

MT 10 - HANDHELD IMPEDANCE TYMPANOMETER

- **33665 MT10 - HANDHELD TYMPANOMETER**
 - **33666 MT10 - HANDHELD TYMPANOMETER WITH IPSI-REFLEX**
- Professional handheld tympanometer for setting fast and reliable testing in an easy and cost effective way.

Objective analysis

Fast and easy to operate and provides objective measures that cannot be obtained by otoscopy alone.

Easy and fast tympanograms

Results can be obtained with little efforts and with no response required from the patient. This is especially beneficial when dealing with difficult-to-test patients or small children.

Clinical application

Suitable for diagnostic use as tympanometer and (33666 only) reflex responses are all recorded with great detail. You can detect otitis media (a major cause of temporary or permanent hearing impairment in children), a perforated eardrum, cholesteatomas and certain neurological disorders. You can also check tympanostomy tubes and follow up on post medical treatments.

Ipsilateral Acoustic Reflex (33666 only)

Four different reflex tests at 500, 1,000, 2,000, 4,000 Hz may be performed per ear using either fixed or automatic intensity selection. Actual reflex characteristics are displayed on the screen.

30 patients in memory

Can hold test results of up to 30 patients, allowing to screen a large group of patients and print out the data at a later time.

PC-integration with optional infrared USB interface and software. Full data-transfer to PC



33669



Interacoustics

Supplied with handle, set of 139 disposable ear-tips (mixed sizes) 4x1.5 V battery and manual in GB, DE, FR, IT, ES, SE, GR, PT, DK, FI, CZ, PL, LT, EE, HU, NL, NO, IS, RO, MK.
Internal software: GB, FR, DE.

- -400 to +200 daPa
- ipsi-reflex (33666 only)
- 30 patient memory
- PC integration



Ergonomic to hold. Included handle make it stable and lightweight as it can rest on your arm during the measurement.

Size: 19x8x4 cm excluding probe (length with probe 22.5 cm)
Weight 285 g without battery

- **33667 INTERFACE USB ADAPTER AND SOFTWARE BY IRDA PORT**
- **33669 SANIBEL MPTII PORTABLE THERMAL PRINTER**
- **33670 THERMAL PAPER ROLLS - box of 3**

TECHNICAL SPECIFICATIONS

Tympanometry	
Analysis performed:	Peak compliance; peak pressure, gradient; equivalent ear canal volume
Probe tone:	226 Hz
Pressure levels:	+200 daPa to -400 daPa
Ear volume measurement range:	0.2 ml to 5 ml
Sweep speed:	Typically 200-300 daPa/sec; depending on ear & cavity volume
Pressure limits (safety shut off):	+600 to -800 daPa
Reflex measurements (33666 only)	
Measurement mode:	ipsilateral
Reflex tone levels:	500 Hz, 1 kHz, 2 kHz, 4 kHz
Four reflex levels:	100 dB with 5 dB or 10 dB steps; 95 dB, 90 dB or 85 dB with 5 dB steps
Reflex analysis:	Reflex pass/refer at each level tested; Maximum amplitude of each reflex (seen on printed report and PC report); Pressure at which reflex was performed

Data management	
Data storage:	30 records. Any recording can be stored once the tympanogram is viewed
Data held:	Patient Initials, Tympanogram and Reflex graphs and analysis for Left and/or Right Ear, Time and Date of recording, which ears were tested, whether or not the record has been printed and sent to a PC, parameters printed and/or sent to a PC, parameters used for analysis
Other data	
Internal backup:	>30 days without main batteries fitted
Battery Lifetime:	Approx. 400 tests (Alkaline AA batteries)
Supported printer:	Martel MCP8830 or Sanibel MPTII
Interface:	Infra-red, IrDA hardware, 9600 baud
Information printed:	Space for patient and clinician's details, Tympanogram analysis parameters, Tympanogram, Reflex analysis parameters, Reflex graph, S. N. of device, Last and Next Due Calibration dates
Safety standards:	IEC 60601-1. EMC: IEC 60601-1-2
Impedance standard:	IEE 60645-5, Type 2 Tympanometer

PA5 PEDIATRIC PORTABLE AUDIOMETER

- **33601 PA5 AUDIOMETER**
- **33602 TDH39 AUDIOMETRIC HEAD PHONE**

Paediatric portable audiometer with air conduction, free-field and visual stimulation capabilities. By means of a headphone it can be also used as a regular screening audiometer for adults. PA5 helps doctors in evaluating the auditory behaviour in neonates and infants till 24 months by means of specific tests:

Aurolpalpebral Reflex (APR) test

APR test is a startle reflex of the eyelid elicited by relatively strong sounds that can be performed on neonates from the day of birth. It is not based on co-operation with the newborn child.

Conditioned Orientation Response (COR) test

Based on the "Orientation Reflex", a natural reflex movement elicited by sound or visual stimulation. If the visual stimulation elicits a reflex which is conditioned by a tone, the child will look towards the visual stimulation as soon as the tone is heard. If the conditioning is effective the child will look in the direction of the sound source even before the visual stimulation is presented.

Visual Reinforcement Audiometry (VRA) test

VRA test is an extension and modification of COR, where the

cooperation with the child is less important. Not only the sound localisation orientation reflex are accepted but also four other reactions: reflex reactions (body and face), search reactions, orientation reactions and spontaneous reactions.

Reflex audiometry and maturation of auditory response tests
Different stimuli are presented in terms of intensity, frequency, duration, direction of sound in order to elicit proper reactions like waking-up, crying, astonishment, direct sound localization.



33601

TECHNICAL SPECIFICATIONS

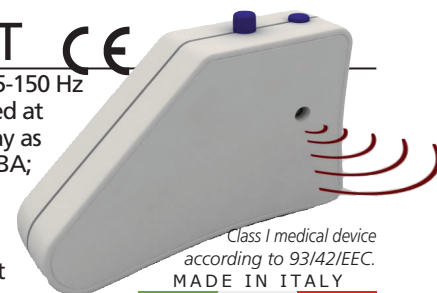
Frequencies:	500, 1,000, 2,000, 3,000, 4,000 Hz
Stimuli:	Warble tone, NB and WN
Intensities:	Distance 50 cm: 20/30-80dB HL in 10dB steps, for Warble Tone and WN 10/20-70dB for NB increases intensity by 10 dB
Distance 16 cm:	LxWxH: 25x7x5 cm - 360 g
Dimensions - weight:	
Power supply:	3AA batteries (included)

BOEL STYLE PEDIATRIC AUDIOLOGY TEST

- **33599 GIMA AUDIOTEST - pediatric audiology test for early detection of childhood deafness**

The Boel test is a unique screening tool that tests the hearing abilities and child's response to a sound stimulus, even at an early age (between 6 to 10 months). GIMA audiotest is based on the BOEL test both for the ergonomics (designed to be held in the palm of the hand not visible to the child) and the standard sound of the bells. The two sound stimuli emitted by the audiometer reproduce a dull

low-frequency tone located at about 125-150 Hz and an acute high-frequency tone located at about 5.0-5.1 kHz in exactly the same way as the bells of the Boel test (amplitude 86dBa; 96dBa). Testing the child's response to these highly significant thresholds. Easy to use, with only two buttons for the selection of two frequencies, lightweight and battery-powered.



33599

Class I medical device according to 93/42/EEC.
MADE IN ITALY