


# HT36

## User manual



# 1. PRECAUTIONS/SAFETY MEASUREMENTS

This instrument complies with safety standards related to electronic measuring instruments. For your own safety and to avoid damaging the instrument follow the procedures described in this instruction manual and read carefully all notes preceded by this symbol 

## CAUTION

- Avoid measuring in humid or wet places
- Avoid measuring in rooms where explosive gas, combustible gas, steam or excessive dust is present
- Keep you insulated from the object under test
- Do not touch exposed metal parts such as test lead ends, sockets, fixing objects, circuits etc...
- conditions such as breakages, deformations, fractures, leakages of battery fluid, blind display etc...



The following symbols are used in user manual and on the meter:



CAUTION - refer to the instruction manual - an improper use may damage the instrument or its components



AC Voltage



DC Voltage



**CAUTION:** this symbol indicates that equipment, its accessories and battery shall be subject to a separate collection and correct disposal

## 2. GENERAL DESCRIPTION

The instrument is able to detect::

- Presence of wooden studs and hidden conductive objects
- Presence of hidden metal objects
- Presence of hidden AC live wires

inside walls, ceilings, concrete walls and other common materials. The instrument emits a sound and shows a signal on the display after identifying the object's edge so as to easily identify its central position.


Each of these functions can be selected by pressing the **MODE** button. There are also the **TEST** button for the start-up and initial calibration and an analogical graphic bar that identifies the signal strength. The instrument is equipped with an Auto Power OFF device which automatically turns off after 30s of idleness.

## 3. PREPARATION FOR USE

### 3.1. Initial checks

This instrument was checked both mechanically and electrically prior to shipment. All possible cares and precautions were taken to let you receive the instrument under perfect conditions. Notwithstanding we suggest you to check it rapidly (any damage may have occurred during transport – if so please contact the local distributor from whom you bought the item). Make sure that all standard accessories mentioned in § 7 are included. Should you have to return back the instrument for any reason please follow the instructions mentioned in § 8.

### 3.2. Supply voltage

The instrument is powered by 1x9V battery type IEC 6F22 included on meter. When battery is low the symbol "  " is displayed. To replace/insert the batteries follow the instructions indicated in § 6.

### 3.2. Storage

After a period of storage under extreme environmental conditions exceeding the limits mentioned in § 7 let the instrument resume normal operating conditions before using it.

## 4. NOMENCLATURE

### 4.1. Instrument description

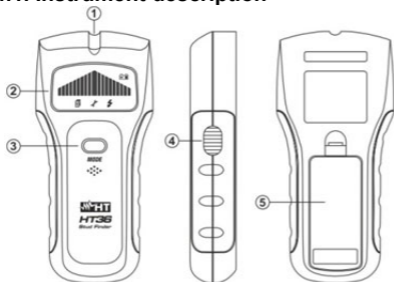


Fig. 1: Instrument description

#### CAPTION

1. Reference object's edge
2. LCD display
3. **MODE** key
4. **TEST** key
5. Battery cover

### 4.1. Display description







Fig. 2: Display description

#### CAPTION

1. Bargraph
2. Central bar
3. Low battery
4. Stud detection
5. Metal detection
6. AC live wire detection

## 5. OPERATIVE INSTRUCTIONS

### 5.1. Wooden/conductive objects and metals detection

1. Switch on the instrument by pressing the **TEST** key for 2s
2. Press the **MODE** key to select the detection of wooden studs or conductive objects (symbol  shown on the display) or the detection of metal objects (symbol  shown on the display)
3. Place the instrument on the surface that encloses the object being searched and press the **TEST** key in order to perform initial calibration the instrument. A short sound, the brief lighting of the bar and the  or  symbol flashes on the display to indicate that the instrument is ready for scanning
4. Hold the instrument in the lower part and move it slowly on the surface from left to right (see Fig.3 - left part)

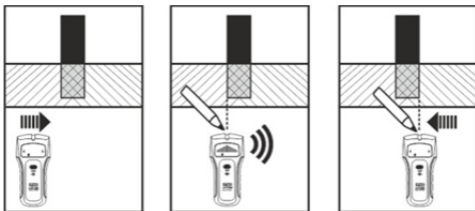


Fig. 3: Scanning of conductive object

5. When the central bar is shown on the display (see Fig. 3 – middle part) the instrument emits a continuous sound. Stop the instrument and mark the initial edge of the object on the surface
6. Continue the search scan along the surface until the graphic bar disappears and the sound stops (see Fig.3 - right part). Mark the final edge of the object

7. Repeat the previous steps several times in order to accurately locate the hidden object
8. Long press the **MODE** key to switch off the instrument

## CAUTION

- The instrument is able to detect any material with a minimum of conductivity, **but is NOT able to detect the presence of plastic materials**
- The calibration must be performed on a homogeneous and uniform surface in order to avoid reading problems. In the case of a rough surface, place the instrument on a piece of cardboard
- The presence of metal parts inside the walls can affect the test result
- To avoid interference, keep the free hand at least **15cm (6in)** away from the scanning surface
- The instrument does NOT scan conductive materials in the presence of walls with depth **greater than 18mm (0.7in)** and with objects of **minimum size 30x30mm (1.2x1.2in)**
- The instrument does NOT scan metals materials in the presence of walls with a depth **greater than 30mm (1.2x1.2in)** and with objects with a diameter **greater than 25mm (1in)**



## 5.2. AC live wires detection

1. Switch on the instrument by pressing the **TEST** key for 2s
2. Press the **MODE** key to select the detection of AC voltage live wires (symbol ⚡ shown on the display)
3. Place the instrument on the surface that encloses the object being searched and press the **TEST** key in order to perform a first calibration. A short sound, the brief lighting of the bar and the ⚡ symbol flashes on the display to indicate that the instrument is ready for scanning
4. Hold the instrument in the lower part and move it slowly on the surface from left to right (see Fig.4 - left part)

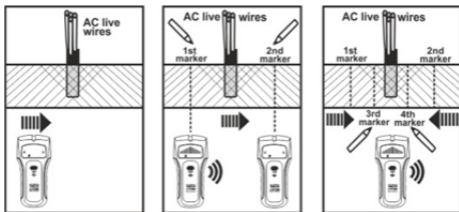


Fig. 4: Scanning of AC live wires

5. When the central bar is shown on the display (see Fig. 4 – middle part) the instrument emits a continuous sound. Stop the instrument and mark the initial edge of the object on the surface (1st marker)
6. Continue the search scan along the surface until the graphic bar disappears and the sound stops (see Fig.4 - middle part)
7. Stop the instrument and mark the 2nd marker on the surface (see Fig.4 - middle part)
8. Position the instrument in the space between the 1st and 2nd marker and press the **TEST** key in order to perform a second calibration


9. Perform a new scan as indicated in the previous points by slowly moving the instrument from left to right in the space between the 1st and 2nd marker
10. Mark the surface with the 3rd marker and the 4th marker (see Fig. 4 - right part)
11. The hidden object will be in the space between the 3rd and 4th marker. The distance between these two new markers must be about 6cm (2in) (almost the size of the instrument itself)

## CAUTION



- The calibration must be performed on a homogeneous and uniform surface in order to avoid reading problems. In the case of a rough surface, place the instrument on a piece of cardboard
- To avoid interference, keep the free hand at least **15cm (6in)** away from the scanning surface
- The instrument does NOT scan metals materials in the presence of walls with a depth **greater than 50mm (2in)**

## 6. BATTERY REPLACEMENT

When the " low battery indication is displayed the battery must be replaced. Follow the below instructions:

1. Open the battery cover
2. Remove the battery and replace it with new one of the same type (see § 7)
3. Replace battery cover
4. Do not scatter old batteries into the environment. Use the relevant containers for disposal



## 7. TECHNICAL SPECIFICATIONS

### General specifications

Conductive objects sizes:	min 30x30mm (1.2x1.2in)
Conductive objects depth:	max 18mm (0.7in)
Metal objects diameter:	max 25mm (1in)
Metal objects depth:	max 30mm (1.2in)
AC voltage live wires:	90V ÷ 250V / 50-60Hz
AC voltage live wires depth:	max 50mm (2in)

### Power supply

Battery type:	1x9V type IEC 6F22
Low battery indication:	“  ” symbol at display
Auto Power OFF:	after 30s of idleness

### Reference guidelines

EMC:	IEC/EN61326-1
Compliance:	2014/30/EU directive

### Mechanical characteristics

Dimensions (L x W x H):	155x72x28mm (6x3x1in)
Weight (with batteries):	ca 203g (7 ounces)

### Environmental conditions for use

Working temperature:	-7°C ÷ 40°C (19°F ÷ 104°F)
Working humidity:	<75%RH
Storage temperature:	-20°C ÷ 50°C (-4°F ÷ 122°F)
Storage humidity:	<85%RH

### Standard accessories

- Battery (not fitted)
- User manual

## 8. SERVICE

### 8.1. Warranty conditions

This instrument is guaranteed for one year against material or production defects, in accordance with our general sales conditions. During the warranty period the manufacturer reserves the right to decide either to repair or replace the product. The warranty shall not apply in the following cases:

- Repair and/or replacement of accessories and battery (not covered by warranty)
- Repairs that may become necessary as a consequence of an incorrect use of the instrument or due to its use together with non-compatible appliances.
- Repairs that may become necessary as a consequence of improper packaging.
- Repairs which may become necessary as a consequence of interventions performed by unauthorized personnel.
- Modifications to the instrument performed without the manufacturer's explicit authorization.
- Use not provided for in the instrument's specifications or in the user manual

### 8.1. Service

Should the instrument not work properly, make sure that battery is correctly installed and working and replace if necessary before contacting your distributor. If the instrument continues to malfunction return it to the after-sales service or to a retailer. Transportation costs are charged to the Customer.



#### HT ITALIA SRL

Via della Boaria, 40  
48018 – Faenza (RA) – ITALY  
Tel: +39-0546-621002  
Fax: +39-0546-621144  
Web: [www.ht-instruments.com](http://www.ht-instruments.com)  
Email: [ht@htitalia.it](mailto:ht@htitalia.it)