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Australian Electrical and Electronic Manufacturers Association

Civil Aviation Authority

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Department of Administrative Services-Construction Group

Department of Defence

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Graphical symbols for electrotechnical documentation

Part 108: Measuring instruments, lamps and signalling devices

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PREFACE

This Standard was prepared by the Standards Australia Committee on Symbols, Units and Quantities for Electrotechnology under the Authority of both the Telecommunications and Electronics Standard Board and the Electrical Standards Board.

THE 'NEW' AS 1102 SERIES

This Standard is one part of a major revision of the AS 1102 series, all 15 parts of which have or are currently being revised and consolidated so that the series is aligned with the 13-part IEC 617 series, *Graphical symbols for diagrams*.

The Committee decided upon this alignment rather than continue with the development of an Australian series based on but not aligned with IEC 617. Such a course would eventually have proved counter-productive since the IEC 617 series has already gained wide national and international acceptance.

Since the generic AS number for the series (AS 1102) is so well established throughout industry and technical colleges as *the* Australian Standard for electrotechnical graphical symbols, it was felt appropriate that it be retained. However, to clearly identify the revised Standards, three-digit part numbers have been employed (e.g. AS 1102.106) and in this Preface these revised Standards are referred to as the 'new' AS 1102 series.

The Standards of the 'new' AS 1102 series are derived as follows:

- (a) Eleven parts of the 'old' AS 1102 series (i.e. Parts 1 to 7, 10, 11, 13 and 14) are now consolidated and aligned with the first 10 parts of IEC 617 and thus become AS 1102.101 to AS 1102.110. These are published simultaneously.
- (b) Of the outstanding balance of parts of the 'old' AS 1102 series (i.e. Parts 8, 9, 12 and 15), these will all be revised and aligned in due course as follows:
 - (i) Part 8—1986, Symbols for location diagrams. This part will become AS 1102.111.
 - (ii) Part 9—1986, *Binary logic elements*. This part is already substantially in alignment with IEC 617-12 (1983) and will become AS 1102.112.
 - (iii) Part 12—1984, *Electric traction*. This part is wholly of Australian origin and it does not correspond with any IEC Standard. However, when it is revised it will be redesignated with a 3-digit part number. For the meantime it retains its 2-digit part number, i.e. Part 12.
 - (iv) Part 15-1982, Analogue elements. This part is already substantially in alignment with IEC 617-13 (1978) and will become AS 1102.113.

The following are the parts of the 'new' AS 1102 series that are published simultaneously:

AS 1102 Graphical symbols for electrotechnical documentation

AS 1102.101 General information and general index

- AS 1102.102 Symbol elements, qualifying symbols and other symbols having general application
- AS 1102.103 Conductors and connecting devices

AS 1102.104 Passive components

AS 1102.105 Semiconductors and electron tubes

AS 1102.106 Production and conversion of electrical energy

AS 1102.107 Switchgear, controlgear and protective devices

AS 1102.108 Measuring instruments, lamps and signalling devices

AS 1102.109 Telecommunications—Switching and peripheral equipment

AS 1102.110 Telecommunications—Transmission

The above parts collectively supersede the following Standards of the 'old' AS 1102 series:

AS 1102 Graphical symbols for electrotechnology

AS 1102.1—1985 General, qualifying and supplementary symbols (first published in 1973, second edition 1981)

AS 1102.2—1981 Conductors and connecting devices (first published in 1973)

AS 1102.3—1983 Resistors, capacitors and inductors (first published in 1973)

AS 1102.4—1983 Electron tubes and rectifiers (first published in 1974)

AS 1102.5—1983 Semiconductor devices (first published in 1972).

AS 1102.6-1982 Rotating electrical machines (first published in 1975)

- AS 1102.7-1982 Measuring instruments (first published in 1975)
- AS 1102.10—1985 Signal transmission symbols (first published in 1973, second edition 1981)
- AS 1102.11-1985 Switching and protective devices (first published in 1976, second edition 1981)
- AS 1102.13—1979 Microwave technology

AS 1102.14—1979 Telephony, telegraphy and transducers

PARTICULAR POINTS ON PART 108

The purpose of this Part (108) is to provide symbols for measuring instruments, lamps and signalling devices, indicating/recording/integrating instruments, counting devices, thermocouples, telemetering devices and electric clocks.

In its terminology, format and general treatment of the subject, this Standard aligns with IEC 617-8 (1983) except as modified to suit Australian conditions and includes a number of non-IEC symbols which represent Australian practice. These Australian symbols are separately identified (see Clause 1.4 to 1.8 of Part 101).

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