

TENMA®



Sound Level Meter

Model: 72-942

IMPORTANT SAFETY INFORMATION

Please read these instructions carefully before use and retain for future reference.

- Please operate according to this manual, otherwise the protection provided by the device will be impaired or fail.
- Check the condition before using. If you find any cracking, breakage, damage or abnormality, or you consider the device broken, stop using the device immediately
- Do not store or operate the instrument at high temperature and high humidity environment.
- Keep microphone dry and avoid severe vibration.
- Replace the batteries as soon as the low battery indicator appears on the display.
- Remove dead batteries from the meter or if it is not going to be used for a long time.
- Never mix old and new batteries together, or different types of batteries.
- Never dispose of batteries in a fire, or attempt to recharge ordinary batteries.
- Before replacing the battery, turn off the sound level meter.
- To prolong battery life turn off the sound level meter after use.

WHAT'S INCLUDED

- Sound level meter with foam windshield
- 9V battery, 006P or IEC 6F22 or NEDA 1604. (included)
- Instruction manual

FEATURES

- This Sound Level Meter has been designed to meet the measurement requirements of safety Engineers, Health, Industrial safety offices and sound quality control in various environments.
- This unit conforms to the IEC61672-1 type 2, ANSI S1 .4 type 2 for Sound Level Meters.
- Ranges from 30dB to 130dB at frequencies between 31.5Hz and 8kHz.
- Display with 0.1 dB steps on a 4-digits LCD.
- Two equivalent weighted sound pressure levels, A and C.

FUNCTIONS

1. Windscreen.

If you operate at wind speed over 10m/sec, please put protective accessories in front of the microphone.

2. LCD display.

3. Power ON/OFF button.

4. Backlight button ON/OFF.

5. Weighting A/C-Weighting Select Button.

A-Weighting. For general sound level measurements.

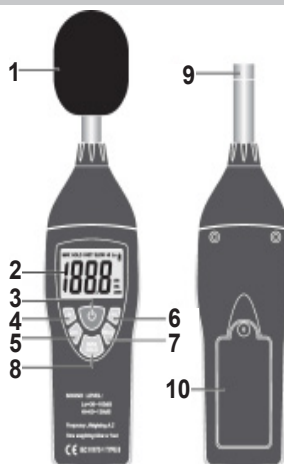
C-Weighting. For checking the low frequency content of noise.

Note: If the C-Weighted level is much higher than the A-Weighted level, then there is a large amount of low-frequency noise.

6. Time Weighting Select Button.

F (fast response): for normal measurements (fast varying noise).

S (slow response): for checking average level of fluctuating noise.



7. Level Range Select Button.

Lo: 30 - 100dB.

Hi: 60 - 130dB.

Note: When "OVER" is indicated, the ranges witch to another range for measurement.

8. MAX/HOLD Button.

The "Max/Hold" position is used to measure the maximum level of sounds. The maximum measured level is up dated continuously. Pressing the button again will release the hold and allow a further measurement.

Data Hold button: Press and hold the Button for over 2 second to turn on or off data hold function.

The hold function freezes the reading in the display.

9. Microphone.

½ inch Electret Condenser microphone.

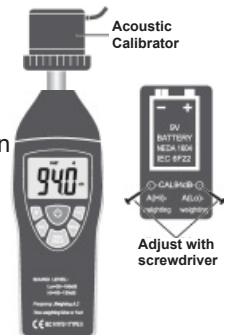
10. Battery Cover.

OPERATION

- To achieve more accurate measurement, use an extension cable to separate the microphone from the main body so that the effect of unexpected sound reflection can be eliminated.
- Calibrate the instrument before operation if the instrument was not in use for a long time or operated in an extreme environment.
- Turn on power and select the desired response time and weighting. If the sound source consists of short bursts or only catching sound peak, set response to FAST. To measure average sound, use the slow setting.
- Select A-weighting for general noise sound level and C-weighting for measuring sound level of acoustic material.
- Select the desired level.
- Hold the instrument comfortably in hand or fix on tripod and point the microphone at the suspected noise source, the sound pressure level will be displayed.
- When MAX (maximum hold) mode is chosen. The instrument captures and holds the maximum noise level for a long period using any of the time weightings and ranges.
- When HOLD (data hold) mode is chosen. The hold function freezes the reading in the display. Press the HOLD button momentarily to activate or to exit the HOLD function.

CALIBRATION FUNCTION

- Using a standard Acoustic Calibrator (94dB, 1 kHz Sine wave) make the following buttons and function switch settings.
 1. Display: dB, A, Hi or Lo, F.
 2. Function: A-Weighting.
 3. Response Time: FAST.
 4. Level range: 30-100dB (Lo) or 60-130dB (Hi).
 5. Measurement mode: MAX Hold and Data Hold Mode function disable.
- Insert the microphone housing carefully into the insertion hole of the calibrator.
- Open battery cover and remove the battery to adjust the CAL94dB potentiometer of the unit.
- The level display will indicate the level being detected.



MAINTENANCE

Changing the battery

- To install or change the 9V battery, open the battery compartment. Replace only with the same type of battery.

Cleaning the casing

- Wipe using a damp cloth or sponge. Do not use solvents as these may damage the casing. Do not immerse in water.

SPECIFICATIONS

Frequency range	31.5Hz to 8kHz
Measuring level range	30 to 130dB
Frequency weighting	A/C
Microphone	1/2 inch electret condenser microphone
Display	LCD 4 digits
Resolution	0.1dB
Display Up data	0.5 sec.
Time weighting	FAST (125mS), SLOW (1 sec)
Level ranges	Lo: 30-100dB / Hi: 60-130dB
Accuracy	±1.5dB (under reference conditions)
Alarm function	OVER is show when input is out of range
Auto power off	Auto shut down after approx. 15 minutes of inactivity.
Operation temperature	0 to 40°C (32 to 104°F)
Operation humidity	10 to 90%RH
Altitude	up to 2000 metres
Storage temperature	-10 to 60°C (14 to 140°F)
Storage humidity	10 to 75%RH
Power supply	One 9V battery, 006P or IEC 6F22 or NEDA 160
Power life	About 50hrs (alkaline battery)
Dimensions	210(L) x 55(W) x 32(H)mm
Weight	230g (including battery)



INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT

These symbols indicate that separate collection of Waste Electrical and Electronic Equipment (WEEE) or waste batteries is required. Do not dispose of these items with general household waste. Separate for the treatment, recovery and recycling of the materials used. Waste batteries can be returned to any waste battery recycling point which are provided by most battery retailers. Contact your local authority for details of the battery and WEEE recycling schemes available in your area.



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