UL 62841-2-2:2021 (R2026)

(IEC 62841-2-2:2014, MOD)

STANDARD FOR SAFETY

Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 2-2: Particular Requirements For Hand-Held Screwdrivers And Impact Wrenches

UL Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 2-2: Particular Requirements For Hand-Held Screwdrivers And Impact Wrenches, UL 62841-2-2

First Edition, Dated February 26, 2016

SUMMARY OF TOPICS

This reaffirmation of ANSI/UL 62841-2-2 dated March 25, 2026 is issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.

Please note that the national difference document incorporates all of the U.S. national differences for UL 60745-2-2. This Standard is an adoption of IEC 62841-2-2, Edition 1 published by the IEC, May 2014.

As noted in the Commitment for Amendments statement located on the back side of the title page, ULSE and CSA are committed to updating this harmonized standard jointly. However, the revision pages dated March 25, 2026 will not be jointly issued by ULSE and CSA as these revision pages only address ULSE ANSI approval dates.

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The requirements are substantially in accordance with Proposal(s) on this subject dated February 6, 2026.

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Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-2: Particular Requirements for Hand-Held Screwdrivers and Impact Wrenches

February 26, 2016

(Title Page Reprinted: March 25, 2026)

This national standard is based on publication IEC 62841-2-2, First Edition (2014).

ANSI/UL 62841-2-2-2021 (R2026)

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This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. The technical content of the IEC and ISO publications is kept under constant review by IEC and ISO. To submit a proposal for change, please send the following information to inquiries@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.

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This ANSI/UL Standard for Safety consists of the First Edition including revisions through March 25, 2026. The most recent designation of ANSI/UL 62841-2-2 as a Reaffirmed American National Standard (ANS) occurred on March 25, 2026. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface. The National Difference Page and IEC Foreword are also excluded from the ANSI approval of IEC-based standards.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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Preface

This is the harmonized CSA Group and ULSE Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn And Garden Machinery – Safety – Part 2-2: Particular Requirements for Hand-Held Screwdrivers and Impact Wrenches. It is the First edition of CAN/CSA-C22.2 No. 62841-2-2 and the First edition of UL 62841-2-2. This harmonized Standard has been jointly revised on April 30, 2021. For this purpose, CSA Group and ULSE are issuing revision pages dated April 30, 2021.

This harmonized standard is based on IEC Publication 62841-2-2: First edition Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-2: Particular Requirements for Hand-Held Screwdrivers and Impact Wrenches issued May 2014. IEC publication 62841-2-2 is copyrighted by the IEC.

This harmonized standard was prepared by CSA Group and ULSE. The efforts and support of the International Harmonization Committee (IHC) for the adoption of the IEC series of standards for Hand-Held, Motor-Operated, and Transportable Tools and Lawn and Garden Machinery UL are gratefully acknowledged.

This Standard is considered suitable for use for conformity assessment within the stated scope of the standard.

This Standard was reviewed by the CSA Subcommittee on Safety of Hand-Held Motor-Operated Electric Tools, under the jurisdiction of the CSA Technical Committee on Consumer and Commercial Products and the CSA Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee. This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

Application of Standard

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

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.

This CAN/CSA-C22.2 No. 62841-2-2 Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-2: Particular Requirements for Hand-Held Screwdrivers and Impact Wrenches is to be used in conjunction with the First edition of CAN/CSA-C22.2 No. 62841-1. The requirements for hand-held screwdrivers and impact wrenches are contained in this Part 2 Standard and CAN/CSA-C22.2 No. 62841-1. Requirements of this Part 2 Standard, where stated, amend the requirements of CAN/CSA-C22.2 No. 62841-1. Where a particular subclause of CAN/CSA-C22.2 No. 62841-1 is not mentioned in CAN/CSA-C22.2 No. 62841-2-2, the CAN/CSA-C22.2 No. 62841-1 subclause applies.

This UL 62841-2-2 Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-2: Particular Requirements for Hand-Held Screwdrivers and Impact Wrenches, is to be used in conjunction with the First edition of UL 62841-1. The requirements for hand-held screwdrivers and impact wrenches are contained in this Part 2 Standard and UL 62841-1. Requirements of this Part 2 Standard, where stated, amend the requirements of UL 62841-1. Where a particular subclause of UL 62841-1 is not mentioned in UL 62841-2-2, the UL 62841-1 subclause applies.

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Level of harmonization

This Standard adopts the IEC text with national differences.

This Standard is published as an equivalent standard for CSA Group and ULSE.

An equivalent standard is a standard that is substantially the same in technical content, except as follows: Technical national differences are allowed for codes and governmental regulations as well as those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

All national differences from the IEC text are included in the CSA Group and ULSE versions of the standard. While the technical content is the same in each organization's version, the format and presentation may differ.

Reasons for Differences From IEC

Differences from the IEC are being added in order to address safety and regulatory situations present in the US and Canada.

Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

IEC Copyright

For CSA Group, the text, figures, and tables of International Electrotechnical Commission Publication IEC 62841-2-2 Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-2: Particular Requirements for Hand-Held Screwdrivers and Impact Wrenches, copyright 2014, are used in this Standard with the consent of the International Electrotechnical Commission. The IEC Foreword is not a part of the requirements of this Standard but is included for information purposes only.

These materials are subject to copyright claims of IEC and ULSE. No part of this publication may be reproduced in any form, including an electronic retrieval system, without the prior written permission of UL. All requests pertaining to the Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-2: Particular Requirements for Hand-Held Screwdrivers and Impact Wrenches, UL 62841-2-2 Standard should be submitted to ULSE.

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NATIONAL DIFFERENCES

National Differences from the text of International Electrotechnical Commission (IEC) Publication IEC 62841-2-2 (Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 2-2: Particular Requirements For Hand-Held Screwdrivers And Impact Wrenches) copyright 2014 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 regulatory requirements**.

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

D2 – These are National Differences from IEC requirements based on existing **safety practices**. These requirements reflect national safety practices, where empirical substantiation (for the IEC or national requirement) is not available or the text has not been included in the IEC standard.

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**.

Each national difference contains a description of what the national difference entails. Typically one of the following words is used to explain how the text of the national difference is to be applied to the base IEC text:

Addition / Add - An addition entails adding a complete new numbered clause, subclause, table, figure, or annex. Addition is not meant to include adding select words to the base IEC text.

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FOREWORD

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY – PART 2-2: PARTICULAR REQUIREMENTS FOR HAND-HELD SCREWDRIVERS AND IMPACT WRENCHES

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and nongovernmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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International Standard IEC 62841-2-2 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools.

The text of this standard is based on the following documents:

FDIS	Report on voting
116/162/FDIS	116/177/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This Part 2-2 is to be used in conjunction with the first edition of IEC 62841-1:2014.

This Part 2-2 supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC Standard: Particular requirements for hand-held screwdrivers and impact wrenches.

Where a particular subclause of Part 1 is not mentioned in this Part 2-2, that subclause applies as far as reasonable. Where this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

The following print types are used:

– requirements: in roman type

– *test specifications: in italic type;*

– NOTES: IN SMALLER ROMAN TYPE

The terms defined in Clause 3 are printed in **bold typeface**.

Subclauses, notes and figures which are additional to those in Part 1 are numbered starting from 101.

A list of all parts of the IEC 62841 series, under the general title: *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

• reconfirmed,

• withdrawn,

• replaced by a revised edition, or

• amended.

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 36 months from the date of publication.

101DV DE *Modification: Add the following to the IEC Foreword:*

The numbering system in the standard uses a space instead of a comma to indicate thousands and uses a comma instead of a period to indicate a decimal point. For example, 1 000 means 1,000 and 1,01 means 1.01.

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102DV DE *Modification: Add the following to the IEC Foreword:*

For this Standard, all references to "Part 1" refer to CAN/CSA C22.2 No. 62841-1 and UL 62841-1.

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ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY – PART 2-2: PARTICULAR REQUIREMENTS FOR HAND-HELD SCREWDRIVERS AND IMPACT WRENCHES

1 Scope

This clause of Part 1 is applicable, except as follows:

Addition:

This part of IEC 62841 applies to **screwdrivers** and **impact wrenches**.

This standard does not apply to drills that can be used for driving screws by attaching **screwdriver** bits.

1DV D1 ***Modification: Replace the second paragraph of Clause 1 of the Part 2 with the following:***

This standard applies to screwdrivers, impact wrenches, and ratchet drivers.

2 Normative references

This clause of Part 1 is applicable, except as follows:

Addition:

ISO 28927-2:2009
Hand-held portable power tools – Test methods for evaluation of vibration emission – Part 2: Wrenches, nutrunners and screwdrivers

3 Terms and definitions

This clause of Part 1 is applicable, except as follows:

Additional definitions:

3.101 **screwdriver:** tool equipped with a non-circular tool holder, such as hexagonal or square, intended for tightening and loosening screws, nuts, and the like and not equipped with an impact mechanism but which may have a device for depth setting or setting the torque or means for switching off the rotation

3.102 **impact wrench:** tool equipped with a non-circular tool holder, such as hexagonal or square, intended for tightening and loosening screws, nuts, and the like and equipped with a rotary impact mechanism

Note 1 to entry: Some **impact wrenches** are equipped with a means for depth setting and may have a means for setting the torque or switching off the rotation.

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