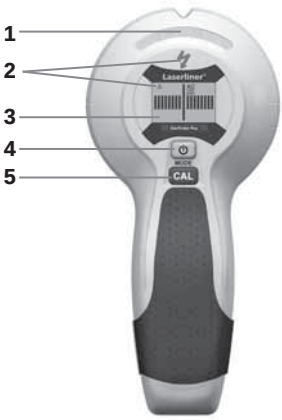
AUTO CALIBRATION

Laserliner®
Innovation in Tools

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

Multiple integrated sensors make StarFinder Plus by Laserliner a highly efficient detecting device for locating wall beams and joists in drywall structures and finding live lines. The StarFinder 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
Switching measuring mode (MODE)
5 Manual calibration (CAL)

Always switch off the power supply when working in STUD-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 2 seconds.

AutoShutOff: The device will automatically switch itself off about 30 seconds after the last measurement.

3 Symbols

Red = Live wire warning

AC-SCAN mode

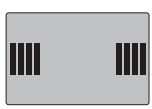
Green = live wire is nearby

Red = live wire found

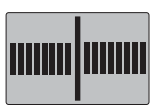
STUD-SCAN mode

Green/Red: object is nearby

Green: object found



line, object is nearby



line, object found

4 Calibration

Auto-Calibration

The automatic calibration is performed in AC-SCAN measurement immediately when the device is switched on and when the measuring mode is switched. During calibration, the display shows „CAL“. Do not move the device during this process. Once „CAL OK“ appears on the display, tracing can be started.

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 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.

5 Select measurement mode

Briefly press the Mode button (4).

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)

6 Measuring in STUD-SCAN mode

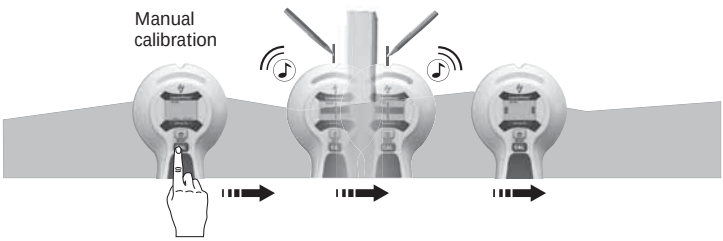
Detecting wooden wall beams and joists as well as metal in drywall structures, e.g. under gypsum fibreboard, wood panels or other non-metallic cladding.

– Select STUD-SCAN (button 4)

– 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 StarFinder Plus.

Tip 4: The StarFinder 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. In this case, use the DeepScan function.

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 StarFinder 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.

7 Measuring in AC-SCAN mode

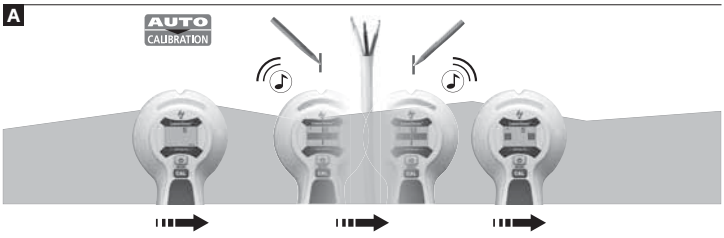
For localising live wires directly beneath the plaster or behind wooden panels and other non-metallic panelling. It is not possible to detect live wires in dry walls with metal studs.

– Select AC-SCAN (button 4).

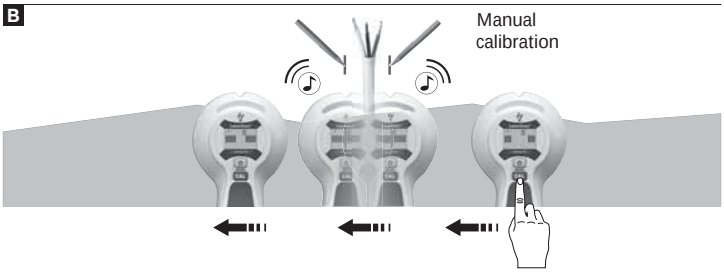
– As soon as the display switches from CAL to CAL OK, you can move the device.

– MOVE: Move the tool **slowly** across the surface.

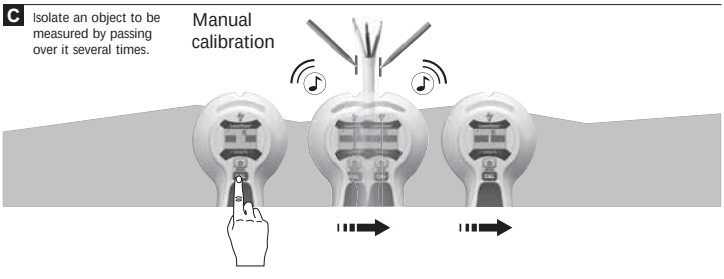
A



B



C Isolate an object to be measured by passing over it several times.



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 STUD-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 STUD-SCAN in order to find the wire.

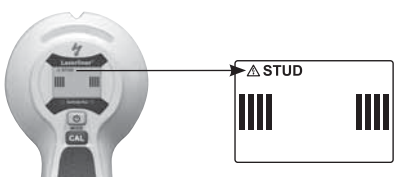
Tip 6: The position where you start is important: To achieve maximum sensitivity, start by placing the device in a position which is known not to be near live wires.

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 STUD-SCAN: Current monitoring

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



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)	163 g
Measuring depth	
Wood / metal beam location (STUD-SCAN)	Up to 4 cm depth
Targeted location of live supply lines (AC-SCAN)	Up to 4 cm depth

Subject to technical alterations. 10.2012

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**