Digital Sound Level Meter

Operating Manual

Contents

I. Preface

Thank you for using our product.
Please read the operating manual carefully before using the product.
The Sound Level Meter is an instrument used to measure the ambient sound level, such as sound level around factories, workshops, schools, residential, offices, road, audio etc. It also can be appropriate for noise engineering, product quality control, health prevention and treatment, etc.

II. Safety instructions

Please use according to each specification of sound level meter.
Operating environment:

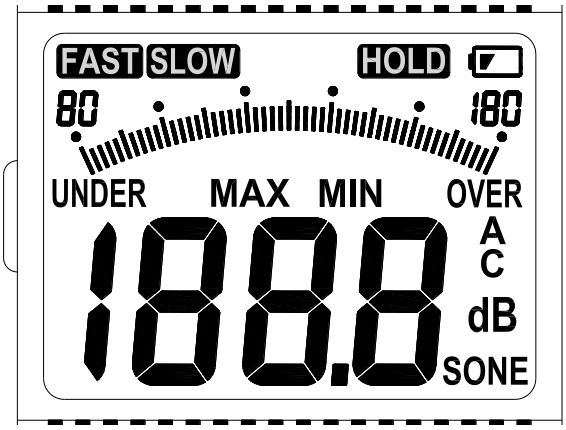
- Elevation ＜2000 m
- Relative humidity (RH) ≦80%RH
- Operating temperature 0 - 40℃

Storage and maintenance: Do not use alcohol or other solvents to clean the meter. If it is not to be used for long time, remove batteries and keep the meter in a dry and clean environment.
Safety symbols:

 Dual protection is used for the meter.

 Comply 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	Keep	C	C weighting mode
UNDER	Below	dB	Decibel
MAX	Maximum	SONE	Sound unit (sone)
MIN	Minimum		Battery power

IV. Functional characteristics description

● This sound level meter complies with IEC651 Type 2 and ANSI S1.4 Type 2.

● 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

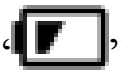
● Digital display, good anti-interference performance, power saving
● With the backlight feature, it is appropriate for gathering the sound data at night. To save power, backlight auto power off function is provided.
● Composite material injection molding process is adopted for casing with anti-drop structure design. It is not only extremely wear-resisting, but also elegant.
● With power saving and high-reliability circuit design, well-designed high-efficiency power supply circuit makes the batteries more durable.

V. Specifications

● Sound pressure accuracy: ± 1.5 dB (sound pressure standard, 94 dB @ 1KHz).
● Sound pressure accuracy: ±5 dB (sound pressure standard, 94 dB @ 8KHz).
● Sound pressure frequency response: 30Hz - 8KHz.
● Dynamic range of sound pressure: 50 dB (for each measurement gear level).
● Sound pressure measurement scope: 30-130 dBA, 35-130 dBC.
● Sound pressure frequency weighting characteristics: A and C characteristics.
● Dynamic characteristic of sound pressure: FAST 125ms, SLOW 1sec
● Microphone: polarized capacitive microphone.
● Digital display: 4-digit, resolution: 0.1 dB, sampling rate: 2 times/sec.
● Analog bar display: Each analog bar represents 1 dB, 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.
● Below or above limit prompt: indicated with “UNDER” or “OVER” display.
● Power supply: 4 x 7th batteries of 1.5V each
● Operating temperature: 0 ~+ 40 ℃
● Operating temperature: 10 ~80％RH
● Storage temperature: - 10 ~+ 60 ℃
● Storage humidity: 10 ~70％ RH
● Outside measurement: 193 (L) × 60(W) × 29 (H) mm
● Weight: about 222 g (including batteries)
● Accessories: Headphone plug, operating manual, batteries, cotton ball

VI. Preparations before use

1. Use cross screwdriver to open the battery cover on the back of the meter, and install 4 7th alkaline batteries of 1.5V each to the battery holder.
2. Return the battery cover and use cross screwdriver to tighten screw.
3. When the battery is aging, “  ” symbol will appear on the LCD display, indicating that batteries don’t have enough power to use, and should be replaced with new ones.

VII. Basic usage methods

1. Press the power switch, the default measurement gear level of LCD display microprocessor is 40~90 dB. And the measured onsite sound level will display within this range. If one of the “UNDER” or “OVER” characters displays on the LCD, it means that onsite sound is either lower or higher than the limit range of 40 ~ 90 dB. At this time, the

measurement value is not accurate, you should click Up and Down key to set the measurement gear level of the instrument to get accurate measurement value.

2. Setting measurement gear level:

Press the Level▲ or ▼ keys to select appropriate gear 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 disappears. 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 disappears.

3. Selecting the weighting mode:

To measure the sound level within the human audible range, select A weighting mode (simulate the hearing characteristics of human ears) mode, press the A/C key, click to select A, click again C. To measure the actual sound level, select C weighting mode.

4. To read real-time sound level, select FAST (high speed). To obtain the average sound level, select SLOW (low speed). Press FAST/SLOW key to select FAST or SLOW.

5. To obtain the maximum sound level, press "MAX" function key and you can read the maximum sound level reading value, press MAX key again to return to the normal measurement mode.

6. To light up the backlight of LCD when measuring at night, press ☼ key.

VIII. Calibrate sound level meter

If the sound level meter is used for too many days, the measurement accuracy will reduce. At this time, the sound

level meter should be calibrated. Usually it should be calibrated once a year. Standard sound source is required for calibration. Please contact our company for specific method.

IX. Notes

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