BLACK CANYON

SOUND LEVEL METER   T9-103

INTRODUCTION

This meter is a mini sound level meter. Its features include overrange indication, Max/Min measurement mode, data hold, low battery indication, auto power-off and so on. It can be used to measure the sound level in all kinds of environmental projects, such as factories, schools, offices, families, traffic roads and various occasions.

GENERAL SPECIFICATION

Display: 4 digits LCD, with backlight
Frequency Weighting: A
Measuring Range: 30dB - 130dB
Frequency Range: 30Hz - 8KHz
Resolution: 0.1dB
Accuracy: ± 1.5dB
Overrange Indication:
" OL " appears when the measured value is higher than the upper limit of the measuring range.
" Lo " appears when the measured value is lower than the lower limit of the measuring range.
MAX/MIN Measurement Mode
Time Weighting: FAST mode and SLOW mode
Microphone: Omni-directional Condenser Microphone
Operating Altitude: < 2000m above sea level
Operating Environment: 0～40℃, 20%～80%RH
Storage Environment: -10℃～50℃, <90%RH
Battery: 1.5V AAA battery or equivalent, 3 pieces
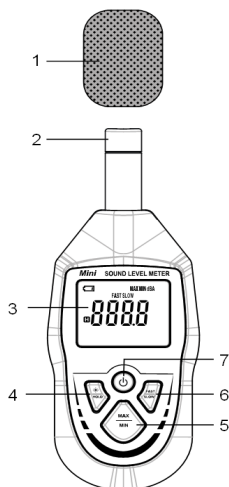**Size:** 160×54.4×32 (mm)
Weight: about 110 g (including battery)

SYMBOLS

⚠ Warning! Caution!
CE Conforms to European Union directives

METER DESCRIPTION

1. Wind Cap

If the wind speed exceeds 10m/sec, please attach the wind cap to the microphone. This can decrease the measurement errors caused by wind noises.

2. Omni-directional Condenser Microphone

3. LCD Display

4. " ☀ HOLD " Button

Used to enter or exit Data Hold mode as well as to turn on/off the backlight.

5. " MAX MIN " Button

Used to enter or exit MAX measurement mode or MIN measurement mode.
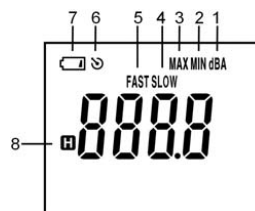
6. " FAST SLOW " Button

Used to switch between FAST mode and SLOW mode.

7. " ⏻ " Button

Used to turn on/off the meter. When the meter is in "on" state, this button can also be used to enable or cancel auto power-off feature.
The meter will turn off automatically if there is no button operation for about 3 minutes.

UNDERSTANDING THE DISPLAY

Explanations:
1. **dBA** --- Frequency weighting A unit: dB
2. **MIN** --- The minimum reading is being displayed.
3. **MAX** --- The maximum reading is being displayed.
4. **SLOW** --- SLOW mode is selected.
5. **FAST** --- FAST mode is selected.
6. 🕃 --- Auto power-off feature is enabled.
7. ▭ --- Low battery indication
8. **H** --- Data hold

OPERATION INSTRUCTION

1. Turning on the meter

Press the " ⏻ " button once to turn on the meter. The display shows all segments briefly and then the meter enters measurement mode.

2. Turning on/off the backlight

You can hold down the " ☀ HOLD " button for about 2 secs to turn on or off the backlight, if necessary.

3. Selecting FAST mode or SLOW mode

Press the " FAST SLOW " button once to select FAST mode or SLOW mode, the display will show the corresponding symbol.

4. Making measurements

Hold the meter in hand and point its microphone towards the source of noise/sound to be measured. Then read the reading on the display.

5. Data hold

Briefly press the " ☀ HOLD " button once to freeze the present reading, the symbol " **H** " will appear on the display as an indicator. Briefly press once again to release the display, " **H** " will disappear. The meter will stop recording and detecting new values until you unlock the readings on the display.

## 6. How to use MAX measurement mode and MIN measurement mode

a. Press the " MAX MIN " button once. The meter enters the MAX measurement mode and the symbol "MAX" appears on the display as an indicator. The display shows the maximum reading of all readings taken since this mode is activated.

b. Press this button once again. The meter enters the MIN measurement mode and the symbol "MIN" appears as an indicator. The display shows the minimum reading of all readings taken since the MIN measurement mode is activated.

c. Press the button once more, the meter will exit MIN measurement mode and return to normal operation.

Note: In MAX measurement mode or MIN measurement mode, if you press the " ☀ HOLD " button to lock the readings, the meter will stop recording and detecting new values until you unlock the readings on the display.

7. Turning off the meter

1) When the meter is in "on" state, press and hold the " ⏻ " button to enable or cancel auto power-off feature. The display will show " ↻ ", indicating auto power-off feature is enabled.

2) The meter will turn off automatically if you have not pressed any button for about 3 minutes. At any time, you can manually turn off the meter by pressing the " ⏻ " button.

CALIBRATION

1. Remove the wind cap from the meter if you are using the wind cap.

2. Make sure the meter is in off state and briefly press the " ⏻ " button while holding down the " FAST SLOW " button and the " MAX MIN " button. After you see a flash of the backlight, release all buttons. The display shows " CALI " indicating the meter is in calibration mode.

3. Insert the meter's microphone nozzle carefully into the insertion hole of the standard sound source (94dB,1kHz sine wave), then briefly press the " ☀ HOLD " button. The display starts flashing. About 2 seconds later, and the meter turns off automatically and the calibration is completed.

Note:

1. Our company does not provide the standard sound source(also called calibrator), you can buy one yourself.

2. Use only a standard sound source which outputs 94dB, 1kHz sine waves.

3. The meter has been calibrated before leaving the factory, it is recommended to calibrate the meter at least one time every one year.

NOTE

1. Do not let any liquid enter into the microphone and the case.
2. Never use the meter to make measurements on or near live parts.
3. Do not use this meter where explosive gas, vapor or substance is present or where there is much dust or steam.
4. Do not store the meter in an environment with high temperature or humidity. Do not drop, bump or abuse the meter.
5. Remove the batteries if you don't use the meter for a long period of time.

CLEANING

Use soft dry cloth to clean the meter. Do not use abrasive detergent or solvent.

BATTERY REPLACEMENT

When the symbol " ▭ " appears on the display, the batteries are low and must be replaced immediately. To replace the batteries, turn off the meter first. Then remove the battery cover and replace the exhausted batteries with new ones of the same type, make sure that the polarity connections are correct. Reinstall the battery cover.

DECLARATION

1. This Instruction Sheet is subject to change without notice.
2. Our company will not take the other responsibilities for any loss.
3. The contents of this Instruction Sheet can not be used as the reason to use the meter for any special application.

DISPOSAL OF THIS ARTICLE

If you at some point intend to dispose of this article, then please keep in mind that many of its components consist of valuable materials, which can be recycled. Please do not discharge it in the garbage bin, but check with your local council for recycling facilities in your area.