UL 514D

STANDARD FOR SAFETY

Cover Plates for Flush-Mounted Wiring Devices

UL Standard for Safety for Cover Plates for Flush-Mounted Wiring Devices, UL 514D

Second Edition, Dated June 28, 2013

Summary of Topics

This revision of ANSI/UL 514D dated May 18, 2023 includes the following changes in requirements:

– Added New Annex E for Spring-Tensioned Contacts for Illuminated Cover Plates; 5.1, 10.1, 10.2, B.3.5 and B.3.6

– Cover Plate Material (Nonmetallic) over the Face of a Receptacle; 4.3, 4.6, 5.1.5 and 5.5.6

– Clarification that Hot Wire Ignition method or the Glow-Wire Resistance Test are acceptable and that conducting both is not required; 7.3.1 – 7.3.13, Annex A

– Spray Direction When Performing the Resistance to Moisture Tests Specified in Clauses 8.1.9 and 8.1.10 for Outlet Box Hoods Used with Raceway Supported Enclosures; 8.1.7

– Exposed Surface Areas of Hoods Do Not Have to have Flats to be Eligible for Impact Tests; 8.9.1.1A

– Increase in products that this standard does not apply to; 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 and revised requirements are substantially in accordance with Proposal(s) on this subject dated October 7, 2022 and March 3, 2023.

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CSA C22.2 No. 42.1-13
Second Edition

ULSE Inc.
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Cover Plates for Flush-Mounted Wiring Devices

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Approved American National Standard

ANSI/UL 514D-2023

Commitment for Amendments

This standard is issued jointly by the Canadian Standards Association (operating as “CSA Group”) and ULSE Inc. (ULSE). Comments or proposals for revisions on any part of the standard may be submitted to CSA Group or ULSE at anytime. Revisions to this standard will be made only after processing according to the standards development procedures of CSA Group and ULSE. CSA Group and ULSE will issue revisions to this standard by means of a new edition or revised or additional pages bearing their date of issue.

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This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line: Standard designation (number); relevant clause, table, and/or figure number; wording of the proposed change; and rationale for the change.

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This UL Standard for Safety consists of the Second Edition including revisions through May 18, 2023. The most recent designation of ANSI/UL 514D as an American National Standard (ANSI) occurred on May 18, 2023. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), and Preface.

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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Preface

This is the harmonized CSA Group and ULSE standard for Cover Plates for Flush-Mounted Wiring Devices. It is the Second edition of CSA C22.2 No. 42.1 and the Second edition of UL 514D. This edition of CSA-C22.2 No. 42.1 supersedes the previous edition(s) published in 2000. This edition of UL 514D supersedes the previous edition(s) published in 2000. This harmonized standard has been jointly revised on May 18, 2023. For this purpose, CSA Group and ULSE are issuing revision pages dated May 18, 2023.

This harmonized standard was prepared by CSA Group and ULSE. The efforts and support of the Technical Harmonization Subcommittee, 23BC, Wiring Devices of the Council on the Harmonization of Electrotechnical Standards of the Nations of the Americas (CANENA), are gratefully acknowledged.

This standard is considered suitable for use for conformity assessment within the stated scope of the standard.

This Standard was reviewed by the CSA Integrated Committee on Wiring Devices under the jurisdiction of the CSA Technical Committee on Wiring Products and the CSA Strategic Resource Group, and was approved by the CSA Technical Committee. This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

Application of Standard

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

Note: Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

Level of harmonization

This standard is published as an identical standard for CSA Group and ULSE.

An identical standard is a standard that is exactly the same in technical content except for national differences resulting from conflicts in codes and governmental regulations. Presentation is word for word except for editorial changes.

Reasons for differences from IEC

This binational standard is not based on an IEC standard or IEC requirements. The Technical Harmonization Committee identified two main reasons the requirements in this standard were not harmonized with IEC requirements. First, for some products and assemblies covered by this standard, there are no corresponding IEC standards covering the specific products only. Instead, IEC requirements for these products are included under several separate IEC standards. The time required to research and identify specific requirements in each of the relevant IEC correlating standards would inhibit the completion of the harmonization project in a reasonable time period, and would negate the benefit of having harmonized North American requirements available presently.

The second reason for not harmonizing with IEC requirements is that the IEC standards specify different product and assembly configurations and installation requirements, that are not compatible with the North American product and assembly configurations and installation specifications.

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Cover Plates for Flush-Mounted Wiring Devices

1 Scope

1.1 This standard applies to metallic and nonmetallic cover plates and associated gaskets for flush-mounted wiring devices intended for installation in accordance with the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code, Part I, CSA C22.1, General Requirements – Canadian Electrical Code, Part II, CSA C22.2 No. 0-10.

1.2 This standard also applies to outlet box hoods that are either integral or not integral with a cover plate for flush-mounted wiring devices.

1.3 This standard also applies to cover plates for flush-mounted wiring devices intended for use in marine applications in accordance with the applicable requirements of the United States Coast Guard and the Canadian Coast Guard; IEEE Recommended Practice for Electrical Installation on Shipboard, IEEE 45; the American Boat and Yacht Council; and the Standard for Pleasure and Commercial Motor Craft, NFPA 302.

1.4 This standard also applies to illuminating cover plates for flush-mounted wiring devices.

1.5 This standard does not apply to:

a) telephone wall plates;

b) cover plates and associated gaskets intended for use in hazardous (classified) locations as defined in the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code, Part I, CSA C22.1;

c) backplates, backplates intended to support live parts, or docking plates intended to support live parts;

d) box partition; or

e) cover plates or outlet box hoods intended to provide direct support of live parts, or parts that may become energized.

2 Normative References

2.1 For undated references to Standards, such reference shall be considered to refer to the latest edition and all revisions to that edition up to the time when this Standard was approved. Products covered by this standard shall comply with the referenced installation codes and standards noted in this clause.

In case where the editions listed below are amended, replaced by new editions, or superseded by another standard during the life of this referencing Standard, it is the responsibility of the users of this Standard to investigate the possibility of applying those amendments, new editions, or superseding standards.

CSA Group Standards

C22.1-12
Canadian Electrical Code, Part I

CSA C22.2 No. 0-10
Canadian Electrical Code, Part II

C22.2 No. 0.15-01 (R2012)
Adhesive Labels

CAN/CSA-C22.2 No. 0.17-00 (R2009)
Evaluation of Properties of Polymeric Materials

C22.2 No. 42-10
General Use Receptacles, Attachment Plugs, and Similar Wiring Devices

C22.2 No. 43-08
Lampholders

CAN/CSA-C22.2 No. 94.2-07 (R2012)
Enclosures for Electrical Equipment, Environmental Considerations

C22.2 No. 182.2-M1987 (R2009)
Industrial Locking Type, Special Use Attachment Plugs, Receptacles and Connectors

C22.2 No. 256-05 (R2010)
Direct Plug In Night Lights

UL Standards

UL 50E
Enclosures for Electrical Equipment, Environmental Considerations

UL 94
Tests for Flammability of Plastic Materials for Parts in Devices and Appliances

UL 157
Gaskets and Seals

UL 496
Lampholders

UL 498
Attachment Plugs and Receptacles

UL 746A
Polymeric Materials – Short Term Property Evaluations

UL 746B
Polymeric Materials – Long Term Property Evaluations

UL 746C
Polymeric Materials – Use in Electrical Equipment Evaluations

UL 969
Marking and Labeling Systems

UL 1332
Organic Coatings for Steel Enclosures for Outdoor Use Electrical Equipment

UL 1786
Direct Plug In Nightlights

UL 8750
Light Emitting Diode (LED) Equipment For Use In Lighting Products

ASME[1] Standard

B94.11
Twist Drills, Straight Shank and Taper Shank Combined Drills, and Countersinks

ASTM[2] Standards

B117
Standard Method of Salt-Spray (Fog) Testing

D573
Standard Test Method for Rubber Property – Durometer Hardness

D1654
Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments

D2240
Standard Test Method for Rubber – Deterioration in an Air Oven

G151
Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources

G153
Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials

G155
Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials

IEEE[3] Standard

IEEE 45
Recommended Practice for Electric Installations on Shipboards

ISO[4] Standards

ISO 4892-1
Plastics – Methods of Exposure to Laboratory Light Sources – Part 1: General Guidance

ISO 4892-2
Plastics – Methods of Exposure to Laboratory Light Sources – Part 2: Xenon-Arc Lamps
Note: ISO 4892-1 and ISO 4892-2 are considered equivalent to ASTM G151, G153 and G155.

ISO 9227
Corrosion Tests in Artificial Atmospheres – Salt Spray Tests

Note: The neutral salt spray (NSS) test in ISO 9227 is considered equivalent to ASTM B117.

NEMA[5] Standard

WD6
Wiring Devices – Dimensional Requirements

NFPA[6] Standard

NFPA 70
National Electrical Code

NFPA 302
Fire Protection Standard for Pleasure and Commercial Motor Craft

[1] American Society of Mechanical Engineers
[2] American Society for Testing and Materials
[3] Institute of Electrical and Electronics Engineers
[4] International Organization for Standardization
[5] National Electrical Manufacturers Association
[6] National Fire Protection Association

3 Terms and Definitions

3.1 Cover plate for flush-mounted wiring devices – a cover intended to close the flush-device box and cover the edges of the wall opening in which the box is located. The cover is either a blank plate or a plate intended to be fastened directly to a wiring device. See Figure 1.

Note: In this standard, the term "cover plate" refers to "cover plate for flush-mounted wiring devices."

3.2 DEVICE: A unit of an electrical system that is intended to carry, not utilize, electrical energy.

3.3 DRIPPROOF: A designation of a marine-use product that is constructed or so protected that falling drops of liquid or solid particles striking the enclosure, from 0 – 15° downward from vertical, do not interfere with the intended operation of the equipment.

3.4 ELASTOMER: Rubber or any polymer that has properties similar to those of rubber (also referred to as solid elastomer in this standard).

3.5 FLUSH-DEVICE BOX: A box with provision for mounting one or more flush wiring devices.

3.6 OUTLET BOX HOOD: A product intended to fit over a cover plate for flush-mounted wiring devices, or an integral component of an outlet box or cover plate for flush-mounted wiring devices. The hood does not serve to complete the electrical enclosure; it reduces the risk of water coming in contact with electrical components housed within, such as attachment plugs, current taps, surge protective devices, direct plug-in transformer units, or wiring devices.

3.7 OUTLET BOX HOOD, REATTACHABLE: An outlet box hood that comes off without damage under a degree of force and can be reattached without the use of tools.

3.8 OUTLET BOX HOOD, RETRACTABLE: An outlet box hood that can be either in the extended position (when in use) or in the retracted position (when not in use).