




VOLTCRAFT DL-161S Sound Level Meter Instruction Manual

[Home](#) » [VOLTcraft](#) » VOLTcraft DL-161S Sound Level Meter Instruction Manual 

VOLTCRAFT

CE

Operating Instructions
DL-161S Sound Level Meter
Item no: 105054

Contents

- [1 Introduction](#)
- [2 Intended use](#)
- [3 Delivery contents](#)
- [4 Operating instructions](#)
- [5 Description of symbols](#)
- [6 Safety instructions](#)
- [7 Product overview](#)
- [8 Replace battery](#)
- [9 Software](#)
- [10 Connection and setup](#)
- [11 Operation](#)
- [12 Microphone stand](#)
- [13 Cleaning and care](#)
- [14 Disposal](#)
- [15 Technical data](#)
- [16 Documents / Resources](#)
- [17 Related Posts](#)

Introduction

Dear customer,

Thank you for purchasing this product.

If there are any technical questions, please contact: www.conrad.com/contact

Intended use

This product is a handheld sound level (decibel) meter with data logging functionality.

This product complies with the requirements of EN 61672-1 for a Class 2 sound level meter.

Contact with moisture must be avoided under all circumstances.

If you use the product for purposes other than those described, the product may be damaged.

Improper use can result in short circuits, fires, or other hazards.

The product complies with the statutory national and European requirements.

For safety and approval purposes, you must not rebuild and/or modify the product.

Read the operating instructions carefully and store them in a safe place. Make this product available to third parties only together with the operating instructions.

All company names and product names are trademarks of their respective owners.

All rights reserved.

Delivery contents

- Sound level meter
 - Protective cover
 - Wind noise suppressor
- Stand / surface mount
- 2x dowels
- 2x screws
- 3.6 V ½ AA lithium battery
- CD-ROM
- Operating instructions

Operating instructions

Download the latest operating instructions from www.conrad.com/downloads or scan the QR code shown.

Follow the instructions on the website.

Description of symbols



The symbol warns of hazards that can lead to personal injury.

Safety instructions

Read the operating instructions carefully and especially observe the safety information. If you do not follow the safety instructions and information on proper handling, we assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee.

6.1 General

- The product is not a toy. Keep it out of the reach of children and pets.
- Do not leave packaging material lying around carelessly. This may become dangerous playing material for children.

- If you have questions which remain unanswered by this information product, contact our technical support service or other technical personnel.
- Maintenance, modifications and repairs must only be completed by a technician or an authorised repair centre.

6.2 Handling

- Handle the product carefully. Jolts, impacts or a fall even from a low height can damage the product.

6.3 Operating environment

- Do not place the product under any mechanical stress.
- Protect the appliance from extreme temperatures, strong jolts, flammable gases, steam and solvents.
- Protect the product from high humidity and moisture.
- Protect the product from direct sunlight.

6.4 Operation

- Consult an expert when in doubt about the operation, safety or connection of the product.
- If it is no longer possible to operate the product safely, take it out of operation and protect it from any accidental use. DO NOT attempt to repair the product yourself. Safe operation can no longer be guaranteed if the product:
 - is visibly damaged,
 - is no longer working properly,
 - has been stored for extended periods in poor ambient conditions or
 - has been subjected to any serious transport-related stresses.

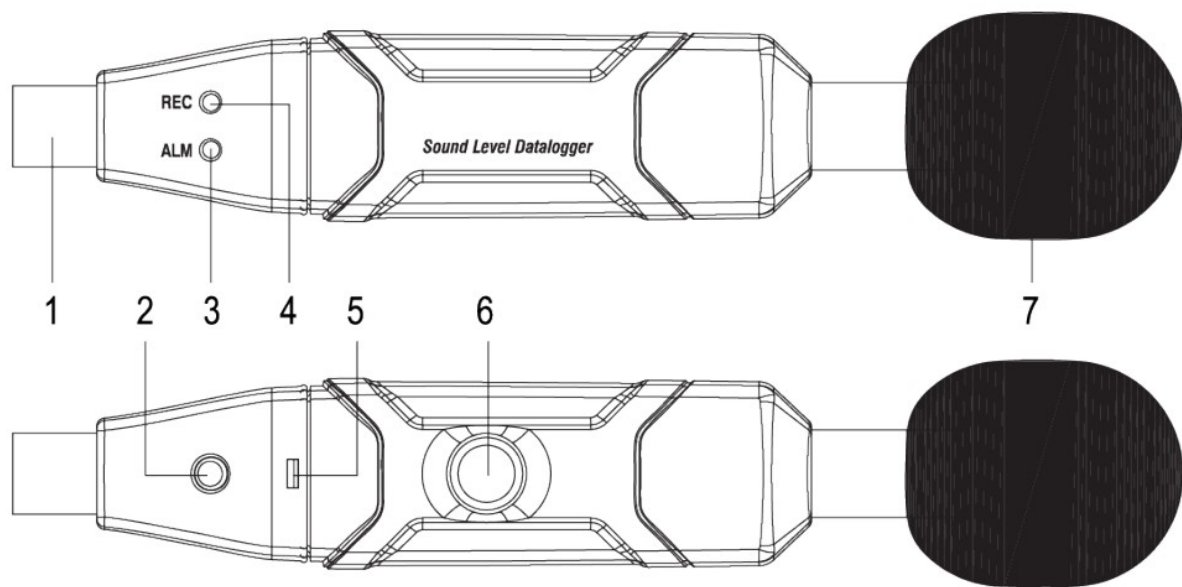
6.5 Batteries

- Correct polarity must be observed while inserting batteries.
- Batteries should be removed from the device if it is not used for a long period of time to avoid damage through leaking. Leaking or damaged batteries might cause acid burns when in contact with skin, therefore use suitable protective gloves to handle corrupted batteries.
- Batteries must be kept out of reach of children. Do not leave batteries lying around, as there is risk, that children or pets swallow them.
- Batteries must not be dismantled, short-circuited or thrown into fire. Never recharge non-rechargeable batteries. There is a risk of explosion!

6.6 Connected devices

- Also observe the safety and operating instructions of any other devices which are connected to the product.

Product overview

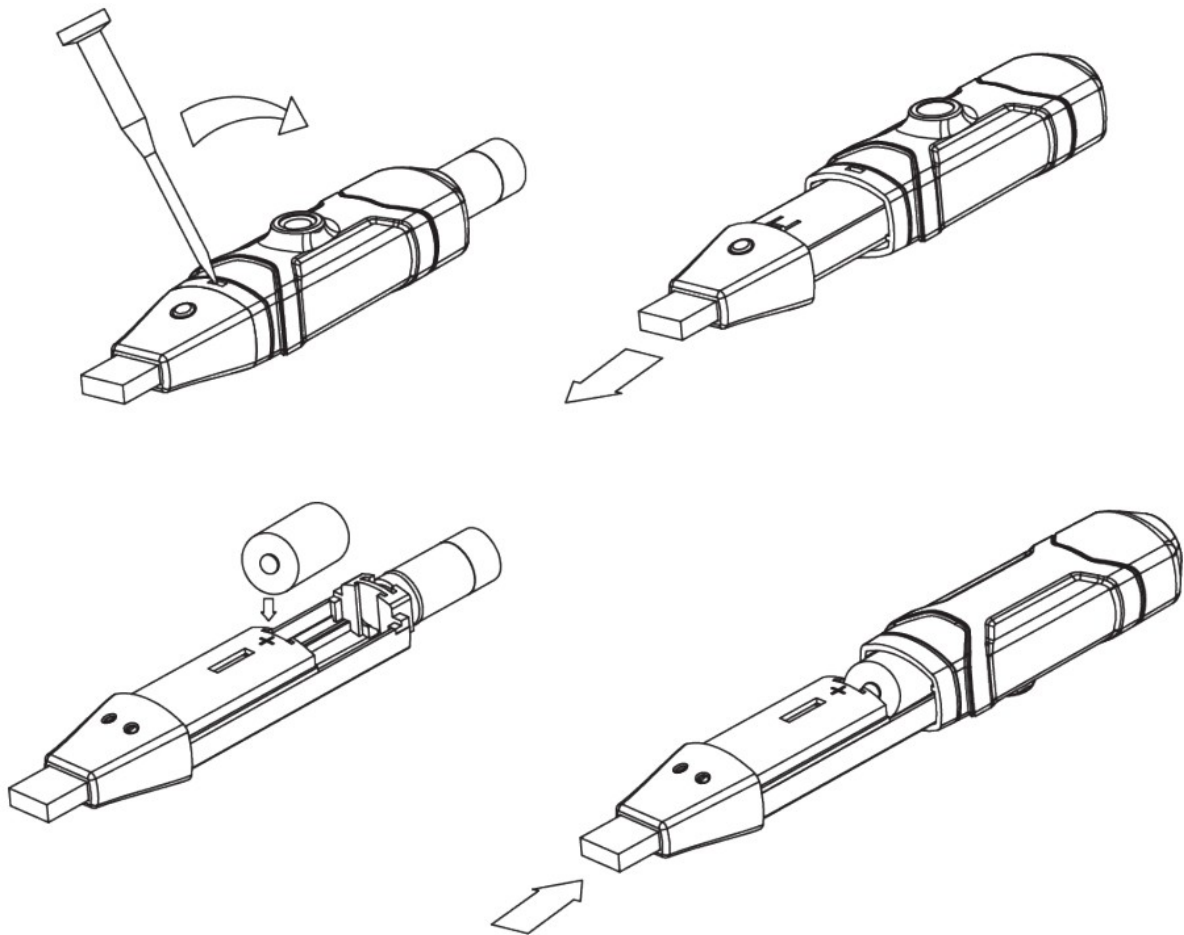


1. USB-A plug
2. Log data button
3. LED ALM: red / yellow
4. LED REC: green
5. Battery compartment
6. Mounting thread
7. Microphone with suppressor

Replace battery

Notes:

- Replace the battery when the LED flashes red and green at 10 s intervals.
- Back up any important data before removing the battery.
- Data is saved for approx. 30 minutes with no battery installed.



1. Using a blunt pointed object (e.g. mini flat-head screwdriver), gently release the cover.
2. Insert a battery matching the polarity shown.
3. Replace the cover, it should lock into place.

Software

Utilize the software to perform various actions such as configuring settings, performing calibration, analyzing results, and more.

9.1 Software installation

1. Insert the CD-ROM into the drive, installation should start automatically.
→ If installation does not start automatically, open the file "setup.exe".
2. Follow the on-screen instructions to complete the installation process.

Tips:

For the latest version of the software:

- visit www.conrad.com/downloads
- search the item number

9.2 Software Help

Access the help menu via the installed software:

Help → Help topics...

Connection and setup

Connect the product to a computer and use the bundled software to interface with it.

Preconditions:

✓ The software is installed on your computer.

1. Connect the product to an available USB port on the computer and then open the software.
2. Follow the onscreen instructions to connect the product with the software.
3. Use the software to interface with the product. See section: Software Help [▶ 21].

Important:

Risk of data loss. Never disconnect the product from your computer when data transfer is in progress.

Operation

11.1 Recording tips

- Point the microphone directly at the sound source at a distance of 1 m.
- Make sure there are no objects between the microphone and the sound source.
- To not influence the sound waves, extend the microphone away from the body using an outstretched arm or mount it to a stand.
- If possible, move approx. 2 m away from the measuring spot.
- Minimize device vibration or movement.
- Wind noise affect results, use the included foam suppressor if the wind speed >10 m/s.

11.2 Capture sound data

Use the product as a stand alone device or connected to a computer and controlled via the included software.

- Press and hold the log data button to START/STOP recording.
- The default recording behavior can be changed via the included software.

11.3 LED signal descriptions

Signal	Description
ALM: red	2x flash when above the upper limit of preset alarm.
	1x flash when below the lower limit of preset alarm.
	6x flash at 2 second intervals if the measurement was stopped manually.
ALM: yellow	Flashes at 10 second intervals after the measurement was stopped manually .
REC: green	During measurement, flashes at the same frequency configured under “LED Flash Cycle Setup”. See section: Software Help [► 21].
	6x flash in 2 seconds if the measurement is started manually .
	5x flash after a new battery has been inserted.
Red – green – yellow	Indicates measuring has automatically started.
Red – yellow	Indicates data transfer is in progress.
Red – green	Flashes at 10 second intervals when the battery needs to be replaced.

11.4 Viewing logged data

Preconditions:

✓ The included software is installed on your computer. See section: Software installation [► 20].

1. Connect the product to your computer. See section: Connection and setup [► 21].
2. View logged data in the software. See section: Software Help [► 21].
3. Disconnect the product from the computer when finished.

Note:

Keeping the product connected to the computer for extended periods of time can drain the battery.

11.5 Calibration

This product conforms to the EN 61672-1 standard for sound level meters. A Class 2 sound calibrator (sold separately) is required for generating a test signal.

To calibrate the sound level meter:

Preconditions:

✓ The included software is installed on your computer. See section: Software installation [► 20] ✓ You have a Class 2 sound calibrator that can generate a 94 dBA test signal.

1. Switch the product ON and connect the microphone to the sound calibrator.
Make sure there is a tight fit so the calibration chamber is sealed.
2. Set a reference signal on the sound calibrator: 94 dBA at 1 kHz.
3. Generate the test signal and then record those signals on the sound level meter. See section: Capture sound data [► 22].
4. Connect the product to your computer and display the measurements. See section: Connection and setup [► 21].

→ The measuring curve should show a constant sound level of 94 dBA. If there is a discrepancy between the sound level meter recording and reference signal, use the software to make an adjustment.

Note:

Refer to the software help guide for information about how to launch the calibration module and make adjustments. See section: Software Help [► 21].

Microphone stand

- You can place the stand on a flat level surface or wall mount it.
- Use the thread mount on the bottom of the product to attach the stand.

Cleaning and care**Important:**

- Do not use aggressive cleaning agents, rubbing alcohol or other chemical solutions. They damage the housing and can cause the product to malfunction.
 - Do not immerse the product in water.
1. Clean the product with a dry, fibre-free cloth.

Disposal**14.1 Product**

This symbol must appear on any electrical and electronic equipment placed on the EU market. This symbol indicates that this device should not be disposed of as unsorted municipal waste at the end of its service life.

Owners of WEEE (Waste from Electrical and Electronic Equipment) shall dispose of it separately from unsorted municipal waste. Spent batteries and accumulators, which are not enclosed by the WEEE, as well as lamps that can be removed from the WEEE in a non-destructive manner, must be removed by end users from the WEEE in a non-destructive manner before it is handed over to a collection point.

Distributors of electrical and electronic equipment are legally obliged to provide free take-back of waste. Conrad provides the following return options free of charge (more details on our website):

- in our Conrad offices
- at the Conrad collection points
- at the collection points of public waste management authorities or the collection points set up by manufacturers or distributors within the meaning of the ElektroG

End users are responsible for deleting personal data from the WEEE to be disposed of.

It should be noted that different obligations about the return or recycling of WEEE may apply in countries outside of Germany.

14.2 (Rechargeable) batteries

Remove batteries/rechargeable batteries, if any, and dispose of them separately from the product. According to the Battery Directive, end users are legally obliged to return all spent batteries/rechargeable batteries; they must not be disposed of in the normal household waste.



Batteries/rechargeable batteries containing hazardous substances are labelled with this symbol to indicate that disposal in household waste is forbidden. The abbreviations for heavy metals in batteries are: Cd = Cadmium, Hg = Mercury, Pb = Lead (name on (rechargeable) batteries, e.g. below the trash icon on the left).

Used (rechargeable) batteries can be returned to collection points in your municipality, our stores or wherever (rechargeable) batteries are sold. You thus fulfil your statutory obligations and contribute to environmental protection.

Batteries/rechargeable batteries that are disposed of should be protected against short circuit and their exposed terminals should be covered completely with insulating tape before disposal. Even empty batteries/rechargeable

Manuals+.