



UL 858A

STANDARD FOR SAFETY

Safety-Related Solid-State Controls for Household Electric Ranges

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UL Standard for Safety for Safety-Related Solid-State Controls for Household Electric Ranges, UL 858A
Third Edition, Dated April 12, 2007

Summary of Topics

This revision to ANSI/UL 858A is being issued to remove the reference to the withdrawal date of UL 873 and UL 244A.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin. Changes in requirements are marked with a vertical line in the margin and are followed by an effective date note indicating the date of publication or the date on which the changed requirement becomes effective.

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UL 858A

Standard for Safety-Related Solid-State Controls for Household Electric Ranges

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Third Edition

April 12, 2007

This ANSI/UL Standard for Safety consists of the Third Edition including revisions through December 17, 2013.

The most recent designation of ANSI/UL 858A as an American National Standard (ANSI) occurred on September 25, 2012. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, or effective date information.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <http://csds.ul.com>.

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INTRODUCTION

1 Scope

1.1 The requirements in this standard cover safety-related solid-state controls used in household electric ranges. These requirements supplement and, in some cases, amend the requirements in the Standard for Household Electric Ranges, UL 858, the Standard for Temperature-Indicating and -Regulating Equipment, UL 873, and the Standard for Tests for Safety-Related Controls Employing Solid-State Devices, UL 991. Compliance with the Standard for Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements, UL 60730-1, and/or the applicable Part 2 standard from the UL 60730 series fulfills the UL 873 requirements.

1.1 revised December 17, 2013

1.2 These requirements cover a solid-state control that performs any of the following functions:

- a) Controls cooktop heating elements.
- b) Controls oven normal operating temperatures.
- c) Controls oven self-cleaning cycle operating temperatures.
- d) Controls oven self-cleaning cycle door lock system.
- e) Controls required signal lights or audible alarms.
- f) Serves as a temperature-limiting control for any of the functions noted in (a) – (e).
- g) Controls a function essential for the appliance to comply with a specific requirement in the Standard for Household Electric Ranges, UL 858.

2 General Requirements

2.1 General

2.1.1 For the purpose of this standard, a control includes a complete control assembly, a subassembly, a circuit, or an individual component.

2.1.2 A description of the normal and intended operation of a control with respect to the controlled element shall be provided by the manufacturer and used as a guide for analysis and test purposes. For example, the description might state that the control is intended to monitor certain temperatures and disconnect the controlled element from the electrical supply when a higher predetermined temperature is attained.

2.1.3 When a control is intended to perform multiple protective functions (such as temperature-regulating, temperature-limiting, self-clean door lock control, and similar functions), the manufacturer is to identify those components or circuits that are involved in each protective function, and also any component or circuits that are common to multiple functions.

2.2 Components

2.2.1 Except as indicated in 2.2.2, a component of a product covered by this standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components commonly used in the products covered by this standard.

2.2.2 A component is not required to comply with a specific requirement that:

- a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or
- b) Is superseded by a requirement in this standard.

2.2.3 A component shall be used in accordance with its rating established for the intended conditions of use.

2.2.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

2.3 Units of measurement

2.3.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

2.4 References

2.4.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

3 Glossary

3.1 SUPERVISION – The monitoring of a circuit so that a malfunction results in a trouble indication.

3.2 THERMAL-LINK – A non-resettable device incorporating a thermal element which will open a circuit once only when exposed for a sufficient length of time to a temperature in excess of that which it has been designed.

3.3 TROUBLE INDICATION – An audible signal, which may be supplemented by a visual signal, intended to indicate a fault or trouble condition, such as the open-circuit or short-circuit of a component in the control or an open-circuit or short-circuit to grounded metal in the connected wiring.