

Australian/New Zealand Standard

Safety of machinery

Part 1902: Displays, controls, actuators and signals—Ergonomic requirements for the design of displays and control actuators—Displays

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AS/NZS 4024.1902:2014

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee SF-041, General Principles for the Guarding of Machinery. It was approved on behalf of the Council of Standards Australia on 5 June 2014 and on behalf of the Council of Standards New Zealand on 24 April 2014. This Standard was published on 30 June 2014.

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This Standard was issued in draft form for comment as DR AS/NZS 4024.1902.

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Part 1902: Displays, controls, actuators and signals—Ergonomic requirements for the design of displays and control actuators—Displays

Originated in Australia as part of AS 4024.1(Int)—1992.
Previous edition AS 4024.1902—2006.
Recently revised and designated as AS/NZS 4024.1902:2014.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-041, General Principles for the Guarding of Machinery, to supersede AS 4024.1902—2006.

It is emphasized that this Standard is part of the AS(/NZS) 4024.1 series and it is imperative that it is used in conjunction with other applicable parts of the series. A complete listing of all current parts of the AS(/NZS) 4024.1 series can be found at the Standards Australia website <www.standards.org.au> and in AS/NZS 4024.1100, *Safety of machinery*, Part 1100: *Application Guide*.

The objective of this Standard is to give guidance on the selection, design and location of displays to avoid potential ergonomic hazards associated with their use. It covers visual, audible and tactile displays and applies to displays used in machinery for occupational and private use.

This Standard is identical with, and has been reproduced from EN 894-2:1997, *Safety of machinery—Ergonomics requirements for the design of displays and control actuators*, Part 2: *Displays*, and its Amendment 1 (2008). The start and finish of text introduced or altered by amendment is indicated in the text by tags \square_{A1} \square_{A1} .

As this Standard is reproduced from an International Standard, the following applies:

- (a) In the source text ‘this European Standard’ should read ‘this Australian/New Zealand Standard’.
- (b) A full point substitutes for a comma when referring to a definitional marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
EN		AS/NZS	
292	Safety of machinery—Basic concepts, general principles for design	4024	Safety of machinery
292-1	Part 1: Basic terminology, methodology	4024.1201	Part 1201: General principles for design—Risk assessment and risk reduction
292-2	Part 2: Technical principles and specifications	4024.1201	Part 1201: General principles for design—Risk assessment and risk reduction
614	Safety of machinery—Ergonomics design principles		
614-1	Part 1: Terminology and general principles	4024.1401	Part 1401: Ergonomic principles—Design principles—Terminology and general principles
61310	Safety of machinery—Indication, marking and actuation		
61310-1	Part 1: Requirements for visual, auditory and tactile signals (IEC 1310-1)	4024.1904	Part 1904: Displays, controls, actuators and signals—Indication, marking and actuation—Requirements for visual, auditory and tactile signals
61310-2	Part 2: Requirements for marking (IEC 1310-2)	4024.1905	Part 1905: Displays, controls, actuators and signals—Indication, marking and actuation—Requirements for marking

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

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Part 1902:

Displays, controls, actuators and signals—Ergonomic requirements for the design of displays and control actuators—Displays

Introduction

This standard has been prepared to be a harmonised standard in the sense of the Machinery Directive and associated EFTA regulations.

1 Scope

This European Standard gives guidance on the selection, design and location of displays to avoid potential ergonomic hazards associated with their use. It specifies ergonomics requirements and covers visual, audible and tactile displays.

It applies to displays used in machinery (e.g. devices and installations, control panels, operating and monitoring consoles) for occupational and private use. Specific ergonomics requirements for visual display terminals (VDTs) used for office tasks are given in the standard EN ISO 9241.

2 Normative references

This European standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references subsequent amendments to, or revisions of, any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 292-1, *Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology.*

EN 292-2, *Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles and specifications.*

EN 457, *Safety of machinery – Audible danger signals – General requirements, design and testing (ISO 7731).*

EN 614-1, *Safety of machinery – Ergonomics design principles – Part 1: Terminology and general principles.*

EN ISO 9241, *Ergonomics requirements for office work with visual display terminals (VDTs).*

EN 61310-1, *Safety of machinery – Indication, marking and actuation – Part 1: Requirements for visual, auditory and tactile signals (IEC 1310-1).*

EN 61310-2, *Safety of machinery – Indication, marking and actuation – Part 2: Requirements for marking (IEC 1310-2).*

3 Definitions

For the purposes of this European Standard, the following definitions apply:

3.1 operator

the person or persons given the task of installing, operating, adjusting, maintaining, cleaning, repairing or transporting machinery [EN 292-1]