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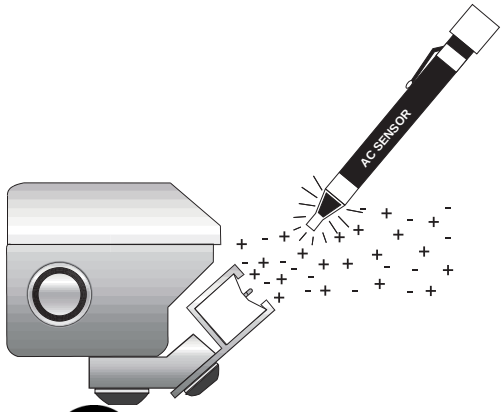
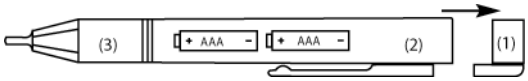
AC SENSOR INSTALLATION & MAINTENANCE

WARNING!

RISK OF ELECTRIC SHOCK. VERIFY PROPER OPERATION BY TESTING THIS UNIT ON A KNOWN WORKING CIRCUIT OF THE SAME VOLTAGE PRIOR TO EACH USE.



Will Locate Voltage of 50 - 1000 VAC
Uses (2) AAA 1.5 Volt Alkaline Batteries (Included)
Replace By Removing Cap



US Patent #6,828,767

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CE

RoHS COMPLIANT

MADE IN USA

OPERATING INSTRUCTIONS

The "AC Sensor" 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 LED light in the probe tip will glow bright red and an audio alert will sound. Buzzer will not react to static electricity (only reacts to AC voltage). 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 the AC Sensor by its body, keeping fingers away from the tip.

TESTING EXAIR STATIC ELIMINATORS

EXAIR's AC Sensor detects AC voltage by sensing the electrical field. Continuity or current flow is not required for operation.

The AC Sensor will detect voltage at the wall receptacle and through the power cord of the EXAIR Power Supply, the ionizer cable and the static eliminator.

Voltage at the power supply output is 5kV. It is not necessary to get the tip of the AC Sensor close to those high voltage terminals, the ionizer cable or the static eliminator itself. **Please note that the AC Sensor is detecting the electrical field current and cannot measure the amount of ionization produced.**

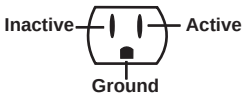
If the ionizer becomes dirty, you will notice that it is necessary to position the AC Sensor closer to the emitter point(s) of an ionizer. Simply cleaning the point(s) with a soft brush should increase the performance of the static eliminator, allowing the voltage to be detected farther away.

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.

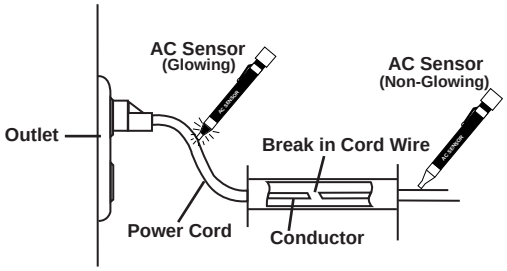
ILLUSTRATIONS

(Figure 1)



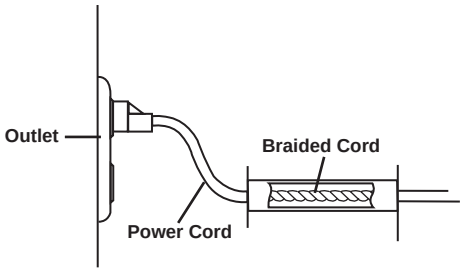
If a receptacle is wired correctly, only the active contact will test positive for AC voltage. (Figure 1)

(Figure 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. (Figure 2)

(Figure 3)



Round electrical cords that contain a twisted conductor internally will cause the AC Sensor to glow, stop glowing, then 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. (Figure 3)

CAUTION 1

Prior to each use, as a safety practice, 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.

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.

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 affected by water.

IMPORTANT

Do not attempt to disassemble this unit or rotate the plastic probe sensing tip. All components have been cemented in place to secure the electrical connections which will be destroyed if movement occurs.

BATTERY REPLACEMENT

EXAIR's AC Sensor requires (2) AAA 1.5 volt alkaline batteries. The supplied batteries can be replaced by simply removing the end cap (opposite the sensing tip). Remove batteries when storing the AC Sensor for an extended time.

If you have any questions or problems, please contact an EXAIR Application Engineer at:
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