Handheld Portable Tympanometers

Otowave

- Fast accurate middle ear measurements
- Ergonomic shape
- Totally portable
- Intuitive use
- Large graphics display
- Programmable reflex test
- Optional portable printer and PC interface
- No external power or data cables

www.maico-diagnositics.com
The Maico Otowave is shaped for success in accurate middle ear measurements.

Ergonomics
Elegantly shaped to follow the contours of a hand and with a perfect weight distribution, tests can be completed with confidence and accuracy.

Ease of Use
The Otowave is very intuitive to use with on-screen information displayed before, during and after the test. The compliance peak, compliance peak pressure, gradient, ear canal volume and an ipsilateral reflex test will be measured within seconds. The programmable reflex test can be configured for one frequency (1KHz) for the Otowave 102-1 and four (500, 1KHz, 2KHz and 4KHz) for the Otowave 102-4.

Recording Results
Results are displayed for review on a large high-resolution graphics display. Results can be:
- Saved within internal memory with a patient identifier
- Printed via an infra-red connection to the optional portable printer
- Transferred to a PC with an IrDA port, NOAH3 database with the optional Maico impedance module

Portability
 Lightweight and weighing just under 1 lb., the Otowave is designed to be a totally portable "go anywhere" instrument which is reliable, accurate and easy to use. The Otowave requires no external power or data cables.

Standard Accessories
- High speed portable thermal printer
- Calibration cavities
- 4 x 1.5V alkaline ‘AA’ batteries
- Operating manual
- Set of disposable ear-tips
- Carrying case

Optional Accessories
- Maico NOAH3 impedance module
- Additional sets of disposable ear-tips

Technical Specification
TYMPANOMETRY MEASUREMENTS
Probe tone: 226Hz +/-0.1%, 85dB +/-2dB
Pressure range: +200daPa to -400daPa +/-10daPa
Direction of sweep: positive to negative
Volumetric range: 0.2 to 5ml +/- 0.01ml or 10% over range whichever is greater
Analysis performed: Compliance peak level, compliance peak pressure level, gradient and equivalent ear canal volume.

REFLEX MEASUREMENTS
Otowave 715: 500Hz, 1KHz, 2KHz & 4KHz +/-0.1%
Reflex dB range: 85 to 100 dBL (programmable in 5 or 10 dB steps)
Reflex measurement range: 0.01ml to 0.5ml +/- 0.01ml
Analysis performed: Reflex maximum amplitude and pass/fail at each test level.

DATA MANAGEMENT
- Internal database
  - 30 patient records
  - Patient record identification
  - Data transfer to designated printer/PC application
- Printing
  - Designated printer: MCP8830 high speed portable thermal printer
  - Data transfer: Infra-red IrDA 9600 Baud
  - Printing may also be completed via a PC with the relevant applications.
- Electronic data storage: database PC requirements
  - NOAH3 aud module
  - Maico impedance module
  - infra-red PC port

POWER
Battery specification: 4x Alkaline AA or 4x NiMH (>=2.3Ah) rechargeable

DIMENSIONS
Physical dimensions: 210 long x 80 wide x 40mm high envelope.
Weight (including batteries): less than 1 lb

STANDARDS CONFORMITY
The Maico Otowave conforms to the appropriate sections of the following standards; Safety: EN60601-1: 1990
EMC: EN 60601-1-2: 1993
Impedance: EN60645-5:2005 Type 2 tympanometer