

# PERSONAL SAFETY H.V. DETECTOR

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**INSTRUCTION MANUAL**

## **INTRODUCTION**

The tester is a sensor for sensing AC High Voltage. It provides electric engineering personnel, power engineering personnel, firefighting personnel and instrument equipment workers with prominent warning when approaching high voltage and for taking necessary safety action, preventing illusion and misjudgment which could lead to electric shock to person.

When a person wearing the tester is approaching high voltage source or equipment, the sensor will detect automatically and buzzer will generate a "BeBe" sound for warning and LED will flash to remind operators that the user is approaching a high voltage source and special attention shall be given to the safety of operations.

## FEATURES

- Designed for detecting un-shielded cables. If the shielding of the cable is connected to the ground, it can't work.
- Compact, easy to wear and convenient in use.
- Usable both indoor and outdoor.
- Water-proof design. **(IP68)**
- Equipped with self-testing functions.
- Sound and flash light warning on different frequencies varied positively with sensed voltages.
- Able to sense all kinds of AC High Voltage System.
- Low power consumption.
- Meets: EN 61326-1.
- Voltage detection chart:

Voltage	Detection distance
110V	2cm $\pm$ 0.3cm
600V	6.7cm $\pm$ 0.5cm
1kV	11.5cm $\pm$ 1.0cm
2kV	22.5cm $\pm$ 1.0cm
6kV	57cm $\pm$ 1.5cm
8kV	71.5cm $\pm$ 2.5cm
11.4kV	84cm $\pm$ 3.0cm

## **SPECIFICATION**

- Distance of starting warning:  
80cm for 11.4kV (phase to ground)
- Applicable frequency: 50 / 60 Hz
- Volume: 70dB at 1 meter distance
- Operating Temp & Humidity:  
0°C ~ 40°C 80% R.H. Max.
- Outside dimensions:  
59(L) x 56 (W) x 18(D) mm
- Weight: 35g (incl. battery)
- Battery to use: CR2032 x 1
- Battery life: 50 hours for continuous use
- Accessories
  - Instruction manual
  - Elastic cord
  - Battery
  - Bracket
  - Skid proof cushion
  - Hook x 3

## METHOD OF USE

### 1. Inspection before use

- (1) Check the appearance and structure for any abnormality.
- (2) Press Self-Test switch (about 10 seconds) to confirm all functions are working normally.
- (3) To be careful and to avoid misjudgment, test the unit by contacting AC 110V insulated wire with its front side to see if it sounds and flashes.

### 2. Wearing

- (1) Wear the unit in front of the safety helmet.



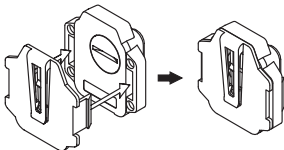
3 hooks hold the elastic cord around the safety helmet.



Hook x 3

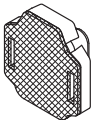
- (2) Wear the unit at the pocket in front of your shirt (chest).

Combination for attachment to chest pocket.



- (3) Wear the unit to the outer side of fore arm with the sensing side faces outwardly.

Use the skid proof cushion and elastic cord.



The effect is best when the sensing side is facing high voltage in right angle (90°). When it is worn at the inner side of arm or is covered by cloth, the sensitivity is poor.

## **CLEANING & REPLACING BATTERY**

1. Sensing side shall maintain clean. The case may be cleaned with soft fabric and mild detergent. No solvent or corrosive agent may be used.
2. Replacing battery
  - (1) When the sound become weak, the battery shall be replaced.
  - (2) Use coin to open battery cover and remove used battery. Place new battery into slot with the battery positive (+) face up and fasten battery cover with coin.

## CAUTIONS

1. This instrument is an auxiliary testing unit and is only for obtaining warning as additional protection. Never use this instrument as substitution for Tester. Electrical Test shall be the prime electric testing instrument.
2. Other than affected by how you wear, the sensing and warning distance may be influenced by direction of electric article, ambient environment, shielding objects and weather conditions.
3. Buzzer has inner water-proof film. Do not pierce it with sharp article.
4. Do not store this instrument outdoor or inside of car for long time to avoid direct sunbeam and high temperature.
5. The instrument shall not be dropped or impacted heavily. If such situation does happen, perform inspection and self-test to ensure no damage occurred before using again.
6. If the instrument is rinsed by rain, remove battery and place it at cool place for natural dry.