# **VOLTCRAFT**

### Measurement instruments used in schools, training facilities, do-it-yourself and hobby workshops should not be handled unless supervised by trained, responsible personnel.

- · Please consult a specialist if you have any doubts regarding the use or safety of the product.
- · If you have any questions that are not answered in these operating instructions, please contact our technical customer service or other professionals.

### b) Taking measurements

- · Wear sufficient hearing protection when measuring loud sound sources. Risk of hearing damage.
- · Observe the permissible ambient temperatures (see "Technical data") in order to avoid incorrect measurements.
- · Do not switch the measuring instrument on immediately after it has been taken from a cold into a warm environment. The condensation that forms might destroy your device. Allow the device to reach room temperature before switching it on.

### c) Battery information

- · Batteries should be kept out of the reach of children.
- · Do not leave batteries lying around in the open; there is a risk of them being swallowed by children or domestic animals. If swallowed, consult a doctor immediately.
- · Leaking or damaged batteries can cause burns if they come into contact with the skin. You should therefore wear suitable protective gloves.
- · Batteries must not be short-circuited, opened or thrown into a fire. There is a danger of explosion!
- · Do not recharge normal, non-rechargeable batteries; they may explode! Only recharge rechargeable batteries that are intended for this purpose; use a suitable battery charger.
- · Never mix batteries of different charge states or different brands.
- · Please pay attention to the correct polarity (plus/+ and minus/-) when inserting
- · Remove batteries from the device if you will not be using it for a longer period.

# Operating instructions Sound level meter SL-10

Item no. 1662850

#### Intended use

The sound level meter is for measuring sound levels in the intensity range 30-130 dB.

It is a device used to check sound levels or for simple measurements of environmental sounds. It is not suitable for use in laboratories or for scientific purposes.

The measurement signal is evaluated based on human hearing frequencies (A-weighting) in the frequency range from 31.5 Hz to 8 kHz.

The measurement interval can be toggled.

The maxima or minima can be recorded.

In order to suppress disturbing wind noise, an attachable wind deflector is enclosed, which does not affect the noise level measurement.

It operates on batteries

It may only be used in indoor rooms. Contact with moisture, e.g., in bathrooms or the like, must be avoided.

For safety and approval reasons, you may not convert and/or alter the product in any way. If you use the product for other purposes than those described above, the product may be damaged. Furthermore, improper use can cause risks such as short-circuits, fire, etc. Please read the operating instructions carefully and do not discard them. If you pass the product on to a third party, please include the operating instructions.

This product complies with the applicable national and European regulations. All names of companies and products are the trademarks of the respective owners. All rights reserved.

## Package contents

- Sound level meter SL-10
- · Wind protection
- · Batteries (3 x AAA)
- · Operating Instructions



### Up-to-date operating instructions

Download the latest operating instructions via the link www.conrad.com/downloads or scan the QR code. Follow the instructions on the website.

# Explanation of symbols



An exclamation mark in a triangle indicates important instructions in these operating instructions which absolutely have to be observed.



The arrow symbol indicates specific tips and advice on operation.

### Safety instructions



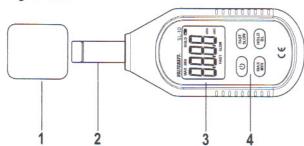
Please read the operating instructions carefully and pay particular attention to the safety instructions. We do not assume liability for any injuries/material damages resulting from failure to observe the safety instructions and the information in these operating instructions regarding the proper use of the product. Furthermore, in such cases, the warranty/guarantee will be null and void.

### a) General

- . The product is not a toy. Keep out of the reach of children and pets.
- · Do not carelessly cast aside the packaging material. It may become a dangerous plaything for children.
- · Protect the product from exposure to humidity, moisture, extreme temperatures, direct sunlight, strong vibrations and combustible gases, vapours and solvents.
- · Please handle the product carefully. It can be damaged by impact, blows, or by being dropped, even from a low height.
- · If safe operation is no longer possible, take the device out of service and secure it against unintended use. Safe operation is no longer possible, if the product:
  - shows visible damage,
  - no longer functions properly.
- has been stored under adverse ambient conditions for an extended period of time or
- has been exposed to considerable strain during transport.
- · On industrial sites, the accident prevention regulations of the association of the industrial workers' society for electrical equipment and utilities must be followed!



# Operating controls

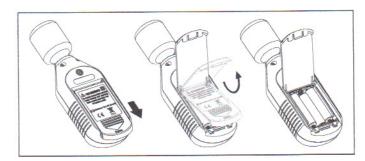


- Wind protection
- 2 Measurement microphone
- Display
- Operating buttons
- Display of MAX/MIN values 5
- 6 Display HOLD
- 7 Battery indicator
- Display for measured value 8
- Display FAST/SLOW
- 10 Display of measurement unit



# Inserting/replacing batteries

- · Slide the battery compartment cover on the back towards OPEN and fold it open.
- · If necessary, remove the empty batteries and insert three batteries of type 1.5 V Micro/AAA, with the correct polarity (observe +/Plus and -/Minus).
- · The correct polarity is indicated inside the battery compartment.
- · Close the battery compartment again.
- · The batteries must be changed when the battery indicator (7) appears or if the display (3) does not show anything anymore.



# Operation



When taking measurements, always point the measuring microphone (2) exactly towards the sound source to be measured.

Ensure that there are no persons or objects between the measuring microphone (2) and the sound source.

To avoid affecting the sound waves, hold the measuring device as far away from your body as possible or place it on a stand.

Avoid vibrations or movements.

Use the enclosed wind deflector (1) for wind or strong draughts so as not to distort the measurement through wind sounds. The wind deflector (1) does not distort the measurement results.

- Press the button once to switch on the device.
- · Press the button once to switch off the device.

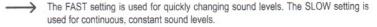


The device turns off automatically after approx. 5 minutes of inactivity.

To deactivate the automatic switch-off for the next measurement, press the button with the device switched off and then press and hold the button. The display (3) shows the respective status ("APO OFF" = automatic switch-off deactivated).

The automatic switch-off is activated when the device is switched on the next time.

- When switched on, the sound level meter immediately begins to measure the sound level and displays the measured values in the measurement value display (8).
- Press the button to toggle between maximum measurement value, minimum measurement value and current measurement value. The currently displayed values are indicated with the MAX/MIN display (5) (nothing displayed >> current measurement value).
- Press the button to "freeze" the displayed value. The current measurement value is shown continuously, HOLD (6) is shown in the display. Press the button again to return to the normal display.
- Press and hold the button to switch the display light on or off.
- Press the button to toggle the measurement interval. FAST/SLOW (9) in the display indicates the set measurement interval (FAST = 125 ms, SLOW = 1 s).



If the measured values are outside of the measurement range, the display (3) shows "UN" or
"OL" ("UN" = measurement values < 30 dB, "OL" = measurement values > 130 dB).

### Main points

Button	short confirmation	long confirmation
0	Switching off	Switching on
(MAX MIN	Toggling of display type	
FAST BLOW	Toggling of measurement interval	
NOLD BL	"Freeze" measurement value	Display light on/off Together with (b) Deactivating of automatic switch-off

### Troubleshooting

The device cannot be switched on, the display (3) does not switch on

· Are the batteries spent?

The displayed measurement value is incorrect or changes when the measurement signal changes

- · Are the batteries spent?
- · Is the signal to be measured inside of the measurement range?
- Are there obstacles or persons present between the sound source and the measurement microphone (2)?
- · Was the maximum or minimum measurement value display activated?
- · Was the measurement value display "frozen"?

### Care and cleaning



Do not use abrasive cleaning agents, cleaning alcohol or other chemical solutions since these could damage the housing or even impair operation.

- The product is maintenance-free for you, apart from the occasional battery replacement. Inside the product are no components that need to be maintained by you.
- · Use a dry, lint-free cloth for cleaning.

## Disposal

### a) Product



Electronic devices are recyclable and do not belong in the household waste. Dispose of an unserviceable product in accordance with the relevant statutory regulations. Remove the batteries that may be inserted and dispose of them separately from the product.

### b) Batteries

As the end user, you are required by law (Battery Ordinance) to return all used batteries/rechargeable batteries; disposal in household waste is prohibited!



Batteries/rechargeable batteries contain harmful materials and are labelled with the symbol shown to indicate that disposal in the household waste is forbidden. The symbols of the critical heavy metals are: Cd=cadmium, Hg=mercury, Pb=lead (marking can be seen on the battery / rechargeable battery, e.g., underneath the refuse bin symbol shown on the left).

You can return your used batteries/rechargeable batteries free of charge at the official collection points of your community, in our stores, or at places where batteries or rechargeable batteries are sold!

You thereby fulfil your statutory obligations and contribute to the protection of the environment.

### Technical data

Operating voltage	. 4.5 V/DC
Batteries	. 3 x 1.5 V micro-cell (AAA)
Battery life	approx. 10 h
Automatic switch-off	. approx. 5 min
Measurement range	. 30 - 130 dB (A)
Frequency weighting	. A-weighting (human hearing frequencies)
Frequency range	. 31.5 – 8000 Hz
Accuracy	. ±1.5 dB (@1 kHz, standard sound source)
Measurement interval	. 125/1000 ms
Display	. 4 digits
Display resolution	. 0.1 dB
Microphone	. 12.7 mm condenser microphone
Dimensions	. 155 x 50 x 27 mm
Weight	105 g

# **Environmental conditions**

Operating conditions	.0 to +30 °C / max. 80% RH
	>+30 to +40 °C / max. 80% RH
	>+40 to +50 °C / max. 45% RH
Storage conditions	20 to +60 °C / <80% RH
Height	. 0 - 2000 m above sea level

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