# UL 1436

## STANDARD FOR SAFETY

## Outlet Circuit Testers and Similar Indicating Devices

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UL Standard for Safety for Outlet Circuit Testers and Similar Indicating Devices, UL 1436

Sixth Edition, Dated September 6, 2016

***Summary of Topics***

***The sixth edition of UL 1436, Outlet Circuit Testers and Similar Indicating Devices, has been issued and includes the following revisions:***

- ***New and revised requirements to address Absence of Voltage Tester (AVT).***

The new/revised requirements are substantially in accordance with Proposal(s) on this subject dated July 15, 2016.

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# UL 1436

## Standard for Outlet Circuit Testers and Similar Indicating Devices

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Second Edition – August, 1981
Third Edition – March, 1993
Fourth Edition – April, 1998
Fifth Edition – February, 2014

**Sixth Edition**

**September 6, 2016**

This UL Standard for Safety consists of the 6th Edition.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at http://csds.ul.com.

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## INTRODUCTION

### 1 Scope

1.1 These requirements apply to outlet circuit testers, including screwdriver and pen-style voltage presence indicators, for use on 15-, 20-, and 30-A, 3-wire, 125-, 250-, 277-, 480-, or 600-V receptacles, ground-fault circuit-interrupter testers and arc-fault circuit-interrupter indicators for use on 15- and 20-A, 3-wire, 125-V receptacles, and similar indicating devices that are:

a) Intended to be connected to the receptacle for a period of time only as long as is necessary to note the indicated pattern of lights or other similar indicating means; and

b) Not intended to be a comprehensive instrument or to determine the quality of the grounding circuit.

1.2 These requirements also apply to retention testers and other indicating devices with a retention testing capability (hereafter referred to as retention testers) that are intended to indicate the force exerted on the blade or blades of the tester by the contacts of a receptacle.

1.3 These requirements also apply to permanently-mounted Absence of Voltage Testers (AVT) that are intended to confirm the de-energization of normally energized equipment.

1.4 Testers and indicating devices that additionally measure actual electrical phenomena including specific voltage, current, resistance, or similar values shall additionally comply with the Standard for Electrical Equipment for Measurement, Control, and Laboratory Use; Part 1: General Requirements, UL 61010-1.

1.5 These requirements do not cover products that are only intended to measure electrical phenomena. Such products shall instead comply with the Standard for Electrical Equipment for Measurement, Control, and Laboratory Use; Part 1: General Requirements, UL 61010-1.

### 2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this Standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components generally used in the products covered by this Standard.

2.2 A component need not comply with a specific requirement that:

a) Involves a feature or characteristic not needed in the application of the component in the product covered by this Standard, or

b) Is superseded by a requirement in this Standard.

2.3 A component shall be used in accordance with its recognized rating established for the intended conditions of use.

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2.4 Specific components are recognized as being incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions for which they have been recognized.

## 3 Units of Measurement

3.1 When a value for measurement is followed by a value in other units in parentheses, the second value may be only approximate. The first stated value is the requirement.

## 4 Undated References

4.1 Any undated reference to a code or standard appearing in the requirements of this Standard shall be interpreted as referring to the latest edition of that code or standard.

## 5 Glossary

5.1 For the purposes of this Standard the following definitions apply.

5.2 ABSENCE OF VOLTAGE TESTER (AVT) – A permanently-mounted test device that is used to verify that a circuit is de-energized prior to opening an electrical enclosure that contains energized electrical conductors and circuit parts. An AVT is provided with a test circuit with active indications to verify the absence of phase-to-phase voltage and phase-to-ground voltage. AVTs are provided with a test circuit and visual indicators to confirm that the tester is functioning properly before and after the process of determining that voltage is absence.

5.3 ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) INDICATOR – A device with no receptacle outlet that, when plugged into a receptacle and activated, produces arcing current pulses representative of arc-fault current between the ungrounded and grounded conductors, and then indicates by a pattern of lights, or other similar means, whether an AFCI connected to the branch circuit is functioning. An AFCI tester may also include the provisions of an Outlet Circuit Tester, see 5.5, a Ground-Fault Circuit-Interrupter Tester, see 5.4, or both.

5.4 GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) TESTER – A device with no receptacle outlet that, when plugged into a receptacle and activated, circulates current through the ungrounded circuit conductor, and the grounding conductor and then indicates by a pattern of lights, or other similar means, whether a GFCI connected to the branch circuit is functioning. A GFCI tester may also include the provisions of an Outlet Circuit Tester. See 5.5.

5.5 OUTLET CIRCUIT TESTER – A device with no receptacle outlets that, when inserted into a receptacle, indicates by a pattern of lights, or other similar means, the presence, or absence, of specific elementary wiring conditions. An outlet circuit tester may also incorporate the provisions of a retention tester.

5.6 RETENTION TESTER – A hand held device with no receptacle outlet which, when removed from a receptacle, indicates the force of retention exerted on the line blades and grounding pin of an attachment plug by the contacts of a receptacle. The means to measure the retention may be mechanical, electronic, or both.

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5.7 VOLTAGE PRESENCE INDICATOR – Screwdriver and pen style hand-held devices intended for temporary insertion into receptacles to provide an indication that the outlet is current carrying.

## CONSTRUCTION

### 6 General

6.1 An indicating device shall employ materials throughout that are acceptable for the particular use, and shall be made and finished with the degree of uniformity and grade of workmanship practicable in a well-equipped factory.

6.2 The dimensions, materials and configurations of blades shall comply with the requirements for attachment plugs in the Standard for Attachment Plugs and Receptacles, UL 498.

*Exception: The line blade or blades, and grounding pin of a retention tester shall instead comply with the requirements for Retention Testers, Section 11.*

### 7 Enclosure

7.1 All electrical parts of an indicating device shall be provided with an enclosure.

*Exception: Blades for connection to the circuit to be tested need not comply.*

7.2 The enclosure of an indicating device shall be strong and rigid so as to resist the abuses likely to be encountered during use. The mechanical strength inherent in the indicating device shall preclude total or partial collapse with attendant reduction of spacings, loosening or displacement of parts, and other conditions that alone or in combination increase the risk of electric shock, fire, or personal injury.

7.3 Among the factors taken into consideration in evaluating an enclosure are:

a) Mechanical strength;

b) Resistance to impact and abrasion;

c) Moisture-absorptive properties;

d) Combustibility and resistance to ignition from electrical sources;

e) Resistance to corrosion;

f) Resistance to degradation and distortion at temperatures to which the enclosure may be subjected under conditions of normal or abnormal use; and

g) Dielectric properties, insulation resistance, and resistance to arc tracking.

7.4 The enclosure of an indicating device shall be formed of a material having a minimum flammability classification of HB as specified in the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL 94.

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