Technical Bulletin 048 – SFI 17.1 Automatically Activated Systems – Installation Guide

Rev1 01/05/2020

The Lifeline Zero 360 10lbs Automatic systems are certified to meet SFI specification 17.1. A plumbed-in fire extinguisher system is mainly designed to delay the development of the fire and consequently give the driver more time to exit the car. This system is not designed to put out the fire and prevent the car from burning.
The information below provides a guide to installing your chosen system. Unfortunately, due to the variety of vehicles being raced the exact location of the components of the systems cannot be defined by Lifeline; this document provides "best practise" advice suitable most vehicles. Always consult with your series and class safety regulations to ensure that your installation complies with these regulations. If you feel that your installation cannot follow these guidelines, please contact Lifeline Technical for further guidance.

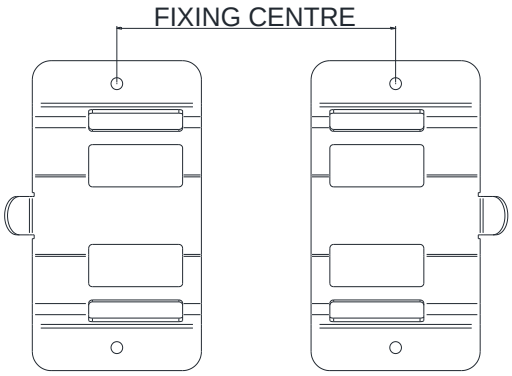
Fully read and understand the instructions below before starting installation. Plan your installation carefully referring to the tables below and the system drawings.

Other References	
TB001	System Care, maintenance and Service
TB003	Novec ™ 1230 MSDS
TB049	Zero 360 SFI – Kit Content and Spares

Section 1 – Cylinder, Bracket and Straps

Item	Fixing Type and No.	Location and Fitting Guide
Cylinder and Bracket	4xM6 nut, bolt and washers. Vibration washers and/or Nylocs are highly recommended. The use of self-tapping screws is not permitted. Anti-Vibration Mounts on all 4 fixing points are highly recommended. It is permitted to replace the bracket and straps with your own design provided it conforms to your series' regulations.	It is recommended to mount transversally in the car and must be within the safety cell/roll cage. The cylinder may also be mounted longitudinally or vertically but **must not be mounted with the head pointed downwards or towards the front of the car as the system may not function correctly.** Refer to Section 5 for recommended cylinder ordination. Servicing label, SFI label and pressure gauge must be visible for inspection. Avoid positions where cylinder is likely to be damaged, abraded or be exposed to excessive heat.

Item	Fixing Type and No.	Location and Fitting Guide



Fixing Centre
8-15/16” – 9-1/8” (227 – 231mm)

Figure 1 - Bracket Fixing Centres

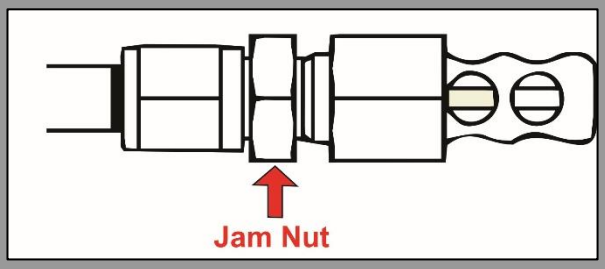
Straps	2x T-Bolt straps/cylinder	Thread through provided slots in brackets and around the cylinder. Tighten T-bolts taking care not to over tighten and damage the cylinder.

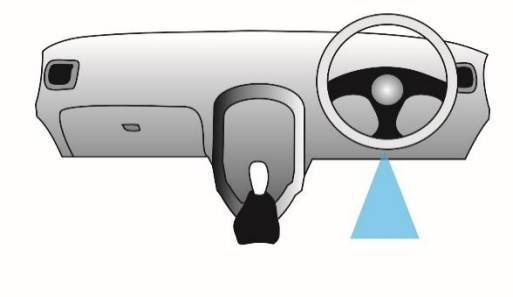
Section 2 – Braided Hose

Fixing Type	Location and Fitting Guide
Cable ties or P’clips as required	The braided hose connected to the cylinder is pressurised at all times. The end fittings **MUST NOT BE LOOSENED.** This may cause the system to discharge or loose pressure. Only adjust the jam nut on the thermostat, as described in Section 3 Referring to section 3 and 5, route the hose to the required location taking care not to create a kink which could restrict flow. Minimum bend radius of the tube is shown below; Lifeline recommend doubling this figure, where possible, to avoid kinking. **Use as few bends as possible for smooth flow of suppressant and best performance.** **Minimum Bend Radius** **4” (100mm)** Secure the tube using cable ties and saddles or P’clips. Where required, drill a Ø 13/16” (20mm) hole to fit the automatic thermostat and hose through a bulkhead. It is recommended to use a rubber grommet to protect the hose where it passes through a bulkhead.

Section 3 – Automatic Thermostat Nozzles

The automatic thermostat nozzles fitted to your system are optimised to flood fill the protected compartment with suppressant when the activation temperature is reached. Always consult your series/class regulations to confirm that your nozzle layout will comply with their rules.

	Bulb Type	Installation
Automatic Thermostat Nozzle	The colour of the frangible bulb determines its activation temperature. • **RED** - 155°F (68°C) • **YELLOW** - 175°F (79°C)	Use the jam nut on the bulkhead fitting behind the thermostat to rididly mount the nozzle to a bulkhead or bracket. Do **NOT** loosen any other nut or fitting on the system. **The nozzle must not be supported by the hose alone.**  Figure 2 - Only adjust the jam nut as indicated. Do not loosen any other fitting or nut on the system

System Type	Cockpit	Engine and Fuel Cell Compartment
10lbs with single nozzle	If placed in the cockpit, the nozzle should be placed under the dashboard pointed downwards into the footwell. Do not point at the driver's head.  Figure 3 - Nozzle Position within Cockpit	If placed in the engine compartment, carefully consider the position of the nozzle to cover the most likely source of ignition; induction, exhaust, fuel pump, injector rail, carburettors, oil lines etc. Do not position the nozzle too close to hot components to prevent accidental discharge. If placed over the fuel cell, position the nozzle to cover areas of potential fuel leaks such as outlets, inlets, filler pipe etc.
10lbs "Late Model" with two nozzles	1 nozzle should be placed in the side of the driver's area. Do not point the nozzle at the driver's head.	1 nozzle should be placed over the fuel cell, position the nozzle to cover areas of potential fuel leaks such as outlets, inlets, filler pipe etc.

Section 4 – System Checking and Maintenance

Item	Procedure
Pressure Gauge	Check that the pressure gauge is in the green zone, pressure in cylinders can vary with temperature due to the expansion and contraction of the suppressant; this is normal.
Automatic Thermostat Nozzle	Check that the nozzle is clean from dirt and debris and that the frangible bulb still contains fluid. If there is no coloured fluid in the bulb the system will not function.
Servicing	In accordance with SFI specification 17.1, every system must be returned to a Lifeline service agent be serviced every two years. The date of next due service will be indicated on the cylinder label. Every system has a maximum life of 6 years and can be refilled and serviced a maximum of 6 times during this life.

Section 5 –System Illustration

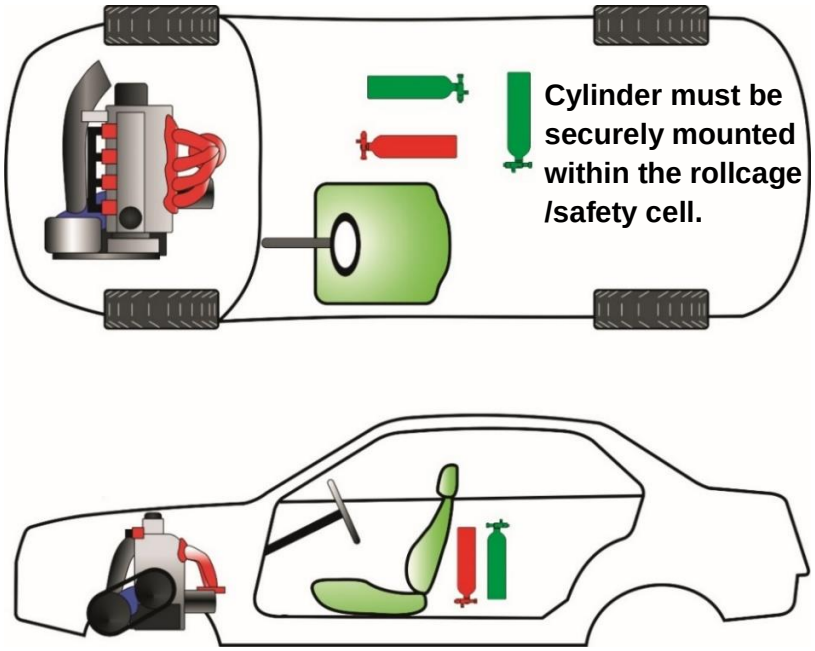


Figure 4 - Recommended cylinder orientation in car. Do not mount with the extinguisher head pointing down or forward.

System Part Number	
System Serial Number	
Date of Manufacture	
Service 1 Date	
Service 2 Date	
Service 3 Date	
Service 4 Date	
Service 5 Date	
Service 6 Date	