The 1986 is designed to permit checking of nearly all characteristics of a sound level meter as specified by IEC and ANSI standards.

Features:

- Capable of testing all the basic characteristics of virtually any sound level meter
- Multiple levels: 74, 84, 94, 104, 114 dB re 20 µPa
- Multiple frequencies: 125, 250, 500, 1000, 2000 and 4000 Hz.
- Calibrated tone bursts for fast and slow responses
- Crest factor capability
- Analog output
- Battery operated

The 1986 allows selection of different levels on a sound measuring system and a check of the instrument's response at each level.

Standards require that Fast detector response be tested by applying a sinusoidal signal having a frequency of 1 kHz and a duration of 200 ms.

Slow detector response is tested by applying a sinusoidal signal having a frequency of 1 kHz and a duration of 500 ms. The 1986's tone burst mode allows checking to the above requirements by automatically presenting a 1 kHz sinusoidal signal of either 200 ms or 500 ms duration.

The 1986 permits a check of rms accuracy and crest factor capability by presenting repeated tone bursts with a high crest factor.

The transducer on the 1986 is resiliently mounted to protect against damage from the accidental bumps and drops often encountered in field calibration situations. The entire assembly, except for the test cavity, is enclosed in a molded plastic case that is tightly sealed against dust and moisture.

The cavity of the 1986 is designed to fit GenRad 1" microphones, the WE 640AA and Tokyo Riko MR 130.

An adaptor is included to accommodate GenRad 1/2 inch microphones.

An optional 1986-9700 adaptor set allows you to use the 1986 on instruments with Bruel & Kjaer 1", ½" and ¼" microphones, the Shure Brothers ⅛" microphone, and the ⅜" microphone on GenRad's 1954 Noise Dosimeter.
SPECIFICATIONS

Output sound-pressure levels: 74, 84, 94, 104, or 114 dB re 20 µPa

Nominal output frequencies: 125, 250, 500, 1000, 2000 or 4000 Hz

Actual output frequencies: Preferred per ANSI S1.6-1960 and ISO R266: 125.9, 251.2, 501.2, 1000, 1995 or 3981 Hz ±3%.

Reference conditions:
- Temperature: 20°C (68°F)
- Atmospheric pressure: 1013 mbar (760 mm of Hg) (30 in. of Hg)
- Relative humidity: 65%

Microphone effective volume: 0.5 cm³ (0.03 in.³) (nominal for GR 1961 Electret-Condenser Microphone)

Accuracy of sound-pressure Level: Understated reference environmental conditions;
- 114 dB SPL all frequencies, except 4 kHz, for cavity alone or when used with any adaptor (except ½” adaptor): ±0.25 dB
- 114 dB SPL at 4 kHz: ±0.5 dB
- At output levels other than 114 dB SPL, tolerance is increased by: ±0.1 dB
- ½” adaptor: ±0.5 dB at 1 kHz only

Temperature coefficient of sound-pressure level: Less than ±0.02 dB/°C for all frequencies except 4000 Hz

Tone-burst signals: Test signals provided as prescribed by ANSI S1.4-1971; IEC Publications 123-1961, 179-1973 and 179A-1973; and Consolidated Revision of IEC Publications 123 and 179. In tone burst modes, output can be either continuous (SET FAST/SLOW or SET CREST FACTOR) or series of bursts (FAST, SLOW or CREST FACTOR), as selected. Level is uncalibrated and continuously adjustable.

In FAST or SLOW, peak amplitude of tone burst is identical to that of continuous signal.

In CREST FACTOR, rms value of tone burst sequence is identical to that of continuous signal.

ORDERING INFORMATION

STANDARD MODELS

1986-9700
- Omnical Sound Level Calibrator
- Instruction Manual
- 9 V battery
- GenRad ½” adapter 1987-7061
- 1986-9600 Carrying Case

OTHER OPTIONS

1987-9600
- Calibrator Adapter Set; includes adapters for Bruel and Kjaer 1”, ½” and ¼” microphones and others