39 Audiometric Headset
MTH400 Headset
EMS400 Talk back Microphone
B71 Bone Conductor
APS3 Patient Response Button
Standard USB Cable
Power Cable 120 or 230V
Mouse pad
Operation and Multilingual CE Manual

Optional parts:

DAK70 Audiometer Keyboard with live voice mic.
EARTONE 3A Audiometric Headset (5As may be substituted)
CIR22 Insert Masking Earphones
Audiocup Enclosures
Peltor Noise Excluding Headset
HDA200 Audiometric Headset
HDA280 Audiometric Headset
KOSS R80 high frequency headset
AP12 Power Amplifier 2x12 Watt
AP70 Power Amplifier 2x70 Watt
ALS7 Loudspeaker
AFC8 Sound Cabin Installation Panel
UCO15 Optical USB Extension Cable

Optional special tests:

High Frequency audiometry (HF440)
Masking Level Difference (MLD440)
Multi Frequency Module (MF440)
Speech from Hard-drive (SFH440)
SISI test
Master Hearing Aid (MHA440)
Hearing Loss Simulator (HLS440)
Loudness Scaling (LS440)

Read more here:
www.interacoustics.com/com/Equinox



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leading diagnostic solutions

Interacoustics – the best choice

With over 40 years of experience, Interacoustics is dedicated to supplying its customers with the best possible solutions for their audiological needs. This is accomplished by maintaining a continuous dialogue with healthcare professionals working in all sectors of audiology. Our equipment meets the highest possible engineering standards and we provide design know-how that can only come from close contact with clinical practice.

Solutions on every scale

Designing equipment for every size of clinic in so many countries puts us in the unique position of being able to offer solutions that fit your requirements exactly. Audiometry, tympanometry, electrophysiology, hearing aid testing, balance investigation are all within our scope and can be integrated to suit your needs.

Design for diagnosis

We design equipment to make testing and interpretation easier. This means better interfaces, well designed screen layouts, printed reports and interaction over networks with databases and electronic records systems. In most cases, you can configure the settings and layout yourself.

Support worldwide

The Interacoustics name is not only your guarantee of quality and functionality, but also for support. We operate in over 100 countries worldwide through a well coordinated network of distributors and service centres to ensure that you receive total support and service.



Products in this group:

- Equinox^{2.0} Hardware
- AC440 Audiometry Software

Related products:

- Affinity^{2.0} Fitting System
- TBS25 Test Chamber
- AC40 Clinical Audiometer



Sales and service in your area:

Interacoustics A/S

Phone: +45 6371 3555 · Fax: +45 6371 3522
E-mail: info@interacoustics.com
DK-5610 Assens, Denmark
Web: www.interacoustics.com

Read more here:
www.interacoustics.com/com/Equinox



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