

TRAINING BULLETIN NUMBER 92
9/93
IDEAL MODEL 61-249 VOLTAGE TESTER

NARRATIVE

The following instructions are provided for the safe use of the Ideal Model 61-249 Voltage Tester. The voltage tester is an inventory item carried on all truck companies. These same voltage testers can also be found in the equipment room at each Metro Rail Red Line Station.

Voltmeters may be used on a wide variety of incidents, i.e., structure fire, physical rescue, metro rail, etc.

Department members **SHALL NOT** test voltage systems exceeding 1,000 volts, i.e., many City street lighting systems are 4,800 volts.

This voltage tester may be used to test AC or DC voltages ranging from 1 to 999 volts. Voltages of 500 volts or more will be indicated by a pulsating buzzer warning.

NO PICTURE

Features

- Powered by one 9V battery.
- Automatic on/off to save battery life.
- Automatic voltage range 1 to 999 volts.
- Manual battery test and automatic battery monitor with "low battery" indicator in display window.
- Audio buzzer and visual display indicated when an energized circuit is tested.
- Unit may be used as a continuity tester.
- Automatically displays the type of energized voltage in display window, AC or DC.
- Pulsating audible signal for voltages greater than 500 volts.
- Battery life is approximately 3,000 tests until "low battery" sign appears.

On-And-Off

- Switching on

If the input voltage of the circuit to be tested is greater than four volts (AC/DC), the tester switches on automatically. If the input voltage is less than four volts, then press the two test prods together and push "Test" Button. This also provides for a manual battery test.

- Switching Off

The tester will automatically switch off within one minute after prod contact with an energized circuit.

- Test Button

The test button must be depressed when conducting a manual test of the voltmeter. To manually test the voltmeter:

1. Touch the metal ends of both prods together.

2. Press the test button. If the voltmeter is working properly:
 - a. Display window will indicate the voltage remaining in the nine-volt battery.
 - b. Audio buzzer will sound.
 - c. Red indicator light will activate.

Hold Button

In a situation where it is difficult to read the display, you can "freeze" the reading even when the voltage tester is no longer connected to the input voltage. The digital reading will remain on the display as long as the hold button is depressed.

A 2.5 second audible signal will sound when the tester reads a stabilized voltage which is when the hold button should be activated.

Procedures for Normal Testing of Any Electrical Equipment

Anytime a member has any indication that the voltage to be tested is 600 volts or more, goggles and rubber electrical gauntlets with leather gloves shall be worn.

- For voltages of 600 or less, firefighting gloves shall be worn. (Rubber electrical gauntlets with leather gloves may be worn in place of firefighting gloves.)
- As a safety precaution the manufacture advises to always test voltmeter on a known live circuit before use.
- Always treat any electrical equipment as if it is "charged" or "live."
- Use caution to avoid creating a "ground" between your body and any electrical equipment.
- Always hold the yellow plastic insulated portion of the voltmeter; do not make any body contact with the metal part of the prods.

- Place one prod on the suspected "hot" electrical equipment and the other prod on a "ground." (Either prod can be used on "hot" or "ground", they are not polarity sensitive.)
- if the equipment is energized, it will register on the display window. Any voltage over IOV should be considered energized.