

User's Manual

Professional Sound Level Meter



Please read this user's manual thoroughly before using this unit and keep it properly for your future reference.

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1. Safety

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:

1. Altitude up to 2000 meters
2. $RH \leq 90\%$ (Non-Condensation)
3. Operating Temperature: $-20 \sim 60^{\circ}\text{C}$

▲ Maintenance

1. Repairs or servicing not covered in this manual should only be performed by qualified personnel.
2. Wipe the unit with a dry soft cloth. Do not use abrasives or solvents on this instrument.

▲ Safety Symbol

 Comply with EMC

2. General Description

This Sound Level Meter is designed to meet the measurement requirements of safety Engineers, Health, Industrial safety offices and sound quality control in various environments like factory, school, construction, etc.

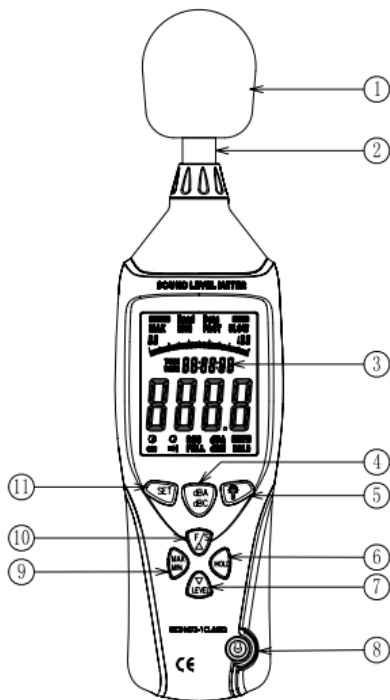
- ▲ Comply with IEC61672-1 CLASS2 Standard
- ▲ Max/Min Record
- ▲ Over range indication
- ▲ Under range indication
- ▲ A & C Weighting
- ▲ FAST & SLOW response
- ▲ Time and Date display
- ▲ Analog AC/DC outputs for connection to frequency analyzer or X-Y shaft recorder

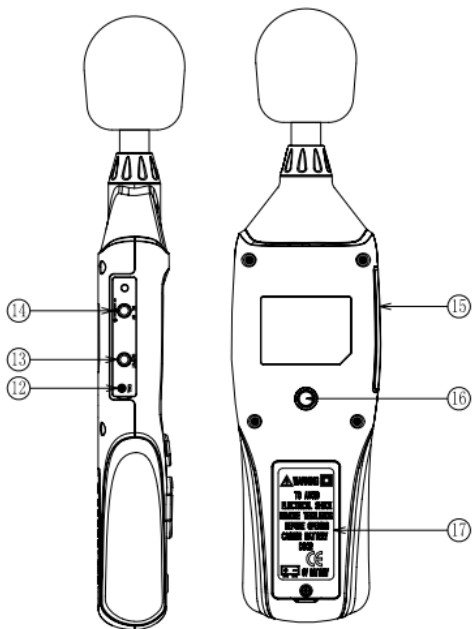
3. Specifications

Applied standard	IEC61672-1 CLASS2
Accuracy	± 1.4 dB
Frequency range	31.5Hz~8kHz
Dynamic range	50dB
Measuring level range	Lo: 30dB~80dB
	Med: 50dB~100dB
	Hi: 80dB~130dB
	Auto:30dB~130dB
Frequency weighting	A & C
Time weighting:	FAST 125ms;SLOW (1s)
Microphone	1/2 inch electret condenser microphone
Display	4digits LCD display with a resolution of 0.1dB
Sampling time	2 times/sec
Max Hold	MAX
Min Hold	MIN
HOLD:	Hold the readings

Alarm function	“OVER” is when input is more than upper limit of range.
	“UNDER” is when input is less than lower limit of range.
Analog output	AC/DC outputs from earphone outlet AC=1Vrms , DC=10mV/dB
Auto power off	Meter automatically shuts down after approx. 15 minutes inactivity.
Power supply	One 9V battery, 006P or IEC 6F22 or NEDA 1604.
Battery life	at least 30 hours
Operating conditions	-20°C ~ 60°C ; 10%RH ~ 90%RH
Storage conditions	-20°C ~ 60°C ; 10%RH ~ 75%RH
Dimension (L*W*H)	252*66 *33 mm
Weight:	262g



4. Meter Description






- (1) Windscreen microphone cover
- (2) Microphone
- (3) LCD display
- (4) Frequency weighting A/C selection key
- (5) Backlight ON/OFF key
- (6) HOLD key
- (7) Range selection key
- (8) Power ON/OFF key
- (9) MAX/MIN KEY
- (10) Response time selection key
- (11) SET key
- (12) Potentiometer calibration
- (13) AC/DC signal output earphone outlet
- (14) External DC 9V power supply terminal
- (15) Dustproof cover
- (16) Tripod nut
- (17) Battery Compartment

5. LCD Display Description


Icon	Function
LCD	4 digits
MAX	Maximum data hold
MIN	Minimum data hold
OVER	input is more than upper limit of range.
UNDER	input is less than lower limit of range.
FAST	Fast response
SLOW	Slow response
dBA	A frequency weighting (the noise that human ear can hear)
dBC	C frequency weighting (response to machine monitor)
88 ~ 188	Range display
TIME	Display current time(Hour-Minute-Second)
DATE	Display current date(Year-Month-Day)
AUTO	Auto level range selection
HOLD	Data hold function
	Auto power off
	Low battery indication

6. Operation Instruction


1) Frequency weighting selection:

press " " key to select A or C.


2) Backlit:

After turning the meter on, momentarily press " " key, the backlit will be on/off, it will automatically turn off after approx. 30 seconds of inactivity.


3) HOLD:

After turning the meter on, momentarily press " " button , "HOLD" icon will appear on the LCD, which indicates the data is freezed. To release the held reading, press the button again.

4) Level range selection:

press " " key, the level range will change from 'Lo', 'Med', 'Hi' to 'Auto' level in the circular.


5) Power on/off:

Press the " " key for 1 second to turn on the meter,

while keep pressing it for approx. 3seconds, the meter will be off.


6) **MAX/MIN**



Press the "  " key for one time to enter MAX/MIN measurement, 'MAX' will appear on LCD, the captured maximum sound level will be displayed on the LCD. Press the key again, 'MIN' will appear on LCD and minimum sound level will be displayed on the LCD. Press the button one more time to exit MAX/MIN measurement mode.

7) **FAST/SLOW**




press "  " to select FAST or SLOW time weighting measurement

FAST: Fast sampling measurement, 1 time per 125ms.

SLOW: Slow sampling measurement, 1 time per second.

8) **Date & Time Set**




Keep pressing the "  " key before power the meter on, then power the meter on and release this key when the DATE icon and data flash, enter into the Date & Time Set mode, the display will be YEAR-MONTH-DAY, fig.as

DATE 88:88:88

below:

When the YEAR data flashes continuously, press "▲" key to increase the value and press the "▼" key to decrease the value. See fig. as below:




Press "  " the second time, the MONTH data will flash continuously, then press "▲" or "▼" to increase or decrease the value. See fig. as below:

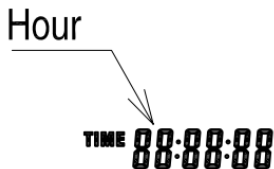



Press "  " the third time, the DAY data will flash

continuously, then press "▲" or "▼" to increase or decrease the value. See fig.as below:



Press "  " the fourth time,the TIME icon and HOUR data flash, then press "▲" or "▼" to increase or decrease the value. See fig.as below:




Press "  " the fifth time,the MINUTE data flash,then press "▲" or "▼" to increase or decrease the value. See fig.as below:

Minute

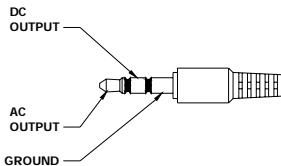
TIME 88:88:88

After finish the Date & Time set, press "PEAK" key to save the data and exit this mode.

9) TIME/DATE Display

After power the meter on, press "  " key to convert TIME or DATE display.

10) AC/DC Signal Output Earphone Outlet



AC: Output voltage: 1Vrms corresponding to each range step.

Output impedance: 100 Ω

DC: Output voltage: 10mv/dB

Output impedance: approx.1K Ω

11) External power supply:

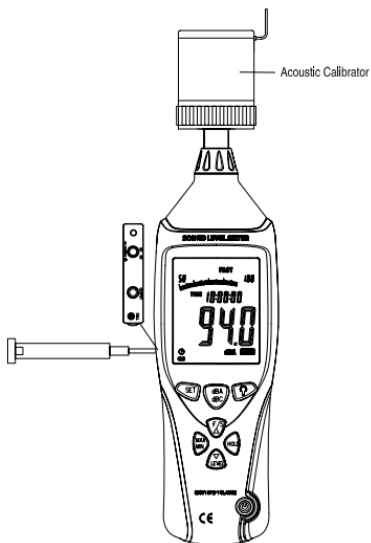
DC 9V input

External DC 9V, positive inside and negative outside

Pore size: OD 3.5mm, ID 1.35mm


7. Calibration Procedure

- 1) Make the following switch settings:
 - a) Frequency weighting: A-weighting
 - b) Time weighting: FAST Level range:
50 ~100dB
- 2) Insert the microphone housing carefully into the 1/2 inch insertion hole of the calibrator (94dB @ 1kHz) .
- 3) Turn on the switch of calibrator and adjust the CALL potentiometer until 94.0dB is displayed.





**NOTE: All products are well calibrated before delivery.
Recommended recalibration cycle: 1 year.**

8. Basic Operation

- (1) Open battery cover and install a 9-volt battery in the battery compartment.
- (2) Close the battery compartment.
- (3) When the low battery icon " " appears, replace the meter's battery.
- (4) when the AC adapter is used, insert the plug of the adapter (3.5φ) into the DC 9V connector on the side panel.

9. Operating Procedures

- ① Power on the meter.
- ② Press ' ' button to select desired level range.
- ③ Select 'dBA' for general noise sound level and 'dBC' for measuring sound level of acoustic material.
- ④ Select 'FAST' for instant sound and 'SLOW' for average sound level.
- ⑤ Select ' ' button for measuring maximum and minimum noise level.
- ⑥ Hold the meter in hand or use the tripod to affix the meter in the desired location. The best measuring distance is 1~1.5m away from the microphone to the sound source.

10. Notes

- ① Do not store or operate the meter in high temperature or humidity.
- ② Remove the battery when the meter is to be stored for long periods of time to avoid battery leakage.
- ③ Wind blowing across the microphone increases the noise measurement. Use the supplied windscreen to cover the microphone when appliance.
- ④ Keep microphone dry and avoid severe vibration.
- ⑤ If the date and time automatically resume to default setting after power the meter on, which indicates the battery power is low, replace the meter's battery.

11. Accessories

- ① User's manual
- ② Windscreen
- ③ Regulatorrod
- ④ 9V battery
- ⑤ Φ 3.5 earphone plug
- ⑥ Tripod(Optional)

