

# MA 33

## PC Audiometer



- Air Conduction, Bone Conduction and Speech tests
- Pilot-Hearing test for children
- SISI, Stenger and automatic Hughson Westlake tests available
- Intuitive handling of the clearly presented user interface
- Operate at your convenience with your mouse or keyboard
- Small, fast, flexible and highly mobile
- Display and store your results in one second
- Includes MAICO Patient Database
- Easily expandable to future developments

# MA 33

## with AC, BC, HW, SISI, Pilot Hearing Test & Speech

### Digital Audiometer

The MA 33 is our small, fast and flexible PC audiometer for every occasion. The operation via USB connection to your PC or notebook is very easy and the MA 33 allows numerous possibilities to highly adapt the settings to your personal preferences and needs. The software offers various fast and reliable audiometry methods.

### MA 33 AC – Tone Audiometry

Offers fast and reliable screening and hearing threshold determination for both adults and children.

### MA 33 BC – additional bone conduction

Furthermore the MA 33 with bone conduction enables you to identify potential middle ear problems.

### MA 33 Pilot hearing test

The PILOT TEST is a fast and funny hearing and speech recognition test for children from the age of 3 or 4 years on. The child is asked, via headphones, to point to different pictures on a picture board or optional touch screen. During the test, the degree of difficulty increases step by step, as the test level decreases from 70 dB<sub>HL</sub> to finally 25 dB<sub>HL</sub>. The test is available in many different languages.

### MA 33 SISI

In addition to air and bone conduction, the MA 33 SISI shows whether the hearing impairment is cochlear or retro cochlear.

### MA 33 Speech

Speech tests can be done with recorded speech test material from various sources and via speech microphone.

### Automatic test – Hughson Westlake

With the HW test the MA 33 can record an audiogram without any control of an examiner. Voice prompts will instruct the test person and wrong answers will be detected.

These various versions make the MA 33 the ideal device for every ENT specialist, whether you are an ENT doctor, general practitioner, audiologist, pediatrician or work in occupational health.



MA 33 with headset DD45, B71, response button and software

### Technical Data

Test Signal: Pure, Pulse or Warble tone  
Test Frequency kHz: 0,125; 0,25; 0,5; 0,75; 1; 1,5; 2; 3; 4; 6; 8  
Intensity: 5 dB noise free change of level step  
Audiometer Class: Class 4 according to EN 60645-1  
Masking: narrow band noise masking, automatic or manually adjustable

#### Air Conduction

Test Intensity Tone: -10 to 105 dBHL (depending on frequency)  
Test Intensity Speech: -10 to 90 dBHL (depending on frequency)  
AC Headphone: DD45, optional: DD65 (for tone audiometry only), TDH39, Holmco 8103

kHz	0,125	0,250	0,5	0,75	1,0	1,5	2,0	3,0	4,0	6,0	8,0
DD45	65	85	100	105	105	105	105	105	100	95	90
DD65	60	60	85	90	105	95	100	105	95	85	90

#### Bone Conduction

MA 33 BC / MA 33 SISI / MA 33 Speech

Test Intensity -10 to 70 dBHL (depending on frequency)

kHz	0,250	0,5	0,75	1,0	1,5	2,0	3,0	4,0	6,0
B71	30	60	65	70	70	70	70	70	50

BC Headphone B71

#### SISI-Test

Modulation Test Signal: 4,8/0,2 s; 1 dB (test)  
4,8/0,2 s; 5 dB, 3 dB, 2 dB (preparation)

Power Supply: via USB

Size and Weight: W x D x H: 15,4 x 10,3 x 2,7cm / 300 g

Accessories Pilot Test: software package, picture board, roll of stickers; touch screen (optional)

Standard Accessories: MA 33 device; air conduction headphone DD45, patient response button, software, MAICO patient database, USB cable, bag

Safety Standards: EN 60601-1, EN 60645-1; Instrument complies with 93/42/EWG Directive for Medical Product Class II a



#### PC Requirements

Processor: Intel Dual Core 1.8 GHz  
Memory: 1 GB RAM, 2 GB RAM (Windows 7)  
Graphics: 1280 x 1024 (opt.), 1024 x 768 (min.)  
USB: 1 free USB port  
Operating system: Windows XP Professional (SP 3 min.)  
Windows 7, Professional 32/64 Bit or Ultimate 32/64 Bit  
Windows 8, Professional 32/64 Bit or Enterprise 32/64 Bit  
NET-Framework 3.5 SP 1

Specifications are subject to change without notice



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