

Technical data

Wood locating: soft wood/hard woods and man-made composite boards, max 10mm thickness
Metal locating: ferrous metal diameter 20mm/iron pipe depth 25mm
AC voltage test: 220-240V AC, electric wire depth 35mm
Ambient conditions: -20°C to 60°C, 30-80% RH
Battery: 9V PP3

WARNING: Please note

This detector will provide an indication of the location of buried cables & pipes and stud work. Depending on the building construction and the materials used it may not be able to provide 100% identification and further investigation & testing may be required for a definitive result. Building regulations require electrical cables and water carrying pipe work to be run in horizontal and vertical channels but this cannot always be guaranteed if domestic DIY work has been carried out previously. If in doubt always check with a qualified plumber, electrician or building inspector.

This detector should be used as a guide only.

Voltage and gas can be extremely dangerous and can cause personal injury or death. Always use extreme caution when working where either could be present. If at all in doubt please consult a trained professional.

It is important to ensure that you have set the detector correctly to detect the material you need to detect in the wall. Follow the instruction to ensure the unit is set up as expected and do a few test runs to be confident of the reading. Failure to do so may cause injury or death.

Voltage and gas can be extremely dangerous and can cause personal injury or death. Always use extreme caution when working where either could be present and ensure that the mains have been switched off. If at all in doubt please consult a trained professional.

Hilka' WEEE Policy



Any products, or accessories bearing the Waste Electrical and Electronic Equipment (WEEE) directive symbol (shown left) are **NOT** to be disposed of in domestic waste. Products that are at the end of the machines working life or that are not repairable must be separated and disposed of in an environmentally-friendly way according to national regulations.

This also applies to accessories such as batteries which must **NEVER** be disposed of in household waste, water or fire.

Empty packaging bearing the symbol may be disposed of through your normal route.

How as a consumer do I dispose of Waste Electronic and Electrical Equipment (WEEE) and batteries correctly?

1. Retailers must provide a way for customers to dispose of their old household electrical and electronic equipment when they sell them a new version of the same item, either through a collection service or a store take back scheme. Check with your preferred retailer for details.
2. Individual consumers can take your item to your local recycling centre for advice.
3. Some councils offer a household recycling collection service for small electrical items; contact your local authority for more details.



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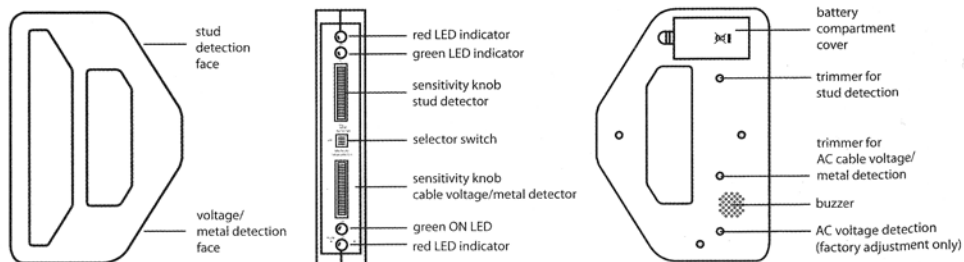
3-in-1 Detector



Code: 51241

Operating Instructions

3-in-1 Detector Instruction Manual & Safety Guide



Battery Installation

Slide the battery compartment cover off and connect the 9V PP3 alkaline battery (remove shrink film). Replace the compartment cover and securely snap in place (see Fig. 1).

Operating Instructions

1. Metal/Voltage Detection

- Hold the unit as shown in Fig. 2 and turn the red knob fully clockwise.
- Make sure the unit is away from any metal or current-carrying cable. Set the Selector Switch to the VOLTAGE/METAL DETECTOR position. The green "ON" LED will light up immediately.
- Turn the red knob anti-clockwise until the indicators come on (red LED lights and BUZZER sounds). Reverse the red knob gently until the indicators just go out.
- Make sure the unit is working properly prior to use by placing the detector near to a metal object or known live power cable (e.g. table lamp cable or extension lead.) See point (6) if no detection is made.
- Hold the detector as shown in Fig. 3 and move it across the wall. When a metal object is detected, a continuous buzzer tone will sound. A current-carrying cable will be identified with a red blinking LED and a beeping sound from the BUZZER (see Fig. 4).
- After the set has been switched on, an adjustment has to be made if the detector does not appear to work. Please refer to "UNIT ADJUSTMENT" in section 4 in these instructions.

Important Note:

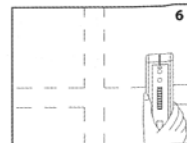
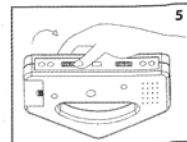
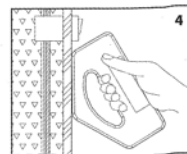
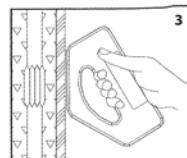
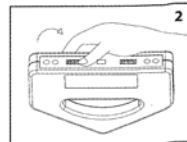
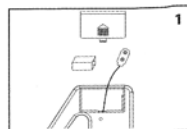
- The detector will not detect shielded cables, i.e. those in metal conduit, while in Voltage Detection mode so it is always advisable to check again in Metal Detection mode.
- Metallic fibres and foils used for fireproofing in some walls will spread the area of voltage picked up. Placing your free hand on the wall may cancel the effect.
- Rubbing or banging the detector on the wall may generate static electricity and cause false readings.

Caution:

The unit can detect weak AC sources, which may result in apparent false readings being seen in some situations. This can occur when a cable with poor insulation is in contact with a conductive surface, e.g. a damp wall. As such, cable location may not be able to be pinpointed accurately. The unit may be indicating a potential hazard which should be checked with a voltmeter by a qualified electrician.

2. Stud Detection

- Hold the detector vertically as shown in Fig. 6 and turn the red knob fully clockwise.
- Set the Selector Switch to the STUD DETECTOR position.
- Turn the red knob anti-clockwise until the indicators come on (green LED and red LED successively light, and BUZZER sounds).
- Reverse the red knob gently until the red LED just goes out and BUZZER ceases.
- It will need to be adjusted if the unit cannot be set accordingly. For details, please refer to "UNIT ADJUSTMENT" in section 4 in these instructions.
- Make sure the detection face marked "STUD" is placed against the wall when moving the unit horizontally across the wall (see Fig. 6). If the incorrect face is used, the green LED will go out and you will need to commence calibration from step (1) again.
- Mark the position on the wall when an edge of a batten or wall stud is under the groove of the unit, the red LED will come on and the BUZZER will sound (see Fig. 7).
- Resume the movement of the unit. When the green LED comes on and the BUZZER stops, mark this position also. These marks indicate the edges of the batten or wall stud. The middle point between two marks will be the centre of the batten or wall stud.



Locating horizontal battens or stud braces, refer to the following procedure:

- Place the unit horizontally against the wall (see Fig. 8).
- Apply the same method as indicated above for locating vertical battens or wall studs.

Important:

- The stud detection may not function on some types of foil backed plasterboard or metallic fabric surfaces.
- If the unit is placed over the wall batten or stud to process calibration, the green LED will go out and the BUZZER will cease when the edge of batten or wall stud is under the groove of the unit.
- A double width may be found around door and window frames due to double battens or studs being encountered.
- A solid wood header beam may exist in some doors or windows. The stud location will not be found if the unit is calibrated on a normal wall first and then moved to the header area, it will indicate the presence of a header.
- It is recommended to take several readings along the vertical batten or stud as a nail may change the apparent centre position.
- To avoid any false readings, frequent recalibration is recommended.
- Please note that some small securing screws or nails may be detected. We recommend carrying out metal/voltage detection to make sure the detected batten or wood stud is not a pipe or cable.

3. Maximizing Accuracy

To increase the sensitivity of the unit and improve the location of pipes, cables, battens and studs; sweep the unit across the area with light and buzzer sounding. After each sweep, gradually adjust red knob until light and buzzer are no longer activated. Gently reverse knob before each subsequent sweep until the red LED and BUZZER go out at the location of hidden pipes/cables, battens or studs.

4. Unit Adjustment

1. Metal/Voltage Detection Adjustment

- Turn red Metal/Voltage sensitivity knob by half a turn.
- Set the selector switch to the VOLTAGE/METAL DETECTOR position.
- Use the small plastic screwdriver located inside the battery compartment cover to turn the trimmer for METAL/VOLTAGE DETECTION.
- Slowly turn the trimmer clockwise, the green light will be on and the red light and buzzer will come on. Slowly turn the trimmer counter clockwise until the buzzer and red light goes off with the green light still on. The unit is now correctly adjusted (see fig. 9)
- If the red LED and BUZZER come on, slowly turn the trimmer anti-clockwise until the green LED is just on and the BUZZER is off. The unit is now correctly adjusted (see Fig. 9).

2. Stud Detection Adjustment

- Turn the red Stud sensitivity knob by half a turn.
- Set the selector switch to STUD DETECTOR position.
- Hold the unit with the STUD face against the wall.
- Use the small screwdriver located inside battery compartment cover to turn the trimmer for STUD DETECTION.
- Slowly turn the trimmer clockwise until the red LED and BUZZER just come on. Slowly turn back the trimmer until the red light and buzzer goes off and the green light comes on. The unit is now correctly adjusted (see fig 10).

Important Note:

- The detector will give a guide as to the location of metal pipes or electrical cables. Safe working margins should be employed around the area of positive detection when using power tools to drill or cut surfaces. Always ensure that a properly functioning RCD (Residual Current Device) unit is used with power tools. When using cordless drills, hand drills or saws, work slowly and carefully.
- The detector cannot pick up plastic water or gas pipes or deeply buried pipes or cables. Always ensure drilling or sawing devices are supported firmly to prevent sudden movement when surfaces such as plasterboard have been penetrated.
- Modern building construction uses plastic water pipes (hot & cold water and central heating pipes). These should have been identified with a steel tracer wire or metallic tape so they can be detected. To avoid potential water damage due to undetected plastic water pipes, if in doubt, always seek the advice and guidance of a qualified plumber or building professional.

Leakage Current

Because of the extremely small current required to cause a reading on the unit, an apparent false reading may be seen in some situations i.e. a conductor with poor insulation touching a damp wall, the unit will show a voltage on the wall. In this situation, the unit is indicating a potential hazard that should be checked with a voltmeter.

Another cause of miss readings is due to foil backed plasterboard as this will give a false reading. If a constant voltage indication is given, this could be the most likely cause.

Caution

Remember to switch off the unit when not in use (move selector switch to OFF position). If you don't use the unit for a long time, please remove the battery.

Warnings

Keep this product away from children and always store in a safe place
Always remove exhausted batteries from these products
Do not use rechargeable batteries in this product.
Do not allow water to come into contact with the batteries or wiring
Do not dispose of batteries in a fire or pierce as they may explode or leak.
The battery must be correctly inserted (ensure the correct polarity +)
Only use the recommended 9V PP3 alkaline battery.
The unit will not detect shielded wires or live wires in metal conduits.
It is recommended that the mains electricity is turned off if it is likely that AC wires supplying switches & sockets are located in walls, ceilings or floors.
Caution should always be used when nailing, sawing or drilling into walls, floors and ceilings that may contain cables, wires or pipes.

