



# FIRE SUPPRESSION

Fire suppression for all levels  
of racing and motorsport



Photograph for illustration purposes

## Installation Manual

Model Number: **F-TEC3500EK**

Part Number: **100.000.069.S**

3.5ltr foam system with steel cylinder  
and electric activation

Model Number: **F-TEC4000EK**

Part Number: **100.000.077.S**

4.0ltr foam system with steel cylinder  
and electric activation

# Important Information

This is a foam based, FIA homologated fire suppression system. To maintain optimum performance all systems should be serviced every two years by the manufacturer or an FEV approved service agent, see website for details.

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## **Please read the following before commencing any installation.**

1. This manual should be read and understood before starting installation.
  2. The components supplied should be used in accordance with the installation and any advice FEV provide. If you do not comply with the instructions or any such advice, without limitation, any warranty may be invalidated.
  3. This product should be returned every 2 years from date of last service to FEV or an approved service agent, for a complete check and service – and re-certification for a further 2 years.
  4. The control box does not contain a battery, you will need to supply a 9-volt PP3 battery.
  5. Do not plug the loom into the firing head until the firing button connections are made.
  6. Do not arm your system until you have completed the battery and circuit test as indicated in the 'Setting Up & Operating The System' section on page 6.
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## **Please Note**

FEV FIA approved foam based systems are tested and rated for a temperature operation range of –10 to +60 degrees C in accordance with FIA regulations and Technical List 16. Users should ensure that where high temperatures are anticipated adequate provision is made to locate the system away from high temperature sources (exhaust, catalyst, etc) and if necessary fit reflective insulation around the cylinder.

**THIS IS A SAFETY ITEM! CHECK YOUR INSTALLATION CAREFULLY! IF IN DOUBT ASK!**

**BEFORE EVERY EVENT CHECK SYSTEM CONTENTS, NOZZLES ARE CLEAN AND ALL CONNECTIONS ARE SECURE**

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## **FIA**

It must be emphasised that any plumbed in fire extinguisher system is mainly designed to delay the development of the fire and consequently give the driver and co-driver time to exit the car; the system is not designed to put out the fire and prevent the car from burning.

Please do not tamper with, make changes or use non FEV parts on your new fire extinguisher system as this will invalidate the homologation and affect the performance of the product. If any new parts are needed, please call FEV on 0044 (0) 1243 55 55 66

You will have to purchase a 9volt PP3 battery for the control box.

If any changes have been made to this product from the original specification, it could in effect stop you racing.

# Kit Contents

Qty	Description	Part Number	Drawing Item Number
1	3.5ltr Electrical Cylinder - Filled & Pressurised (F-TEC3500EK) 4.0ltr Electrical Cylinder - Filled & Pressurised (F-TEC4000EK)	100.000.068.S 100.000.076.S	1
2	Cradle Bracket (F-TEC3500EK) Cradle Bracket (F-TEC4000EK)	100.300.016 100.300.018	
2	Strap (F-TEC3500EK) Strap (F-TEC4000EK)	100.500.014 100.500.016	
1	Tech List 16 Carbon Effect Control Box	100.800.061	2
1	Internal Fire Button with Plastic Shroud	100.800.008	3
1	External Fire Button	100.800.005	4
4.7mtr	10mm Aluminium Tubing	100.800.014	5
4.3mtr	8mm Aluminium Tubing	100.800.013	9
2	Small Foam Cockpit Nozzle in Red Aluminium (with Elbow Connector)	100.800.028	8
4	Small Foam Engine Nozzle in Red Aluminium (with Swivel T Connector)	100.800.026	11+12
1	10mm Metal T Connector	100.900.038	7
1	10mm to 8mm Swivel T Connector	100.900.041	10
1	10mm Metal Y Connector	100.900.035	6
8	Aluminium Tube Clips 8mm	100.800.011	
8	Aluminium Tube Clips 10mm	100.800.011B	
1	Large 'E' Label	200.300.005	
1	Small 'E' Label	200.300.005B	
1	Instruction		

# Installation Instructions

## Cradle & Cylinder

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Find a suitable position to bolt the fire suppression system cradle to the vehicle structure **SECURELY**. We recommend M6 bolts with shake proof washers and nyloc nuts to bolt the assembly to the floor.

Please note the system must be installed in accordance with championship technical regulations.

## Plumbing

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### Piping & Connectors

Important: Please note the 8mm and 10mm piping supplied fits into various fittings in accordance with the plumbing schematics found in these instructions. Ensure that all 10mm piping pushes into 10mm connectors by 20mm and that 8mm piping pushes into 8mm connectors by 18mm and that all piping is secured. Note that the supply from the firing head should enter the centre branch of the Y connector and exit the two outlets of the Y connector into the two centre branches of the two T connectors. The two outlets of each T connector then supply four engine nozzles and two cockpit nozzles.

### Cockpit Nozzle

2 x Small foam nozzles with 10mm x ¼ metal swivel elbows should be positioned and secured with 1 nozzle on each side of the dashboard pointing downwards into the floor pan and towards the occupants' foot area, mounted through pre-formed brackets with a 17mm hole. See nozzle positioning diagrams.

### Engine Nozzles

4 x Small foam nozzles with 8mm x ¼ metal swivel T connectors should be positioned and secured in the four corners of the engine bay pointing towards the engine, mounted through pre-formed brackets with a 17mm hole. See schematics for nozzle and plumbing layout.

## Electrical

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### Control Box

Mount the control box in a suitable position where it can be reached by the driver and co-driver, making sure that the LED lights are visible to the driver and co-driver. Please ensure that the wiring loom for the control box is fixed suitably and not trapped anywhere and cannot be damaged or become a hazard.

### Wiring Loom

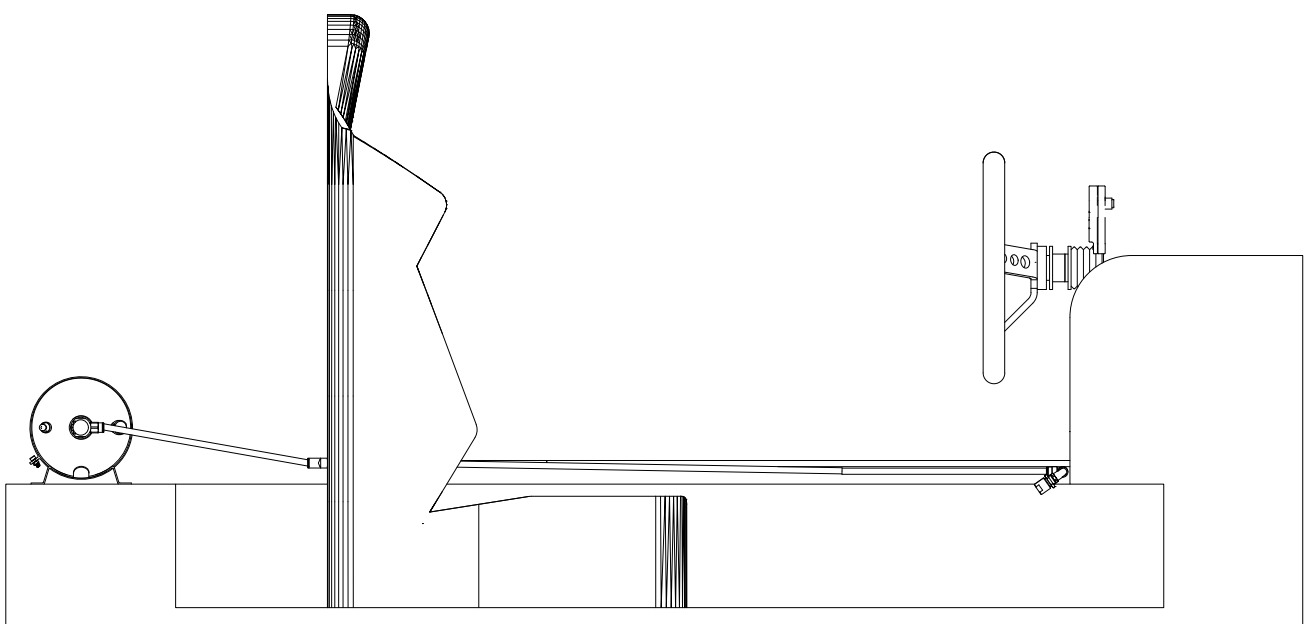
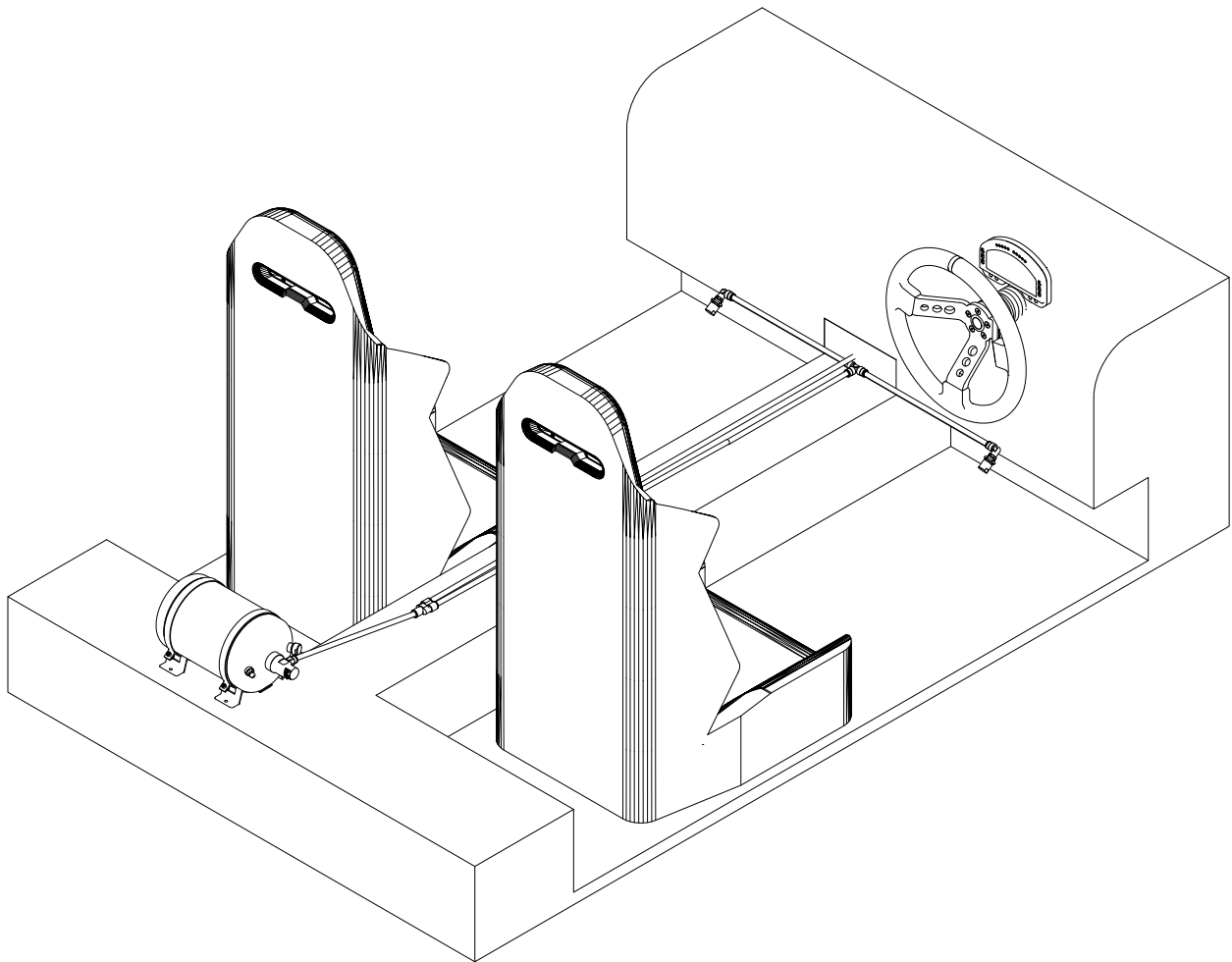
The wiring harness has 2-paired cables with bared ends. Connect the two bared end cables to the two fire buttons (one to each). Either cable can be connected to either button. Install a 9V PP3 type dry battery into the control box. Note: Battery is not supplied.

### Activation Buttons

There are two activation buttons, one internal with a metal shroud and one external. Mount the internal fire button through a 19mm hole to enable operation **in accordance with current regulations** inside the vehicle, within easy reach of the driver and co-driver where applicable. Apply a small E label adjacent to the internal fire button. Mount the external fire button on an outside panel through a 22mm hole, adjacent to the electrical cut off switch. Apply the large E label adjacent to the external fire button.

## Cockpit Nozzle Positioning Diagrams

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# Setting Up & Operating The System

## Notes:

On the control box a 3-position switch selects the function. The up position is ARM and down position is TEST. The centre is OFF.

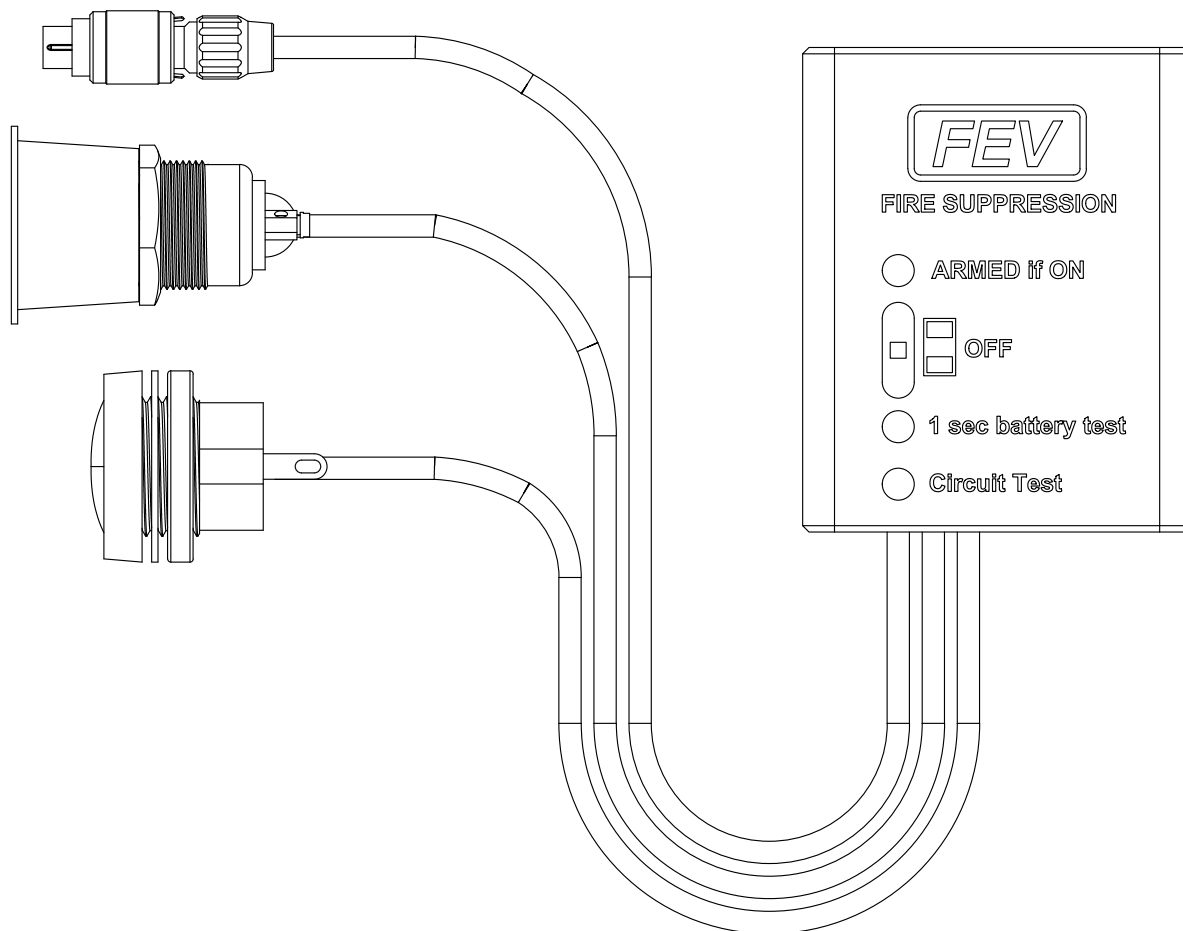
Never press either one of the fire buttons whilst the control box is in the ARM position unless in an emergency! There are two 1.2 metre wires coming from the unit, either or both should be connected to firing push button switches of the user's choice. Making the circuit between the two wires, coloured red and blue **WILL** cause the extinguisher to **FIRE**.



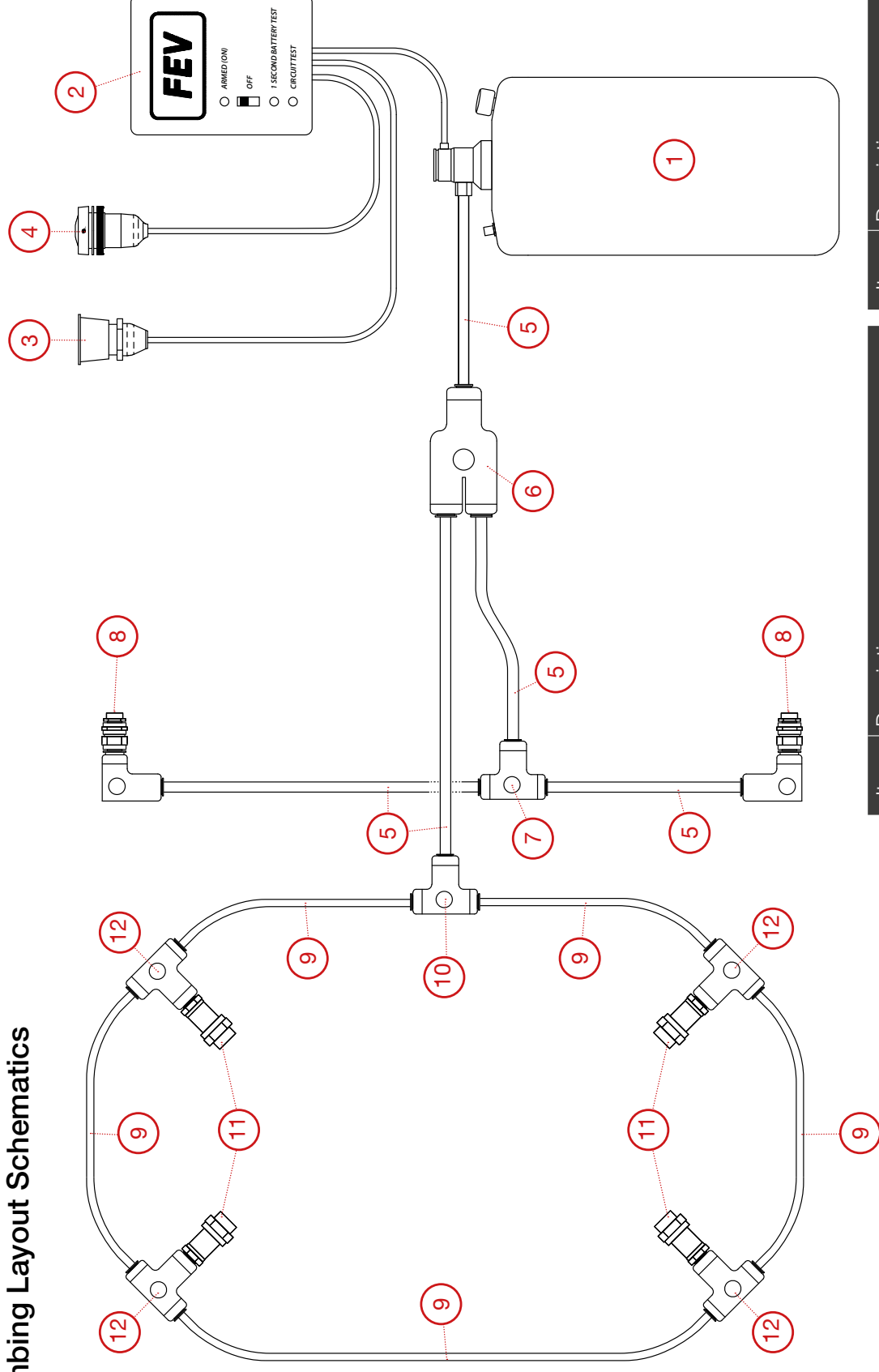
Once all fire buttons are connected and the control box is in the OFF position, take the cable with the male connector and screw it on to the female connector found on the discharge valve of the system. Tighten hand-tight and secure using Loctite 243.

Switch the control box in to the CIRCUIT TEST position, observe that the GREEN LED comes ON for about 1 second and then goes OFF. This signifies a good battery, if the GREEN LED fails to come ON then the PP3 battery must be exchanged for a new one. At the same time the YELLOW LED should stay ON. If the FIRE BUTTON is now pressed the yellow led will go OFF signifying a good circuit.

Only once the CIRCUIT TEST has been completed. Switch the control box into the ARMED position and if the system is okay and active then the RED LED will stay ON. If either the wiring or firing detonator is faulty or the detonator is either not there or has already been fired, then the LED will not light.

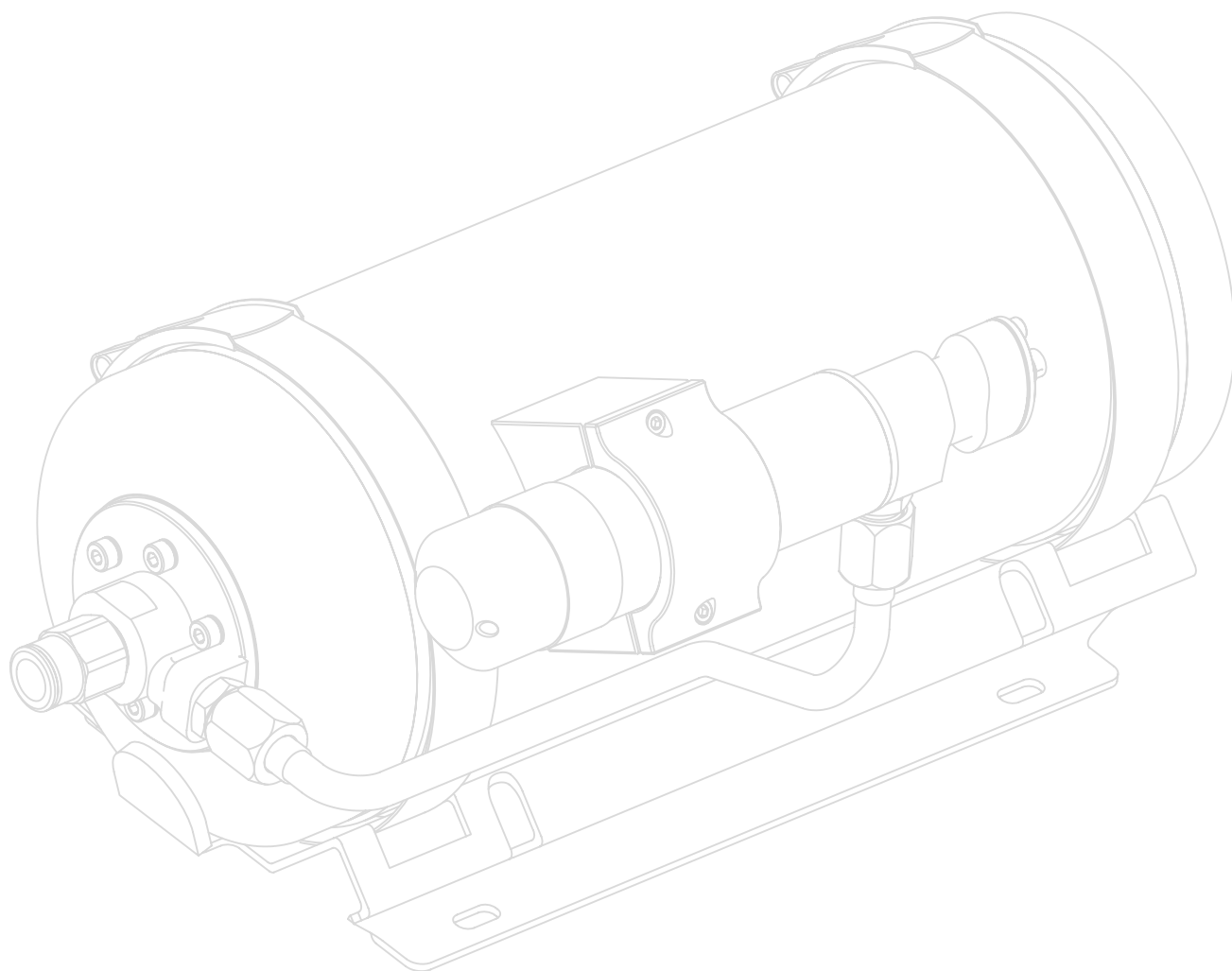


# Plumbing Layout Schematics



Item	Description
1	3.5ltr / 4.0ltr AFFF Electrical Steel Cylinder - Filled
2	Tech List 16 Carbon Effect Control Box
3	Internal Fire Button with Plastic Shroud
4	External Fire Button
5	10mm Aluminium Tubing
6	10mm Metal Y Connector

Item	Description
7	10mm Metal T Connector
8	Small Foam Cockpit Nozzle in Red Aluminium (with Elbow Connector)
9	8mm Aluminium Tubing
10	10mm to 8mm Swivel T Connector
11+12	Small Foam Engine Nozzle in Red Aluminium (with Swivel T Connector)



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