



**AUTO**  
CAL PLUS

**AUTO**  
CALIBRATION

DE 02

GB 06

NL 10

DK 14

FR 18

ES 22

IT 26

PL 30

FI 34

PT 38

SE 42

NO 46

TR 50

RU 54

UA 58

CZ 62

EE 66

LV 70

LT 74

RO 78

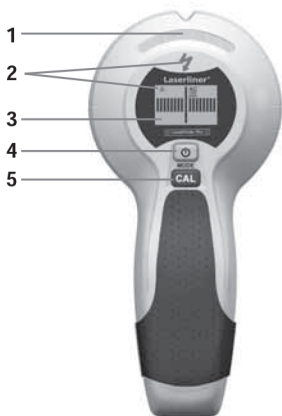
BG 82

GR 86

**!** Read the operating instructions and the enclosed brochure „Guarantee and additional notices“ completely. Follow the instructions they contain. Safely keep these documents for future reference.

## Function / Application

Electronic detector for metal and live conductors. The CombiFinder Plus is equipped with an LC 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.



- 1 Maximum display
- 2 Live wire warning
- 3 LC display
- 4 ON / OFF
- 5 Manual calibration (CAL)

**!** Always switch off the power supply when working in METAL-SCAN mode in the vicinity of electric conductors.

### 1 Insert battery

Open the battery compartment on the housing's rear side and insert a 9V battery. Correct polarity must be observed.



### 2 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 30 seconds after the last measurement.

### 3 Symbols



Red = Live wire warning



#### METAL-SCAN and AC-SCAN mode

Green = metal or live wire is nearby

Red = metal or live wire found



line, object is nearby



line, object found

### 4 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.



**!** The device and the wall must maintain contact during calibration (except for calibration in mid-air) and throughout the entire measurement process. A hand should remain at the device the entire time as well.

## 5 Select measurement mode

Briefly press the Mode button (4).

**METAL-SCAN:** Detecting metal in all non-metallic materials

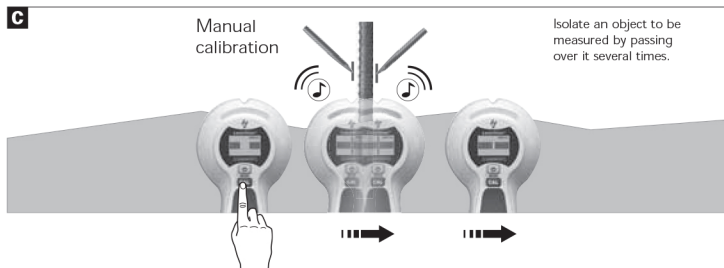
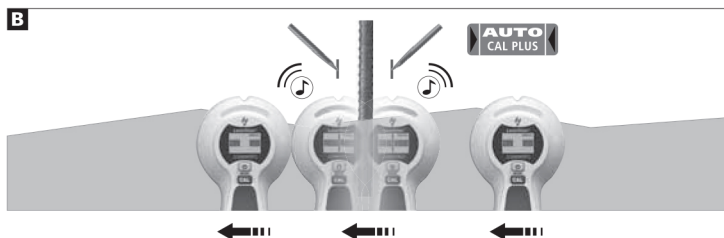
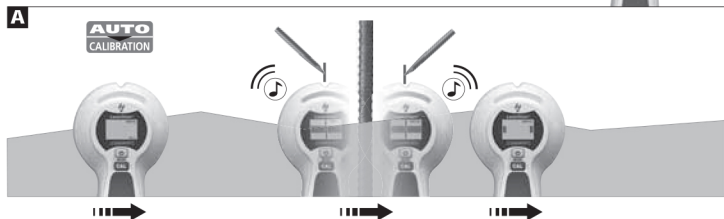
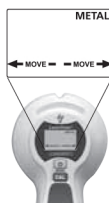
**AC-SCAN:** Locating live lines directly under non-metallic cladding



## 6 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.

Tip 5: To avoid interference while scanning, keep your free hand and other objects at least 15 cm away from the device.

Tip 6: The device only finds the outer edge of metal structures set into the wall for doors, windows and corners. Afterwards search for the other edge of the metal structure. Slide the device sideways across the wall. When the maximum indication appears you have reached the metal structure's edge.

Tip 7: Ensure that you have really detected a metal object. To do so, check on both sides whether other metal objects are present at equal distances, usually at 30, 40 or 60 cm. Also check that it is a metal object by scanning at several places directly above and below the position of the first find.

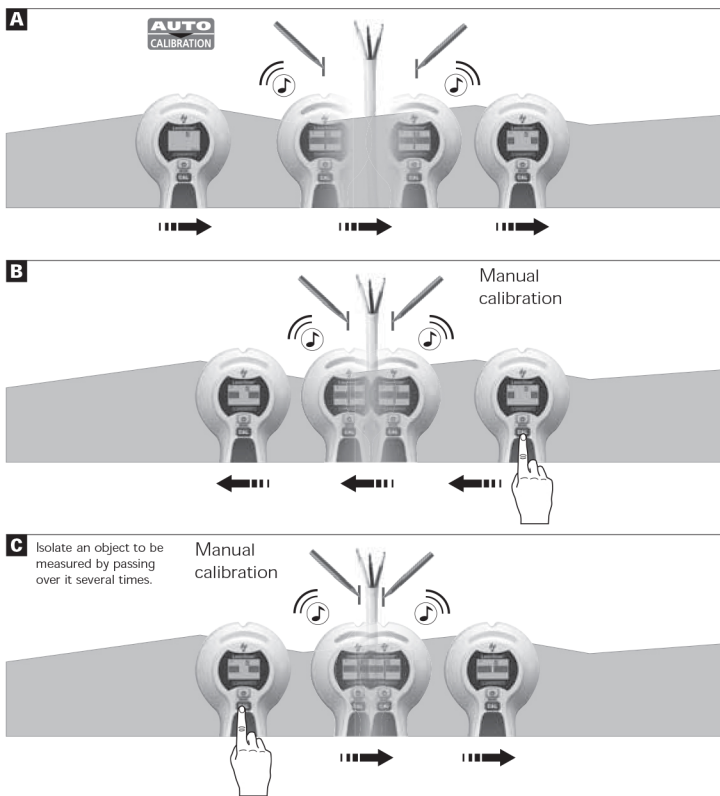
Tip 8: Textured ceilings: The ceiling must be covered with cardboard to protect it. In this case, perform detection with maximum sensitivity, i.e. calibrate the device in mid-air.

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

## 7 Measuring in AC-SCAN mode

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.



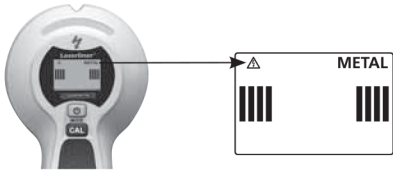
- Tip 4: If you suspect that wires must be present but cannot find any, this may be because they are shielded in conduits. Use METAL-SCAN in order to localise conduits.
- Tip 5: Metal in walls (e.g. metal studs) transmit electrical fields and may therefore cause interference. In this case, switch to 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.




Wires which are at a depth of more than 4 cm may not be detected.

**8 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.

**9 Backlight**

The device features backlighting.

Technical data	
Detection range AC	110 - 230V, 50 - 60 Hz
Operating temperature	0°C ... 40°C (32°F ... 104°F)
Storage temperature	-20°C ... 70°C (-4°F ... 158°F)
Power supply	1 x 9V alkaline battery (type 6LR 61)
Dimensions (W x H x D)	85 mm x 180 mm x 38 mm
Weight (incl. battery)	180 g
Measuring depth	
Targeted metal location: Ferro-Scan / Non-Ferro-Scan (METAL-SCAN)	Up to 7,5 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

Subject to technical alterations. 12.2012

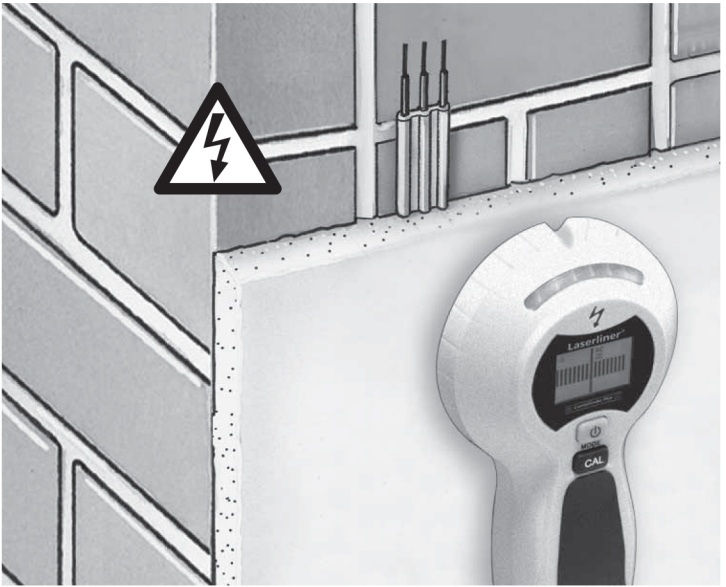
**EU directives and disposal**

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: [www.laserliner.com/info](http://www.laserliner.com/info)





## SERVICE



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