The Amplivox Otowave 302 is a desktop solution for reliable and objective middle ear measurements.

Choice and functionality
There are 2 versions of the Otowave 302 available, each designed to satisfy exacting clinical and screening measurement requirements.

- The Otowave 302 (H-Option) features a comprehensive specification including user defined:
  - Probe tone impedance measurements at 226Hz and 1000Hz (scalar, vector and component measurements; admittance (Y), susceptance (B), conductance (G)).
  - Range of ipsilateral and contralateral reflex test measurements at 500Hz, 1kHz, 2kHz and 4kHz.
- The Otowave 302 (Standard Option) provides 226Hz probe tone impedance measurements (scalar) together with a user programmable range of ipsilateral and contralateral reflex test measurements at 500Hz, 1 kHz, 2 kHz and 4 kHz.

Recording results
The Otowave 302 is very intuitive to use with clear on-screen information, which can be easily seen from a wide range of viewing positions. Results can be:

- saved within internal memory with a patient identifier
- printed via the optional portable thermal printer
- transferred to a PC using the supplied Amplivox TympView application for paper print and electronic document requirements
- transferred to the NOAH database using the supplied Amplivox NOAH Impedance module

Usage and portability
The Otowave 302 can easily be used in a static clinical setting, where its small size is of great benefit when clinic space is at a premium.

The Otowave 302 is also supplied with a custom designed carry case for any potential mobile requirements.
Technical specifications

User selected languages
- English
- French
- German
- Italian
- Portuguese
- Spanish

Tympanometry measurements

- Probe tone level and accuracy: 226Hz +/- 2%; 85dBSPL +/- 2dB
  1000Hz +/- 2%; 79dBSPL +/- 2dB (H-Option)
  over ear canal volume range
- Pressure range and accuracy: +2000 daPa to -4000 daPa +/- 10% (whichever is larger) over range 0.1ml to 5ml
- Direction of sweep: Positive to negative pressure
- Volumetric range and accuracy: 226Hz: 0.2ml to 5ml
  1000Hz: 0.1ml to 5ml
  +/-0.1ml or +/-5% (whichever is larger)
- Analysis performed: Admittance peak level in ml (226Hz) or mU (1000Hz) & pressure at peak;
  Gradient in daPa (for 226Hz);
  Ear canal volume (ECV)
- Measurement sweep speeds: Selectable: 100, 200 or 300 daPa/sec

Reflux measurements

- Reflex type: Ipsilateral, contralateral or both
- Reflex frequencies: Ipsilateral and contralateral:
  User-configurable.
  Selectable from: 500Hz, 1kHz, 2kHz & 4kHz (+/-2%)
- Reflex levels (Max levels): Ipsilateral: 70dBHL to 100dBHL (+/-3dB)
  Contralateral: 70dBHL to 110dBHL (+/-3dB)
- 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: 36 patient records with patient record identifier
- Printing direct to printer: Optional designated high speed portable thermal printer
- PC database interface: The Amplivox NOAH Impedance module is supplied as standard for data transfer to the NOAH database using a USB connection
- Viewing & printing from a PC: The Amplivox TympView application is supplied as standard to transfer data to a PC using a USB connection for review and print

Physical data

- Power: Mains: 100-240Vac; 50/60Hz via Amplivox mains adapter (approved to medical safety standards)
- Dimensions (mm): 270 wide x 175 deep x 70 high (excluding connections)
  Probe: 130 long x 25 (max) diameter
- Weight: 302 tympanometer: 760g
  Probe: 115g (incl. connecting cable)

Standards

The Otowave 302 conforms to the relevant clauses of the following standards

- Safety: IEC 60601-1 (including national requirements for US and Canada)
- EMC: IEC 60601-1-2
- Impedance: IEC 60605-5 Type 2 tympanometer
  ANSI S3.39 Type 2 tympanometer
- CE mark: Complies to EU Medical Device directive

Standard equipment

- Test cavities
- Starter pack of disposable ear tips
- Contralateral transducer
- Mains adapter
- USB cable
- CD with operating manual, Amplivox TympView and NOAH impedance module PC applications
- Carrying case

Optional equipment

- Portable thermal printer
- Rolls of thermal printer paper
- Additional quantities of disposable ear tips
- Additional probe tip

The Amplivox policy is one of continuous development and consequently the equipment may vary in detail from the description and specification in this publication.