

Superseded by AS 1851.1-1995

AS 1851.1—1989

*see also AS 3676 -1989 Guide to servicing.*

Australian Standard®

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**Maintenance of fire protection  
equipment**

**Part 1: Portable fire extinguishers**

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**STANDARDS AUSTRALIA** 

This Australian Standard was prepared by Committee FP/3, Fire Extinguishers. It was approved on behalf of the Council of Standards Australia on 11 October 1988 and published on 13 February 1989.

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The following interests are represented on Committee FP/3:

Australian Association of Rural Fire Authorities  
Attorney-General's Department  
Board of Fire Commissioners, N.S.W.  
Building Owners and Managers Association, Australia  
Commonwealth Fire Board  
Department of Administrative Services—Construction Group  
Department of Consumer Affairs  
Department of Defence  
Department of Industrial Relations and Employment, N.S.W.  
Fire Protection Industry Association of Australia  
Insurance Council of Australia  
Metropolitan Fire Brigades Board, Melbourne  
Ministry of Consumer Affairs, Victoria  
Ministry of Consumer Affairs, W.A.  
Telecom Australia  
Western Australian Fire Brigades

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*Review of Australian Standards.* To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up-to-date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AS 1851.1/Amdt 1/1990-08-06

STANDARDS AUSTRALIA

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**Amendment No 1  
to  
AS 1851.1  
Maintenance of fire protection equipment  
Part 1: Portable Fire Extinguishers**

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**REVISED TEXT**



The 1989 edition of AS 1851.1 is amended as follows; the amendment(s) should be inserted in the appropriate place.

*SUMMARY:* This Amendment applies to Table 1.1, Clauses 1.2, 2.4, 2.5, Tables 3.1, 3.2, 3.3, 3.5, 3.6 and Appendix 'A'.

Published on 6 August 1990.

Australian Standard®

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**Maintenance of fire protection  
equipment**

**Part 1: Portable fire extinguishers**

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First published as AS CA18—1941.  
Second edition 1964.  
Third edition 1968.  
Revised and redesignated AS 1851—1976.  
Redesignated AS 1851.1—July 1977.  
Second edition 1985.  
Third edition 1989.

## PREFACE

This Standard was prepared by the Standards Australia Committee on Fire Extinguishers, to supersede AS 1851.1—1985.

This edition of the Standard further refines the concept of periodicity of inspection and servicing formerly referred to as 'levels of inspection and servicing'. The periods are on a time-elapsd basis and range, depending on the extinguisher type, from 6-monthly inspections to 6-yearly inspections. The maintenance schedule tables are no longer grouped according to the different types of extinguishers; instead they are now in terms of maintenance periods. In addition, a special table for inspection and servicing is included for extinguishers located in aggressive environments. A further change introduced in this edition is the deletion of the former Appendix A, Typical Non-aggressive Service Environments, and the inclusion (as Appendix A) of a summary table of the maintenance procedures.

With the publication of AS 1851.1—1985, the maintenance of all chemical fire extinguishers was brought to a common cyclic routine, i.e. 6-monthly, yearly, 3-yearly as appropriate, and 6-yearly. This replaced the timetables in AS 1851, Part 1—1976 which gave no easy correlation between maintenance of various types of extinguishers. These and other changes have important benefits to industry as follows:

- (a) Having a regular 'across the board' maintenance routine will enhance all future public education programs.

The repetitive nature of the necessary work is more likely to remain in the memory of operators, management, etc, and thus the work should be carried out more effectively.

- (b) There has been considerable comment on the 6-yearly (maximum) discharge test, particularly as applied to halon extinguishers. In response to this, the committee has introduced a requirement for 12 years to 'first discharge' for halon extinguishers only.

- (c) The discharge tests now have considerably more emphasis on observing and checking the extinguisher's performance than was previously required. Consequently, there are more benefits to be gained in long-term reliability of the extinguishers when adequately maintained than were previously available.

All maintenance work is required to be carried out by experienced personnel in accordance with recognized safety procedures. Persons with the necessary training and experience, with access to the requisite tools, equipment and information, and capable of carrying out the inspection and maintenance procedures of this Standard are considered to be experienced personnel. Pressure testing or charging of any unit is to be done only in designed safety cages of a strength sufficient to contain all fragments given off by possible vessel rupture or failure.

It should be noted that the waste products of the servicing of fire extinguishers, and particularly from discharge testing, will generally be the subject of State legislation dealing with the disposal of trade wastes. In disposing of material such as acids, sulphates, and powder chemicals, individuals or organizations servicing fire extinguishers should familiarize themselves with the applicable legislation and ensure that this is complied with.

Requirements for the charging of new extinguishers shipped empty, installation procedures and requirements, and signs, are specified in AS 2444, *Portable fire extinguishers—Selection and location*.

A companion Standard to provide guidance on servicing of portable fire extinguishers is being prepared, and, when published, will assist in the general duties, training, and certification of personnel expected to service and maintain portable fire extinguishers.

In 1979, Standards controlling the manufacture of extinguishers were upgraded significantly and Standards Australia became directly involved through the quality assurance and certification scheme and the application of the StandardsMark to extinguishers.

**Page 4. Table 1.1 Relevant Australian Standard**

*Delete existing Table 1.1 and substitute new Table 1.1.*

**TABLE 1.1  
RELEVANT AUSTRALIAN STANDARD\***

Extinguisher type	Expellant method		
	Gas container	Stored pressure	Chemical
Water	AS 1841 (AS A31.2)	AS 1842 (AS A31.3)	AS 1840 (AS A31.1)
Wet chemical	—	AS 1842	—
Foam	AS 1844 (AS A32.2)	AS 1845 (AS A32.3)	AS 1843 (AS A32.1)
Powder (dry chemical)	AS 1846 (AS A137)	AS 1846 (AS A137)	—
Carbon dioxide	—	AS 1847 (AS A138)	—
Halon	—	AS 1848 (AS A163)†	—

\* Australian Standard numbers appearing in parenthesis refer to superseded Standards.

† BCF and BTM types only.

NOTE: For portable fire extinguishers manufactured before the alphanumeric series of Australian Standards were applicable, the Regulatory Authority may prescribe such inspections, tests, and corrective actions as are required.

**Page 4. Clause 1.2 Referenced documents.**

*Add 'and related' after reference in title.*

*Add 'and wet chemical' after 'water' in the title of AS 1842.*

*Add after 1850—*

2337 Gas cylinder test stations

2337.1 General requirements, inspections, and test—Gas cylinders

*Add* 3676 Portable fire extinguishers—Guide to servicing

## STANDARDS AUSTRALIA

**Australian Standard**  
**Maintenance of fire protection equipment**

**Part 1: Portable fire extinguishers**

**SECTION 1. SCOPE AND GENERAL**

**1.1 SCOPE.** This Standard sets out requirements for the regular inspection, pressure testing, recharging and general servicing of rechargeable portable fire extinguishers that at the time of manufacture complied with the contemporary edition of the relevant Standard listed in Table 1.1. This Standard may also be applicable to fire extinguishers which are used for demonstration or practice purposes; however, for such extinguishers consideration should be given to more frequent maintenance due to their increased usage and potential for wear and damage.

**TABLE 1.1**

**RELEVANT AUSTRALIAN STANDARD\***  
**SEE AMENDMENT 1**

Extinguisher type	Expellant method		
	Gas container	Stored pressure	Chemical
Water	AS 1841 (AS A31.2)	AS 1842 (AS A31.3)	AS 1840 (AS A31.1)
Foam	AS 1844 (AS A32.2)	AS 1845 (AS A32.3)	AS 1843 (AS A32.1)
Powder (dry chemical)	AS 1846 (AS A137)	AS 1846 (AS A137)	—
Carbon dioxide	—	AS 1847 (AS A138)	—
Halon	—	AS 1848 (AS A163)†	—

\* Australian Standard numbers appearing in parentheses refer to superseded Standards.

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NOTE: For portable fire extinguishers manufactured before the alphanumeric series of Australian Standards were applicable, the Regulatory Authority may prescribe such inspections, tests, and corrective actions as are required.

**1.2 REFERENCED DOCUMENTS.** <sup>AND RELATED</sup> ~~SEE AMENDMENT 1~~ The following Standards are referred to in this Standard.

- AS
- 1840 Water (soda acid) type portable fire extinguishers\*
- 1841 Portable fire extinguishers—Water (gas container) type
- 1842 Portable fire extinguishers—Water <sup>and wet chemical</sup> (stored pressure) type
- 1843 Foam (chemical) type portable fire extinguishers\*
- 1844 Portable fire extinguishers—Foam (gas container) type
- 1845 Portable fire extinguishers—Foam (stored pressure) type
- 1846 Portable fire extinguishers—Powder type
- 1847 Portable fire extinguishers—Carbon dioxide type
- 1848 Portable fire extinguishers—Halon type
- 2030 SAA Gas Cylinders Code
- 2030.1 Part 1: Cylinders for compressed gases other than acetylene
- 2700 Colour standards for general purposes
- Attention is drawn to the following related documents.
- AS
- 1849 Identification colours for portable fire extinguishers
- 1850 Portable fire extinguishers—Classification, rating and fire testing
- 2337 ~~SEE AMENDMENT 1~~
- 2444 Portable fire extinguishers—Selection and location
- 3676 ~~SEE AMENDMENT 1~~

\* Obsolescent Standard.