

## Soundlevel

SW

#### BSWA-01



## PROFESSIONAL MEASURING

## **English Version**

## **Manual Sound Calibrator**

Version 1.0

2024-07

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BSWA-01-BA-e-2410

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# English

## SAUTER SW

#### Soundlevel

## **Manual Sound Calibrator**

Version 1.0 2024-07

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## 1 Technical Data

SAUTER Modell	BSWA-01
Standard	IEC 60942:2003 Class 2, ANSI S1.40-1984, GB/T 15173-1994
Sound Pressure Level	94.0dB and 114.0 dB ±0.3 dB
Frequency	1000Hz ±0.5%
Microphone Diameter	According to IEC 61094-4: 1/2" & 1/4"
Harmonic Distortion	<2% Stabilization Time: <10 s
Equivalent Free- field Level	-0.2 dB for 1/2" Microphones
Equivalent Random Incidence Level	+0.0 dB for 1/2", 1/4"
Reference Conditions	Ambient Temperature: 25°C (77°F) / Ambient Pressure: 101.3 kPa Humidity: 55% RH / Effective Load Volume: 250 mm3
Environmental Conditions	Temperature: -10°C-50°C (14°F -122°F) / Pressure: 65 kPa to 108 kPa Humidity: 10 to 90%RH (non-condensing)
Power Supply	Batteries: 1.5 V LR6 (AA battery) × 2 Lifetime: Typically, 40 hours with alkaline batteries at 25°C (77°F)
Dimensions	48*70*70mm
Weight	Weight: ≈180g, including batteries

## 2 Declaration of conformity

The current EC/EU Declaration of Conformity can be found online at <a href="https://www.kern-sohn.com/shop/de/DOWNLOADS/">https://www.kern-sohn.com/shop/de/DOWNLOADS/</a>

## 3 Overview

## 3.1 Scope of delivery

- Manual
- Battery AA 1,5 V 2x

## 3.2 Components



Beschreibung	Funktion
1	Switch for Changing sound pressure from 94dB to 114dB
2	LED 114dB
3	LED 94 dB
4	Power on switch
5	Adaptor ¼ inch microphone

## 4 Basic information (general)

#### 4.1 General information on warning notices

Warnings are used in these operating instructions to warn you of possible personal injury or damage to property in certain situations.

Signal word	Description of the
DANGER	Failure to observe the instructions will lead directly to serious injury, permanent impairment (e.g. loss of a limb) or death of the user or third parties
WARNING	Failure to observe the instructions may result in serious injury, permanent impairment (e.g. loss of a limb) or death of the user or third parties
CAUTION	Failure to observe the instructions may result in minor injuries or temporary damage to the user or third parties (e.g. minor cuts)
NOTE	Failure to observe the instructions may result in damage to property

#### Symbols in warning notices:

Symbol	Meaning
Warning signs	Warning signs warn you of dangers that may lead to personal injury. The symbol indicates the type of hazard.
	Indicates general hazards or a danger point
4	Warning of electrical voltage
	Warning of flammable substances
	Warning of explosive substances
	Warning of electrostatically sensitive assemblies

#### 4.2 Intended use

Only use the precision measuring device to determine colour spectra and wavelengths. In order to use the device as intended, drastic changes in the external environment of the device should be avoided during the measurement, e.g. flickering of the ambient light and rapid temperature fluctuations. During the measurement, the device should

be kept stable, the measurement port should be close to the measurement object, and vibration and displacement should be avoided. Keep the instrument clean and tidy. After use, place the appliance and its accessories in the appliance box and store it properly. The device should be stored in a dry and cool environment.

If you have any questions, please contact SAUTER or visit our website <a href="https://www.sauter.eu.">www.sauter.eu</a>.

#### 4.3 Improper use

Do not use the device in potentially explosive atmospheres or for measurements in liquids or on live parts. This device is not waterproof and cannot be used in environments with high humidity or water mist. Avoid the ingress of liquids, powders or solid foreign bodies such as water and dust into the measuring opening and the housing.

Unauthorised structural changes, additions or conversions to the device are prohibited. Unauthorised modifications may impair the accuracy of the device or even cause irreversible damage to the device.

#### 4.4 Warranty

Warranty expires with

- Non-compliance with our specifications in the operating instructions
- Use outside the described applications
- Modifying or opening the device
- Mechanical damage and damage caused by media, liquids, natural wear and tear
- Improper set-up or electrical installation
- Improper assembly or electrical installation

## 5 Basic warnings and safety instructions

#### 5.1 Observe the notes in the operating instructions



Read the operating instructions carefully before commissioning/using the appliance, even if you already have experience with SAUTER appliances. Always keep the instructions in the immediate vicinity of the appliance.

#### 5.2 Staff training

The appliance may only be used by persons who have read and understood the operating instructions, in particular the chapter on safety.

#### 5.3 Security

#### **⚠ WARNING**

#### Read all safety information and instructions.

Failure to observe the safety information and instructions may result in electric shock, fire and/or serious injury.

Keep all safety information and instructions for future reference.

- Make sure that there are never people or objects under the load, as they could be injured or damaged!
- The design of the measuring device must not be modified. This can lead to incorrect measurement results, safety-related defects and the destruction of the measuring device
- Do not operate the appliance in potentially explosive rooms or areas and do not install it there.
- Do not operate the device in an aggressive atmosphere.
- Do not immerse the appliance in water. Do not allow any liquids to penetrate the inside of the appliance.
- The device may only be used in a dry environment and under no circumstances in rain or at a relative humidity above the operating conditions.
- Protect the device from permanent direct sunlight.
- Do not expose the appliance to strong vibrations.
- Do not remove any safety signs, stickers or labels from the appliance. Keep all safety signs, stickers and labels in a legible condition
- Do not open the device

# 4

#### **⚠ WARNING**

#### Risk of injury from electric shock!

- There is a risk of short circuit due to liquids penetrating the housing!
- Do not immerse the appliance and accessories in water. Ensure that no water or other liquids get into the housing.
- Work on electrical components may only be carried out by an authorised specialist company!

#### **⚠ WARNING**



#### **Choking hazard!**

Do not leave the packaging material lying around carelessly. It could become a dangerous toy for children.

- The appliance is not a toy and does not belong in the hands of children.
- This appliance can be dangerous if it is used improperly or not as intended by untrained persons! Observe the personnel qualifications!

#### **⚠ WARNING**



#### Electrostatic sensitive device!

- The device can be destroyed by electrostatic discharge. Connectors for HF signals are particularly at risk.
- Please observe the handling instructions for electrostatically sensitive components.

#### **⚠ WARNING**





Improper use of rechargeable or non-rechargeable batteries can cause them to catch fire, explode, emit toxic vapours or release corrosive liquids. The following therefore applies to rechargeable and non-rechargeable batteries:

- Protect from fire and heat.
- Never expose to high pressure or microwaves.
- Do not bring into contact with liquids or chemicals.
- Never bring the electrical contacts of rechargeable batteries and batteries into contact with metal objects or short-circuit them.
- Never modify rechargeable batteries, batteries and chargers.
- Batteries must never be charged.
- Never use or charge a defective, damaged or deformed
- Do not use any other power supply units that do not comply with the technical specifications. Doing so may shorten the battery life or even cause an electric shock, which may damage the appliance or cause a fire.
- If the appliance is not used for an extended period of time, the external power supply should be disconnected to prevent the appliance from burning and causing a fire.
- If you do not use the device for a long time, you should charge it every fortnight, otherwise the internal battery is easily damaged, making it impossible to use the device again

#### **CAUTION**

- Keep a sufficient distance from heat sources.
- Do not use the device in environments with high humidity or water mist.

## NOTE

- To prevent damage to the device, do not expose it to extreme temperatures, extreme humidity or moisture.
- Do not use harsh cleaning agents, abrasive cleaners or solvents to clean the appliance.

#### 6 Transport and storage

#### **Note**

If you store or transport the device improperly, the device may be damaged. Observe the information on transporting and storing the appliance.

#### **Transport**

When transporting the appliance, use the transport case included in the scope of delivery to protect the appliance from external influences.

#### **Storage**

Observe the following storage conditions when the appliance is not in use:

- dry and protected from frost and heat
- protected from dust ingress in the transport case
- the storage temperature corresponds to the technical data

#### Packaging/return transport

Returns are only possible within the limits of the general terms and conditions Keep all parts of the original packaging for any necessary return transport.

- Only the original packaging is to be used for return transport.
- Disconnect all connected cables and loose/movable parts before despatch.
- Refit any transport locks provided.
- Secure all parts against slipping and damage.

## 7 Unpacking and commissioning

#### 7.1 Unpacking



In the event of a return, please observe the instructions in the chapter "Packaging/return transport

On receipt of the appliance, you should first check that no damage has occurred during transport, that the outer packaging, the housing, other parts or even the appliance itself have not been damaged. If any damage is evident, please notify SAUTER GmbH immediately.

#### 7.2 Initial commissioning

To ensure the function of the measuring device, you must insert the batteries (AA, 2x)

## 8 Operation

#### 8.1 How to measure



- To start the measurement, use the needed adaptor to match the microphone diameter of your sound level meter and place it in.
- Switch on the sound level meter to the measurement modus (or calibration modus if you want to calibrate the device).
- If the sound level meter is in the measurement mode switch on the BSWA-01 by pressing the power on switch.
- The calibrator starts to send at 94dB for 8 to 10 seconds. After the period it will switch off.
- Check the readout at the sound level meter display for matching
- Is the deviation to big, corresponding to the tolerance of your checked sound level meter read the manual of your sound level meter to adjust it.
- If you want to check the 114 dB switch on your sound level meter, place it in the adaptor, switch on the calibrator and change to 114 dB by pressing the Switch for Changing sound pressure. Check the read out at the sound level meter.

## 9 Battery operation / power supply

## **⚠ WARNING**



Risk of fire and explosion due to incorrect charging or defective battery



Fire or explosion can lead to serious injuries

- ⇒ Be sure to observe the notes on rechargeable batteries and batteries in the Safety chapter.
- ⇒ Observe the national and international transport regulations for devices with a permanently installed lithium-ion battery.
- □ Do not replace defective batteries yourself! Contact SAUTER or a specialist dealer directly.

This device is powered by commercially available batteries (AA, 2x). Please only use undamaged batteries and replace them if necessary to ensure that the device functions properly.

## 10 Maintenance, servicing and disposal



Disconnect the appliance from the power supply before carrying out any maintenance, cleaning or repair work.

#### 10.1 Cleaning

Clean the device with a damp, soft, lint-free cloth. Ensure that no moisture penetrates the housing. Do not use sprays, solvents, alcohol-based cleaners or abrasive cleaners, only clear water to moisten the cloth.

#### 10.2 Maintenance and repair

Do not make any changes to the appliance and do not install any spare parts. Contact the manufacturer for repair or device inspection.

#### 10.3 Waste disposal



Old appliances and accessories should not be disposed of with household waste.

The operator must dispose of the packaging and appliance in accordance with the applicable national or regional legislation at the place of use.

The device consists of various components and materials, such as

- Electronic components (circuit boards, electrical cables)
- Plastic (housing)
- Metal

Improper disposal of the appliance can have harmful effects on people and the environment.

Proper and environmentally friendly disposal can prevent harmful effects and recover raw materials.

#### Disposal of rechargeable batteries and batteries:



Rechargeable batteries and batteries do not belong in household waste.

The disposal of rechargeable batteries and batteries must be carried out by the operator in accordance with the applicable national or regional law of the place of use.

## 11 Battery law

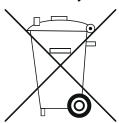
Note in accordance with the Battery Act - BattG:

#### **INFORMATION**

• The following information is valid for Germany.

In connection with the sale of batteries and rechargeable batteries, we are obliged as a dealer under the Battery Act to inform end users of the following:

- End users are legally obliged to return used batteries and rechargeable batteries.
- After use, batteries and rechargeable batteries can be returned free of charge to municipal collection centres or retailers. The batteries/rechargeable batteries must have reached the end of their normal service life, otherwise precautions must be taken against short circuits.
- The return option is limited to batteries and rechargeable batteries of the type that we carry or have carried in our range and to the quantity that end consumers usually dispose of.
- A crossed-out wheelie bin means that you must not dispose of batteries or rechargeable batteries in household waste. Old batteries or rechargeable batteries may contain harmful substances that can damage people and the environment if not disposed of correctly.



Batteries containing harmful substances are labelled with a symbol consisting
of a crossed-out dustbin and the chemical symbol (Cd = cadmium, Hg =
mercury, or Pb = lead) of the heavy metal that is decisive for the classification
as containing harmful substances.





