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1 General Operations

This compact, control panel provides operator interactive control of your fire alarm and fixed fire extinguishing system.

This is a MANUALLY ACTIVATED SYSTEM .

The FIP (fire indicator panel) incorporates-

1. A non-monitored Detection zone fire alarm using Linear Heat Detection Cable.
2. Manual actuation is from Panel via switch. The Actuate Switch has a Protective cover to prevent accidental activation. To activate the system flip open the Protective switch cover and push the spring loaded toggle switch.
3. When pressed then the manual release switch will immediately **ACTIVATE** the Fire System. It will also activate the alarm(s) and the Fire LED will flash.
4. Power Supply - The **POWER** supply to the FirePro alarm is designed to operate nominally on 12 to 24vDC supply. If not lighted then power has been interrupted.
5. When a fire is detected by the LHD cable (if Installed), the siren in the FIP will sound and the **RED** fire indicator light will flash. To activate the Fire System lift the cover for the switch and push the toggle switch. The siren will stop once the activation switch has been pushed and the fire indicator light will stay illuminated.
6. FirePro Monitor Indicators -
 - o **Power ON** light illuminated – system okay and ready for activation.
 - o **FIRE** Red light – Fire Alarm.

2 Components



FP-08100
Control Panel



FP-08850
Additional FirePro Activation. Allows for programmable delay on activation.



FirePro Aerosol Generator
100g – 500g Unit. Constructed from Stainless Steel. Comes with installed Deutsch Plug for easy install.



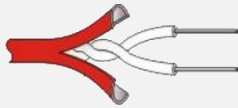
FP-6200
Heavy Duty Bracket 316 SS. Suits FP-100, 200, 500 FirePro Aerosol Generators.



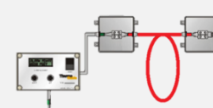
FirePro Aerosol Generator
1200g – 5700g Unit. Constructed from Stainless Steel. Comes with installed Deutsch Plug for easy install.



FP-6100
Heavy Duty Bracket 316 SS. Suits FP-1200, 2000, 3000 5700 FirePro Aerosol Generators.



FP-9510
Linear Heat Detection Cable 182° C



FP-9511
Linear Heat Detection Installation kit. Mounting Clips, 2x Junction Boxes with strain relief cable glands NO EOL as not monitored.



FP-8940
Sounder / Flashing Strobe light.



FP-9500
2 Hour Fire Rated Shielded Cable.



FP-8960
Signage for the System. A sheet of different size labels.



FP-8912
Wiring loom and Splitter Cable for installation of multiple FirePro generators.

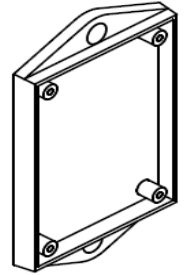


FP-8800
System Test Lamp – this unit simulates a FirePro generator.

3 Installation

3.1 Mounting

The panel is to be mounted vertically by means of two bolts or screw through the mounting holes in the flange on the outside of the FIP, as shown below. No penetrations are to be made through the casing of the panel, except for cable entry. It may be necessary to complete all wiring and any programming of the detection mode prior to mounting the FIP.



3.2 Cable Requirements

All cabling in the FirePro Installation **MUST** be done using 0.75mm shielded Fire Rated Cable. This **INCLUDES** the power supply cable to the FP Control Panel. Components and devices may be mounted to bulkheads or the hull, but **CARE** must be taken to ensure that all cables are isolated, and that RF shielding on cable is stripped back to ensure that there is not accidental grounding or generation of earth loops. All RF shielding from cables **MUST** be grounded by connecting them appropriately in the deutsch plugs.



Cable Stripped of Fire Rated Insulation and RF Shielding



Cable Stripped of Fire Rated Insulation SHOWING RF Shielding



Cable Stripped of Fire Rated Insulation and RF Shielding SHOWING RF Grounding Cable

3.3 Colour Coded Cables

Cables are colour coded for easy identification. When installing system, cables should be only connected to the correctly coded cable.

Colour	Circuit
Red	Power
Yellow	Activation
Green	Detection
Blue	Sounder



In Addition to Color Coding the back of the panel is Marked as shown.

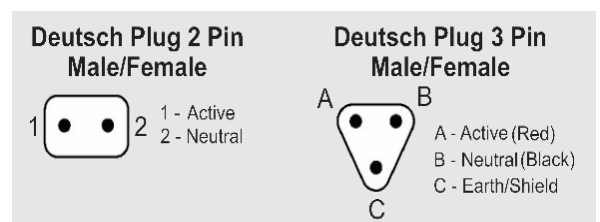
3.4 Extension Leads

When constructing extension leads the supplied Deutsch Plugs must be used to ensure water-proof connections are made throughout the installation.

Cut cable to required length and strip outer insulation to approximately 50mm.

Strip inner insulation to approximately 6mm and using a Deutsch Crimping tool, fix pins to the exposed ends of the cable, including the earth.

Place heat shrink or rubber boot over the end of the cable. Identify correct socket on plug by the

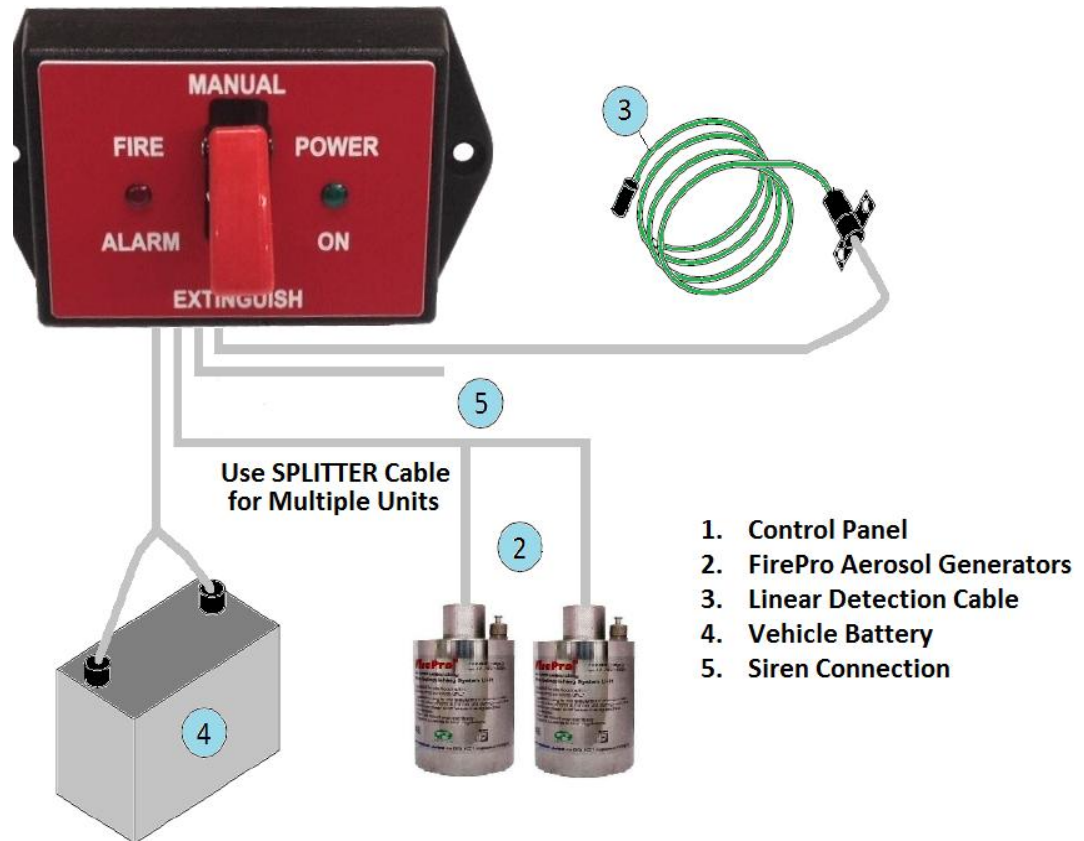


numbers/letter on the side of the plug and push through the gasket at the bottom of the plug until a click is heard and the pin is locked in place.

Place the locking mechanism inside the plug to ensure pins remain secure. (Male plugs the locking mechanism is orange. Female plugs the locking mechanism is green)

Using the heat shrink and rubber boot, seal the back of the plug.

3.5 Wiring Diagram Overview



3.6 Power Supply

Power – 12 to 30vDC

5A fuse or circuit breaker to be installed on incoming power supply.

3.7 Siren / Strobe Unit

Connection available for the installation of an external siren/strobe unit to provide visible and audible alarms. The panel has a small inbuilt siren. The alarm will sound if detection is installed, when the detector reaches an alarm state. The siren can be silenced when the activation switch is operated.

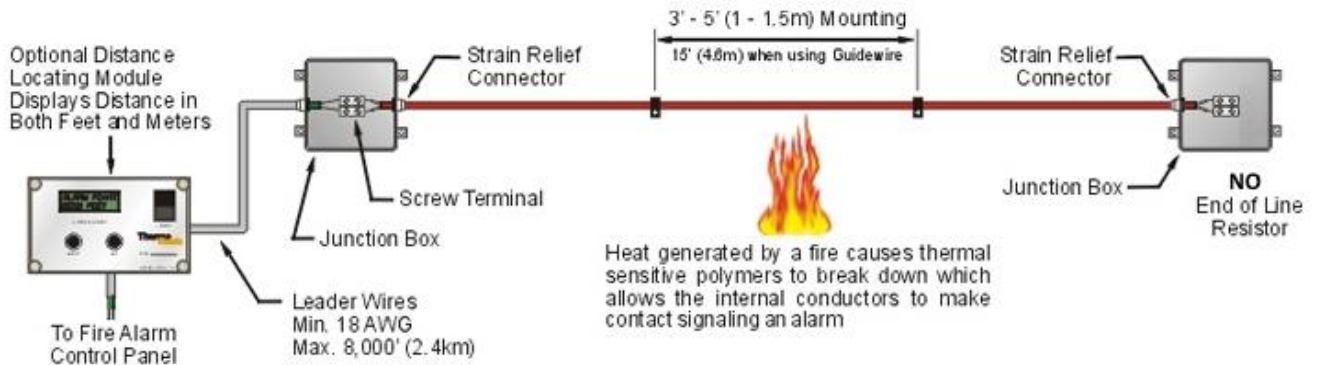
If the panel is being used without detection – the siren will sound when the activation switch is operated.

The maximum no of sirens will depend on the activation current – nominal max 4 units.



3.8 Detection – Linear Heat Detection(only)

The panel may be installed with fire detection or with no detection. If Detection required simply connect the LHD cable to the detection circuit. Linear Heat Detection (LHD) is a line-type form of fixed temperature heat detection used in common commercial and industrial environments. This linear cable can detect a fire anywhere along its entire length. LHD Cable detection systems are



easy to design, install, operate and maintain. Max 500m of LHD Cable can be used. LHD Cable works using a twisted pair, tri-metallic conductors sheathed in advanced thermal polymers. In a fire the LHD insulation will breakdown and make contact, signalling the control panel of an alarm. As the LHD is not monitored by the panel – NO End of Line resistor is required.

The linear cable must be installed appropriately for the risk area.

4 Servicing & Maintenance

The FirePro Suppression system should be serviced at least every 6 months in accordance with AS 1851, more often in aggressive environments. Periodic visual inspections of the installed system must also be conducted by the operators to ensure all installed parts are free from debris, rust, or electrical faults. Six Monthly servicing **must only be undertaken by accredited service technicians.**

**NO PERSONNEL SHOULD BE IN THE RISK AREA DURING
TESTING
UNTIL THE FIP IS FULLY ISOLATED**

4.1 Servicing and Maintenance Procedure

1. Disconnect the FirePro activation circuit (Yellow) at the panel, and connect the FirePro simulator.
2. Visually inspect all installed FirePro Generators, cable, connections, detection devices and siren/strobes. Look for any signs of damage or wear and replace as necessary.
3. Test the function of all connected detection devices. Testing method will depend on the specific device, check product manual if unsure.
4. Test the function of the siren/strobe by putting the detection circuits into alarm and ensure that the siren/strobe can be heard and is illuminated.
5. Activate the system – after ensuring the FirePro Simulator is connected. **Note:** the FirePro Simulator stay illuminated until the reset button on the simulator is pressed.
6. Reconnect the FirePro activation circuit.



4.2 System Logbook

A logbook must be kept, recording all the relevant events concerning the installation. The logbook contains the items required that give a picture and provide for the recording of various things during the life of the installation. In the logbook you will find the following:

Content of logbook:

General details
Devices used
Date of each inspection
Comments re outcome of each inspection

In the appendices of the Logbook:

Schematic diagrams
Photos of the Original FirePro Installation
Inspection reports

5 Operation - Activation

5.1 How Does it Work

All **FirePro** Fire Extinguishing Aerosol Generators use the latest generation SBK solid compound. Upon activation, the solid compound is transformed into a rapidly expanding, highly efficient gas, based on Potassium salts. It does not deplete oxygen levels. **Its built-in fail-safe activation system** ensures operation of the generators when required, even if everything else fails. At 300°C the SBK block changes to a potassium based gas to extinguish the fire.

Ozone Depletion Potential (O.D.P.) = 0

Atmospheric Life Time (A.L.T.) = 0

Global Warming Potential (G.W.P.) = 0




Non-corrosive & Non-toxic

5.2 ACTIVATION – Should the system be activated :

1. Detection will initiate an alarm on the FirePro Marine System and the sounder/strobe will activate.
2. Evacuate all personnel from the protected areas before activation.
3. Close all openings, and shutdown engines and any extraction fans or vents.
4. Press and activation switch on the panel.
5. Keep the FirePro suppression gas within the risk until the fire is extinguished and not able to re-ignite.
6. Do not start engine or fans until the fire is extinguished – otherwise the exhaust fans will restart and gas will escape and could allow the fire to re-ignite.
7. Recommended cleanup after discharge is with soapy water and a cleaning agent based on citric acid.

6 Safety Data Sheet (SDS) FirePro

This is an EXTRACT ONLY from the full SDS. The SDS is prepared by Chemwatch - to view the full SDS go to www.chemwatch.com.au.

	<p>HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.</p>																														
<p>PRODUCT NAME CELANOVA FIREPRO</p>	<p>CHEMWATCH HAZARD RATINGS</p> <table border="1"> <tr> <td>Flammability</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> </tr> <tr> <td>Toxicity</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> </tr> <tr> <td>Body Contact</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> </tr> <tr> <td>Chronic</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> <td style="text-align: center;">■</td> </tr> </table> <p>SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4</p>	Flammability	■	■	■	■	■	Toxicity	■	■	■	■	■	Body Contact	■	■	■	■	■	Reactivity	■	■	■	■	■	Chronic	■	■	■	■	■
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<p>PRODUCT USE Fire extinguishing agent.</p>	 																														

POISONS SCHEDULE - None

RISK	SAFETY
<ul style="list-style-type: none"> Contact with combustible material may cause fire. Harmful if swallowed Irritating to eyes and skin. May cause SENSITISATION by skin contact. Harmful to aquatic organisms may cause long-adverse effects in the aquatic environment. Cumulative effects may result following exposure May produce discomfort of the respiratory. system* Possible respiratory sensitiser*. May possibly affect fertility* (limited evidence). 	<ul style="list-style-type: none"> Keep away from combustible material Avoid exposure - obtain special instructions before use. To clean the floor and all objects contaminated by this material use water and detergent. Keep away from food drink and animal feeding stuffs. In case of contact with eyes rinse with plenty term of water and contact Doctor or Poisons Information Centre. If swallowed IMMEDIATELY contact Doctor or. Poisons Information Centre (show this container or label). This material and its container must be disposed of as hazardous waste.

FIRST AID MEASURES

SWALLOWED	<ul style="list-style-type: none"> If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.
EYE	<ul style="list-style-type: none"> If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
SKIN	<ul style="list-style-type: none"> If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
INHALED	<ul style="list-style-type: none"> If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear passage of breathing. If irritation or discomfort persists, seek medical attention.

7 Specifications

Size of Dash Panel	125mm (w) x 95mm (h)
Size of Dash Cutout	105mm (w) x 68mm (h) Min clearance behind Panel 80mm
Max Number of FirePro Units	12v - 2 FP Units 24v – 4 FP Units
Power Supply	12-24vDC
Fuse for Power Supply	5A
Max Length of Linear Heat Detection	50m