KEWTECH

KEW320
Sound level meter

Manual

CE

Safety Information

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:

• Altitude up to 2000 meters
• Relatively humidity 90% max.
• Operation Ambient 0 ~ 40°C

Explanation of Symbols:

⚠ Attention! Refer to operation instructions.

CE Comply with EMC.

When servicing, use only specified replacement parts.

Introduction

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.

Both AC and DC signal outputs are available from standard 3.5mm coaxial socket, suitable for a frequency analyser, level recorder, FFT analyser, graphic recorder, etc.

Specifications

Standard Applied:	IEC61672-1 Class2
Frequency Range:	20Hz ~ 8KHz
Measuring level Range:	32 ~ 130dB
Frequency Weighting:	A / C
Microphone:	½ inch electret condenser microphone
Digital Display:	4 digits Resolution: 0.1dB Display updata: 0.5 sec.

2. Battery Loading:

Remove the battery cover on the back and insert a 9V Battery.

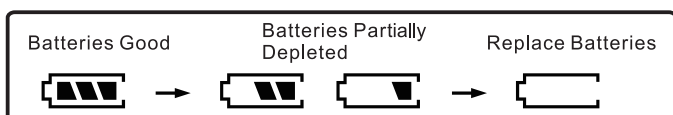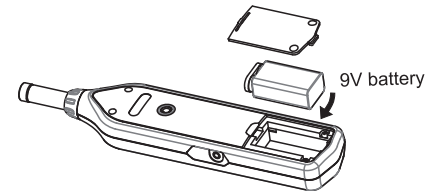9V battery

Analogue display:	30 segment bargraph Resolution: 2dB Display updata: 100 mS
Time weighting:	FAST (125mS), SLOW (1 sec.)
Level ranges:	Lo: 30 - 90 dB Med: 50 - 110 dB Hi: 70 – 130 dB
Accuracy:	±1.4dB (under reference conditions)
Dynamic Range:	60 dB
Alarm Function:	" OVER " is shown when input is more than upper limit of range. " UNDER " is shown when input is Less than lower limit of range.
AC Output:	1 Vrms at FS (full scale) FS: means the upper limit of each level Range.
DC Output:	10mV / dB
Power Supply:	One 9V battery, 006P or IEC 6F22 or NEDA 1604
Power Life:	Approx. 60hrs (alkaline Battery)
Operation Temperature:	0 to 40°C (32 to 104°F)
Operation Humidity:	10 to 90%RH
Storage Temperature:	-10 to 60°C (14 to 140°F)
Storage Humidity:	10 to 75%RH
Dimension / Weight:	258×55×25mm (10.2"×2.2"×1.0") / Approx. 185g
Accessories:	Battery, Instruction manual, Windshield, Hard case

Measurement Preparation

1. Battery capacity indicator:

When operating the unit on battery, periodically check this indicator to determine the remaining battery capacity .
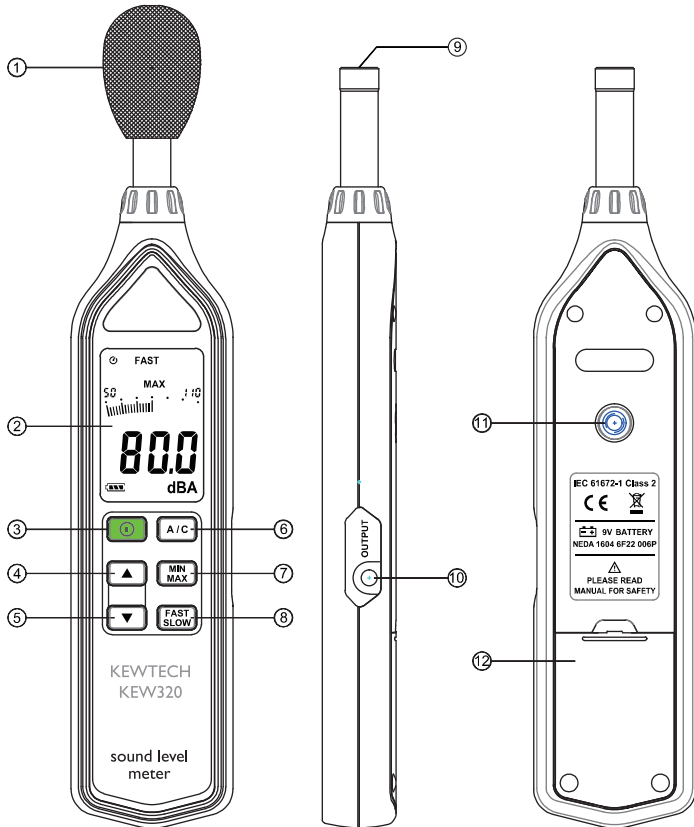
Maintenance

Attention!

Repairs or servicing not covered in this manual should only be performed by qualified personnel.

Cleaning

Periodically wipe with a dry cloth. Do not use abrasives or solvents on this instrument.

Symbol Definition & Button Location

1. Name of Parts & Position:

① **Windshield** .

② **Display**: 4 digits LCD display

③ **Power Switch**:

The ⊙ key turns the sound level meter ON.
Press and hold this button for 2 seconds to turn OFF the power.

Auto Power Off:

By default, when the meter is powered on, it is under auto power off mode. The meter will power itself off after 30 minutes if there is no operation of the keys.

One may press and hold " FAST/SLOW " button and then power on the meter and the ⟳ will not show up to indicate that auto power off is disabled.

④ ▲ **Level range control button**:

Each time the ▲ button is pressed. The level range increments from " **Lo** " Level to " **Hi** " Level range.

⑤ ▼ **Level range control button**:

Each time the ▼ button is pressed. The range decreases from " **Hi** " Level to " **Lo** " Level range.

⑥ **Frequency Weighting select switch**:

A: A - Weighting. for general sound level measurements.

C: C - Weighting. for checking the low-frequency content of noise.

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

⑦ **MAX / MIN hold switch**:

Press MIN/MAX button to enter the maximum and minimum recording mode. Select the correct Level range before using MAX/MIN to ensure that reading value will not exceed the measurement range. Press once to select MAX value. Press again to select MIN value, and press again to select current value with " MAX MIN " annunciator flashing.

Press and hold down MIN/MAX button for 2 seconds to exit the MAX.MIN mode.

Note: If there is a change of sound level range or change of A-C the MAX. MIN mode will be cleared.

⑧ **Time weighting select Switch**:

FAST: for normal measurements
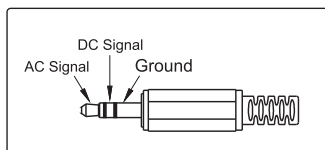SLOW: for checking average level of fluctuating noise.

⑨ **Microphone**:

1/2 inch Electret Condenser microphone.

⑩ **AC / DC output terminal**:
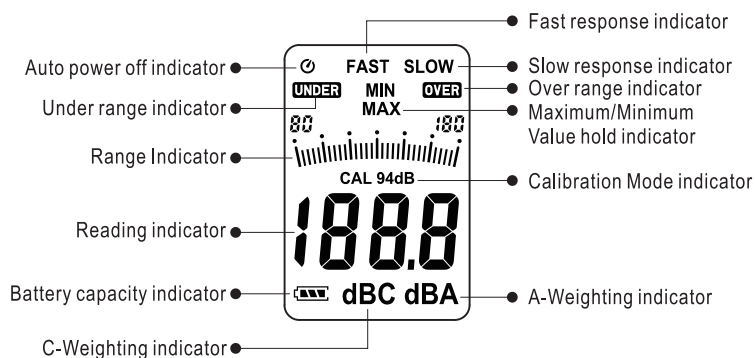
AC Output: 1 Vrms corresponding to each range step.
DC Output: 10mV/dB.

⑪ **Tripod mounting screw**
⑫ **Battery Cover**

2. LCD Display:

Operating Precautions

(1) Wind blowing across the microphone would bring additional extraneous noise.

Once using the instrument in the presence of wind, it is a must to mount the windshield to avoid picking up undesirable noise.

(2) Calibrate the instrument before operation if the instrument has not been in use for a long time.

(3) Do not store or operate the instrument at high temperature and high humidity environment.

(4) Keep microphone dry and avoid severe vibration.

(5) Please take out the battery and keep the instrument in low humidity environment when not in use.

Measurement

(1) Turn on and select the desired response time and weighting. If the sound source consists of short bursts, set response to **FAST**. To measure average sound level, use the **SLOW** setting.

Select A weighting for general noise sound level and C weighting for measuring sound level of acoustic material.

(2) Select desired Level.

(3) Hold the instrument comfortably in hand or fix onto a tripod and point the microphone at the noise source, the sound pressure level will be displayed.

(4) When MAX MIN (maximum, minimum hold) mode is chosen. The instrument captures and holds the maximum and minimum noise levels using any of the time weightings and ranges.

Press the MIN/MAX button 2 seconds to clear the MAX/MIN reading.

" **MAX / MIN** " symbol disappears.

(5) Turn OFF the instrument.