

**Defective Grounds:** Electrical equipment that has a metal enclosure and is improperly grounded or has a defective ground will always result in the Sensors tip emitting a steady red glow. If there is enough electrical field present on the metal enclosure, the result will be a steady red glow and an audible tone.



# TPI AC Safety Volt Check 50

## The Benefits of the TPI AC Volt Check 50

[www.tpi-thevalueleader.com](http://www.tpi-thevalueleader.com)

### Always Ready For Use

No Switch required. Competing products require an ON/OFF switch. Switches must be turned on and can malfunction over time.

### Sound & Visual Alert

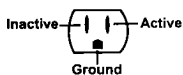
Sound and bright red glow indicates the voltage. With the AC Safety Volt Check 50, the audio alert does not go off from contact with static electricity, it only reacts to AC voltage. Our AC Sensor is able to tell the difference between static charge and AC current. Competitors' audio alerts constantly go off when the tool comes in contact with static electricity.

## Operating Instructions

The "TPI AC Safety Volt Check 50" is a hand held device for determining the presence or absence of AC voltage in insulated wires, wall receptacles, fuses, junction boxes, switches and any other voltage carrying electrical systems. It is not necessary to disconnect the system in question because no contact is required for operation and current flow is not necessary to locate voltage. Simply touch the plastic tip to a connection point or move it along an insulated wire. If AC voltage is present, the AC Safety Volt Check 50 will sound an audio alert and an LED light in the probe tip will glow bright red. The illumination will stop at a break in the circuit or wire, and this allows the AC Sensor to be used as a troubleshooting instrument. Always hold unit by its body (2). Keep fingers away from the tip (3).

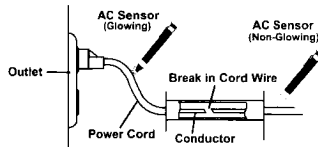
## Illustrations

(Fig. 1)



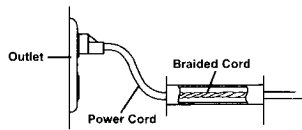
If a receptacle is wired correctly, only the active contact will test positive for AC voltage. (Fig. 1)

(Fig. 2)



As you move the plastic probe tip away from the electrical source, in this case the wall receptacle, the probe tip will stop glowing at the exact break point in the wire. (Fig. 2)

(Fig. 3)



Round electrical cords that contain a twisted conductor internally will cause the AC Sensor to glow, stop glowing, and glow again, as the probe tip is moved along the length of the cord. This is due to the spiral of the conductor wire that produces voltage. (Fig. 3)

## Why Probe Tip Flickers

This instrument is so reliable in locating voltage that it will react to static electricity by flickering. This is not to be confused with power company voltage which produces a steady glow. The audio buzzer will not react to static electricity.

### Caution 1

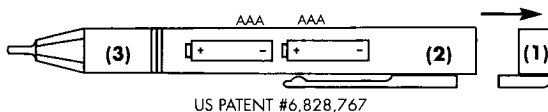
Prior to each use, as a safety precaution, always test the instrument on a known live circuit to ensure proper operation. Always treat your AC Sensor with care as you would any other test instrument. Clean the AC Safety Volt Check 50 with a damp cloth.

### Caution 2

In testing indoor romex cable where the fibrous filler becomes saturated with water, which is conductive, an electrical connection is formed between the filler and the ground circuit. The length of cable that has become wet is essentially shielded. If a voltage is present on a conductor in this cable, the electric field normally radiated by the voltage will be attenuated by this shielding and the AC Sensor may not glow even though a voltage is present. Therefore, always approach wet indoor romex cable with utmost caution. NOT FOLLOWING THESE CAUTIONS MAY RESULT IN BODILY HARM. Cable of this type is specified for indoor use only. It will be subjected to immersion in water only in rare conditions such as flooding. Outdoor romex cable is not effected by water.

**All sensors of this type will exhibit the same characteristics when testing wet indoor romex.**

Will Locate Voltage of 50-1000 VAC • Use 2AAA, 1.5 Volt Alkaline Batteries (Included) • Remove end cap (1) to replace batteries.



US PATENT #6,828,767

Operating Range	50-1000 VAC
Operating Temperature	-20°C to +55°C
RH 95%	(0-30°C)
	75% (30-40°C)
	45% (40-55°C)
	3000m
	Max. 1000 VAC, CAT III

This product can be used with low voltage items (signal level, telecommunications, electronic, etc.), to local levels, appliances to distribution level, fixed installation, etc.