

**GB** **StudSensor™ L40**  
Edge-Finding Stud Finder

**BEFORE YOU BEGIN**

ZIRCON® STUD FINDERS WORK BY SENSING DENSITY CHANGES BEHIND THE WALL. OTHER OBJECTS CAN BE DETECTED ESPECIALLY IF THEY ARE VERY CLOSE TO THE WALL. **DO NOT ASSUME EVERYTHING DETECTED IS A STUD.**

- Always use a new 9V alkaline battery with an extended expiration date at least 3 years beyond the current date. Match battery direction to image inside of battery cavity.

- Do not rely exclusively on the tool to locate items behind a surface. Use other information to help locate items before penetrating the surface, including construction plans, visible points of entry of pipes and wiring into walls such as in a basement, and standard stud-spacing practices.

- Always start your scan in StudScan Mode which scans through surfaces up to 19 mm deep. Scanning in DeepScan™ Mode may detect an object further behind the wall that may or may not be a stud.

- Always scan for studs at several different heights on the wall and mark the location of every target indicated by the stud finder. This is called "mapping the wall." Pipes and other objects will likely not give consistent readings from floor to ceiling, like a stud will.

- Readings should always be consistent and repeatable.

- Zircon® stud finders are recommended for interior use only.

- Studs normally run from floor to ceiling, except above and below windows, and above doors.

- Other objects commonly contained in walls, floors, or ceilings are water pipes, gas lines, firestops, and electrical wiring.

- Sensing depth and accuracy can vary depending on scanning environment conditions such as mineral content, moisture, texture and consistency of the wall materials.

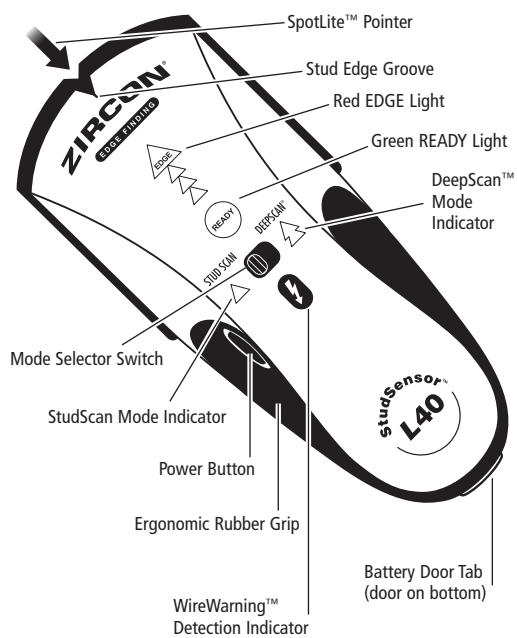
- Always turn off power when working near electrical wires.

- Depending on the proximity of electrical wiring or pipes to the wall surface, the tool may detect them in the same manner as studs. Caution should always be used when nailing, cutting, or drilling in walls, floors, and ceilings that may contain these items.

- Studs and joists are normally spaced 40 or 60 cm apart on centre, are normally 38 mm wide, and may be separated by firestops. Anything closer together, or of a different width, may not be a stud or joist.

**TROUBLESHOOTING & CONSTRUCTION TIPS**

SITUATION	LIKELY CAUSE	SOLUTION
All display elements turn on at the same time and the tool beeps continuously.	Tool may not be flat against wall.	<ul style="list-style-type: none"> <li>Hold the tool with thumb on one side and fingers on the other side. Do not touch the surface being scanned or the scanning head of the tool.</li> <li>Move the tool straight up and down, parallel to the studs. Do not rotate the tool.</li> </ul>
	Tool tilted or lifted during scan.	<ul style="list-style-type: none"> <li>When scanning an uneven surface, place thin cardboard on the surface to be scanned and scan over the cardboard in DeepScan™ Mode.</li> <li>Move Mode Selector Switch to enter DeepScan™ Mode.</li> </ul>
	Scanning surface is too dense or too wet for tool to operate.	If tool is used on a surface that was recently taped, painted, or wallpapered, allow time to dry and try scanning again.
	Power Button pressed before placing tool on surface.	Place tool on wall, then press Power Button, and wait for tool to calibrate before scanning.
Unable to detect studs in StudScan Mode- the top EDGE arrow doesn't illuminate.	Wall is thick or dense.	<ul style="list-style-type: none"> <li>Switch to DeepScan™ Mode to locate the stud.</li> <li>Use the top EDGE arrow as the indication of stud edge.</li> </ul>
Green READY light illuminates but nothing happens when scanning.	Tool may not be flat against wall.	Hold tool so that the pads on the back make full contact with the surface.
	Calibration may have occurred over a stud in DeepScan™ Mode.	Recalibrate in a different area, then continue the scan.
Can't detect studs in DeepScan™ Mode.	Calibration may have occurred over a stud.	Move the unit to a different area, then scan again. Also ensure that tool is held against the wall as shown in illustrations.
Tool detects objects other than studs or finds more studs than should be there.	Electrical wiring and metal or plastic pipes may be near or touching the back of the wall surface.	Check for other studs equally spaced to either side at 30, 40, or 60 cm intervals, or check for the same stud at spots directly above or below the first scan area. Studs will run straight up and down, from floor to ceiling, while pipes may change direction. Standard studs measure approximately 38 mm between edges. Anything larger or smaller is likely not a stud (unless near door or window).
Area of voltage detection is too large.	Voltage detection can spread on drywall by as much as 30 cm on each side of the wire.	Narrow the scan detection: <b>1.</b> Turn tool off. <b>2.</b> Turn it on again at the edge of where the wire was first detected. <b>3.</b> Repeat scan.
	Wires are shielded by a metal conduit, braided wire or metallic wall covering.	If there is an outlet switch, turn it to ON position while scanning, but turn OFF when working near the wires. <b>Use extra caution if the area has plywood, thick wood backing behind drywall, or walls that are thicker than normal.</b>
	Wires deeper than 50 mm from the surface might not be detected.	See above.
Electrical wires suspected but WireWarning™ Detection does not alert.	Wires may not be live.	Plug a lamp into the outlet and turn it on to test whether wires are live.



**2 scanning modes:**

• **StudScan** locates edges of stud (wood and metal) up to 19 mm deep

• **DeepScan™** locates edges of stud up to 38 mm deep

**WireWarning™ Detection** automatically detects and alerts for live, unshielded AC (alternating current) wires up to 50 mm deep in both modes. When AC voltage is detected, the WireWarning™ Detection Indicator shows on display.

**INSTALL 9-VOLT BATTERY**

Always use a new 9V alkaline battery with an extended expiration date at least 3 years beyond the current date. Match battery direction to image inside of battery cavity.



**⚠ WARNING** Do not rely exclusively on the tool to locate items behind a surface.

Use other information to help locate items before penetrating the surface, including construction plans, visible points of entry of pipes and wiring into walls such as in a basement, and standard stud-spacing practices.

**POWER UP**

Move Mode Selector Switch to desired mode: **StudScan** or **DeepScan™**.

**To activate tool, press and hold Power Button. If button is not pressed and held, unit shuts off.**

**FIND A STUD**

The tool senses density changes to locate the edges of wood and metal studs up to 19 mm behind the scanned surface in StudScan Mode.

The accuracy of the position of a stud found is typically within 3 mm.

For best results, hold the tool as shown (Figure A) and move slowly when scanning. **Do not touch the surface during calibration or scan.**

**1.** Hold tool flat against wall, then press and hold Power Button. In 1 – 2 seconds, the unit will calibrate, and the Green READY Light will illuminate.

**DO NOT MOVE TOOL DURING CALIBRATION.**

**2.** While holding down the Power Button, slide the tool slowly along the wall. (Figure B)

When the tool reaches the edge of the stud, the top Red EDGE Light will illuminate, the SpotLite™ Pointer will shine, and a steady tone will sound. Mark the spot. (Figure C)

**3.** Without releasing Power Button, continue the scan direction until the Red EDGE Light and the SpotLite™ Pointer turn off, then reverse direction. (Figure D)

**4.** Slide the tool until the other edge of the stud is detected and mark this as well. (Figure E)

The centre of the stud is the midpoint between the two marks.

**DEEPSCAN™ MODE**

DeepScan™ Mode will detect studs up to 38 mm deep, or twice the depth of StudScan.

To scan for deeper studs, or for use with thicker walls:

- Set mode to DeepScan™.
- Repeat steps 1 – 5 under FIND A STUD.

**OVER-THE-STUD WARNING**

If scanning begins directly over a stud, the tool will emit a continual beep.

If this happens, restart the scan in a different location.

**⚠ WARNING** DO NOT ASSUME THERE ARE NO LIVE ELECTRICAL WIRES IN THE WALL.

**DO NOT TAKE ACTIONS THAT COULD BE DANGEROUS IF THE WALL CONTAINS A LIVE ELECTRICAL WIRE. ALWAYS TURN OFF THE ELECTRICAL, GAS, AND WATER SUPPLIES BEFORE PENETRATING A SURFACE. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN ELECTRIC SHOCK, FIRE, AND/OR SERIOUS INJURY OR PROPERTY DAMAGE.**

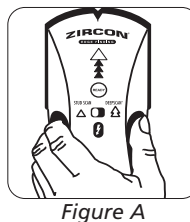


Figure A

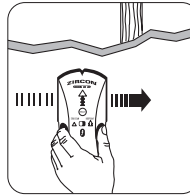


Figure B



Figure C

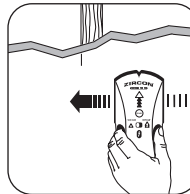


Figure D



Figure E

**WIREWARNING™ DETECTION**

The Zircon® WireWarning™ Detection feature works continuously in both modes. When live, unshielded AC voltage is detected, the WireWarning™ Detection Indicator shows. If scanning begins over a live AC wire, the Indicator will flash continuously. (Figure F)

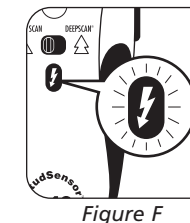


Figure F

Use extreme caution under these circumstances, or whenever live AC wiring is present.

**⚠ WARNING** THE TOOL MAY NOT DETECT LIVE CURRENT IF WIRES ARE MORE THAN 50 mm BELOW THE SCANNED SURFACE, IN CONCRETE, ENCASED IN CONDUIT, BEHIND A PLYWOOD SHEAR WALL OR METALLIC WALL COVERING, OR IF MOISTURE IS PRESENT IN THE ENVIRONMENT OR SCANNED SURFACE.

**WORKING WITH DIFFERENT MATERIALS**

**Wallpaper** This tool functions normally on walls covered with wallpaper or fabric, unless the materials are metallic foil, contain metallic fibres, or are still wet after application. Wallpaper may need to dry for several weeks after application.

**Freshly painted walls** Paint may take a week or longer to dry after application.

**Lath and plaster** Due to irregularities in plaster thickness, this tool is not recommended for use on lath and plaster.

**Highly textured walls or acoustic ceilings** When scanning a ceiling or wall with an uneven surface, place thin cardboard on the surface to be scanned and scan over the cardboard in DeepScan™ Mode.

**Wood flooring, subflooring, or gypsum drywall over plywood sheathing** Use DeepScan™ Mode and move the tool slowly.

This tool cannot scan for studs and joists through carpet and padding.

**NOTE: Sensing depth and accuracy can vary depending on scanning environment conditions such as mineral content, moisture, texture and consistency of the wall materials.**

**Electrical wiring and pipes** Depending on the proximity of electrical wiring or pipes to the wall surface, the tool may detect them in the same manner as studs.

Caution should always be used when nailing, cutting, or drilling in walls, floors, and ceilings that may contain these items.

**Studs and joists** are normally spaced 40 or 60 cm apart on centre and are 38 mm wide. Anything closer together, or of a different width, may not be a stud or joist.

This tool can scan effectively through most sheet materials, including:

- Bare wood flooring (in DeepScan™ Mode)
- Linoleum on wood base
- Gypsum drywall over plywood sheathing
- Walls with wallpaper (if dry)
- Textured ceilings with uniform thickness (place a thin piece of cardboard on ceiling and scan over it to avoid damage to texturing)

It is **not** designed for use with:

- Ceramic tile, slate, granite, marble and other rock surfaces
- Carpeting and padding
- Wallpaper with metallic fibres
- Freshly painted walls that are still damp (may take one week or longer to dry after application)
- Lath and plaster walls
- Foil covered insulation
- Glass or any other dense material
- Bathroom inserts such as bathtubs and showers
- Surfaces thicker than 38 mm

**LIMITED TWO-YEAR WARRANTY**

Zircon Corporation ("Zircon") warrants to the original purchaser (or original user by gift) that this product will be free from defects in materials and workmanship for two years from date of purchase. This warranty is limited to the electronic circuitry of the product, and specifically excludes consumable parts, including batteries, and software, even if packaged with the product. Defects caused by abuse, modification, handling contrary to these instructions, other unreasonable use, or neglect are not covered under this warranty. No liability is accepted under this Limited Warranty for normal wear and tear and minor defects which do not detract from the function of the product.

This Limited Warranty is in addition to the statutory rights to which purchaser is entitled and which are not excluded by this warranty, to the extent any such exclusion is permitted by law.

**IN NO EVENT WILL ZIRCON BE LIABLE FOR ANY LOSS THAT IS NOT FORSEEABLE RESULTING FROM POSSESSION, USE, OR MALFUNCTION OF THIS PRODUCT.**

Any in-warranty defective product returned to the place of purchase with original proof of purchase will be replaced or purchase price refunded at retailer's option. This Limited Warranty applies only to products purchased within the European Economic Area and United Kingdom. For warranties applicable to Zircon products purchased in other geographical areas, see [www.zircon.com/warranty-registration](http://www.zircon.com/warranty-registration).

For questions about this warranty or Zircon products, contact:  
Customer Service:  
+1-800-245-9265 or +1-408-963-4550  
Monday–Friday, 8:00 a.m. to 5:00 p.m. PST  
[www.zircon.com](http://www.zircon.com) • [info@zircon.com](mailto:info@zircon.com)  
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## **GB** PROTECTING THE ENVIRONMENT



Separate collection. This product must not be disposed with normal household waste.

Should your Zircon product need replacement or is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.



Separate collection of used products and packaging allows materials to be recycled and used again. Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.

## **SE** WEEE och CE information



Separat avfallssortering. Denna produkt får inte kastas bland normalt hushållsavfall.

Om din Zircon produkt behöver ersättas eller om den inte längre används kast då inte den bland hushållsavfallet. Se istället till att den lämnas till separat avfallssortering.



Separat avfallssortering av kasserade produkter och förpackningar gör det möjligt att materialet kan återanvändas. Detta hjälper till att förhindra miljöförstöring och reducerar behovet av nytt råmaterial.

Lokala bestämmelser kan föreskriva separat avfallssortering av elektriska produkter i hushållet, vid kommunala sopstationer eller hos återförsäljare när du köper en ny produkt.

## **NO** Beskytte miljøet



Separat innsamling. Dette produktet må ikke kastes sammen med vanlig husholdningsavfall.

Hvis Zircon-produktet trenger å skiftes ut eller du ikke lenger har behov for det, må du ikke kaste det sammen med husholdningsavfallet. Gjør produktet tilgjengelig for separat innsamling.



Separat innsamling av brukte produkter og emballasje gjør det mulig å resirkulere materialene og gjenbruke dem. Gjenbruk av resirkulerte materialer bidrar til å forebygge miljøforurensning og reduserer behovet for råmaterialer.

Lokale bestemmelser kan gi mulighet til separat innsamling av elektriske produkter fra husholdninger på kommunale avfallsplasser eller hos forhandleren når du kjøper et nytt produkt.