STANDARDS UPDATE NOTICE (SUN)
ISSUED: January 11, 2022

STANDARD INFORMATION

This SUN supersedes all previous ULC S531 SUNs

Standard: ULC S531
Standard ID: Standard for Smoke Alarms (R2018) [CAN/ULC S531:2014 Ed.3]
Previous Standard ID: Standard for Smoke Alarms [CAN/ULC S531:2002 Ed.2+A1]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **June 30, 2024**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

Overview of Changes: ULC S531 3rd edition provides for improved Smoke Alarms by way of updated Testing requirements including requirements specific to Multi-Criteria Smoke Alarms which include supplemental functions such as CO gas detection and unique alerting capabilities. Further changes in this Edition include requirements specific to the gas sensor, Sensitivity & Velocity-sensitivity tests and In-Service Reliability testing. Specific details of new/revised requirements are found in table below.

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.

STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
3.22		**Glossary** – Many items in the glossary have been revised or expanded, such as the following: **3.22 SPECIFIED LIFETIME** – For purposes of this standard, specified lifetime will be referred to as "lifetime." A continuous period of time specified by the manufacturer, during which the alarm meets the requirements of this standard. The manufacturer will specify the start date of the period as either the date of manufacturer or the fully assembled unit in its final enclosure, or the date the unit is placed into service.
6		**6.1 - 6.4 - Automatic Drift Compensation For Smoke Sensing** If this is a feature within the Smoke Alarm additional testing is needed**.**
8		**Smoke Sensitivity Indicating Means (Optional)** This requirement applies to end product installation smoke alarms that are provided with a means for measuring or indicating the nominal sensitivity or a sensitivity range. If the device is included, then must be evaluated under test.
9		**Maintenance (Field Cleaning)** If a smoke alarm is capable of being cleaned it must be evaluated under test.
10		**Alarm Silencing Feature** Smoke alarms powered by a non-replaceable battery shall be provided with a temporary alarm silencing means.
35		**Automatic Drift Compensation** If this is a feature within the Smoke Alarm additional testing is needed**.**
37.7		**Smoke Chamber Monitoring** 37.7.1 The clean-air condition of a smoke chamber shall be monitored for contamination. A trouble signal shall be indicated at the smoke alarm before the clean-air reference value changes by more than 50 % of the shift required to place the smoke alarm into the alarm condition. 37.7.2 Two smoke alarms, one set at maximum and one set at minimum sensitivity, shall be used for the test. Each smoke alarm is to have the clean-air reference value in the smoke chamber gradually adjusted over a 48-h period in increments not exceeding 1/14 of the value required to reach 50 % of the shift that places the smoke alarm into the alarm condition. The reference value is to be adjusted not more than once each h.

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37.8		**End-of-Life Signal** The smoke alarm shall indicate end-of-life, based on the manufacturer's specified lifetime (not to exceed 10 years), with an end-of-life signal.
37.9		**Multi-Criteria Smoke Alarm With Gas Sensor** If applicable, then must be evaluated under test.
40.1.1		**Velocity Sensitivity** Revised requirement for smoke alarm sensitivity shall not vary by more than 1% in either the least or most favorable smoke entry positions.
48		**Selectivity Test – Multi-criteria Smoke Alarms Incorporating Gas Sensor** If device has this feature, then must be evaluated under test**.**
58		**Alternate Corrosion Test (21 Day)** The 21 day corrosion test outlined in 58.2 – 58.4 may be conducted in lieu of the Corrosion Test outlined in Section 57.
59.4		**Surge Immunity Test (Combination Wave)** New test required for AC powered smoke alarms.
59.5		**Surge Current Test** New test required for AC powered smoke alarms.
59.6		**Supply Line (Ring Wave Surge Voltage) Transients** New test required for AC powered smoke alarms.
59.7		**Supply Line (Extra-Low-Voltage Circuit) Transients** New test required for AC powered smoke alarms.
76.4		**Low Frequency Alarm Signal Format** If the alarm provides a Low-frequency 520Hz format, then it must comply with this new test requirement – test needed.
77		**Field Service Tests (If Recommended By The Manufacturer)** If this method is recommended by the manufacturer, then new test procedure is required. Includes Maintenance cleaning procedure Clause 77.2.
80		**Smoke Alarms For Use In Recreational Vehicles (RV)** New addition to this Edition**.** If the alarm is for use in a recreational vehicle, then test method is required.

CLAUSE	VERDICT	COMMENT
81		**Smoke Alarms For Use On Recreational Boats** New addition to this Edition**.** If the alarm is for use in a recreational boat, then test method is required.
91		**Markings** New marking requirements added.
92		**Instructions** New instructions requirements added.
93		**Installation Instructions - Wiring Diagram** New installation instructions requirements added.