

Australian Standard™

**Graphical symbols for use on
equipment**

Part 1: Overview and application

This Australian Standard was prepared by Committee TE-013, Symbols, Units and Quantities for Electrotechnology. It was approved on behalf of the Council of Standards Australia on 18 March 2004.
This Standard was published on 30 July 2004.

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Web Shop at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Global Standard*, has a full listing of revisions and amendments published each month.

Australian Standards™ and other products and services developed by Standards Australia are published and distributed under contract by SAI Global, which operates the Standards Web Shop.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

Australian Standard™

Graphical symbols for use on equipment

Part 1: Overview and application

Originated as AS 1104—1978.
Revised and redesignated as AS 60417.1—2004.

COPYRIGHT

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 6081 3

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TE-013, Symbols, Units and Quantities for Electrotechnology, to supersede, in part, AS 1104—1978, *Informative symbols for use on electrical and electronic equipment*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

This Standard is identical with and reproduced from IEC 60417-1:2002, *Graphical symbols for use on equipment, Part 1: Overview and application*.

The objective of this Standard is to provide designers, manufacturers and users of electrotechnical equipment with uniform symbols for informative purposes to enable the operation and proper functioning of machinery, appliances and equipment.

This Standard is part of a series, the designations and Part titles being as follows:

AS/IEC

60417.1 Part 1: Overview and application (this Standard)

60417.2.1 Part 2.1: General Application

60417.2.2 Part 2.2: Audiovisual equipment

60417.2.3 Part 2.3: Telephone and communications

60417.2.4 Part 2.4: Maritime navigation

60417.2.5 Part 2.5: Home electric devices

60417.2.6 Part 2.6: Medical equipment

60417.2.7 Part 2.7: Safety aspects

This Standard includes the alphabetical, pictorial and numerical indexes for the symbols. The description and purpose of the symbols is provided with the numerical index. Lists of symbols by function are also provided. It should be noted that these symbols are not intended to be used to represent electrical components in circuit diagrams or the like; symbols for this purpose are the subject of AS/NZS 1102, *Graphical symbols for electrotechnology* (series).

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

- (a) The French text has been retained.
- (b) Its number appears on the cover and title page while the international Standard number appears only on the cover.
- (c) In the source text, ‘this International Standard’ should read ‘this Australian Standard’.
- (d) A full point substitutes for a comma when referring to a decimal marker.

References to international Standards should be replaced by equivalent Australian Standards, as follows:

<i>Reference to International Standard</i>	<i>Australian Standard</i>
IEC	AS
60050(441) International Electrotechnical Vocabulary (IEV) Chapter 441: Switchgear, control-gear and fuses	1852 International Electrotechnical Vocabulary 1852.441 Switchgear, controlgear and fuses
60204-1 Safety of machinery—Electrical equipment of industrial machines Part 1: General requirements	—

<i>Reference to International Standard</i>		<i>Australian Standard</i>
IEC		AS
80416-1	Basic principles for graphical symbols for use on equipment Part 1: Creation of original symbols	—
60601-1	Medical electrical equipment Part 1: General requirements for safety	—
60747-1	Semiconductor devices—Discrete device Part 1: General	—
61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use Part 1: General requirements	—
61310-1	Safety of machinery — Indication, marking and actuation Part 1: Requirements for visual, auditory and tactile signals	—
3864	Safety colours and safety signs	—
7000	Graphical symbols for use on equipment — Index and synopsis	—
ITU-T		
E121	Pictograms, symbols and icons to assist users of the telephone service	—

CONTENTS

	<i>Page</i>
INTRODUCTION.....	vi
Clause	
1 Scope	1
2 Normative references	2
3 Comprehensive surveys	3
3.1 Alphabetical index	3
3.2 Graphical	
4 Title and description of graphical symbols in numerical order	20
5 Classification according to primary form	110
5.1 Lines	110
5.2 Arrows	112
5.3 Squares	114
5.4 Rectangles and polygons.....	115
5.5 Circles	117
5.6 Barrels	119
5.7 Triangles	121
5.8 Depicting shapes.....	122
6 Classification according to function	124
6.1 Control	124
6.2 Operational state	130
6.3 Movement	135
6.4 Designation of equipment	137
6.5 Transmission, processing and registration of information.....	142
6.6 Connection; interruption.....	145
6.7 Image production or processing	146
6.8 Variation	149
6.9 Safety	151
6.10 Time	152
6.11 Display	153
6.12 Information concerning people	154

	<i>Page</i>
7 Examples of application	155
7.1 General application	155
7.2 Audiovisual equipment.....	159
7.3 Telephone and telecommunications	165
7.4 Maritime navigation	167
7.5 Home electric appliances.....	168
7.6 Medical equipment	170
7.7 Safety aspects.....	175
 Bibliography	 176

INTRODUCTION

This part of IEC 60417 contains graphical symbols for use on equipment created according to the basic principles of International Standard 80416, jointly developed with ISO, which consists of the following parts under the general title *Basic principles for graphical symbols for use on equipment*:

- Part 1: Creation of symbol originals (2001, *published by IEC*);
- Part 2: Form and use of arrows (2001, *published by ISO*);
- Part 3: Guidelines for the application of graphical symbols (*in preparation, will be published by IEC*);
- Part 4: Supplementary guidelines for the adaptation of graphical symbols for use on screens and display (icons) (*in preparation, will be published by IEC*).

Reference should be made to IEC 80416-1:2001 for rules for the application and modification of the graphical symbols.

IEC 60417 is divided into two parts.

IEC 60417-1 contains a presentation of the graphical symbols with the corresponding descriptions in numerical order which does not necessarily represent any functional grouping. It is complemented by an alphabetical index and a graphical survey of the symbols. Additional information is provided to the user by the classifications according to form and function, and the examples of application.

IEC 60417-2 contains a presentation of the full size symbol originals for reproduction purposes in numerical order. The position and size of the graphical symbols within the basic pattern, according to the rules of IEC 80416-1:2001, can be determined with the help of the transparent sheet of the basic pattern.

Where there are two alternative graphical representations for one function, these are distinguished by the addition of a letter after the symbol number, for example 5107A and 5107B. Where the addition of a qualifying element to a symbol results in a new meaning, the derived symbols are numbered 5277-1, 5277-2, etc.

The user is informed that this standard is updated frequently in order to incorporate new symbols. It should be noted that this new edition will be the last paper edition; in future, the graphical symbols will be accessible in the database.

AUSTRALIAN STANDARD

Graphical symbols for use on equipment

Part 1: Overview and application

1 Scope

This part of IEC 60417 contains graphical symbols and their meaning (title and description). The graphical symbols in the standard are primarily intended

- to identify the equipment or a part of the equipment (for example a control or display);
- to indicate functional states or functions (for example: on, off, alarm);
- to designate connections (for example terminals, filling points for materials);
- to provide information on packaging (for example identification of content, instructions for handling);
- to provide instruction for the operation of the equipment (for example limitations of use).

This part 1 provides reference information to help users find appropriate graphical symbols. This part is not intended for reproduction purposes.

The graphical symbols specified in this standard are not primarily intended for

- safety signs;
- public information;
- use on drawings and diagrams;
- use in technical documentation of products and in technical product documentation.

In the case of the use of graphical symbols as safety signs, the rules specified in ISO 3864 prevail.