

# VP-1 and VP-2 Voltage Probes Instruction Sheet

## GENERAL DESCRIPTION

The VP-1 and VP-2 are hand held voltage detectors for testing exposed metallic surfaces and conductors for the presence of secondary voltage 60Hz AC and for testing for the presence of primary voltage on primary voltage joint and termination test points and through unshielded primary voltage cable insulation. These detectors are designed to be used hand held as shown for secondary voltage testing and must be used with suitable rated electrical insulating gloves for voltages above 600V. The presence of AC voltage is indicated by a flashing red light and beeper.

## HOW IT WORKS

The hand of the user holding the VP series Low Voltage Detector is an integral part of the measurement system and the detector must be hand held as shown. In typical applications, the hand of the user functions as a "virtual ground" to provide a ground reference for the detector since it has no direct connection to ground. The detector measures voltage applied to the metal tip and turns on the red light and beeper if voltage is detected.

## APPLICATIONS

The **VP-1** is designed for general purpose voltage detection with direct contact on secondary voltages and for use in detecting primary voltages in underground cables on unshielded portions over the cable insulation. The **VP-2** is designed for detecting the presence of primary voltage on capacitive test points on underground deadfront joints and terminations.

## SAFETY

The VP series probes are rated for a maximum direct contact voltage of 21kVAC, 50/60Hz when hand held with a suitably rated electrical insulating glove. This detector does not detect DC such as in charged capacitors or underground cable.

- Keep hands and fingers behind the hand guard at all times.
- Do not exceed 21kVAC with direct contact.
- Maintain a safe distance from voltages greater than 600VAC at all times. Test the detector with the PT-VP Voltage Probe Tester before and after each use. The detector is powered by two AA lithium or alkaline batteries. Replace the batteries when the red flashing light is no longer visible.

## PT-VP VOLTAGE PROBE TESTER

Test the VP Voltage Probe with the PT-VP Voltage Probe Tester before and after each use. The PT-VP supplies a low voltage AC signal at the metal electrode on the end shown with the large arrow. To test the VP Voltage Probe, hold the Detector and Tester as shown, press the tester ON button and make direct contact between the metal tip on the Detector and the metal electrode on the Tester.

A red light on the PT-VP Tester indicates the Tester is OK. A red light and beeper on the VP Voltage Probe means voltage is detected. Replace the battery in the Tester with a 9V lithium or alkaline type when the red light is not on. Note that both units should be hand held as shown for testing. Your hands are part of the test circuit and hand placement can affect test results.



### VP-1 AC VOLTAGE PROBE

For detecting primary voltages on unshielded, insulated cables from 2.1kV.

#### NOT FOR STRAY VOLTAGE DETECTION

**CAUTION:** Read instructions before use. For use by trained personnel only. Operating voltage 50-600VAC hand held, up to 21kVAC using appropriately rated electrical insulating gloves. Test before each use with PT-VP Tester. Do not use if the Tester fails to activate the Voltage Probe.

**WARNING:** Does not detect DC voltage. Light and beeper indicate AC voltage. Contacting voltage above rated voltages may lead to electric shock, severe injury or death. Refer all servicing to factory. IEC 600VAC Cat. IV

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### VP-2 AC VOLTAGE PROBE

#### NOT FOR STRAY VOLTAGE DETECTION

To be used for detecting secondary voltages on metallic surfaces and conductors; testing for primary voltage at capacitive test points on deadfront joints and terminations and through unshielded primary cable insulation; presence of primary voltage through insulating cable end caps

**CAUTION:** Read instructions before use. For use by trained personnel only. When testing for the presence of primary voltage as indicated above, line operating voltage shall be 2,400VAC to 21,000VAC line to ground. User shall wear appropriately rated electrical insulating gloves. When testing for the presence of secondary voltage, max use voltage is 600VAC. Test before each use with PT-VP Tester. Do not use if Tester fails to activate the Voltage Probe.

**WARNING:** Does not detect DC voltage. Light and beeper indicate AC voltage. Contacting voltage above rated voltages may lead to electric shock, severe injury or death. Refer all servicing to factory. IEC 600VAC Cat. IV

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