CAN/ULC-S540-13 (R2023)

STANDARD FOR RESIDENTIAL FIRE AND LIFE SAFETY WARNING SYSTEMS: INSTALLATION, INSPECTION, TESTING AND MAINTENANCE

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Standard for Residential Fire and Life Safety Warning Systems: Installation, Inspection, Testing and Maintenance, CAN/ULC-S540

Second Edition, Dated March 1, 2013

Summary of Topics

This revision of CAN/ULC-S540 dated April 14, 2023 is being issued to update the title page to reflect the reaffirmation of this Second Edition National Standard of Canada. No changes in requirements are involved.

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 requirements are substantially in accordance with Proposal(s) on this subject dated September 30, 2022.

PLEASE NOTE THAT CERTAIN CODES MAY REFER TO A SUPERSEDED VERSION OF THIS STANDARD. IN THOSE INSTANCES, THE RELEVANT VERSIONS ARE AVAILABLE FOR PURCHASE.

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PREFACE

This is the Second Edition of the Standard for Residential Fire and Life Safety Warning Systems: Installation, Inspection, Testing and Maintenance, CAN/ULC-S540.

This Edition of the Standard was developed by the ULC Standards Working Group on Residential Fire and Life Safety Warning Systems, reviewed by the ULC Standards Subcommittee on Installation, Inspection and Verification of Fire Alarm Systems, and was formally approved by the ULC Standards Committee on Fire Alarm and Life Safety Equipment and Systems.

The requirements in this Standard have been developed in consideration of the requirements of the National Building Code of Canada and the National Fire Code of Canada.

This Standard is intended to provide for the regulation of the installation of residential fire warning and life safety systems and is not intended to detract from the requirements of CAN/ULC-S524, Standard for the Installation of Fire Alarm Systems. It differs from the requirements of CAN/ULC-S553, Standard for the Installation of Smoke Alarms and CAN/ULC-S552, Standard for the Maintenance and Testing of Smoke Alarms, in that it is not intended to apply to the installation, maintenance and testing of single station or multiple station smoke alarms.

This Standard has been developed in compliance with the requirements of SCC for accreditation of a Standards Development Organization.

Only metric SI units of measurement are used in this Standard. If a value for measurement is followed by a value in other units in parentheses, the second value may be approximate. The first stated value is the requirement.

Appendices A, B, C, D and E, identified as informative, are for informational purposes only.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

Attention is drawn to the possibility that some of the elements of this Canadian standard may be the subject of patent rights. ULC Standards shall not be held responsible for identifying any or all such patent rights.

Requests for interpretation of this Standard should be sent to ULC Standards. The requests should be worded in such a manner as to permit a “yes” or “no” answer based on the literal text of the requirement concerned.

This CAN/ULC-S540 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

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

This Standard is intended to be used for conformity assessment.

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1 SCOPE

1.1 This Standard sets forth the minimum requirements for the design, installation, inspection, testing and maintenance of *residential fire warning systems* for use within *dwelling units* and *care occupancies* not requiring fire alarm systems conforming to CAN/ULC-S524, Installation of Fire Alarm Systems. (See Appendix A, Explanatory Notes, Clause A1.1).

NOTE: This Standard is intended to apply to both required and voluntary *residential fire warning system* installations. (See Appendix A, Explanatory Notes, Clause A1.1-Note)

1.2 This Standard specifies how such *residential fire warning systems* shall be installed to perform their intended function. (See Appendix A, Explanatory Notes, Clause A1.2 and Appendix B, Enhancement of Fire Safety in the Home.)

1.3 This Standard is not intended to specify the type and extent of *residential fire warning systems*.

1.4 The installation of fire detection and alarm devices not covered by the requirements in this Standard shall be in accordance with good engineering practice and the manufacturer's published installation instructions.

2 REFERENCE PUBLICATIONS

2.1 The documents shown below are referenced in the text of this Standard. Unless otherwise stated elsewhere in this Standard such reference shall be considered to indicate the edition and/or revisions of the document available at the date on which the Committee approved this ULC Standard. All undated references shall be interpreted as referring to the latest edition of that document.

Document Published by the Acoustical Society of America
35 Pinelawn Road, Suite 114E, Melville, NY 11747
Telephone: (631) 390-0215

• ANSI/S1.40–1984 (R2001),Specification for Acoustical Calibrators

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• CAN/CSA-C6.19-01, Residential Carbon Monoxide Alarming Devices

• CSA C22.1-12, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations

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Telephone: (613) 238-3222; Fax: (613) 569-7808
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• ISO 8201-1987 (R2002), Acoustics – Audible Emergency Evacuation Signal

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Document published by National Fire Protection Association
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Telephone: (617) 770-3000
www.nfpa.org

• NFPA 13D-2010 (Amd4-2012), Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes

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Telephone: (613) 993-9101 or 1-877-672-2672
www.nrc-cnrc.gc.ca

• National Building Code of Canada 2010

• National Fire Code of Canada 2010

Documents Published by ULC Standards (prior to May, 2010, identified as Underwriters Laboratories of Canada)
171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada
Telephone: (613) 755-2729
www.ulc.ca/ulcstandards

• CAN/ULC-S525, Standard for Audible Signal Devices for Fire Alarm Systems, Including Accessories;

• CAN/ULC-S526, Standard for Visible Signal Devices for Fire Alarm Systems, Including Accessories

• CAN/ULC-S528, Standard for Manual Stations for Fire Alarm Systems, Including Accessories

• CAN/ULC-S529, Standard for Smoke Detectors for Fire Alarm Systems

• CAN/ULC-S530, Standard for Heat Actuated Fire Detectors for Fire Alarm Systems

• CAN/ULC-S531, Standard for Smoke Alarms

• CAN/ULC-S533, Standard for Egress Door Securing and Releasing Devices

• ULC-S545, Standard for Residential Fire Warning System Control Units

• CAN/ ULC-S548, Standard for Alarm Initiating and Supervisory Devices for Water Type Extinguishing Systems

• CAN/ULC-S561, Standard for Installation and Services for Fire Signal Receiving Centres and Systems

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