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GRAPHICAL SYMBOLS FOR ELECTROTECHNOLOGY Part 8—SYMBOLS FOR LOCATION DIAGRAMS



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AUSTRALIAN STANDARD

**GRAPHICAL SYMBOLS FOR
ELECTROTECHNOLOGY**

Part 8

**SYMBOLS FOR LOCATION
DIAGRAMS**

AS 1102.8—1986

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PREFACE

This edition of this standard was prepared by the Association's Committee on Symbols, Units and Quantities for Electrotechnology, under the authority of both the Telecommunications and Electronics, and the Electrical Standards Boards, to supersede AS 1102, Graphical Symbols for Electrotechnology, Part 8—1983, Location Symbols—Power and Communication Installations for Buildings and Sites.

The AS 1102 series of standards provides for a comprehensive treatment of graphical symbols for use generally in the field of electrotechnology. The purpose of this standard (which is Part 8 of the series) is to specify graphical symbols for general electrical application, power and communication application, intruder alarm equipment, airport lighting, and electric traction for use in the preparation of location diagrams. In this regard, this Part differs completely from other Parts as the symbols are not intended for use in circuit or wiring diagrams (although wherever possible the same symbols are used) but on location diagrams for general electrical application, power and communication application, airport lighting and electric traction. Parts 1 to 7 and 9 to 15 which specify graphical symbols for use in circuit or wiring diagrams are listed in Clause 1.2.

This standard is a major revision of the 1983 edition and has a shorter title. The format has been completely restructured and comprises separate sections for general electrical application, power application, communication application, intruder alarm equipment, airport lighting and electric traction. Appendix A provides guidance on architectural location diagrams for electrical services and Appendix B gives a method of location of analytical or process variable instruments on an electrical location diagram.

Many new symbols covering various electrical appliances/equipment, consoles, intruder alarm equipment, optical fibre cable, transmission towers, poles, amplifiers, cable distribution systems for sound and television, telephone apparatus, etc, have been included. In addition, Section 1 has been rewritten to align with current practice and the symbols renumbered in accordance with the current IEC method.

Attention is drawn to the fact that some symbols depicted in the 1983 edition have been redrawn to align with International Electrotechnical Commission (IEC) and current Australian usage and to eliminate inconsistencies and improve their presentation. In particular, the former luminaire general symbol (a circle) has been aligned with the IEC symbol (a circle with a cross) in an attempt to overcome some of the problems of using the same shaped symbol, i.e. a circle, for a different application. Clause 1.3.1 provides guidance on the relationship with IEC symbols.

In its terminology, format and treatment of the subject, this standard is, in general, consistent with the recommendations of IEC 117-5, 117-8 and 617-11.* Attention has also been paid to relevant sections of BS 3939.† Acknowledgement is made of the assistance received from these sources.

The symbols are identical with those established by the IEC except where the established usage in Australia has made unqualified acceptance of the IEC recommended symbol difficult. Also, a number of examples representing Australian practice have been added. In the abovementioned cases, these symbols are identified by an asterisk added to the reference number of the symbol. As an example, the recommended use of the general symbol for power outlets or socket-outlets, has been modified in accordance with the normal Australian requirement that a general purpose outlet (GPO) is understood to be switched and earthed.

Examples of the use of the symbols have been given in order to establish the method to be adopted for using the symbols on location diagrams but they are not exhaustive. Methods of using the symbols will vary with the need. It is considered that this should not cause problems providing the symbol is not changed. Wherever possible, any further symbols required should be drawn from the appropriate part of this standard. The urge to create new symbols should be resisted.

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| * IEC 117 | Recommended Graphical Symbols |
| 117-5 | Generating Stations and Substations, Lines for Transmission and Distribution |
| 117-8 | Symbols for Architectural Diagrams |
| IEC 617 | Graphical Symbols for Diagrams |
| 617-11 | Architectural and Topographical Installation Plans and Diagrams |
| † BS 3939 | Graphical Symbols for Electrical Power, Telecommunications, and Electronics Diagrams |

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