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# FRANKLIN SENSORS

## ProSensor™ M90

# PROFESSIONAL STUD FINDER

**IMPORTANT: READ BEFORE USING.  
SAVE THESE INSTRUCTIONS.**

### Operating/Safety Instructions

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#### FRANKLIN SENSORS PROSENSOR M90

Congratulations on selecting a Franklin Sensors stud finder which has the most advanced wall sensing technology on the market. Your ProSensor M90 incorporates advanced technology that precisely senses the surface in nine locations simultaneously, then instantly identifies the location(s) of hidden object(s). It is easy, fast, and accurate.

#### SAFETY RULES FOR THE PROSENSOR M90

**WARNING: Read all instructions before use. Failure to follow safety instructions may result in electric shock, fire, and/or serious injury and death.**

#### SAVE THESE INSTRUCTIONS

**WARNING:** It is possible that there may be wood, metal, wiring, or other objects behind the surface that are not detected. The stud finder may also detect pipes, wires, or other objects that the user may not want it to detect. The stud finder is designed to detect any inconsistency but does not identify what type of inconsistency or object it detects. The illuminated LEDs may indicate the location of many different features including, but not limited to, studs, beams, water pipes, gas pipes, wires, an inconsistency in the surface material or paint, etc.

**WARNING: TURN OFF** all gas, water, and electric power before using any drilling or penetrating devices or equipment including drills, saws, routers, hammers, nails, screws, etc.

**WARNING:** The stud finder alone should not be relied upon exclusively to locate objects behind a scanned surface. Use other sources of information to help locate objects. Other sources of information may include, but are not limited to, construction plans, visible points of entry of pipes, location of switches and outlets, and standard 16" and 24" stud spacing practices.

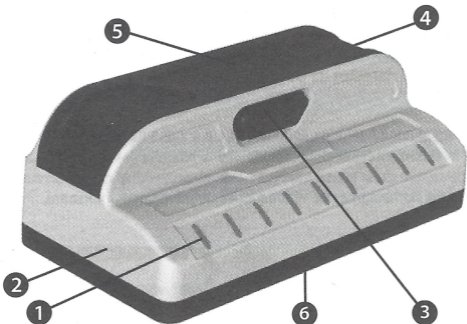
**FAILURE TO TAKE THESE AND OTHER NECESSARY PRECAUTIONS COULD RESULT IN ELECTRIC SHOCK, FIRE, AND/OR SERIOUS INJURY AND DEATH.**

#### Clean

Before turning on, ensure that the stud finder is clean and dry. If necessary, wipe the stud finder dry using a clean cloth. If the detector is wet or dirty it may not operate properly.

#### Temperature

If the stud finder is subject to a significant temperature change, allow it adjust to the ambient temperature before using. The entire area of the sensor board should be at a similar temperature for best operation.

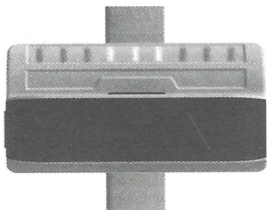


- 1. LED Lights
- 2. Detector Housing
- 3. "On" Button

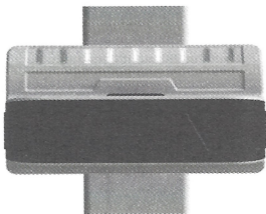
- 4. Battery Cover
- 5. Ergonomic Handle
- 6. Sensor Board

## TO OPERATE:

- Hold the stud finder by the handle. Do not touch the detector outside of the handle area while scanning.

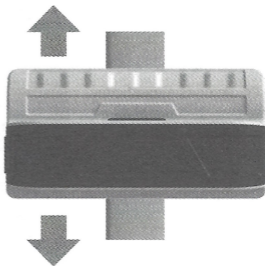


- Place the ProSensor M90 firmly against the surface and press and hold the "on" button.
- With the button depressed, you may immediately begin scanning the wall. (No calibration or tuning is required.) As you scan, LED lights will immediately display the location of any hidden objects.
- The "on" button may be pressed before or after placing the stud finder on the surface to be scanned. The stud finder will operate if slid across the wall, but no sliding is required.



- LED lights indicate the width of hidden object(s).

- On some surfaces it may be helpful to slide the stud finder up and down to confirm the location of a stud.



### **Handle Hold**

When operating the ProSensor M90 the hand should remain on the handle. Holding the M90 on the sides, or with fingers close to the sensor board, may cause the unit to work inaccurately.

### **SENSING THROUGH DIFFERENT MATERIALS:**

#### **Moisture**

The scanned surface should be clean and dry. Paint and wallpaper need to be completely dry before scanning for studs. It may take up to 2 weeks for wallpaper to dry enough to detect studs.

#### **Foil-Backed Insulation**

Although foil covered insulation is not very common, metal foil can cause inconsistent readings with all electronic stud finders, including the ProSensor M90.

#### **Metallic Content in Wallpaper**

Wallpaper with metallic content can block the detector's signals.

#### **Textured Walls and Acoustic Ceilings**

The ProSensor M90 is capable of detecting studs through many textures and surfaces. The unit will however work most accurately if placed firmly against the flattest portions of the wall. When looking for studs you will depress the button and slide the unit horizontally across the wall. For the best results, prior to beginning your scan, identify a horizontal area that is consistently the flattest.

#### **Lath and Plaster**

Irregularities in plaster thickness and variations in construction materials can make it difficult to locate studs behind lath and plaster walls. Also, if the plaster has a mesh reinforcement, the stud finder may not be able to detect through the metal mesh.

#### **Tile, Flooring, Roofing, and Outside of House**

The ProSensor M90 works by measuring the density of material behind the sensors to determine the location of studs. Due to the variability in the density of materials in tile, flooring, roofing, and on the outside of the house, we do not recommend the ProSensor M90 for use in these applications.

## STICKERS / DECALS

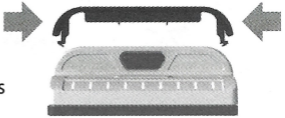
Do not place decals or stickers, especially those containing metal, on the sensor board, or on the stud finder in any place.

## DISASSEMBLY / TEFLON PADS

Do not disassemble the stud finder or remove the teflon pads on the bottom. The stud finder will not operate correctly without the teflon pads properly in place.

## BATTERIES

The ProSensor M90 uses 2 AAA batteries. Replace both batteries at the same time.



## REPLACING THE BATTERIES

- Remove the battery cover by gently depressing on each side and then lifting. Remove both batteries and dispose of them properly. Please recycle.
- Replace with two fresh AAA batteries. Replace both batteries at the same time.
- Close the battery cover by inserting one of the clips into the battery cavity, gently depress the other side of the batter cover inserting the other clip into the battery cavity until it clicks closed.

## STORAGE

Store the stud finder in a clean, dry place at room temperature. Protect against direct sunlight and moisture.

## DISPOSAL

Stud finders and packaging should be sorted for recycling.

## ENVIRONMENTAL CONDITIONS

Storage Temperature	0°F to 120°F (-18°C to 50°C)
Operating Temperature	32°F to 110°F (0°C to 43°C)
Storage Humidity	0% to 90% relative humidity (non-condensing)
Operating Humidity	0% to 90% relative humidity (non-condensing)



## **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.

## **LIMITED WARRANTY**

Franklin Sensors warrants this product to be free from defects in material and workmanship for one year. This LIMITED WARRANTY does not cover products that are improperly used, abused, or altered. Defective products will be replaced or repaired. If a product is found to be defective within the warranty period, Franklin Sensors will, at its sole discretion, either repair or replace the defective product. This limited warranty does not apply to products that are subjected to freight damage, accident, abuse, alteration, misuse, improper repair, etc. Franklin Sensors and Franklin Sensors' authorized distributors shall bear no other liability or obligation under this warranty.

IN NO EVENT SHALL FRANKLIN SENSORS HAVE ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, DAMAGE TO GOODWILL, LOSS OF TIME, INCONVENIENCE OR OTHER COMMERCIAL OR ECONOMIC LOSS, and in no event shall Franklin Sensors be liable for damages exceeding the purchase price.

In the event of a product defect, please return the product postage paid with proof of purchase to:

Franklin Sensors Inc.  
Attn: Returns Department  
6675 N Pollard Lane  
Meridian ID 83646  
(208) 918-2403  
returns@franklinsensors.com  
Hours of Operation: Monday-Friday,  
8 AM to 5 PM,  
Mountain Time Zone

US Patents 8,476,912 8,669,772 8,736,283  
8,791,708 8,836,347 8,884,633

US and Foreign Patents Pending.

CONDITION	PROBABLE CAUSE	SOLUTION
No LED lights come on.	Weak battery.	Remove both batteries and replace with two fresh AAA batteries. Replace both batteries at the same time.
Stud finder only works momentarily.	The "on" button isn't being held down.	Hold the "on" button down until you have completed your scan.
The LED lights are indicating the location of pipes and wires, not just studs.	The ProSensor M90 indicates the location of inconsistencies. The LED lights may indicate the location of a pipe, electrical wiring, other objects near the surface being scanned, or an inconsistency in the surface material or paint, etc.	Look for evenly placed studs on either side (16", 24", on center, etc.) Scan above the location and below the location to confirm results. Use caution before penetrating wall. See the SAFETY RULES FOR THE PROSENSOR M90.
Difficulty starting a scan near doors and windows.	Solid headers and triple studs are often present around doors and windows. The ProSensor M90 indicates the change in density. If all nine sensors sense the same density, the LEDs will not illuminate.	Begin the scan away from the window or door, then move the stud finder to the area around the window or door. For best results, keep stud finder 3" away from wood trim, outlets, switches, etc.
Stud finder doesn't work through new wall paper.	The moisture in the wall after wall papering can block the stud finder's signal.	Wait until the wallpaper is dry. It may take up to 2 weeks for the paper to dry sufficiently.
My house was built prior to about 1960. The walls are lath and plaster. The stud finder doesn't work very well anywhere in my house.	Older houses that were built with lath and plaster, instead of sheet rock, often have too much inconsistency in the walls for the detector to work reliably.	Try using the stud finder at a higher point on the wall, or a lower point on the wall.
Inconsistent readings.	Operator is holding the unit near the base rather than on the handle.	Only hold the unit by the handle with a finger continually pressing the button.
	Anomaly in the surface material.	Test at a higher or lower location on the wall.
	Sometimes after continuously scanning the wall for a period of time the readings seem to be less consistent.	Release the button and press the button again.
The LED lights sometimes seem to light up sporadically or inconsistently.	Wires, pipes, or other construction inconsistencies can cause erratic or erroneous readings. Features on the opposite side of a wall may also be a source of inconsistent readings.	Test at points on the wall that are higher, or lower. The stud finder may also work best if it is used more than 3 inches away from metal objects such as outlets, light switches, etc.