

Australian Standard™

Safety of machinery

**Part 1602: Interlocking devices
associated with guards—Principles for
design and selection**

STANDARDS
Australia



This Australian Standard was prepared by Committee SF-041, General Principles for Guarding of Machinery. It was approved on behalf of the Council of Standards Australia on 1 May 2006.
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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
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design and selection**

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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*.

This Standard was prepared to give guidance to machinery designers and writers of product safety standards on how to design or to select interlocking devices associated with guards. It may also be used as guidance in controlling the risk where there is no product safety standard for a particular machine.

Relevant sections of this Standard, used alone or in conjunction with provisions from other standards, can be used as a basis for verification procedures for the suitability of a device for interlocking duties.

The Appendices contain examples complying with the principles set out in this Standard, and where their use has been validated by experience. Other solutions may be adopted, provided that they comply with the same principles.

During its work, the Committee considered a number of standards dealing with the safety of machinery originating within the European Community. Many of these European Standards are now 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, to maintain consistency with previous editions of AS 4024, and other, machine-specific Australian Standards currently under development.

This edition has been published as a series of small parts rather than the single part of AS 4024.1 previously available. In doing this, the Committee has cleared the way for simple revisions in the future. When a new edition of a relevant EN or ISO Standard becomes available, it can 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.

CONTENTS

	<i>Page</i>
1 SCOPE	4
2 OBJECTIVE.....	4
3 REFERENCED DOCUMENTS	4
4 DEFINITIONS	5
5 OPERATING PRINCIPLES AND TYPICAL FORMS OF INTERLOCKING DEVICES ASSOCIATED WITH GUARDS	5
6 PROVISIONS FOR THE DESIGN OF INTERLOCKING DEVICES (INDEPENDENT OF THE NATURE OF THE ENERGY SOURCE)	11
7 ADDITIONAL TECHNOLOGICAL REQUIREMENTS FOR ELECTRICAL INTERLOCKING DEVICES	16
8 SELECTION OF AN INTERLOCKING DEVICE.....	17
 APPENDICES	
A GUARD-OPERATED INTERLOCKING DEVICE WITH ONE CAM-OPERATED POSITION DETECTOR.....	20
B GUARD-OPERATED INTERLOCKING DEVICE WITH TONGUE-OPERATED SWITCH.....	22
C PLUG AND SOCKET INTERLOCKING DEVICE (PLUG/SOCKET COMBINATION).....	24
D GUARD-OPERATED INTERLOCKING DEVICE INCORPORATING TWO CAM-OPERATED POSITION DETECTORS	26
E ELECTRICAL INTERLOCKING DEVICE INCORPORATING MAGNETICALLY ACTUATED (MAGNETIC) SWITCHES	28
F ELECTRICAL INTERLOCKING DEVICE INCORPORATING TWO PROXIMITY DETECTOR	29
G PNEUMATIC/HYDRAULIC INTERLOCKING DEVICES.....	31
H INTERLOCKING DEVICE WITH GUARD LOCKING, WITH MANUALLY OPERATED DELAY DEVICE	33
I DIRECT (MECHANICAL) INTERLOCKING BETWEEN GUARD AND START/STOP MANUAL CONTROL	34
J CAPTIVE-KEY INTERLOCKING DEVICE.....	36
K TRAPPED-KEY INTERLOCKING DEVICE	38
L MECHANICAL INTERLOCKING BETWEEN A GUARD AND A MOVABLE ELEMENT	40
M INTERLOCKING DEVICE WITH SPRING-APPLIED/POWER-RELEASED GUARD LOCKING DEVICE	41

STANDARDS AUSTRALIA

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1 SCOPE

This Standard specifies principles for the design and selection, independent of the nature of the energy source, of interlocking devices associated with guards (as defined in AS 4024.1201).

It also provides requirements specifically intended for electrical interlocking devices (see Clause 7).

This Standard covers the parts of guards which actuate interlocking devices.

NOTE: Requirements for guards are given in AS 4024.1601. The processing of the signal from the interlocking device to stop and immobilize the machine is dealt with in AS 4024.1501.

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 working with or otherwise near machinery by providing technical means for designing interlocks.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard.

AS

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| 4024 | Safety of machinery |
| 4024.1201 | Part 1201: General principles—Basic terminology and methodology |
| 4024.1202 | Part 1202: General principles—Technical principles |
| 4024.1301 | Part 1301: Risk assessment—Principles for risk assessment |
| 4024.1501 | Part 1501: Design of safety related parts of control systems—General principles of design |
| 4024.1601 | Part 1601: Design of controls, interlocks and guarding—Guards—General requirements for the design and construction of fixed and movable guards |
| 4024.1801 | Part 1801: Safety distances and safety gaps—Safety distances to prevent danger zones being reached by the upper limbs |
| 60204 | Safety of machinery—Electrical equipment of machines |
| 60204.1 | Part 1: General requirements (IEC 60204-1, Ed.5 (FDIS) MOD) |
| 60947 | Low-voltage switchgear and controlgear |
| 60947.5.1 | Part 5.1: Control circuits devices and switching elements—Electromechanical control circuit devices |

ISO

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| 13855 | Safety of machinery—Positioning of protective equipment with respect to the approach speeds of parts of the human body. |
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