



# Handheld diagnostic tympanometers

Handheld diagnostic tympanometers that provide fast and accurate middle ear measurements in all age groups including newborns. The ideal choice for audiology, ENT and hearing care professionals who require a portable tympanometer for both mobile and clinical test settings.

#### Comprehensive testing

The Otowave 202 and 202-H offer a wide range of test functionality to ensure testing requirements can not only be met, but exceeded.

The Otowave 202 provides 226Hz probe tone impedance measurements while the 202-H features a more comprehensive range of diagnostic test functions including user defined 226Hz and 1000Hz probe tone impedance measurements.

The high frequency testing option of 1000Hz tympanometry makes this device ideal for assessing newborns.

Both devices offer a user programmable range of both ipsi and contralateral reflex test measurements at 500Hz, 1kHz, 2kHz and 4kHz.

#### Designed for small ears

With a probe specifically designed for small ear canals, middle ear measurements for infants and children can be conducted with speed and accuracy. Diagnostic information is displayed via the display during and after the user defined measurement routine.



#### Data management

With the added benefit of an internal memory function, test results can be printed immediately or saved for future processing using the supplied Amplisuite software.

The tympanometer also offers single-click integration to third-party Electronic Medical Record (EMR) systems such as Noah and OtoAccess®. This enables the seamless transfer of results and data for exceptional workflow efficiency.

#### **Portability**

Weighing only 0.94lbs (with batteries), the simple design allows for complete portability. Powered by AA batteries or via wall power, the Otowave 202 is ideal for mobile use or in a static clinical setting where space is at a premium.

#### Key features

Designed for handheld and desktop use

Wall and battery power functionality

226Hz probe tone

1kHz probe tone (202-H option)

Enhanced Ipsilateral and contralateral reflex frequencies (0.5, 1, 2 and 4kHz)

Auto pass/refer evaluation

Internal memory, connection to portable printer and/or PC



## Otowave 202 & 202-H

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#### Tympanometry measurements

Probe tone level:	226Hz ±2%, 85dB SPL ±2 dB 1000Hz ±2%, 79dBSPL ±2dB (202-H only)
Pressure range:	+200daPa to -400daPa ±10daPa or ±10% (whichever is greater)
Direction of sweep:	Positive to negative
Volumetric range:	226Hz: 0.2ml to 5ml ±0.1ml or ±5% (whichever is greater) 1000Hz: 0.1ml to 5ml ±0.1ml or ±5% (whichever is greater)
Sweep speeds:	Selectable: 100, 200 or 300daPa/sec
Analysis performed:	Admittance peak level in ml (226Hz) or m $\Omega$ (1000Hz) & pressure at peak, gradient in daPa (for 226Hz) and ear canal volume (ECV) @200daPa

#### Reflex measurements

Reflex type:	Ipsilateral, contralateral or both
Reflex frequencies:	Ipsilateral and contralateral: 500Hz, 1kHz, 2kHz & 4kHz (±2%) user-selectable
Reflex levels:	Ipsilateral: 70dBHL to 100dBHL ±3dB (5 or 10dB steps)  Contralateral: 70dBHL to 110dBHL ±3dB (5 or 10dB steps)  Threshold measurement or single level
Reflex detection threshold:	0.01ml to 0.5ml ±0.01ml (configurable in 0.01ml steps)
Analysis performed:	Reflex maximum amplitude and pass/fail at each test level

#### Data management

Internal database:	18 patient records
Optional printer:	Sanibel Supply® printer
Data transfer:	Via USB cable to Amplisuite, Noah, OtoAccess® and other EMR systems
Languages:	English, German, Italian, Spanish, French, Portuguese

Power:	Wall power: 100-240Vac; 50/60Hz (approved to medical safety standards) Batteries: 4 x AA (either Alkaline or NiMH, the latter recharged external to the instrument)
Dimensions (L x W x H):	Base unit: 7.4 x 3.3 x 1.5in Probe: 5.1 long x 0.9 diameter
Weight:	Base unit: 0.72lbs (without batteries, using wall power); 0.94lbs (with batteries), probe: 0.25lbs (including connecting cable)

#### Safety and standards

Safety:	IEC 60601-1 (plus UL, CSA & EN deviations)
EMC:	IEC 60601-1-2
Performance:	IEC 60645-5, Type 2 Tympanometer, ANSI S3.39, Type 2
CE Mark:	Complies to EU Medical Device Regulation (MDR 2017/745)

#### Standard equipment

- Eartip selection box
- Contralateral transducer
- Test cavities (4)
- Spare probe tips and gaskets
- AA batteries (4)
- Carry case

- Power supply with country adaptors
- USB cable (PC connection)
- Manual & software (available via website download)

#### Optional equipment

Sanibel Supply® printer

- Rechargeable batteries
- Eartips

- Power Bank USB cable
- OtoAccess® database



