

STANDARD INFORMATION

Standard: UL 48

Standard ID: Electric Signs [UL 48:2011 Ed.15+R:18Dec2023]

Previous Standard ID: Electric Signs [UL 48:2011 Ed.15+R:22Apr2022]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **December 18, 2025**

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 Reports not updated to this version by the effective date above will be withdrawn.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

- Scope exclusion for mass notification signs
- Wet location requirements
- Signs shipped without a face
- Decorative materials on sign exterior surfaces
- Class 2 circuits
- Class 2 devices in wet location signs
- Disconnect Switches
- Instant start lampholder ratings
- Accessibility of ballasts, transformers, power supplies, and LED drivers
- Bond impedance test
- Rebuilt Signs
- Mobile Signs
- Mounting Test
- Temperature Test
- Dielectric Voltage Withstand Test

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown lined-out below.</i>
1	Info	Scope These requirements do not cover the following:
1.4		<u>j) Signs for fire, emergency signaling, or similar purposes, and signs intended for connection to or controlled by fire alarm or other emergency signaling system equipment; refer to the Standard for Visible Signaling Devices for Fire Alarm and Signaling Systems, Including Accessories. Mass Notification Systems, UL 1638.</u>
4	Info	Mechanical
4.1	Info	General <i>New clause added;</i>
4.1.1.8		A sign that does not require an enclosure rated sign face is permitted to be shipped without a sign face when marked per 7.2.8. When intended for a field installed rigid sign face, the sign shall have means to secure the sign face for compliance with 4.1.4.2.1 and the Exclusion of Water Test (5.9) without reliance on fastening means specified in 4.1.5.4 (adhesives or sealants) or 4.1.5.5 (solvents and sonic welding).
4.1.6	Info	Sign mounting and support <i>New section added;</i>
4.1.6.1A		General
4.1.6.1A.1		Signs intended to be mounted to a vertical or overhead surface shall be provided with hardware suitable for the purpose. Instructions shall be provided if needed to identify appropriate (and inappropriate) mounting surface types, conditions, and methods.
4.1.6.1A.2		Signs that rely upon polymeric materials for mechanical mounting support (hardware, brackets, frame parts, etc.) shall comply with the Mounting Test, 5.6. Note: Where there is uncertainty as to the ability of the sign construction to support the mechanical load, regardless of mounting material types, the Mounting Test (5.6) can be performed.



CLAUSE	VERDICT	COMMENT
		<i>New section added;</i>
		Portable signs
4.1.6.2		A portable sign intended to be mounted to a cord-connected appliance or portable non-electrical display is permitted to have means for permanent mounting. See standard for details.
		<i>New section added;</i>
		Stationary signs
4.1.6.3		A stationary sign provided with mounting means shall be removable without disassembly. See standard for details.
		<i>New section added;</i>
		Permanently connected signs
4.1.6.5		Permanently connected signs or sections shall be provided with means of permanent attachment to a support structure or building, such as mounting holes, fasteners, brackets, or instructions that identify locations on the sign body structurally suitable to support the sign with the acceptable fastening methods at those locations. See standard for details.
		<i>New section added;</i>
		Decorative parts and materials
4.1.7		Decorative parts or materials shall: See standard for details.
4.2	Info	Electrical
4.2.3	Info	Spacings
4.2.3.2	Info	Thermal
4.2.3.2.1	Info	General
		<i>New clause added;</i>
4.2.3.2.1.4		A sign housing or enclosure containing only class 2 circuits is considered to comply with the temperature testing requirements of 5.2 without the need for testing.



CLAUSE	VERDICT	COMMENT
4.2.4	Info	Grounding and bonding
4.2.4.1	Info	General
		<i>New clause added;</i>
4.2.4.1.2		To be considered grounded, the measured resistance between a dead metal part the equipment ground connection point shall comply with 5.10.
4.2.5	Info	Wiring
		<i>New section added;</i>
		Strain relief
4.2.5.4		Strain relief shall be provided 5.4for the supply cord of a cord-and-plug connected sign in accordance with 4.4.1. See standard for details.
4.2.5.5	Info	Secondary Circuits (0 – 1000 V)
		<i>New section added;</i>
		General
4.2.5.5.1		Class 2 circuits shall comply with 4.4.2, Class 2 circuits, and are not required to comply with this section. See standard for details.
4.3	Info	Devices and components
4.3.1	Info	General
		An electrical device or component <u>supplied by other than a (wet location) class 2 circuit and</u> intended for mounting in a wet or damp location sign shall be mounted to provide a minimum 12.7 mm (1/2 in) spacing off the bottom of a sign unless:
4.3.1.5		a) The sign complies with 4.1.3.2.3.8, b) The device or component is in an enclosure evaluated for use in wet locations, or c) The device or component is marked has been evaluated for use in wet locations. e) The ballast, transformer, or neon supply is marked for wet location use, or d) The device has been evaluated for use in a wet location, or e) The sign is evaluated as watertight type enclosure.
		<i>New clause added;</i>
4.3.1.18		A sign designed to accommodate field installed equipment that derives power from the sign shall provide means for that equipment to comply with the applicable requirements of 4.2.



CLAUSE	VERDICT	COMMENT
		<i>New section added;</i>
		Disconnect switch
4.3.4		Unless marked in accordance with 7.1.7, an externally mounted and operable switch is considered: See standard for details.
4.3.14	Info	Fluorescent components
4.3.14.2	Info	Lamps
4.3.14.2.1		Lampholders and starter holders shall comply with the Standard for Lampholders, UL 496. <u>600 V-rated instant-start fluorescent lampholders are permitted when the ballast voltage-to-ground rating is 600 V or less, regardless of the ballast open-circuit voltage.</u>
4.4	Info	Supplementary requirements
4.4.2	Info	Class 2 circuits
		<i>New clause added;</i>
		Class 2 circuit shall comply with (a) – (d) below:
		a) Class 2 conductors shall be separated from non-class 2 conductors by barriers, secure mechanical routing, or the use of insulation rated for the highest voltage available in either circuit.
		b) Class 2 conductors shall be of sufficient current-carrying capacity (AWG) for the load, not smaller than 22 AWG for conductors that remain fully within the sign, and not smaller than 18 AWG for conductors that exit the sign or are subject to movement during or after installation.
		c) Class 2 conductors that exit the sign shall be Power Limited Circuit cable that complies with the Standard for Power-Limited Circuit Cables, UL 13, or comparable cables suitable for the voltage and environment.
4.4.2.5		d) Power limited circuit cables exposed outside the sign shall comply with (1) – (4) below: 1) be mechanically supported at the maximum interval specified in Table 4.5 and in accordance with 4.2.5.5.3. For cables that will be secured in the field, the maximum support interval shall be specified in the installation instructions; 2) Connections and splices shall be mechanically secured within 75 mm (3 in) of the connection point. This information shall be provided in the installation instructions if the connections are to be made or completed in the field; 3) Connections and splices for a wet location sign shall be made with insulating devices that are suitably rated for the environment; and 4) Bends in the cable shall be made so as not to damage the cable and be no less than four times the overall diameter of the cable.



CLAUSE	VERDICT	COMMENT
4.4.3	Info	Outlet box connected (canopy signs)
4.4.3.4		canopy sign weighing more than 22.7 kg (50 lbs) and intended for outlet box mounting shall be provided with means for support that is independent of the outlet box. <u>If the means of support includes polymeric materials, the canopy sign shall comply with the Mounting Test, 5.6.</u>
4.4.4	Info	Mobile signs
		<i>New clause added;</i>
4.4.4.3		A trailer sign shall have provisions for permanent mounting. Other mobile signs shall have provision for locking no less than 50% of the wheels, to prevent unintended movement.
4.4.12	Info	Photovoltaic powered signs
		<i>New clause added;</i>
4.4.12.1		Signs with integral PV modules and batteries shall comply with the applicable requirements of UL 8801, Standard for PV Luminaire Systems. Note: This requirement does not apply to a sign with a DC input rating whose instructions may refer to the use of separately provided PV modules and/or batteries as a supply source.
5	Info	Performance
5.2	Info	Temperature
5.2.1	Info	General
		A sign shall not attain a temperature at any point that results in fire, adversely affects any material used, or exhibits temperatures on components/materials in excess of those indicated in Table 5.1, unless the component/material has been investigated and found acceptable for a higher temperature. <u>The sign shall be installed as follows:</u>
5.2.1.1		<u>a) A pendant, pole, or floor-mounted sign shall have no room obstructions, ceiling, or walls closer than 0.91 m (3 ft).</u> <u>b) A sign intended for wall mounting shall be installed on a test wall as described in UL 1598 section 19.11.</u> <u>c) A recessed sign shall be installed in a test box as described in UL 1598 Section 19.13.</u> <u>d) A recessed sign whose installation instructions identify it as suitable for use in an insulated wall or cavity shall be installed in a test box as described in UL 1598 Section 19.15.</u>
5.2.1.3		<u>The sign is to be operated under full load conditions with all current-carrying parts at maximum power output.</u> The temperature test is to be continued until thermal equilibrium is attained. Thermal equilibrium is determined to exist when the test has been running for 7.5 h, or the test has run for 3 h and three successive readings taken at 15-min intervals are within 1°C (1.8°F) of each other and are not rising.



CLAUSE	VERDICT	COMMENT
5.2.2	Info	Test lamps and components
		<i>New clause added;</i>
5.2.2.7		LED lamps and arrays shall be supplied at their maximum rated current input.
		<i>New section added;</i>
		Abnormal temperature test conditions
5.2.4		If an overtemperature device activates prior to reaching thermal equilibrium per 5.2.1.3, the device shall:
		See standard for details.
		<i>New section added;</i>
5.3		While in a fully heated condition, a sign containing other than only class 2 circuits shall:
		See standard for details.
		<i>New section added;</i>
		Strain relief
5.4		The cord or supply lead under test shall:
		See standard for details.
5.5	Info	Stability
5.5.1		A sample of the sign is to be completely assembled (including any accessories provided on or in the sign), located on a flat, horizontal surface, and then tipped through an angle of 10° without any additional restraint. <u>The wheel locks of a mobile sign shall be engaged and shall limit movement to no more than 5 cm (2 inches).</u> The sign is to remain in this position for a period of 1 min and then return by gravity to its normal upright position and is to be visually examined.
		<i>New section added;</i>
		Mounting
5.6		A sign whose means of support requires evaluation and is to be tested as described in:
		See standard for details.



CLAUSE	VERDICT	COMMENT
		<i>New section added;</i>
		Bond impedance
5.10		Using an ohmmeter or similar indicating instrument, the measured resistance between the equipment ground connection point and any non-current carrying (dead) metal part shall not exceed 0.10 Ω. See standard for details.
7	Info	Marking
7.1	Info	General
		<i>New clause added;</i>
		All markings shall be permanent and in a legible font. The forms of markings considered to be permanent include:
7.1.2		a) Molded and die-stamped; b) Stamped or etched metal that is permanently secured; c) Indelibly-printed, pressure-sensitive labels secured by adhesive that, upon investigation, is found to comply with the Standard for Marking and Labeling Systems, UL 969, and is rated for the environmental conditions and surface to which it is affixed; and d) Painted, stenciled, and ink stamping determined to comply with the Legibility Test of the Standard for Marking and Labeling Systems, UL 969.
7.2	Info	All signs
		<i>New clause added;</i>
7.2.21		A sign that qualifies for recessed installation based on the Temperature Test of 5.2.1.1 (c) or (d) is permitted to be marked as follows: a) For a non-insulated installation [5.2.1.1(c)]: “Type Non-IC. Do not install insulation within 76 mm (3 inches) of the sign.” b) For an insulated installation [5.2.1.1(d)]: “Type IC”



CLAUSE	VERDICT	COMMENT
8	Info	Instructions
8.1	Info	General
		installation instructions shall include, but are not limited to the following:
		a) Conditions of use (e.g. dry, damp, and wet locations),
		b) <u>When applicable (see Note), “Supply with class 2 power source only” or equivalent wording.</u>
8.1.2		c) Instructions for installation or reassembly (if applicable) of any parts or subassemblies, and
		d) Identification of any user maintenance or user servicing functions.
		<u>Note: This instruction is applicable when compliance with UL 48 requirements related to accessibility, bonding, spacings, wiring, or other issues related to risks of fire or electric shock is based on the use of a class 2 power source that is not provided with the sign and is, for example, selected by the installer.</u>
8.1.3		All permanently connected signs shall include instructions for installation, including mounting details and wiring methods. Installation instructions may be in the form of drawings and/or diagrams. <u>Signs that include separate housings containing only class 2 circuits shall identify all included housing parts and describe the intended means for mounting and interconnection.</u>
8.1.6		Instructions shall be marked on, attached to, or shipped with the sign or outline lighting. such that they are available during installation and setup. <u>Alternatively, instructions are permitted to be separately provided on a publicly accessible web site if the equipment is marked with a QR code or “See (website address) for installation and maintenance instructions.”</u>
8.1.8		The following statement or its equivalent shall be included in the installation instructions, provided on a separate sheet or tag shipped with a permanently connected sign <u>that does not include an integral disconnect switch: “The location of the disconnect switch after installation shall comply with Section 600.6(A) of the National Electrical Code.”</u>