

Fire Extinguishers

Existing vehicles competing prior to 1st January 2019 may comply with the following until 1st January 2022. New build vehicles from 1st January 2019 must comply with Appendix 3.

3. A fire extinguisher/extinguishing system must be carried on all vehicles, the minimum requirement being that the system be charged with one of the permitted extinguishants and be operable by the driver whilst normally seated either by manual operation or by a mechanically/electrically assisted triggering system.

All extinguishers must be serviced in accordance with the manufacturers guidelines, or every 24 months, whichever is sooner.

3.1. Capacities. Extinguishers are classified as Small, Medium or Large, and designated as Hand-Held or Plumbed-In. Dry powder extinguishers are prohibited.

3.1.1. Small, Hand operated.

3.1.2.

- (a) Medium, Plumbed-In, for discharge into both cockpit and engine compartment.
- (b) Medium, Hand-Operated, for discharge into both cockpit and engine compartment.

3.1.3. Large, Plumbed-In, for discharge into both cockpit and engine compartment.

3.1.4. Large, Plumbed-In, for discharge into Engine compartment, plus Medium, Hand-Held for Driver or Rally Co-driver use.

3.1.5. Hand-operated for cockpit (International).

3.1.6. Permitted Extinguishants AFFF, ZERO 2000. (See Table 3.)

Copies of the list of FIA/MSA approved plumbed systems are available from Motorsport UK.

3.2. Plumbed-In Systems (If AFFF they must be FIA/MSA homologated).

3.2.1. The Large unit should have two points of triggering, one for the driver (and Co-driver in Rallies) and one outside the car for activation by Marshals etc.

3.2.2. The triggering point from the exterior must be positioned close to the Circuit Breaker (or combined with it) and must be marked by the letter "E" in red inside a white circle of at least 10cm diameter with a red edge.

3.2.3. In installing units, the direction of nozzles should be carefully considered, Induction, Exhaust, Ignition and Fuel pumping systems being the most likely areas for fire to occur.

3.2.4. Where possible sources of fire exist outside the engine or cockpit areas (i.e. front mounted fuel tanks) advice can be sought from Motorsport UK concerning plumbed-in system installations.

3.2.5. All bottles should discharge simultaneously and must be operable in any position of the car even if inverted.

3.2.6. The fitting of a pressure gauge is recommended (mandatory for pressurised AFFF units).

3.2.7. Method of Operation: The preferred method of operation is electrical which should have its own source of energy for triggering, ideally with provision for checking the integrity of the systems triggering circuit.

3.2.8. Mechanically operated systems, if used, should be fitted with 'Total Discharge' valves (i.e. ones that continue to discharge even if the operating mechanism should fail after triggering).

Appendix 3

Recommended for all vehicles. Mandatory for new build vehicles from 1st January 2019 and all vehicles from 1st January 2022.

3.1. Plumbed-In Fire Extinguisher Systems

3.1.1. Where a plumbed-in fire extinguisher system is required the vehicle must be equipped with an extinguishing system in compliance with FIA Standard for plumbed-in Fire Extinguisher Systems in Competition Cars (1999) or with FIA Standard 8865-2015.

The system must be used in accordance with the manufacturer's instructions and with FIA Technical Lists n°16 or n°52.

In rallies, the minimum quantity of extinguishant for systems of FIA Technical List n°16 must be 3 kg.

3.1.2. All extinguisher containers must be adequately protected and must be situated within the cockpit.

The container may also be situated in the luggage compartment on condition that it is at least 300 mm from the outer edges of the bodywork in all horizontal directions. It is prohibited to mount bottles outside the main structure.

3.1.3. It must be secured by a minimum of 2 screw-locked metallic straps and the securing system must be able to withstand a deceleration of 25 g.

Anti-torpedo tabs are required.

The material of the securing system must operate within the -15°C to +80°C temperature range.

All extinguishing equipment must withstand fire.

Plastic pipes are prohibited and metal pipes are obligatory (unless specified otherwise). The system must work in all positions.

3.1.4. The system should have two points of triggering, one for the driver (and Co-driver in Rallies) and one outside the car for activation by Marshals etc.

3.1.5. The driver (and co-driver where applicable) must be able to trigger the extinguishing system manually when seated normally with his safety harnesses fastened and the steering wheel in place.

3.1.6. The triggering point from the exterior must be positioned close to the Circuit Breaker (or combined with it) and must be marked by the letter "E" in red inside a white circle of at least 10cm diameter with a red edge.

3.1.7. Extinguisher nozzles must be suitable for the extinguishant and be installed in such a way that they are not directly pointed at the occupants' heads.

3.2. Hand-held extinguishers

3.2.1. Where a hand-held fire extinguisher is required the vehicle must be equipped with at least one fire extinguisher in compliance with 3.2.2 to 3.2.7 hereunder or with FIA Standard 8865-2015 (Articles 3.2.2 to 3.2.5 hereunder do not apply in the latter case).

3.2.2. Permitted extinguishants:

AFFF, Clean Agent, powder or any other extinguishant homologated by the FIA.

3.2.3. Minimum quantity of extinguishant:

- AFFF 2.4 litres
- FireSense 2.4 litres
- FX G-TEC 2.0 kg
- Viro3 2.0 kg
- Zero 360 2.0 kg
- Extreme 2.0 kg
- Powder 2.0 kg

3.2.4. All extinguishers must be pressurised according with the manufacturer's instructions. Powder extinguishers must be pressurised to 8 bars minimum, 13.5 bars maximum. Furthermore, each extinguisher must be equipped with a means of checking the pressure of the contents.

3.2.5. The following information must be visible on each extinguisher:

- Capacity
- Type of extinguishant
- Weight or volume of the extinguishant
- Date the extinguisher must be checked, which must be no more than two years after either the date of filling or the date of the last check, or corresponding expiry date.

3.2.6. All extinguishers must be adequately protected.

Their mountings must be able to withstand a deceleration of 25g. Furthermore, only quick-release metal fastenings (two minimum), with metal straps, are accepted. Anti-torpedo tabs are required. It is prohibited to mount bottles outside the main structure.

3.2.7. The extinguishers must be easily accessible for the driver and the co-driver.

3.3. During events:

3.3.1. All plumbed-in extinguisher systems must be in an 'ARMED' condition (i.e. be capable of being operated without the removal of any safety device) at all times whilst competing or practising in races or speed events (including during post-event scrutineering), and at all times that crash helmets are worn on rallies (i.e. on Stages etc.).

3.3.2. Any plumbed-in extinguisher system found to be incapable of being operated will be the subject of a report to the Clerk of the Course/Stewards for possible penalty as an offence against Safety Regulations.

3.3.3. Checking for correctly 'Armed' extinguisher systems, should only be carried out by Motorsport UK Scrutineers, and/or Judges of Fact nominated for that purpose.