

UL 61010B-2-031

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Electrical Equipment for Measurement, Control, and Laboratory Use; Part 2: Particular Requirements for Hand-Held Probe Assemblies for Electrical Measurement and Test

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Electrical Equipment for Measurement, Control, and Laboratory Use; Part 2: Particular Requirements for Hand-Held Probe Assemblies for Electrical Measurement and Test, UL 61010B-2-031

First Edition, Dated June 25, 2003

Summary of Topics

This publication of the first edition of UL 61010B-2-031 replaces the first edition of UL 3111-2-031, effective immediately.

In addition to changing the standard number to more closely align the UL standard number with the IEC standard number, UL has editorially reformatted the standard due to internal administrative needs. The reformatting includes, but is not limited to, referring to "deviations" as "national differences" and implementing a new numbering system for the national differences.

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The requirements in this Standard are now in effect, except for those paragraphs, sections, tables, figures, and/or other elements of the Standard having future effective dates as indicated in the note following the affected item. The prior text for requirements that have been revised and that have a future effective date are located after the Standard, and are preceded by a "SUPERSEDED REQUIREMENTS" notice.

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 Listed, Recognized, Classified and Follow-Up Services after the effective date, and understanding of this should be signified in writing.

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This Standard consists of pages dated as shown in the following checklist:

Page	Date
1-32	June 25, 2003

JUNE 25, 2003

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UL 61010B-2-031

**Electrical Equipment for Measurement, Control, and Laboratory Use; Part
2: Particular Requirements for Hand-Held Probe Assemblies for Electrical
Measurement and Test**

Prior to this first edition numbered UL 61010B-2-031, the requirements for products covered by this standard were included in the first edition of UL 3111-2-031. This standard replaces UL 3111-2-031.

First Edition

June 25, 2003

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

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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Preface (UL)

This UL Standard 61010B-2-031, Standard for Safety for Electrical Equipment for Measurement, Control, and Laboratory Use; Part 2: Particular Requirements for Hand-Held Probe Assemblies for Electrical Measurement and Test, is to be used in conjunction with the first edition of UL 61010B-1. The requirements for hand-held probe assemblies for electrical measurement and test are contained in this part 2 Standard and UL 61010B-1.

Requirements of this part 2 Standard, where stated, amend the requirements of UL 61010B-1.

Where a particular subclause of UL 61010B-1 is not mentioned in UL 61010B-2-031, the UL 61010B-1 subclause applies.

The text, figures and tables of IEC Publication Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use; Part 2-031: Particular Requirements for hand-held probe assemblies for electrical measurement and test, IEC 1010-2-031, copyright 1993 are used in this Standard with the consent of the IEC and the American National Standards Institute (ANSI). The IEC copyrighted material has been reproduced with permission from ANSI. ANSI should be contacted regarding the reproduction of any portion of the IEC material. The IEC Foreword and Introduction are not a part of the requirements of this Standard but are included for information purposes only. Copies of IEC Publication 1010-2-031 may be purchased from ANSI, 11 West 42nd Street, New York, New York, 10036, (212) 642-4900.

Note – Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.

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Foreword (UL)

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 which conflict with specific requirements of the Standard cannot be judged to comply with the Standard. A product employing materials or having forms of construction not addressed by this Standard may be examined and tested according to the intent of the requirements and, if found to meet the intent of this Standard, 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.

NATIONAL DIFFERENCES

GENERAL

National Differences from the text of International Electrotechnical Commission (IEC) Publication 1010-2-031, Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use; Part 2-031: Particular Requirements for hand-held probe assemblies for electrical measurement and test, copyright 1993 are indicated by notations (differences) and are presented in bold text.

There are five types of National Differences as noted below. The difference type is noted on the first line of the National Difference in the standard. The standard may not include all types of these National Differences.

DR – These are National Differences based on the **National Electrical Code (NEC)** and **other U.S. Regulatory Requirements**.

D1 – These are National Differences which are based on **basic safety principles and requirements**, elimination of which would compromise safety for U.S. consumers and users of products.

D2 – These are National Differences based on **safety practices**. These are differences for IEC requirements that may be acceptable, but adopting the IEC requirements would require considerable retesting or redesign on the manufacturer's part.

DC – These are National Differences based on the **component standards** and will not be deleted until a particular component standard is harmonized with the IEC component standard.

DE – These are National Differences based on **editorial comments or corrections**.