User Manual

TRIPLETT

Model ET330

Non-Contact AC Voltage Detector



Introduction

Congratulations on your purchase of the Triplett ET330 Non-Contact AC Voltage Detector In order to use this product safely and correctly, please read this manual thoroughly, especially the warning part.

After reading this manual, it is recommended to keep the manual at an easily accessible place, preferably close to the device, for future reference.
The ET330 is a non-contact voltage and magnetic field detector with built-in flashlight and acousto-optic synchronous alarm function. The CAT IV 1000V safety class ensures users' safety, making them essential tools for industry and home.

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Features

Low voltage mode (24V AC ~ 1000V AC)
Suitable for testing low-voltage motor (< 90V), audio systems, arc welding machines, underground mine lighting, cables with thick insulation layer, and other weak electromagnetic AC signals.

High voltage mode (90V AC ~ 1000V AC):
For detecting urban electric supply and three-phase systems. For example, power distribution units, electrical panels, and electrical appliances.

Safety

Warning
1. Please carefully read and fully understand the warnings and operating instructions before use.
2. Please test the detector on a known live source within the rated AC voltage range before use.
3. If the detector appears damaged or is not working properly, stop using it immediately.
4. Do not detect voltage higher than 1000V.
5. Use caution when measuring AC voltage higher than 30V.
6. There may still be voltage even when no acousto-optic alarm is on.
7. The insulation type, wire thickness, distance from voltage source, shielded wire, other wires, socket design, and other factors may

adversely affect test result. If there are uncertainties, use other methods to verify the voltage.
8. Do not assume neutral or ground wire is safe to touch. Incorrect or poorly connected circuits may cause wires to be charged.
9. The magnetic field generated by magnetized components may interfere with detection
10. When low battery indication appears, please replace the batteries.
11. When using the detector, please only hold up to the line before the translucent sensing part and not over.
12. Comply with local and national safety regulations and requirements.
13. The detector will not detect any voltage if:

- The wire is shielded
- The operator is not connected with the ground or isolated from an effective ground
- The voltage is DC

14. The detector may not detect any voltage if:

- The operator does not hold the detector
- The operator is wearing gloves
- The wire under test is partially buried or in a grounded metal conduit
- The magnetic field generated by the voltage source is blocked, suppressed or interfered with
- The frequency of the voltage being detected is not a perfect sine wave and may be distorted by harmonics

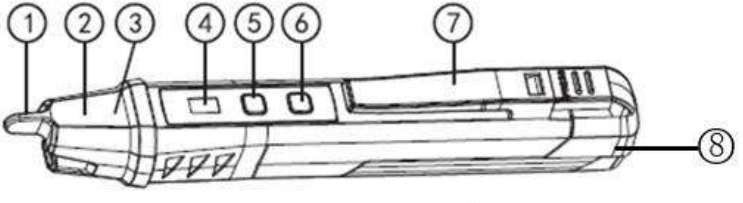
- The detector is used outside of the operating specifications (see *Technical Specifications* for details)

Electrical Symbols

	Protected throughout by Double insulation or Reinforced insulation
	Alternating current
	Caution, possibility of electric shock
	Warning! Refer to the manual
	In compliance with the directive of European Union

Panel Description

1	NCV sensor head	2	Flashlight lighting
3	sensing signal LED	4	Mode status indicator light
5	Power button	6	Flashlight button
7	Pocket clip	8	End of detector



Operating Instructions

1. Turning on the detector

Short press the power button. The buzzer will beep twice and the red indicator light on the panel will light up, indicating that the detector is on and ready for use. The default AC voltage detection range is 90-1000V.

2. Turning on/off the flashlight

Flashlight on/off: Short press the flashlight button to turn on/off the flashlight.

The flashlight will automatically turn off when the detector is not used for 5 minutes.

3. AC voltage detection

Place the sensor head near the test object or the power socket with AC voltage. When AC voltage is detected, the red LED in the tip and audible buzzer will be on. LED frequencies increase when detector gets closer to the test object.

Note: Please unplug other electrical devices on the socket before detection.

4. Detection range selection

a) When the detector is on, the default mode is high voltage mode, with detection range of 90-1000V. The red indicator light on the panel will light up.

b) Short press the power button once. The red indicator light will switch to green, and the device will switch to low voltage mode, with range of 24-1000V. In low voltage mode, the detector is more sensitive to electrical interference/noise. Please only use low voltage mode during weak electrical field environment.

c) Short press the power button once again. The green indicator light will switch to yellow, and the device will switch to magnetic field detection mode.

Note: In the magnetic field detection mode, voltage cannot be detected at the same time.

6. Auto power off

The detector will auto power off when it is not used for 5 minutes.

7. Turning off the detector manually

Long press the power button for 2 seconds to turn off the detector

8. Low battery indication

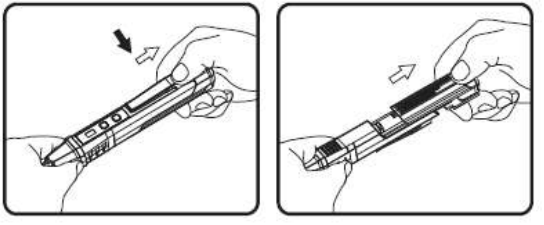
When the battery voltage is lower than 2.4V, the detector will automatically shut down.

Specifications

AC voltage range	90~1000V AC (red indicator) 24~1000V AC (green indicator)
Frequency range	50Hz/60Hz
Alarm mode	Audio/visual
Flashlight	White spotlight
Auto power off	About 5 minutes
Low battery indication	√
Safety class	CAT IV 1000V
Operating temperature	0~40°C
Storage temperature	-20~50°C
Humidity	≤80% (non-condensing)
Altitude	<2000m
Battery	2x1.5V AAA
Product size	150x18x23 (mm)
Weight	About 50g
Drop test	1m
Standards: IEC/EN61010-1, IEC/EN 61010-2-030	Standards: IEC/EN61010-1, IEC/EN 61010-2-030

Battery Replacement

1. Hold the detector with one hand, use your thumb of the other hand to press down on the battery compartment latch, and pull the end of the detector.
2. Pull out the end of the detector along the direction shown below and replace the batteries.



Warranty Information

Triplett / Jewell Instruments extends the following warranty to the original purchaser of these goods for use. Triplett warrants to the original purchaser for use that the products sold by it will be free from defects in workmanship and material for a period of (1) one year from the date of purchase.

This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way or purchased from unauthorized distributors so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries are not covered by this warranty.

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