



UL 486D

STANDARD FOR SAFETY

Sealed Wire Connector Systems

[ULNORM.COM](https://www.ulnorm.com) : Click to view the full PDF of UL 486D 2017

ULNORM.COM : Click to view the full PDF of UL 486D 2017

UL Standard for Safety for Sealed Wire Connector Systems, UL 486D

Sixth Edition, Dated June 19, 2015

Summary of Topics

Revision pages have been issued for the Standard for Safety for Sealed Wire Connector Systems, UL 486D, to incorporate the following:

- **Sealed wire connector systems rated 601 - 1500 V**
- **Standard scope clarification**
- **Sunlight resistance / salt water immersion**

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.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated July 14, 2017.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or otherwise without prior permission of UL.

UL provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will UL be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if UL or an authorized UL representative has been advised of the possibility of such damage. In no event shall UL's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold UL harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

No Text on This Page

ULNORM.COM : Click to view the full PDF of UL 486D 2017



Association of Standardization and Certification
NMX-J-519-ANCE
Third Edition



Canadian Standards Association
CSA C22.2 No. 198.2
Third Edition



Underwriters Laboratories Inc.
UL 486D
Sixth Edition

Sealed Wire Connector Systems

June 19, 2015

(Title Page Reprinted: October 20, 2017)



ANSI/UL 486D-2017

ULNORM.COM : Click to view the full PDF of UL 486D 2017

Commitment for Amendments

This standard is issued jointly by the Association of Standardization and Certification (ANCE), the Canadian Standards Association (operating as "CSA Group"), and Underwriters Laboratories Inc. (UL). Comments or proposals for revisions on any part of the standard may be submitted to ANCE, CSA Group, or UL at anytime. Revisions to this standard will be made only after processing according to the standards development procedures of ANCE, CSA Group, and UL. CSA Group and UL will issue revisions to this standard by means of a new edition or revised or additional pages bearing their date of issue. ANCE will incorporate the same revisions into a new edition of the standard bearing the same date of issue as the CSA Group and UL pages.

Copyright © 2017 ANCE

Rights reserved in favor of ANCE

ISBN 9-78-1-77139-893-0 © 2017 CSA Group

All rights reserved. No part of this publication may be reproduced in any form whatsoever without the prior permission of the publisher.

This Standard is subject to review five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquires@csagroup.org and include "Proposal for change" in the subject line: Standard designation (number); relevant clause, table, and/or figure number; wording of the proposed change; and rationale for the change.

To purchase CSA Group Standards and related publications, visit CSA Group's Online Store at shop.csa.ca or call toll-free 1-800-463-6727 or 416-747-4044.

Copyright © 2017 Underwriters Laboratories Inc.

UL's Standards for Safety are copyrighted by UL. Neither a printed nor electronic copy of a Standard should be altered in any way. All of UL's Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of UL.

This ANSI/UL Standard for Safety consists of the Sixth Edition. The most recent designation of ANSI/UL 486D as an American National Standard (ANSI) occurred on October 20, 2017. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface.

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 <https://csds.ul.com>.

To purchase UL Standards, visit UL's Standards Sales Site at <http://www.shopulstandards.com/HowToOrder.aspx> or call toll-free 1-888-853-3503.

CONTENTS

| | |
|--|-----|
| PREFACE | 5 |
| 1 Scope | 7 |
| 2 Reference publications | 7 |
| 2.1 Undated and dated references | 7 |
| 2.2 Normative references | 8 |
| 3 Units of measurement | .8A |
| 4 Definitions | .8A |
| 5 Symbols and abbreviations | .8B |
| 6 Construction | 9 |
| 6.1 Wire connectors | 9 |
| 6.2 Insulation | 10 |
| 7 Test requirements | 10 |
| 7.1 General | 10 |
| 7.2 Test sequence A, General | 10 |
| 7.3 Test sequence B, shelf aging | 11 |
| 7.4 Test sequence C, use aging | 11 |
| 7.5 Test sequence D, direct burial | 11 |
| 7.6 Test sequence E, rain | 11 |
| 7.7 Test sequence F, hosedown | 12 |
| 7.8 Test sequence G, submersion | 12 |
| 7.9 Test sequence H, weather (sunlight) resistance | 12 |
| 7.10 Salt water immersion test | 12 |
| 8 Sampling requirements | 12 |
| 8.1 General | 12 |
| 8.2 Test sequence A, general | 13 |
| 8.3 Test sequence B, shelf aging | 13 |
| 8.4 Test sequence C, use aging | 13 |
| 8.5 Test sequence D, direct burial | 13 |
| 8.6 Test sequence E, rain | 13 |
| 8.7 Test sequence F, hosedown | 14 |
| 8.8 Test sequence G, submersion | 14 |
| 8.9 Test sequence H, sunlight resistance | 14 |
| 8.10 Test sequence I, salt water | 14 |
| 9 Test methods | 14 |
| 9.1 General | 14 |
| 9.2 Test sequence A, general | 14A |
| 9.3 Test sequence B, shelf aging | 16 |
| 9.4 Test sequence C, use aging | 17 |
| 9.5 Test sequence D, direct burial | 17 |
| 9.6 Test sequence E, rain | 18 |
| 9.7 Test sequence F, hosedown | 19 |
| 9.8 Test sequence G, submersion | 19 |
| 9.9 Test sequence H, sunlight resistance test | 19 |
| 9.10 Test sequence I, salt water resistant | 20 |
| 10 Marking, labeling, and packaging | 20A |
| Tables | 21 |
| Figures | 22 |

Annex A – Impact Test Apparatus

Annex B – Guarded Circuit

ULNORM.COM : Click to view the full PDF of UL 486D 2017