

UL 869A

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Reference Standard For Service Equipment



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for
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A change is indicated by a note following the affected item. The note is preceded and followed by an asterisk.

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New product submittals made prior to a specified future effective date will be judged under all of the requirements in this Standard including those requirements with a specified future effective date, unless the applicant specifically requests that the product be judged under the current requirements. However, if the applicant elects this option, it should be noted that compliance with all the requirements in this Standard will be required as a condition of continued Listing, Classification, Recognition, and Follow-Up Services after the effective date, and understanding of this should be signified in writing.

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UL 869A

**Reference Standard for
Service Equipment**

Prior to the first edition, the requirements for the products covered by this standard were included in the Standard for Service Equipment, UL 869A.

First Edition – March, 1987

Second Edition

June 18, 1993

Approval as an American National Standard (ANSI) covers the numbered paragraphs on pages dated June 18, 1993. These pages should not be discarded when revised or additional pages are issued if it is desired to retain the ANSI approved text.

An effective date included as a note immediately following certain requirements is one established by Underwriters Laboratories Inc.

Approved as ANSI/UL 869A-1988, July 21, 1988
Approved as ANSI/UL 869A-1994, January 31, 1994

The Department of Defense (DoD) has adopted UL 869A on November 16, 1987. The publication of revised pages or a new edition of this standard will not invalidate the DoD adoption.

Revisions of this standard will be made by issuing revised or additional pages bearing their date of issue. A UL Standard is current only if it incorporates the most recently adopted revisions, all of which are itemized on the transmittal notice that accompanies the latest set of revised requirements.

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FOREWORD

A. This Standard contains basic requirements for products covered by Underwriters Laboratories Inc. (UL) under its Follow-Up Service for this category within the limitations given below and in the Scope section of this Standard. These requirements are based upon sound engineering principles, research, records of tests and field experience, and an appreciation of the problems of manufacture, installation, and use derived from consultation with and information obtained from manufacturers, users, inspection authorities, and others having specialized experience. They are subject to revision as further experience and investigation may show is necessary or desirable.

B. The observance of the requirements of this Standard by a manufacturer is one of the conditions of the continued coverage of the manufacturer's product.

C. A product which complies with the text of this Standard will not necessarily be judged to comply with the Standard if, when examined and tested, it is found to have other features which impair the level of safety contemplated by these requirements.

D. A product employing materials or having forms of construction differing from those detailed in the requirements of this Standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be judged to comply with the Standard.

E. UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. The opinions and findings of UL represent its professional judgment given with due consideration to the necessary limitations of practical operation and state of the art at the time the Standard is processed. UL shall not be responsible to anyone for the use of or reliance upon this Standard by anyone. UL shall not incur any obligation or liability for damages, including consequential damages, arising out of or in connection with the use, interpretation of or reliance upon this Standard.

F. Many tests required by the Standards of UL are inherently hazardous and adequate safeguards for personnel and property shall be employed in conducting such tests.

INTRODUCTION

1 Scope

1.1 This standard provides specific service equipment requirements that are intended to be supplemented by requirements for other types of equipment (such as panelboards, switchboards, and the like) that may be used as service equipment.

1.2 A product that contains features, characteristics, components, materials, or systems new or different from those covered by the requirements in this standard, and that involve a risk of fire, electric shock, or injury to persons shall be evaluated using the appropriate additional component and end-product requirements as determined necessary to maintain the acceptable level of safety as originally anticipated by the intent of this standard. A product whose features, characteristics, components, materials, or systems conflict with specific requirements or provisions of this standard cannot be judged to comply with this standard. Where considered appropriate, revision of requirements shall be proposed and adopted in conformance with the methods employed for development, revision, and implementation of this standard.

1.2 revised April 22, 1996

2 General

2.1 Components

2.1.1 Except as indicated in 2.1.2, a component of a product covered by this standard shall comply with the requirements for that component.

2.1.2 A component need not comply with a specific requirement that:

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

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

2.1.4 Specific components are recognized as being 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 for which they have been recognized.

2.2 Units of measurement

2.2.1 If a value for measurement is followed by a value in other units in parentheses, the second value may be only approximate. The first stated value is the requirement.

2.3 Undated references

2.3.1 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.

2A Glossary

2A.1 For the purpose of this standard, the following definitions apply.

2A.1 added April 22, 1996

2A.2 **EQUIPMENT GROUNDING CONDUCTOR** – The conductor used to connect the noncurrent-carrying metal parts of the equipment, raceways, and other enclosures to the grounded service conductor, to the grounding electrode conductor, or to both at the service equipment, as shown in Figure 2.1.

2A.2 added April 22, 1996

Figure 2A.1
Grounding and bonding connections for
grounded systems at the service equipment

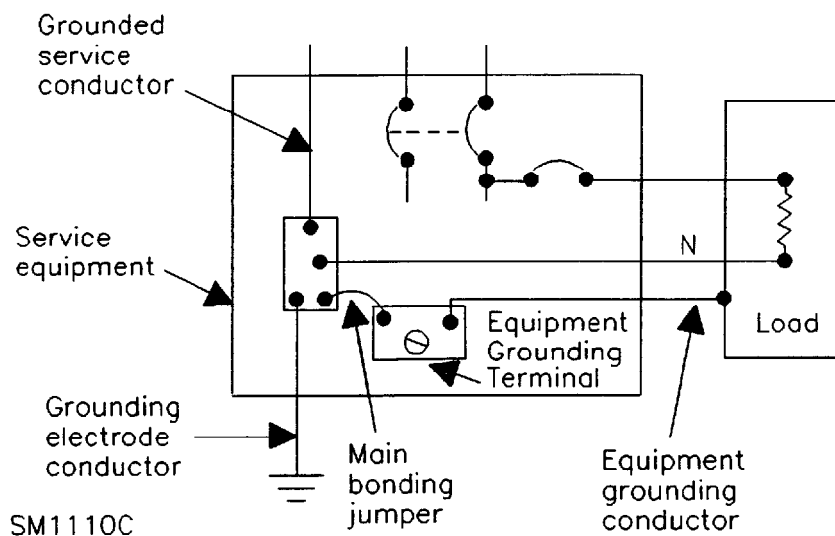


Figure 2A.1 added April 22, 1996

2A.3 **GROUNDING SERVICE CONDUCTOR** – The supply conductor that is intentionally grounded at the service, usually referred to as neutral. See Figure 2A.1.

2A.3 added April 22, 1996

2A.4 **GROUNDING ELECTRODE CONDUCTOR** – The conductor used to connect the grounding electrode to the grounded service conductor or to the equipment grounding conductor, or to both, at the service equipment as shown in Figure 2A.1.

2A.4 added April 22, 1996

2A.5 **MAIN BONDING JUMPER** – The conductor used for the connection between the grounded service conductor and the equipment grounding conductor at the service. See Figure 2A.1.

2A.5 added April 22, 1996

2A.6 **SERVICE EQUIPMENT** – Equipment, usually consisting of a circuit breaker, switch, or fuses, and related accessories, located near the point of entrance of supply conductors to a building or other structure and intended to constitute the main control and means of cutoff of the supply.

2A.6 added April 22, 1996