



# F120 Fan Control System

*Advanced automatic control of AS1668 smoke control and air handling systems.  
Flexible, economical, user-friendly installation, configuration, and operation.  
Fully compatible with the Pertronic Network.*

## Product Overview:

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The **Pertronic F120 Fan Control System** is used with the F120A Pertronic analogue addressable fire alarm control panel to monitor and control fans associated with AS1668-compliant smoke control or air handling systems. The system automatically controls fans, dampers, louvers, and other air handling devices based on the state of detectors, controls and mechanical building services.

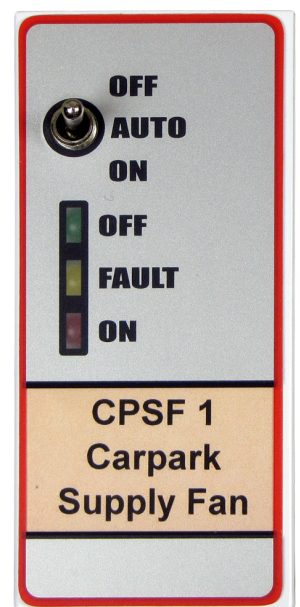
The **F120 Fan Control System** consists of configurable **Fan Control Block** software in the fire alarm control panel, together with a range of fan control units. These components control and monitor air handling devices through analogue addressable input/output modules such as the M500DMR, interfaced with the relevant mechanical services switchboard(s).

Fan control units are easy to install and configure. Usually they are mounted on the fire alarm control panel. However, because fan control units are connected to an analogue addressable loop, they are easily installed in separate cabinets, remote from the fire alarm panel. The fan control units do not need to be wired to the same loop as their associated input/output modules.

The easily programmed and highly capable **Fan Control Block** software is well-proven on the largest and most complex projects. The software implements control and timing features specified in AS/NZS1668. Each individual fan control block may be configured to satisfy the specific requirements of the associated air handling device.

Pertronic **F120 Fan Control Block** software is fully compatible with the **Pertronic Network**. Air handling and smoke control systems built with the **F120 Fan Control System** can be monitored from connected F120A panels or Pertronic FireMap workstations.

Installation and configuration should be undertaken in conformance with the requirements of AS/NZS1668.



**F120 Fan Control  
Switch Unit**

## Features:

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- » Monitors and controls fans in AS1668-compliant smoke control and air handling systems
- » Controls AS1668 fans through a building services interface
- » Fully compatible with the **Pertronic Network**
- » **Fan Control Block** software in the Pertronic F120A fire alarm control panel implements timing and control functions to AS1668
- » Configurable for **Clean Air** or **Smoke Exhaust and Pressurisation** operation
- » Configurable for **Cascade** or **Non-Cascade** operation
- » Multiple control option allows several fans to be controlled from a single **F120 Fan Control Unit**
- » A detailed record of fan control system events is stored in the fire alarm panel history log
- » Each fan control unit has a window for a slide-in label

## Control Units:

### F120 Fan Control Switch Unit (F120FCSU)

Incorporates a three-position **Mode** switch (OFF, AUTO, ON) and three **Fan State** LEDs.

### F120 Fan Control Slave Unit (F120FCSLVSU)

Similar to the AAFCU control unit, this unit has the **Fan State** indicator LEDs, but not the three position mode switch.

The F120 Fan Control Slave Unit is used when several fans are controlled from a single **Mode** switch. One fan control unit (F120FCSU) controls the OFF – AUTO – ON modes for all fans, together with the LED indication for its associated fan. Each additional (slave) fan requires one fan control slave unit for the LED status indication.

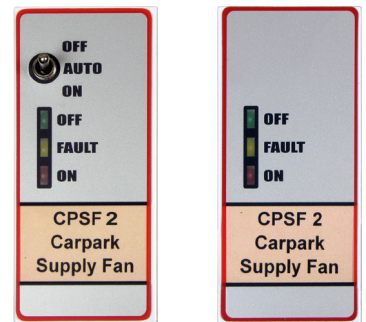
#### Functions:

Three-position **Mode** toggle switch:

- » OFF Fan is turned OFF Manually
- » AUTO Fan is controlled by the Fire Alarm Control Panel
- » ON Fan is turned ON Manually

Indicators LEDs, **Fan State:**

- » OFF Indicates the fan is OFF
- » FAULT Indicates the fan is in a Fault state
- » ON Indicates the fan is ON and running



### AA Fan Control Reset Unit (AAFCRST)

This control unit is used to unlatch a **Fire** state in the **Fan Control Block**. The reset unit is needed when the **Fan Control Block** is configured to **Latch**, because in this mode the **Reset** switch is the only means of clearing the latched state of a fan.

#### Functions:

Momentary **Reset** switch:

- » RESET Resets a fan latched in **Fire** mode

Indicator LEDs:

- » NORMAL Indicates the fan is NOT in **Fire** mode
- » FIRE MODE Indicates the fan is in **Fire** mode



### F120A Damper Control Switch Unit (F120DCSW, DAMPCONSW)

The **Damper Control Switch Unit F120DCSW** incorporates a **Mode** switch (OFF, AUTO, ON) and three **Damper Status** indicator.

A **Damper Control Switch without LEDs (DAMPCONSW)** (not shown in the photo) is also available.

### F120A Damper Control Slave Unit (F120DCSLSW)

The **Damper Control Slave Unit F120DCSLSW** includes the **Damper Status** indicator LEDs but excludes the **Mode** switch. The slave unit is used to provide individual status indication where multiple dampers are controlled by a single damper control switch, similar to the use of the F120 Fan Control Slave Unit (see above).

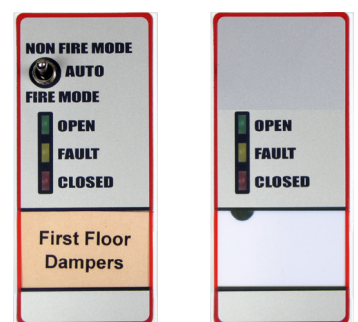
#### Functions:

Three-position **Mode** toggle switch:

- » NON-FIRE MODE Damper in **Non-Fire** mode
- » AUTO Damper is controlled by the Fire Alarm Control Panel
- » FIRE MODE Damper in **Fire** mode

Indicators LEDs, **Damper Status:**

- » OPEN Indicates the Damper is OPEN
- » FAULT Indicates the Damper is in a Fault state
- » CLOSED Indicates the Damper is CLOSED



## Generic Control Toggle Switch (GENCONSU)

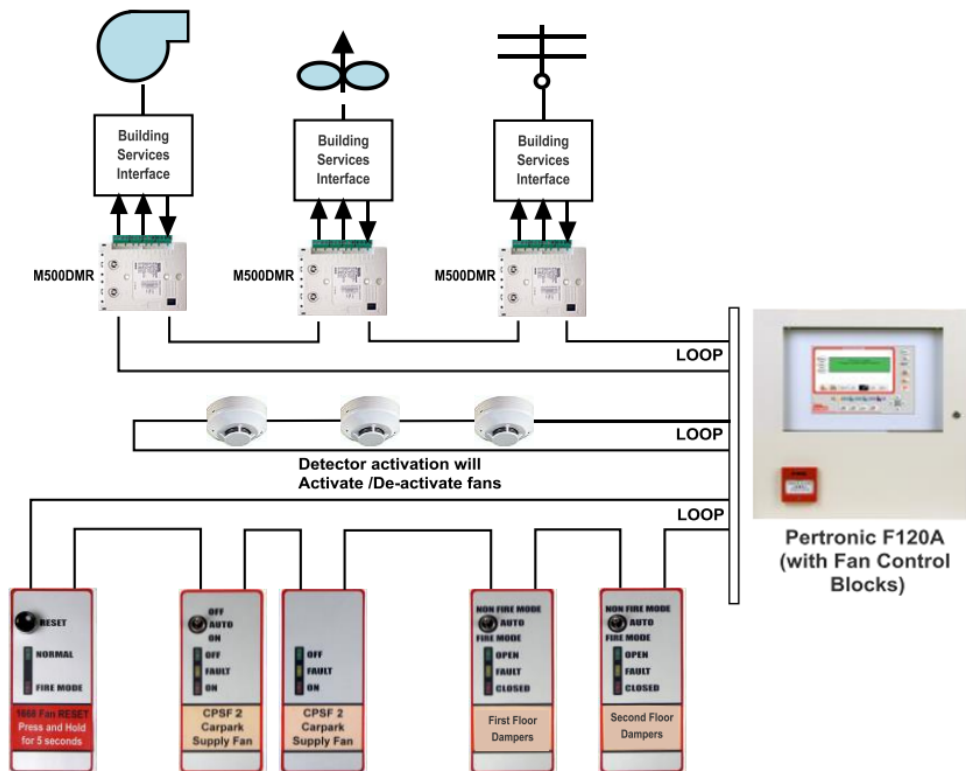
This switch unit is used with F120 Fan Control Blocks to control additional smoke control or air-handling output devices. The unit features a three position toggle switch and Off-FAULT-ON indicating LEDs that monitor feedback to ensure the output has activated correctly.



## Specifications:

- » Dimensions (typical) 35 x 85 x 60 W x H x D mm
- » Current consumption
  - F120 Fan Control Switch Unit 10 mA loop-powered, one LED ON
  - AA Fan Control Reset Unit 7 mA loop-powered

## Basic System Layout:



## Ordering Information:

Part Number	Description
GENCONSU	Generic Control Switch Unit
F120DCSW	F120A Damper Controller Switch Unit
F120DCSLSW	F120A Damper Controller Slave Switch Unit
DAMPCONSW	Damper Control Switch without LEDs
F120FCSU	F120 Fan Control Switch Unit
F120FCSLVSU	F120 Fan Control Slave Switch Unit
AAFCRST	Addressable Fan Control Reset Unit

Note: The Addressable Fan Control Relay (AAFCRLY) is incompatible and cannot be used with the F120 Fan Control System.