

Multifunction Sound Level Meter



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I. Preface:

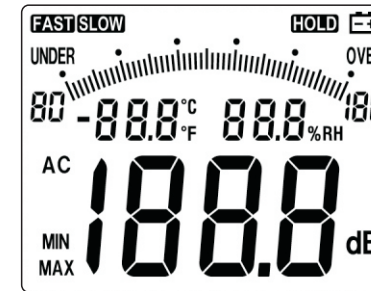
Thank you for using our product!
Please read the operating manual carefully before using the product.
The MS6702 Sound Level Meter is an instrument used to measure the ambient sound level as well as temperature and humidity in environments such as factories, workshops, schools, residential, offices, and other workplaces. It is also appropriate for activities such as noise engineering, product quality control, and health prevention and treatment.


II. Safety instructions:

Please use the product according to each specification for the sound level meter.
Operating environment:
• Elevation < 2000 m
• Relative humidity (RH): ≤ 90%RH
• Operating temperature: 0 - 40°C
Storage and maintenance:
Do not use alcohol or other solvents to clean the meter. If it is not used for long time, please remove the batteries and put the meter in a dry and clean environment.

- Safety symbols:**
-  Dual protection is used for the meter.
 -  The meter complies with CE safety standard.

III. LCD display introduction:



Display symbols	Description	Display symbols	Description
FAST	High speed	OVER	Over flow
SLOW	Low speed	A	A weighting mode
HOLD	Data hold	C	C weighting mode
UNDER	Below	DB	Decibel
%RH	Relative humidity	°C	Centigrade degree
MAX	Maximum	°F	Fahrenheit degree
	Under-Voltage Indicate		

IV. Functional characteristics description:

- This sound level meter complies with IEC651 Type 2 and ANSI S1.4 Type2.
- With the measuring scope from 30 to 130 db and automatic shifting function
- A and C weighting network selection
- High speed (FAST)/Low speed (SLOW) response rate selection
- Maximum (MAX) locking function
- It can measure temperature and humidity.
- Digital display, good anti-interference performance, power saving
- With backlight, it is appropriate for gathering the sound data at night. To save power, backlight auto power off function is provided.
- Composite material injection molding process is used for compatibility with anti-shock structure design. It is not only extremely wear-resistant, but also elegant in appearance.
- With power saving and high-reliability circuit design, the well-designed high-efficiency power supply circuit makes the batteries more durable.

V. Specifications:

- Sound pressure accuracy: ± 1.5dB (sound pressure standard, 94dB @ 1KHz).
- Sound pressure frequency response: 30Hz - 8KHz.
- Dynamic range of sound pressure: 50 dB (for each measurement gear level).

- Sound pressure measurement scope: 30-130dBA, 35-130dBC.
- Sound pressure frequency weighting characteristics: A and C characteristics.
- Dynamic characteristic of sound pressure: FAST 125ms, SLOW 1sec
- Microphone: polarized capacitive microphone.
- Accuracy of temperature measuring: 10°C~60°C: ±1°C
-20°C~10°C: ±2°C
- Range of temperature measuring: -20°C~60°C
- Accuracy of humidity measuring: ±3.5%HR
- Range of humidity measuring: 10%HR~90%HR
- Digital display: 4-digit, resolution: 0.1dB, sampling rate: 2 times/sec.
- Analog bar display: Each analog bar represents 1dB, sampling rate is 20 times/sec.
- Measurement gear level: 30~80 dB, 40~90 dB, 50~100 dB, 60~110 dB, 70~120 dB, 80~130 dB, 6 gear levels in total.
- Automatic shifting gear level: microcomputer will automatically select the best gear level in the range from 30 to 130 dB.
- Lower or exceed the limit prompt: indicate with "UNDER" and "OVER" characters.
- AC signal output: 0.707Vrms/grade with full scale, output impedance is about 600Ω (30~130 dB is not applicable).
- DC signal output: 10mV/dB, output impedance is about 100Ω.
- Power supply: 6 AAA batteries with 1.5V or DC 9V 100mA power adapter with maximum of DC 9.5V.
- Operating temperature: 0 ~+ 40°C.

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- Operating humidity: 10 ~90% RH.
- Storage temperature: - 10 ~ + 60 °C.
- Storage humidity: 10 ~70% RH.
- Outside measurement: 245 (L) × 80 (W) × 35 (H) mm.
- Weight: about 350g (including batteries).
- Accessories: Headphone plug, operating manual, batteries, windbreak ball.

VI. Preparations before use:

1. Use Philips screwdriver to open the battery cover on the back of meter, and install six 1.5 AAA batteries to battery holder.
2. Return the battery cover and use cross screwdriver to tighten screw.
3. When low battery, "⚡" symbol displays on the LCD, battery power is low and batteries should be replaced.
4. When using DC power adapter, please insert output plug (3.5mm) of DC power adapter into the DC 9V jack on the bottom of instrument.

VII. Basic usage methods:

1. Press the power switch. The default measurement gear level of LCD display microprocessor is 40~90dB, and the measured on site sound level will display. If the "UNDER" or "OVER" characters display on the LCD, it means that on site sound is lower or higher than the limit of 40 ~ 90dB. At this time, the measurement value is not accurate. Click Level ▲ or ▼ key to set the measurement gear level of the instrument to get accurate measurement value.
2. Set measurement gear level: Press Level ▲ or ▼ key to select appropriate gear

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- level to measure the current sound level. When the "UNDER" character appears, it means that the gear level of the instrument is too high. You should press Level ▼ to set a lower gear level until the "UNDER" character doesn't appear. When the "OVER" character appears, it means that the gear level of the instrument is too low. You should press Level ▲ to set a lower gear level until the "OVER" character doesn't appear.
3. Select the weighting mode: To measure the ambient sound level, please select A weighting mode (to simulate the hearing characteristics of human ears), and press the A/C key. Click to select A, click again to select C. To measure the actual sound level, please select C weighting mode.
4. To read real-time sound level, please select FAST (high speed). To obtain the average sound level, please select SLOW (low speed). Press FAST/SLOW key to select FAST or SLOW.
5. To obtain the maximum sound level, please press "MAX" function key and you can read the maximum sound level value. Press MAX key again to enter the normal measurement mode.
6. When measuring at night, press LIGHT (back light) key to illuminate the screen.
7. Temperature/humidity can be measured automatically with real-time display. Press and hold the LIGHT key to switch the display mode between °C and °F.

VIII. Calibrate sound level meter:

If the sound level meter is used for too many consecutive days, the measurement accuracy will reduce. At this time, the sound level meter should be calibrated. Usually it should be calibrated once a year. A standard sound source is required for calibration.

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Please contact our company for specific method.

IX. Notes:

1. Do not use the meter in hot, humid places.
2. If the meter is not used for a long time, please remove the batteries to avoid electrolyte leakage damaging the instrument.
3. Auto gear level (30-130dB) is not suitable for measuring transient impact noise.
4. When you measure sound level outdoors, windbreak ball should be installed on the microphone head to avoid being blown directly by wind and generating airflow noise.
5. If "⚡" symbol displays on the LCD, it means that the battery voltage is too low. You should immediately replace the batteries. It is recommended that you use alkaline batteries.

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