

EN MultiScanner® 740

Multifunction Wall Scanner

- The MultiScanner® 740 features three scan modes:
- **STUD SCAN:** Locates the center and edges of wood and metal studs up to 1 1/2 in. (38 mm) deep
 - **METAL SCAN:** Detects and locates ferrous (magnetic) metal up to 3 in. (76 mm) deep and non-ferrous (non-magnetic) metal up to 1 1/2 in. (38 mm) deep
 - **AC SCAN:** Detects and locates live unshielded AC wires up to 2 in. (51 mm) deep

WireWarning® Detection automatically detects and alerts the user to live AC wires in STUD SCAN and METAL SCAN modes.

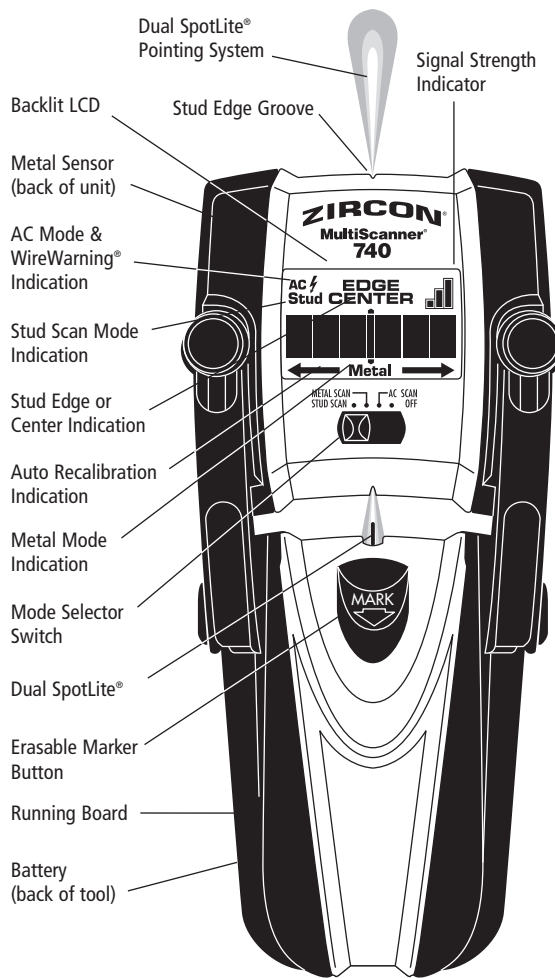
Note: This product is intended only for use with an optimum voltage range of 110-127 V.

1. INSTALLING THE BATTERY

- Press battery door release in with your finger or a coin and lift up to remove door.
- Place brand new 9V alkaline battery into the compartment and press into place.
- Replace battery door and snap shut.

2. SELECTING THE MODE

- Move selector switch to the desired mode: STUD SCAN for finding wood or metal studs; METAL SCAN for locating metal; or AC SCAN for locating hot AC wiring.
- Move selector switch to the OFF position when not in use to prevent the tool from accidentally powering on and wearing down the battery.



3. FINDING A STUD

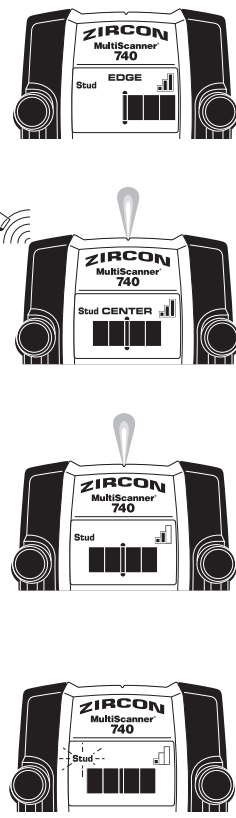
Always scan for studs with the tool placed flat against the wall. Move the mode switch to STUD SCAN, place the tool against the wall, then press and hold the handle down. Wait for beep to confirm calibration has completed before moving tool.

Slowly slide tool across surface. EDGE display will illuminate, indicating location of the stud edge.

Continue sliding tool. When the center of stud is located with three bars on the Signal Strength Indicator, the buzzer will sound, and the four middle bars, CENTER display, and SpotLite® Pointing System will illuminate.

In cases of deeper studs (or thicker walls), two bars will show on the Signal Strength Indicator and only the SpotLite® Pointing System and four middle bars will illuminate. If you still can't locate a stud, try the next step.

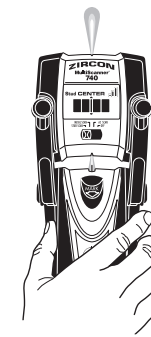
Quickly (within one second) release and re-press the handle down. The scanner will enter the **High Sensitivity Mode** and the STUD SCAN Mode Indication will flash continuously. The center of a very deep stud will be indicated by the four middle bars illuminating.



4. OPERATING TIPS

For optimum scanning results, it is important to properly hold MultiScanner® 740 and move slowly when scanning. The following tips will ensure accurate scanning results:

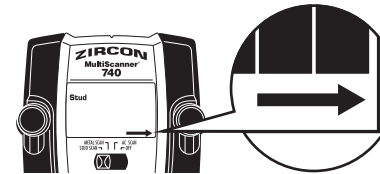
- Grasp the handle with your thumb on one side and your fingers on the other side. Make sure your fingertips are resting on or above the running board and not touching the surface being scanned or the scanning head of the tool.
- Hold the tool straight up and down, parallel to the studs, and do not rotate the tool.
- Keep tool flat against the wall and do not rock or tilt the tool when slowly sliding across the surface being scanned.
- Make sure your other hand (or any other part of your body) is not touching the surface being scanned. This will interfere with the tool's performance.



5. CALIBRATING THE TOOL

MultiScanner® 740 constantly monitors the subsurface environment 10 times per second and automatically recalibrates, when needed, to successfully find the center of studs in one step!

- Place MultiScanner® 740 against the wall and press the handle until it lays flat against the wall. Pressing the tool to lay flat against the wall will automatically power on the tool via the internal On/Off switch.
- Once powered on, tool will automatically perform all calibrations. The LCD will display all icons until calibration is complete. Upon completion of calibration, the SpotLite® and buzzer will momentarily activate and the tool will begin continuous measurements. Continue to press the tool flat against the wall and begin scanning.
- **Note:** It is important to wait for calibration to complete (1-2 seconds) before moving the tool.
- **ACT™ (Auto Correcting Technology)**—During scanning, the tool will automatically recalibrate itself when needed. This recalibration is usually transparent and no indication is made. If the tool is initially calibrated near a stud and then moved away (it will detect the density of the wall decreasing), an arrow icon will be illuminated, indicating the direction of the missed stud.



7. SCANNING IN METAL MODE (continued)

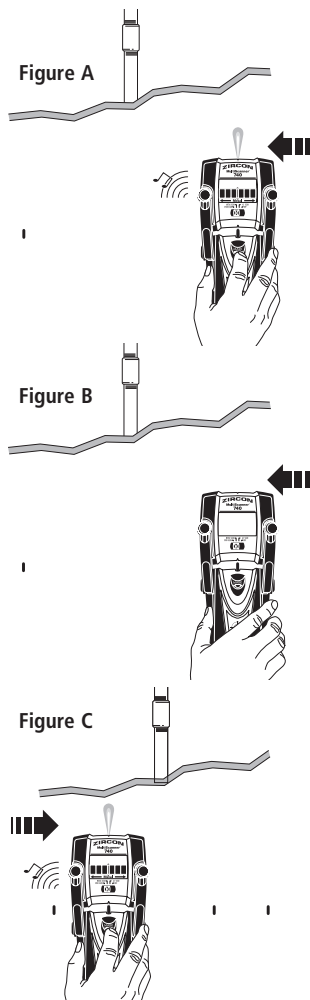
1. **(Figure A)** Press the tool flat against the wall and slowly slide the tool across the surface. Mark the spot where the display bars peak. If it is a strong target, the SpotLite® Pointing System will also shine a beam of light and a steady beep will sound. Continue in same direction until display bars reduce. Reverse direction and mark the spot where the display bars peak from the reversed direction. The midpoint of the two marks is the location of the center of the metal object.

If the tool indicates metal over a large area, you can refine the scanning area to more accurately locate the metal target.

2. **(Figure B)** To further pinpoint the location of the metal target, scan the area again. Release the handle and then turn the tool back on, this time starting on the wall over one of the previous marks. This will reset the tool to a lower sensitivity and make the scan more precise.

3. **(Figure C)** Scan in both directions as in Step 1. The area indicated should become smaller so you can more precisely identify the metal location. This procedure can be repeated to narrow the field even further.

Note: Small targets or targets deep within the surface may only illuminate some of the bars and not the center line or audio tone. In this case, use the highest indication to determine the metal position.



8. SCANNING IN AC MODE

As with METAL SCAN Mode, AC SCAN Mode has interactive calibration and works in the same manner.

1. **(Figure A)** Press the tool flat against the wall and slowly slide the tool across the surface. Mark the point where you get the highest AC indication (the most bars on the screen). If it is a strong target, the SpotLite® Pointing System will also shine a beam of light and a steady beep will sound. Continue in same direction until display bars reduce. Reverse direction and mark the spot where the display bars peak from the reversed direction. The midpoint of the two marks is the location of the center of the live AC wiring.

If the tool indicates live electricity over a large area, you can refine the scanning area to more accurately locate the live AC wiring by following steps 2 and 3 below.

2. **(Figure B)** To further pinpoint the location of the live AC wiring, scan the area again. Release the handle and then turn the tool back on, this time starting on the wall over one of the previous marks. This will reset the tool to a lower sensitivity and narrow the scan area.

3. **(Figure C)** Scan in both directions as in Step 1. The area indicated should become smaller so you can more precisely identify the location of live AC wires. This procedure can be repeated to narrow the field even further.

Note: AC SCAN mode will only detect live (energized) AC wiring.

WireWarning® Detection

Zircon's WireWarning® Detection feature works continuously in STUD, High Sensitivity, and METAL modes. When live AC voltage is detected, the AC Alert warning icon will appear in the display. If scanning begins over a live AC wire, the AC indicator will flash continuously.

WARNING Electrical field locators may not detect live AC wires if wires are more than 2 in. (51 mm) from the scanned surface, in concrete, encased in conduit, present behind a plywood shear wall or metallic wall covering, or if moisture is present in the environment or scanned surface.

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 POWER, 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.

Always turn off power when working near electrical wires.

9. MARKING THE LOCATION

Once an object is located, you can mark the location by gently pulling down the MARK button with the tip of your finger. Pulling back the MARK button will cause a pencil point to extend from the front of the handle, placing a short erasable line on the wall.

10. CHANGING THE MARKER TIP

Pull and hold the MARK button to fully extend the marker tip. Grasp the marker and pull it off the marker post. To install a new marker tip, pull and hold the MARK button to fully extend the marker post. Push the new marker onto the marker post.

Note: MultiScanner® 740 comes with three spare marker tips. These tips are stored in a compartment located behind the battery. Additional marker tips can be ordered from Customer Service at 1-800-245-9265.

11. REMOVING OR REPLACING THE SCANNING HEAD

MultiScanner® 740's scanner head may be removed from the handle to facilitate cleaning or repair. Or the scanning head may also become separated from the handle if accidentally dropped or twisted. Follow the directions below to replace the scanning head:

To remove the head: Place the back of the head in the palm of one hand, and grasp the body of the unit in the other hand. Slowly and gently lift and turn the body, removing one arm from the socket at a time.

To replace the head: Align the end of the arms over the sockets and gently snap them back into their sockets, one arm at a time.

FCC Part 15 Class B Registration Warning

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

12. HELPFUL HINTS (See also number 4, OPERATING TIPS)

Situation	Probable Cause	Solution
Detects objects besides studs in STUD SCAN Mode. Finds more targets than there should be.	• Electrical wiring and metal/plastic pipes may be near or touching back surface of wall.	• Scan the area in METAL and AC SCAN modes to determine if metal or hot AC is present. • Check for other studs equally spaced to either side 12, 16, or 24 in. (305, 406, or 610 mm) apart or the same stud at several places directly above or below the first. <i>Use CAUTION when nailing, sawing, or drilling in walls, floors, and ceilings where these items may exist.</i>
Area of voltage appears much larger than actual wire (AC only).	• Static charge may develop on drywall, spreading voltage detection as much as 12 in. (305 mm) laterally from each side of an actual electrical wire.	• To narrow detection, turn unit off and on again at the edge of where wire was first detected and scan again. • Place your free hand flat against wall near tool during the entire scan to drain static.
Difficulty detecting metal.	• Tool calibrated over metal object. • Metal targets too deep or small.	• The scanner may have been calibrated over a metal object, reducing sensitivity. Try calibrating in another location. • Scan in both horizontal and vertical directions. Metal sensitivity is increased when metal object is parallel to sensor, located under Zircon logo.
Image of metal object appears wider than actual size.	• Metal has greater density than wood.	• To reduce sensitivity, follow Step 7 and recalibrate MultiScanner® 740 over either of first two marks. (Metal mode only.)
Constant readings of studs near windows and doors.	• Double and triple studs are usually found around doors and windows. Solid headers are above them.	• Detect outer edges so you know where to begin.
You suspect electrical wires, but do not detect any.	• Wires are shielded by metal conduit, a braided wire layer, or metallic wall covering. • Wires deeper than 2 in. (51 mm) from surface might not be detected. • Wires may not be live.	• Try METAL SCAN to see if you can find metal, wire, or metal conduit. • Always turn off the power when working near electrical wires. • Try turning on switches to outlet. • Try plugging a lamp into outlet and turning on switch.

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Visit www.zircon.com/support for the most current instructions.

LIMITED 1 YEAR WARRANTY
Zircon Corporation, ("Zircon") warrants this product to be free from defects in materials and workmanship for one year from the date of purchase. Any in-warranty defective product returned to Zircon*, freight prepaid with proof of purchase date and \$5.00 to cover postage and handling, will be repaired or replaced at Zircon's option. This warranty is limited to the electronic circuitry and original case of the product and specifically excludes damage caused by abuse, unreasonable use or neglect. This warranty is in lieu of all other warranties, express or implied, and no other representations or claims of any nature shall bind or obligate Zircon. Any implied warranties applicable to this product are limited to the one year period following its purchase. IN NO EVENT WILL ZIRCON BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM POSSESSION, USE OR MALFUNCTION OF THIS PRODUCT.
In accordance with government regulations, you are advised that: (i) some states do not allow limitations on how long an implied warranty lasts and/or the exclusion or limitation of incidental or consequential damages, so the above limitations and/or exclusions may not apply to you, and further (ii) this warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Return product freight prepaid with proof of purchase date (dated sales receipt) and \$5.00 to cover postage and handling, to:
Zircon Corporation
*Attn: Returns Department
1580 Dell Avenue
Campbell, CA 95008-6992 USA
Be sure to include your name and return address. Out of warranty service and repair, where proof of purchase is not provided, shall be returned with repairs charged C.O.D. Allow 4 to 6 weeks for delivery.
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
info@zircon.com



