UT387B Wall Detector User Manual

⚠ Caution: Please read the manual carefully before use. Observe the safety regulations and the cautions in the manual to make best use of the detector. The company reserves the right to modify the manual.

Wall Detector User Manual:

As a handheld rapid wall tester, UT387B may be used to detect whether the wall socket or switch is electrically charged and detect the live wire, metal and timber pile buried under the timber wallboard and ceiling. The detection of the electric wire buried in the cement wall is just for reference. (It is easy for the cement wall to shield the signal.)

Description of Graphic Symbols:

A	Indicator Light	B	LCD Display Screen
C	ZOOM key	D	Metal Detection key
E	AC Wire Detection key	F	Mute key
G	Wood Detection key	H	0N/0FF key
J	Sensing area (SENSOR)	K	Battery Cover

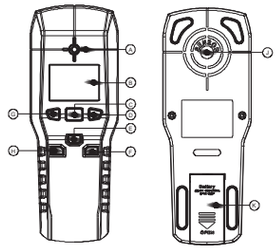

Figure 1

Figure 2

LCD Display (Figure 3)

a	Battery	b	Mute
c	Metal Detection	d	Wood Detection
e	ZOOM	f	AC Wire
g	AC Electric Field Signal	h	Non-Magnetism
i	Magnetism	j	Calibration
k	Detected Signal	l	ZOOM Function

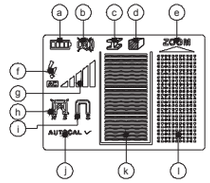

Figure 3

Technical Indexes:

Maximum detection depth:
Ferrous metal (iron pipe with a minimum diameter of 3cm)----------80 mm
Nonferrous metal (aluminum with a minimum volume of 30cm*2cm*2cm)--80 mm
Live wire----------50 mm
Wood (with a minimum volume of 20cm*16cm*4cm)----------20 mm

Operating temperature: 0〜40°C	Pollution degree: 2
Storage temperature: -10〜50°C	Auto power-off time: 5 minutes
Temperature for guaranteed precision:18〜28°C	Battery: one alkaline battery of 9V(6LR61)
Humidity:≤75%	Low voltage of battery: about 7.2V
Altitude:≤2000m	Silent mode: yes

Caution:

Detection range is under the influence of the volume of object to be detected and the status of surface material. The larger the volume, the farther the detection range.
In addition, wood moisture also affects its detection range to some extent. The greater the moisture, a little farther the detection range.

Operating steps:

1. Battery Installation:

Open the battery cover as shown in the figure (Figure 2). Install the battery by properly placing its positive and negative terminals, and then fasten the battery cover. If the detector is not used for a long time, please remove the battery to avoid damage to the detector due to battery leakage.

2. Proper Use:

- Before use, it must be determined that the detection area is dry. Do not use the detector immediately after a large temperature difference. Make sure that there is no strong electromagnetic interference around.
- Press the ON key (H). After the AUTOCAL is correct, the detector can be used for detection.
- When used, if there is no metal detected around, the detector still sounds an alarm, then the detector shall be calibrated and kept away from other objects. Simultaneously press the C key and F key for three seconds, the detector would automatically shut down. The detector can be used after it is restarted.

3. Detection Method:

Metal Detection:

- Keep the detector away from the metal and press the ON key (the default is metal detection mode), or press the Metal key to switch to metal detection mode. After the AutoCal is correct, the detector can be used for detection.
- Press the detector close to the wall and slowly move it. When there is a metal with a distance of less than 80mm from the sensing area, the detector displays its signal strength and sounds an alarm.
- Repeatedly move the detector and determine the specific location of the metal according to the change of the signal intensity. The closer distance from the metal to the sensing area, the stronger the signal intensity.
- When detecting a small or deeply buried metal, press the ZOOM key to determe it with | display diagram.
- When the detector detects a metal object, the red light is on and the detector sounds an alarm. When the detector is away from the metal object and exceeds the detection range, the green light is on and the detector stops buzzing.

Caution:

For the metal object with a tiny size, the detector may not detect it. If there is no metal, the detector would sound an alarm, so it shall be re-calibrated.

Method:

Raise the detector in the air with both hands. Do not hold the detector close to any metal or strong electromagnetic field. In the mode of metal detection, simultaneously press the ZOOM key and SOUND key for three seconds, the detector would automatically shut down to complete the calibration.

Wood Detection:

- Press the ON key to start the detector. Press the Wood key and the screen displays a wood symbol, a ZOOM symbol and a flashing triangle symbol.
- Press the detector close to the back of the object to be detected, then long press the ZOOM key. When the green light is on, ZOOM does not flash and AutoCal is OK, the detector can be moved to detect the wood inclusion under surface. When a wood inclusion approaches (less than 20mm away from the center of the detector head), there is a signal change on the k display diagram with an alarm. The closer the wood inclusion approaches, the stronger the signal intensity.
- Repeatedly conduct the detection according to the signal intensity change thus to determine the specific location of the wood inclusion.
- When the detector detects an inclusion, the red light is on and the detector sounds an alarm. When the detector is away from the inclusion and exceeds the detection range, the green light is on and the detector stops buzzing.

Caution:

At the start of detection, if the detector is just above the inclusion, k display diagram and ZOOM would flash with the flashing of red light when moving the detector. So a position shall be chosen again and press the ZOOM key again for detection. If a wood inclusion is to be detected, the position with strong sensing would be at the edge of the wood.

AC Wire Detection:

- The detector can detect an AC wire with a voltage higher than 110V, 50~60Hz; the sensing would be weak when the wire is grounded.
- Press the ON key (H key in Figure 1), and press the AC key to switch to the mode of AC detection.
- When the sensing area is close to the surface of the object to be detected, if there is a live wire within the detection range, the detector would sound an alarm if it detects an electric field with certain intensity. The approximate position of the AC wire would be determined according to the signal strength. If there is no disturbance of other electric fields, the stronger the sensed signal (g), the closer distance from the detector to the live wire. A silent mode can also be selected at detection.

Caution:

If the wire is connected to a working electric appliance, it is easy to detect the specific location of the wire. When the wire is hidden under a metal surface or buried in a damp object, the detector may not identify the location of the wire. When a wire in the wall is to be detected, the wall shall not be touched by the other hand in case the wire is undetectable as signals are masked.
When detecting a wire, the detection range of the detector would be affected if a ground wire and the wire are connected.

- Generally speaking, the detection result is affected by the surrounding environmental factors, i.e. whether the tester is close to the machine and object which may generate strong magnetic field or electromagnetic field. In addition, the moisture, building material with metal, insulating material covered with aluminum and wallpaper with good conductivity will affect the detection result. If the cement wall is moist, it will be difficult to detect the electric wire buried in the cement tank. Therefore, please pay much attention to the material instructions (such as architectural drawing) before drilling and cutting on the wallboard, ceiling and floor.

Maintenance and Cleaning

Clean the detector with dry and soft cloth. Do not clean it with detergents or other chemicals. The detector has gone through rigorous quality testing prior to delivery. If any non-human failure is found in the process of use, please contact the after-sales service. Do not disassemble and repair it by yourself.

Waste Disposal

Damaged detector and its accessory package shall be recycled in compliance with the state environmental protection requirements.

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