FireSense

IFS-888
Fire Alarm Panel

OPERATORS & PROGRAMMING MANUAL

Revision 1.06
10 January 2006

Serial No. _____

Date of Manufacture _____

Manufactured by:

NOTIFIER®

INERTIA FIRE SYSTEMS

Approvals:
Australian Standard AS4428.1 1998
SSL Approval No AFP-1803
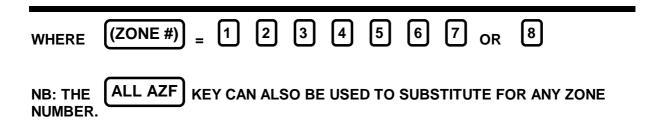C-Tick Approval No. N1336

BASIC OPERATIONS GUIDE

OPERATION   KEYSTROKES

Note: If an alarm exists on the NIFS-888 (FIRE MODE), operation is restricted to the Keys within the FireFighter's facility

FIRE MODE

ACKNOWLEDGE AN ALARM   [ACK]

RESET AN ALARM   [RESET]

ISOLATE AN ALARM   [ISOLATE]

MAINTENANCE MODE

ISOLATE AN AZF   [ISOLATE]   [(ZONE #)]

RESET AN AZF   [RESET]   [(ZONE #)]

FAULT TEST AN AZF   [FAULT TEST]   [(ZONE #)]

ALARM TEST AN AZF   [ALARM TEST]   [(ZONE #)]

WHERE   [(ZONE #)] = [1] [2] [3] [4] [5] [6] [7] **OR** [8]

NB: THE [ALL AZF] **KEY CAN ALSO BE USED TO SUBSTITUTE FOR ANY ZONE NUMBER.**

COMPATIBLE DETECTORS

Make	Model	Type	Model Number
Apollo	Thermal	Type A	Series 60
Apollo	Thermal	Type B	Series 60
Apollo	Thermal	Type C	Series 60
Apollo	Thermal	Type D	Series 60
Apollo	Smoke	Ionisation	Series 60
Apollo	Smoke	Photo Optical	Series 60
Hochiki	Thermal	Type A	DCC-A, DCD-A
Hochiki	Thermal	Type B	DFE-60B, DFJ-60B
Hochiki	Thermal	Type C	DCC-C, DCD-C
Hochiki	Thermal	Type D	DFE-90D, DFJ-90D
Hochiki	Thermal Cool Room	Type B sealed	DFG-60BLKJ
Hochiki	Smoke	Ionisation	SIH-AM, SIJ-ASN
Hochiki	Smoke	Photo Optical	SLK-A, SLR-AS
System Sensor	Thermal	Type A	5451AUS, 51A51
System Sensor	Thermal	Type B	4451AUS, 51B51
System Sensor	Thermal	Type C	51C51
System Sensor	Thermal	Type D	51D51
System Sensor	Smoke	Photo-Optical	2151AUS
System Sensor	Smoke	Ionisation	1151AUS
Olsen	Thermal	Type A	T56B-T6A
Olsen	Thermal	Type B	T56B-T6B
Olsen	Thermal	Type C	T56B-T6C
Olsen	Thermal	Type D	T56B-TSD
Olsen	Smoke	Ionisation	C24B
Olsen	Smoke	Photo Optical	P24B
Panelect	Thermal	Type A	PFS-A
Panelect	Thermal	Type B	PFS-B
Panelect	Thermal	Type C	PFS-C
Panelect	Thermal	Type D	PFS-D
Panelect	Smoke	Ionisation	PFS-I
Panelect	Smoke	Photo Optical	PFS-P
IEI	VESDA E700	CONTACT DEVICE	

Please contact Notifier Inertia for any additional detectors.

TABLE OF CONTENTS

SPECIFICATION

Cabinet	Zinc Sealed Steel 1.6mm Powder Coated (Charcoal) Hinged Outer Door 003 Keyed Lock
Outside Dimensions	888 440mm H x 390mm W x 120mm D Battery Box 280mm H x 390mm W x 120mm D
AC Operational Voltage	240VAC 50Hz +6 -10%
Internal Power Supplies	27VDC 1.0Amp Battery Charger 24VDC (nom) 1.5 Amp Panel Supply 5VDC 2.0AMP Logic supply
Microprocessor	80C52
Memory Type	Non-volatile E2ROM
Fuses	F1: AC Input M205 2.5A F2: AUX Power M205 1A Slow Blow F3: Bell Output M205 1A F4: ACF Output M205 1A F7: Warning System M205 1A
E.O.L Resistor On AZF's	4K7 OHMS

SYSTEM EXPANSION

REQUIREMENT	Qty	PCB REQUIRED	Product Code
8 ZONE INPUTS	1	8 ZONE MAIN CONTROL BOARD	IFS888
8 ZONE MIMIC OUTPUTS	1	8 ZONE MAIN CONTROL BOARD	IFS888
RELAY OUTPUTS 1 ALARM PER ZONE 1 FAULT 1 ISOLATE	1	8 WAY RELAY EXPANSION BOARD	IFS815

ENVIRONMENTAL LIMITS

-10 Deg. C to +55 Deg. C Dry heat.
+40 Deg. C @ 93% Relative Humidity.

WARNING:

This equipment may radiate radio frequency energy. It may also be affected by radio frequency energy and, if not installed and operated in accordance with the manufacturers instructions, may cause interference to radio communications. It has been tested and found to comply with the Class A radiated and conducted EMI requirements of AS/NZ 3548:1995 (including Amendments 1 & 2) as well as the EMI susceptibility requirements of Clause C3.5 in AS4428.0:1997

CAUTION: Radio communication devices should not be used in the vicinity of fire panels or associated ancillary devices and systems

OUTPUTS

Name	Description	Type	Function
SBY	Standby	Normall Energised - Clean Contact	Changes when panel supply drops below 21V
AUX	Auxiliary Contact	Clean Contacts	Programmable
FLT	Fault Output	Normal Energised - Clean Contact	Activates on any Fault
GEN	General Alarm	Clean Contact	Activates on any Alarm
WARN	Warning System Output	Monitored - Powered	Activates on any Alarm 24V (nom) 0.5A
BELL	Bell Output	Monitored - Powered	Activates on any Alarm 24V (nom) 0.5A
ACF	Ancillary Control Output	Monitored - Powered	Activates on any Alarm 24V (nom) 0.5A
AUX Power	Power Output	24V (nom) 0.5A Max	Used to Power Auxiliary Loads up to 0.5A Total

Contact Ratings: 24V DC (nom) 0.5A

POWER SUPPLY RATINGS AND SETTINGS

POWER SUPPLY 1: 27 VDC 1.0 AMP Switchmode Battery Charger

This supply's primary function is maintain the battery in a fully charged condition.

PERFORMANCE DATA

AC Input	30 VAC ±10%
Rated Output Current	1.0 AMPS
Output Voltage	27.3 VDC
Current Limit	1.5 AMPS
Output Ripple	150 mV with Battery

POWER SUPPLY 2: 24 VDC (nom) 1.5 AMP Switchmode Power Supply

This supply's primary function is to power all external operations of the FIP, ie. detection circuits, ancillary circuits etc. This supply meets the requirements of AS4428.1 with the panel in its fully expanded state.

PERFORMANCE DATA

AC Input	30 VAC ±10%
Rated Output Current	1.5 AMPS
Output Voltage	26.5 VDC
Current Limit	1.5 AMPS
Output Ripple	150 mV

POWER SUPPLY 3: 5 VDC 2 AMP Switch Mode Power Supply

This supply's primary function is to power all internal operations of the FIP, ie. Microprocessor, LED's, keypad etc.

PERFORMANCE DATA

Input	24 VDC internal
Output Current	2.0 AMPS
Output Voltage	5.0 VDC
Current Limit	2.0 AMPS
Output Ripple	150 mV

BATTERY TYPE AND CAPACITIES

ZONES FITTED	BATTERIES REQUIRED
8	2 X 12V 6.5 A/H

CURRENT CONSUMPTION

No. Of Zones	Quiescent Current	Quiescent + 2 AZF's in alarm
8	127 mA	290 mA

BATTERY CAPACITY CALCULATIONS

The required Battery Capacity and Power Supply may be calculated utilising the following formula.

Battery Capacity = $1.25 * ((I_Q * 24) + F_c * (I_A * 0.5))$

Power supply Capacity = I_A

Battery Charger Capacity = $(((I_Q * 5) + F_c * (I_A * 0.5)) / 24) * 1.25$

Where:
I_Q is the Quiescent current of the panel (including any normally energised ancillary loads)
I_A is the Alarm current of the panel (including any energised ancillary loads)
F_c is the capacity derating (a value of 2 is deemed to satisfy requirements of
        AS1670.1-2004)

E.G. For an IFS888 Panel equipped with the following:

8 Zones
2 Bells
1 Warning system relay output
1 ACF output

I_Q = 0.127
I_A = 0.290 + 2 * 0.06 for the bells, + 0.04 for the Warning system, + 0.04 for the ACF
        = 0.490

Therefore:
Battery Capacity   = $1.25 * ((0.127 * 24) + 2 * (0.49 * 0.5))$
                        = 4.3 AH

Power Supply Capacity = 0.49 Amps

Battery Charger Capacity   = $(((0.127 * 5) + 2 * (0.49 * 0.5)) / 24) * 1.25$
                        = 0.05 Amps

ALIGNMENT AND ADJUSTMENT

POWER SUPPLY #1 – 27.3VDC (Battery Charger) TP6

With batteries disconnected and no alarms present, measure the voltage between system VSS (**TP12**) and **TP6**
Adjust the multi-turn potentiometer VR1 until the voltage is 27.3V $\pm$ 1%. (27.027 - 27.573)

Current limiting is preset, adjustment is not required.

POWER SUPPLY #2 – 26.5VDC (Panel Supply) TP5

With batteries disconnected and no alarms present, measure the voltage between system VSS (**TP12**) and **TP5.**
Adjust the multi-turn potentiometer VR4 until the voltage is 26.5V $\pm$ 1%. (26.235 - 26.765)

Current limiting is preset, adjustment is not required.

POWER SUPPLY #3 - 5VDC

No adjustment is required, all parameters are preset.

POWER SUPPLY REFERENCE VOLTAGE

With the panel in the quiescent mode, measure the voltage between system VSS (**TP12**) and **TP4.** Adjust multi-turn potentiometer VR2 until the voltage is 7.0V $\pm$ 1%. (6.93 - 7.07)

ALARM THRESHOLD COMPARATOR

With the panel in the quiescent mode, measure and take note of the POWER SUPPLY #2 – 26.5VDC (Panel Supply) TP5 as above.

Measure voltage between system VSS (**TP12**) and **TP2**. Adjust multi-turn potentiometer VR3, and adjust until the voltage is as per the following table.

Rail Voltage	3.3V Setting	Range
20.6	2.833	2.80 to 2.86
21.0	2.888	2.86 to 2.92
21.5	2.956	2.93 to 2.99
22.0	3.025	2.99 to 3.06
22.5	3.094	3.06 to 3.12
23.0	3.163	3.13 to 3.19
23.5	3.231	3.20 to 3.26
24.0	3.300	3.27 to 3.33
24.5	3.369	3.34 to 3.40
25.0	3.438	3.40 to 3.47
25.5	3.506	3.47 to 3.54
26.0	3.575	3.54 to 3.61
26.5	3.644	3.61 to 3.68
27.0	3.713	3.68 to 3.75
27.5	3.781	3.74 to 3.82
27.6	3.795	3.76 to 3.83
28.0	3.850	3.81 to 3.89

FAULT THRESHOLD COMPARATOR

With the panel in the quiescent mode, measure and take note of the POWER SUPPLY #2 – 26.5VDC (Panel Supply) TP5 as above.

Measure voltage between system VSS (**TP12**) and **TP1**. Adjust multi-turn potentiometer VR5, and adjust until the voltage is as per the following table.

Rail Voltage	0.6V Setting	Range
20.6	0.600	0.59 to 0.61
21.0	0.612	0.61 to 0.62
21.5	0.626	0.62 to 0.63
22.0	0.641	0.63 to 0.65
22.5	0.655	0.65 to 0.66
23.0	0.670	0.66 to 0.68
23.5	0.684	0.68 to 0.69
24.0	0.699	0.69 to 0.71
24.5	0.714	0.71 to 0.72
25.0	0.728	0.72 to 0.74
25.5	0.743	0.74 to 0.75
26.0	0.757	0.75 to 0.76
26.5	0.772	0.76 to 0.78
27.0	0.786	0.78 to 0.79
27.5	0.801	0.79 to 0.81
27.6	0.804	0.80 to 0.81
28.0	0.816	0.81 to 0.82

NON ADJUSTABLE TEST POINTS
5VDC POWER SUPPLY
        TP3=5.0VDC$\pm$5% (4.75 - 5.25)

(If this test point voltage is not correct, please return the circuit board to the factory for repair.)

JP1 DEFAULT

Holding a short across these pins for 5 seconds during start-up causes the panel to revert back to standard factory defaults. The panel will give 4 beeps on start-up to acknowledge default.

PLACING INTO OPERATION

INITIAL CHECKLIST

- ❑ System General Appearance Good
- ❑ Cabinet Keyed 003
- ❑ All Circuit Boards Firmly Fastened
- ❑ Manual Call Point Fitted & Functional
- ❑ Viewing Window Clear And Firmly Secured
- ❑ Cable Entries Adequately Sealed
- ❑ 240VAC Cabling Correctly Terminated
- ❑ All Earthing Secured
- ❑ Transformer Securely Mounted
- ❑ Transformer Correctly Wired
- ❑ All Ribbon Cables Firmly Secured
- ❑ All Operational Zones Adequately Identified
- ❑ INERTIA-888 Manufacturing Label Affixed

POWER UP CHECKLIST

- ❑ Ensure Batteries Are Disconnected.
- ❑ Turn Mains Switch To "ON"
- ❑ The "Mains On" LED Should Light.
- ❑ Allow 15 Seconds For The Panel To Perform its Start Up Tests.
- ❑ Connect Batteries

FUNCTIONAL TESTING

- ❑ Primary AC Supply Voltage: 240VAC +6% -10%
- ❑ Charger Output Voltage Without Batteries: 27.3V DC
- ❑ Main Supply Output Voltage : 26.5V DC
- ❑ Keypad Functional
- ❑ Perform Auto Test
- ❑ LED's All Functional
- ❑ Zone Fault Detection
- ❑ Zone Alarm Detection
- ❑ Internal Sounder Operating
- ❑ MCP Loop Wired To Zone Number _____
- ❑ Test Bell Output
- ❑ Test Warning System Output
- ❑ Test ACF Output
- ❑ Test Bell Output Supervision
- ❑ Test Warning System Output Supervision
- ❑ Test ACF Output Supervision
- ❑ Test Standby Relay
- ❑ Test General Alarm Relay
- ❑ Test Auxiliary Relay
- ❑ Test Mimic Outputs
- ❑ Test Relay Board (if fitted)
- ❑ Log Book Inside Cabinet
- ❑ Press "Battery Test" Once
- ❑ If Batteries Are Flat, Allow 24hrs To Charge And Then Re-test.

INSTRUCTIONS TO OPERATORS

CONTROLS AND INDICATORS

INDICATIONS

INDICATOR	ON WHEN:
MAINS ON	Panel is running on mains supply
BATTERY FAULT	Battery fails test or has been disconnected. Fault will remain on until a battery test passes.
PSU FAULT	Battery Charger > 28.2 or < 26.4
	Panel Supply > 28.2 or < 21
ACF ACTIVATED	ACF Output Is Operated
ACF ISOLATED	ACF Output Is Isolated
ACF FAULT	ACF Output Is Open Circuit or Short Circuit
EXT BELL ISOLATE	Bell Output Is Isolated
EXT BELL FAULT	Bell Output Is Open Circuit or Short Circuit
WARN SYS ISOLATED	Warning System Output Is Isolated
WARN SYS FAULT (LD8 on Termination Board)	Warning System Output Is Open Circuit or Short Circuit
AZF ALM 1-8	Flashes When Zone Is In Alarm Steady When Zone Is In Pre-Alarm Steady When Zone Is In Alarm But Isolated or Acknowledged
AZF FLT 1-8	Zone Is In Fault
AZF ISO 1-8	Zone Is Isolated

KEYPAD CONTROLS

BUTTON	FUNCTION
ACF ISOLATE	Toggles ACF Isolate On/Off (Also used in Programming Mode)
ACF RESET	Resets The ACF If Latched On
BATTERY TEST	Initiates A Battery Test For 60 Seconds
AUTO TEST	Initiates An Auto Test Of System Functions
WALK TEST	Initiates Detector "Walk Test" Mode On Panel
PROGRAM	Used For Programming Mode, Refer Programming Section
AUX RELAY	Used For Programming Mode, Refer Programming Section
ALARM TEST	Alarm Test (Zone), Followed By Zone Number
FAULT TEST	Fault Test (Zone), Followed By Zone Number
ISOLATE	Isolate (Zone) , Followed By Zone Number
RESET	Reset (Zone), Followed By Zone Number
ALL AZF	Substitutes For A Zone Number As "All Zones"
1,2,3,4,5,6,7,8	Zone Numbers.

FIRE FIGHTERS CONTROLS

BUTTON	FUNCTION
EXT BELL ISOLATE	Toggles Bell Isolate On/Off
WARN SYS ISOLATE	Toggles Warning System Isolate On/Off
ACK	Acknowledges alarm or fault. Internal buzzer stops. All outputs remain unchanged
RESET	Resets any acknowledged alarms, Faults are self clearing
ISOLATE	Isolates any acknowledged alarms

FUNCTION EXPLANATIONS

FIRE FIGHTERS CONTROLS

ACK

Pressing the "ACK" key, will acknowledge any Alarms or Faults present on the system. It will silence the panel buzzer, but all panel outputs will remain unchanged.

RESET

Pressing the "RESET " key, will reset all ACKNOWLEDGED Alarms. Any panel outputs will also be reset.

ISOLATE

Pressing the "ISOLATE " key, will isolate all ACKNOWLEDGED Alarms. Any panel outputs will also be reset.

EXT BELL ISOLATE

Depressing the "EXT BELL ISOLATE" key, will isolate the bells. The LED within the button will illuminate and the bells will not sound until the output is de-isolated. Pressing "EXT BELL ISOLATE" a second time will de-isolate the bell.

WARN SYS ISOLATE

Depressing the "WARN SYS ISOLATE" key, will isolate the warning system output. The LED within the button will illuminate and the warning system will not sound until the output is de-isolated. Pressing "WARN SYS ISOLATE" a second time will de-isolate the output.

GENERAL CONTROLS

ACF ISOLATE

ACF
ISOLATE

Depressing the "ACF ISOLATE" key, will isolate the ACF (Ancillary output). The ACF isolated indicator will illuminate and the ancillary output will not operate until the ancillary output is de-isolated. Pressing "ACF ISOLATE" a second time will de-isolate the ancillary output.

If the ancillary output has already been tripped and is programmed as latching, isolating the ACF will not effect the existing ancillary output. If the ACF is isolated prior to the alarm, it will prevent the ancillary output from tripping.

ACF RESET

ACF
RESET

Resetting of the ancillary output (ACF) is only required if the ancillary output was programmed as latching.

The ancillary alarm will remain latched until manually reset. Pressing the "ACF RESET" button will extinguish the 'ACF Activated' indicator and de-energise the ancillary output. Pressing "ACF RESET" when the ACF is not tripped will have no effect.

AUTO TEST MODE

AUTO
TEST

This function will perform a fixed automatic test procedure to the panel. This mode cannot be selected if any zone(s) is in alarm.

Auto test will perform the following test functions;

- Turn on ALL LEDs
- Test RAM
- Test E^{2}ROM
- Isolate all alarm zones
- Fault test all alarm zones
- Alarm test all alarm zones
- Test buzzer

The pressing of any key during "AUTO TEST" will abort the tests and return the system back to normal mode once the current test is complete.

BATTERY TEST

BATTERY TEST

This function tests the performance of the batteries fitted to the system. Pressing this button will initiate a battery test as specified in AS1603.4. The test will temporarily disconnect the batteries from the panel and apply load on the batteries for 60 seconds. The pressing of any key during the test period will abort the battery test and return the system back to normal mode.

If the test fails, the "Battery Fault" indicator will turn on and the buzzer will sound continuously, only a successful battery test will turn the indicator off.

WALK TEST MODE

WALK TEST

This function will place the panel into "walk test" mode. Walk test mode is used for the on-site testing of detector zones. This mode cannot be selected if any zone(s) is in alarm. Entry to walk test mode will be acknowledged by three beeps and the isolate LED's will flash on all zones.

If the bells are not required to ring during walk test, simply press the "BELL ISOLATE" key once. The bell isolate LED will illuminate to verify that the bells have been isolated.

Any alarm signal from detectors etc. will be received by the panel on its appropriate zone. The panel will beep to acknowledge receipt of the alarm and indicate the alarm by illuminating the appropriate alarm LED for 4 seconds (the bells will also ring for a 1 second period unless previously isolated).

The zone and detector will then be automatically reset.

Pressing any key will terminate the walk test mode and return the panel back to normal operation, restoring all zone types and output configurations also ensuring that bell and ancillary outputs are de-isolated. The bells will give three pulses of 1 second each to warn any testers still in the building that walk test mode has been terminated.

Failure to receive any alarms or keystrokes within a 15 minutes period will result in the panel automatically exiting walk test mode and returning back to normal as follows;

- Bell outputs to be de-isolated.
- Ancillary outputs to be de-isolated.
- Bell will sound 3 times, each of 1 second duration.
- Exit from walk test mode.
- Zone types and output configurations restored

ZONE FUNCTIONS

Zone functions are those relating specifically to the detection zones. Following is an explanation of their operation and the keystrokes required to perform the function required.

ALARM TEST

| ALARM TEST | # |

A resistive load equal to worst case alarm condition is placed on the zone for a period of 120 seconds and then removed, if the zone being tested is not a latching type, the alarm will reset automatically once the load is removed. An alarm test can be manually terminated by resetting the zone.

Once the zone has alarmed, all outputs are initiated (as programmed) similar to a real alarm. The zone may be isolated prior to alarm test if desired, this will prevent any outputs from operating.

The character "#" in the keystrokes above requires any one the following entries;

1,2,3,4,5,6,7,8 or "ALL AZF"

FAULT TEST

| FAULT TEST | # |

A resistor load equal to worst case fault is placed on the zone continuously for 5 seconds then the zone is returned back to it's normal condition.

The character "#" in the keystroke requires any one of the following entries;

1,2,3,4,5,6,7,8 or "ALL AZF"

ISOLATE

| ISOLATE | # |

The isolate function prevents the transmission of alarms or faults from the zones to the master alarm facility.

The character "#" in the keystroke requires any one of the following entries;

1,2,3,4,5,6,7,8 or "ALL AZF"

If the "ALL" function is performed, all zones will be isolated, regardless of their previous state. Performing the "ALL" function for a second time will de isolate all zones.

RESET

RESET	#

The reset function momentarily disconnects power, and resets all alarm parameters for the zone(s) being reset. This returns the zone back to its "normal" state.

The character "#" in the keystroke requires any one of the following entries;

1,2,3,4,5,6,7,8 or "ALL AZF"

If a correct entry is made, resetting of the zone begins immediately. Any alarm indication will be removed immediately, also resetting the zone(s) programmed outputs.

PROGRAMMABLE OPTIONS

ZONES TYPES

TYPE	Description	Input Delay
1*	Standard Latching	2 seconds
2	Standard Latching AVF	2 seconds with AVF
3	Non Latching	2 seconds
4	Non Latching 20S	20 seconds
5	Time Delay 10S	10 seconds
6	Time Delay 30S	30 seconds
7	Time Delay 60S	60 seconds

ZONE OUTPUTS

TYPE	OUTPUT DESCRIPTION
1	Indicate
2	Indicate, Bell
3	Indicate, Bell, General Alarm
4*	Indicate, Bell, General Alarm, ACF

ACF OUTPUT

TYPE	ACF OUTPUT
1	LATCHING
2*	NON-LATCHING

AUXILIARY RELAY

TYPE	DESCRIPTION
11	AZF 1 ALARM
12	AZF 2 ALARM
13	AZF 3 ALARM
14	AZF 4 ALARM
15	AZF 5 ALARM
16	AZF 6 ALARM
17	AZF 7 ALARM
18	AZF 8 ALARM
21*	GENERAL ALARM
22	GENERAL ALARM (Normally Energised)
23	COMMON FAULT
24	COMMON ISOLATE
25	MAINS FAIL
26	COMMON FAULT OR ISOLATE
27	PANEL BUZZER
28	BELL
31	WARNING SYSTEM
32	ACF

* DENOTES DEFAULT

TO ENTER PROGRAM MODE

HOLD DOWN | ENABLE SWITCH | & PRESS | PROGRAM | KEY ONCE

NOTE: THE ENABLE SWITCH IS LOCATED ON THE BOTTOM LEFT HAND CORNER OF THE MAIN PCB NEXT TO THE KEYBOARD RIBBON CABLE. IT IS MARKED SW1.

SYSTEM STATUS LED's WILL FLASH TO INDICATE PROGRAMMING MODE ENTERED.

TO EXIT PROGRAM MODE

HOLD DOWN | ENABLE SWITCH | & PRESS | PROGRAM | KEY ONCE

(THIS WILL AUTOMATICALLY SAVE CHANGES)

THE PANEL WILL BEEP, RESTART AND THEN RETURN TO NORMAL DISPLAY.

ZONE PROGRAMMING

Once you are in programming mode and have the panel status LED's flashing.

- Press the PROGRAM key once.

- Press the Zone Number (1-8) you wish to program.
  The Alarm led will indicate the zone to be programmed.
  The Fault led will indicate the current zone type
  The Isolate led will indicate the current zone output.

If you wish to change the settings of this particular zone

  - Press the Zone Type Number (1-7)
  - Press the Zone Output Number (1-4)
    (an incorrect entry will give a long beep and be ignored)

Or simply press the program key and then the next zone number you wish to look at.

Example.

To set zone 4 as AVF and to Indicate only, do as follows.

- Press | PROGRAM | | 4 | | 2 | | 1 |

ACF PROGRAMMING

- Press the **PROGRAM** key once.
- Press the **ACF ISOLATE** key

The Isolate led will indicate the current ACF output type (AZF1 for Latching, AZF2 for Non-Latching).

To change the ACF output type

- Press **1 or 2**
  (an incorrect entry will give a long beep and be ignored)

  1 for Latching
  2 for Non-latching

Otherwise press program to look at another output or zone.

Example.

To set ACF to LATCHING do as follows.

- Make sure you are in programming mode

- Press | **PROGRAM** | | **ACF ISOLATE** | | **1** |

AUXILIARY RELAY PROGRAMMING

- Press the **PROGRAM** key once.
- Press the **AUXILIARY RELAY** key

  The Fault and Isolate LED's will indicate the current Auxiliary relay output type. (Fault showing the first digit & Isolate showing the second digit)

To change the Auxiliary relay output type

- Press the first digit of Auxiliary relay output type (**1-2**)
- Press the second digit of Auxiliary relay output type (**1-8**)
  (an incorrect entry will give a long beep and be ignored)

Example.

To set Auxiliary relay to General Alarm do as follows.

- Press | **PROGRAM** | | **AUXILIARY RELAY** | | **2** | | **2** |

- (If this is the only change you wish to make, then exit programming, otherwise repeat as required)

INERTIA-888 PROGRAMMED OPTIONS:

AZF No. ↓	(1/X) STD 2S	(2/X) STD AVF	(3/X) N/L 2S	(4/X) N/L 20S	(5/X) T/D 10S	(6/X) T/D 30S	(7/X) T/D 60S
1	▓						
2	▓						
3	▓						
4	▓						
5	▓						
6	▓						
7	▓						
8	▓						

AZF No. ↓	(X/1) INDICATE	(X/2) I-BELL	(X/3) IB-GENERAL	(X/4) IBG-ACF
1				▓
2				▓
3				▓
4				▓
5				▓
6				▓
7				▓
8				▓

ANCILLARY OUTPUT ↓	(1) NON-LATCHING	(2) LATCHING
ACF	▓	

AUXILLARY RELAY MAPPING TYPES		PROGRAMMED AS
(11)	MIMIC AZF 1	
(12)	MIMIC AZF 2	
(13)	MIMIC AZF 3	
(14)	MIMIC AZF 4	
(15)	MIMIC AZF 5	
(16)	MIMIC AZF 6	
(17)	MIMIC AZF 7	
(18)	MIMIC AZF 8	
(21)	GENERAL ALARM	
(22)	GENERAL ALARM	▓
(23)	COMMON FAULT	
(24)	COMMON ISOLATE	
(25)	MAINS FAIL	
(26)	COMMON FAULT OR ISOLATE	
(27)	PANEL BUZZER	

Place an X in the appropriate box   [   ] = Default

DESCRIPTION OF ALARM ZONE TYPES

Different zone types can be selected using the programming mode. Each
zone can be selected as any one of following:

TYPE	Description	Input Delay
1(DEFAULT)	Standard Latching	2 seconds
2	Standard Latching AVF	2 seconds with AVF
3	Non Latching	2 seconds
4	Non Latching 20S	20 seconds
5	Time Delay 10S	10 seconds
6	Time Delay 30S	30 seconds
7	Time Delay 60S	60 seconds

LATCHING TYPE

Once a signal is received from the detector the alarm zone will start a timer, if after 2
seconds the detector is still activated the alarm zone will register an alarm condition.
Indicators will illuminate and alarm functions are initiated immediately, unless zone is set as
AVF - refer Appendix C. The alarm zone will remain in alarm until manually reset.

A reset is performed by interrupting the power for 0.5 seconds to the detector and returning
the alarm zone back to its quiescent state. If an alarm is still present in the detector area
the detector will re-activate and the 2 second timer will be re-initiated.

NON LATCHING TYPE

A temporary actuation device (eg. Flow Switch) is usually connected to this type of alarm
zone. Once a signal has been received CONTINUOUSLY for 2 seconds or 20 seconds
(dependent on programming) an alarm will be registered causing the alarm LED to flash
and alarm functions will be performed as programmed.

The alarm group will remain in alarm until the actuating device no longer reports a signal.
When actuating device signal is clear, the alarm is cleared, causing the zone to power
down for 0.5 seconds and return back to normal state.

TIME DELAY

The time delay AZF zone can be preset to any one of 3 time delays in the initial setup. This
type of zone is used for AS1668 smoke detection zones. Zone timing etc. is as per
AS1668-1991.

> **Example:**
>   Timer #1 = 60 seconds

Once the first alarm is received, the alarm LED is turned on steady, this indicates "PARTIAL ALARM" condition.

The detector is then reset (by removing it's power for 0.5 seconds) and a timer is also started for 60 seconds (TIMER#1). Another timer of 15 seconds (TIMER#2) is also started. The zone must alarm again within this 15 seconds (TIMER#2) to register another alarm.

Failure to receive another alarm within this 15 second period will return the zone back to its normal state immediately and extinguish the alarm LED.

If an alarm is received, the detector is reset again and TIMER#2 is also reset.

This monitoring continues until the 60 second timer (TIMER#1) has elapsed and then the zone goes into "FULL ALARM". This is the stage at which all relays, bells etc. will operate.

When "FULL ALARM" condition is reached, a third timer (TIMER#3) of 70 seconds is started. TIMER#2 is kept operating and alarm signals are still to be received as per previous. Alarm signals are required continually to keep the zone in "FULL ALARM".

Failure to comply with TIMER#2 will result in the zone being returned back to it's NORMAL state as follows;

- If TIMER#3 has elapsed, the zone can be returned immediately back to the normal state (& de-energise relays if required).

- However, if TIMER#3 has not elapsed, the zone cannot return back to the normal state until TIMER#3 does elapse. Relays etc. will remain energised until TIMER#3 does elapse.

APPENDIX C

DRAWINGS

Following are drawings:

Keypad Drawing	Rev A.
IFS888-E1 Zone Connections	Rev A.
IFS888-E2 Typical Output Connections	Rev A.

ANCILLARY CONNECTION DIAGRAM

WARNING SYSTEM

IFS1125 EOL MODULE

BELLS

IFS1125 EOL MODULE

A/C CONTROL RELAY

IFS1125 EOL MODULE

A 1.5 Ohm 5W resistor is required in series with each strobe when used.

IFS 888 TERMINATION BOARD

| SBY RELAY | | GEN | | FLT | | WARN | | BELL | | ACF | | POWER | | CF |
| NC | C | NO | NO | C | NO | C | + | - | + | - | + | - | + | - | TRA MAF |

7 Columbia Court,
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AUSTRALIA
Tel 61 2 989 41 444
Fax 61 2 989 94 156

Title: ANCILLARY CONNECTION DIAGRAM

Sheet 1 Of 1

Drawn I Perry
Engineer Design I Perry
Approved I Perry

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until it is signed as approved.

Size A4

Drg. Number IFS 888-E1

Rev. A

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No.	Revision	I.P.	I.P.	21/10/04
A	ORIGINAL ISSUE			
	Revision - revise on CAD. Do not amend by hand. Do not amend by hand	Eng.	App.	Date

SMOKE AND/OR HEAT DETECTORS (CHECK COMPATIBILITY)

4K7 EOL

4K7 EOL

FIRE

PRESSURE SWITCH

FLOW SWITCH

4K7 EOL

4K7 EOL

4K7 EOL

4K7 EOL

4K7 EOL

4K7 EOL

+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
MCP LOOP		AZF1	AZF2	AZF3	AZF4	AZF5	AZF6	AZF7	AZF8

FS 888
TERMINATION
BOARD

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Fax 61 2 98 99 4156
Email: support@inertia.com.au

Title   DETECTOR CONNECTION DIAGRAM

Sheet: 1   Of: 1
Drawn/ I Perry
Traced I Perry
Approved I Perry

Engineer I Perry

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unless signed as approved

Size A4   Drg. No. IFS 888-E2   Rev. A

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