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1. Safety Information

Read the following safety information carefully before attempting to operate or service the meter. Use the meter only as specified in this manual; otherwise, the protection provided by the meter may be impaired.


Environment Conditions

- Altitude up to 2000 meters
- Relative humidity 90% max.
- Operation Ambient 0° to 40°C

Maintenance & Clearing

Repairs or servicing not covered in this manual should only be performed by qualified personnel. Periodically wipe the case with a dry cloth. Do not use abrasives or solvents on this instrument.

Safety symbols

 Comply with EMC

When servicing, use only specified replacement parts.

2. Description

Sound level calibrator is used to calibrate sound level meters and other sound measurement equipment. You can calibrate 1 inch diameter microphones directly and 1/2 inch microphones using 1/2 inch adaptor supplied with the calibrator. With available adaptors, you can calibrate other microphones and instruments.

3. Features

Conforms to ANSI S1.4-1984 and IEC 60942-2003 Class 2.
Calibration levels of 94dB and 114dB.
Fits 1 inch and 1/2 inch diameter microphone.

4. Specifications

Output sound pressure levels:

94dB and 114dB re 20 uPa under reference conditions.

Output frequency: 1000Hz +/- 2%

Reference conditions:

Temperature :23°C (74°F)

Relative humidity: 50%

Atmospheric pressure: 1013hpa

Influence of ambient conditions:

Temperature coefficient: 0.005dB/?

Humidity coefficient: 0.005dB/%RH

Total Harmonic Distortion (THD): <3%

Accuracy of sound pressure level: +/- 0.5dB

Power: one 9V battery 006P or IEC 6F22 or NEDA 1604.

Battery life: approx.40 hours (Alkaline Battery)

Battery test:

Internal circuitry checks condition of battery continuously.

Sound Level Calibration

Calibrator will not operate when the green LED turns to red, which means that battery voltage has fallen below the acceptable range.

Dimensions (LxWxH):

4.4 x 2.4 x 1.7inch (113 x 63 x 44mm)

Weight: approx. 170g(including battery)

Ambient conditions:

0° – 40°C (32° – 140°F), 10 – 90%RH,
650 – 1080hpa

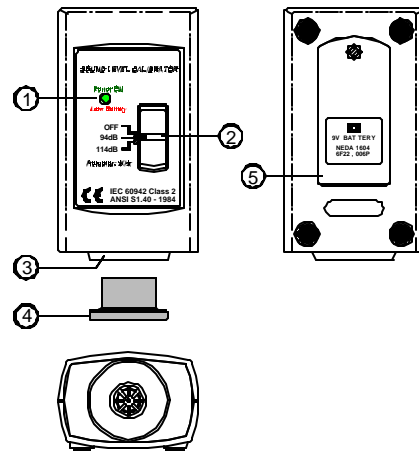
Storage temperature & humidity:

-10° – 50°C (14° – 122°F), 0 – 70%RH

Accessories:

Instruction manual, carrying case, 9V battery,
1/2"microphone adapter

5. Nomenclature And Functions

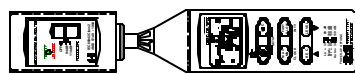


- ① Power and low battery indicate LED.
- ② Power and output level select switch.
- ③ Transducer assembly 1-inch cavity for microphone insertion.
- ④ 1/2-inch microphone adapter.
- ⑤ Battery cover.

6. Operating Preparation

- (1) Remove battery cover and install a 9V Battery in the battery compartment.
- (2) To quickly check the operation of the sound level calibrator.
Proceed as follows:
 - (a) Turn the power switch from OFF to the 94dB position. The user can start to operate it when LED indicates a green light. If there is no light, please replace the battery.
 - (b) Change the switch from 94dB to 114dB, the dB level will increase by 20. You can calibrate in noisy environments and check linearity.

7. Calibration Procedure



- (1) The cavity of the calibrator will accommodate 1-inch microphone.
- (2) When the calibration is performed to an instrument with 1/2-inch microphone, the 1/2-inch microphone adaptor will have to be inserted by gently pushing it into the cavity till the end.
- (3) Place the sound level calibrator over the microphone of the sound measuring instrument

being calibrated.

- (4) On the instrument under test, set the level range control to the range having 100dB as its upper limit if 94dB was selected on the sound level calibrator. If 114dB was selected on the sound level calibrator, choose a range with an upper limit of 120dB. The instrument may be set to FAST or SLOW response and C or A weighting.
- (5) Read the level on the instrument under test and adjust the sensitivity control for the correct indication of the sound level calibrator level selected in step.
- (6) When the calibrator is not being used, please switch OFF the power to save the battery.

CAUTION!

Ambient sources of noise or vibration can cause a false calibration indication; this can be especially significant at the lower 84dB level.