

AUDIOSOL

TECHNICAL SPECIFICATIONS

DIMENSIONS AND WEIGHT

W x D x H: 20.1 in x 14.6 in x 4 in (51 cm x 37 cm x 10.2 cm)

Weight: 11.9 lb (5.4 kg)

Shipping Weight: 21.9 lb (9.9 kg)

CHANNELS

Two Independent Channels

PURE TONE – CHANNELS 1 AND 2

FREQUENCY RANGE

Air Conduction: 125 Hz - 20,000 Hz*

Bone Conduction: 250 Hz - 8,000 Hz

Sound Field: 125 Hz - 8,000 Hz

Paired Inserts: 125 Hz - 8,000 Hz

Frequency Accuracy: ±1%

Total Harmonic Distortion:

- < 2% (earphones and paired insert phones)
- < 5.5% (B81)

HEARING LEVEL RANGE

Air Conduction: -20 dB HL - 120 dB HL

Bone Conduction:

- **Mastoid:** -10 dB HL - 90 dB HL
- **Forehead:** -10 dB HL - 80 dB HL

Sound Field:

- -10 dB HL - 90 dB HL (basic speakers)
- -10 dB HL - 96 dB HL (high performance speakers)
- -10 dB HL - 102 dB HL (high performance speakers and external booster amplifier)

Paired Inserts: -10 dB HL - 120 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%

Pulsed/FM: Pulsed and modulated

Pediatric Noise

Pediatric Noise Pulsed

*Testing above 8,000 Hz requires HF transducer option

SPEECH – CHANNELS 1 AND 2

Microphone: For live voice testing and communications

INT/EXT A & INT/EXT B: Utilized for internal wave files or recorded speech material from an external digital device

INTENSITY RANGE

Air Conduction: -10 dB HL - 100 dB HL

Bone Conduction:

- **Mastoid:** -10 dB HL - 60 dB HL
- **Forehead:** -10 dB HL - 50 dB HL

Sound Field: -10 dB HL - 90 dB HL

Paired Inserts: -10 dB HL - 95 dB HL

MASKING INTENSITY RANGE

Speech Noise:

- **Air Conduction:** -10 dB HL - 95 dB HL
- **Bone Conduction:**
 - 10 dB HL - 50 dB HL (mastoid)
 - 10 dB HL - 40 dB HL (forehead)
- **Sound Field:** -10 dB HL - 85 dB HL

White Noise:

- **Air Conduction:** -10 dB HL - 95 dB HL
- **Bone Conduction:**
 - 10 dB HL - 60 dB HL (mastoid)
 - 10 dB HL - 50 dB HL (forehead)
- **Sound Field:** -10 dB HL - 80 dB HL

SPECIAL TESTS

ACT Test

Weber Test

ABLB

SISI

High Frequency Audiometry

TEN Test

QuickSIN

BKB-SIN

Tone Decay

GSI AMTAS Pro (Optional)

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 examiner microphone into the selected transducer

Talk Back: Allows the examiner to listen to comments from the patient in the testing booth

Monitor: The monitor headset or monitor speaker built into the instrument housing may be used by the examiner 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 examiner to speak directly to an assistant and allows the assistant to hear what is being presented to the patient

POWER

Power Consumption: 90 Watts

Voltage & Amperage: 100-240, 2.5-1.25 A

Frequency: 50 Hz and 60 Hz

ENVIRONMENTAL

Temperature: +59° F (15° C) to +95° F (35° C)

Storage Temperature: -4° F (-20° C) to +122° F (50° C)

Relative Humidity: 30% to 90% (non-condensing)

Ambient Pressure Range: 98 kPa to 104 kPa

Location: Indoor Use

QUALITY SYSTEM

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

COMPLIANCE

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

- ANSI S3.6 (2018) Type 1 HFAE, IEC 60645-1 (2017) Type 1 EHF A-E
- 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 93/42/EEC

