UL 1037

STANDARD FOR SAFETY

Antitheft Alarms and Devices

UL Standard for Safety for Antitheft Alarms and Devices, UL 1037

Sixth Edition, Dated September 9, 2016

Summary of Topics

This revision of ANSI/UL 1037 dated August 24, 2023 includes an addition to the Scope for Residential Security Containers; 1.5

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The new requirements are substantially in accordance with Proposal(s) on this subject dated July 22, 2022.

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UL 1037

Standard for Antitheft Alarms and Devices

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Second Edition – June, 1981
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Sixth Edition

September 9, 2016

This ANSI/UL Standard for Safety consists of the Sixth Edition including revisions through August 24, 2023.

The most recent designation of ANSI/UL 1037 as an American National Standard (ANSI) occurred on August 24, 2023. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

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

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INTRODUCTION

1 Scope

1.1 These requirements apply to the construction, performance, and operation of equipment intended to provide antitheft protection.

1.2 An antitheft alarm is intended to give both audible and visible signals or only an audible signal if theft of protected property is attempted.

1.3 An antitheft device is intended to protect property by significantly limiting the mobility or portability of the property.

1.4 Equipment intended to provide a degree of fire resistance is additionally covered under the requirements of the Standard for Tests for Fire Resistance of Record Protection Equipment, UL 72.

1.5 These requirements also cover Residential Security Containers, performance Levels I, II and III (see Section 54).

2 General

2.1 Components

2.1.1 Except as indicated in 2.1.2, 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.

2.1.2 A component is not required to comply with a specific requirement that:

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

b) Is superseded by a requirement in this standard.

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

2.1.4 Specific components are 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.

2.2 Units of measurement

2.2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

2.2.2 Unless otherwise indicated, all voltage and current values mentioned in this standard are root-mean-square (rms).

2.3 Undated references

2.3.1 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.

2.4 Terminology

2.4.1 The term "product" as used in this standard refers to all types of antitheft alarms and devices.

3 Glossary

3.1 For the purpose of this standard the following definitions apply.

3.2 CIRCUITS, ELECTRICAL –

a) High-Voltage (Class 1) – A circuit involving a potential of not more than 600 volts and having circuit characteristics in excess of those of a low-voltage power-limited circuit.

b) Low-Voltage – A circuit involving a potential of not more than 30 volts alternating current (AC) rms, [42.4 volts peak or direct current (DC)].

c) Power Limited – A circuit whose output is limited as specified in Power-Limited Circuits, Section 29.

d) Class 2 – A circuit in which the voltage and power limitations are in accordance with the requirements of Table 29.1 for AC circuits and Table 29.2 for DC circuits.

e) Class 3 – A circuit in which the voltage and power limitations are in accordance with the requirements of Table 29.1 for AC circuits and Table 29.2 for DC circuits.

3.3 CORD-CONNECTED UNIT – A unit intended for connection to the power source by means of a supply cord. Such a unit is intended to be moved for reasons of interchange or realignment of the units of a system.

3.4 LINE VOLTAGE – The voltage at any field connected source of supply, nominally 50 – 60 hertz (Hz), and either 115, 208, or 230 volts.

3.5 NORMAL STANDBY CONDITION – The ready-to-operate condition of the product existing prior to its being tripped or operated by theft attempt.

3.6 PERMANENT SECURITY CONTAINER – A security container that weighs more than 750 pounds or is to be fixed to a surface that is not intended to be moved.

3.7 PORTABLE SECURITY CONTAINER – A security container that weighs less than 750 pounds.

3.8 PRIMARY BATTERY – A battery that by construction is not intended to be recharged.

3.9 RESIDENTIAL SECURITY CONTAINER – A container intended to be used in a residence to provide moderate protection to items (such as guns, jewelry and other valuables) against burglary or theft.

3.10 SAFETY CIRCUIT – Any primary or secondary circuit that is relied upon to reduce the risk of fire, electric shock, or unintentional contact with moving parts that may cause injury to persons (for example, an interlock circuit).

3.11 SECONDARY BATTERY – A battery that by construction is intended to be recharged.

4 Installation and Operating Instructions

4.1 A copy of:

a) The installation and operating instructions intended to accompany each product or component as produced,

b) The related schematic wiring diagrams, and

c) The installation drawings

is to be furnished with the sample submitted for investigation to be used as a guide in the examination and test of the product or component. For this purpose, a final printed edition is not required.

4.2 The instructions and drawings shall include at least the following:

a) Typical installation drawing layouts and complete representative installation wiring diagrams for the product indicating recommended locations and wiring methods that shall be in accordance with the National Electrical Code, ANSI/NFPA 70. Locations where installations are not recommended shall also be included.

b) Concise description of the operation, testing, and maintenance procedures for the product(s), and recommended testing frequency (that shall be at least once a year).

c) Identification of replacement parts, such as lamps or batteries, by a part number, manufacturer's model number, or other means that have been determined to be equivalent.

d) A description of the conditions that might be expected to result in false alarms or impaired operation of the product.

e) A description of any features provided to reduce the risk of fire, electric shock, or injury to persons and a warning against bypassing such features.

4.3 The instructions may be incorporated on the inside of the product, on a separate sheet, or as part of a manual. If not included directly on the product, the instructions or manual shall be referenced in the marking information on the product. See Markings – All Products, Details, Section 58.

CONSTRUCTION – ALL PRODUCTS

ASSEMBLY

5 General

5.1 Product assembly

5.1.1 The product shall be factory-built as a complete assembly and shall include all the components necessary for its intended function when installed (used) as intended. The product may be shipped from the factory as two or more major subassemblies. See 5.1.2.

5.1.2 A product that is not assembled by the manufacturer as a complete unit shall be arranged in major subassemblies. Each subassembly shall be capable of being incorporated into a complete assembly without requiring alteration, cutting, drilling, threading, welding, or similar tasks by the installer (user). Two or more subassemblies, which must bear a definite relationship to each other for the intended installation or operation of the product, shall be arranged and constructed to permit them to be incorporated into the complete assembly only in the correct relationship with each other without need for alteration or alignment, or such subassemblies shall be assembled, tested, and shipped from the factory as one element.

5.2 Electrical protection

5.2.1 Louvers and other openings in the enclosure shall be constructed and located to reduce the risk of unintentional contact with uninsulated high-voltage live parts. In determining compliance with this requirement parts, such as covers, panels, and grilles, used as part of the enclosure are to be removed unless tools are required for their removal or an interlock is provided. See also Protection of Service Personnel, Section 6.

5.2.2 Uninsulated high-voltage live parts shall be located, guarded or enclosed as indicated in 5.2.3 – 5.2.5.

5.2.3 Openings directly over uninsulated high-voltage live parts shall not exceed 0.187 inch (4.75 mm) in any dimension or shall be of a configuration as illustrated by Figure 5.1 for top cover designs and Figure 5.2 for side openings, has been determined to be equivalent.

Figure 5.1

Cross sections of top cover designs

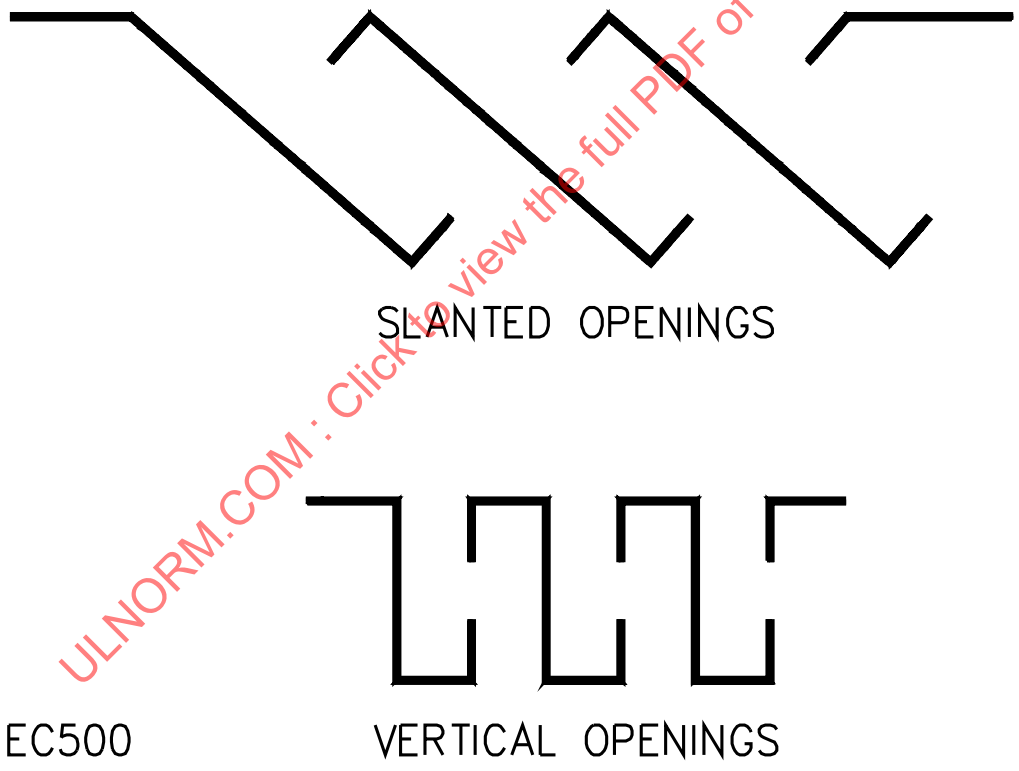
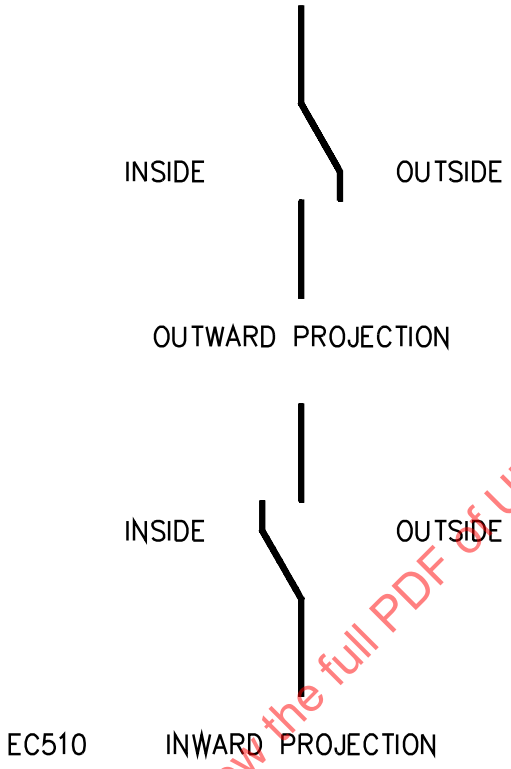


Figure 5.2

Louvers

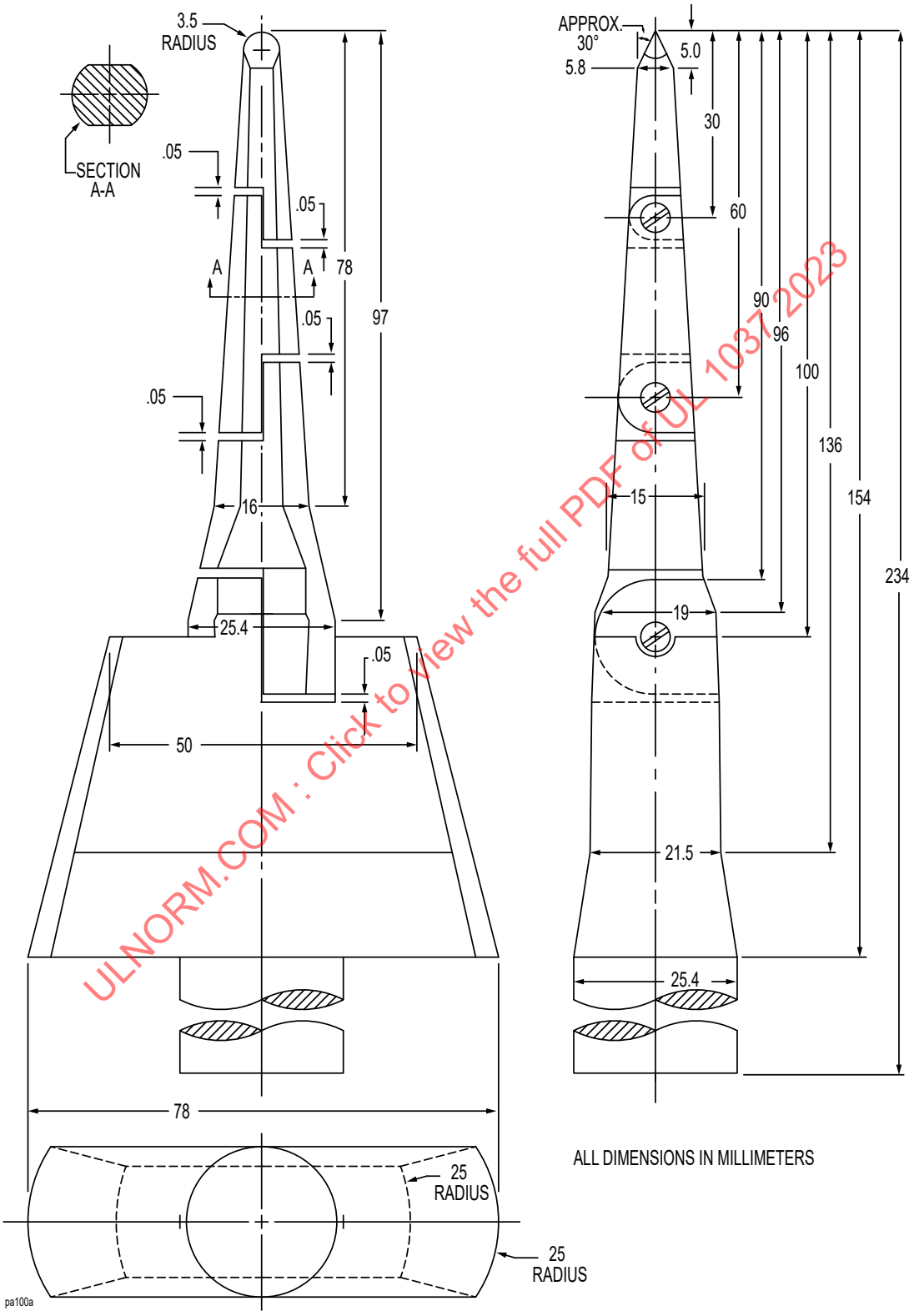


5.2.4 If an opening in an electrical enclosure does not permit entrance of a 1 inch (25.4 mm) diameter rod, the opening shall be sized and arranged so that a probe, as illustrated in Figure 5.3, cannot be made to contact any uninsulated live part (other than low-voltage) when inserted through the opening in a straight or articulated position.

5.2.5 An opening that permits entrance of a 1 inch (25.4 mm) diameter rod may be used under the conditions described and illustrated in Figure 5.4.

Figure 5.3

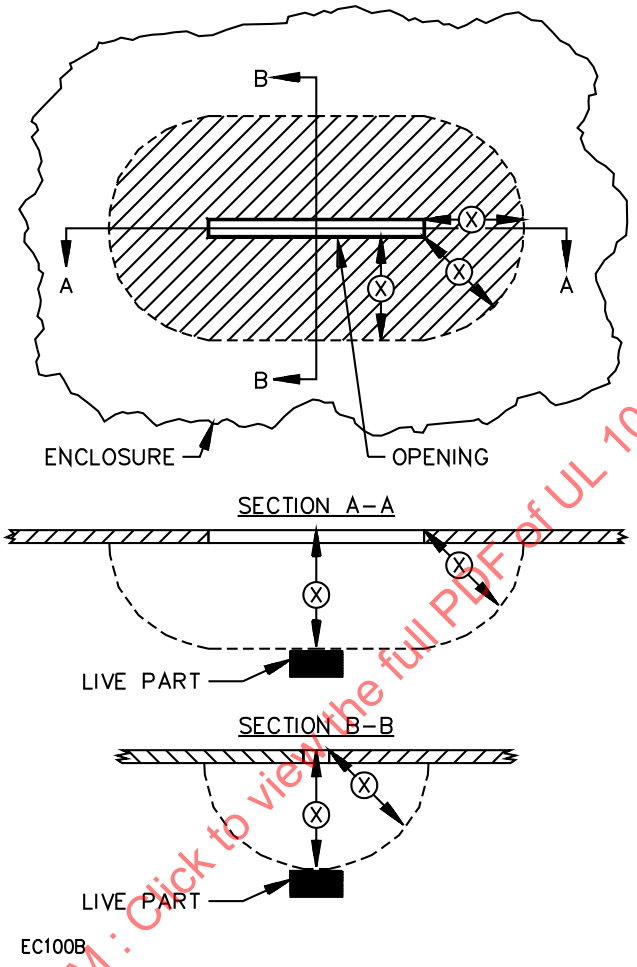
Articulated probe



NOTE – Available from Underwriters Laboratories Inc.

Figure 5.4

Opening in enclosure



NOTE – The opening may be used if, within the enclosure, there is no uninsulated live part or film-coated wire less than X inches (mm) from the perimeter of the opening, as well as within the volume generated by projecting the perimeter X inches (mm) normal to its plane. X equals five times the diameter of the largest diameter rod which can be inserted through the opening, but not less than 6-1/16 inch (154 mm).