



Firebits

Pertronic F220 Accelerates Project Delivery

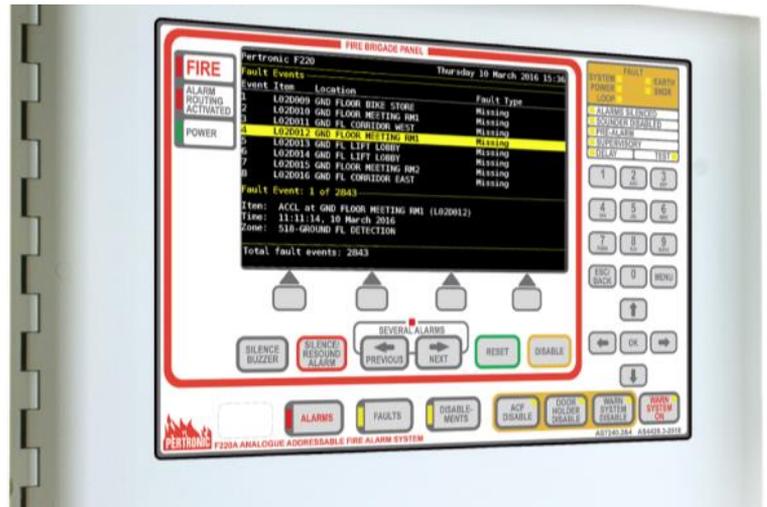
Information management and configuration tools in the **Pertronic F220** slash the installation and commissioning time of fire alarm systems.

The **F220** fire indicating panel's internal database effortlessly tracks and stores many thousands of individual pieces of information, such as details of faults or fire alarm events. All this information can be displayed on the **F220**'s large LCD display or downloaded to external devices in well-organised, easily-analysed formats such as Excel or pdf files.

Stage-by-Stage Installation

Many fire alarm projects are divided into stages. A stage may have to be commissioned while the rest of the system remains incomplete. A fully-configured fire indicating panel “expects” to communicate with every device in the system. Any device-related problem shows on the fire panel as a “fault”. During the commissioning of a large project the panel may see thousands of “faults”. This slows down lesser fire panels: They may respond very slowly to alarms from connected detectors, and users may find the panel difficult to use.

The **Pertronic F220** has no trouble supervising a partly-finished installation. The fire indicating panel simply lists all device faults in its database. Then it gets on with monitoring the completed parts of the fire alarm system. The system can be fully tested in stages because large numbers of unconfigured or missing device faults do not impair the functioning of the **F220**.



The F220 fire indicating panel presents fault information in several easily-interpreted formats including the *Fault List*, shown above

Rapid Configuration Updates

Configuration files for the fire indicating panel sometimes need modification during the course of a project. This process can be extremely slow, and it can delay other parts of the project.

It's quick and easy with the **F220**. The largest configuration files upload in less than thirty seconds. Changes can be implemented quickly and economically.

Construction professionals throughout Australia are realising the benefits of the **Pertronic F220**'s advanced information handling capabilities. Features such as staged installation and rapid configuration improve the predictability of fire alarm installation and testing.

Better predictability means faster project delivery.



The F220 fire indicating panel can be configured in seconds from a USB stick.

Pertronic Control Panels Deliver Standards-Compliant Nuisance Alarm Management

Unnecessary fire brigade callouts are expensive. Fire brigades charge at least a thousand dollars per unwanted alarm. Effective nuisance alarm management is a top priority at Pertronic Industries.

Pertronic fire indicating panels provide highly effective nuisance alarm management because they can be configured to respond appropriately to different conditions. This capability underpins the AS 1670.1: 2015-compliant **Alarm Delay Function (ADF)** used for nuisance alarm management at 363 Adelaide Street, Brisbane (back page). Each apartment kitchenette has an **Acclimate Multi-Criteria Detector**, which has separate heat and smoke sensors.

The heat sensor reports an alarm condition if the air temperature exceeds 63 °C. The smoke sensor can report five levels of smoke. The control panel activates a general fire alarm and calls the fire

brigade in response to a heat alarm. A smoke alarm from kitchenette **Acclimate** detectors at 363 Adelaide Street initiates a different chain of events. The control panel activates warning devices in the affected apartment, and a switching module to start the apartment’s air extraction system. If the smoke clears within three minutes, the panel turns off the warning devices; the extraction system continues operating for another five minutes. If the smoke does not clear, the panel initiates a general fire alarm and calls the fire brigade.

This **ADF** solution depends on unique capabilities of **Pertronic** panels. **Virtual Detection** allows the panel to recognise separate heat and smoke sensors. **Cause and Effect Logic** and **Virtual Detection** allow **Pertronic** fire indicating panels to initiate distinct outcomes in response to each sensor.

The **Pertronic F220** panel is capable of managing 1200 independent **ADF** facilities. **Pertronic ADF** complies with AS 1670.1: 2015, which means it is deemed to satisfy the Australian National Construction Code.

Pertronic fire indicating panels deliver economical yet highly effective nuisance alarm management.



Kitchenettes in student apartments are a significant source of nuisance alarms. Pertronic’s ADF capabilities slash nuisance alarm expenses without requiring a custom-engineered Performance Solution.

Count-Down Timers Are Available On All Pertronic Audio-Visual Signs



Automatic warning signs add value to a wide range of automatic safety systems. A brightly-lit **Fire Alarm** sign above a shopping centre entrance explains what’s happening and discourages people from entering the mall during a fire alarm incident.

Pertronic Audio-Visual (A/V) signs can be associated with any event that is supervised by a control panel. Often they warn about the activation of automatic systems that might cause inconvenience or danger to people in the area. That’s why all Pertronic A/V signs are available with countdown timers.

The countdown timer serves a number of purposes. Sometimes, incident managers may decide to manually trigger the system, perhaps because the area has been evacuated well before the countdown reaches zero.

If the countdown timer is approaching zero, but the area has not been fully evacuated, incident managers may decide to manually delay an automatic event such as the activation of a fire suppression system. In this case, a countdown timer can save lives.

Experience has shown that A/V signs solve a wide range of practical problems in fire detection and building evacuation systems. A few well-chosen words on an audio-visual sign make it easy for people to find out what they should do. Adding a count-down timer adds the often-critical time dimension.

Product Code	Description
AVS-B	Audio Visual Sign
AVS-C	Audio Visual Sign with Countdown Timer
AVS-B-WP+S	Weatherproof Audio Visual Sign
AVS-C-WP+S	Weatherproof A/V Sign w. Countdown Timer
Separate fascias provide a wide range of wording and colour	

F220 Mimics Put Fire System Information Where It's Needed

With the introduction of two new mini mimics, we now offer a complete range of mimic (repeater) displays for F220 fire alarm systems. The new mini-mimics feature the 840 x 480 pixel colour LCD used on the **F220 Keyboard/Display** and the **F220 Full-Function Mimic**.

The **F220 Alarm Mini Mimic** is designed for people who must respond to fire alarms, but do not need any other information from the fire alarm system. Unless there is an alarm condition, the **F220 Alarm Mini Mimic** shows only the green *System Normal* display. If

there's a fire, the mimic sounds an alarm and automatically shows the

Alarm View.

This screen

shows the exact

location of the device or devices that triggered the alarm. Users can easily switch between the *Alarm View* screen, and the *Alarm List* screen, which shows a complete list of all devices in alarm.

Users who need more functionality may need the **F220 Enhanced Mini Mimic**. This provides access to all F220 event lists and event logs, including information about Pre-Alarms, Faults, Disablements, Active Events, and System Events. The **F220 Enhanced Mini Mimic** is designed for users who need more than the basic alarm information. It has a local reset button that can be enabled or disabled via an internal DIP switch.

As its name suggests, the **F220 Full Function Mimic** does everything the **F220 Keyboard/Display** can do. Like the mini mimics, this unit connects to the F220 fire alarm control panel over a four-wire RS-485 bus, which may be up to two kilometres from end to end.



The F220 Enhanced Mini Mimic provides remote access to information from an F220 fire alarm control panel

Audio Splitter Increases Warning System Dependability

Some new evacuation systems are required to have two independent sound circuits in each evacuation zone. This improves the likelihood that evacuation messages will be heard during an emergency.

Fire can short out electrical cables. If this happens on an audible evacuation system, all the speakers connected to the shorted cable will be silenced. People in the affected zone will no longer hear evacuation messages.



If each evacuation zone has two independent sound circuits, a short on one cable will not silence warnings on the other cable. This ensures warning messages will still be heard throughout the zone.

That's the idea behind the **Pertronic Audio Distribution Module (ADM-2)**. This product provides duplicate audio circuits from a single evacuation amplifier. The module's built-in monitoring system

continuously monitors the audio output lines for open- or short-circuit faults, irrespective of whether the system is broadcasting an evacuation message, broadcasting non-urgent audio such as background music, or idling with no signal. If the monitoring system detects a fault on either circuit, it will disconnect both circuits, and then, within a couple of seconds, resume audio transmission on the undamaged circuit.



The **Audio Distribution Module (ADM-2)** delivers the benefits of duplicate audio circuits, without the high cost of duplicating the evacuation amplifier.

Product Code	Description
F220-AMM	F220 Alarm Mini Mimic
F220-EMM	F220 Enhanced Mini Mimic
F220-FFM-AUS	F220 AUS LCD Full Function Mimic

Product	Description
ADM-2-PMB125	Audio Distribution Module, 2 way, mounted in PMB125 enclosure
ADM-2	Audio Distribution Module, 2-Way (PCB Only)

Advanced Detection Combats Unwanted Alarms at Premium Student Accommodation Centre

Student One provides premium student accommodation in Brisbane. Their first project involved the conversion of a 15-storey office building at 363 Adelaide Street in Brisbane's CBD. The refurbished building accommodates 687 students in a mix of one-bedroom, two-bedroom, and five-bedroom apartments. Shared facilities include a theatre, lounge, games room, gym, outdoor barbeque, kitchen and laundry. In addition, there are five street-level shops and a two-level basement car-park.

The new **Pertronic** fire detection and alarm system has been integrated with other building systems, with the aim of minimising unwanted alarms without compromising occupant protection. In each apartment kitchenette, for example, the cooktop and the power outlet for the kettle and toaster will not work unless the building's central exhaust system is operating. An intelligent multi-criteria sensor near the kitchenette reports independent heat and smoke information to the fire alarm control panel. If this sensor detects a high temperature, the control panel triggers a general fire alarm and calls the fire brigade.

If the multi-criteria sensor detects smoke, the control panel activates the kitchenette extractor fan and the building's central exhaust system. The control panel also activates the kitchenette's local alarm sounder. Occupants are trained to eliminate minor smoke sources such as burning toast. If the smoke is not cleared within three minutes the control panel initiates a general fire alarm and automatically calls the fire brigade. If the smoke does clear within that time, the exhaust system and extractor fans keep going for another five minutes.

This nuisance alarm management system illustrates the use of an **Alarm Delay Function** that complies with AS 1670.1: 2015. Pertronic intelligent control panels can support up to 1,200 sole occupancy units with independent **Alarm Delay Functions**.

The fire detection system works with an evacuation warning and information system to automatically evacuate the building, floor by floor, according to pre-prepared evacuation plans.

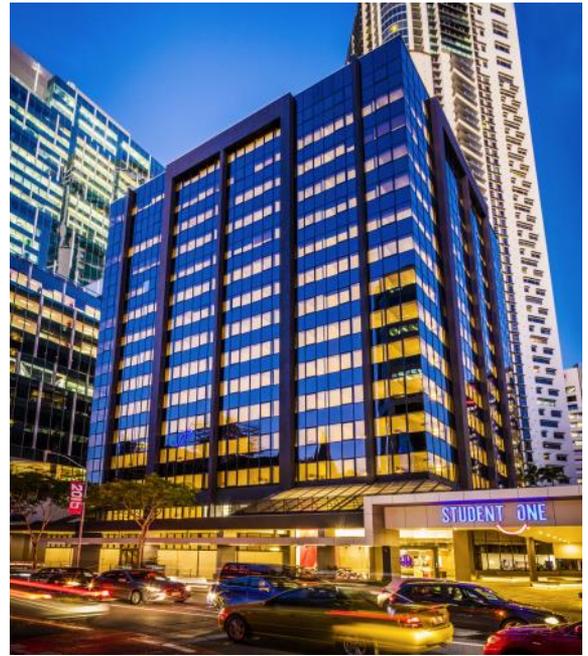


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