AS 4024.1901—2006

Australian Standard™

Safety of machinery

Part 1901: Displays, controls, actuators and signals—Ergonomic requirements for the design of displays and control actuators—General principles for human interactions with displays and control actuators

This Australian Standard was prepared by Committee SF-041, General Principles for the Guarding of Machinery. It was approved on behalf of the Council of Standards Australia on 21 April 2006.
This Standard was published on 29 June 2006.

The following are represented on Committee SF-041:

Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Department for Administration and Information Services, SA
Department of Consumer and Employment Protection, WorkSafe Division, WA
Department of Primary Industries, Mine Safety, NSW
Engineers Australia
Federal Chamber of Automotive Industries
Human Factors and Ergonomics Society of Australia
Institution of Instrumentation, Control and Automation Australia
National Electrical and Communications Association
National Safety Council of Australia
Office of the Australian Safety and Compensation Council
Safety Institute of Australia
The University of Melbourne
Tractor and Machinery Association of Australia
Victorian WorkCover Authority

This Standard was issued in draft form for comment as DR 05456.

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Originally as part of AS 4024.1(Int)—1992.
Previous edition part of AS 4024.1—1996.
Revised in part and redesignated as AS 4024.1901—2006.

Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 7417 2

PREFACE

This Standard was prepared by the Standards Australia Committee SF-041 General Principles for the Guarding of Machinery, as a revision, in part, of AS 4024.1—1996, *Safeguarding of Machinery*, Part 1: *General principles*.

During its work, the Committee considered a number of Standards originating within the European Community in the field of safety of machinery. Many of these European Standards are being adopted virtually unchanged as International Standards by the International Organization for Standardization (ISO) and the Committee has agreed to continue to use material emanating from both CEN and ISO in this new edition. This action will maintain consistency with previous editions of AS 4024.1 and other machine-specific Australian Standards.

This edition has been published as a series rather than the single Standard previously published as AS 4024.1. In doing this, the Committee has cleared the way for simple revisions in the future. When a new edition of a relevant Standard becomes available at the international level, it will be adopted and published within the framework of AS 4024 with a minimum delay, so ensuring continued international alignment

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

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1 SCOPE

This Standard specifies general principles for human interaction with displays and control actuators, to minimize operator errors and to ensure an efficient interaction between the operator and the equipment. It is particularly important to observe these principles when an operator error may lead to injury or damage to health. The Standard applies to the design of displays and control actuators on machinery.

2 OBJECTIVE

The objective of this Standard is to enable designers, manufacturers, suppliers, employers and users of machinery to minimize risks to the health and safety of employees and others working with or otherwise near machinery by providing principles for interactions between humans and displays and actuators for their use.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard.

AS
4024 Safety of machinery
4024.1401 Part 1401: Ergonomic principles—Design principles—Terminology and general principle
4024.1604 Part 1604: Design of controls, interlocks and guarding—Emergency stop—Principles for design
4024.1902 Part 1902: Displays, controls, actuators and signals—Ergonomic requirements for the design of displays and control actuators—Displays
4024.1903 Part 1903: Displays, controls, actuators and signals—Ergonomic requirements for the design of displays and control actuators—Control actuators

ISO
9241 Ergonomic requirements for office work with visual display terminals (VDTs)
9241-110 Part 110: Dialogue principles

4 DEFINITIONS

For the purposes of this Standard the definitions below apply.

4.1 Control actuator

The part of the control actuating system that is directly actuated by the operator, e.g. by applying pressure.

4.2 Display

Device for presenting information that can change with the aim of making things visible, audible or discernable by touch (tactile).

