



# UL 62841-2-1

## STANDARD FOR SAFETY

Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-1: Particular Requirements for Hand-Held Drills and Impact Drills

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UL Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-1: Particular Requirements for Hand-Held Drills and Impact Drills, UL 62841-2-1

First Edition, Dated April 30, 2018

### **Summary of Topics**

***This revision of ANSI/UL 62841-2-1 dated January 27, 2023 includes revisions to align with Amendment – IEC 62841-2-1/AMD1 ED1 issued November 2021. Revisions include Clause [1](#), [8.3](#), [Table 4](#), [19.6](#), [19.102.1](#), [19.102.2](#), [19.102.3](#), [19.102.4](#), [21.18.1.2](#), [Figure 105](#), [Figure 106](#), [Figure 107](#), [I.2.4](#), [I.2.5](#), [Table I.101](#), [Table I.102](#), [Table I.103](#), [I.2.9](#), [I.3](#), [I.3.5.1](#), [I.3.5.3.101](#), [Table I.104](#), [Table I.105](#), [I.3.5.3.102](#), [Table I.106](#), [I.3.5.3.103](#), [Table I.107](#), [Table I.108](#), [Table I.109](#), [I.3.6.1](#), [K.18.8](#), [K.19.102.1](#), [K.19.102.2](#), [K.19.102.3](#), [K.19.102.4](#), [K.21](#), [L.19.102.1](#), [L.21](#), and the [Bibliography](#).***

***This standard is an adoption of IEC 62841-2-1, Edition 1 published June 2017. There are no technical national differences for this standard.***

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 requirements are substantially in accordance with Proposal(s) on this subject dated June 3, 2022.

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Underwriters Laboratories Inc.  
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# Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 2-1: Particular Requirements for Hand-Held Drills and Impact Drills

April 30, 2018

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This national standard is based on publication IEC 62841-2-1, First Edition (2017), and IEC Amendment 1 (2021).

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ANSI/UL 62841-2-1-2023



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#### **Bibliography**

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## Preface

This is the harmonized CSA Group and UL Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 2-1: Particular Requirements For Hand-Held Drills and Impact Drills. It is the First edition of CAN/CSA-C22.2 No. 62841-2-1 and the First edition of UL 62841-2-1. This harmonized standard has been jointly revised on January 27, 2023. For this purpose, CSA Group and UL are issuing revision pages dated January 27, 2023.

This harmonized standard is based on IEC Publication 62841-2-1: First edition Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 2-1: Particular Requirements For Hand-Held Drills and Impact Drills, issued June 2017, as revised by Amendment No. 1 issued November 2021. IEC 62841-2-1 is copyrighted by the IEC.

This harmonized standard was prepared by CSA Group and Underwriters Laboratories Inc. (UL). 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.

CAN/CSA-C22.2 No. 62841-2-1 is to be used in conjunction with the First edition of CAN/CSA-C22.2 No. 62841-1. The requirements for hand-held drills and impact drills 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. 62841-2-1, the CAN/CSA-C22.2 No. 62841-1 subclause applies.

This UL 62841-2-1 is to be used in conjunction with the First edition of UL 62841-1. The requirements for hand-held drills and impact drills 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 62841-2-1, the UL 62841-1 subclause applies.

### Level of harmonization

This standard adopts the IEC text with editorial national differences.

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

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 UL 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**

National 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.

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## NATIONAL DIFFERENCES

National Differences from the text of International Electrotechnical Commission (IEC) Publication 62841-2-1, Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 2-1: Particular Requirements for Hand-Held Drills and Impact Drills, copyright 2017 are indicated by notations (differences) and are presented in bold text. The national difference type is included in the body.

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**.

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**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:

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