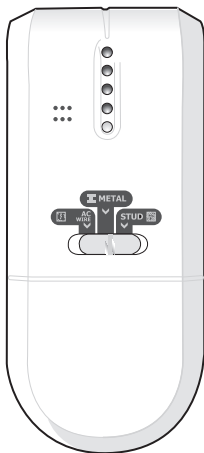


3 in 1 Metal, AC & Stud Detector

USER GUIDE



Please read these instructions carefully before use
for further information contact:

Customer Careline: 08457 573 479

Local rate UK number, Monday to Friday 9am-5pm

Technical Website: www.philex.com/support

Introduction

This unit is an advanced detector. It can be used to detect and locate studs, metal and AC voltage. It can be used to make a wide range of DIY tasks easier and safer.

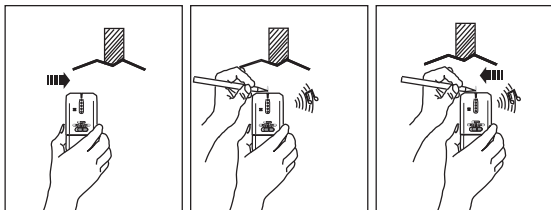
FEATURES

1. Locate a stud's centre point.
2. Detect wood and metal studs.
3. Detect and trace wires carrying an AC current.
4. Metal scanning for nails, pipes and other hidden metallic objects.

APPLICATIONS

1. Finding metal pipes in concrete.
2. Finding electrical boxes, exhaust vents, conduits and ducting.
3. Trace live wires in ceilings, floors and walls.
4. Installing shelving, cupboards and TV wall brackets securely.

Scanning for studs



1. Set the selector switch to the "STUD" position.

2. **Calibration:**

Place the unit against wall. Press and hold down the TEST button, the unit starts calibration process. When you hear two beeps, calibration is complete. Continue to hold down the TEST button throughout the following procedures.

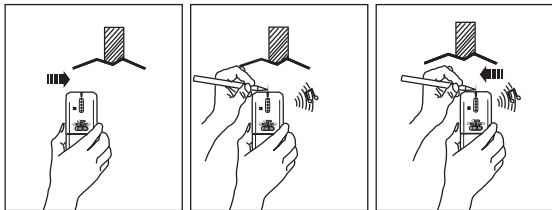
3. **Detection:**

- a. Slowly move the unit sideways across the wall. As the unit passes over a stud, the signal LEDs will light sequentially from bottom to top. When the top signal LED lights and the built-in buzzer sounds continuously, the stud's edge has been detected. Stop moving the detector and mark the spot using the groove at the top of the detector as a guide.
- b. Continue moving the detector sideways across the wall until all the signal LEDs switch off and the buzzer stops, then reverse the direction of your sweep to locate and mark the other edge of the stud, the midpoint between the two marks is the centre of the stud.

Please Note

1. Stud detection can be carried normally on most wall-papered walls. However, it may not function on some types of foil backed or metallic fabric wall coverings.
2. If you accidentally start your scan with the detector already positioned over a wall batten or stud, the unit will not work correctly.
3. The surface of wall which you are scanning should be flat and dry.
4. To confirm that it is a stud that has been detected, we recommend that you carry out a scan in metal detection mode to make sure that the object detected is not a pipe or other metal object.
5. Use one hand to hold the detector when scanning and keep the other hand well away from the detector.
6. Normally, the studs in the wall are 40cm to 60cm apart and the stud's width is about 3.8cm.
7. If two studs are immediately adjacent to each other, the unit may not detect them properly as two separate studs.
8. Once the TEST button is released the detector will need to be recalibrated before performing another scan.
9. If you move the detector too quickly, the signal LEDs will not light sequentially

Scanning for metal



1. Set the selector switch to the “METAL” position.

2. **Calibration:**

Hold the detector upright well away from any metal objects.

Press and hold down the TEST button, the unit starts calibration process. When you hear two beeps, calibration is complete.

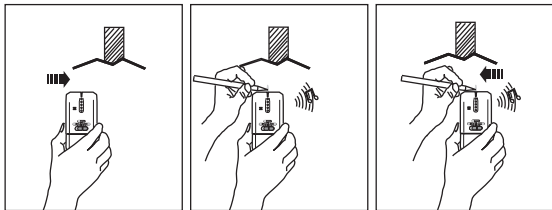
Continue to hold down the TEST button throughout the following procedures.

3. **Detection:**

a. Place the unit against the wall and slowly move it sideways across the wall as shown above. As the unit passes over a stud, the signal LEDs will light sequentially from bottom to top. When the top signal LED lights and the built-in buzzer sounds continuously, the edge of a metal object has been detected. Stop moving the detector and mark the spot using the groove at the top of the detector as a guide.

b. Continue moving the detector sideways across the wall until all the signal LEDs switch off and the buzzer stops, then reverse the direction of your sweep to locate and mark the other edge of the metal object, the midpoint between the two marks is the centre of the metal object.

Scanning for live AC/mains wiring



1. Set the selector switch to the "AC WIRE" position

2. **Calibration:**

Hold the detector upright well away from any live mains wiring. Press and hold down the TEST button, the unit starts calibration process. When you hear two beeps, calibration is complete. Continue to hold down the TEST button throughout the following procedures.

3. **Detection:**

a. Place the unit against the wall and slowly move it sideways across the wall as shown above. As the unit passes over a stud, the signal LEDs will light sequentially from bottom to top. When the top signal LED lights and the built-in buzzer sounds continuously, the edge of a live wire has been detected. Stop moving the detector and mark the spot using the groove at the top of the detector as a guide.

b. Continue moving the detector sideways across the wall until all the signal LEDs switch off and the buzzer stops, then reverse the direction of your sweep to locate and mark the other edge of the live wire, the midpoint between the two marks is the centre of the wiring.

Please Note:

1. Wires deeper than the detection limit from surface, running in conduit, or behind plywood coverings will not be detected.

Use caution under these circumstances.

2. Rubbing or banging the unit on the wall may generate static electricity and cause a false indication.

Scanning for live AC/mains wiring - continued

3. Leakage Currents

Because of the extreme sensitivity of the detector very small currents can be detected giving atypical readings. For instance a conductor with poor insulation touching a damp wall may give a reading over a large area of the wall. In this situation, the unit is indicating a potential hazard which should be checked with a voltmeter.

Warnings

1. Depending on the proximity of electrical wiring or pipes to the wall surface, the unit may detect these items in the same manner as studs. ***Caution should always be used when nailing, sawing, or drilling into walls, floors, and ceilings that may contain these items.***
2. When working near mains electrical wiring, always turn off power at the mains/consumer box.
3. To avoid misinterpretation, be aware that two or more objects of the same or different materials may appear to be a single object. If for instance there appears to be an extra wide stud may be two studs, or one stud and a ceiling joist, pipe or fire break.
4. If you don't use the detector for a long time, remove the battery.
5. For a more accurate idea of the exact position of an object, it is recommended that repeat the scan at a different angle.
6. Wiring that is shielded or is located in metal conduits, casings, metal walls or thick, dense walls will not be detected.

Battery replacement

If the built-in buzzer sounds five times in quick succession after you press the TEST button, you should replace the battery immediately.

Remove the battery door, remove the exhausted battery carefully, then connect a 9V battery (PP3 or equivalent) to the terminals and place inside. Rejoin battery door correctly.

Make sure that the old battery is disposed of according to local recycling guidelines and is not disposed of with general household waste.

Specifications

Detection Depth	Stud mode	Wood stud of $> 30 \times 30\text{mm} \leq 18\text{mm}$ depth
	Metal mode	Iron pipe $\varnothing 25\text{mm} \leq 30\text{mm}$
	AC mode	Typical depth of 50mm for 90-250V @ 50-60Hz
Operating Conditions		-7 to 40°C below 75%RH
Storage Conditions		-20 to 50°C below 85%RH
Battery		9V PP3
Dimensions		151 x 66 x 31mm
Weight		approx. 164g (including battery)

NOTE: Detection depth and edge detection can vary due to the moisture content of materials, wall texture, paint, etc.



Waste electrical and electronic products must not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority for recycling advice.

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