

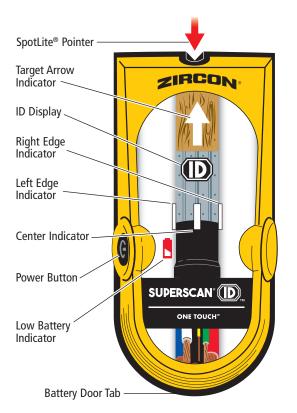
# SuperScan<sup>®</sup> ID Advanced Wall Scanner

#### **BEFORE SCANNING**

#### Always map your work area prior to cutting or drilling.

- Install two unused or newly purchased high-quality AA (1.5 V) alkaline batteries. Match battery direction to the image inside battery cavity. Rechargeable batteries are not recommended.
- The tool may also detect an object behind the wall that may not be a stud.
- Depending on the proximity of electrical wiring or pipes to the wall surface, 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 could contain these items. Use extreme caution under these circumstances or whenever live AC wiring is present.
- DO NOT RELY EXCLUSIVELY ON THE TOOL TO LOCATE ITEMS BEHIND A SCANNED SURFACE. Locate items BEFORE penetrating the surface, and use other information including construction plans, standard stud-spacing practices, and visible points of entry of pipes and wiring into walls.
- Studs are normally spaced 16" or 24" (40 cm or 60 cm) apart on center, are typically 1<sup>1</sup>/<sub>2</sub>" (38 mm) wide, and may be separated by firestops. Anything closer together, or of a different width, may not be a stud.
- Always scan at several different heights on the wall and mark the location of every target indicated by the wall scanner. This procedure is called "mapping the wall." Refer to the <u>TRUST BUT VERIFY TECHNIQUE</u> section for further explanation.
- Studs normally run from floor to ceiling, except above and below windows and above doors. Pipes and other objects may not give consistent readings from floor to ceiling, as a stud would.
- Readings should always be consistent and repeatable.
- Zircon® wall scanners are recommended for interior use only.
- Objects commonly contained in walls, floors, or ceilings are wood and/or metal studs, plastic and/or metal water pipes, gas lines, blocking and firestops, shielded and unshielded electrical wiring, and junction boxes.
- Sensing depth and accuracy can vary depending on scanning environment conditions, such as mineral content, moisture, texture, and consistency of the wall materials.

#### ABOUT SUPERSCAN® ID ADVANCED WALL SCANNER



# **A** WARNING DO NOT ASSUME EVERYTHING DETECTED IS A STUD.

The Zircon<sup>®</sup> SuperScan<sup>®</sup> ID wall scanner can identify the edges, center, and direction of wood and metal studs up to  $1\frac{1}{2}$ " (38 mm) deep, and indicate other low-density objects such as plastic pipes, and provide unshielded AC detection alerts, all in one step with a SpotLite<sup>®</sup> pointer, 4-Color Target ID display, and haptic vibration.

#### One Scan Mode – 4-Color Target ID Display and Haptic Vibration

- GREEN ID D High-density non-metal (such as Wood). Tool may detect objects behind the wall that may not be a stud.
- BLUE ID D Presence of metal.
- YELLOW ID (D) Low-density objects or objects further behind the surface (such as Plastic/PVC).
- **RED ID D** Live, unshielded AC wires.

# **INSTALL AA BATTERIES**

Install new or unused high-quality AA (1.5 V) alkaline batteries. Match battery direction to image inside battery cavity. Rechargeable batteries are not recommended.

#### POWER ON/OFF (ONE TOUCH<sup>™</sup> TECHNOLOGY)

Press and release the Power button to turn the tool on. You do NOT need to hold the Power button down while scanning. Tool will calibrate as confirmed by a simultaneous flicker of the SpotLite<sup>®</sup> pointer, all indicators briefly lighting, and haptic vibration.

One Touch<sup>m</sup> technology will simultaneously detect wood and metal studs and alert the presence of live AC wires and low-density objects without the need to change modes.

Tool will automatically power off after 3 minutes or when the tool is lifted from the surface after calibration is complete. Press and hold the Power button for 2 seconds to manually power off the tool.

# TRUST BUT VERIFY TECHNIQUE

TRUST BUT VERIFY technique can help minimize hitting existing metals on a stud, such as nails, screws, and protector plates. Once you have identified the center of the stud with the **GREEN ID**, run the tool vertically up and down the stud. The **BLUE ID** will illuminate over screws or other metal, then show a **GREEN ID** again when the stud is free from metal. If metal protector plates are properly installed over plumbing and electrical, the "safe-to-drill" zones are typically between adjacent drywall screws or nails. If the **BLUE ID** stays continuously on when running vertically up and down the object, it may be a metal stud or metal pipe. To help distinguish between the two objects, if the object is a metal stud, the tool will provide clear indications and show the edges and center of the metal stud. When live AC wiring is present, **RED ID** flashes. **Use extreme caution whenever live AC wiring is present.** 

# **BEGIN SCANNING**

Holding the tool incorrectly may result in inaccurate readings. For best results, hold tool with thumb and forefinger grasping the pivot pinch grip and Power button. Move slowly when scanning. Do not touch the wall surface with either hand, or fingers, during calibration or scanning.

**1.** Place the tool flat against the surface. Without adjusting your hand positioning, press and release the Power button. **Do not move the tool during calibration.** Three green vertical (Edge and Center) indicator bars will remain illuminated.

- 2. Slowly slide the tool horizontally across the wall.
- 3. When the tool detects an object, the 4-Color Target ID display will illuminate.
- 4. Continue scanning past the target, then reverse direction
- and retrace scan path to optimize detection accuracy.
  - GREEN ID (D) Identifies a high-density non-metallic object (wood stud).
    When the tool locates the edge of the stud, one green Edge Indicator bar illuminates, SpotLite<sup>®</sup> pointer shines, and a haptic vibration occurs.

- When the tool locates the center of the stud, the green Center Indicator bar illuminates, SpotLite® pointer shines, and a haptic vibration occurs. Mark the location where the stud center was found (**Figure A**).
- Continue scanning past to find other stud edge. The width of a stud is typically  $1\frac{1}{2}$ " (38 mm).
- BLUE ID (D) Identifies a metallic object.
  - When the tool locates the edge of the metallic object, one green Edge Indicator bar illuminates, SpotLite® pointer shines, and a haptic vibration occurs.
  - When the tool locates the center, the green Center Indicator bar illuminates, SpotLite<sup>®</sup> pointer shines, and a haptic vibration occurs. Mark the location where the center was found (**Figure B**).
  - Continue scanning past to find other edge. The width of a stud is typically 11/2" (38 mm).
  - Metallic objects can include studs, protector plates, nails, pipes, or screws.
- YELLOW ID (D) Identifies a low-density object, also referred to as a LoLevel<sup>®</sup> indication.

#### LOLEVEL® INDICATION

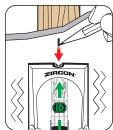
When the tool senses a sustained weak signal, the **YELLOW ID** will flash (**Figure C**). A weak (low) signal may indicate other objects may be present, such as plastic water pipes, PEX tubing, plastic sewer drains, straps, brackets, and screws, and more.

In some cases, the tool may be able to detect and indicate the center of the low-density object with an illuminated Target Arrow Indicator without the SpotLite<sup>®</sup> pointer or haptic vibration. **Caution should always be used when nailing, cutting, or drilling in walls, floors, and ceilings that could contain these indications.** 

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

• **RED ID** (D) – Identifies the presence of live, unshielded AC wiring up to 2" (50 mm) deep, also referred to as WireWarning<sup>®</sup> detection.

WireWarning<sup>®</sup> detection continuously alerts to live, unshielded AC (alternating current) wires. When live AC wiring is detected, the **RED ID** flashes (Figure D). Use extreme caution whenever live AC wiring is present.





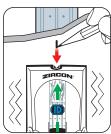






Figure C

ZIRCOM

Figure D

**A WARNING** TOOL MAY NOT DETECT AC ACTIVITY IF WIRES ARE NOT ACTIVATED OR MORE THAN 2" (50 MM) BEHIND 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. USE EXTREME CAUTION UNDER THESE CIRCUMSTANCES OR WHENEVER LIVE AC WIRING IS PRESENT.

A 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.

#### WORKING WITH DIFFERENT MATERIALS

**Studs** Studs are normally spaced 16" or 24" (40 cm or 60 cm) apart on center and are  $1\frac{1}{2}$ " (38 mm) wide. Anything closer together, or of a different width, may not be a stud.

**Wallpaper** Tool functions normally on walls covered with wallpaper or fabric, unless the materials are metallic foil, contain metallic fibers, or are still wet after application. Wallpaper may need to dry for several weeks after application. For freshly painted walls, it may take a week or longer to dry after application.

**Lath and plaster** Tool is not designed to scan over 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.

**Wood flooring, subflooring, or gypsum drywall over plywood sheathing** Move the tool slowly. This tool cannot scan for wood studs and joists through carpet and padding.

**Electrical wiring and pipes** Depending on the proximity of electrical wiring or pipes to the wall surface, 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.** 

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

SITUATION	LIKELY CAUSE	SOLUTION
Tool detects objects other than studs during scanning or finds more objects that look like studs than should be there.	Objects may be near, or touching, the back of the wall surface.	• Check for other studs equally spaced to either side at 16" or 24" (40 cm or 60 cm) and check for the same stud at spots directly above or below the first scan area.
		• Standard studs measure approximately $1\%$ " (38 mm) between edges. Anything smaller or larger is likely not a stud (unless near a door or window).
Studs are continuously detected near windows and doors.	Multiple studs are in use.	Double and triple studs are sometimes used around doors and windows. Headers are used above them. Detect outer edges so you know where to begin.
Electrical wires suspected but none detected.	Wires deeper than 2" (50 mm) from the surface might not be detected.	If there is an outlet switch, turn it to ON position while scanning, but turn OFF when working near the wires. Use extra caution if the area has plywood, thick wood backing behind drywall, or walls that are thicker than normal.
	Wires may not be live.	Plug a lamp into the outlet and turn it on to test whether wires are live.
Tool Indicators flash continuously when scanning.	Scanner is experiencing oversaturation when scanning over a dense object.	Restart scan and recalibrate in a different location.
Low Battery Indicator on.	Low battery.	Install two new AA (1.5 V) alkaline batteries with extended expiration dates.
Low Battery Indicator flashes and tool does not operate.	Dead battery.	Install two new AA (1.5 V) alkaline batteries with extended expiration dates.

# **TROUBLESHOOTING & CONSTRUCTION TIPS**

#### LIMITED LIFETIME 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 its useful life (not to exceed twenty 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 for normal wear and tear and minor defects which do not detract from the function of the product.

THIS LIMITED LIFETIME WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL ZIRCON BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM POSSESSION, USE, OR MALFUNCTION OF THIS PRODUCT. NO OTHER REPRESENTATIONS OR CLAIMS OF A SIMILAR NATURE WILL BIND OR OBLIGATE ZIRCON.

Some states do not allow limitations on certain implied warranties and/or the limitation on incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This Limited Lifetime Warranty applies only to products purchased within the United States of America (USA) and Canada. For warranty applicable to products purchased in all other geographical areas, see www.zircon.com/warranty.

Any in-warranty defective product returned to Zircon, freight prepaid, along with dated purchase receipt and \$10.00 to cover shipping and handling, will be repaired or replaced,

at Zircon's option. If the returned product is no longer available, Zircon may replace the product with a similar product of similar function. This is your sole and exclusive remedy for breach of this Limited Lifetime Warranty. To return product, call the Zircon Customer Service number below to request an RMA number and return product with shipment tracking to:

Zircon Corporation Attn: Returns Department 1580 Dell Avenue Campbell, CA 95008-6992 USA

Include your name, return address, RMA number, and package tracking number. Allow 4–6 weeks for delivery.

If you do not agree to the terms of this Limited Lifetime Warranty, you may not use this product and must promptly return it to the retailer, along with a dated purchase receipt within 30 days of purchase for a refund of the purchase price.

Customer Service: 1-800-245-9265 or 1-408-963-4550 Monday–Friday, 8:00 a.m.–5:00 p.m. PT www.zircon.com • info@zircon.com

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FCC Part 15 Class B Registration Warning: This tool complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this tool may not cause harmful interference, and (2) this tool must accept any interference received, including interference that may cause undesired operation.

Scan QR code for more information.

