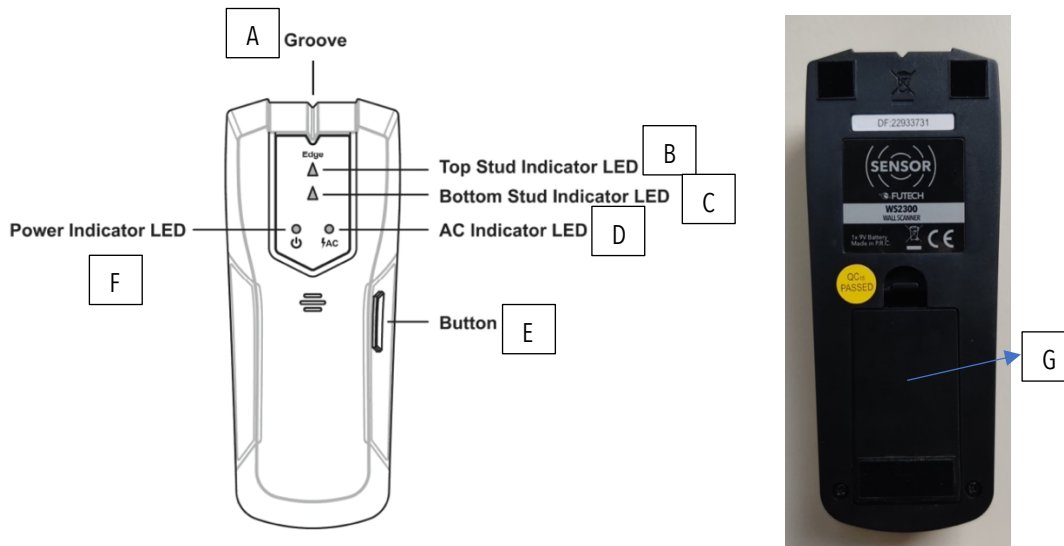


USER MANUAL [EN]

WS2300 – STUD DETECTOR

OVERVIEW



SAFETY & WARRANTY

Read the complete safety and warranty instructions provided together with the device before using.

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

Turn the wires' power off when working near electrical wires.

Shielded wires, dead wires, live wires in metal conduits, casings, metal walls or thick dense walls will not be detected as live wires.

Certain environmental conditions fundamentally impair the measurement results, such as the proximity of devices that generate strong electric, magnetic or electromagnetic fields, moisture, metal building-materials, foil-laminated insulation materials or conductive wallpapers or tiles. Therefore, also check other information sources (e.g. construction plans of the walls, floors or ceilings).

Do not use the unit if it is damaged or if it operates abnormally.

The stud detector can be carried normally on papered walls. However, it may not function on some type of foil backed or metallic fabric surfaces.

OPERATING

1 INSTALLING BATTERY

- 1.1 Open the battery cover [G].
- 1.2 Insert a battery of 9 Volt (6F22 or equivalent) by clicking the smallest round into the largest round.
- 1.3 Place inside.
- 1.4 Close the battery cover [G].

When the internal battery is low, the power indicator LED [F] flashes. Replace the internal battery (Steps 1.1 to 1.4).

2 DETECTING STUD

- 2.1 Place the unit flat against the wall surface (the surface should be flat and dry).
 - 2.2 Press and hold the button [E] (the unit turns on and starts calibration).
 - 2.3 Do not move the unit until the calibration is completed.
 - 2.4 The calibration is completed when the built-in buzzer sounds a beep and all the LEDs [B, C & D] except the power indicator LED [F] flashes once.
 - 2.5 Keep pressing the button [E] through the following procedures.
 - 2.6 Slowly move the unit sideways across the wall (keep it flat; do not rock or lift the unit).
 - 2.7 The bottom stud indicator LED [C] lights up when the unit gets close to a stud.
 - 2.8 The top stud indicator [B] lights up, the built-in buzzer sounds and the bottom stud indicator LED [C] turns off when the unit has detected an edge of a stud.
 - 2.9 Stop moving and mark the spot at the groove [A] with a pencil.
 - 2.10 Continue to move sideways across the wall surface until the two stud indicator LEDs [B & C] and the buzzer are off.
 - 2.11 Move the unit in reverse direction to locate the other edge of the stud.
 - 2.12 The top stud indicator [B] lights up, the built-in buzzer sounds and the bottom stud indicator LED [C] will turn off, indicating the other edge of the stud.
 - 2.13 Stop moving and mark the spot at the groove [A] with a pencil (the midpoint of the two marks is the center of the stud).
- Avoid interference by removing your other hand from the unit while using it.
 - Remember that studs or joists are normally spaced 16-24" (41-61 cm) apart and 3.8 cm in width, so anything closer together or of a different width may not be a stud.
 - Doors and windows are commonly constructed with additional studs and headers for added stability. The unit detects the edge of these double studs and solid headers as a single, wide stud.
 - Metallic object, wiring or water pipe can also be detected as a stud.

If the stud indicator LEDs [B & C] flash and the buzzer beeps continuously, the calibration has failed. Move the unit a few inches right or left, release the button [E] and then start over (Steps 2.1 to 2.13).

3 DETECTING LIVE AC WIRE

- 3.1 Place the unit flat against the wall surface (the surface should be flat and dry).
- 3.2 Press and hold the button [E] (the unit turns on and starts calibration).
- 3.3 Do not move the unit until the calibration is completed.
- 3.4 The calibration is completed when the built-in buzzer sounds a beep and all the LEDs [B, C & D] except the power indicator LED [F] flashes once.
- 3.5 Keep pressing the button [E] through the following procedures.
- 3.6 Use the position where you have adjusted the unit as the center of a 60 cm straight scanning path along which you will scan.
- 3.7 Move the unit back and forth along this scanning path.
- 3.8 The unit will adjust its sensitivity automatically.
- 3.9 Use the position where the AC indicator LED is constantly lit as the center of a new 60 cm straight scanning path from which you will continue to scan.

- 3.10 Slide the unit back and forth several times along this new 60 cm scanning path.
- 3.11 The exact position of the live AC wire will now be determined.

SPECIFICATIONS

	WS2300
Detection depth	Wood and metal studs: up to ¾" (19mm) Live AC wires: up to 2" (51 mm) for AC 110V at 60Hz
Accuracy	Stud center: +/- 1/8" (3.2mm) for wood Stud center: +/- ¼" (6.4 mm) for metal Relative humidity requirement: 35% - 55%
Operating temperature	0°C - 40°C
Storage temperature	-20°C - 70°C
Battery	9V battery, 6F22 of equivalent (one piece)
Dimensions	138 x 56 x 24 mm
Weight	About 120g (including battery)