

## Multifunction Sound Level Meter Operation Manual



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## I. Preface:

Thank you for selecting our production. Please read the following information carefully before using the meter. The Sound Level Meter has been designed to measure sound level for various environments, It is used to detect noise, music level or sound engineerings...

## II. Safety information

Please use it according to the following usage.



Environment conditions:

- Altitude: less than 2000 meters.
- Relatively humidity 80% max
- Operation temperature 0~40°C

Maintenance & save:

Do not clear the meter using alcohol and impregnant. if you do not use it for a long time, please take out the battery and place the instrument in a dry surrounding.

Safety symbols:

-  meter is protected by double insulation
-  Comply with European Union's 93/68/EEC

## III. Functions & Features

1. The meter has been designed according to the IEC651 Type 2, ANSI S1.4 Type 2.
2. Measurement range is from 30dB to 130dB and automatic ranging.
3. With two equivalent weighted sound pressure levels, A and C.
4. Corresponsive rate select: FAST/SLOW
5. Maximum value locked.
6. Clock and calendar function.
7. AC and DC analog signals output, which can be linked to frequency analyzer or X-Y axis recorder.
8. Background light for working in the night. to save power, the background light shines for 5 seconds, then closes automatically.
9. Secondary plasticizing meter shell.
10. Good circuit designed to save power, the battery can be used for a long time.

## IV. Specifications

- Accuracy:  $\pm 1.5\text{dB}$
- Response frequency: 31.5Hz—8kHz
- Dynamic range: 50dB
- Frequency weighting: A/C
- Time weighting: FAST 125ms, SLOW 1sec
- Microphone: Electret Condenser microphone
- Digital display: 4 digitals, resolution 0.1dB, sampling rate 2 times/s
- Analog bar display: Each analog bar is as 1dB, sampling rate 20 times/s
- Measurement ranges: 30-80dB, 40-90dB, 50-100dB, 60-110dB, 70-120dB, 80-130dB. Total of 6 ranges
- Auto-range: Micro-computer can choose the best measurement ranges
- Over range indicator: UNDER (less than range) and OVER (over range)
- AC signal output: 0.707 Vrms at FS (Auto-range mode isn't included) Output impedance approx. 600 $\Omega$
- DC signal output: 10mV/dB Output impedance approx. 100 $\Omega$
- Power supply: Four LR03 AM4 1.5V SIZE AAA alkaline cells
- Power life: About >35hrs (alkaline cells) Continuous operation
- AC adapter: Voltage 9vDC  
Voltage ripple <100mVpp  
Supply Current >100mADC  
Socket pin Ground  
Casing positive  
External Diameter 3.5mm

## V. Preparation Before Using

- Operating temperature: 0 ~ +40°C
- Operating humidity: 10 ~ 80%RH
- Storage temperature: -10 ~ +60°C
- Storage humidity: 10 to 70%RH
- Dimensions: 245(L)×80(W)×35(H)mm
- Weight: Approx. 350g (including battery)
- Accessories: Earphone plug, Operation manual, Battery, Windscreen.

## VI. The method of usage

1. Remove the battery cover on the back and put in six 1.5V 7 # alkaline battery.
  2. Close the battery cover.
  3. When the battery voltage drops below the operating voltage, mark "⚡" appears and flashes. It must be done to replace all batteries with new one.
  4. When the DC adapter is used, insert the plug of the adapter into the DC9V connector on the side panel.
- VI. The method of usage**
1. Press the power switch, LCD displays the default range (40~90dB). and displays the sound level of a spot. If the display appears "UNDER" or "OVER" symbol, it indicates the sound level less than or more than 40~90dB, measurement is invalid. you need to set the meter's range to a correct position.
  2. Set range:  
Press LEVEL ▲ or ▼, choose the proper range, measure the sound level of the spot. When LCD appears "UNDER" symbol, it indicates that the range is high, you need to press LEVEL ▼ to set

lower range until no "UNDER" symbol. When LCD appears "OVER" symbol, it indicates that the range is low, you need to press LEVEL ▲ to set higher range until no "OVER" symbol.

3. Choose weighting mode:  
when you measure a general noise sound level, you could choose 'A' weighting by pressing A/C button. To measure an acoustic sound level, choose "C".
4. When you want to get a real-time sound level, choose FAST by pressing FAST/SLOW button. To get average sound level, choose "SLOW".
5. When you want to get the maximum value of a sound level, you can press "MAX" button.
6. When you want to measure in the night, you can open the background light by pressing "LIGHT" button.

## VII. Set time and date

1. Press "MAX" button then turn on the meter, LCD display time (hour, minute, second), the second digitals are flashing, press LEVEL ▲ or LEVEL ▼ to increase or decrease time; press "MAX" to set minute, hour, month, year. after setting is completed, turn off the meter.

## VIII. Calibrating Sound level Meter

When Sound Level Meter is used for a long time, its accuracy may reduce, we need to check and calibrate it, normally a time for each year. Calibration needs a standard sound source, please contact with us about the method.

## IX. Cautious

1. Do not use the meter in a high temperature or wet place.
2. When you do not use for a long time, please take out battery to avoid damaging the meter by electrolyte.
3. Auto-range (30-130dB) is unfit for measuring an instantaneous and impactive noises.
4. To measure sound level in a windy environment, please put windscreen on the microphone to avoid noises from wind.
5. If mark "⚡" is on the screen, it indicates the voltage is low, you must replace battery, we advise you to use alkaline battery.

