

NATIONAL
STANDARD
OF CANADA

CAN/ULC-S561-03

INSTALLATION AND SERVICES
FOR
FIRE SIGNAL RECEIVING CENTRES AND SYSTEMS



Presented by

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ULC Listed Since 1977

Chair of ULC-S561 Working Group

**An Update on
Proposed Revisions,
Second Edition**

2009



First Some Background Information About Standards Development in Canada.



Standards Council of Canada
Conseil canadien des normes

Standards – The Standards Council of Canada (SCC) is the coordinating body of the National Standards System, a coalition of independent autonomous organizations working towards the further development and improvement of voluntary standardization in the national interest.

A National Standard of Canada (NSC) is a standard prepared or reviewed by and accredited standards development organization (SDO) and approved by the SCC according to their operational requirements.



Standards Council of Canada
Conseil canadien des normes

There are four Canadian Standards Development Organizations:

- ✓ Bureau de normalisation du Québec (BNQ)

- ✓ Canadian General Standards Board (CGSB)

- ✓ **Canadian Standards Association (CSA International)**
National Electrical Code

- ✓ **Underwriters Laboratories of Canada (ULC)**
Fire & Intrusion Alarm Standards



Standards Council of Canada
Conseil canadien des normes

Conformity Assessment - is the practice of determining whether a product, service or system meets the requirements of a particular standard. SCC accredits the following conformity assessment bodies:

- ✓ Testing and calibration laboratories;
- ✓ Management systems certification bodies;
- ✓ Personnel certification bodies;
- ✓ Product and service certification bodies
- ✓ Testing and calibration laboratories;

ULC, CSA and others are Accredited Product and Service Certification Bodies.



Underwriters' Laboratories of Canada

Three Functions Related to Fire Alarms and Monitoring

Underwriters' Laboratories of Canada is accredited by the Standards Council of Canada as a **Certification Organization**, a **Testing Organization**, and a **Standards Development Organization** under the National Standards System of Canada.



As an Accredited Standards Development Organization ULC **facilitates** the development of National Standards Of Canada for Fire Alarm Equipment and for Fire Alarm Monitoring Services.

National Standards of Canada developed by Underwriters' Laboratories of Canada conform to the criteria and procedures established by the Standards Council Of Canada. These Standards are prepared using the consensus principle by individuals (a working group) who provide a balanced representation of interests relative to the subject area on a national basis.



Once a Standard has been completed by the Working Group it is then subjected to “Public Comment”

A draft standard is distributed to everyone who has made their interest known to ULC. Every question or negative comment received is reviewed by the Working Group and is resolved before the standard moves forward.

Next step is approval by the “500 Main Committee” (in the case of fire related standards).

Then the Standard is submitted to the SCC for final approval and permission to Publish.

It is then give the designation “CAN/ULC ----”



Accredited Testing Laboratory – or - NRTL -

Nationally Recognized Testing Laboratory

- Accreditation is by the Standards Council of Canada

- ✓ The Underwriters' Laboratories of Canada is an Accredited Product and Services Testing Laboratory
- ✓ Underwriters' Laboratories Inc. is an Accredited Product and Services Testing Laboratory
- ✓ Intertek – ETL is also an Accredited Product and Services Testing Laboratory



ULC Certificate Services Program

Fire Protective signalling Services

- Fire Suppression Sprinkler Supervisory Service
- Fire Alarm Panel Monitoring Service

Program is based on CAN/ULC-S561 Standard.

In very simple terms the Certificate Service Program is an independent qualified 3rd party that warrants that the services provided are in conformance with the CAN/ULC-S561 Standard!



CAN/ULC-S561-03 - Standard for the Installation and Services for Fire Signal Receiving Centres and Systems.

First Published in 2003

Canadian Standards are required to be
reviewed every five years.

The review of S561 commenced in July of
2008. This review is ongoing at this time.



Desire to co-ordinate the publish years of
CAN/ULC-S301 – the intrusion alarm
companion standard to S561.

S301 was published in March 2009.

In five years S301 and S561 will be
reviewed again by a joint working group.



Highlights of Proposed Changes to S561:-

The 1st edition of S561 required that signal receiving centres have two accesses to exits.

As this is a life safety feature of a building requirements for exits are contained in the applicable building code.

This requirement will be removed in the 2nd edition of S561



The 1st edition of S561 required that there be a fire alarm system throughout the building housing the Signal Receiving Centre.

The 1st edition did not recognize fire suppression sprinkler systems.

In some facilities the operator of the SRC may not be able to install a fire alarm system.

As this is a life safety feature of a building requirements for a fire alarm system are contained in the applicable building code.

This requirement will be removed in the 2nd edition of S561



Virtually all Fire Signal Receiving Centres also provide intrusion alarm monitoring and there is a need to harmonize the intrusion and fire monitoring standards.

With a move to “performance” based standards many of the requirements in the 1st edition that were regarded as being “prescriptive” have been changed.

For example – a requirement for 24 H standby power for the SRC required a generator in the 1st edition. The second edition still requires 24 H standby but it may be provided in any manner – however the listee must be able to demonstrate the 24 H operability.



A new requirement introduced in the S301 Standard is a documented Signal Receiving Centre contingency plan. This same plan will be incorporated into the 2nd edition of S561.

The contingency plan is designed to address foreseeable or potential disaster that might affect the SRC operations.



The 1st edition of S561 required an annual waterflow alarm test be performed at the inspectors test valve – at the end of the sprinkler line.

In the case of a dry sprinkler system this meant that the alarm check valve mechanical linkage would have to be reset.

It was identified that the vast majority of fire alarm monitoring service company technicians are not qualified sprinkler technicians and as such should not be working in sprinkler alarm check valves.

In the 2nd edition all required tests will be by way of the alarm test valve.



In the 1st edition of S561 we introduced the concept of a “point of demarcation” between the fire alarm control unit and the alarm signal transmitter.

This was an appendix item and therefore not a hard requirement.

A recommendation was made to make the point of demarc a hard requirement in the 2nd edition.

The W/G has rejected this recommendation – BUT we are all in agreement with the intent of the demarc but we feel that this a CAN/ULC-S524 item to be developed as a part of the alarm control unit.



Perhaps the most controversial requirement contained in the 1st edition of S561 was the requirement that all equipment be listed as being in conformance with CAN/ULC-S559 - the monitoring equipment standard.

The effect of this requirement would mean that all equipment installed for fire alarm and sprinkler supervisory service would have to be replaced within a certain period of time.

Also SRC equipment would cease to be acceptable after a certain period of time.

This would mean the replacement of several thousand premises transmitters and the companion receivers.



Natural Question – WHY??????

Unlike a product (such as a fire alarm control unit for example) that is tested and proven to conform to a standard at the time it was manufactured, a service such as fire alarm monitoring – and its associated equipment – is subjected to re-inspection and re-certification by ULC. In order for a premises installation to be acceptable the signal transmitter would have to be listed under the new S559 standard. But the equipment installed prior to the publication of S559 could not be so listed – and it could not be re-certificated.



So How Is It Being Addressed????

As an interim measure an amendment to S561 established Level 1 and Level 2 SRC's.

Level 1 SRC's would be allowed to continue to use the old legacy equipment but not install new installations

Level 2 SRC's would have to upgrade their receiving equipment and install S559 listed equipment. They would have to meet all the requirements in the 1st edition but they could continue to offer Level 1 service also.



The 2nd edition will allow the continued use of equipment previously listed as being in conformance with CAN/ULC-S527 – Fire Alarm Control Unit Standard.

This means that legacy equipment will not have to be trashed.

BUT – a performance requirement in S561 will apply to the legacy equipment – a fire alarm signal must be transmitted and received with 60 s - the previous requirement was 90 s under S527.



There are several other “minor” proposed changes that have yet to be discussed at the W/G.

However, the Working Group will accept input, suggestions and recommendations from any interested party – and that is most of you folks.

Comments may be sent to me – email dave@damar.net and I will ensure that they are placed on the agenda.

Our next meeting is April 21.

And who knows – I may pressure you to join the working group.



My final thoughts:

The building code is the authoritative document on life safety systems for buildings!

The building code requires that fire alarm systems in certain buildings be monitored and refers to S561.

The fire alarm system monitoring then forms a vital part of the building life safety system

No building or fire official will accept a fire alarm system without verification!



Verification – a qualified third party attesting to the fact that the installation of the fire alarm system is in conformance to a standard – CAN/ULC-S537.

I believe that where monitoring is required it should be subjected to the same scrutiny as the fire alarm system itself.

Building and fire officials have an obligation to do the best job they can for the protection of the public!

Why then would any building or fire official accept anything less than a qualified third party attesting to the fact that the fire alarm monitoring is being performed in accordance with the referenced National Standard of Canada???



Thank You!

If you have any questions or comments
please feel free to e-mail me:

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