



OPERATORS MANUAL

AFP-300/400

INTELLIGENT FIRE
DETECTION AND
ALARM SYSTEM

SOFTWARE VERSION 2.2
REVISION AUS 3

NSW (Head Office)
7 Columbia Court
Norwest Business Park
Baulkham Hills NSW 2153

Ph: (02) 9899-4155
Fax: (02) 9899-4156

QLD
16 Lucy St
Moorooka
Qld 4104

Ph: (07) 3892-6444
Fax: (07) 3892-6455

VIC
Unit 2 297 Ingles St
Port Melbourne
Vic 3207

Ph: (03) 9681-9929
Fax: (03) 9681-9930

Notifier Inertia Pty Ltd (A.C.N 002 692 962)
A PITTWAY COMPANY
www.inertia.com.au

Overview	3
Passwords.....	3
Operating Features	3
AFP-400 Controls and Indicators.....	4
AFP-400 Board Layout.....	4
Fire Fighters Interface System Status Indicator LEDs.....	4
Fire Fighters Interface System Control Keys	4
Basic Operation.....	5
To Acknowledge Alarms and Faults:	5
To Silence the External Bell.....	5
To Isolate A Device Currently in Alarm	5
To Reset the Panel-	5
Alarm Activate/Brigade Call -	5
Operating Modes.....	6
Read Status	7
To read a detector,.....	7
To read a module,.....	7
To read an output circuit,	7
To read a Zone,.....	7
Correcting Entries	7
Exiting Read Status.....	7
To Read the History,	9
Alter Status.....	9
To access the Alter Status Menu	10
Isolate a device	10
Deisolate a device.....	10
Time and Date.....	10
Clear History	11
Walk Test	11

Operation

Overview

The AFP-400 is a modular, intelligent Fire Alarm Control Panel (FACP) with an extensive list of powerful features. The CPU module, power supply module, and cabinet combine to create a complete fire control system for most applications such as commercial, residential and industrial buildings. Optional modules mount to the chassis to provide additional output circuits.

Unlike conventional fire control panels, the AFP-300/400 intelligently communicates with each detector and Input/Output module on the entire system. Thus providing accurate information as to the exact point of alarm and the ability to operate specific outputs using programmable logic functions. The method of communication with field devices is a high-speed proprietary protocol capable of supporting up to 99 detectors and 99 modules per two-wire loop.

The AFP-300 panel is capable of 1 loop and the AFP-400 is capable of 2 loops. Each of the panels can also accommodate up to 10 Annunciator cards, each can provide 32 x fully programmable LED indications, 16 x single pushbutton functions, 8 x relay outputs, remote LCD displays etc.

These systems due to their immense flexibility require a firm understanding of the total operation of the system for their correct operation. Please ensure that the following document is read in its entirety before making any attempt to operate the system.

Passwords

As the program in the system is critical to the correct operation during fire alarm conditions, it is protected from modification by a five-digit password. All other features are available without password protection.

Please ensure the password is recorded and stored in a safe place as it remains unique and your key to future system modification.

Operating Features

Alarm Verification selection per point, with tally.

Silence Inhibit timer and Auto Silence timer.

Automatic time-of-day and day-of-week controls functions, with holiday option.

User-defined password and key-protected nonvolatile memory.

AWACS (Advanced Warning Addressable Combustion Sensing) with nine field-adjustable Pre-Alarm levels with programmable Control-by-Event (CBE)

Operate automatic smoke or heat detector sounder base on action Pre-Alarm level, with general evacuation on alarm level.

Programmable Control-by-Event control of outputs from individual alarm or supervisory addressable devices.

AFP-400 Controls and Indicators

The AFP-400 control panel contains the following controls and indicators:

Eight System Status Indicator LEDs;

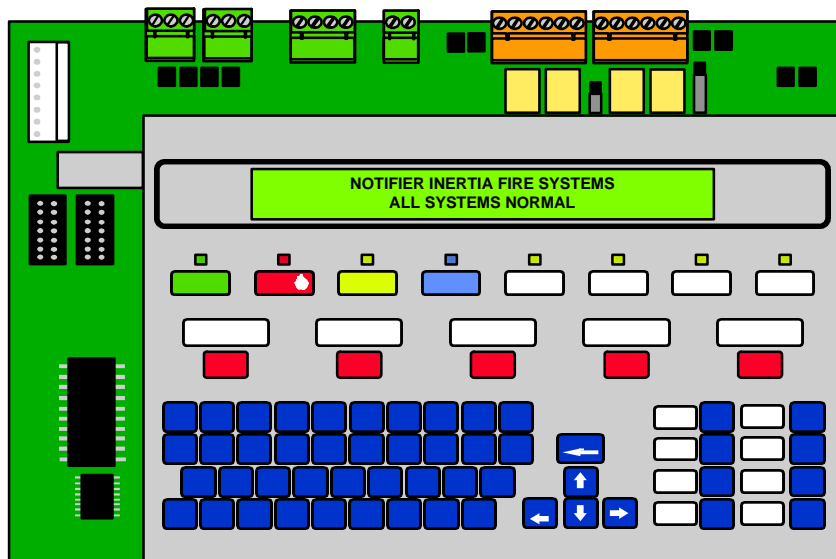
Five control keys;

An 80-character (2x40) LCD display with a long-life LED backlight; and

A panel sounder with a piezo that provides unique sounds for alarm, fault and supervisory conditions.

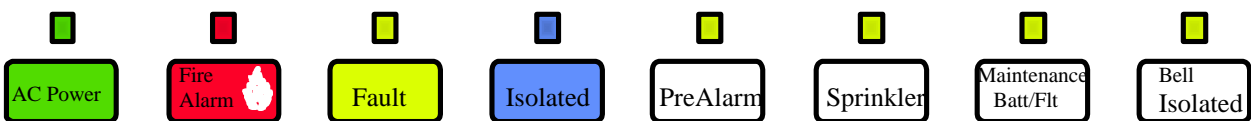
The flip-down door covers the programming keypad and switches

AFP-400 Board Layout



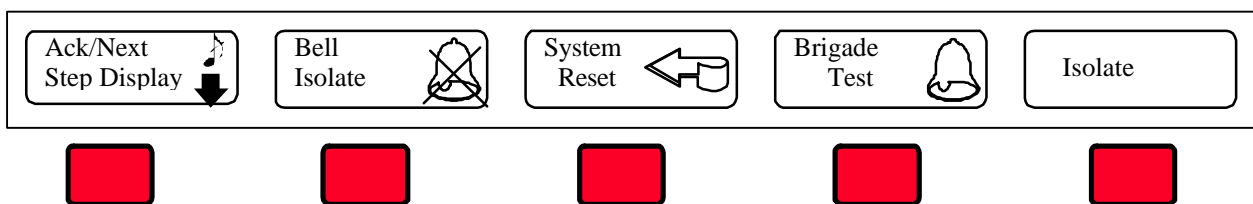
Fire Fighters Interface System Status Indicator LEDs

The control panel contains eight LED indicators with labels as follows:



Fire Fighters Interface System Control Keys

The control panel has 5 interface keys with labels as follows:



Basic Operation

To Acknowledge Alarms and Faults:

Press-



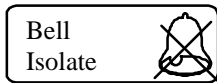
Press to individually acknowledge alarms. The fire alarm LED will go steady and the buzzer will silence once alarms have been acknowledged.

Use the <Ack/Next/Step> key to respond to new alarm or fault signals. This will silence the control panel sounder, change all indicators from flashing to steady, and send an Acknowledge message to the history file.

You can also press the <Acknowledge/Step> key to display the next alarm or fault.

To Silence the External Bell

Press -



To isolate (silence) the external bells. The yellow LED labelled "BELL ISOLATED" will illuminate to confirm. To de-isolate the bells simply press the button a second time.

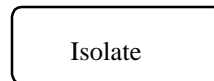
This action will also silence any devices that are silence enabled.

To Isolate A Device Currently in Alarm

Press-



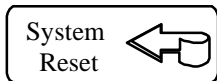
Press till the device in alarm is on the LCD Display, **Then Press-**



Device Now Isolated

To Reset the Panel-

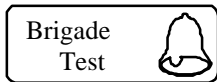
Press-



Use the <System Reset> key to reset the control panel. Any alarm or fault that exists after a System Reset, reactivates all outputs. NB: All alarms and faults must be acknowledged before a system reset is allowed.

Alarm Activate/Brigade Call -

Press-



Use the <Brigade test> key to test outputs. The control panel places the first detector on loop 1 instantly into alarm.

Operating Modes

The system operates in Normal mode when no alarms or faults exist. In Normal mode, the control panel displays a system message as follows:

```
NOTIFIER INERTIA FIRE SYSTEMS 0298994155  
ALL SYSTEMS NORMAL 11:30A MON 03/07/00
```

In Normal mode, the control panel does the following functions at regular intervals:

- Polls all loop devices and the four Panel Relays to check for valid replies, alarms, faults, circuit integrity, and so on.
- Checks power supply faults and batteries every 10 seconds.
- Sends a supervisory query on the LCD-80 and verifies proper response.
- Refreshes the LCD and the optional LCD-80 display and update time.
- Scans the keypad for a System Reset or an Enter key press.
- Performs a detector automatic test operation.
- Tests system memory.



The system goes into Fault mode when the control panel detects an electrical or mechanical fault. With no alarms, a control panel in Fault mode does the following:

- produces a pulsed audible tone;
- the System Fault LED flashes;
- the fault relay activates (MPS-400, TB4); and
- Sends a message to the LCD display, and the history file.


Read Status

Read Status functions do not require a password. The control panel will continue to provide fire protection while in Read Status. You can enter Read Status while in Fire Alarm or Fault mode. If a new alarm or fault occurs during these functions, the control panel automatically exits Read Status.


How to enter Read Status,

Press -  Then <2> Then <0> Then  – and follow these instructions:


To read a detector,

Press-  Then enter the detector address. Example; Loop 1 Detector 1 would be entered as 1 0 1 <Enter>.


To read a module,

Press-  Then enter the module address.


To read an output circuit,

Press-  Then enter the output circuit address.

To read a Zone,

Press  then enter the zone address (01-99)

Correcting Entries

Press-  to delete the previous entry.

Exiting Read Status

Press-  multiple times to exit menus.

During all Read Status operations (except print operations) the control panel starts a 2-minute timer each time you press a key. If the control panel does not detect a key press for 2 minutes, the panel leaves the current operation and returns to the previous display.

If doing a read status, you will see the following;

```

PROGRM SMOKE(LASER)      DETECTOR ADDR 101
Z04 Z    Z    Z    Z AL:6    PA:    *V    D101

```

The following table gives an explanation;

Field	Description
SMOKE (LASER)	Type code of the detector.
DETECTOR ADDR 101	Default custom label: 101 (1=loop 1; 01=address 01).
Z04	Default zone selection: <ul style="list-style-type: none"> • Zone 01 (Heat detectors) • Zone 02 (Ion detectors) • Zone 03 (Photo detectors) • Zone 04 (Laser detectors) • Zone 05 (Multi detectors) You can change zones as well as add four more zones for each detector's CBE.
AL:6	The Alarm sensitivity level, with "9" the least sensitive Alarm level and "1" the most sensitive Alarm level.
PA:0	Shows the Pre-Alarm level setting (a number between 0 and 9) as follows: <ul style="list-style-type: none"> • 0 – no Pre-Alarm. • 1 – most sensitive Pre-Alarm level. • 9 – least sensitive Pre-Alarm level.
**	The first asterisk (*) indicates the detector multidetector mode: <ul style="list-style-type: none"> • A – combines the detector's alarm decision with the next address above. • B – combines the detector's alarm decision with the next address below. • C – combines the detector's alarm decision with the next address above and the next address below. The second asterisk indicates alarm verification (V=on; *=off).

To Read the History,

The control panel maintains two history files of the last 1000 events, a History buffer that can store up to 800 events (all types); and an Alarm buffer that can store up to 200 alarm events, each with a time and date stamp.

History events include the following:

- All alarms, faults and operator actions, such as: Acknowledge, Reset, Bell Isolate, Alarm Activate, Walk Test, and Programming entries.

View Event History

From the Read Status screen, **2** press then, **Enter** press

The control panel displays the Event History screen.

View Alarm History

From the Read Status screen, **4** press then, **Enter** press

The control panel displays the Alarm History screen.

To Clear the history, see the Alter Status menu.

Alter Status

The Alter Status menu allows you to carry out the following functions:

Selection	Function	Description
1	Isolate/Deisolate	Use this function to Isolate or Deisolate Detectors, Modules, Zones.
2	Sensitivity	Adjust the Alarm and Pre-Alarm sensitivity for Detectors only.
3	Clear Verification	Clear the Alarm Verification counter for Detectors that have AVF selected.
4	Time	Change the time and date.
5	Clear History	Clears the Alarm and Fault history Log.
6	Walk Test	Enables one man testing of Detectors.
7	Clear Isolates	Clears all isolates in one action.

To access the Alter Status Menu

Press <ENTER> <1> <ENTER> you may now select any function.

Isolate a device

Press- <ENTER> <1> <ENTER> <1> Then Select; Detectors, Modules, Outputs or Zones.

Eg; To Isolate Loop 1 Detector 1;

Press- <ENTER> <1> <ENTER> <1> Then Press

Then <*> <1> <0> <1> <ENTER>

The Screen will then display the Status of the device in the top LHS of the screen, Pressing the <NEXT> key will toggle from Deisolate to Isolate, once Isolate is selected, Press <ENTER>. The device is now Isolated.

Deisolate a device

Carry out the same commands and select Deisolate and Press <Enter>.

Clear All Isolated Devices (Global De-Isolate)

Press- <ENTER> <1> <ENTER> <7>, this will de-isolate all devices.

Time and Date

To change the Time and Date;

Press <ENTER> <1> <ENTER> <4> Now modify the time and Date as required, when finished Press <ENTER> to save, then Press<ESC> to return to normal screen.

Clear History

To Clear the History Log do the Following;

Press <ENTER> <1> <ENTER> <5> <ENTER>

The History Log is now clear.

Note: The AFP-300/400 has a shadow history log that stores the last 1000 events, and can't be erased.

Walk Test

Walk Test is a procedure used for 1 man detector testing.

To enter Walk Test do the following:

Press- <ENTER> <1> <ENTER> <6> <ENTER> You are now in Walk Test mode.

To exit Walk Test press <ESC> this will take you back to the normal screen.

Note: During Walk Test each device tested will be written to the History Log, if no testing is carried out for more than a 15 minute period, the panel will automatically exit walk test mode. If two detectors are addressed the same, the history log will show the dual addressing by adding a number after the address, this number will indicate the amount of times this address went into alarm during the Walk Test.