

TRACEABLE® SOUND LEVEL METER INSTRUCTIONS

FEATURES

- Maximum level hold.
- Over and Under range indicator.
- Pocket-Size and light weight. Large and easy-to-read LCD.
- AC and DC signal output [or data analysis and recording.
- Internal oscillation system for calibration.
- A and C weightings for checking in compliance with safety regulations as well as acoustic analysis.
- Fast and Slow dynamic response settings to check peak and average noise levels.

SPECIFICATION

Display: 3½ digital LCD display.

Measurement Range: A LO (Low) Weighting 35 to 100dB

A HI (High) Weighting 65 to 130dB

C LO (Low) Weighting 35 to 100dB

C HI (High) Weighting 65 to 130dB

Resolution: 0.1dB

Typical Sound Meter frequency range: 30Hz - 12KHz

Accuracy: ± 2 dB at 94dB sound level, 1KHz Sine Wave

Dynamic Range: 65dB

Frequency Weighting: A and C

Time Weighting: Slow and Fast

Maximum Holds: Fields noise reading, with decay < 1dB / 3 minutes

Microphone: ½ Electret condenser microphone

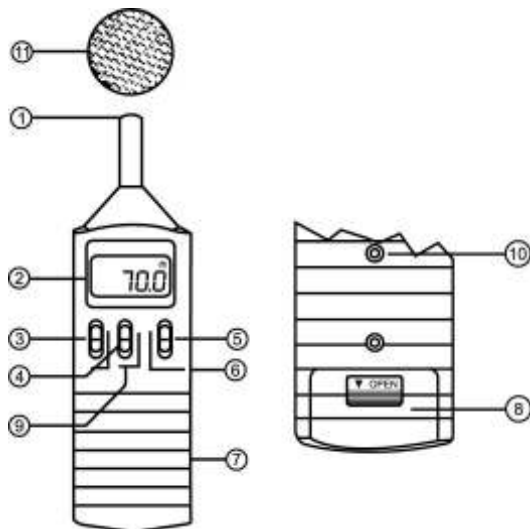
Calibration: Internal oscillation system (1 KHz). Sine Wave general 94 dB

Auxiliary Outputs: AC conditioned, 0.65 Vrms corresponding to each range step

Impedance: 600 Ω.

DC Conditioned, 10 mV/dB

(nominally), Impedance: 100 Ω



PART AND FUNCTIONS

1. **Microphone** Electric Condenser microphone
2. **Display** Serves to display the sound pressure level (dB), over or under range "OVER", maximum hold data "MAX HOLD" and Low battery indicator "BT"
Sound pressure level: In dB with 0.1dB resolution.
OVER: Shown when the range setting is relatively high (or Low) to input level.
3. **Power and Range Switch** —
 - Turn power off and select measurement range
 - (Hi range = 65 130 dB LO range=35 to 100dB)
 - When "OVER" is indicated. Slide range switch to another range for measurement.
4. **Response and Max Hold Switch** Setting the meter dynamic characteristics (Fast/Slow) and maximum value hold

S (slow response): for slow variable-noise measurement. dB level readout for approximately 1.5 sec. period.

F (fast-response): for comparatively stable noise measurement. dB level readout for approximately 0.2 sec. period.

MAX HOLD: The Max Hold position is used to measure the maximum level of sounds. The maximum measured level is indicated continuously.

To refresh, please set switch to "F" or "S" position to cancel existing value, then, set switch to "MAX HOLD" position.

5. Function Switch (A/C weighting & calibration selector)

A: A-weighting

C: C-weighting

CAL 94dB: Calibration

The sensitivity adjuster (6) can be adjusted clockwise or counterclockwise as standard 94.0dB

6. Calibration Control (Sensitivity adjuster) Used for unit calibration.

7. Output Jack (Standard 3.5mm 3 pole coaxial output socket.) Serves to supply AC signals and log-converted DC signals to external equipment.

8. Battery Cover (on bottom)

9. Reset Button: Serves to reset the maximum level indication.

10. Tripod Mounting Screw For long-term measurements, the unit can be mounted on a tripod. Use the tripod mounting screw provided on the bottom of the unit.

11. Windscreen Strong wind striking the microphone can cause mis-readings. For measurements in windy locations, the windscreen should be used.

CALIBRATION

1. Slide the Function switch to CAL 94dB position, Response switch to F position and Range switch to Hi position.

2. Adjust the calibration control to obtain a reading of 94.0dB.

The calibration uses a sine wave signal of 1000Hz generated by a built-in oscillator.

RESPONSE SELECTOR

In FAST position, the Sound Meter will react quickly in respond to sound level, giving you an indication of peak sound levels presented in the environment. In SLOW position, the Sound Meter is damped and indicates an average-value sound level. The effect of brief sound peaks is minimized in this position.

WEIGHTING SELECTOR

The frequency response of the Sound Level Meter for each Weighting characteristic is according to 1EC651 Type 2. The C-weighting curve is nearly uniform over the frequency range from 30 to 10,000Hz, thus giving an indication of overall sound level. The A-weighting characteristic responds primarily to the 500-to-10,000 Hz range, which is the area of greatest sensitivity of the human ear.

MEASUREMENT

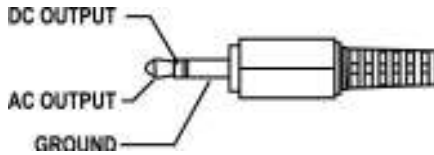
1. Flip open battery compartment cover and install a 9-volt battery in the battery compartment.
2. Select the desired Response and Weighting. If the sound source consists of short bursts, or if you're interested in peak values only, set RESPONSE to FAST.
To measure average-sound-level, use the SLOW setting.
Select A- weighting for noise-level determinations, and C- weighting for measuring sound levels of acoustic material.
3. Select HI flange
This range covers sound levels between 65 and 130dB.
4. Hold the instrument comfortably in hand and point the microphone at the suspected noise source. The sound level will be displayed.
5. Select LO (low) range when the indicated sound level falls below. 65dB(A).
If "OVER" is indicated on the display, re-select one of the HI ranges.
6. Slide the RESPONSE switch to MAX HOLD (maximum hold function) to capture and hold maximum noise levels for longer periods with any time weighting and range. To reset the maximum level indication and enter the new measurement, press the Reset button.
7. Turn the instrument OFF (RANGE switch to OFF) when not in use.
8. Remove batteries when out of service of longer periods.

OUTPUTS:

Two outputs from standard 3 pole 3.5mm coaxial socket with A.C. on pin. D.C. on intermediate, and ground on sleeve. (Fig. 2)

DC: Logarithmic signal. 10mV/dB Impedance ~ 100 Ω

AC: approx. 0.65 Vrms corresponding to each range step. Impedance ~ 600 Ω

**WARRANTY, SERVICE, OR RECALIBRATION**

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Control Company is ISO 9001 Quality-Certified by DNV and ISO 17025 accredited as a Calibration Laboratory by A2LA.