

SA 204™

DIAGNOSTIC AUDIOMETER



SA 204 is a manual / automatic, true two channel, diagnostic audiometer with clinical applications measuring air, bone and speech. SA 204 is digital and RoHS compatible and thus, well adapted to the modern user and environmental concerns. SA 204 is user friendly, robust, reliable and yet affordable.

The speech testing interface on SA 204 makes it easy to control stimuli levels. Storage capacity of 50 complete audiograms. Any combination of one, two or all three of the audiometric earphones is applicable. Free-field system is optional. SA 204 is an ideal audiometer for hearing aid dispensing practices and for application in a clinical environment.

Distributed by:



1/10 Dorsey Street, Milton, QLD 4064
PO Box 1869, Toowong DC, QLD 4066
Free call: 1800 639 263 **F** 07 3368 1044
E enquiry@sonici.com.au **W** www.sonici.com.au

Function

SA 204 is an **automatic**/manual 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 together with date, time and personal identification can be stored in the internal memory.

Each stored test result can be displayed, exported to a computer or printed out on an external printer on a later occasion. SA 204 comes with a monitor headset and talkback microphone for optimal communication with the patient. Live Speech Monitor Headset and Free Field measurement are optional.

SA 204 may be calibrated to TDH-39 earphones, Sennheiser HAD 200 earphones, EARTone 5A insert earphones, Radioear B71 bone vibrator.

Signal format

- Continuous steady when bar is pressed
- Single pulse (1.3 sec duration)
- 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
- Printing possibilities to any PCL 5 Printer when using SA 06 Printer Interface kit (optional accessory)
- RS 232 interface

Dimensions

Width* Height* Depth: 376* 73* 264 (mm)
 Weight: 1,5 kg
 Power supply: 110 V - 240 V, 50 - 60 Hz

Frequency Range

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

Ordering Information

EN 104040 - SA 204 diagnostic audiometer

Accessories supplied

- EN 200170 - TDH-39
- EN 560128 - External medical grade power supply
- EN 550xxx - Mains cord as specified in order (Country specific)
- EN 200000 - Radioear B71 bone vibrator
- EN 200060 - Subject response switch
- EN 370159 - Monitor head set
- EN 370156 - Talk back microphone
- EN 970026 - User manual in english

Optional Accessories

- EN 200170 - TDH-39
- EN 100360 - EARTone 5A
- EN 370166 - Sennheiser HDA 200
- EN 200905 - SA 06 Printer Interface kit
- EN 200235 - RS 232 computer cable
- EN 101211 - Audimax II software for PC
- EN 200700 - Free field speaker system
- EN 500184 - Carrying Case
- EN 500185 - Carrying Case, compact size
- Software for NOAH compatibility will be available Q2/2009

Standards

The SA 204 is an **automatic**/manual IEC 60645 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.



Entomed is a Swedish company focused on development and manufacturing of high quality audiometers. Up to year 2007 Entomed products were sold and distributed by GSI under the brand name GSI 66, GSI 67 and GSI 68. Since 2008 the products are sold directly from Entomed through a worldwide distributor network under the brand names SA 202™, SA 203™ and SA 204™.

Entomed is introducing a new patented generation of the well reputed product line of SA 201™, 202™, 203™ and 204™. The new generation is digital and RoHS compatible and thus, well adapted to the modern user and environmental concerns. All products in the SA 20X-series are user friendly, robust, reliable and yet affordable. Entomed SA20X-Series covers user needs from basic screening capabilities to advanced diagnostic functionalities required by audiologists dispensing hearing aids.

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

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



Bariungatan 29
 SE-213 64 Malmö, Sweden
 Tel: +46 40 21 00 90
 Fax: +46 40 21 00 99
 E-mail: mailbox@entomed.se
 Web: www.entomed.se



Manufactured by:
 Entomed AB

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Entomed Audiometric systems, SA 20X line, comply with the European RoHS-Directive 2002/95/EC when choosing Sennheiser HDA200 and/or E-A-RTONE 5A