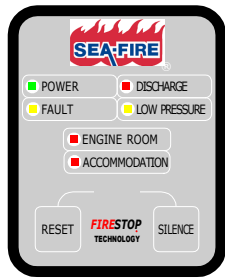
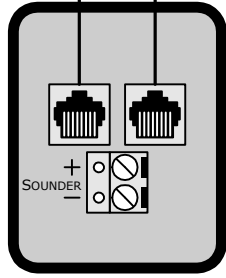


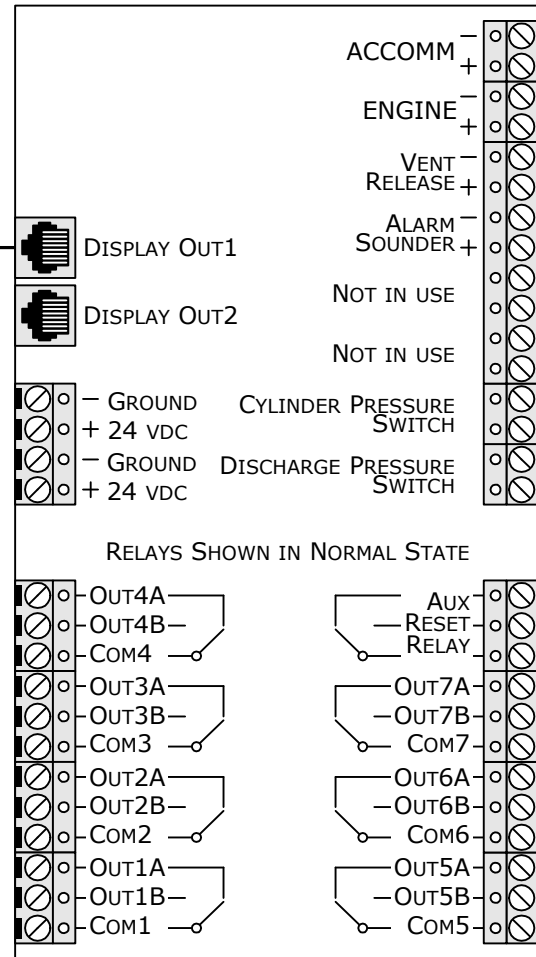
**FIRE CONTROL PANEL TYPICAL INSTALLATION**



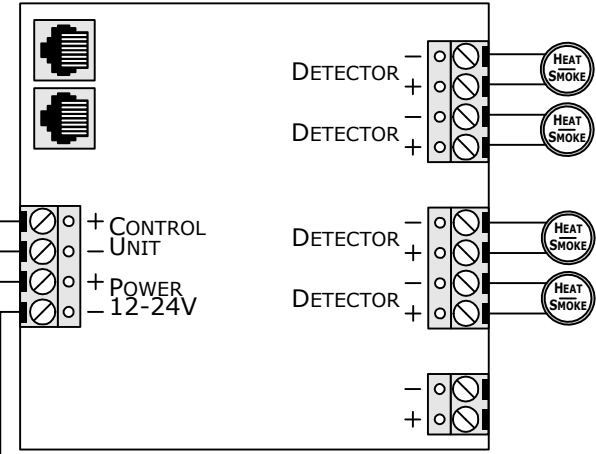
**131-510 - DISPLAY PANEL**



UP TO 4 DISPLAYS



**131-500 - CONTROL UNIT**



**131-520 - ADAPTER**



THE FIRESTOP FIRE CONTROL PANEL (FCP) IS A LOW VOLTAGE FIRE DETECTION AND CONTROL SYSTEM DESIGNED FOR USE IN THE MARINE AND OTHER TRANSPORT MARKETS.

THE FCP INTEGRATES FIRE EXTINGUISHER MONITORING, FIRE DETECTION AND MACHINERY SHUTDOWN CONTROL IN A MODULAR DESIGN THAT CAN BE EXPANDED TO MEET THE REQUIREMENTS OF A WIDE RANGE OF APPLICATIONS.

**FEATURES**

- ✓ 12/24 VOLT DC
- ✓ EARLY DETECTION AND WARNING OF FIRE - 2 ZONE WITH ZONE IDENTIFICATION PANEL
- ✓ FULL MACHINERY SHUTDOWN MANAGEMENT WITH 7 RELAYS PLUS 1 AUXILIARY RESET RELAY
- ✓ COMPREHENSIVE FAULT MONITORING
- ✓ CYLINDER PRESSURE AND DISCHARGE MONITORING OF EXTINGUISHER
- ✓ STRATEGICALLY PLACED DISPLAY PANELS THROUGHOUT VESSEL

## OPERATION

### Normal monitoring mode

During normal operation, the FireStop Fire Control Panel (FCP) monitors detectors in 2 zones, monitors the Sea-Fire extinguisher for pressure and discharge, and monitors for faults.

During normal operation the green Power LED will remain lit.

### Machinery shutdown

In the event of a discharge of the Sea-Fire extinguisher, either automatic or manual release, the FireStop FCP will initiate a shutdown of up to 7 machinery circuits. These will typically include: engines, generators and ventilation.

Machinery shutdown will ensure that the extinguishing agent in its proper concentration will remain in the enclosed compartment and not be ingested or fuelled by the running machinery.

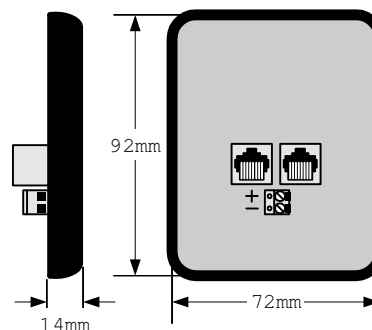
A reset button on the control panel enables the machinery to be restarted.

During discharge of the cylinder, an alarm sounds and a LED on the control panel will confirm low pressure/discharge. Pressing the silence button will silence the alarm.

### Fire detection

The FireStop Fire Control Panel has two detection zones.

1. **Engine room** - When heat is detected as present by the engine room detector, the fire alarm will sound and the red Engine Room LED will flash on the Display Panel. In addition, the red Engine Room LED on the ZIP panel will flash.
2. **Accommodation** - When smoke is detected by one of the Accommodation detectors, the fire alarm will sound and the Accommodation LED on the Display Panel will flash. In addition the location of the detector in alarm will flash on the ZIP panel.



### Adapter card

The number of detectors on each zone can be increased via use of the Adapter Panel.

The adapter cards can support a mixture of smoke and heat detectors.

### Silencing and Resetting Fire Alarm

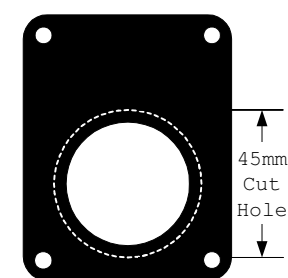
In the event of a detector activating, an alarm will sound and a red LED will flash on the Display Panel and the ZIP Panel. The alarm can be silenced by pressing the Silence button on the Display Panel. The detectors can be reset by pressing the reset button. A successful detector reset will only happen if it is clear of heat, smoke. If the detector is not clear, it will go into alarm again.

### System fault monitoring

The display panel gives an audible and visual indication for the following faults:

- Cylinder pressure
- Short circuits
- Line faults

If a fault develops, the fault light will flash on the display panel and an alarm will sound every 60 seconds. If the fault is with the power, detector or pressure switch circuit then the corresponding light will flash on the display panel as well. If the fault is with an accommodation detector then the location of the fault will be shown by a flashing LED on the ZIP Panel. Check component wiring and press reset to clear the fault.



### 131-510 - FRONT DISPLAY, SIDE, REAR AND GASKET WITH CUT GUIDE

## INSTALLATION

### HARDWARE

#### Display Panel

Select an accessible location at the helm station for installation of the Display Panel. Using the gasket template supplied, drill the four fixing holes and the 45mm central hole for the connection plugs. (See diagram above)

It is recommended that the Display Panel is placed loosely next to the Control Panel during the wiring installation. As each component is fitted, the Display Panel will confirm that the installation is correct by remaining fault free. After successful installation, the Display Panel can be secured in the correct location with the fastening kit supplied.

#### Control Panel

The Control Panel should be installed in a convenient location accessible to the ignition wiring and power.

#### Adapter Card

The Adapter Card should be installed in a convenient location where the connections from the detectors can be made.

#### Zone Identification Panel

Use template provided to mount in convenient location.



ELECTRICAL CONNECTIONS - refer to schematic

As a minimum use No.16 AWG (SAEJ3788 & J1128) copper wire conforming to the ABYC standards for marine use on all wiring applications.

**Input and Output terminals**

Connect the Display Panel (131-510) to the Control Unit (131-500) by using the CAT5 cable provided. Either RJ45 plug may be used. Connect the ZIP Panel (123-207) to the Control Panel. Additional control panels can be connected to the second RJ45 socket on the first Display Panel or ZIP Panel.

Connect 24 volt to the power terminal. Observe correct polarity. There are two power connectors allowing power to be taken from two independent battery supplies. It is recommended that the Fire Control Panel is connected to a 3 amp breaker at the distribution panel.

Connect cylinder supervisory pressure switch. There is no polarity for this connection. Remove EOL resistor and fit at cylinder pressure switch.

Connect cylinder discharge pressure switch. There is no polarity for this connection. Remove EOL resistor and fit at cylinder pressure switch. Ensure that the Common and Normally Closed contacts are used. The relays energise and change state when the discharge pressure switch opens.

**Detectors.** Connect to Control Unit or Adapter Panel (See diagram page 5). Observe correct polarity. Positive to terminal 2 , negative to terminal 5 on detector base.

The detectors are grouped, with one adapter panel acting as a hub for four detectors. A single Cat5 cable connects this group of detectors to the ZIP Panel.

Remove 47k resistor from board terminal unless unused. 47k EOL resistor should be used on last engine room detector.

**Adapter Card.** Connect ground to the power terminal. The positive from the adapter should be wired through the normally closed contacts of the auxiliary reset relay 24 Vdc. Connect adapter to the control unit observing correct polarity. Where multiple Adapter Panels are being used, they should be wired in parallel via the single terminal output. (See diagram page 4)  
Ensure that 47K resistors are in place on unused terminals.

**Vent release.** This output allows for an electromagnetic release to be connected to the control unit. During discharge, the output will deliver a current of 2 amps for 5 seconds. Observe correct polarity.

**Warning sounder.** If required fit Alarm sounder. Observe correct polarity. Additional sounders can also be fitted at each display panel. 24 volt.

**Zone Identification Panel (ZIP)**

The ZIP panel has four RJ45 sockets on the rear for connecting to the Adapter Panels. These sockets are labelled 1 to 4. Connect the corresponding numbered Adapter Panel via Cat 5 cable.

**Machinery shutdown relays**

There are seven relays for machinery shutdown rated at 16 amps. The relays are not energised in normal standby mode. Do not exceed the relay rating.

**Gasoline engines**

Gasoline engines may be shutdown by interruption of the primary ignition power from the key switch to the ignition coil. Terminals A and COM would be used in this case.

**Diesel engines**

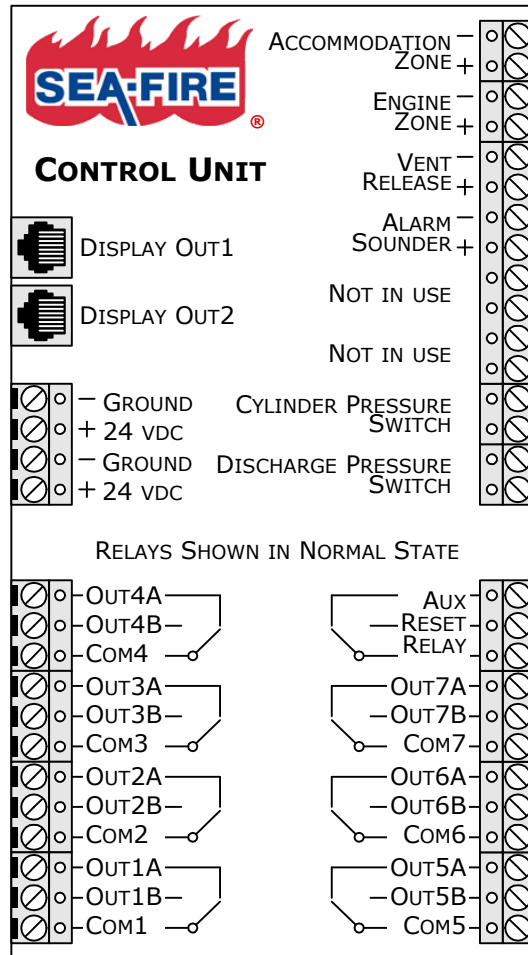
There are two common methods for shutting down diesel engines.

1. Fuel solenoid valves that are *energized to open* on start up, and de-energized to shutdown. Terminals A and COM would be used in this case.
2. Fuel solenoid valves that are *open when de-energized* and energized closed to shutdown. Terminals B and COM would be used in this case.

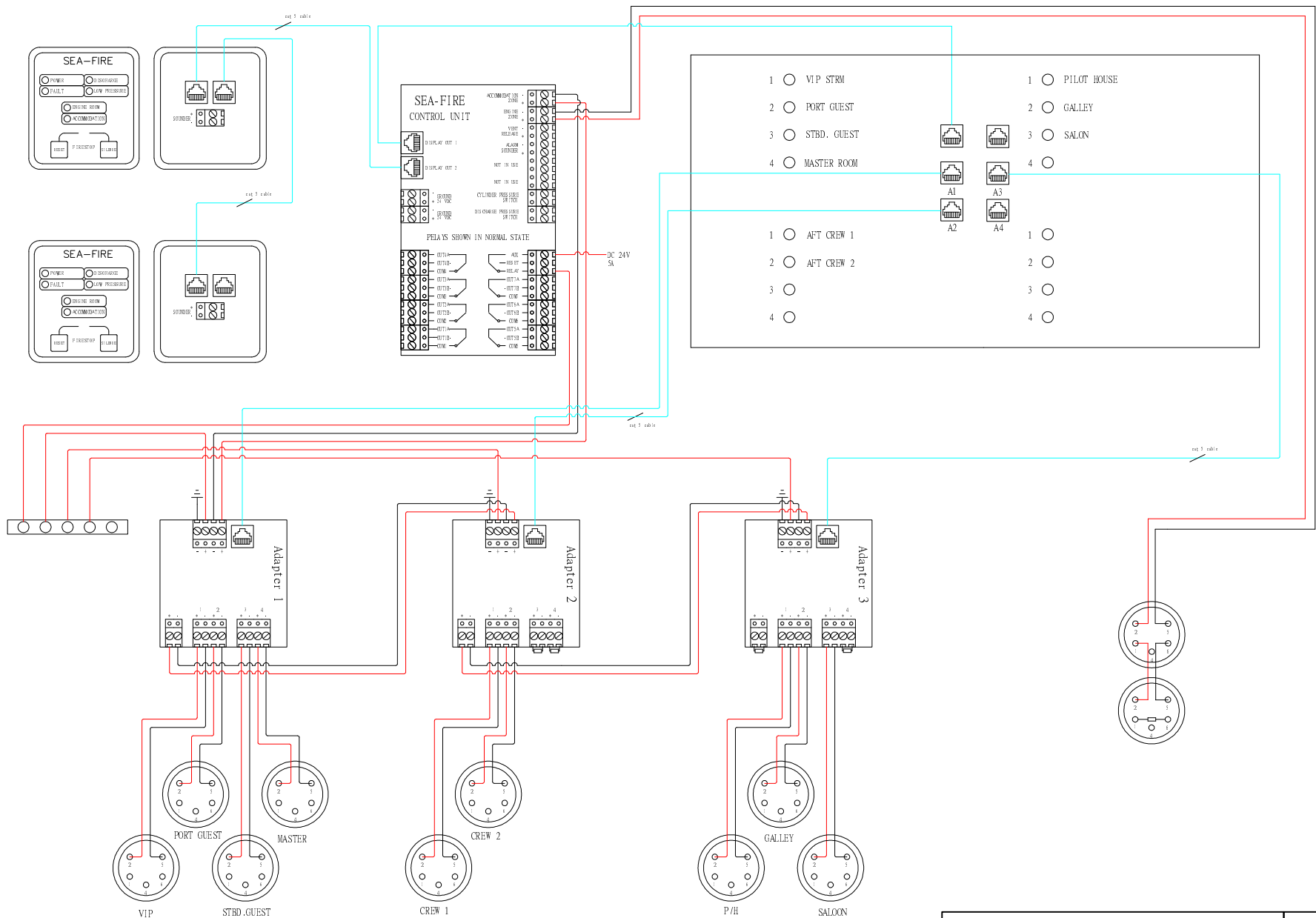
When using method number 2, it is recommended by some engine manufacturers to limit the shutdown activation (energized) time applied to the fuel solenoid. In this type of application please contact Sea-Fire.

**Ventilation**

In most cases the ventilation will be stopped by an interruption of power. Terminals A and COM would most commonly be used.



**131-500 - CONTROL UNIT**



205

135

# FIRESTOP ZONE CONTROL PANEL

<input type="radio"/> POWER	<input type="radio"/> VIP STATEROOM	<input type="radio"/> PILOT HOUSE
<input type="radio"/> FAULT	<input type="radio"/> PORT GUEST STATEROOM	<input type="radio"/> GALLEY
<input type="radio"/> DISCHARGE	<input type="radio"/> STBD GUEST STATEROOM	<input type="radio"/> SALOON
<input type="radio"/> LOW PRESSURE	<input type="radio"/> MASTER STATEROOM	
<input type="radio"/> ENGINE ALARM	<input type="radio"/> AFT CREW 1	
<input type="radio"/> ACCOMM ALARM	<input type="radio"/> AFT CREW 2	
<input type="button" value="RESET"/>		
<i>FIRESTOP TECHNOLOGY</i>		
<input type="button" value="SILENCE"/>		

PRESS RESET TO RESTART MACHINERY AFTER SHUTDOWN



PART NO. 123-207

