# **136**M PT

## Clinical Tympanometer The "all-inclusive" device.





## Compact. Ergonomic. User-friendly.

The Resonance® R36M Middle Ear Analyzer provides a flexible clinical device for tympanometry acoustic reflex measurement. Compact dimensions, excellent ergonomics and a luminous 7" LCD display, the R36M has been engineered to respond to the needs of ENT and Audiology Specialists, operating both in clinics and at patient domiciles. Design is user-friendly and allows both device and accessories to be safely carried around in a durable luggage-grade padded carrying case, available on request.

## Safe. Flexible. Customizable.

The R36M offers several options for managing and archiving test-reports. PDF files can be stored on a USB thumb drive, archived into external units or printed thanks to the built-in thermal printer. Reports can be edited and customized with additional text and logos. The Management Data Suite (MDS) software allows patient data and test results to be transferred to the PC and to Noah?





#### Fast. Versatile. Qualitative.

The R36M is built upon 30-years of experience and know-how gained in the audiological industry by Resonance. The R36M configuration offers a complete range of clinical tympanometry tests. The R36M PT configuration includes Multifrequency Tympanometry. Both configurations aim to simplify daily operations and maximize efficiency.

## Comfortable. Elegant. Reliable.

The design of accessories maximizes patient comfort for the best and easiest handling of the device. Optional accessories increase flexibility and performance. Resonance R&D collaborates with universities and ENT specialists to identify and prioritize features that are most relevant and important to them. High-quality components ensure device reliability as well as long-term operation.





## Innovative thinking has arrived.



Exclusive U.S. Distributor:

**EAR TECHNOLOGY CORPORATION** 

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## **R36M-PT Clinical Tympanometer**

## **GENERAL SPECIFICATIONS**

## **TEST TYPES**

• Tympanometry: Automatic Tympanometry, Acoustic Reflex, Reflex Decay, Quick test: Check, Screening and Decay, Acoustic Reflex Latency Test (ARLT), Multifrequency Tympanometry, ETF (Intact, Perforated and Patulous), Special tests (Growth-DLI and Non-acoustic)

#### **DIMENSIONS AND WEIGHT**

• L x W x H: 14.6" x 11.4" x 7.1"

• Net Weight: 5.5 lbs.

· Body material: Bayblend® self-extinguishing

## **DISPLAY**

• 7" LCD color display

## **USER INTERFACE**

Multilingual

### **PRINTER**

• Built-in fast thermal printer with paper width: 4.4" supplied as standard part

#### REPORTS

- · Printed on thermal printer
- PDF report created directly from the device and stored on USB Pen drive with possibility to add patient data and test comments via the USB Keyboard (optional)
- Data transfer to PC using MDS\* software

### "CHILDREN" FEATURE

• To help keep the child's attention diverted from the testing procedure, a series of animated images appears on the color display

## **COMMUNICATION PORT**

- Nr.1 USB host type A
- Nr.1 USB slave type B

## **PC INTERFACE**

- MDS software with reporting and printing features
- Compatible with Windows® 7, 8, 8.1, 10
- Data transfer via USB cable

## **POWFR**

## **POWER SUPPLY**

- 110-240V AC 50/60Hz 40VA
- Fuses: 2 x T 1 A L 250V

### CONSUMPTION

- Max current: 0.15A
- Power consumption: 40VA

## **OUALITY SYSTEM**

Manufactured, designed and developed under an ISO 13485, ISO 9001 certified quality system. Medical CE mark and FDA approval.

## COMPLIANCE/REGULATORY STANDARDS

Certifying body: IMQ S.p.A. Istituto Italiano Del Marchio Di Qualita

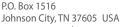
- MDD 93/42/EEC and update 2007/47/CEE: Class IIa (as referred to in Annex IX, rule 10)
- Safety: IEC 60601-1, 3rd and 2nd edition, Class 1 Type B
- EMC: IEC 60601-1-2
- Impedance: IEC 60645-5/ANSI S.3.39 Type 1

## **OPTIONAL**

- External USB keyboard
- Durable luggage-grade padded carrying case
- IP30 Insert earphones for contra use

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## TYMPANOMETRY SPECS

## **PROBE TONE**

- 226 Hz for Admittance (Y) curve tympanometry
- $\bullet$  678, 800 and 1000 Hz for multifrequency tympanometry with added "B" and "G" curve

#### INTENSITY

- 226 Hz: 85dB SPL ± 2dB
- 678, 800 and 1000 Hz:  $75dB SPL \pm 2dB$
- Frequency accuracy: ± 0.5%
- Harmonic distortion: < 1%

### ADMITTANCE MEASUREMENTS

- Compliance range at 226Hz: 0.05 up to 7ml
- Sensitivity scale: Autoscale to appropriate range; available scale at 226Hz:
   1.5. 2. 5ml or 7ml
- 678, 800 and 1000 Hz: 0 to +25 mmho
- Sensitivity scale HF: Autoscale to appropriate range, available scales at 678, 800 and 1000Hz: 5, 10, 15, 20, 25 mmho

#### **AIR PRESSURE**

- Control: Automatic and Manual
- Range: from +400 up to -600 daPa, both adjustable in 50 daPa steps
- Sweep rate: 50, 100, 200, 300 daPa/sec and automatic
- Indicator: Measured value is displayed
  Safety limitations: -800 up to +600 daPa
  Pressure accuracy: ±10 daPa or ±10%

## **EUSTACHIAN TUBE FUNCTION**

- ETF test for use with both intact and perforated eardrums
- Also available test for patulous tympanic membrane

## **ACOUSTIC REFLEX TESTS**

- Reflex test method: Threshold, Automatic, Manual
- Stimulus duration: 0.5, 1 or 2 sec.
- User selectable protocols for all test methods
- Ipsi or contralateral stimulation for all reflex test
- Automated peak search functions available for all test methods
- Manual Reflex: manual control of all stimuli
- Reflex Decay: Threshold, Automatic, Manual
- Stimulus duration: 10 or 20 sec.
- ARLT: Threshold, Automatic, Manual
- Stimulus duration: 1 sec. fixed
  Non-Acoustic: 10/20 sec.

#### FREOUENCIES AND INTENSITY RANGES

- · Ipsilateral:
- Pure tone level range (dB HL) from 50 to 110 (all versions)
- Noise level range (dB SPL) from 50 to 100 (all versions)
- Frequency: 500, 1000, 2000, 3000, 4000 Hz, BBN, HP or LP noise
- Accuracy: ±1%
- Harmonic distortion (THD): < 3%
- Contralateral:
- Pure tone level range (dB HL) from 50 to 120 (all version)
- Noise level range (dB SPL) from 50 to 115 (all version)
- Frequency: 250, 500, 1000, 2000, 3000, 4000, 6000, 8000 Hz, BBN, HP or LP noise
- Accuracy: ±1%
- Calibration accuracy ±3 dB
  Level steps: 1, 2, 5 or 10 dB
- On/Off ratio: 70 dB minimum

## STANDARD ACCESSORIES

- Headband Probe 226 Hz or Headband Probe HF with DD45 for contra
- · Insert for contra
- Kit of assorted ear tips; 2 shapes available
- Calibration cavity with probe housing
- Built-in fast thermal printer
- Thermal paper roll
- Device dust cover
- USB pen drive
- MDS\* softwarePower supply cable (110 220V)

\* Resonance Management Data Suite