Laserliner 080.965A MultiFinder Plus Detecting Device Instruction Manual

Laserliner

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AUTO CAL PLUS

AUTO CALIBRATION

Completely read through the operating instructions, the „Warranty and Additional Information“ booklet as well as the latest information under the internet link at the end of these instructions. Follow the instructions they contain. This document must be kept in a safe place and passed on together with the device.

Contents

Function/Application

Multiple integrated sensors make MultiFinder Plus by Laserliner a highly efficient detecting device for locating metal, finding wall beams and joists in drywall structures and detecting live lines. The MultiFinder Plus is equipped with an VTN display with user guide, ensuring easy and reliable operation. Acoustic and optical detection signals to locate objects facilitates handling and ensures a high level of functional reliability.

Safety instructions

- The device must only be used in accordance with its intended purpose and within the scope of the specifications.
- The structure of the device must not be modified in any way.
- Do not work alone in the vicinity of hazardous electrical installations and only under the guidance of a qualified electrician.

Additional information on use

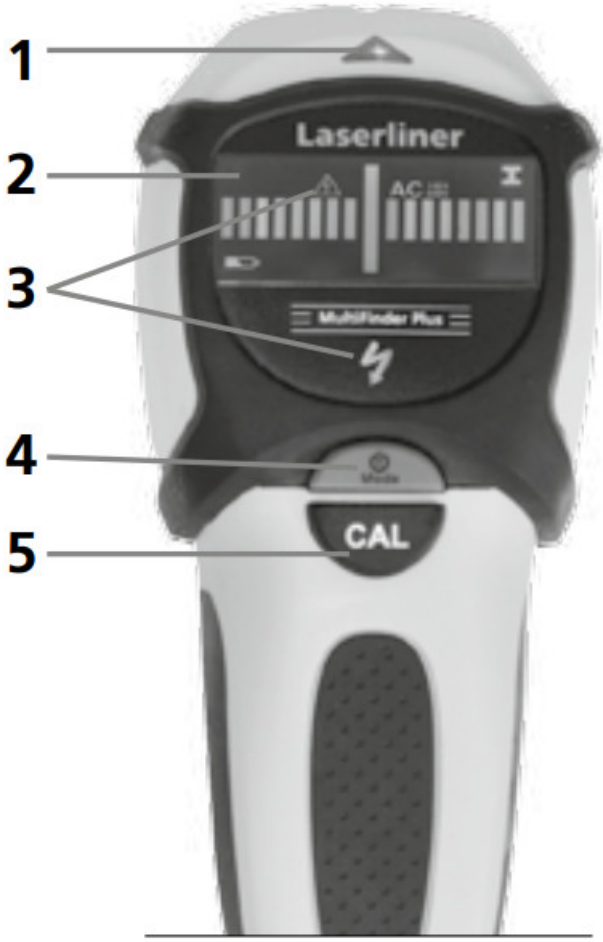
Observe the technical safety regulations for working on electrical systems, especially:

1. Safely isolating from power supply,
2. Securing to prevent system being switched on again,
3. Checking zero potential, two-pole, 4. Earthing and shortcircuiting, 5. Securing and covering adjacent live components.

Safety instructions
Dealing with electromagnetic radiation

- The measuring device complies with electromagnetic compatibility regulations and limit values in accordance with EMC-Directive 2014/30/EU.
- Local operating restrictions – for example, in hospitals, aircraft, petrol stations or in the vicinity of people with

pacemakers – may apply. Electronic devices can potentially cause hazards or interference or be subject to hazards or interference.



1. Maximum display
2. VTN display
3. Live wire warning
4. ON / OFF Switching measuring mode
5. Manual calibration (CAL)

Insert battery
Open the battery compartmenton the housing‘s rear side and insert a 9 V battery. Correct polarity must be observed.

Operation

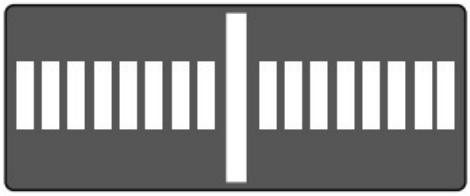
Switch on: Briefly press the On/Off button (4).
Switch off: Keep the On/Off button (4) pressed for 4 seconds.
AutoShutOff: The device will automatically switch itself off about 2 minutes after the last measurement.

Symbols

Red = Live wire warning

METAL-SCAN and AC-SCAN mode
Green: metal or live wire is nearby
Red: metal or live wire found STUD-SCAN mode
Red: object is nearby
Green: object found

metal, wire,
object is nearby



metal, wire,
object found

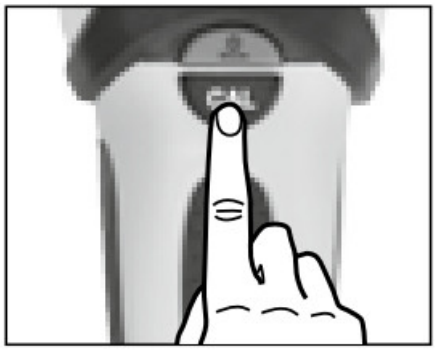
Calibration

Auto-Calibration
The automatic calibration is performed in METAL-SCAN and AC-SCAN measurement immediately when the device is switched on and when the measuring mode is switched.

Auto-Cal Plus
When an object has been found, the device performs another automatic calibration in METAL-SCAN measurement. This simplifies the process of isolating objects to be measured and adjusting the device to different surfaces.

Manual calibration

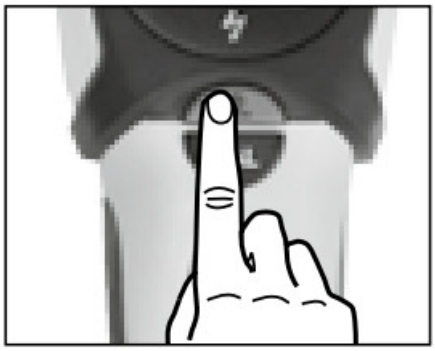
Pressing the CAL button (5) manually calibrates the device. This allows measurements to be restarted and objects to be isolated more precisely.
Maximum sensitivity is achieved when the device is held in the air while calibrating. This can be useful for METAL and AC-SCAN measurements.



The device and the wall must maintain contact during calibration in STUD-SCAN mode and throughout the entire measurement process. A hand should remain at the device the entire time as well.

Select measurement mode

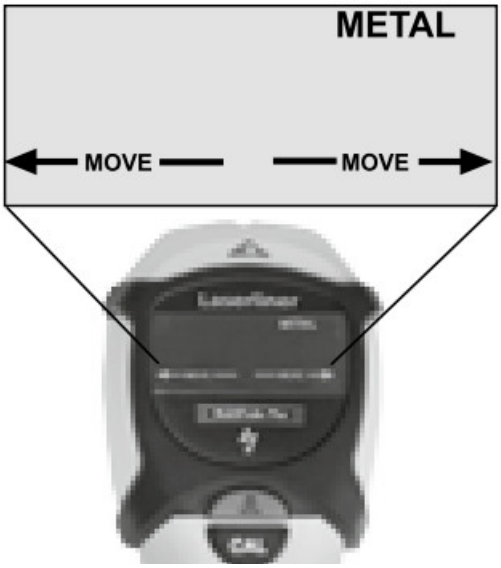
Briefly press the Mode button (4).
METAL-SCAN: Detecting metal in all non-metallic materials
AC-SCAN: Locating live lines directly under non-metallic cladding
STUD-SCAN: Detecting wooden wall beams and joists as well as metal in drywall structures under non-metallic cladding

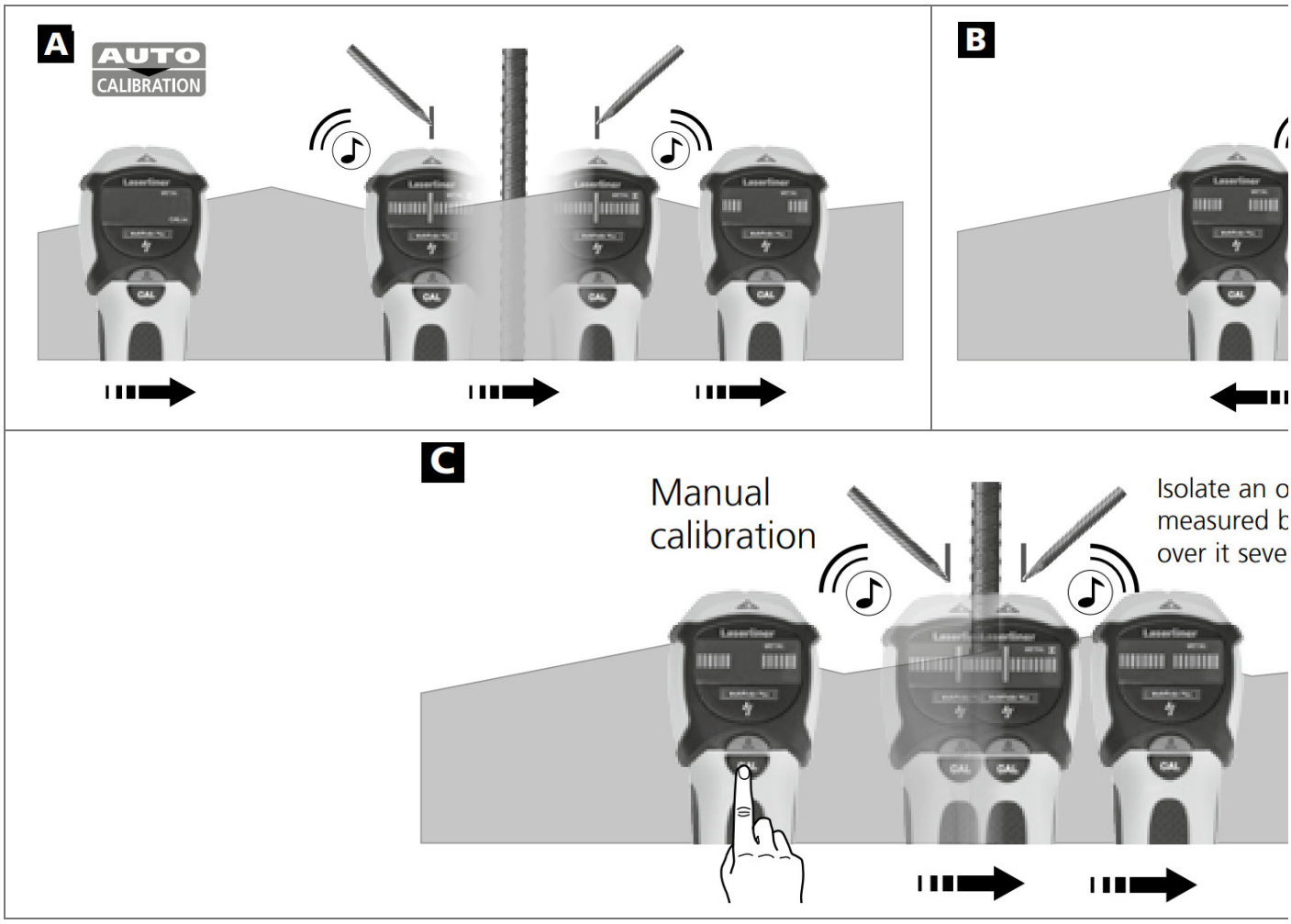


Measuring in METAL-SCAN mode

The tool is able to detect hidden metal in all non-metallic materials, e.g. brick, concrete, screed, wood, plaster fibreboard, gas concrete, ceramic and mineral building materials.

- Select METAL-SCAN (button 4).
- As soon as the display switches from CAL to CAL OK, you can move the device.
- MOVE: Move the tool slowly across the surface.





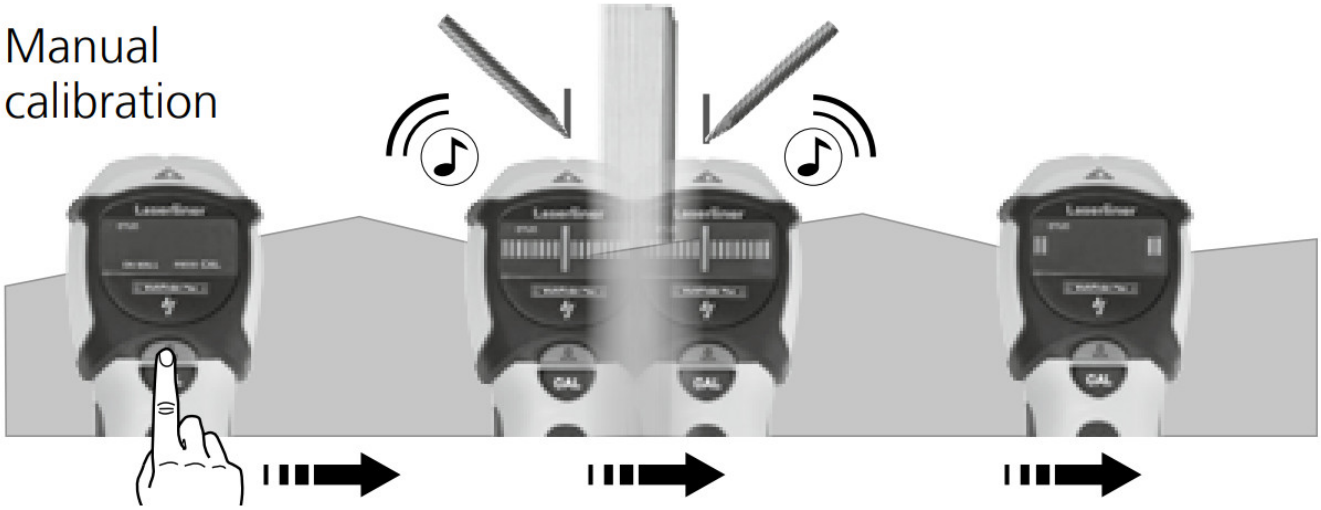
Tip 1: The position between the two markings is the mid-point of the metal object. Through the high measuring sensitivity, thick metal objects appear broader than they are in real life.
Therefore move the device over the newly found object as shown in Image B. The device is calibrated automatically during this process. Manual calibration should be performed near the place found last as shown in Image C. Repeat this step as needed.
Tip 2: The position where you start is important: First place the device in a position where you know there is no metal.
Otherwise, the message “ERROR” will appear in the display.
To remedy: Move the device to another position a few centimetres away and start measuring again.
Tip 3: In the case of complicated applications, e.g. ribbed steel, scan the surface both horizontally and vertically.
Tip 4: Flexible floor and wall heating pipes which contain a metal foil and are located near the surface may also be detected. Test for this function in places where you know the position of such pipes.

Note: If an object is deep inside a wall, the device may not indicate it clearly.

Measuring in STUD-SCAN mode

Detecting wooden wall beams and joists as well as metal in drywall structures, e.g. under gypsum fibreboard, wood panels or other non-metallic cladding.

- Select STUD-SCAN (button 4).
- Now follow the instructions on the VTN display.
- ON WALL: Place the tool against the wall.
- PRESS CAL: Press the calibration button (5) and wait until calibration is completed: CAL OK
- MOVE: Move the tool slowly across the surface.



Tip 1: The position between the two markings is the mid-point of the stud.
Tip 2: The position where you start is important: First place the tool in a position where you know there is no stud. Otherwise, the message “ERROR” will appear in the display. To remedy:
Move the tool to another position a few centimetres away and start measuring again.
Tip 3: To avoid interference while scanning, keep your free hand and other objects at least 15 cm away from the MultiFinder Plus.
Tip 4: The MultiFinder Plus will only find the outside edge of double studs and headers which may be fitted around doors, windows and corners.
Tip 5: Ensure that you have really detected a stud. To do so, check on both sides whether other studs are present at equal distances, usually at 30, 40 or 60 cm. Also check that it is a stud by scanning at several places directly above and below the position of the first find.
Tip 6: Textured ceilings: The ceiling must be covered with cardboard to protect it.
Note: If an object is deep inside a wall, the device may not indicate it clearly.

! If electric wires or metal or plastic pipes are located near or in contact with a plaster fibreboard panel, they may be identified by the MultiFinder Plus as studs.

Special things to note with various materials
It may not be possible to detect wooden studs or joists through the following materials:

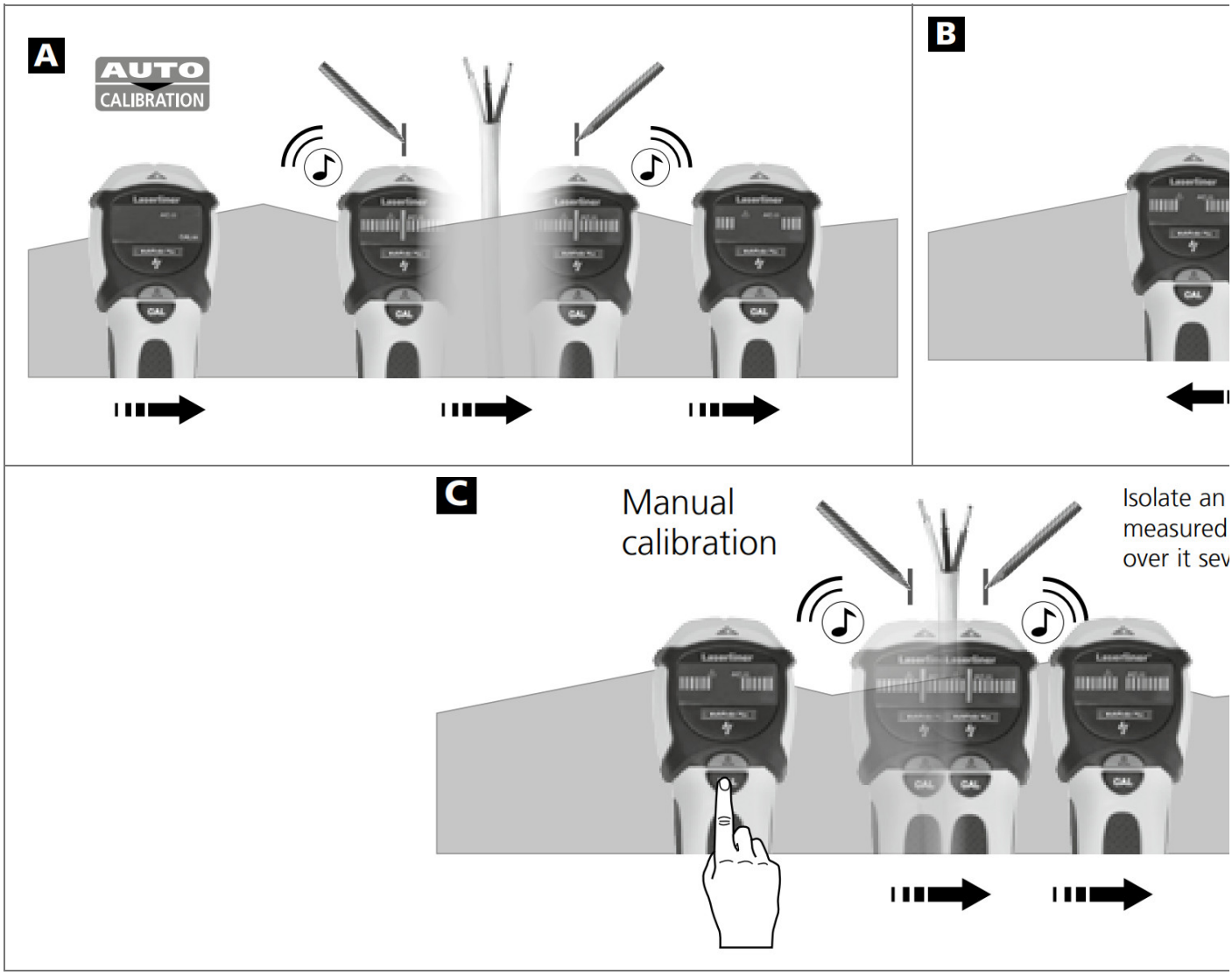
- Ceramic floor tiles
- Fitted carpeting with padded backing

- Wallpaper with metal fibres or metal foil
- Freshly painted, damp walls. These must have dried for at least one week.
- In problem cases, use METAL-SCAN to localise nails or screws in dry walls that line up vertically where a stud is located.

AC-SCAN

For localising live wires directly beneath the plaster or behind wooden panels and other non- metallic panelling. It is not possible to detect live wires in dry walls with metal studs.

- Select AC-SCAN (button 4).
- As soon as the display switches from CAL to CAL OK, you can move the device.
- MOVE: Move the tool slowly across the surface.

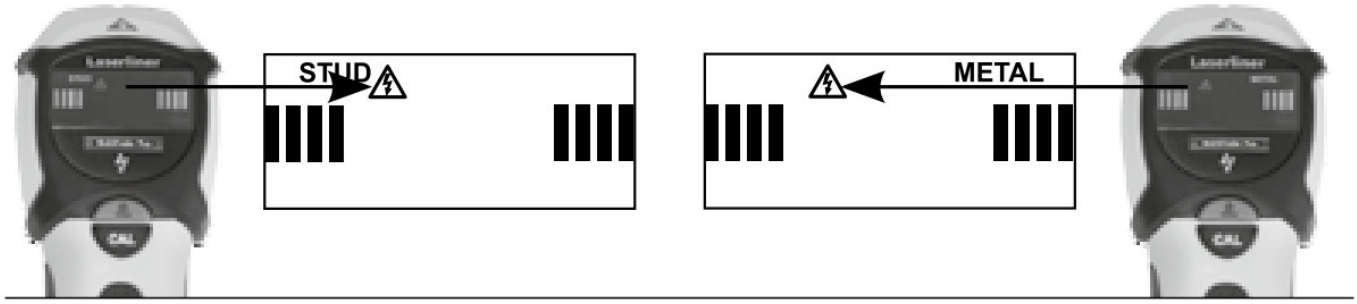


Tip 1: Manual calibration should be performed near the place found last as shown in Image B/C. Repeat this step as needed.
Tip 2: Because of static charges, electric fields may be detected at the side of the actual position of the wire. To carry away these charges, lay your free hand on the wall.
Tip 3: Move the tool slowly as friction can generate interfering electric charges.
Tip 4: If you suspect that wires must be present but cannot find any, this may be because they are shielded in conduits.
Use METAL-SCAN in order to localise conduits.

Tip 5: Metal in walls (e.g. metal studs) transmit electrical fields and may therefore cause interference. In this case, switch to METAL-SCAN in order to find the wire.
Tip 6: The position where you start is important: To achieve maximum sensitivity, start by placing the device in a position which is known not to be near live wires.
Note: If an object is deep inside a wall, the device may not indicate it clearly.

STUD-SCAN/METAL-SCAN Current monitoring

Continuous current monitoring in unshielded wires as soon as an electrical field is detected.



Always switch off the power supply when working near electric wires.

Backlight

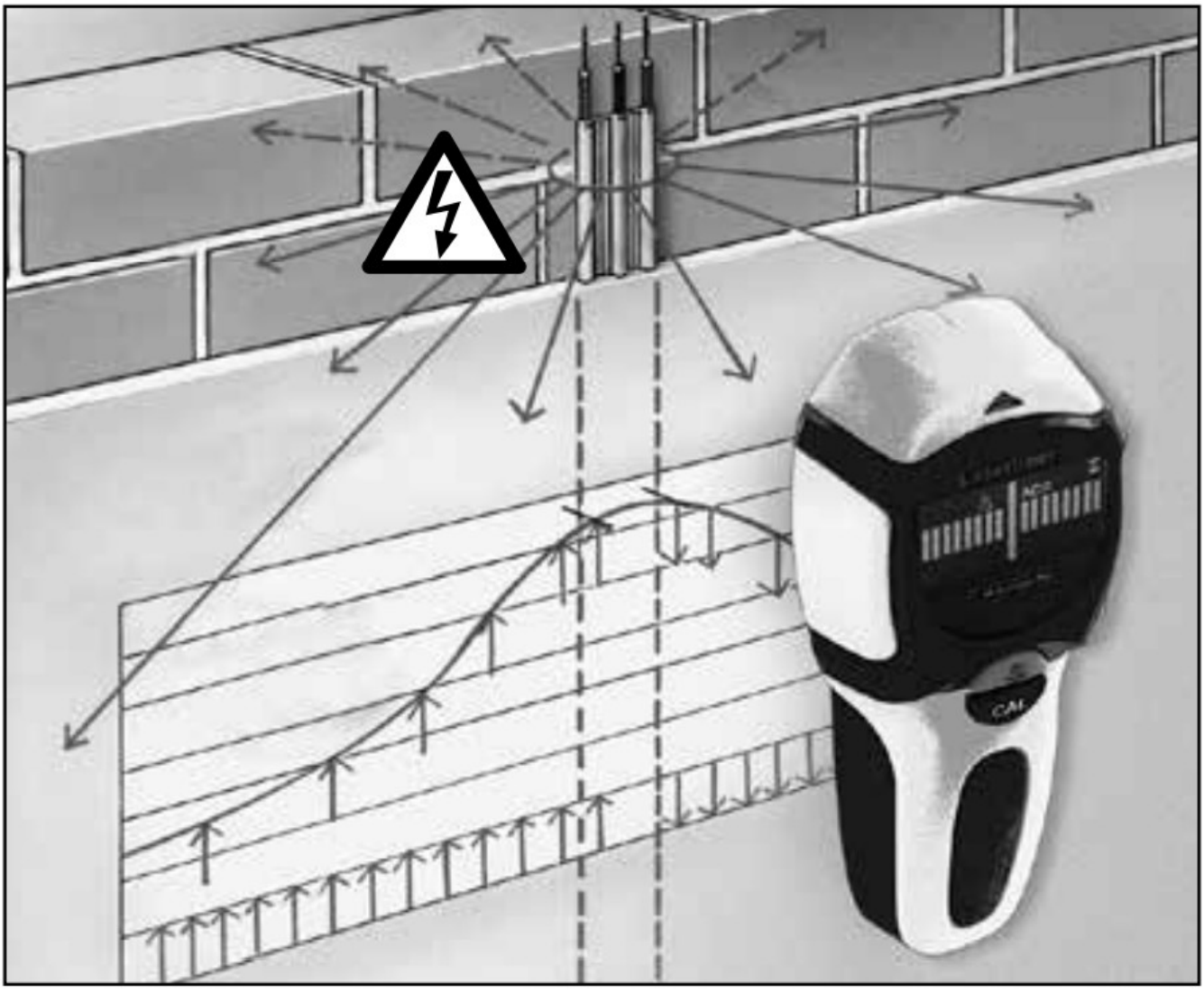
The device features backlighting.
Information on maintenance and care
Clean all components with a damp cloth and do not use cleaning agents, scouring agents and solvents. Remove the battery(ies) before storing for longer periods. Store the device in a clean and dry place.

Technical data

Detection range AC	110 – 230V, 50 – 60 Hz
Operating conditions	0°C … 40°C (32°F … 104°F), Max. humidity 80% rH, no condensation, Max. working altitude 2000 m above sea level
Storage conditions	-20°C … 70°C (-4°F … 158°F), Max. humidity 80% rH
Power supply	1 x 9 V alkaline battery (type 6LR 61)
Dimensions (W x H x D)	80 mm x 186 mm x 40 mm
Weight (incl. battery)	230 g
Measuring depth	
Wood/metal beam location (STUD-SCAN)	Up to 4 cm depth
Targeted metal location: Ferro-Scan/Non-Ferro-Scan (METAL-SCAN)	Up to 10 cm/up to 5 cm depth
Targeted location of live supply lines (AC-SCAN)	Up to 4 cm depth
Location of dead supply lines	Up to 4 cm depth

EU directives and disposal

This device complies with all necessary standards for the free movement of goods within the EU.
This product is an electric device and must be collected separately for disposal according to the European Directive on waste electrical and electronic equipment.
Further safety and supplementary notices at **http://laserliner.com/info?an=mulfipl**



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Documents / Resources

	Laserliner 080.965A MultiFinder Plus Detecting Device [pdf] Instruction Manual 080.965A, MultiFinder Plus, Detecting Device, MultiFinder Plus Detecting Device, 080.965A MultiFinder Plus Detecting Device

References

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