

Operation and Safety Notices Instruction Manual





Thank you very much for the purchase of the audio-signaling and light emitting type voltage detector. For safety operation, please read this instruction manual carefully to use this product correctly.

Keep this manual always on hand while using this product. Should you lose this manual, please contact us.

Safety Instructions

This instruction manual uses safety alert symbols to ensure safe operation by users. The instructions with these symbols alert you to important notices to prevent potential hazards or damages to you or other people.

The instructions with the warning symbols are used to alert you to the following hazards. Please understand them well before reading the main text of this manual.

Warning		Operating this product incorrectly without following the messages with this “Warning” symbol could result in death or serious injury.
Caution		Operating this product incorrectly without following the messages with this “Caution” symbol could cause incorrect voltage detection. Depending on situation, it may result in serious results. So be sure to observe these messages.
Prohibition		This indicates that the operations with this symbol are “Prohibition” items that must be strictly avoided.
Compulsory		This indicates that the operations with this symbol are “Compulsory” items that must be followed without fail.

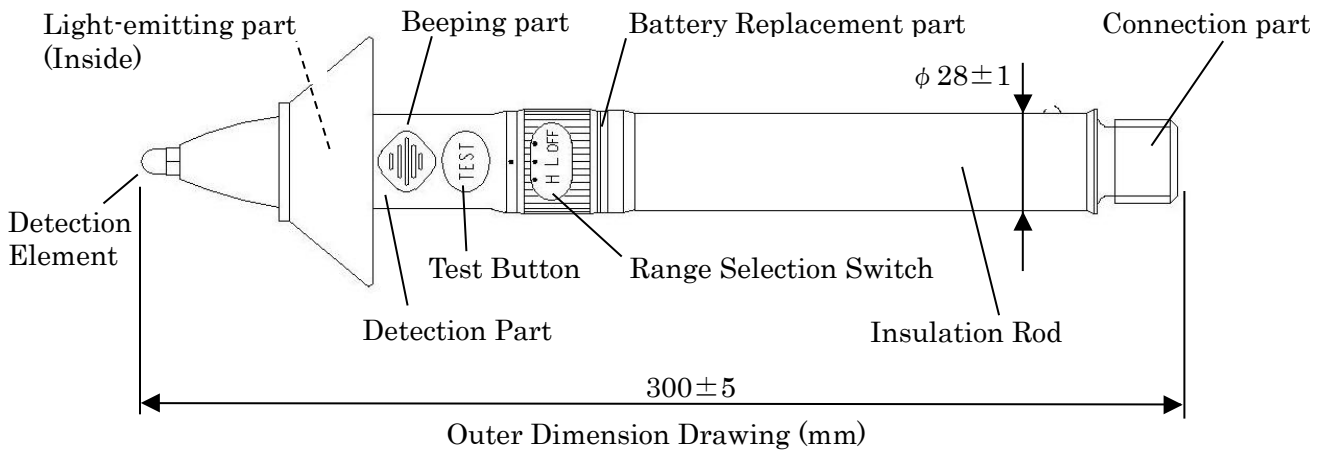


Warning

- ❗ 1. Before use, always make visual inspection & operation check and confirm if there is no abnormality. In addition, make operation check not only by test button but also by the known power supply.
- ❗ 2. Use this voltage detector connected with long enough insulation rod (hot stick).
- ⊘ Do not use the detector alone to secure safety.
- ❗ 3. Prepare the insulation rod with length according to electric standard/regulation in each country to be used.
- ❗ 4. Use the insulation rods with good quality FRP or having more sufficient insulation performance.
- ⊘ Do not use the self-making rod absolutely.
- ⊘ 5. Do not give strong shock to the instrument body and connection part with insulation rod.
- ❗ 6. Make regular inspection for instrument body and insulation rod to maintain the safety. As to the regular inspection, apply the electric standard/regulation in each country to be used.
- ⊘ Do not use the instrument absolutely if you find any abnormality.
- ❗ 7. Voltage detecting operation should be done definitely by electrical operation professionals belonging to power company and or consigned by power company in charge for inspection areas.
- ⊘ 8. Detection part has waterdrop-proof structure but do not use the instrument in rainy and thunder surroundings which will remarkably obstruct safety.
- ❗ 9. The operation performance will get worse at high place. Confirm the circumstances at the place to be used and operate after making sure of safety.
- ❗ 10. Before use, confirm if the detector & connection part and or the connection part & insulation rod are fixed very firmly. It may cause serious accident if the detector is dropping off during operation.
- ⊘ 11. Do not use the instrument in the way not specified in this manual.

⚠ Caution

1. Do not apply the instrument body except for the use of voltage detector.
2. As the operating temperature range is $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$, do not use this instrument at the temperature beyond this range.
3. Do not disassemble, modify or repair this product by yourself.
4. Equip the instrument with batteries before use, in case of new one.
5. Do not leave the instrument in the place with direct sunshine. It may cause deterioration.
6. To prevent water penetration into the battery replacement part, use the instrument after fastening it tightly.
7. In case that the soil and or dust are adhered on the surface of instrument and insulation rod, use the instrument after washed and took off accretion completely.
8. In case that the moisture contents are adhered on the surface of the instrument, use the instrument after wiped off clean.
9. Use pure water for washing and do not apply wastewater and or organic solvent like as thinner, benzene, etc. for cleaning.
After washing, dry the instrument in the shade of room, etc. where the direct sunshine does not enter in.
11. It may cause failure, when twisting the range exchange switch by excessive force. As the switch does not turn to the back side, twist it within the movable range.



Operation of Voltage Detector

1. Check before voltage detection

- ⊘ (1) Ensure that the appearance and structure are normal (no crack, break or chip is found in the detecting part or the pipe). Never use the instrument if something abnormal is found.
- ❗ (2) Connect the voltage detector with insulation rod firmly.
- ❗ (3) Set the selector switch to “L” or “H” position and confirm that the intermittent light-emission & beeping sound continue by pushing test button (Test Operation).

*Note: Set each range selection switch certainly until catching the click sound.

- ❗ If they don't work or they work weakly, replace the battery with new ones. At “OFF” position of range selection switch, the instrument does not work even by pushing test button.
- ❗ (4) Ensure the operation of this instrument with the known power supply, etc.
- ⊘ Never use this instrument in case of no light-emission & beeping by test operation.

2. How to detect voltage

- ❗ (1) For the voltage detection of low voltage circuit, set selector switch to “L”. By the way, voltage cannot be detected with coated wire.
- ❗ (2) For the voltage detection of high voltage circuit (bare wire of 1.5kV or more), set selector switch to “H”.
- ❗ (3) Hold the grip firmly and set the detecting element at the tip to the point where it surely contacts to the object of voltage detection.
- (4) If the object of voltage detection is charged, the instrument produces intermittent sound and light.

3. How to replace a battery

- ❗ (1) Fix the insulation rod and turn detecting part and remove it. The battery will then come out.
- ❗ (2) Replace the batteries and be sure not to make a mistake in polarity of the battery (+/-: shown on the battery chamber).
- ❗ (3) To confirm that the batteries are installed correctly, set the range switch at “L” or “H” and check the continuous intermittent sound & light-emission by test button.
- ❗ (4) Fix the insulation rod and fasten the detecting part firmly. In case of insufficient fasten, the water may penetrate into the instrument body and also, the change of range switch may be unable correctly.

4. Caution at voltage detection

- ⚠ (1) This instrument sometimes operates when the hot line induces voltage in stop line as in the cases where both lines cross or run together and come close with each other.
- ⚠ (2) This instrument sometimes operates when you put the detecting element on the earth while the voltage detector is receiving induction voltage.
- ⚠ (3) Operation startup voltage may vary depending on the place where the instrument is affected by the voltage of other substance or depending on how voltage detector is put on the object.
- ⚠ (4) It is allowed to detect voltage of high voltage circuit (1.5kV or more) with the selector switch at "L" position but the instrument produces sound and light even when it just comes close to the object.

5. Repair, maintenance and management



- (1) Keep the product in a dry place away from direct sunlight.
- ⚠ (2) When disposing of the product, treat it as an industrial waste.
- ⚠ (3) Dispose used batteries adequately according to the regulation in each country or district.
- ⚠ (4) Remove the battery when storing the product for long periods of time.
- ⚠ (5) Conduct periodic inspections as needed. (We accept orders for periodic inspections.)

(Note) The specifications of this voltage detector are subject to change without prior notice for further improvement of the product.



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