



GSI AudioStar Pro™

CLINICAL TWO-CHANNEL AUDIOMETER

Product Specifications

Dimensions and Weight

- W x D x H: 20.1 inches x 14.6 inches x 13.2 inches (LCD raised)
51.0 cm x 37.0 cm x 33.5 cm
- Height with LCD lowered – 5.5 inches (14.0 cm)
- Weight: 17 lb (7.7 kg)
- Shipping Weight: 27 lb (12.25 kg)
- Power Consumption: 90 Watts

Channels

- Two Independent Channels

Pure Tone – Channels 1 and 2

Frequency Range:

- Air Conduction: 125 Hz to 12,000*** Hz
- High Frequency:* 8,000 Hz to 20,000 Hz (8 kHz, 9 kHz, 10 kHz, 11.2 kHz, 12.5 kHz, 14 kHz, 16 kHz, 18 kHz*** and 20 kHz***)
- Full Frequency Range:* 125 Hz to 20,000 Hz
- Bone Conduction: 250 Hz to 8,000 Hz
- Sound Field:* 125 Hz to 8,000 Hz
- Paired Inserts:* 125 Hz to 8,000 Hz
- Frequency Accuracy: ±1%
- Total Harmonic Distortion:
 - < 2% (earphones and paired insert phones*)
 - < 5% (bone vibrator)

Intensity Range:**

- Air Conduction (TDH): -10 dB HL to 120 dB HL
- High Frequency:* -20 dB HL to 100 dB HL (with Sennheiser HDA 200 Phones)
- Bone Conduction
 - Mastoid: -10 dB HL to 75 dB HL
 - Forehead: -10 dB HL to 70 dB HL
- Sound Field:*
 - -10 dB HL to 90 dB HL (basic speakers)
 - -10 dB HL to 96 dB HL (high performance speakers)
 - -10 dB HL to 102 dB HL (high performance speakers and external booster amplifier)
- Paired Inserts:* -10 dB HL to 110 dB HL
- Masking Intensity Range (Calibrated in effective masking)
 - Narrow Band Noise: Maximum dB HL is 15 dB below tone
 - White Noise: Maximum dB HL is 30 dB below tone

Signal Format:

- Steady: Tone continuously present.
- Pulsed: Tone pulsed 200 msec ON, 200 msec OFF
- FM: Modulation Rate: 5 Hz
Modulation depth +/- 5%

Speech – Channels 1 and 2

- Microphone: For live voice testing and communications
- INT/EXT A & INT/EXT B: Can be utilized for internal wave files or recorded speech material from an external digital device

Intensity Range:

- Air Conduction: -10 dB HL to 105 dB HL
- Bone Conduction
 - Mastoid: -10 dB HL to 55 dB HL
 - Forehead: -10 dB HL to 55 dB HL
- Sound Field:* -10 dB HL to 80 dB HL
- Paired Inserts:* -10 dB HL to 95 dB HL

Masking Intensity Range:

- Speech Noise:
 - Air Conduction: -10 dB HL to 105 dB HL (TDH 50P and Insert Phones*)
 - Bone Conduction:
 - -10 dB HL to 65 dB HL (mastoid)
 - -10 dB HL to 55 dB HL (forehead)
 - Sound Field: -10 dB HL to 80 dB HL
- White Noise:
 - Air Conduction: -10 dB HL to 105 dB HL
 - Bone Conduction:
 - -10 dB HL to 65 dB HL (mastoid)
 - -10 dB HL to 55 dB HL (forehead)
 - Sound Field: -10 dB HL to 80 dB HL

Special Tests

- **ALT (ALBLB):** Tone alternating between Channel 1 and Channel 2: Channel 1 is 400 msec ON, 400 msec OFF followed by Channel 2, 400 msec ON, 400 msec OFF.
- **SISI:** An intensity increment is added to a tone in the selected channel for 200 msec, every 5 seconds. The HL increments are in 1, 2 or 5 dB.
- **High Frequency:*** Pure tone testing in the frequency range of 8,000 Hz to 20,000 Hz using circum-aural headphones.
- **TEN:** TEN masking noise will be presented to the test ear. Pure tone stimuli between 500 Hz and 4000 Hz may be used at 1, 2, or 5 dB increments to obtain TEN thresholds.
- **QuickSIN:** Six (6) sentences with five (5) key words per sentence are presented in four-talker babble noise. The sentences are presented at pre-recorded signal-to-noise ratios. The SNR's used are 25, 20, 15, 10, 5, and 0.

Special Tests (user defined)

- MLB
- Lombard test
- Pure Tone Stenger
- Speech Stenger
- SAL

Communications and Monitoring

- **Talk Forward:** Permits the tester to speak through the test microphone into the selected transducer at approximately the intensity level set by the front panel controls.
- **Talk Back:** Allows the tester to listen to comments from the patient in the testing booth.
- **Monitor:** The monitor headset or monitor speaker built into the instrument housing can be used by the tester to listen to Channel 1, Channel 2, Aux intercom, and/or Talk Back signals.
- **Aux Intercom:** The built-in Auxiliary Intercom and Assistant headset allows the tester to speak directly to an Assistant without the patient hearing the conversation and allows the assistant to hear what is being presented to the patient.

Environmental Requirements

- Temperature: +15°C to 40°C (59 to 104°F)
- Relative Humidity: 5% to 90% (non-condensing)
- Ambient Pressure Range: 98 kPa to 104 kPa
- Background Sound Level: <35 dB(A)
- Frequency of Use: Once a year to multiple times per day
- Storage Temperature: -20°C to + 60°C (-4°F to 140°F)

Quality System

- Manufactured, designed, developed and marketed under ISO 13485 certified quality systems

Compliance/Regulatory Standards

Designed, tested and manufactured to meet the following domestic (USA), Canadian, European and International Standards:

- ANSI S3.6, ANSI S3.43, IEC 60645-1, IEC 60645-2, ISO 389
- UL 60601-1 American Standards for Medical Electrical Equipment
- IEC/EN 60601-1 International Standards for Medical Electrical Equipment
- CSA C22.2 # 601-1-M90
- Medical Device Directive (MDD) to comply with "EC Directive" 93/42/EEC

* *Optional configuration*

** *The maximum HL values are applicable to the middle frequencies only*

*** *Optional configuration*

Australian Distributer:



Free Call:
1800 639 263

