



GSI ALLEGRO™

TYMPANOMETRY SCREENER

Technical Specifications

Tympanometry

Instrument Type: Meatus compensated tympanometer
Analysis Performed: Admittance peak level (in ml); Pressure of same; Gradient (in daPa); Ear Canal Volume (ECV) at 200 daPa
Probe Tone Levels and Accuracy: 226 Hz +/-2%; 85 dB SPL +/-2 dB over range 0.2 ml to 5 ml
Pressure Levels and Accuracy: +200 daPa to -400 daPa +/-10 daPa or +/-10% (whichever is larger) over range
Ear Volume Measurement Range and Accuracy: 0.2 ml to 5 ml +/-0.1 ml or +/-5% (whichever is larger) over entire range
Sweep Speed: Typically 200 daPa/sec; dependent on ear/cavity volume
Pressure Limits (Safety Cutout): +600 to -800 daPa

Reflex Measurements

Measurement Modes: Ipsilateral
Reflex Tone Levels and Accuracy: 500 Hz, 1 kHz, 2 kHz, 4 kHz (+/-2%); Configurable over range 70 dB to 100 dBHL (4 kHz restricted to 95 dBHL) +/-3 dB, referenced to 2 ml calibration volume; Compensates for measured ear volume
Reflex Detection Threshold and Accuracy: 0.01 ml to 0.5 ml +/-0.01 ml configurable in 0.01 ml steps
Reflex Analysis: Reflex present/absent at each level tested; maximum amplitude of each reflex (seen on printed report & computer report); pressure at which reflex was performed
Pressure Used for Reflex Measurement: Pressure at Tympanogram peak, or 0 daPa
Reflex Tone Duration: 0.6 seconds

Data Management

Number of Records Stored in Patient Database: 32 patients
Data Stored: Patient initials, tympanogram, reflex graphs, analysis, time/date, and test parameters

Languages

English, German, French, Spanish, Portuguese, or Italian

Thermal Printer

Supported Printer: Sanibel MPT-II
Interface: Wired connection to cradle

Interface to Computer

USB Version 1.1

Power

Battery: NiMH rechargeable battery pack.
Interface: Wired connection to cradle
Main Power (To Cradle): 100-240 Vac; 50/60 Hz; 0.2 A
Number of Recordings with Full Charge: Up to 100
Auto Power-off Delay: 90 or 180 seconds
Idle Current: 70 mA
Current While Testing: 230 mA

Physical

Display: 128 x 64 pixels / 8 lines of 21 characters
Dimensions: 230 mm (L) x 115 mm (W) x 70 mm (H)
Total Weight (Handset and Cradle): 650 g

Environmental

Operating Temperature Range: +15°C to +35°C
Operating Humidity Range: 30% to 90% RH, non-condensing
Operating Atmospheric Pressure Range: 980 to 1040 mb, non-condensing
Transport and Storage Temperature Range: -20°C to +70°C
Transport and Storage Humidity Range: 10% to 90% RH, non-condensing
Transport and Storage Atmospheric Pressure Range: 900 to 1100 mb

Standards

Safety: IEC 60601-1 (plus UL, CSA & EN deviations)
EMC: IEC 60601-1-2
Performance: IEC 60645-5, Type 2 Tympanometer
CE Mark: To the EU Medical Device Directive