PERTRONIC INDUSTRIES LTD

FIREBITS

May 2005

Two Pertronic Panels Used in Rydges Queenstown

Queenstown's tourism-led economy continues to boom, resulting in a healthy local building industry as hotel and motel accommodation is built from new - or extended - to keep up with the demand. Pertronic fire alarm systems are well represented in this continual expansion.

Rydges Hotel, on Queenstown's waterfront is no exception, and has recently undergone major extensions. A Pertronic F120 analogue addressable panel was installed in the original building, shown above, as part of an overall upgrade of the fire alarm system in that section of the complex. A new wing of the hotel, just visible to the rear, has a Pertronic F100 analogue addressable system throughout. The two panels are inter-connected to provide an integrated system overall.

Ongoing Enhancements to F100 & F120 Panels

As part of our "technology update" programme - to continually add new features to these two analogue addressable panels - a number of enhancements become available within the next month. They are contained in the new F100 panel software version 4.48 (and above) with laptop utilities version 3.10. The F120 panel software version is 3.08 (and above) with laptop utilities version 2.24.

"Virtual Detector" software

The ability to have more than one programmable address (or virtual addresses) for System Sensor Laser detectors was a feature added to recent F100 panel software. This option is now available for all analogue addressable detectors - both smoke and heat detectors - on F100 and F120 panels. This means that different sensitivity levels can be selected off the same detector and be programmed to provide a range of different outputs (or responses) to an alarm. For example, an activation registered by the fire alarm panel at the highest sensitivity setting on a smoke detector (or the lowest temperature reading on a heat detector) could be programmed to generate a local alarm for staff to investigate. An activation registered at the next sensitivity setting could be programmed for evacuation of the immediate area. Then an activation at the normal sensitivity setting could be used to evacuate the entire complex and call the Fire Service. In this example, three response levels are used, so the detector would have one real address and two successive virtual addresses on the data loop. The real address must be the one used for programming the brigade call

Acclimate heat sensor mapping

Acclimate multi-criteria detectors take the virtual detector concept to another level. Acclimate now has six sensitivity options to select from (on a F100 panel only at this stage). Sensitivity level one is the normal setting with level five the least sensitive setting, for the output from the combined photoelectric and thermal sensors in the detector (after a series of complex on-board algorithms are used to suppress nuisance alarms but respond faster to genuine fire conditions). Sensitivity level six is used to programme a response to the thermal sensor only. So, in a type five installation for example, one Acclimate detector can now replace separate smoke and heat detectors (provided that the heat detector spacing requirements in NZS4512 are still achieved). A sensitivity setting from one through five can be selected for the local smoke detector alarm (with the benefits of multi-criteria detection suppressing nuisance alarms in this environment), and sensitivity setting six is programmed - as a normal heat detector - to operate the evacuation system and call brigade.
Savings can be achieved in detector and installation costs, plus the improved aesthetics of only one detector head in the room. And the aesthetics can be even further enhanced by using a combined speaker/detector base (PSSB501) to eliminate a separate wall or ceiling mounted speaker.

Detector-to-detector mapping

Some type five installations still use detector sounder bases (rather than speaker bases), or PS2 apartment sounders, to generate a local alarm - particularly if an EWIS system has been specified and installed for the main evacuation. In apartments with more than one room, there was always the issue of interconnecting the sounders, or detectors, to ensure all sounders operated when any one detector activated. Detector-to-detector mapping does away with this need to interconnect. Any analogue addressable detector can now be mapped (or programmed) to operate another detector, or detectors. This in turn will switch on the local sounder connected to each detector. A by-product of this detector-to-detector mapping is that the LED's of all detectors involved will come on. However, when the Silence Alarms switch is operated, only the detector/s that genuinely activated will still have their LED's on - the other LED's will be switched off.

"Brigade Latch" option

Detectors in some installations are programmed to start a timer which, if it times out, then calls brigade. On arrival at the F100 or F120 panel however, the detector that initiated the alarm is not displayed, as it was a timer that generated the actual alarm call and not the detector. The Brigade Latch function means that - in this scenario - when the timer times out and generates an alarm call to brigade, the detector that started the timer is then latched into an alarm state and is visible on the panel's LCD display. It can also then be isolated in the normal manner by using the Silence Alarms switch, as required under NZS4512:2003.

Mini Mimic's Zone Display & Reset Option

The LCD mini mimic is a popular display unit for both F100 and F120 panels - at nurse call stations, building manager's offices, and so on, with display options to show all messages, or alarm messages only. The Local Alarm Reset switch generates a reset command to all non-brigade connected devices on the entire system.

There is an increasing demand for a version of the mini mimic to only display messages relevant to a particular zone (or zones), and to reset non-brigade calling devices only in that zone (or zones). That unit is now available on product code F100AMMR-3Z. The zone programming options are achieved by using the existing buttons on the mini mimic, so externally there is no difference to the product. However, the software inside the mimic's microprocessor is significantly different, hence a separate product code. Existing mini mimics can also be upgraded to the zone display option by ordering a new microprocessor only, product code MINIMICROZ. An installation note for this new mimic can be downloaded from the Pertronic website.

Speaker Bases For Conventional Detectors

A speaker base for System Sensor conventional detectors is now available for use in conjunction with amplifiers and 100 volt speaker circuits, and is a sister product to the analogue addressable speaker base developed last year. Speaker bases significantly improve the aesthetics of detector and speaker installations, dispensing with the need to install separate devices in the same area. Either speaker base, when used with Pertronic amplifiers, produce sound levels (for the evacuation tone) of: 0.2 watt tapping = 75dBA; 0.7 watt tapping = 96dBA; 1.1 watt tapping = 97dBA. Product code for the conventional speaker base is PSSB401.

Pertronic Website Update

In addition to installation notes for all new products covered in this newsletter being on the company website - as well as for our existing products - a number of extra features have been recently added:

Engineering Section

This new section contains drawings and dimensions of all cabinets, for both panels and mimics. The drawings can be downloaded in pdf format or as CAD files for engraving purposes.

Battery load Calculations

Also contained under the engineering section is a calculator for battery loads on conventional systems. Follow the prompts to accurately calculate battery loads for brigade and non-brigade connected installations.

Product list and online ordering

A full list of all the company's products and stock codes is provided, with icons indicating the documentation that is available for each product. Clicking on the icon also brings the relevant document up on the screen. An online ordering service is currently undergoing trials and will be made generally available in the near future to further simplify the accuracy and speed of order placement.

Firebits back copies

Copies of Firebits newsletters back to December 2002 are also stored on the website and can be downloaded.

Visit us at www.pertronic.co.nz

Pertronic Heat Detectors Have New Function

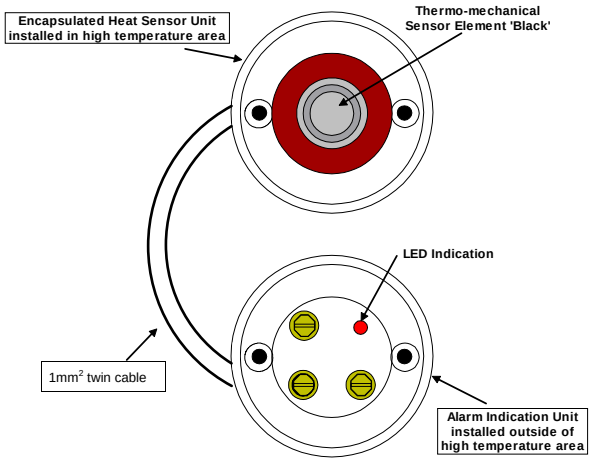
Spied in a café in Auckland's Ponsonby Rd over the festive season - and captured on a pxt phone - was this very decorative Christmas tree. It was artistically suspended above the café's main food counter from a Pertronic heat detector, with a piece of nylon tied around the detector's bi-metallic disc.

Isn't there a clause in the alarms Standard about the fire alarm system not being permitted to support any peripheral devices outside the fire alarm system itself? This certainly adds new meaning to "not supporting peripheral devices."

PERTRONIC INDUSTRIES LTD
17 Eastern Hutt Rd, Wingate, Wellington. PO Box 35-063, Nae Nae. Phone (04) 5673229, Fax (04) 5673644.
www.pertronic.co.nz email: sales@pertronic.co.nz
AUCKLAND OFFICE:
PO Box 20-353, Glen Eden, Phone (09) 8134555, Fax (09) 8134666, Mobile 021 2208885

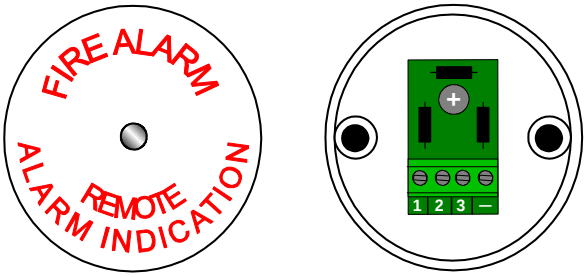
Remote Heat Detectors and LED Indicators

With NZS4512:2003 creating the need to use indicating heat detectors, problems arise in high temperature areas where "black" heat detectors (125°C) are required. At this temperature, the electronics on an indicating device would not survive. The solution is to use a switch-type black heat detector, remotely connected to a modified indicating heat detector with no metallic heat sensor (as shown, top right), to provide the relevant indication and alarm input.



The new Standard also requires remote indication of devices in concealed spaces (ceiling voids, cupboards, etc) where those devices form part of a zone with other devices that are not concealed. The remote LED Indicator Unit (lower right) has been developed for this purpose, and can be used with System Sensor conventional and analogue addressable detectors, in addition to Pertronic indicating heat detectors. Product code is DETREM.

Installation notes for both these products are also available on the company's website.



Pertronic 50 Watt Amplifier Given Extra Features

After a highly successful introduction last year, the Pertronic 50 watt 24 volt amplifier has been redesigned to build in more features and functions, at no extra cost. The amplifier was released with the capability to produce the AS2220 evacuation tone with speech, AS2220 alert tone with, speech and four on-board customised tones. The new design incorporates 42 built in tones, with the evacuation and alert tones (with speech) still set as the default tones. The three rotary address switches on the amplifier are used - with a programming link - to select the custom tone/s required.

A school "Class Change" function is also incorporated into the new amplifier. When used in conjunction with a separate seven day timer, the amplifier operates the tone selected for a period of between half a second to nine seconds. This time period is programme selectable and is restricted to a maximum of nine seconds to prevent excessive battery discharge in the fire alarm panel (the timer must also be powered separately to the fire alarm panel to ensure Standards compliance). Additionally, one of the custom tones available on the amplifier is a simulated school bell tone, giving a very cost effective class change system.

A microphone pre-amp card has also been developed as a "piggyback" board for the new 50 watt amplifier. The card has a link-selectable option to ensure the microphone operation complies with NZS4512. Selecting "PA mode" means that microphone usage will be overridden by the evacuation system operating, while in "Fire mode" the microphone will only work (as a fire mike) once the evacuation system has operated. Once again, full installation details are available from the Pertronic website.