STANDARDS UPDATE NOTICE (SUN)
ISSUED: February 10, 2025

STANDARD INFORMATION

Standard: UL 2524
Standard ID: Emergency Responder Communication Enhancement Systems [ANSI/CAN/UL 2524:2024 Ed.3]
Previous Standard ID: In-building 2-Way Emergency Radio Communication Enhancement Systems [ANSI/CAN/UL 2524:2019 Ed.2+R:28Feb2019]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **March 22, 2026**

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 Reports not updated to this version by the effective date above will be withdrawn.

Note: The 3rd edition of ANSI/CAN/UL 2524 has been renamed to Emergency Responder Communication Enhancement Systems.

Overview of Changes:

- Updated Model Building and Installation Codes
- On-premises visual and labeled indications
- Addition of requirements for products intended to be installed outdoors
- Updates to maximum propagation delay

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		Additions to existing requirements are <u>underlined</u> and deletions are shown ~~lined out~~ below.
1	Info	**Scope**
1.2		In the United States – These requirements cover products to be employed in accordance with the following Model Building and Installation Codes: a) Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, NFPA 1221; <u>b) Standard for Emergency Services Communications, NFPA 1225;</u> c) National Electrical Code, NFPA 70; d) Fire Code NFPA 1; e) Life Safety Code, NFPA 101; f) International Fire Code <u>g) Building Construction and Safety Code, NFPA 5000.</u>
6	Info	**Glossary**
6.30	Info	SIGNAL SOURCE MALFUNCTION -– An abnormal condition resulting in the loss of the RF signal from the public safety radio communications system to the ERCES. Examples include the disconnection of the antenna coax, a short in the coax, a damaged coax, a misdirected donor antenna, donor antenna malfunction, damage to fiber optic cable (if the source of the signal is a fiber optic cable between the sites), and oscillation detection.
34	Info	**Operation**
34.4		The maximum propagation delay, in microseconds, for a maximum rated system configuration as described in 32.2.5.1 ~~shall be compliant with P25 Phase 2 requirements~~ <u>shall be compliant with manufacturer's maximum specified propagation delay in microseconds.</u>
36	Info	**Monitoring for Integrity**
36.1	Info	**General**
36.1.3		A dedicated annunciator shall annunciate the status of all RF emitting devices and emergency responder communication enhancement system components. The following visual and labeled indications are to be provided for each system component and active RF emitting device: a) Normal AC power. b) Loss of normal AC power. c) Battery charger failure. d) Low battery capacity (to 70 percent depletion). <u>e) Signal source malfunction.</u>

CLAUSE	VERDICT	COMMENT
		f) Active RF emitting device malfunction. g) System component malfunction, other than passive RF component, which affects system performance.
49	Info	**Variable Ambient Temperature and Humidity Tests**
49.2	Info	**Low temperature test**
49.2.3		***New clause added;*** A product intended for installation in outdoor locations shall operate as intended following exposure to 20 cycles of temperature and humidity cycling. A cycle consists of a change from an ambient of 25 ±5 °C (77 ±9 °F) at 95 ±2 % relative humidity to the lower of the temperatures indicated in (a) or (b) for a period of 30 min, and back to a temperature of 25 ±5 °C (77 ±9 °F) at 95 ±2 % relative humidity. The rate of change shall be 2 ±1 °C (3.6 ±1.8 °F) per min. a) Minus 40 ±2 °C (minus 40 ±3 °F); or b) The lowest ambient operating temperature specified in the product's marking. 49.3
49.3	Info	**High temperature test**
49.3.3		***New clause added;*** A product intended for installation in outdoor locations shall operate as intended following exposure to 20 cycles of temperature and humidity cycling. A temperature cycle consists of a change from an ambient of 25 ±5 °C (77 ±9 °F) at a humidity of 95 ±2 % relative humidity to the higher of the temperatures indicated below for a period of 30 min, and back to a temperature of 25 ±5 °C (77 ±9 °F) at a humidity of 95 ±2 % relative humidity. The rate of change shall be 2 ±1 °C (3.6 ±1.8 °F) per min. a) 66 ±2 °C (151 ±3 °F); or b) The highest ambient operating temperature specified in the product's marking.
49.4	Info	**Humidity test**
49.4.2		***New clause added;*** A product intended for installation in outdoor locations shall operate as intended during and after exposure for 240 hr to air having a relative humidity of 95 ±3 % and a temperature of 60 ±2 °C (140 ±3 °F). At the completion of the exposure, while at the high humidity, the product is then to be operated for the conditions specified in 49.1.1.

CLAUSE	VERDICT	COMMENT
51		***New section added;*** **Outdoor-Use Tests** A product intended for installation in outdoor locations shall be subjected to the tests indicated in 51.2.1.1 – 51.3.4, unless indicated otherwise. See standard for details.
53	Info	**Marking**
53.1	Info	**General**
53.1.1		A product shall be plainly and permanently marked in a single language where it will be visible after installation with the following information: a) Name or trademark (registered) of manufacturer. b) Model number or other designation method determined to be equivalent. c) Electrical ratings, in volts, amperes, or watts, and frequency for a cord-connected product. d) In the United States – Reference to the applicable National Fire Protection Association Installation Standard for each type of control unit, such as NFPA 1225. Exception: The product shall be marked "Install in Accordance with the applicable National Fire Protection Association Installation Standard for each type of control unit, such as NFPA 1225" when the product is marked in other than American English. e) Each light, switch, meter, and similar part shall be marked adjacent to the component to indicate the intended function. f) Reference to an installation wiring diagram, when not attached to the unit, by drawing number and issue date and/or revision level. Exception: In the United States – Refer to 53.2 for permanency marking requirements when the product utilizes multiple languages for the marking.
53.1.22		***New clause added;*** A product shall be marked for its intended installation location (indoor or outdoor).