



SA 204™

DIAGNOSTIC AUDIOMETER



SA 204 is a manual / automatic, true two-channel, diagnostic audiometer with full frequency and output range for pure-tone air, bone conduction, speech and synchronized masking. Its patented digital design and RoHS compatibility makes it well adapted to the modern, environmentally aware user. SA 204 is user friendly, robust, reliable and yet, its light-weight design makes it ideal for frequent field use. Built-in talk forward microphone for convenient communication.

SA 204 stores up to 50 audiograms, with date and subject identification, allowing for hard copy prints and/or transfer to a computer at any time. Calibrates to a range of selected audiometric air conduction earphones and bone conduction vibrator. Free-field system is optional. SA 204 is NOAH-compatible when using Entomed Audi-Link 1.00 for NOAH 3.

SA 204 is ideal for hearing threshold and diagnostic determination, designed for frequent clinical practise and portable field use.

Function

SA 204 is a manual/automatic pure-tone, bone conduction and speech testing diagnostic audiometer with narrow band and speech noise masking possibilities. The SA 204 has a set-up menu, which allows the audiometer to be programmed according to individual needs.

50 audiograms with date, time and personal identification can be stored in the internal memory.

Each audiogram can be displayed, transferred to a computer and/or external printer at any time.

SA 204 is as standard equipped with a monitor headset and a talkback microphone for optimal communication with the test subject. Live Speech Monitor Headset and Free Field systems are optional.

SA 204 calibrates to TDH-39/DD45/HDA200 earphones, ER-5A insert earphones and Radioear B71 bone vibrator.

Signal format

Single pulse (1.3 sec duration)

Continuous pure-tone when button is maintained active

Pulsing (2.5 pulse/sec)

Frequency modulation ($\pm 5\%$)

Special Capabilities

Built-in talk forward microphone with volume control.

Internal memory - stores up to 50 complete audiograms in non-volatile memory

Synchronized Masking - The level of masking will automatically track with the stimulus level

Hard copy print-outs to any PCL 5 printer, via optional SA 07 printer interface cable

Computer interface, via optional RS 232 computer cable

Transfer possibilities to NOAH 3 when using optional Entomed Audi-Link 1.00 for NOAH 3

Dimensions

Width* Height* Depth: 376* 73* 264 (mm)

Weight: 1,5 kg

Power supply: 110 V - 240 V, 50 - 60 Hz

Frequency Range

Hz	Maximum Levels Manual/Automatic mode		
	Minimum is -10 dB	Minimum is -10 dB	Minimum is 0 dB
125	80/80 dB	-	80/- dB
250	100/100 dB	45/45 dB	80/- dB
500	120/110 dB	60/60 dB	100/- dB
750	120/110 dB	60/60 dB	100/- dB
1000	120/110 dB	70/70 dB	100/- dB
1500	120/110 dB	70/70 dB	100/- dB
2000	120/110 dB	70/70 dB	100/- dB
3000	120/110 dB	70/70 dB	100/- dB
4000	120/110 dB	70/70 dB	100/- dB
6000	110/110 dB	60/60 dB	100/- dB
8000	110/100 dB	60/60 dB	90/- dB
	Air Conduction	Bone Conduction	Narrow Band Noise

Minimum is -10 dB			
Speech	120 dB	80 dB	100 dB
	Air Conduction	Bone Conduction	Speech Noise

Accuracy $\pm 1\%$

Total Harmonic Distortion
< 2 % earphones
< 5 % bone conductor

Manufactured by:
Auditdata A/S
Dalbergstrøget 5-7
DK-2630 Taastrup, Denmark

TecDoc146 Rev 15.



Entomed SA 20X-IV generation audiometric systems complies with the European RoHS-Directive 2002/95/EC when choosing DD45, HDA 200 and/or ER-5A

Ordering Information

EN 104044 - SA 204 w DD45 supra-aural phones
EN 104045 - SA 204 w DD45 w Audiocups noise attn. cups
EN 104042 - SA 204 w ER-5A insert phones
EN 104040 - SA 204 w TDH-39 supra-aural phones

Standard Accessories Supplied

EN 200060 - Subject response switch
EN 200000 - Radioear B71 bone vibrator
EN 370159 - Monitor head set
EN 370156 - Talk back microphone
EN 560128 - External medical grade power supply
EN 550xxx - Mains cord, country specific - specify in order
EN 9700xx - User manual, English/Spanish - specify in order
EN 500191 - Soft carrying case

Optional Accessories

EN 200190 - DD45 - supra-aural
EN 100360 - EARTone 5A - insert
EN 200170 - TDH-39 - supra-aural
EN 370180 - Audiocups noise attention headset
EN 200907 - SA 07 Printer interface cable
EN 200235 - RS 232 computer cable
EN 200236 - USB/RS232 adapter
EN 370155 - Live speech/monitor headset
EN 200700 - Free field speaker system
EN 101181 - Audimax II+ software for PC
EN 200920 - Entomed Audi-Link 1.00 for NOAH 3

Standards

The SA 204 is a manual/automatic IEC 60645-1 Type 3 pure-tone and bone conduction diagnostic audiometer and meets or exceeds the following standards: IEC 60645-1; IEC 60645-2; ISO 389-1; ISO 389-2; ISO 389-3; ISO 389-4; ISO 8253-1; ISO 8253-2; ISO 8253-3; IEC 60601-1 Medical Electrical Equipment Requirements for Safety and Performance
IEC 60601-1-2 Medical Electrical Equipment Requirements for EMC Compatibility

Specifications are subject to change without notice.



The Entomed SA 20X-IV generation audiometers are based upon a patented digital design. The RoHS compatibility makes them well adapted to the modern, environmentally aware user. All products in the SA 20X-series are user friendly, robust, reliable and yet of a light-weight design ideal for frequent field use. The Entomed SA 20X-series covers user needs from basic screening capabilities to advanced diagnostic clinical needs required by audiologists dispensing hearing aids.

SA 201™ - Screening Audiometer
SA 202™ - Screening Audiometer
SA 203™ - Diagnostic Audiometer
SA 204™ - Diagnostic Audiometer

The SA 20X-IV generation is replacing the previous SA 20X-II platform, also sold under the GSI 66, GSI 67 and GSI 68 brand names.

For further inquiries do please visit Entomed website or contact your local dealer.

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