



## GT-16 Voltage Detector

### Description

The Greenlee GT-16 Voltage Detector is intended to check for the presence of AC voltage, signaling the user with an intermittent tone and a flashing LED. The LED flashes periodically to confirm battery condition.

### Safety

Safety is essential in the use and maintenance of Greenlee tools and equipment. This instruction manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

### Purpose of This Manual

This instruction manual is intended to familiarize all personnel with the safe operation and maintenance procedures for the Greenlee GT-16 Voltage Detector.

Keep this manual available to all personnel. Replacement manuals are available upon request at no charge at [www.greenlee.com](http://www.greenlee.com).



**Do not discard this product or throw away!**

For recycling information, go to [www.greenlee.com](http://www.greenlee.com).

All specifications are nominal and may change as design improvements occur. Greenlee Textron Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

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Romex is a registered trademark of General Cable Industries, Incorporated.

### Symbols on the Unit



Warning—Read the instruction manual



Risk of electric shock



Double insulation

### Important Safety Information

	<b>⚠ WARNING</b>
	<b>Read and understand</b> this material before operating or servicing this equipment. Failure to understand how to safely operate this tool could result in an accident causing serious injury or death.

	<b>⚠ WARNING</b>
	Electric shock hazard: Contact with live circuits could result in severe injury or death.

<b>⚠ WARNING</b>
<p>Electric shock hazard:</p> <ul style="list-style-type: none"> <li>• <b>Do not assume that no voltage indication means that the circuit is de-energized.</b></li> <li>• <b>Follow the 3-point safety method as described in the "Operation" section (steps 2, 3, and 4).</b></li> <li>• Do not use the unit if it is wet or damaged.</li> <li>• Do not apply more than the rated voltage between the tip and earth ground.</li> <li>• Do not operate with the case open.</li> <li>• This tester will not detect voltage through metal conduit, on armored or shielded cable, on sheathed nonmetallic cable that is saturated with water, or at a distance such as through walls.</li> <li>• Using this unit near equipment that generates electromagnetic interference can result in unstable or inaccurate readings.</li> </ul> <p>Failure to observe these warnings could result in severe injury or death.</p>

<b>⚠ CAUTION</b>
<p>Electric shock hazard:</p> <ul style="list-style-type: none"> <li>• Do not attempt to repair this unit. It contains no user-serviceable parts.</li> <li>• Do not expose the unit to extremes in temperature or high humidity. Refer to "Specifications."</li> </ul> <p>Failure to observe these precautions may result in injury and can damage the unit.</p>



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**KEEP THIS MANUAL**

(continued on back side, column 1)

## Operation

The Greenlee GT-16 is useful for identifying hot and neutral conductors, finding a break in a wire, and detecting the presence of AC voltage at outlets, switches, circuit breakers, fuses, and wires and cables, including Romex®.

**Note: Round cords may have twisted conductors. Check for hot conductors by sliding the unit along the cord.**

*Note: The GT-16 can be used to find a break in a wire:*

- To find a break in a hot conductor, trace the wire until the signal stops.
  - To find a break in a neutral conductor, connect a load between the hot and neutral. Trace the wire until the signal stops.
1. Turn the unit on by rotating the sensitivity adjustment thumbwheel away from the OFF position. Verify that the LED flashes periodically. If the LED does not flash, the battery is not working and needs to be replaced.
  2. **Test the unit on a known live circuit before each use.**
    - If the unit does not function as expected on a known live circuit, replace the battery.
    - If the unit still does not function as expected, call Greenlee for technical assistance at 800-435-0786.
  3. Place the tip on or near the circuit or unit to be tested. Tone and flashing LED indicate the presence of voltage (5 VAC to 1000 VAC).
    - Use maximum sensitivity to detect low voltages.
    - Reduce sensitivity to find breaks in wires or to identify hot and neutral conductors.
  4. Test again on a known live circuit after use to verify proper operation.

## Specifications

Indicators: LED and Tone

Voltage Range: 5 VAC to 1000 VAC

Frequency Range: 50 Hz to 500 Hz

Measurement Category: Category IV, 1000 V per UL 61010

Operating Conditions:

Temperature: 0 °C to 40 °C (32 °F to 104 °F)

Less than 80% relative humidity (noncondensing)

Altitude: 2000 m (6500') maximum

Indoor use only.

Pollution Degree: 2

Battery: One 1.5 volt battery (AAA, NEDA 24A or IEC LR03)

## Measurement Categories

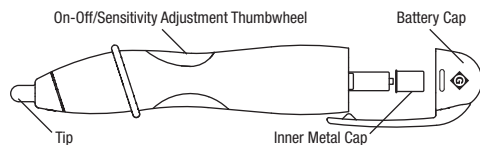
This definition was derived from the international safety standard for insulation coordination as it applies to measurement, control, and laboratory equipment. These measurement categories are explained in more detail by the International Electrotechnical Commission; refer to either of their publications: IEC 61010-1 or IEC 60664.

**Measurement Category IV:** Primary supply level. Overhead lines and other cable systems. Some examples include cables, meters, transformers, and other exterior equipment owned by the power utility.

## Maintenance

### Battery Replacement

1. Disconnect the unit from the circuit.
2. Rotate the outer battery cap clockwise and remove it.
3. Rotate the metal inner cap and remove it.
4. Replace the battery (observe polarity).
5. Replace the metal inner cap.
6. Replace the outer battery cap.



### Cleaning

Periodically wipe the case with a damp cloth and mild detergent; do not use abrasives or solvents.

## Statement of Conformity

Greenlee Textron Inc. is certified in accordance with ISO 9000 (2000) for our Quality Management Systems.

The instrument enclosed has been checked and/or calibrated using equipment that is traceable to the National Institute for Standards and Technology (NIST).

## Lifetime Limited Warranty

Greenlee Textron Inc. warrants to the original purchaser of these goods for use that these products will be free from defects in workmanship and material for their useful life, excepting normal wear and abuse. This warranty is subject to the same terms and conditions contained in Greenlee Textron Inc.'s standard one-year limited warranty.

For all Test Instrument repairs, contact Customer Service at 800-435-0786 and request a Return Authorization.

For items not covered under warranty (such as items dropped, abused, etc.), a repair cost quote is available upon request.

*Note: Prior to returning any test instrument, please check replaceable batteries or make sure the battery is at full charge.*

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