

# TRACEABLE<sup>®</sup> 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

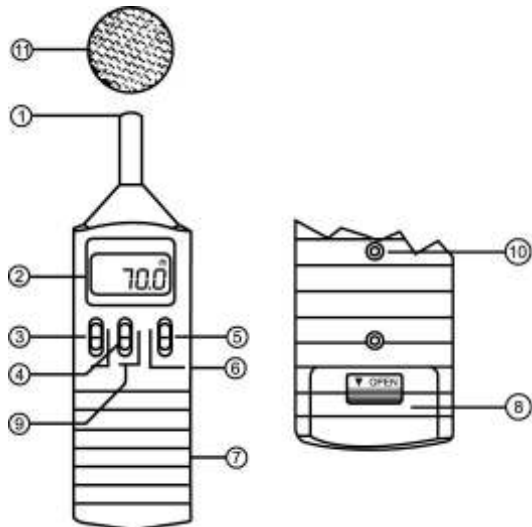
**Time Weighting:** Slow and Fast

**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.

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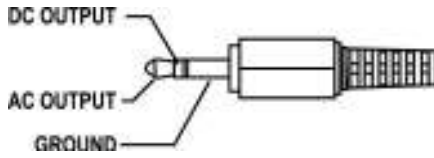
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**OUTPUTS:**

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  $\Omega$

AC: approx. 0.65 Vrms corresponding to each range step. Impedance ~ 600  $\Omega$

**WARRANTY, SERVICE, OR RECALIBRATION**

For warranty, service, or recalibration, contact:

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