CAN/ULC 524:2024

Standard for Installation of Fire Alarm Systems

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Standard for Installation of Fire Alarm Systems, CAN/ULC 524

Eighth Edition, Dated December 23, 2024

Summary of Topics

This new Eighth Edition of ULC 524 dated December 23, 2024 includes the following changes in requirements:

– Class "B" Wired Data Communication Link, Power Audio, and Notification Buss Isolators: Figure 20.6, Figure 49.2, and Figure 49.3;

– Spot Type Smoke Detectors and Beam Construction: 29.10.10, Figure 29.15, and 29.10.12;

– Battery Derating: 5.4.2 and Section 18;

– Imminent Danger: Table F.1;

– High Ceiling Application: 29.8.5;

– Door Release: 51.4, 51.5, 51.6, and Figure 51.1;

– Replacing Figure A19.5 with Figure A19.12 and modifying Clause 53.3.13;

– Editorial Corrections: Table 3.1.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated March 14, 2024 and August 27, 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PLEASE NOTE THAT CERTAIN CODES MAY REFER TO A SUPERSEDED VERSION OF THIS STANDARD.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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CAN/ULC 524:2024

STANDARD FOR INSTALLATION OF FIRE ALARM SYSTEMS

ICS 13.220.20; 13.320

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CONTENTS

ULC STANDARDS COMMITTEE ON FIRE ALARM AND LIFE SAFETY EQUIPMENT AND SYSTEMS..9

PREFACE 11

INTRODUCTION

1 Scope 13
2 Reference Publications 13
3 Glossary 14

REQUIREMENTS OF FIRE ALARM SYSTEMS

4 General 21
5 Power Supply 25
5.1 General 25
5.2 Primary power 26
5.3 Secondary power supply 26
5.4 Emergency power supply 26
5.5 Engine-driven generators 27
5.6 Uninterruptible power supply 27
6 Electrical Supervision 28
6.1 General 28
6.2 Trouble signals 34
7 Wiring 34
8 Optical Fibre Cables 36
9 DCLN Circuit / Pathway 37
10 Short-Range Radio Frequency Equipment (Wireless) 37
11 Plans And Specifications 38

INSTALLATION OF FIRE ALARM EQUIPMENT

12 Control Units and Transponders 39
13 Annunciators and Display and Control Centre 40
14 Control Switches 42
15 Ancillary Display 42
16 Remote Power Supplies 42
17 Batteries 43
18 Battery Sizing 43
19 Circuit Fault Tolerance 43
20 Data Communication Link (DCL) 44
20.1 General 44
20.2 Network data communication link 52
20.3 Field device data communication link 56
21 Large Scale Network Systems 57

VOICE COMMUNICATION

22 General 59
23 Automated Voice 60
24 Emergency Telephones 60

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GENERAL REQUIREMENTS OF FIRE ALARM SYSTEM DEVICES

25 General 61
26 Protective Covers And Accessories 62

INITIATING AND INPUT DEVICES

27 Manual Stations 62
28 General Requirements for Fire Detectors 63
28.1 General 63
28.2 Mounting of fire detectors 63
28.3 Mounting of spot type fire detectors 64
29 Spot Type Fire Detectors 71
29.1 Smooth ceiling spacing 71
29.2 Sloped ceiling spacing 76
29.3 Ceiling height variations 77
29.4 Galleries, mezzanine and interior balconies 77
29.5 Partitions 80
29.6 Corridors 81
29.7 Special applications 81
29.8 High ceilings 81
29.9 Solid joist construction 82
29.10 Beam construction 83
29.11 Exit stair shafts 91
29.12 High air movements and humidity 92
29.13 Raised floors and suspended ceilings 94
29.14 Elevator and dumbwaiter shafts (hoistways) 94
30 Multi-Sensor Devices 95
31 Smoke Detectors in Lieu of Smoke Alarms 95
32 Air Duct Type Smoke Detectors 95
33 Beam Type Smoke Detectors 99
34 Air Sampling Type Detectors 99
35 Flame Detectors 100
36 Other Fire Detectors 100
37 Carbon Monoxide Detection Devices 101
38 Carbon Monoxide Detectors in lieu of Carbon Monoxide Alarms 101
39 Other Gas and Vapour Detection Devices 102

NOTIFICATION AND OUTPUT DEVICES

40 General 102
41 Audible Signal Devices Locations 103
42 Audible Signal Devices in Suites of Residential Occupancy 103
43 Visible Signal Devices (Strobe Lights) 103
44 Combination Audible / Visible Signal Device (Strobe Lights) 107
45 Strobe Synchronization Modules 107
46 Fire Do Not Enter Signs 107
47 Directional Signs for Evacuation 107

OTHER FIRE ALARM SYSTEM DEVICES

48 End-of-Line Devices 108
49 Fault Isolators 108
50 Suite Fault Isolators 112
51 Door Holders (Hold-Open Devices) and Door Closers 113

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52 Interconnection to the Fire Signal Receiving Centre 116
53 Fire Suppression Releasing Systems 116
53.1 General 116
53.2 Fire detectors for suppression releasing 116
53.3 Alarm initiating devices and supervisory devices for suppression systems 117
53.4 Notification devices for suppression systems 119
53.5 Releasing and abort stations for suppression systems 120
53.6 Releasing panels for suppression systems 120

ANNEX A (Informative) – EXPLANATORY MATERIALS

ANNEX B (Informative) – FIRE DETECTION ZONES AND ANNUNCIATION OF FIRE ALARMS, INCLUDING ALARM RESOUND OPERATION

B1 NBC Fire Alarm Zoning Requirements 150
B2 Alarm Resound Operation 151
B3 NBC Zone Supervisory Zoning Requirements 152
B4 Good Engineering Practice 152

ANNEX C (Informative) – SOUND LEVEL MEASUREMENTS

C.1 Sound Level Measuring Devices 154
C.2 Measurement Method 154
C.3 Selecting Test Area 154
C.4 Ambient Noise Level Measurements 154

ANNEX D (Informative) – STROBE LIGHTS

ANNEX E (Informative) – RESPONSIBILITY DEMARCATIONS FOR INTERCONNECTION OF FIRE SIGNAL RECEIVING CENTRE

E.1 Responsibility Demarcations – Supervised Communication Facility Installations 167
E.2 Responsibility Demarcations – Dual Communications Signal Transmitter Installations 167
E.3 Responsibility Demarcations – Fire Alarm Control Units with Integral Communication Devices 168
E.4 Responsibility Demarcations – Fire Alarm Control Units with Integral Communication Devices 168
E.5 Non-Removable Terminal Blocks 169
E.6 Removable Terminal Blocks 170

ANNEX F (Informative) – PRIORITY LEVELS FOR COMBINED MASS NOTIFICATION AND FIRE ALARM SYSTEMS

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S. Alfano	CFAA	Producer	Canada
K. Allison	Fire Monitoring Of Canada Inc.	Producer	Canada
S. Ames	Standards Individuals	General Interest	Canada
M. Arruda	Electrical Contractors Association Of Ontario	Commercial/Industrial Users	Canada
A. Asraei	Jensen Hughes Consulting Canada Ltd.	General Interest	Canada
S. Bartlett	RJ Bartlett Engineering Ltd.	General Interest	Canada
D. Blais	Mircom Technologies Ltd	Producer	Canada
D. Casey	Mississauga Fire Emergency Services	Authorities Having Jurisdiction	Ontario
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M. Zukov	ARENCON Inc.	General Interest	Canada

This list represents the membership at the time the committee balloted on the final text of this edition. Since that time, changes in membership may have occurred.

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PREFACE

This is the Eighth Edition of the Standard for Installation of Fire Alarm Systems, ULC 524.

This Edition of the Standard was developed 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:

- ULC 527, Standard for Control Units for Fire Alarm Systems;
- ULC 536, Standard for Inspection and Testing of Fire Alarm Systems; and
- 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, French and English. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require markings and/or instructions to be in either or both official languages, except as stated elsewhere in this Standard.

This Eighth Edition National Standard of Canada is based on, and now supersedes, the Seventh 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 524 Standard in under continuous maintenance, whereby each revision is approved in compliance with the requirements of Standards Council of Canada 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 describes the requirements for the design and installation of a fire alarm system with or without voice communication capability.

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

NOTE 2: The requirements in this Standard address the installation for various types of fire alarm system equipment and devices. These requirements are intended to apply when the equipment and devices are required by the fire alarm system design.

NOTE 3: This Standard recognizes that a fire alarm system may have additional features or functions differing from those detailed in these requirements, if the features or functions enhance:

a) The life safety of the occupants of the building; and/or

b) The protection of the building or property.

Refer to Annex A (Informative) Explanatory Materials, A.1.1.

1.2 The installation of devices not covered by these requirements shall be in accordance with good engineering practice and manufacturer's published installation instructions and the following standards, as applicable:

a) ULC 553, Installation of Smoke Alarms;

b) ULC 561, Installation and Services of Fire Signal Receiving Centres;

c) ULC 573, Installation of Ancillary Devices Connected to Fire Alarm Systems;

d) ULC-S576, Mass Notification System Equipment and Accessories;

e) ULC 588, Gas and Vapour Detectors and Sensors, Including Accessories; and

f) ULC 1001, Integrated Systems Testing of Fire Protection and Life Safety Systems.

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.

CSA 6.19-17, *Residential Carbon Monoxide Alarming Devices*

CSA C22.1:2018, *Canadian Electrical Code (CEC), Part I, Safety Standard for Electrical Installations*

CSA C282-15, *Emergency Electrical Power Supply for Buildings*

NFPA 13-2019, *Standard for Installation of Sprinkler Systems*

NFPA 72-2019, *National Fire Alarm and Signaling Code*

National Building Code (NBC) of Canada 2015

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National Fire Code (NFC) of Canada 2015

ULC 139:2017-REV1 (2018), *Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control, and Data Cables*

ULC 525:2016, *Audible Signaling Devices for Fire Alarm and Signaling Systems, Including Accessories*

ULC 526:2016-REV1 (2017), *Visible Signaling Devices for Fire Alarm and Signaling Systems, Including Accessories*

ULC 527-11-AMD1 (2014), *Control Units for Fire Alarm Systems*

ULC 528-14-AMD1 (2017), *Manual Stations for Fire Alarm Systems, Including Accessories*

ULC 529:2016, *Smoke Detectors for Fire Alarm Systems*

ULC-S530-M91 (R2018), *Heat Actuated Fire Detectors for Fire Alarm Systems*

ULC-S533:2015, *Egress Door Securing and Releasing Devices*

ULC 541:2016-REV1 (2017), *Speakers for Fire Alarm and Signaling Systems, Including Accessories*

ULC-S548:2015, *Devices and Accessories for Water Type Extinguishing Systems*

ULC 553:2014 (R2019), *Installation of Smoke Alarms*

ULC 559-13 (R2018), *Equipment for Fire Signal Receiving Centres and Systems*

ULC 561-13 (R2018), *Installation and Services for Fire Signal Receiving Centres and Systems*

ULC 573:2018, *Installation of Ancillary Devices Connected to the Fire Alarm System*

ULC-S576-14, *Mass Notification System Equipment and Accessories*

ULC 588:2017, *Gas and Vapour Detectors and Sensors, Including Accessories*

ULC 1001:2011 (R2018), *Integrated Systems Testing of Fire Protection and Life Safety Systems*

ULC/ORD-C228-12, *Door Closers and Holders*

3 Glossary

NOTE: The following terms used in this Standard are defined as follows:

3.1 ACTIVE FIELD DEVICE – A field device that can be uniquely identified by a control unit and/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 ADDRESSABLE DEVICE – See definitions for active field device and supporting field device.

NOTE: Collectively, active field devices and supporting field devices are commonly referred to as addressable devices.

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