INSTRUCTION MANUAL

MT222

22kV AC
VOLTAGE DETECTOR

Contents

Page no

1. INTRODUCTION

MT222 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 MT222 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 sauce and special attention shall be given to the safety of operations.

2. 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. (IP65)
- 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.
- CE Certified.
- Voltage detection :

Voltage	**Detection angle**	**Detection distance**
6.6kV (3.8kV phase to ground)	90°	40cm ± 20%
11.4kV (6.6kV phase to ground)	90°	55cm ± 20%
19.7kV (11.4kV phase to ground)	90°	80cm ± 20%
22.8kV (13.2kV phase to ground)	90°	85cm ± 20%

3. SPECIFICATIONS

Function	Range
Distance of starting warning	85 cm for 22.8kV (phase to phase)
Applicable frequency	50 / 60 Hz 110V ~ 22.8kV
Volume	> 70dB at 1 meter distance
Operating Temp & Humidity	0°C - 40°C / 80% R.H. Max.
Outside dimensions	61(L) x 62 (W) x 18.5(D) mm
Weight	70g (incl. battery)
Battery to use	CR2032 x 1
Battery life	50 hours for continuous use
Accessories	Instruction manual Elastic cord x 2 Battery Hook x 3 Elastic cord adjustment x 1 Connection ring x 2

4. METHOD OF USE

4.1. 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/230V insulated wire with its front side to see if it sounds and flashes.

4.2.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 to the outer side of forearm with the sensing side faces outward

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.

5. CLEANING & REPLACING BATTERY

5.1. Sensing side shall maintain clean.

The case may be cleaned with soft fabric and mild detergent. No solvent or corrosive agent may be used.

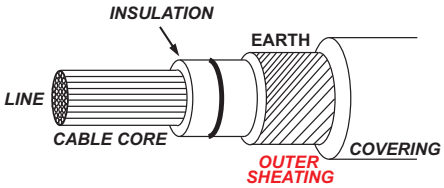
5.2. Replacing battery

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.

6. CAUTIONS

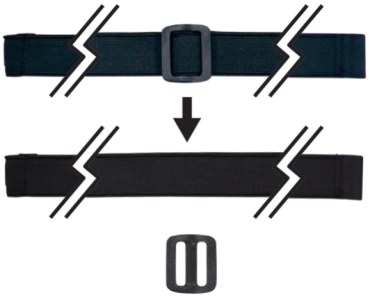
1. This instrument is an auxiliary testing unit and is only for obtaining warning as additional protection. Never use this instrument as substitution for Tester. Electrical Test shall be the prime electric testing instrument.
2. Other than affected by now you wear, the sensing and warning distance may 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 wet by rain, remove battery and place it at cool place to dry.
7. The MT222 can't detect the HV cable which has an outer sheathing that is connected to the ground.



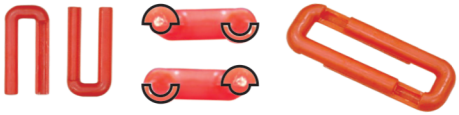
7. COMBINATION OF THE DETECTOR

Separate the elastic cord and the elastic cord adjustment.



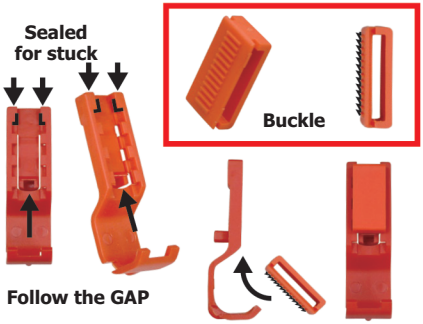
Elastic cord adjustment

The connection ring can be assembled.

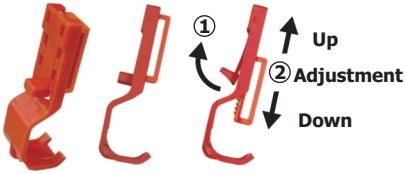


The hook can be disassembled.

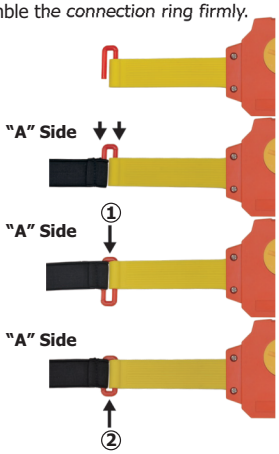
1. The combination of the hook.



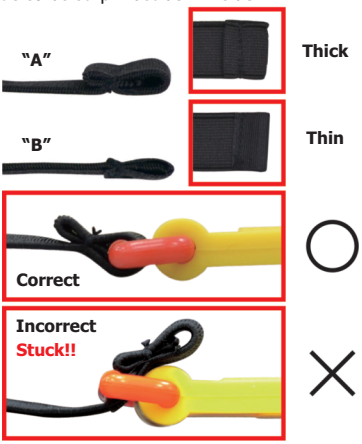
2. The hook can be adjusted according to the user's requirement.



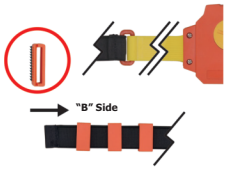
3. Before assembling the connection ring, take the upper part of the connection ring pass through the elastic cord and one side of the detector. Assemble the connection ring firmly.



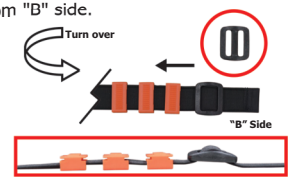
Attention: this elastic cords strip must be "A" side.



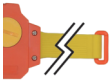
4. Take three buckles pass through the elastic cord from "B" side.



5. Turn over the elastic cord and take the elastic cord adjustment pass through from "B" side.

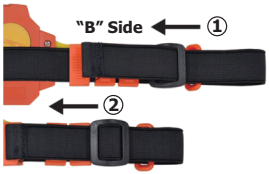


6. First assemble the connection ring of the other side.



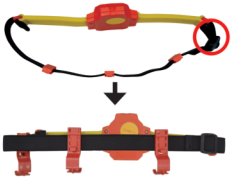
7. Take the elastic cord "B" side pass through the space of the connection ring as below.

8. Turn over the elastic cord pass through the elastic cord adjustment as below.



• Attention: The second combination is different

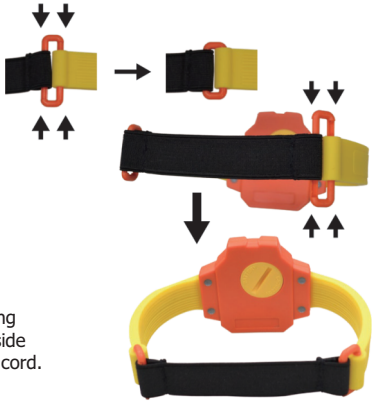
9. Use the elastic cord adjustment to adjust the length of the elastic cord, then assemble the hooks.



10. Fix the detector to the helmet.

11. Short elastic cord

Before assembling the connection ring, take the upper part of the connection ring pass through the elastic cord and one side of the detector. Assemble the connection ring firmly.



Assemble the connection ring of the other side of the elastic cord.

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