

kaise

DIGITAL SOUND LEVEL METER

Instruction Manual

KG-70

KAISE CORPORATION

2. Specifications

2-1. GENERAL SPECIFICATIONS

- DISPLAY (LCD) :**
 - Numerical Display : 11mm high
 - Units and Symbols : dBA, dBC, FAST, SLOW, MAX, MIN, HOLD, \oplus , \ominus
- MICROPHONE :** 1/2 inch Electret condenser microphone
- MEASURING RANGE :**
 - Weighting : 30dB to 125dB,
 - C Weighting : 30dB to 125dB
- SAMPLING RATE :** 2 times/second
- ACCURACY :** ± 5 dB
- FREQUENCY RANGE :** 31.5Hz to 8kHz
- DYNAMIC RANGE :** 50dB
- RESOLUTION :** 0.1dB
- OVERRANGE INDICATION :**

"OL" appears when the upper limit of measuring range is exceeded.
"Lo" appears when the measured value is below the lower limit.
- TIME WEIGHTING :**

125ms (FAST mode) or 1s (SLOW mode)
- BATTERY WARNING :**

" \oplus " indication at approx. 7.2V or less
- DISPLAY HOLD :** Hold indicating values by HOLD Key
- AUTO POWER OFF :**

Power turns off automatically after approx. 5 minutes (cancelable)
- OPERATING TEMPERATURE & HUMIDITY :**

5°C to 40°C, less than 80%RH in non-condensing
- STORAGE TEMPERATURE & HUMIDITY :**

-10°C to 60°C, less than 70%RH in non-condensing
- ALTITUDE :** Up to 2000m
- POWER SUPPLY :** 9V 6F22 x 1
- POWER CONSUMPTION :**

12mA in normal, 13mA with LCD Backlight on
- OPERATING POWER SUPPLY VOLTAGE :**

approx. 7.2V up to 9.6V
- CONTINUOUS OPERATING TIME :** approx. 18 hours
- DIMENSIONS :** 193(H) x 67(W) x 44(D)mm (Wind Screen detached)
- WEIGHT :** Approx. 184g (include battery)
- ACCESSORIES :** Wind Screen, 9V 6F22 Battery x 1(Installed), Instruction Manual
- OPTIONAL ACCESSORIES :** 1026 Carrying Case

3. Safety Precautions

WARNING

- Do not replace the battery with the wet hands. Electric shock may occur.
- Keep the instrument away from babies or children.
- Do not attempt to disassemble or modify the instrument.
- Do not heat or disassemble the battery. Do not put the battery into the fire or water.

CAUTION

- Do not apply strong shock to the instrument, such as dropping off or vibration.
- Do not get the instrument wet. Keep dry.
- Do not polish the case with the fluid that contains alcohol to prevent the cracking.
- Remove the battery when the instrument is out of use for a long time. The exhaust battery might leak electrolyte and corrode the inside.
- Do not use any battery that have wrong rated specification.
- Install the battery with the correct polarity as shown in the plus \oplus and minus \ominus indications.
- Dispose the exhausted battery in accordance with the local government rule after applying adhesive tape to both electrodes to make them insulated.

Cautions for safekeeping

- Do not keep the instrument in the following place.
- The place where has the water splash
 - The place where applies the hard shock
 - 10°C or less, 60°C or more, 70%RH or more
 - The place where has the condensation
 - The place where is exposed to direct sunlight

4. Name Illustration

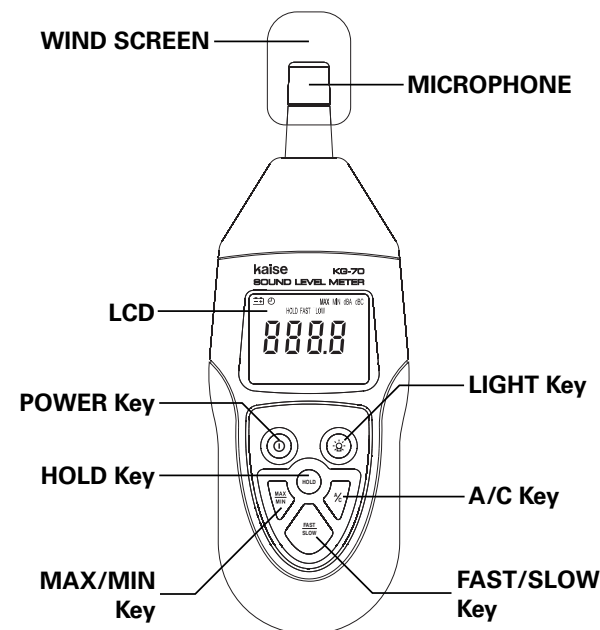




Fig-1

4-1. LCD



Fig-2

-  : Low battery warning
-  : Auto power off
- MAX : MAX measurement
- MIN : MIN measurement
- dBA : Frequency weighting A is selected
- dBC : Frequency weighting C is selected
- HOLD : Display Hold
- FAST : FAST mode is selected
- SLOW : SLOW mode is selected

Tear off the Display Film on LCD when using this instrument for the first time.

4-2. WIND SCREEN

If the wind speed exceeds 10m/sec, please attach the wind screen to the microphone by inserting the microphone nozzle into the insertion hole of the wind screen. This can decrease the measurement errors caused by wind noises.

4-3. POWER Key

Press this key to turn on / turn off.

4-4. LIGHT Key (LCD Backlight)

Press this key to turn on / turn off the LCD backlight.

4-5. HOLD Key (Display Hold)

Press this key to hold displayed value on LCD. ("HOLD" lights up).
To release it : Press HOLD Key again.

4-6. MAX/MIN Key (MAX/MIN)

MAX/MIN measurement is possible by pressing this key. Display should change as following.
Normal Measurement → MAX Measurement ("MAX" lights up)
→ MIN Measurement ("MIN" lights up) → Normal Measurement

For Safety Measurements!!

To prevent an electrical shock hazard to the operator and/or damage to the instruments, read this instruction manual carefully before using the instrument. **WARNINGS** with the symbol \triangle on the instrument and this instruction manual are highly important.



The symbol listed in IEC 61010-1 and ISO 3864 means "Caution" (refer to instruction manual).



WARNING

The symbol in this manual advises the user of an electrical shock hazard that could result in serious injury or even death.



CAUTION

The symbol in this manual advises the user of an electrical shock hazard that could cause injury or material damages.

Introduction

Thank you for purchasing "KG-70 DIGITAL SOUND LEVEL METER". To obtain the maximum performance of this instrument, read this Instruction Manual carefully, and take safe measurement.

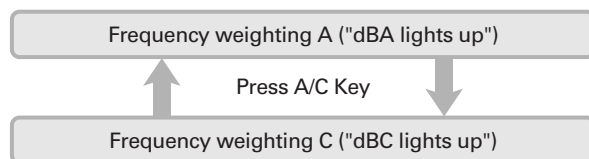
1. Unpacking And Inspections

Confirm if the following items are contained in the package in good condition. If there is any damage or missing items, ask your local dealer for replacement.

- | | |
|------------------------------|--------------------|
| 1. Digital Sound Level Meter | 1 pce. |
| 2. Wind Screen | 1 pce. |
| 3. 9V 6F22 Battery | 1 pce. (Installed) |
| 4. Instruction Manual | 1 pce. |

4-7. A/C Key

Press this key to select frequency weighting A or C.



Frequency weighting A :

Use for standard sound level measurements. This weighting corresponds to the sound pressure felt by the human ear.

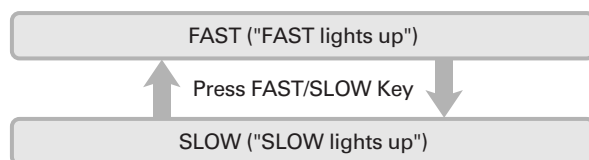
Frequency weighting C :

Use for low frequency levels of sound.

Low-frequency noise level should be high if the displayed value of C weighting is considerably higher than A weighting.

4-8. FAST/SLOW Key

Press this key to select time weighting.



FAST : For normal measurements.

SLOW : For checking average level of fluctuation noise.

4-9. AUTO POWER OFF (Default setting : ON)

Power turns off automatically after approx. 5 minutes of last operation.

NOTE : Small current consumption remains even in the auto power off condition.

To cancel it : Turn on the instrument holding down FAST/SLOW Key. Auto power off is disabled and "Ⓞ" disappears from LCD.

5. Measurement Procedures

- ① Press POWER Key and turn the power on.
 - ② Select the frequency weighting.
Press "A/C" Key, and select suitable frequency weighting A or C. Display shows dBA or dBC accordingly. (refer to 4-7)
 - ③ Select time weighting.
Press the "FAST/SLOW" key, and select FAST mode or SLOW mode. Display shows FAST or SLOW accordingly. (refer to 4-8)
 - ④ Hold out the microphone to the sound source to be measured.
 - ⑤ Read the measurement value on LCD.
- *Use wind screen when the wind speed exceeds 10m/sec, this can decrease the measurement errors caused by wind noises.

- Press HOLD Key for display hold. (refer to 4-5)
- Press LIGHT Key for back-lighting. (refer to 4-4)

- MAX/MIN measurement
Display should change as following by pressing MAX/MIN Key.

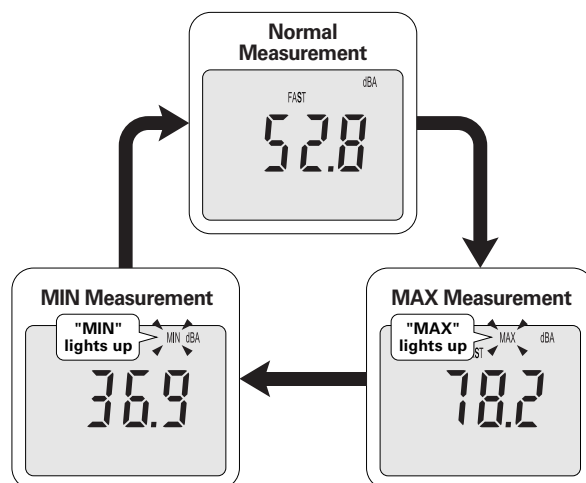


Fig-3

Typical noise levels

Sound Level	Sound Example	
120dB	Airplane take off at 300m	Very painful
110dB	Car horn at 2m	
100dB	Chain saw	
90dB	Noisy factory	Very noisy
80dB	Subway inside (open-window), Piano	
70dB	Vacuum cleaner, Noisy office	
60dB	Normal conversation, TV sound	Loud
50dB	Quiet office	
40dB	Library	Moderate
30dB	Whispering voice	
20dB	Leaves rustling	
		Quiet

6. Maintenance

6-1. BATTERY REPLACEMENT

⚠ WARNING

- Do not replace the battery with the wet hands. Electric shock may occur.
- Turn off the instrument before starting the replacement.

Replace the batteries when "Ⓞ" lights up on LCD.

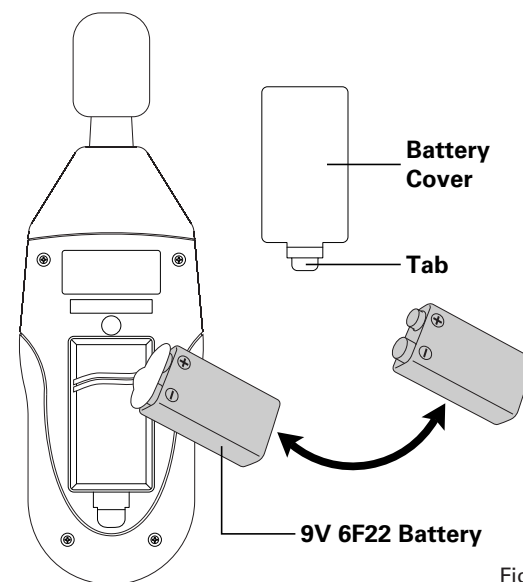


Fig-4

1. Finish the measurement, and turn the instrument off.
2. Remove the Battery Cover with pressing the tab.
3. Remove the exhausted battery.
4. Insert new 9V 6F22 battery in the correct polarity.
5. Set the battery, and put on the battery cover.

Supplied battery are for inspection purpose and might be exhausted earlier than new battery.

⚠ CAUTION

- Remove the battery when the instrument is out of use for a long time. The exhausted battery might leak electrolyte and corrode the inside.

6-2. PERIODICAL CHECK AND CALIBRATION

Periodical check and calibration is necessary to make safety measurements and to maintain the specified accuracy. The recommended check and calibration term is once a year and after the repair service. This service is available at **KAISE AUTHORIZED SERVICE AGENCY** through your local dealer.

6-3. REPAIR

Repair service is available at **KAISE AUTHORIZED SERVICE AGENCY** through your local dealer. Pack the instrument securely with your name, address, telephone number and problem details, and ship prepaid to your local dealer.

Check the following items before asking repair service.

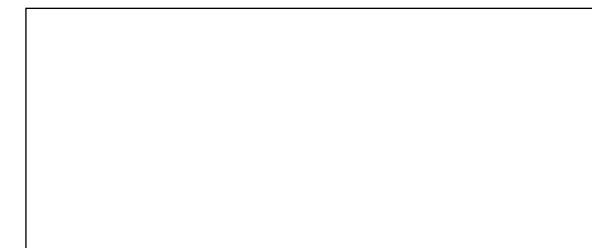
1. Check the battery connection, polarity, and capacity ("Ⓞ" lights up or not).
2. Confirm that measured accuracy is adopted in the operating environment.
3. Confirm that the body of this instrument has no cracks or any other damages.

WARRANTY

KG-70 are warranted in its entirety against any defects of material or workmanship under normal use and service within a period of one year from the date of purchase of the original purchaser. Warranty service is available at **KAISE AUTHORIZED SERVICE AGENCY** through your local dealer. Their obligation under this warranty is limited to repairing or replacing KG-70 returned intact or in warrantable defect with proof of purchase and transport charges prepaid. **KAISE AUTHORIZED DEALER** and the manufacturer, **KAISE CORPORATION**, shall not be liable for any consequential damages, loss or otherwise. The foregoing warranty is exclusive and in lieu of all other warranties including any warranty of merchantability, whether expressed or implied.

This warranty shall not apply to any instrument or other article of equipment which shall have been repaired or altered outside of **KAISE AUTHORIZED SERVICE AGENCY**, nor which have been subject to misuse, negligence, accident, incorrect repair by users, or any installation or use not in accordance with instructions provided by the manufacturer.

KAISE AUTHORIZED DEALER



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Product specifications and appearance are subject to change without notice due to continual improvements.

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