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Underwriters Laboratories Inc.®

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December 20, 1993

Revision pages for

Standard for

Double Insulation Systems for Use in Electrical Equipment

UL 1097, Third Edition

Attached to this transmittal notice is a reprinted title page for the third edition of UL 1097.

Attention is directed to the note on the title page of this standard outlining the procedure to be followed to retain the approved text of ANSI/UL 1097-1993.

Revised and/or additional pages may be issued from time to time.

With the inclusion of the accompanying material, the standard consists of pages dated as shown in the following checklist:

Page	Date
1	June 24, 1993 (Reprinted December 20, 1993)
2	—
3 – 24	June 24, 1993

(1)

JUNE 24, 1993
(Title Page Reprinted: December 20, 1993)



1

UL 1097

Standard for

Double Insulation Systems for Use in Electrical Equipment

First Edition – November, 1978
Second Edition – April, 1983

Third Edition

June 24, 1993

Approval as an American National Standard (ANSI) covers the numbered paragraphs on pages dated June 24, 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 1097-1993, October 7, 1993

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 published set of revision pages.

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Standard for Safety

UL 1097

ISBN 1-55989-414-8

Double Insulation Systems for Use in Electrical Equipment



Underwriters Laboratories Inc.®

Standard



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June 24, 1993

Standard for

Double Insulation Systems for Use in Electrical Equipment

UL 1097, Third Edition

Accompanying this transmittal notice is a copy of the third edition of UL 1097.

THIS EDITION OF THE STANDARD IS NOW IN EFFECT.

Revised and/or additional pages may be issued from time to time.

Subscribers to UL's services in the area covered by this standard will receive these revised and/or additional pages automatically. Others may receive such pages by subscribing to UL's subscription service for revisions. See UL's CATALOG OF STANDARDS FOR SAFETY for a description of the revision subscription service, the cost of the service for this standard, and ordering information.

JUNE 24, 1993

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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 These requirements cover electrically operated equipment marked "Double Insulation" or "Double Insulated" to be used in accordance with the National Electrical Code, NFPA 70.

1.2 Equipment marked "Double Insulation" or "Double Insulated" shall comply with the applicable requirements in this standard and the standard covering the particular type of equipment – the end-product standard. In cases where the end-product standard contains requirements for double insulation, that standard takes precedence.

1.3 A product that contains features, characteristics, components, materials, or systems new or different from those in use when the standard was developed, and that involves 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 level of safety for the user of the product as originally anticipated by the intent of this standard.

2 General

2.1 Units of measurement

2.1.1 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.

2.2 Undated references

2.2.1 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 For the purpose of this standard the following definitions apply.

3.2 **ACCESSIBLE PART OR SURFACE** – A part or surface subject to contact by persons under any condition of operation or user function. In a determination of whether a live or dead part or surface is accessible to such contact, the criteria specified in the product standard are to be applied.

3.3 **BASIC INSULATION (FORMERLY FUNCTIONAL INSULATION)** – The insulation applied to live parts to provide basic protection against electric shock. Basic insulation does not necessarily include insulation used exclusively for functional purposes.

3.4 **DEAD METAL PART** – A metal or other electrically conductive part, accessible or inaccessible, that is not conductively connected to a live part.

3.5 **DOUBLE INSULATION** – An insulation system comprised of basic (formerly functional) insulation and supplementary insulation, with the two insulations physically separated and arranged so that they are not simultaneously subjected to the same deteriorating influences (temperature, contaminants, and the like) to the same degree. See Figure 3.1.