Folknoll Group Ltd.

INTELLIGENT AFFRAY ALARM SYSTEM

PRODUCT DATA MANUAL

ISSUE

VERSION	DATE	DESCRIPTION
V2.00	23.03.3015	Original
V2.01	08.04.2015	Changes requested by DB, DH, BP
V2.02	13.04.2015	Add Configuration sheets to Appendix
V2.03	08.08.2016	Reverse alarm strip numbers in controller connections diagram
V2.04	08.08.2016	New doc format

CONTENTS

1 INTRODUCTION

This document is the product data manual for the Folknoll Group Ltd intelligent affray alarm system.

The intelligent affray alarm system comprises a number of components that can be assembled to construct a variety of alarm strip systems. The system offers the following features

- A range of standard, illuminated and IP 65 alarm strips, push buttons, beacons etc.
- Control and monitoring for up to 150 zones
- Alarm strip illumination control (on when normal, flashing if alarm, off if fault detected)
- Alarm strip fault monitoring
- Alarm outputs for local and central beacons, sounders etc.
- Momentary outputs for radio interface
- Standard LCD and LED remote indicator panels, customised panels on request
- Outputs for BMS and security systems
- Can be fitted to existing systems to add fault monitoring and illumination control
- Can be integrated with Folknoll Group Ltd custodial and custody suite systems

1.1 OPERATION

In standby, alarm strips are illuminated to indicate the strip is healthy and ready for activation (someone to a press the strip).

System controllers continually monitor alarm strips for presses and faults.

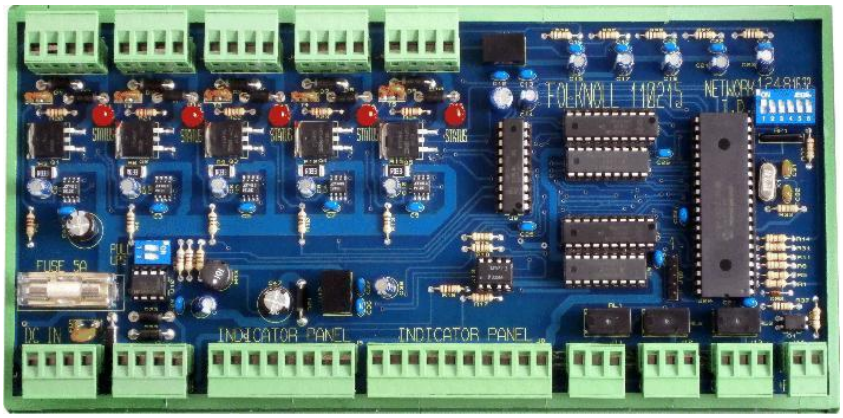
If an alarm strip is pressed its illumination is flashed. The indicator panels sound and display the source of the alarm. Local outputs are activated to operate alarm annunciators, e.g. corridor beacons.

Sounders can be muted by pressing the mute button on the indicator panel. Alarms remain activated and displayed on the indicator panels until reset. Alarms are reset using a keyed reset switch on the indicator panel. The keyed reset switch prevents un-authorised resets.

If a fault is detected, the faulty alarm strip is deactivated and the illumination is switched off to warn potential users that the strip is not operating. In addition, the indicator panel sounds and displays the source of the fault so that staff can take appropriate action. Indicator panel sounders may be muted but the source of the fault remains displayed on until the fault is repaired.

2 CONTROLLER

The intelligent affray alarm system is built around our 110215 controller.

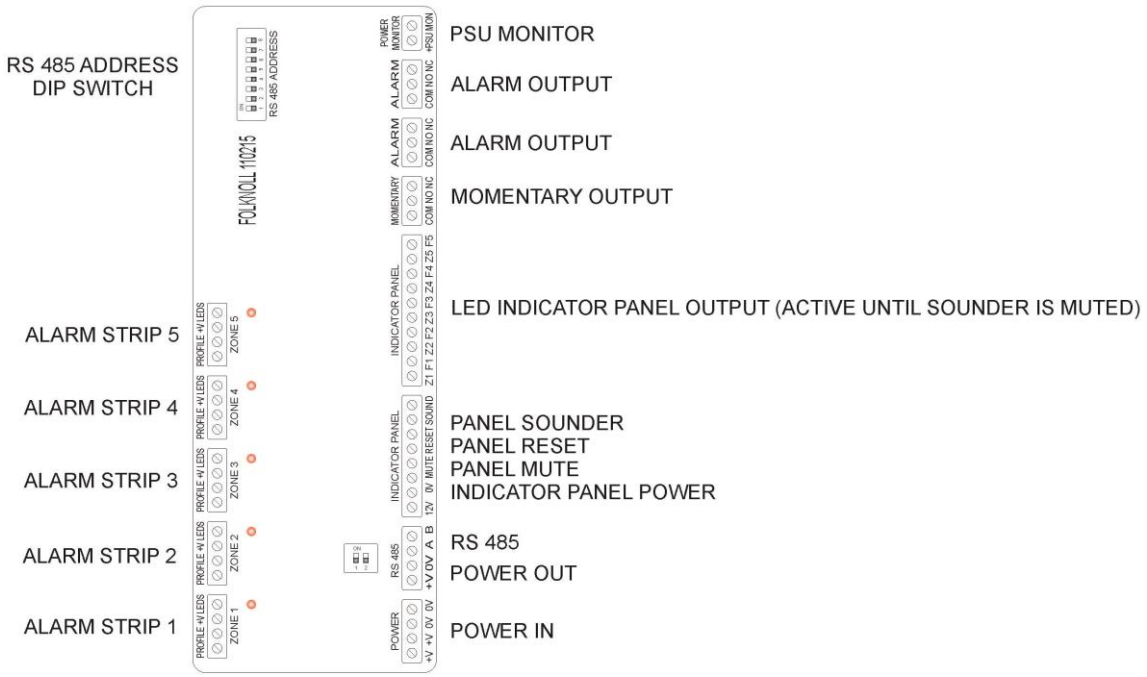


Controllers

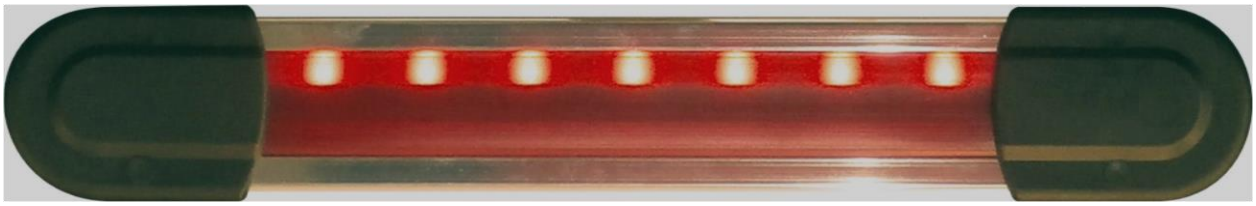
- Monitor and control up to 5-off standard or illuminated alarm strips
- Provide outputs for local devices e.g. beacons and sounders
- Provide outputs for indicator panels, and other monitoring systems
- Monitor PSU faults

Controllers may be daisy chained over RS 485 to provide monitoring for additional alarm strips. Please refer to section 9 Systems with Multiple Controllers.

2.1 CONTROLLER CONNECTION

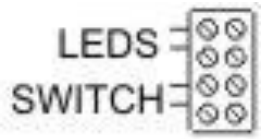


3 ALARM STRIPS



We offer a range of alarm strips for use with this system. Alarm strips are connected to controllers, which monitor the strip and provide power for the illumination.

3.1 ALARM STRIP CONNECTION



Alarm strips have flying terminal blocks.

The terminal block will be located at one end of the terminal strip.

An end of line resistor should be fitted to the other end.

The switch terminals are connected to the profile terminals of the system controller.

If the strip has LED illumination, two additional connections are provided. These should be connected to the LED terminals of the controller. The red wire indicates the +Ve LED input, and must be connected to the +LED terminal.

Please refer to sections 7 Typical System with LED Indicator Panel or 8 Typical System with LCD Indicator Panels for typical connection diagrams.

4 LED INDICATOR PANEL

The LED Indicator panel displays the status of up to five alarm strips. The panel also has a built in sounder for alerting staff to alarms. Alarms may be muted and reset at the panel please refer to section 11 Operating Instructions.

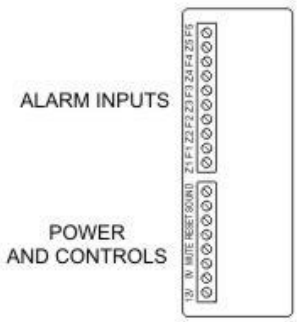
For larger systems an LCD indicator panel may be used, please refer to section 5 LCD Indicator Panel.

Customised panels with additional zones etc. are available on request.

4.1 LED INDICATOR CONNECTION

LED Indicator panels are connected to the controller by a straight-through 10-pair or 20-core cable.

Linking the 10-way alarm input connector on the indicator to the 10-way alarm output connector on the controller and the 8-way power and controls connector on the indicator to the 8-way power and controls connector on the controller.



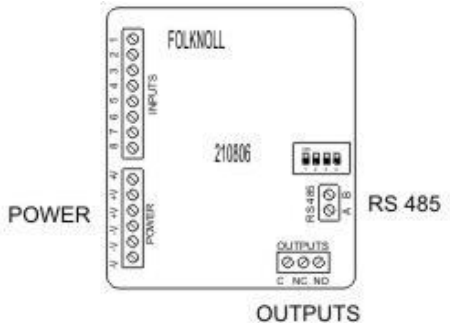
Please refer to section 7 Typical System with LED Indicator Panel for a typical connection diagram.

5 LCD INDICATOR PANEL

The LCD Indicator panel, displays the status of up to 150 alarm strips. The panel also has a built in sounder for alerting staff to alarms. Alarms may be muted and reset at the panel please refer to section 11 Operating Instructions.

Customised alarm and fault text available on request.

5.1 LCD INDICATOR CONNECTION



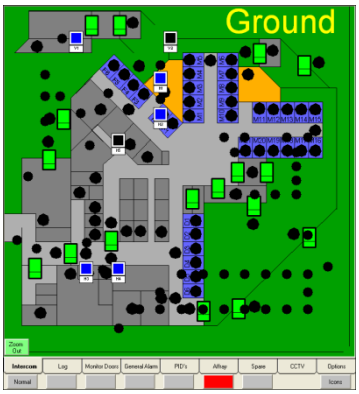
LCD indicator panels are connected to the controller by a single 2 pair cable. Linking the RS 485 connector on the controller with the POWER and RS485 connector on the LCD indicator.

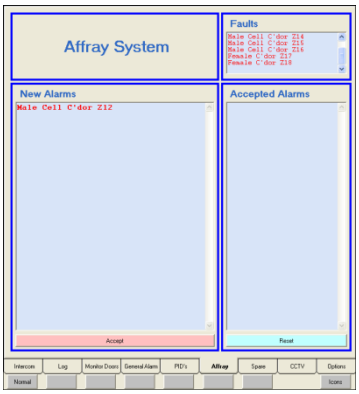
Please refer to section 8 Typical System with LCD Indicator Panels for a typical connection diagram.

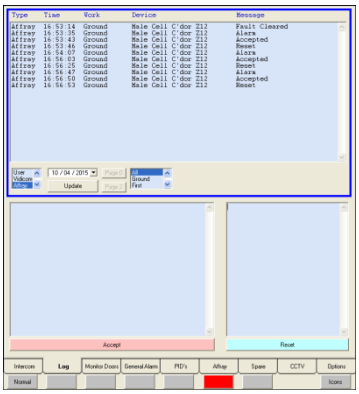
6 WORKSTATION / 3RD PARTY INTERFACE

An interface for external systems is available, this can be RS232/RS485/IP as required. Please contact Folknoll for details.

Folknoll offer a PC workstation for use with this interface. The workstation offers a plan based GUI, alarm strip status, and event logs.



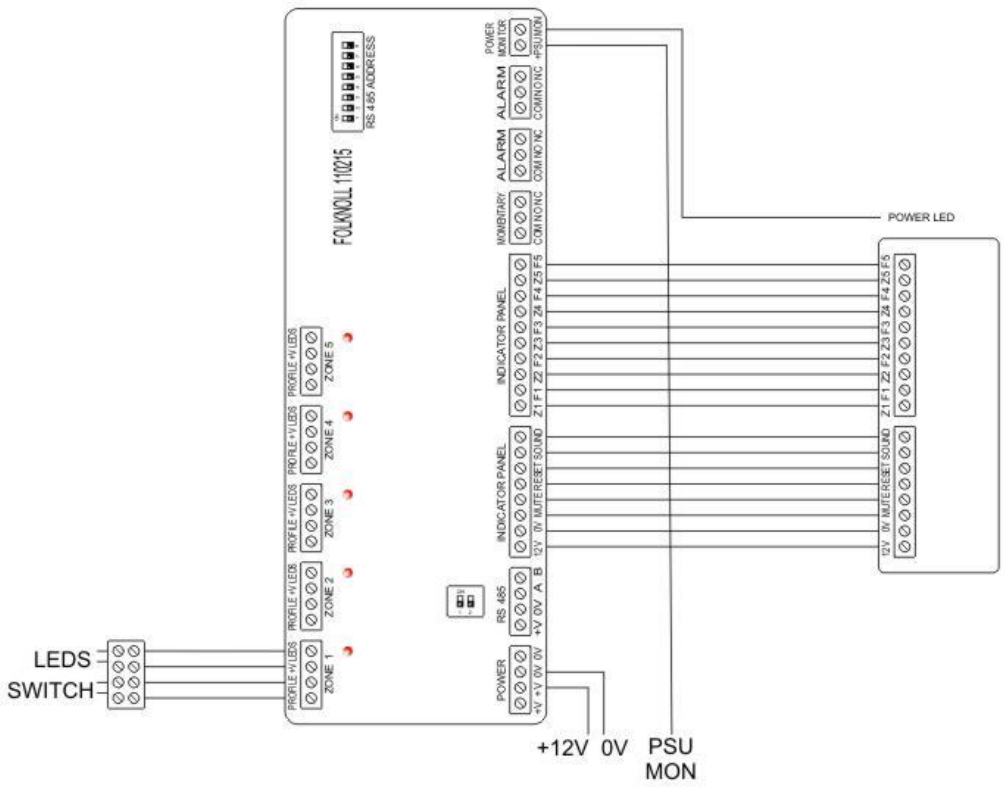




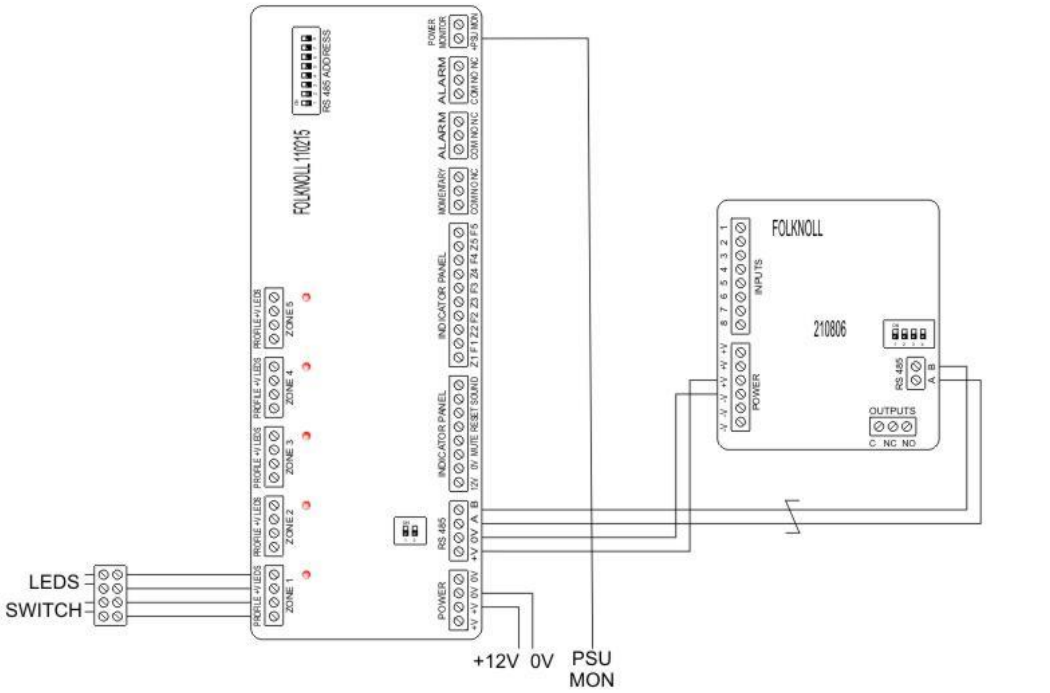
Mutiple workstations can be networked to the intelligent affray system using the IP interface, please refer to section 10 Typical Event Log / Workstation / IP Interface.

The workstation can be integrated with videcom, door control, and other security systems.

7 TYPICAL SYSTEM WITH LED INDICATOR PANEL



8 TYPICAL SYSTEM WITH LCD INDICATOR PANELS



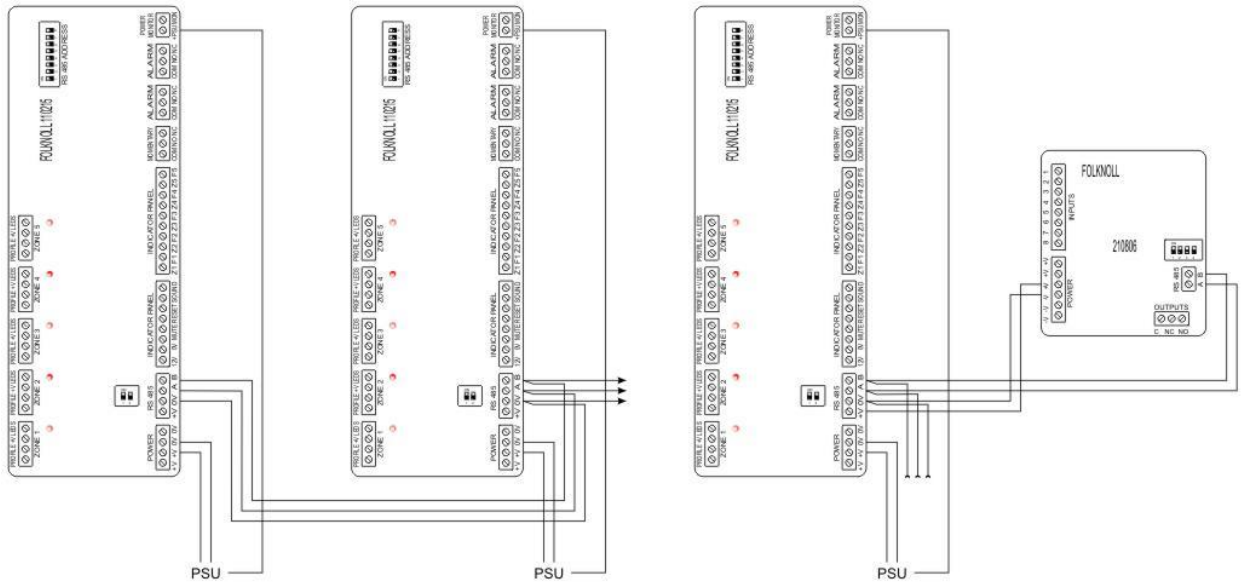
ALARM STRIP CONTROLLER LCD INDICATOR PANEL

9 SYSTEMS WITH MULTIPLE CONTROLLERS

Each controller monitors and controls up to 5-off alarm strips.

For larger systems link up to additional controllers over RS 485.

Daisy chain the AB connectors as shown below:



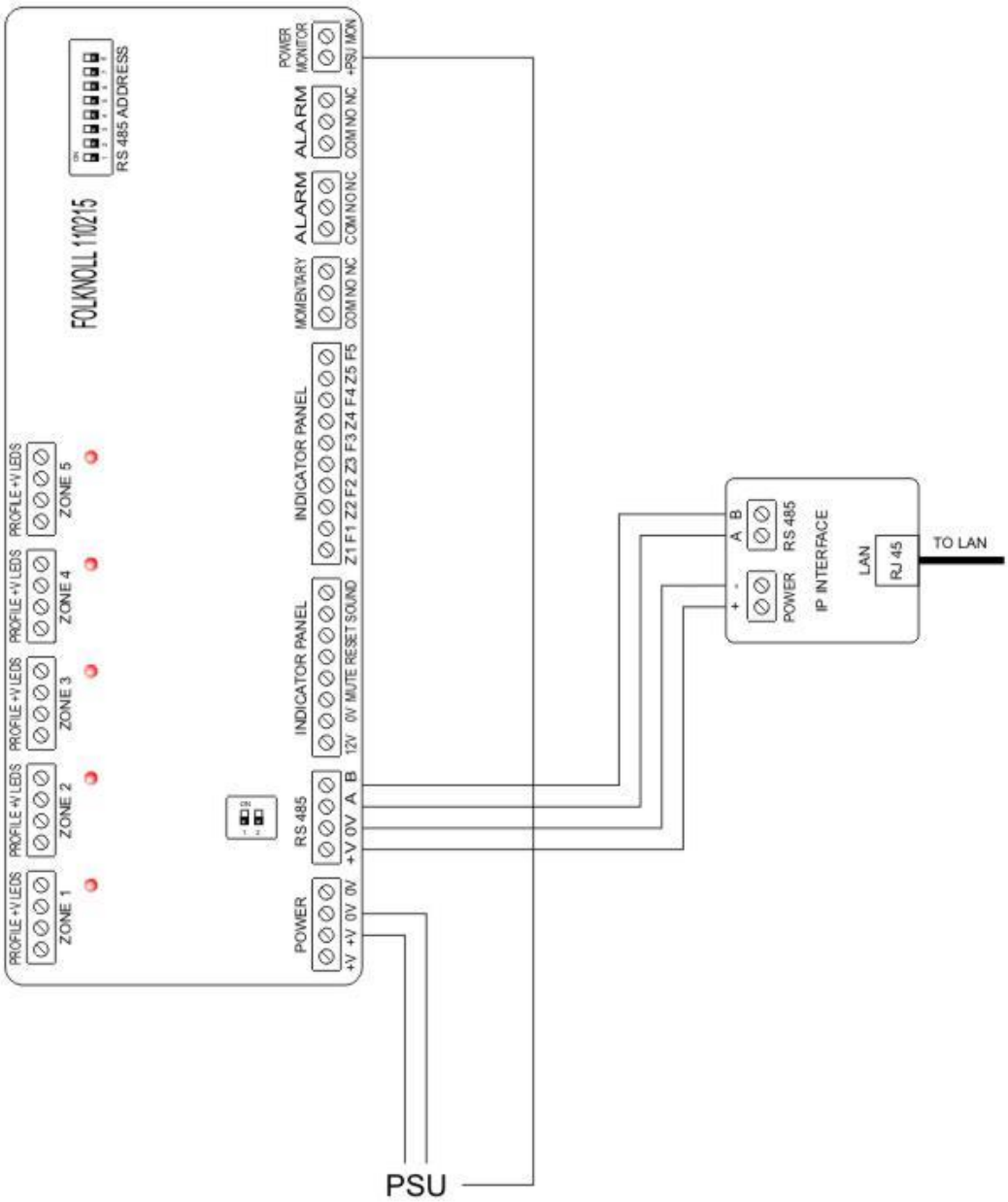
Set the RS 485 address DIP switches to different values to avoid conflicts. Up to 31 controllers may be linked in this way.

ADDRESS	DIP SWITCHES					
	1	2	3	4	5	6
01	ON	OFF	OFF	OFF	OFF	N/A
02	OFF	ON	OFF	OFF	OFF	N/A
03	ON	ON	OFF	OFF	OFF	N/A
04	OFF	OFF	ON	OFF	OFF	N/A
Etc						
63	ON	ON	ON	ON	ON	N/A

The system will automatically allocate alarm numbers to each strip depending upon the address of its controller.

If your system has an LCD panel with customized messages, configure the RS 485 addresses to match this configuration.

10 TYPICAL EVENT LOG / WORKSTATION / IP INTERFACE



11 OPERATING INSTRUCTIONS

11.1 NORMAL OPERATION

- All alarm strips are active, illuminated strips are illuminated
- Any attached beacon sounders are off and silent
- Indicator panels are silent and do not indicate alarms or faults

11.2 ALARM ACTIVATION

Alarms are activated by pressing one or more alarm strips.

- If an activated alarm strip is illuminated the illumination will flash
- Any attached beacon sounders will flash and sound
- The indicator panel will indicate the source of the alarm and sound

11.2.1 Alarm Mute

Alarms are muted by pressing the mute button on the indicator panel.

- Activated alarm strips will continue to flash
- Any attached beacon sounders will be turned off and silenced
- The indicator panels will be silenced but continue to indicate the source of the alarm

Alarms will remain activated until reset.

11.2.2 Alarm Reset

Alarms are reset by pressing/turning the reset button/key on the indicator panel.

- Illuminated strips will no longer flash
- Any attached beacon sounders will be switched off and silenced
- The indicator panel will be silenced and will not indicate alarms

11.3 FAULT ACTIVATION

A fault is activated when a problem with an alarms strip is detected. E.g. a cable is cut.

- The ‘faulty’ strip will no longer be active and its illumination will be switched off
- The indicator panel will indicate the source of the fault and sound

11.3.1 Fault Mute

Faults are muted by pressing the mute button on the indicator panel.

- The indicator panel will be silenced but will continue to indicate the source of the alarm

11.3.2 Fault Reset

Faults cannot be reset; the indicator panel will indicate the source of the fault until the fault has been repaired.

Reset by pressing/turning the reset button/key on the indicator panel will reactivate the sounders.

12 APPENDIX A INPUT IDENTITIES TYPE A

INTELLIGENT AFFRAY SYSTEMS – INPUT IDENTITIES
TYPE A – LED PANEL

PANEL 1

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

PANEL 2

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

PANEL 3

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

PANEL 4

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

Max. 16 Characters per Input
Use Expansion Form for Additional Panels

13 APPENDIX A INPUT IDENTITIES TYPE A EXPANSION

INTELLIGENT AFFRAY SYSTEMS – INPUT IDENTITIES
TYPE A – LED PANEL

PANEL ...

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

PANEL ...

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

PANEL ...

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

PANEL ...

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

Max. 16 Characters per Input
Use Expansion Form for Additional Panels

14 APPENDIX A INPUT IDENTITIES TYPE B

INTELLIGENT AFFRAY SYSTEMS – INPUT IDENTITIES
TYPE B – LCD PANEL

MODULE 1

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

MODULE 2

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

MODULE 3

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

MODULE 4

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

Max. 16 Characters per Input
Use Expansion Form for Additional Panels

15 APPENDIX A INPUT IDENTITIES TYPE B EXPANSION

INTELLIGENT AFFRAY SYSTEMS – INPUT IDENTITIES

TYPE B – LCD PANEL

MODULE ...

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

MODULE ...

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

MODULE ...

Input 1																
Input 2																
Input 3																
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Input 5																

MODULE ...

Input 1																
Input 2																
Input 3																
Input 4																
Input 5																

Max. 16 Characters per Input
Use Expansion Form for Additional Panels

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