Handheld Middle Ear Analyzer MT10

- Efficient Middle Ear Examinations

Impedance *precision*

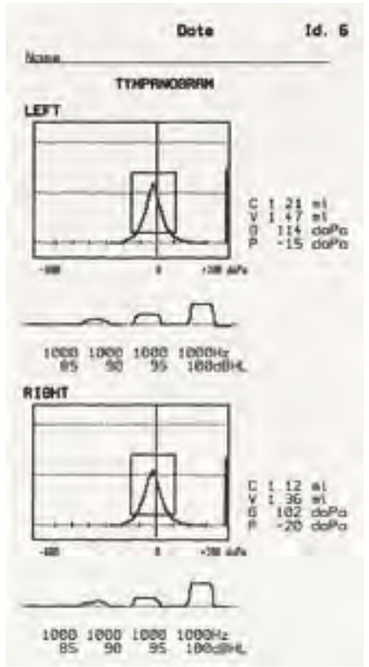
In modern healthcare settings fast and reliable testing is paramount. The MT10 is built to meet these requirements in an easy and very cost effective way. For example otitis media, a major cause of temporary or permanent hearing impairment in children, can be easily and quickly detected and documented with the MT10.

1-800-326-2706

interacoustics

Middle Ear Analyzer MT10

- Efficient diagnostic middle ear examinations



Objective Analysis

The MT10 automatic impedance audiometer is fast and easy to operate and provides objective measures that cannot be obtained by otoscopy alone.

Easy and Fast

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

Clinical Application

The MT10 is also well suited for clinical use as tympanograms and reflex responses are all recorded with great detail. The MT10 is therefore a competent tool for detecting the following conditions:
otitis media, perforated eardrum, clogged up tympanostomy tube, ossicular disruption, eustachian tube malfunction, tympanosclerosis, cholesteatoma, otosclerosis, certain neurological disorders, post medical treatment fluids, ”Glue” ear.

Printing and Data Transfer

Results may be printed out on the matching high speed thermal printer MTP10. Connecting the MT10 to a PC will allow for monitoring or printing of test results using the Interacoustics PrintView program for Windows®. Data may also be transferred to the Interacoustics database program IaBaseII for Windows® and printed together with other patient data. Data transfer to NOAH is also possible.

A robust carrying case, the ACC10, accommodating the MTP10 printer and the MT10, is available.

Screening Audiometry is easily performed semi-automatically.

Extended Tympanometry

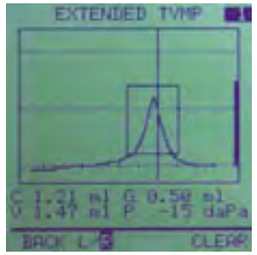
The extended tympanometry feature ensures that even a very negative middle-ear pressure is diagnosed correctly. This can help differentiate between reduced eardrum mobility and excessive negative middle-ear pressure.

Acoustic Reflex Test

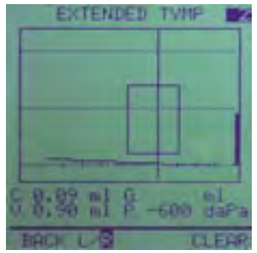
Four different reflex tests may be performed per ear using either manual or automatic intensity selection. The test is carried out at the correct pressure level and the actual reflex characteristics are displayed on the screen for the operator to view and interpret.

20 Patients in Memory

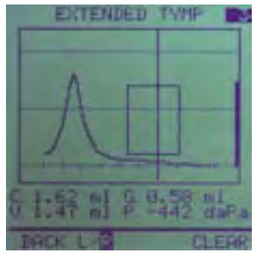
The MT10 can hold test results of up to 20 patients in its memory. This makes it possible to screen a large group of patients and print out the data at a later time.



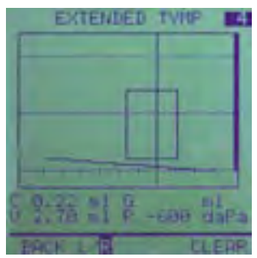
A healthy middle ear will produce a tympanogram easily recognized by its shape. The peak will be within the pass / refer box.



Fluid in the middle ear produces a flat tympanogram. Often such fluid is not visible by otoscopy.



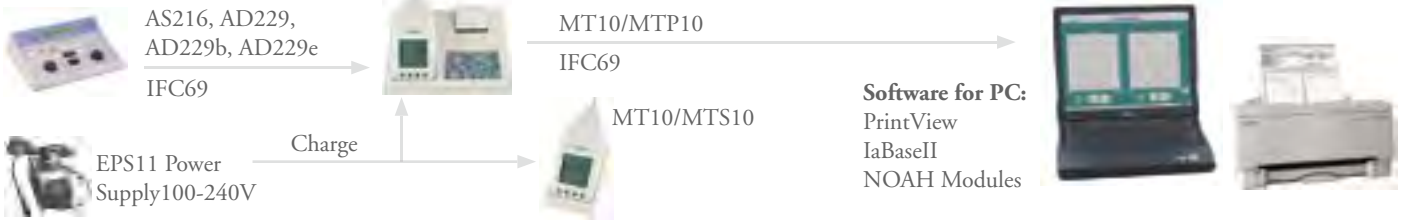
An occluded eustachian tube will cause the peak of the tympanogram to be displayed to the left of the pass / refer box.



A perforated eardrum or a correctly functioning tympanostomy tube will produce a flat curve. This test result is easily distinguishable from the “Fluid Ear” mentioned above, as it has a much higher “V” measurement.

The acoustic reflex test may be performed to support and enhance the diagnosis. Pass / refer is easily determined.

Interconnections



General Technical Specifications

Standards:
Impedance: EN61027, ANSI S3.39, Type 2.
Audiometer: EN 60645 -1, ANSI S3.6, Type 5.
Safety: EN 60601-1, Class 1, Type B.
EMC: EN60601-1-2.

Medical CE-mark:
Interacoustics A/S, Assens meets the requirements of the Annex II of the Medical Device Directive 93/42/EEC. Approval of the quality system is made by TÜV – identification no. 0123.

Calibration:
Impedance: EN 61027/ANSI S3.39.
Audiometer: Interacoustics Standard.

Tests:
Tympanometry:
Normal:+200 to -300daPa.
Extended: +300 to - 600daPa.
Acoustic Reflex Test:
4 reflexes per ear.
Automatic Intensity Search or Fixed Stimulus Intensity.
Intensities: Up to 110dBHL (100dBHL @ 3-4kHz).
Frequencies: 0.5kHz, 1kHz, 2kHz, 3kHz, 4kHz.
Actual reflex recorded and displayed.
Screening Audiometry:
Intensity: 10dBHL to 50dBHL.
Frequency: 0.5kHz, 1kHz, 2kHz, 3kHz, 4kHz.

Probe Tone:
Frequency: 226Hz +/-3%.
Amplitude: 85dB SPL +/- 3dB.

Pressure:
Direction of Sweep: Positive to negative.
Pump Speed: 250 - 350 daPa/sec.
Resetting Time: 0 Seconds.
Pressure Accuracy: +/- 10% or 10daPa.

Compliance Range:
0.0 to 2.5 cc displayed.
0.0 to 5.0 cc numeric.
Compliance Accuracy: +/- 5% or 0.1 ml.

Internal Memory:
Tympanogram, 4 reflex recordings and audiogram for both left and right ear.
20 patients' full testing scheme.
Selective patient storing.

Printing:
MTP10 high speed thermal printer station (optional). Standard 80mm thermal paper.
Through PC using IaBaseII or PrintView software (optional).

RS232C:
Full data transfer to PC through base stations MTS10 or MTP10.

Compatible Software for Windows®:
PrintView for on-line PC monitoring and printing.
IaBaseII database and diagnostic modules.
NOAH Impedance Module allows test results to be stored and viewed within the NOAH program.

Power Supply:
3 high quality rechargeable NiMH batteries included.
Accepts standard AA NiCa batteries.
Automatic charging of rechargeable batteries while resting in MTS10 or MTP10.

Construction: Plastic cabinet.

Dimensions: 10cm x 25cm x 13 cm.
Weight: 500 g.

Air freight packing: 60cm x 39cm x 18cm.
Gross Weight: 3.8kg incl. MTS10,
5.3kg incl. MTP10

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Included Parts MT10/MTS10:
MT10
MTS10 Desk unit (charger and RS232C)
EPS11 Power supply
RCB10 3 NiMH rechargeable batteries
BET50 Set of eartips
Operation manual
Service manual
Multilingual CE instructions for use

Included Parts MT10/MTP10:
MT10
MTP10 Base station with built in high speed thermal printer, charger and interfacing to PC.
TPR10 3 rolls of thermal paper
EPS11 Power supply
RCB10 3 NiMH rechargeable batteries
BET50 Set of eartips
Operation manual
Service manual
Multilingual CE instructions for use

Optional Parts:
IFC69 cable for PC connection (9 pins)
IFC59 cable for PC connection (25 pins)
ACC10 Carrying case for MT10 + MTP10
TPR10 3 rolls of thermal paper
BET50 Set of eartips
PrintView
IaBaseII and Diagnostic Modules
Ia-NOAH-Imp module

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