## 2022 MOTORSPORT AUSTRALIA MANUAL

# TECHNICAL APPENDIX Schedule H – Fire Extinguishers



Modified Article	Date of Application	Date of Publication
TABLE H-1	12/09/2022	07/09/2022

Any HEADING is for reference only and has no regulatory effect.

A capitalised and italicised word in this document is defined in the FIA International Sporting Code (Code), the National Competition Rules (NCR), including their Appendices or this document.

#### **GENERAL**

Each *Automobile* in an *Event* as detailed, except where noted in specific Group/category/class regulations, must be equipped with a fire extinguisher which complies with the following conditions.

Halon extinguishers (1201 or 1311, including BCF) are not permitted under civil legislation.

NOTE: A hand-held or plumbed-in extinguisher has a primary purpose of providing an extinguishant that will extend the period of time to enable the extrication of the automobile occupant/s in the event of a fire.

#### 1.1 HAND-HELD FIRE EXTINGUISHERS:

- (a) Each hand-held fire extinguisher must be secured using a metal bracket attached to the *Automobile* with only high tensile bolts or equivalent fasteners and/or sufficient clamp/s and must remain restrained under a deceleration or acceleration of 25g; and
- (b) Must be capable of removal by the driver (or crew, where applicable) while seated in their normal respective position for competition with safety harness unfastened, unless varied by specific category regulations, and without the aid of tools.

## 1.2 PLUMBED-IN FIRE EXTINGUISHERS:

Each plumbed-in fire extinguisher must be fitted in accordance with the *Code* Appendix J – Article 253 – Safety Equipment at www.fia.com/regulation/category/123 and with attention to the following:

- (a) Each extinguisher container must be adequately protected and may be situated within the cockpit or luggage compartment. If situated in the luggage compartment it must be at least 300mm from the outer edge of the bodywork in all horizontal directions.
- (b) The container must be secured by a minimum of 2 screw-fastened metallic straps and the securing system must be able to withstand a deceleration of 25g.
- (c) Anti-torpedo tabs must be fitted.

## 1.3 OTHER EXTINGUISHERS

Other extinguishers or fire prevention devices may be fitted in addition to the mandatory requirements as detailed. In each case any other extinguisher that is fitted within the cockpit of an *Automobile* must be secured as a minimum in accordance with the requirements for a hand-held extinguisher.

#### **SERVICE AND INSPECTION**

(a) Each hand-held extinguisher should be inspected by a scrutineer at targeted scrutiny, or otherwise prior to *Competition*. This inspection will involve visually checking the unit and its mountings for damage and corrosion, checking the pressure of the contents via an installed gauge, and inverting and shaking the container to check for settling of the extinguishant. Where practical, it is recommended the extinguisher be weighed (mandatory where no gauge is installed).

The following information must be visible on each extinguisher:

- (i) capacity;
- (ii) type of extinguishant;
- (iii) weight or volume of the extinguishant; and
- (iv) date of manufacture of the extinguisher.
- (b) Each AS1841 standard fire extinguisher must be serviced every three years in accordance with AS1851 for a fire extinguisher in an adverse operating environment. If the extinguisher is compliant

with another acceptable standard, it must be serviced every two years. This servicing must be undertaken in accordance with the procedures laid out by the manufacturer and/or the relevant standard (e.g. AS1851 for AS1841 extinguishers) and will include a hydrostatic pressure test of the extinguisher body. A report from the servicing agent must be supplied to a scrutineer on demand as proof of a service being completed. A service tag will not be accepted as proof of the extinguisher having been serviced.

(c) Each fire extinguisher which is homologated by the *FIA* must be serviced either by the manufacturer or their agent no more than two years after either the date of filling or the date of the last service. This servicing must be undertaken in accordance with the procedures laid out by the manufacturer and/or the relevant standard.

#### **AUTOTEST EVENTS**

In accordance with relevant *Event* regulations.

## SPEED EVENTS, DRIFTING AND RACE EVENTS

Each Automobile must be fitted with a fire extinguisher(s) in accordance with Table H-1.

Where a *Speed Event* is conducted within a *Circuit Race Event* the requirements for a Fire Extinguisher will be as for *Circuit Race* in accordance with Table H-1. In this application the venue/track must maintain the required fire response as applied for the *Circuit Race Event* for the *Speed Event* component.

The fitment of an "on-board" extinguishing system homologated by the FIA will be an acceptable alternative to the fitment of a separate extinguisher.

#### **RALLY/ROAD EVENTS**

Each *Automobile* must be fitted with a hand-held fire extinguisher/s in accordance with Table H-1, and in addition must be equipped as follows:

- (a) In an International Competition each Automobile must comply with the current FIA Code for fire extinguishers.
- (b) In an Australian Rally Championship *Event* each *Automobile* in the ARC class/es must be equipped with a plumbed-in fire extinguisher system in accordance with those permitted for Rally use in *FIA* Technical List No. 16 and *FIA* Technical List No. 52 and fitted in accordance with *FIA* Code Appendix J. Article 253. However where a *Driver* is competing in their home State<sup>2</sup> in an *Automobile* manufactured prior to January 2000, the *Automobile* will be exempt from this requirement.
- (c) In a State Competition an Automobile manufactured after 1 January 2000³ must be equipped with a plumbed-in fire extinguisher system approved by the FIA¹.

#### NOTES:

<sup>1</sup> Plumbed-in fire extinguisher systems that are in accordance with those permitted for *Rally* use in *FIA* Technical List No. 16 and *FIA* Technical List No. 52 and fitted in accordance with *FIA* Code Appendix J. Article 253.

It is highly recommended that each *Automobile* in a *State Competition* or lower status *Event* is also fitted with a compliant *FIA* extinguisher system.

- <sup>2</sup> Where in a particular year there is no round of the ARC in the driver's home state, a driver may nominate another State to be his home State.
- <sup>3</sup> This date refers to the original date of manufacture of the *Automobile*, and not the date on which it was built as a *Rally Automobile*.
- (d) For each type of rally/road event, refer Table H-1.

**NOTE:** It is highly recommended that each new *Automobile* built for Rally/Road is equipped with an extinguisher system compliant, for *Rally*, with *FIA* Technical List No.16 or *FIA* Technical List No. 52.

## **OFF ROAD EVENTS**

Each Automobile must be fitted with a fire extinguisher/s in accordance with Table H-1.

## **ELECTRIC VEHICLES**

Each Electric Vehicle must be fitted with a fire extinguisher/s in accordance with Table H-1.

Hand Held Extinguisher/s or Plumbed – In Extinguisher systems with an extinguishing medium proven to not create a conductive atmosphere and in compliance with the *FIA* Standards are highly recommended for an EV (i.e FX G-Tec, Novec 1230, 4F Universal). More than one type of fire extinguisher may be necessary to cope with the different types of flammable components.

#### **TABLE H-1**

## MINIMUM HAND-HELD EXTINGUISHER STANDARDS / REQUIREMENTS

Event type	Hand-held extinguisher standard	Minimum total capacity <sup>2</sup>	
Autotest	In accordance with relevant <i>Event</i> regulations		
Speed including Drifting	AS1841.5 – ABE Powder or FIA Standard	1kg	
Off Road	AS1841.5 – ABE Powder or FIA Standard	2kg in accordance with the fitment requirements of Article 1.1; and  2kg of additional extinguishant mounted in accordance with Article 1.1(a).  The requirements of Article 1.1 (b) are not applicable in relation to the mounting of the additional extinguishant.	
Special Stage Rally/S2 Rally Sprint	AS1841.5 – ABE Powder or FIA Standard	2kg	
S1 Rally Sprint (venue unmanned by marshals)	AS1841.5 – ABE Powder or FIA Standard	1kg	
Other Rally/Road Events	In accordance with relevan	t <i>Event</i> regulations	
Circuit Race	Not mandatory <sup>1</sup>		
Electric Vehicles <b>ALL Events</b>	AS1841.5 – ABE Powder or FIA Standard	2kg	

<sup>&</sup>lt;sup>1</sup> Fire extinguishers are not mandatory for an *Automobile* competing in a *Circuit Race Event*, except where mandated by Group/category/class regulations, however a fire extinguisher that meets the standards for a *Speed Event* as above is highly recommended.

<sup>&</sup>lt;sup>2</sup> The minimum capacity of 2kg may be made up by the fitment of 2 x 1kg extinguishers.

## **AUSTRALIAN STANDARD EXTINGUISHERS**

Extinguisher	Extinguisher Standard	Notes
Powder ABE	AS 1841.5	General Purpose, suitable for most fire types.  This Australian Standard extinguisher is the most common extinguisher that is available in 1kg an 2kg sizes. Other Australian Standard extinguisher types (i.e. AS1841.2 FOAM) are not readily available in 1 kg and 2 kg sizes.

#### **FIA STANDARD EXTINGUISHERS**

In each *Event* type it is permitted to equip a hand held extinguisher that complies with the *FIA* Manual Extinguisher regulations, instead of the use of an AS1841.5 standard extinguisher. Each *FIA* Manual Extinguisher must be of the minimum capacity, fitted and maintained in accordance with the *FIA* regulations as published in the *Code* with specific reference to Appendix J – Article 253 – Safety Equipment at <a href="https://www.fia.com/regulation/category/123">www.fia.com/regulation/category/123</a>.

