Wall Scanner
User Manual

Safety Notes

For technological reasons, the scanner cannot ensure 100% certainty. To rule out hazards, safeguard yourself each time before drilling, sawing or routing in walls, ceilings or floors by means of other information sources, such as building plans, pictures from the construction phase, etc. Environmental influences, such as humidity or closeness to electrical devices, can influence the accuracy of the scanner. Surface quality and condition of the walls (e.g., moisture, metallic building materials, conductive wallpaper, insulation materials, tiles)as well as the amount, type, size and position of the objects can lead to faulty measuring results.

Intended Use

The wall scanner is a hand-held rapid wall detecting tool, mainly used to detect magnetic metals buried in walls, ceilings and floors, such as steel bars, iron pipes, non-magnetic metals, such as aluminum pipes, copper pipes, PVC water pipes and live wires.

Technical Data

Maximum scanning depth ①

—Ferrous metal: 100 mm

—Non-ferrous metals (Copper): 80 mm

—Live conductors (220V@50Hz / 110V@60Hz)②: 50 mm

—PVC pipes③: 35 mm

—Wood: 25 mm

Working temperature: -10℃～+50℃

Storage temperature: -20℃～+70℃

Humidity : ≤75%RH

Battery: 3*1.5V AAA

Dimensions: 185*85*33mm

Weight: 180g

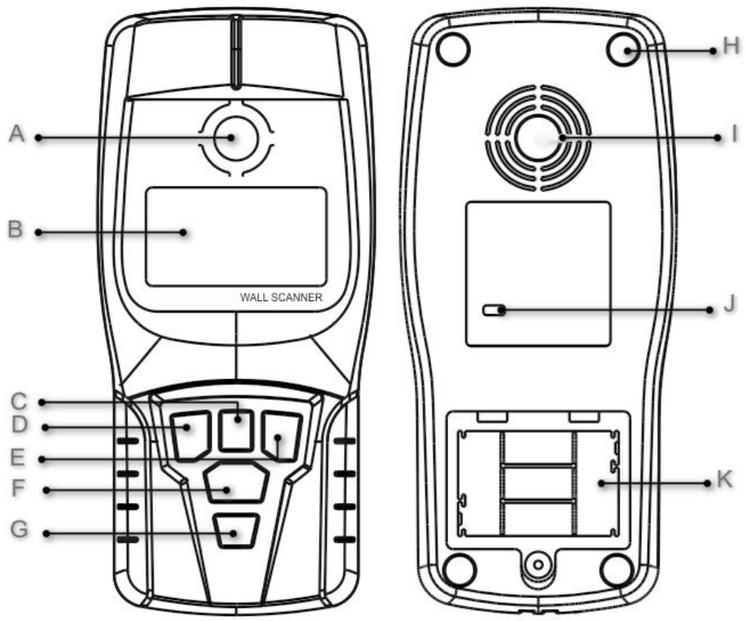
Notes

① Based on measurements on drywall and depending on operating mode, material and size of the objects, as well as material and condition of the base material.

② Less scanning depth for wires/conductors that are not "live"

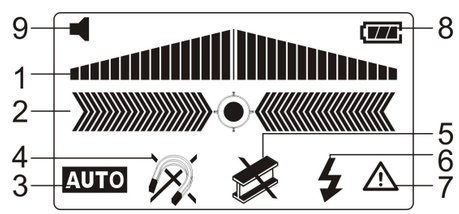
③the PVC water pipe should be filled with water, and the diameter should be larger than 15mm.

Product Features



A:Illuminated Ring, Mark Hole	B: Display
C: Metal Mode	D: Auto Mode
E: Live Conductor Mode	F: On/off Button
G: Backlight / Alarm On/off	H:Contact Pads
I: Sensor Area	J: Position Adjusting Hole
K:Battery Lid	

Display Elements



1：Scale bar: sensing strength of search	2：Scale point: central position of the searched object
3：Auto searching mode	4：Magnetic metal Nonmagnetic metal
5：Metal or nonmetal	6：Live conductor
7：Error	8：Battery level
9：Alarm	

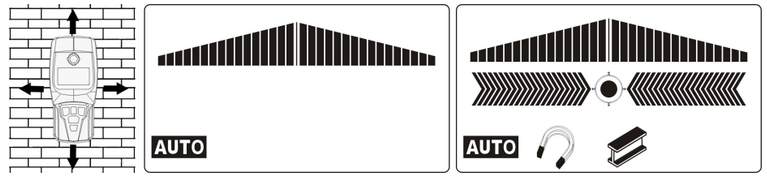


Figure 1 Figure 2 Figure 3

Always put the scanner close to the wall surface and slowly move as figure1, illuminated ring (A) turns green and the system enters standby status. when any object is detected, scale bar (1) shall be gradually full and illuminated ring (A) turns red and alarm, see figure 2 for sensing scale. If you want to find the central position, please move the scanner left and right over the hided object repeatedly and observe the scale point (2) (changes of the scale bar and point), when the scale bar is full and central point is displayed as figure 3, it means the central position is got.

Battery Installation

Remove the battery cover, insert 3 new 1.5V batteries, Pay attention that the polarity is correct.

Battery Installation and Replacement

Battery level indicates on the display as below:

Full

2/3 full or less

1/3 full or less

Replace with new

Note: If the scanner is not used for a long period of time, the battery must be removed.

Operation

Warning!

Environmental influences, such as humidity or closeness to electrical devices, can influence the accuracy of the scanner. Surface quality and condition of the walls (e.g., moisture, metallic building materials, conductive wallpaper, insulation materials, tiles)as well as the amount, type, size and position of the objects can lead to faulty measuring results. To rule out hazards, safeguard yourself each time before drilling, sawing or routing in walls, ceilings or floors by means of other information sources, such as building plans, pictures from the construction phase, etc.

To achieve the best detection results

• Avoid wearing rings, watches and jewelries when using the scanner, which may influence the results.

• Move the scanner in a straight line over the surface applying slight pressure,

without lifting it off or changing the pressure.

• During measurement, the contact pads must always have contact to the surface.

• Do not touch the scanner or the surface being scanned with the rest parts of your body.

• The detection speed should be slow to achieve maximum accuracy and depth.

ON/OFF and Self-inspection

1. Before switching the scanner on, make sure that the sensor area is not moist. If required, dry it with a soft cloth.

2. Press ⏻ to turn on or off the scanner , it enters into auto mode after turn on

3. After turning on, press ⊡ , the scanner performs self-inspection, the scale bar displays in full and then disappears, it enters standby status, see figure 2, If the self-inspection fails, please contact the supplier.

Auto Mode

The detection mode is defaulted as auto after its turn-on, you may switch to auto mode by ⊡ key in other mode. With auto mode , It can measure metals, PVC water pipes and AC live conductors under drywall.

1. With auto mode, metal will be detected prior to other materials, if it displays ϟ or  , please switch to live conductor or Metal mode.

2. PVC pipe or wood can be detected under auto mode, and the LCD displays  during detection.

Note:

• Moving slowly on the surface to achieve maximum accuracy and depth .

• Move the detector back and forth on the object repeatedly.

• It is easier to locate the object by moving the scanner slowly in the direction of the objects goes, therefore, it will be helpful to get the basic information of size and shape of the object before measurement .

• When detecting the metal under the red brick wall, please switch to metal mode, because the color of the red brick comes from iron trioxide, which will produce a certain degree of magnetism when it is close to the magnetic field. In this case, using the auto mode will cause faulty detection results.

Metal Mode

The maximum detection depth: ferrous metals: 100mm. non-ferrous metals (copper): 80mm.

1. Press the button ⌶ to enter the metal mode, the symbol  will be indicated on the display.

2. Place the scanner on the surface to be scanned.

3. Slowly move the scanner on the surface. When the scanner approaches a metal object, the signal strength will increase, the illuminated ring will light red and the alarm will beep.

Live Conductor Mode

The maximum detection depth: 50mm (220V@50Hz / 110V@60Hz)

Warning 1

Under certain conditions (such as scanner failure or improper operation), live wire cannot be securely detected. Therefore, apply further measurements in close proximity or use other information sources to check if a live wire exists.

Warning 2

Don't assume that there are no live conductors in the wall. Do not take actions that may be dangerous. Before penetrating the wall, be sure to cut off the power, gas and water.

1. Place the scanner on the surface to be scanned.

2. Press the key ϟ to activate the live conductors mode, the symbol ϟ indicated on the display .

3. Slowly move the scanner on the surface. When the scanner approaches the live conductor, the signal strength will increase, the illuminated ring will light red and the alarm will beep.

Note:

• Under certain conditions (such as below metal surfaces or behind surfaces with high water content), “live” conductors cannot be securely detected. Concrete, brick, and ceramic surfaces have a shielding effect on the electric signals of live conductors, the detection depth cannot be secured under those surfaces.

• “Live” conductors can be detected easier when power consumers (e.g. lamps, machines) are connected to the sought wire and switched on

• Static electricity can lead to electric lines being indicated inaccurately, To improve the indication, place your free hand flat on the wall next to the scanner, in order to remove the static electricity.

• Voltage-free conductors can be detected as metal objects ,or cannot be detected. This only apply for solid cable not for stranded cables.

•If there is signal bar displayed, and the illuminated ring light red, but there is no live conductors around, it may be caused by the high humidity or strong static electricity or strong electromagnetic radiation (e.g. numbers of electrical devices around). Please perform the measurement till the humidity drop or turn off the appliances around.

Switch On/Off Alarm

Press  key to switch on/off alarm.

Switch On/Off Backlight

Long press  key to switch on/off the screen backlight (press and hold the key for 3s).

Cautions

1. Don’t use the detector in extreme weather, if there is great difference in temperature, Don’t use the detector until its temperature is close to the environment.

2. Keep away from electric tools or transmitting devices such as WLAN, UMTS, flying radar, launching tower, microwave oven and other devices of such property.

3. Keep the sensing window clean, it fails to sense whether it’s close to the wall surface if it’s dirty or covered.

4. If the object’s edge or central point is detected, mark the above position at the mark hole.

Warranty

1. If the scanner is unable to perform self-inspection, please return it in attached protective jacket to the dealer or factory for repair service.

2. Any damage arising from dismantlement without permit, improper keeping or wrong operation, and the conditions of warranty paper alteration or no sales paper, shall be out of the warranty.

3. Please observe the above provisions and we shall offer one-year product warranty.