CAN/ULC 536:2024

Standard for Inspection and Testing of Fire Alarm Systems

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Standard for Inspection and Testing of Fire Alarm Systems, CAN/ULC 536

Sixth Edition, Dated August 1, 2019

Summary of Topics

This revision of CAN/ULC 536, dated August 5, 2024, includes Data Communication Link Testing: 3.29, 20.2.1, and 22.12.

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 September 29, 2023, March 12, 2024, and June 6, 2024.

PLEASE NOTE THAT CERTAIN CODES MAY REFER TO A SUPERSEDED VERSION OF THIS STANDARD.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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Standard for Inspection and Testing of Fire Alarm Systems

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PREFACE

This is the Sixth Edition of the Standard for Inspection and Testing of Fire Alarm Systems, CAN/ULC 536.

This Edition of the Standard was developed by the ULC Standards Working Group on Inspection, Testing and Verification of Fire Alarm Systems, reviewed by the ULC 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.

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

This Edition of the Standard was developed and coordinated as part of the following set of companion standards:

- CAN/ULC-S524, Standard for Installation of Fire Alarm Systems;
- CAN/ULC 536, Standard for Inspection and Testing of Fire Alarm Systems; and
- CAN/ULC-S537, Standard for Verification of Fire Alarm Systems.

It is expected that verification of the fire alarm system will be carried out in conformance with CAN/ULC-S537, Standard for Verification of Fire Alarm Systems.

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.

Annexes A to F, 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 fact that some Canadian authorities may require markings and/or instructions to be in either or both official languages.

This Sixth Edition National Standard of Canada is based on, and now supersedes, the Fifth Edition.

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 536 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 On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com.

This Standard is intended to be used for conformity assessment.

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INTRODUCTION

1 Scope

1.1 This Standard prescribes requirements for the inspection and testing of *fire alarm systems*; and specifies the devices and functions to be inspected, tested, and documented for the periodic inspection and test.

NOTE 1: This Standard is intended to apply to both required and voluntary fire alarm installations.

NOTE 2: Refer to Annex A (Informative), Informative Materials, A1.1.

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.

Standards published by the CSA Group International
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www.csagroup.org

- CSA C22.1-18, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations
- CSA 6.19-17, Residential Carbon Monoxide Alarming Devices
- CAN/CSA-Z32-15, Electrical Safety and Essential Electrical Systems in Health Care Facilities
- CAN/CSA-C282-15, Emergency Electrical Power Supply for Buildings

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- National Building Code of Canada, 2015
- National Fire Code of Canada, 2015

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- CAN/ULC-S524:2019, Standard for the Installation of Fire Alarm Systems
- CAN/ULC S525:2016, Audible Signal Devices for Fire Alarm Systems, Including Accessories
- CAN/ULC S526:2016, Visible Signal Devices for Fire Alarm Systems, Including Accessories
- CAN/ULC S527-19, Standard for Control Units for Fire Alarm Systems
- CAN/ULC S528:2014, Standard for Manual Stations for Fire Alarm Systems, Including Accessories
- CAN/ULC S529:2016, Standard for Smoke Detectors for Fire Alarm Systems
- CAN/ULC-S530-M91 (R1999), Standard for Heat Actuated Fire Detectors for Fire Alarm Systems
- CAN/ULC-S537:2019, Standard for Verification of Fire Alarm Systems
- CAN/ULC-S561-13, Standard for Installation and Services for Fire Signal Receiving Centres and Systems

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• CAN/ULC-S573:2018, Installation of Ancillary Devices Connected to the Fire Alarm System
• CAN/ULC-S576, Standard for Mass Notification Systems, Including Accessories
• CAN/ULC-S588:2016, Gas and Vapour Detectors and Sensors, Including Accessories

3 Glossary

NOTE: Terms used in this Standard are defined as follows:

3.1 *ACTIVE FIELD DEVICE* – A field device that can be uniquely identified by the *control unit* or *transponder* to determine its presence and operating status, and which may be commanded to operate or to change its operating parameters independently of other *field devices* that share a common *circuit*.

3.2 *AIR DUCT TYPE SMOKE DETECTOR* – A fire detector designed to activate when the concentration of airborne combustion products in an air duct exceeds a pre-determined level.

3.3 *AIR SAMPLING TYPE DETECTOR* – A *fire detector* designed to activate when the concentration of airborne combustion products exceeds a pre-determined level and is part of an air sampling system.

3.4 *ALARM SIGNAL* – An audible signal transmitted throughout a zone or zones or throughout a *building* to advise occupants that a fire emergency exists.

3.5 *ALERT SIGNAL*- A signal to advise designated persons of a fire emergency.

3.6 *ANCILLARY CIRCUIT* – A *circuit* which connects a *control unit*, *transponder*, and/or remote relay to ancillary devices.

3.7 ANCILLARY DEVICE – A device which has a life-safety application, is connected to the *fire alarm system*, but is not part of the *fire alarm system*.

3.8 *ANNUNCIATOR* – A component to visually indicate the National Building Code of Canada required status information from a *fire alarm system*.

3.9 *AUDIBLE SIGNAL DEVICE* – A device which utilizes sound to notify the occupants of a *building* of an emergency situation.

3.10 *AUTHORITY HAVING JURISDICTION (AHJ)* – The government body responsible for the enforcement of any part of this Standard or the official or agency designated by that body to exercise such a function.

3.11 *BEAM TYPE SMOKE DETECTOR* – A *fire detector* where light from an internal source is transmitted externally, monitored by a photosensitive receiver, and is designed to activate when the concentration of airborne combustion products exceeds a predetermined level.

3.12 *BUILDING* – Any structure used or intended for supporting or sheltering any use or occupancy.

3.13 *BUSS* – A *circuit* that serves as a common connection for distribution of power, data, or audio to multiple *circuits* or devices.

3.14 *CARE* – Means the provision of services other than treatment by or through *care* facility management to residents who require these services because of cognitive, physical or behavioural limitations.

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