

FIREPACTM 360

TOTAL PROTECTION = MORE FLYING TIME 

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Document No. _____.

INTRODUCING FENWAL FIREPAC SYSTEMS

The Fenwal FIREPAC* system includes one or more self-contained light weight, rugged, portable fire protection units, each containing detection and Halon 1301 extinguishment.

Each system consists of a number of independent units. Each unit plugs into another to form the system. Fire detection is by rate compensated thermal detectors. Any one detector activates the extinguishing portion of all units incorporated in the system.

Each FIREPAC 360 unit will protect about 1500 cubic feet of volume.

When on station, an electrical connection to the plant power and protection system provides for continuous battery charging and both alarm and warning signal transmission.

The system can operate independently of power connection for periods of up to 7 days.

While rate compensated thermal detectors trigger the system, ionization detectors (optional) send a warning of undesirable smoke conditions in the cabin.

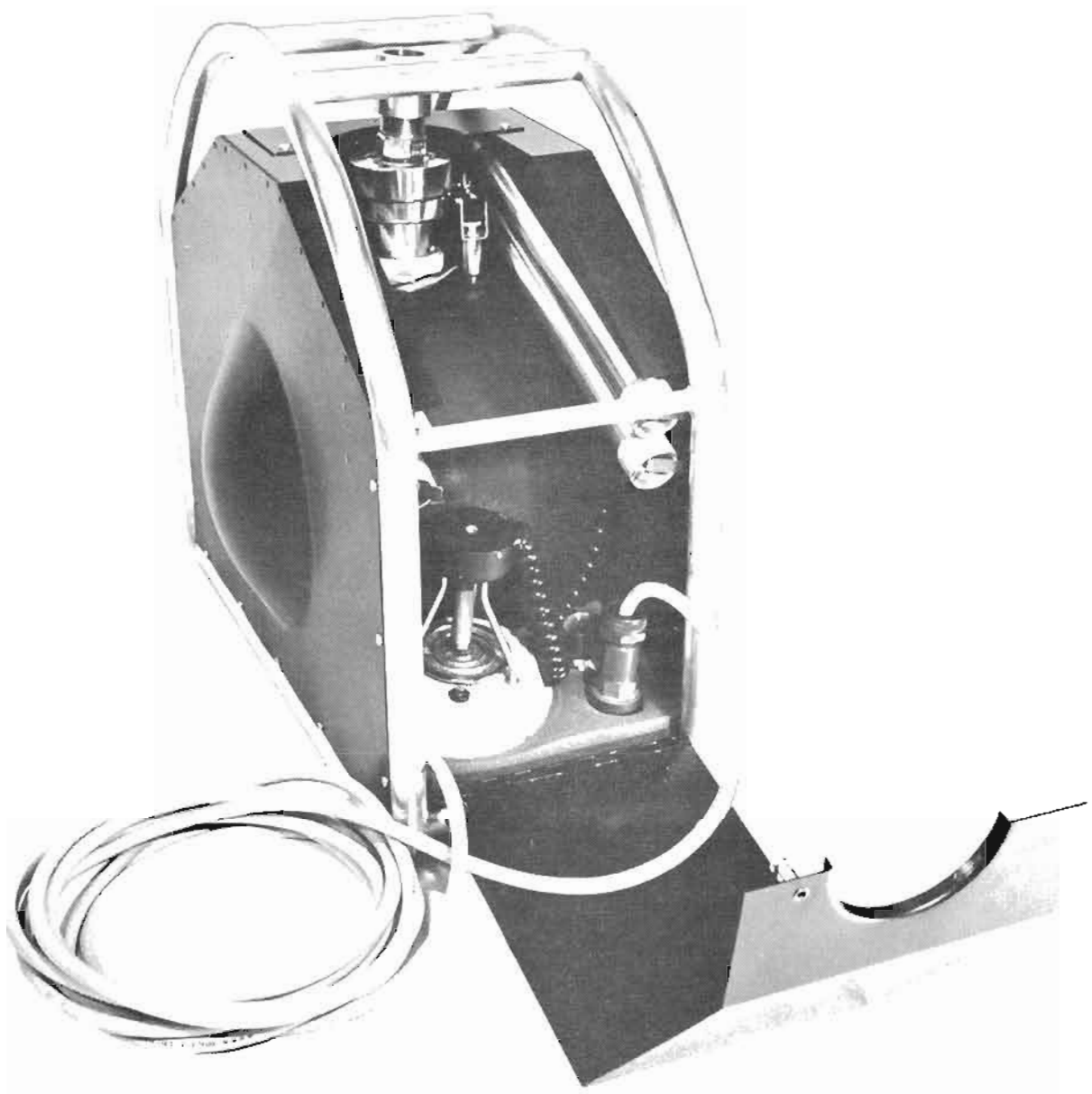
Units have been designed for maximum reliability and minimum maintenance.

The FIREPAC system design provides flexibility for use in future aircraft or any area containing high value densities or transient inventories.

*FIREPAC -- Trademark of Fenwal Incorporated, Ashland, Mass., Division of
Walter Kidde & Company, Inc.

The FIREPAC 360 unit is ---

- Lightweight - Completely portable -- one man can set it up in the time it takes to read this page.
- Small - Small enough to fit in tight places -- Cockpits - Lavatories - Galleys
- Adaptable - Mast extends to reach high ceilings in aircraft cabin or is lowered to adapt to smaller areas such as aircraft baggage compartments.
- Rugged - Manufacturing and maintenance personnel will be hard put to damage it.
- Fast - Detects fires with rapid Fenwal detectors.
- Versatile - Can be used by itself or connected to other FIREPAC 360 units to form a larger system. Six FIREPAC 360 units will cover the cabin area of the Standard DC-8 or 707.
- Self-Contained - The FIREPAC 360 unit can operate independently from external power. Like an automatic toothbrush, plug it in to recharge the batteries.
- Reliable - FIREPAC 360 units contain Fenwal's proven aerospace and industrial reliability.



FIREPAC 360 UNITS ARE SELF-STORING

When not in use, the FIREPAC 360 unit is self-storing. Detectors, mast sections, and umbilical cable all sit securely within locked FIREPAC 360 housing, providing a space-saving, compact package.

THE FIREPAC SYSTEM

The FIREPAC Protection System consists of two essential units and an optional one. Essentials are: the FIREPAC 360 Units and the FIREPAC Alarm Station with the System Control Module (SCM). Optional is: the Manual Actuator.

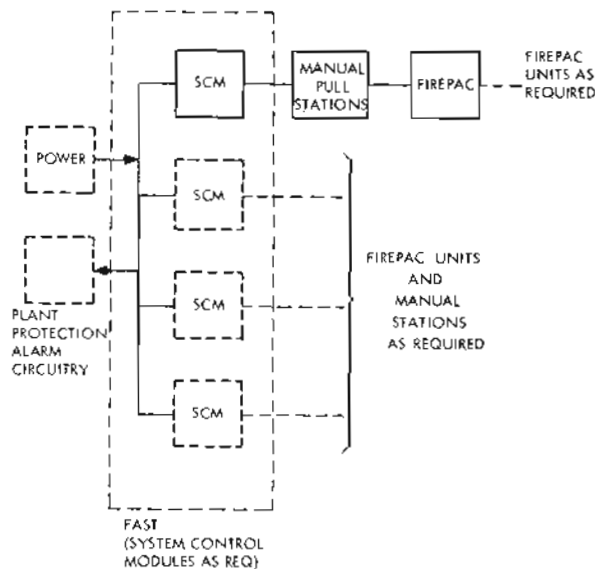
The FIREPAC Alarm Station is permanently mounted at the site or station where the system will be needed. The Manual Actuator (optional) is plugged in. The proper number of FIREPAC 360 units are placed aboard the fuselage. They are spaced within the fuselage at 15-foot intervals. The umbilical of the first is connected to the Manual Actuator. The umbilical of each successive unit plugs into the preceding unit until the last unit is connected and an "end-of-line unit" inserted.

The detector and spreader mast are then raised to the fuselage "ceiling".

The system is now operational. It takes four man-minutes to set a unit and raise the mast. Where eight units are required, this represents 32 man-minutes for movement of the units into the aircraft and positioning them.

The FIREPAC protection remains on board from the moment the system is activated until it is removed.

Removal of the system averages about four man-minutes a unit.



SYSTEM BLOCK DIAGRAM

THE FIREPAC SYSTEM AT WORK PROTECTING YOUR INVESTMENT

Usually aircraft being built or maintained occupy specific ground positions. A FIREPAC Alarm Station (FAST) will support any number of aircraft and provide:

An umbilical cord to the FIREPAC 360 units aboard the aircraft.

Visible and audible indications of alarms as well as alarm transmission.

Visible and audible indications of system trouble signals as well as trouble transmission.

Visible indication of system "Circuit ON" and system "Power ON".

Controls to permit:

- Audible Alarm Silencing
- Trouble Alarm Silencing
- Routine Ramp Umbilical Disconnect

At each plane position a readily accessible exterior Manual Actuator permits manual system operation and simultaneously initiates the alarm signal.

The system within the aircraft comprises a sufficient number of interconnected FIREPAC 360 units to insure protection of the enclosed volume. A single FIREPAC 360 unit protects 1500 cu. ft.

FIREPAC system installation or removal requires less than 1 man-hour, a single unit can be relocated in less than 1 man-minute.

Protection is continuous from installation to removal. While on station the units operate from ground power and automatically report alarms and system trouble. While off station, the units operate from battery power and sound a local alarm.

Power Supplies

Two sources of power are used. Primary power comes from a rechargeable nickel-cadmium battery in the FIREPAC 360. Power to recharge batteries is 110 volts 60 Hz from the FIREPAC Alarm Station. Batteries are available in 2-day or 7-day sizes. The battery supply operates the units. Power consumption is less than 5 VA for the FIREPAC Alarm Station and less than 5 VA for each FIREPAC 360 unit.

Trouble Signals

Trouble signals are sent when:

- Smoke is in the protected area
- Any conductor umbilical in the cable is broken
- A unit umbilical cable is disconnected
- Battery voltage is inadequate
- Halon pressure is inadequate
- Unit power is off
- Coil cable to detector is broken

Alarm Signals

Alarm Signals are automatically sent on system activation.

Extinguishant

Thirty pounds of Halon 1301 is stored in a sphere. It is released by a squib-operated valve through a mast to a spreader which discharges it uniformly throughout the protected volume.

Mast

The mast for the agent also supports the detector on the standard unit. This sectionalized mast can be extended from 42 inches to 96 inches. The spreader can be located on top of the unit with the detector adjacent to accommodate volumes as small as the unit itself.