AUDIOMETRY AND TYMPANOMETRY COMBINED

TECHNICAL SPECIFICATIONS

DIMENSIONS AND WEIGHT
W x D x H: 12.5 in x 14.5 in x 4.7 in
(31.75 cm x 36.83 cm x 11.94 cm)
Weight: 5 lb - unit and probe (2.72 kg)
Shipping W x D x H: 19.5 in x 22.5 in x 8.25 in
(49.53 cm x 8.86 cm x 20.96 cm)
Shipping Weight: 13.1 lb (5.94 kg)

GSI 39 PROBE – 226 HZ PROBE TONE ONLY
TYMPANOMETRY AND REFLEX MODES

PROBE TONE
Frequency: 226 Hz +/- 2%
Intensity: 85.5 dB SPL +/- 2.0 dB
Harmonic Distortion: < 3%
COMPLIANCE
Range: 0.0 to 1.5 cm3 and 0.0 to 3.0 cm3
Accuracy: +/- 5% or +/- 0.1 cm3, whichever is greater
PRESSURE
Range: +200 to -400 daPa
Accuracy: +/- 10 daPa or 15%, whichever is greater, measured in 0.5 to 2.0 cc cavities
Sweep Rate: 600 daPa/sec slowing to 200 daPa/sec near tympanogram peak where sweep rate slows to 200 daPa/sec to provide better definition of the tympanogram
Sweep Direction: Positive to negative
Gradient: Tympanogram peak width at 50% of peak compliance
Test Time: Approximately 1 second
REFLEX (226 HZ PROBE TONE)
Frequencies: 500, 1000, 2000, and 4000 Hz
Accuracy: +/- 3%
Total Harmonic Distortion: < 5% (+10% at 110 dB HL)
Rise/Fall Times: 5 to 10 msec
Output Levels: 80-110 dB HL
Step Size: 10 dB
Pressure: Automatically set to ambient pressure (0 daPa) for all tests

COMBO PROBE – 226 HZ AND 1 KHZ PROBE TONES
TYMPANOMETRY AND REFLEX MODES

226 HZ PROBE TONE
Frequency: 226 Hz, 1000 Hz +/- 2%
Intensity: 85.5 dB SPL +/- 2.0 dB
Harmonic Distortion: < 3%
1 KHZ PROBE TONE
Frequency: 1 kHz Hz +/- 2%
Intensity: 75 dB SPL +/- 2.0 dB
Harmonic Distortion: < 3%

COMPLIANCE (226 HZ)
Range: 0.0 to 1.5 cm3 and 0.0 to 3.0 cm3
Accuracy: +/- 5% or +/- 0.1 cm3, whichever is greater

ADMITTANCE (1 KHZ ONLY)
Range: 0.0 to 5.0 mmho and 0.0 to 10.0 mmho
Accuracy: +/- 5% or +/- 0.3 mmho, whichever is greater

PRESSURE
Range: +200 to -400 daPa
Accuracy: +/- 10 daPa or 15%, whichever is greater, measured in 0.5 to 2.0 cc cavities
Sweep Rate: 600 daPa/sec slowing to 200 daPa/sec near tympanogram peak between 226 Hz only; 200 daPa/sec - 1 kHz only
Sweep Direction: Positive to negative
Gradient: Tympanogram peak width at 50% of peak compliance (226 Hz only)
Test Time: 1 to 3 seconds

REFLEX (226 HZ PROBE TONE)
Frequencies: 500, 1000, 2000, and 4000 Hz
Accuracy: +/- 3%
Total Harmonic Distortion: < 5% (<10% at 110 dB HL)
Rise/Fall Times: 5 to 10 msec
Output Levels: 80-110 dB HL
Step Size: 10 dB
Pressure: Automatically set to ambient pressure (0 daPa) for all tests

AUDIOMETRY MODE
FREQUENCIES
125, 250, 500, 750, 1000, 1500, 2000, 3000, 4000, 6000, and 8000 Hz
Accuracy: +/- 2%
Total Harmonic Distortion: < 2.5%
Rise/Fall Times: 20 to 50 msec
HEARING LEVEL RANGE
Air Conduction: -10 to 100 dB HL
Step size: 5 dB
Accuracy: +/- 5 dB

Signal to noise: > 70 dB
TONE PRESENTATION:
Continuous: Steady on when Present bar is depressed
Pulsed: 2.5/ sec (200 msec ON, 200 msec OFF)
FM (frequency modulated or warble tone):
+/- 5%, 5 Hz

DISPLAY
240 x 64 graphical, monochrome LCD

STANDARD ACCESSORIES
Probe assembly (Standard - 226 Hz only or Combo - 226 Hz and 1 kHz)
Power module + power cord
Test cavity
Eartips (probe) 6 sizes, 2 each
Paper – 3 rolls thermal, 4”
User manual
Quick reference guide
Wall chart – 226 Hz
Eartips (contra), 8 sizes, 4 ea.; versions 2 and 3
Contra phone; versions 2 and 3
DD 45 headset; versions 3 and 4
Eartips (8mm, 25 ea.); combo probe only
Probe shoulder mount; combo probe only
Probe cleaning kit; combo probe only
GSI Suite

ENVIRONMENTAL
Operating Temperature: +59° F (15° C) to +104° F (40° C)
Storage Temperature: -93° F (-69° C) to +149° F (65° C)
Operating Humidity: 15% to 95%
Operating Ambient Pressure: 98 kPa to 104 kPa

POWER
Universal, auto-ranging power supply: 100 to 240V +/- 10%; 50 to 60 Hz +/- 5%; 16 W maximum while printing

QUALITY SYSTEM
Manufactured, designed, developed and marketed under ISO 13485 certified quality systems.

COMPLIANCE
TYMPANOMETRY AND REFLEX MODES
PROBE TONE
• IEC/EN 60601-1 Medical Electrical Equipment Requirements for Safety
• CSA C22.2 No.601-1-M90
• ANSI S3.39 Aural Acoustic Impedance Admittance (Type 3)
• IEC 60645-5 Aural Acoustic Impedance/Admittance (Type 3)
• ANSI S3.6 Audiometers (Type 4)
• IEC 60645-1 Pure Tone Audiometers (Type 4)
• Specifications for Audiometers (Type 4)
• PTB Certificate No. 15.11-94/53 Pure Tone Audiometers (Type 4)
• GL2005-00014 Guidelines for Manual Pure-Tone Threshold Audiometry