Installation Precautions

**Adherence to the following will aid in problem-free installation with long-term reliability:**

**WARNING** - Several different sources of power can be connected to the fire alarm control panel. Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit until manuals are read and understood.

Verify that wire sizes are adequate for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% voltage drop from the specified device voltage.

Like all solid state electronic devices, this system may operate erratically or can be damaged when subjected to lightning induced transients. Although no system is completely immune from lightning transients and interference, proper grounding will reduce susceptibility. Overhead or outside aerial wiring is not recommended, due to an increased susceptibility to nearby lightning strikes. Consult with the Technical Services Department if any problems are anticipated or encountered.

Disconnect AC power and batteries prior to removing or inserting circuit boards. Failure to do so can damage circuits.

Remove all electronic assemblies prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they will not interfere with battery, transformer, or printed circuit board location.

Do not tighten screw terminals. Over-tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.

This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use static suppressive packaging to protect electronic assemblies removed from the unit.

Follow the instructions in the installation, operating, and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment. FACP operation and reliability depend upon proper installation.

The equipment must be correctly programmed and installed to suit the specific application. Please ensure correct operational parameters are set prior to commissioning. If further details on programming options are required, please consult the programming manual or contact our helpful technical support personnel.

---

**EMC Warning:**

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Electromagnetic Interface (EMI) tests are performed in accordance with Class A requirements of AS/NZS CISPR 22:2009

---

**Documentation Feedback**

Your feedback helps us keep our documentation up-to-date and accurate. If you have any comments or suggestions about our online Help or printed manuals, you can email us.

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- Printed manual or online Help
- Topic Title (for online Help)
- Page number (for printed manual)
- Brief description of content you think should be improved or corrected
- Your suggestion for how to correct/improve documentation

Send email messages to:

FireSystems.TechPubs@honeywell.com

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# Table of Contents

## Section 1: General Information ................................................................. 5
1.1: Related Documents ............................................................................. 5
1.2: Introduction to the Control Panel ....................................................... 6
1.3: Operating Features ............................................................................ 6
1.3.1: The Display/Keypad .................................................................... 7
1.4: Message Formats ................................................................................ 9
1.4.1: System Normal Screen ............................................................... 9
1.4.2: Event Reporting Format .............................................................. 9
1.5: Navigating Menu and Programming Screens .................................... 12
1.6: The Main Menu .................................................................................. 12
1.6.1: Event List .................................................................................... 13
1.6.2: More Information ........................................................................ 14
1.6.3: History Display (History Select Screen) ....................................... 15
1.6.4: Read Status ................................................................................ 16
1.6.5: Program/Alter Status ................................................................. 16
1.6.6: Printer Functions ................................................................. 16

## Section 2: Operation of the Control Panel ................................................ 17
2.1: Overview ......................................................................................... 17
2.1.1: System Normal ............................................................................ 17
2.1.2: Acknowledging an Event ............................................................ 17
2.2: Fire Alarm Event ............................................................................. 17
2.2.1: How the Control Panel Indicates a Fire Alarm ......................... 17
2.2.2: How to Respond to a Fire Alarm ............................................... 18
2.2.3: Interpreting Type ID Codes ....................................................... 18
2.3: System or Point Fault Event .......................................................... 18
2.3.1: How the Control Panel Indicates a System or Point Fault .......... 18
2.3.2: How to Respond to a System or Point Fault .............................. 19
2.3.3: Fault Types ............................................................................... 20
2.3.4: Interpreting Type ID Codes ....................................................... 25
2.4: Prealarm Event ............................................................................... 25
2.4.1: How the Control Panel Indicates a Prealarm .............................. 25
2.4.2: How to Respond to a Prealarm Warning .................................... 26
2.4.3: Interpreting Type ID Codes ....................................................... 26
2.5: Supervisory Signal Event ............................................................... 26
2.5.1: How the Control Panel Indicates an Active Supervisory ........... 26
2.5.2: How to Respond to an Active Supervisory ................................. 26
2.5.3: How to Interpret Type Codes .................................................... 27
2.6: CO Alarm Event ............................................................................. 27
2.6.1: How the Control Panel Indicates a CO Alarm ............................ 27
2.6.2: How to Respond to a CO Alarm ................................................ 27
2.6.3: Interpreting Type ID Codes ....................................................... 27
2.7: CO Prealarm Event ......................................................................... 28
2.7.1: How the Control Panel Indicates a CO Pre-alarm ................. 28
2.7.2: How to Respond to a CO Pre-Alarm Warning .......................... 28
2.7.3: Interpreting Type ID Codes ....................................................... 28
2.8: Mass Notification Alarm Event ....................................................... 28
2.8.1: How the Control Panel Indicates a Mass Notification Alarm .... 28
2.8.2: How to Respond to an MN Alarm ............................................. 29
2.8.3: Interpreting Type ID Codes ....................................................... 29
2.9: Mass Notification Supervisory Event ............................................. 29
2.9.1: How the Control Panel Indicates an MN Supervisory Point Event 29
2.9.2: How to Respond to an Active MN Supervisory ....................... 30
2.9.3: How to Interpret Type Codes .................................................... 30
2.10: Mass Notification Fault Event ..................................................... 30
2.10.1: How the Control Panel Indicates a Mass Notification Fault .... 30
2.10.2: How to Respond to a Mass Notification Fault ....................... 31
2.11: Disabled Points Event ................................................................. 31
2.11.1: How the Control Panel Indicates a Disabled Point Event ....... 31
2.11.2: How the Control Panel Indicates an Active Non-fire Point .... 32
2.13: Operation of Special System Timers, and Output Delay Time .......... 32
2.13.1: System (Panel) Timers ........................................................... 32
2.13.2: Output Delay Time ............................................................... 33

## Section 3: Read Status ........................................................................ 34
3.1: Point Select Screen ........................................................................ 34
Table of Contents

3.2: Smoke Detector ......................................................................................................................... 35
3.3: Heat Detector ............................................................................................................................... 36
3.4: Photo/CO Detector ..................................................................................................................... 37
3.5: Aspiration Detector .................................................................................................................... 38
3.6: Monitor Module ........................................................................................................................... 38
3.7: Control Module .......................................................................................................................... 39
3.8: General Zone .............................................................................................................................. 40
3.9: Logic Zone .................................................................................................................................. 40
3.10: Special Function Zone .............................................................................................................. 41
3.11: Fault Zone .................................................................................................................................. 41
3.12: Annunciator .............................................................................................................................. 42
3.13: DAA Speaker Circuit ............................................................................................................... 42
3.14: PAM Points ............................................................................................................................... 43

Section 4: Viewing and Printing History Information ................................................................. 44
4.1: Events History ............................................................................................................................. 44
4.2: Time and Date Range Selection for All Events ......................................................................... 45
4.3: Point Range Select for All Events in Range ............................................................................. 45

Section 5: Printing Reports .......................................................................................................... 47
5.1: Printer Functions Screen .......................................................................................................... 47
5.2: Print Programming Menu Screen ............................................................................................ 48
5.3: Print Programming Menu Screen (2) ........................................................................................ 49
5.4: Active Points Report Screen ..................................................................................................... 50
5.5: Installed Points Report Screen ................................................................................................ 51

Appendix A: Software Type ID Codes ......................................................................................... 53
A.1: Alphabetical List ....................................................................................................................... 53

Appendix B: Releasing Zones ...................................................................................................... 56
B.1: Introduction ............................................................................................................................... 56
B.2: How Releasing Zones Operate ............................................................................................... 57

Index .................................................................................................................................................. 58
### Section 1: General Information

#### 1.1 Related Documents

The table below provides a list of documents referenced in this manual, as well as documents for selected other compatible devices.

<table>
<thead>
<tr>
<th>Off-line Programming Utility</th>
<th>Document Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Alarm Control Panel (FACP) and Main Power Supply Installation</td>
<td></td>
</tr>
<tr>
<td>AFP-3030 Installation, Programming, and Operations Manuals</td>
<td>DOC-01-031, DOC-01-032, DOC-01-033</td>
</tr>
<tr>
<td>NPS (Notifier Power Supply) Installation Sheet</td>
<td>DOC-03-057</td>
</tr>
<tr>
<td>Battery Connection Installation Kit</td>
<td>DOC-03-046</td>
</tr>
<tr>
<td>Networking</td>
<td></td>
</tr>
<tr>
<td>NotiFireNet Version 5.0 &amp; Higher Manual</td>
<td>51584</td>
</tr>
<tr>
<td>High-Speed Notifier Network Manual</td>
<td>54013</td>
</tr>
<tr>
<td>HS-NCM Installation Document</td>
<td>54014</td>
</tr>
<tr>
<td>System Components</td>
<td></td>
</tr>
<tr>
<td>ARE Interface Board Installation Sheet</td>
<td>DOC-03-062</td>
</tr>
<tr>
<td>Zone Mimic Manual</td>
<td>DOC-01-028</td>
</tr>
<tr>
<td>ACM-8RA Installation Sheet</td>
<td>DOC-03-052</td>
</tr>
<tr>
<td>Intrinsically Safe Barrier Manual</td>
<td>DOC-01-029</td>
</tr>
<tr>
<td>Annunciator Name Plate Installation Sheet</td>
<td>DOC-03-060</td>
</tr>
<tr>
<td>Extinguishing Agent release Module Manual</td>
<td>DOC-01-005</td>
</tr>
<tr>
<td>DA Series BOWS Manual</td>
<td>DOC-01-004</td>
</tr>
<tr>
<td>DVC Digital Voice Command Manual</td>
<td>52411</td>
</tr>
<tr>
<td>DVC-RPU Manual</td>
<td>50107425-001</td>
</tr>
<tr>
<td>DAA2 and DAX Amplifiers Manual</td>
<td>53265</td>
</tr>
<tr>
<td>DAL Devices Reference Document</td>
<td>52410</td>
</tr>
<tr>
<td>Mass Notification Systems Configuration, Programming and Operations Manual</td>
<td>LS10063-000NF-E</td>
</tr>
<tr>
<td>Annunciator Control System Manual</td>
<td>15842</td>
</tr>
<tr>
<td>LCD2-80 Manual</td>
<td>53242</td>
</tr>
<tr>
<td>LDM Series Lamp Driver Annunciator Manual</td>
<td>15885</td>
</tr>
<tr>
<td>SCS Smoke Control Manual (Smoke and HVAC Control Station) Manual</td>
<td>15712</td>
</tr>
<tr>
<td>First Command Manual</td>
<td>LS1001-001NF-E</td>
</tr>
<tr>
<td>XP10-M Ten Input Monitor Module Installation Document</td>
<td>i56-1803</td>
</tr>
<tr>
<td>XP6-C Supervised Control Module Installation Document</td>
<td>i56-1805</td>
</tr>
<tr>
<td>XP6-MA Six Zone Interface Module Installation Document</td>
<td>i56-1806</td>
</tr>
<tr>
<td>XP6-R Six Relay Control Module Installation Document</td>
<td>i56-1804</td>
</tr>
<tr>
<td>FSA-8000 FAAST Intelligent Aspiration Sensing Technology Document</td>
<td>i56-3903</td>
</tr>
<tr>
<td>SLC-IM Manual</td>
<td>LS10026-000NF-E</td>
</tr>
</tbody>
</table>

| **Table 1.1 Related Documents** |

**About This Manual**

The following graphics appear in the manual to indicate a caution, a warning, or a note.

| **CAUTION:** | INFORMATION ABOUT PROCEDURES THAT COULD CAUSE PROGRAMMING ERRORS, RUNTIME ERRORS, OR EQUIPMENT DAMAGE. |
| **WARNING:** | INFORMATION ABOUT PROCEDURES THAT COULD CAUSE IRREVERSIBLE DAMAGE TO THE CONTROL PANEL, IRREVERSIBLE LOSS OF PROGRAMMING DATA OR PERSONAL INJURY. |

---

*AFP-3030 Operations Manual — P/N DOC-01-033:C 05/12/2018* 5
1.2 Introduction to the Control Panel

The AFP-3030 is an intelligent Fire Alarm Control Panel (FACP) with features suitable for most applications. There are two basic configuration options for the AFP-3030.

With Display

In this configuration, the panel comes fitted with a front display/keypad, which allows programming and viewing options at the panel. This manual gives operating instructions using the front display/keypad.

Displayless Mode

In Displayless Mode, no keypad/display is fitted at the panel, and it is controlled by remote annunciators. VeriFire™ Tools programming is required. Refer to VeriFire™ Tools Help File for information on programming without an AFP-3030 display/keypad. A PC is required when using VeriFire™ Tools.

1.3 Operating Features

- Alarm Verification selection, to reduce unwanted alarms
- Output Delay Time
- Silence Inhibit timer and Auto Silence timer for Notification Appliance Circuits (NACs)
- Programmable Signal Silence, System Reset, and Alarm Activate functions through monitor modules
- Automatic time-of-day and day-of-week control functions, with holiday option
- Intelligent Sensing with nine field-adjustable Pre-Alarm levels with programmable Control-By-Event (CBE)
- Operate automatic smoke or heat detector sounder/relay base on action Pre-Alarm level, with general evacuation on alarm level
- Centralized voice paging and audible alarm signalling options
- Programmable Control-By-Event control of outputs from individual alarm or supervisory addressable devices
- Networks with other FACPs and equipment for large applications
- Automatic detector sensitivity adjustments based on programmable building occupancy schedules
- Compatible with Mass Notification Systems
1.3.1 The Display/Keypad

The display/keypad provides an easy-to-use keypad and large LCD (liquid crystal display) that simplifies the programming process.

The Liquid Crystal Display

The display is 40 characters wide by 16 lines. It displays all programming screens, as well as events, history, device and other information. Fields may be entered or changed and commands may be issued on the display using the keypad.

The Keypad

The keypad has several types of keys, described below.

The keypad consists of several types of keys: alphanumericics, control keys, soft keys, and fixed function keys.

- **Keypad**
  The alphanumeric portion of the keypad is in standard QWERTY format. This keypad is functional mainly when an entry is requested by the system. Otherwise, pressing these keys results in no entry.

- **Soft Keys**
  The ten keys to the left and right of the display function to select commands that appear on the display. Each screen has different information, and each key changes function to suit the screen. Beneath each screen in this manual is a description of the function of each soft key.

- **Fixed Function Keys**
  The nine keys aligned along the upper right edge of the keypad/display are fixed function keys.

  - **FAULT SCROLL**
  - **SUPERVISORY SCROLL**
  - **DISABLE SCROLL**
  - **OTHER SCROLL**

  Event Keys: Scroll through a list of events of these types, each of which will appear on the display once the associated button is pushed. The OTHER EVENT SCROLL key also scrolls through CO Alarm and Prealarm events.
ALARM DEVICES TEST - Press this key to place all devices designated as Alarm Devices into test mode. When alarm devices are placed in test, the fire panel will display, “Starting Alarm Devices Test”, the LED next to the Alarm Devices Test key will illuminate, and Special Function Zone 7 will activate. When in test, all devices designated as Alarm Devices will either be forced on or set back to automatic. Pressing the Alarm Devices Test key again will display, “Stopping Alarm Devices Test” on the fire panel, return the Alarm Devices to their original state prior to the test, turn off the Alarm Test LED, and deactivate Special Function Zone 7.

ALARM DEVICES DISABLE - Press this key to disable all devices designated as Alarm Devices. When disabled, the Alarm Devices Disable LED will illuminate, the LED next to the Alarm Devices Disable button will illuminate, and Special Function Zone 25 will activate. When disabled, the alarm devices will not report alarm conditions to the fire panel. Pressing the Alarm Devices Disable key a second time will re-enable the devices, turn off the Alarm Devices Disable LED, and de-activate Special Function Zone 25.

SMOKE CONTROL RESET - Press this key to reset any latching smoke control devices.

SMOKE CONTROL DISABLE - Press this key to disable smoke control operation.

DELAYS ON/OFF - Press this key to turn on or off the delay output activations.

■ Control Keys

The five keys aligned above the QWERTY keypad, just below the LCD display, are Control function keys.

SILENCE BUZZER - Press this key to acknowledge all events on the panel and silence the panel buzzer.

SILENCE/RESOUND ALARM - Press this key to silence or resound all silenceable outputs.

SEVERAL ALARMS - SCROLL - Press this key scroll through the events on the LCD display.

RESET - Press this key to perform a system reset. This will clear all latched alarms and other events as well as turn off event LEDs. If alarms or other off-normal events exist after reset, they will resound the system and relight the LEDs. Unacknowledged events will not prevent reset from functioning unless the panel is programmed for Receive Mode. The SYSTEM RESET key will not function if the programmable Silence Inhibit Timer is running.

The System Reset key will not immediately silence active outputs. If the Control-by-event programming conditions for the output are not met after reset, the output will deactivate. (Typically 30 seconds local, 60 seconds network.)

If both Fire and Mass Notification events exist on the fire panel at the same time, a second System Reset will need to be performed to reset the fire panel. The AFP-3030 will display MN SYSTEM RESET or FIRE SYSTEM RESET, depending on which event has priority. For information regarding event priority, refer to the AFP-3030 Programming Manual.

DISABLE - Press this key to disable the device listed on the screen.

If a fire alarm is present on the fire panel, the panel must be silenced before the device can be disabled. When the panel is displaying the Alarm Screen and Disable is pressed, all active alarms will be disabled.

Pressing disable on an event screen will disable the device displayed on the screen or re-enable the device if previously disabled.

■ Special Function Keys

To the right of the QWERTY keypad are special function keys.

Arrow Keys - Pressing these keys navigates through the programming fields on a display screen by advancing or reversing the cursor position.

ESC/MENU - Press this key once to return to the previous screen when pressed in the programming menu. When not in programming, press this key to access the main menu.

ENT - Pressing this key acts as an alternative Accept button when navigating programming menus.

NEXT/PREVIOUS - Use these keys to scroll through the list of possibilities in a data field on the display screen.

PRINT - Press this key to print what is displayed on the display screen.

BATT - Press this key to display power supply battery levels on the display screen.

LAMP - Press this key to test the LED indicators on the keypad and the piezo. Pressing the key longer than 5 seconds will display firmware version numbers on the display screen for hardware installed on the system. The “Next” softkey will scroll through the firmware version screens and loop back to the first. To exit, press the Lamp Test screen again.

■ LED Indicators

There are nineteen labeled LEDs on the keypad. They light to annunciate certain conditions, as described in Table 1.2 below.

<table>
<thead>
<tr>
<th>LED INDICATOR</th>
<th>COLOR</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire</td>
<td>Red</td>
<td>Illuminates when there are fire events in the system.</td>
</tr>
<tr>
<td>Operation</td>
<td>Green</td>
<td>Illuminates when system power is on and the system is functioning as expected. Not illuminated when:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Main Power Supply is too low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Backup battery supply is too low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Panel has a CRC Fault on firmware or database</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Losses communication with another node (when in Network Display Mode)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Losses communication with the LCM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Losses communication with the ACM-PSI</td>
</tr>
<tr>
<td>Alarm Routing</td>
<td>Red</td>
<td>Illuminates when the A.R.E. Alarm Routing Output is active.</td>
</tr>
<tr>
<td>Equipment Act.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Several Alarms</td>
<td>Red</td>
<td>Illuminates when more than one fire event is present on the panel.</td>
</tr>
<tr>
<td>System Fault</td>
<td>Yellow</td>
<td>Illuminates when at least one system fault exists on the fire panel.</td>
</tr>
<tr>
<td>Fault</td>
<td>Yellow</td>
<td>Illuminates when at least one fault event exists on the fire panel.</td>
</tr>
</tbody>
</table>

Table 1.2 LED Indicators (1 of 2)
1.4 Message Formats

This section describes the formats for system normal, device events and system events screens. For a definition of these types of events, as well as instructions for dealing with them, refer to Section 2, “Operation of the Control Panel” in this manual.

1.4.1 System Normal Screen

The System Normal message appears at the top of the display when no off-normal events exist. It consists of two lines, each 40 characters long. Line one is a custom network message. Line 2 is a standard message giving the System Normal message. The Main Menu is selectable using the lower right soft key.

Line 4 indicates the current time and date.

A custom graphic may be displayed below the system normal message: the graphic must be entered using VeriFire® Tools. The text “Main Menu” will overlay the graphic, if it extends into the last line of the display.

1.4.2 Event Reporting Format

The message formats used for event reporting appear at the top of the display, replacing the System Normal message. There are two basic types of message formats: point event formats, which are generated from changes in the state of SLC and panel devices, and system event formats, which are generated from system errors and faults.
Point Events Format

When a change of state occurs to an SLC or panel point device, a message is generated to the panel that displays on the top of the LCD screen, and soft keys display available functions that may be used to handle the event. The top four lines contain the event and point information. Event counts display in the next three lines, the current time and soft key information appears after the event counts.

The format of the first line will vary slightly as follows, depending on the type of event:

- **Event Format (not fault or prealarm)**
  - Line 1: Displays the type of event, and whether it has been acknowledged or cleared.

- **Event Format (fault)**
  - Line 1: Displays FAULT, the type of fault, and whether it has been acknowledged or cleared.

- **Event Format (prealarm)**
  - Line 1: Displays PREALARM, the sensitivity reading and whether it has been acknowledged.

The second, third and fourth lines always contain the same device information, as follows:

- Line 2: Displays the custom label and the extended label.
- Line 3: Displays the primary zone label, the primary zone number, and the software Type ID.
- Line 4: Displays event time, event date and device address.

The point event example screen below shows a fault condition that has been generated by the monitor on loop 2, address 4.

![Point Event Display Example](image_url)

The event counts display shows the counts for outstanding events. The date in line 16 gives the current time. The event keys may be used to display events; their functions are described in the Operation section of this manual.

System Events Format

When a system fault occurs, a message is generated to the panel that displays on the top of the LCD screen, and soft keys display available functions that may be used to handle the event.
The top four lines contain event information, and are formatted as follows:

- **Line 1** - Displays the type of event, and whether it has been acknowledged or cleared.
- **Line 2** - Displays the type of event.
- **Line 3** - Displays the custom message.
- **Line 4** - Displays the event time and date and node address.

The system fault event example screen below shows an annunciator fault condition.

![System Event Display Example](image)

**Figure 1.4 System Event Display Example**

The event counts display shows the counts for outstanding events. The date in line eight gives the current time. The soft keys may be used to deal with the event; their functions are described in the Operation section of this manual.

**Mass Notification Events**

When a local mass notification event occurs on the fire panel, a message is generated to the panel that displays on the top of the LCD screen, and soft keys display available functions that may be used to handle the event.

The format of the first line will vary slightly as follows, depending on the type of event:

### Event Format (not fault or supervisory)

- **Line 1** - Displays the type of event, and whether it has been acknowledged or cleared.
- **Line 2** - Displays the type of event.
- **Line 3** - Displays the custom message.
- **Line 4** - Displays the event time and date and node address.

- **Event** MN ALARM
  - **Line 1** MN ALARM
  - **Line 2** SECURITY OFFICE
  - **Line 3** MAIN BLDG
  - **Line 4** FIRST FLOOR ZF20 MN MON 11:58:43A MON 21, JAN, 2019

- **Event** MN FAULT
  - **Line 1** MN FAULT
  - **Line 2** SECURITY OFFICE
  - **Line 3** MAIN BLDG
  - **Line 4** FIRST FLOOR ZF20 MN MON 11:58:43A MON 21, JAN, 2019

- **Event** MN SUPERVISORY
  - **Line 1** MN SUPERVISORY
  - **Line 2** SECURITY OFFICE
  - **Line 3** MAIN BLDG
  - **Line 4** FIRST FLOOR ZF20 MN MON 11:58:43A MON 21, JAN, 2019
General Information

Navigating Menu and Programming Screens

The second, third and fourth lines always contain the same device information, as follows:

Line 2 - Displays the custom label and the extended label
Line 3 - Displays the primary zone label, the primary zone number, and the software Type ID.
Line 4 - Displays event time, event date and device address.

Refer to Figure 1.3 on page 10 for an example of a Point Event Display.

If the fire panel is ALL SYSTEMS NORMAL and a Mass Notification event occurs over the network on a MNS mapped node, the panel will display NETWORK MN ACTIVE. Refer to VeriFire Tools for MN Mapping information.

![Network Mass Notification Event Example](image)

### 1.5 Navigating Menu and Programming Screens

The Main Menu (refer to Figure 1.6) leads to screens with various menu options. Choices may be made from the menu screens by pressing the soft key closest to the menu option.

Field information may be added/modified using the keypad and special function keys.

Arrow keys on the keypad can be used to navigate between fields on a screen if there are no soft keys to select the fields.

Pressing a BACK soft key on a screen returns the programmer to the previous screen without saving the information entered.

Pressing an ACCEPT soft key will save information entered on the screen. It may also return to the previous screen and/or perform other functions as described in the soft key section for each screen.

When the panel can not read a specified point (that is, if the point entered on the screen for processing does not exist in the panel’s programming) it will display an error screen for several seconds, then return to the screen where the address was entered. The user must check his input and investigate the state of the point.

### 1.6 The Main Menu

The Main Menu screen is the means by which the programmer can access displays, history information, printing and programming menus. This screen is accessible from the System Normal Screen (Refer to Figure 1.2), and from most other screens by pressing the BACK soft key until it displays.
The Main Menu

General Information

Soft Keys
Pressing the soft keys brings the user to the screens described below.

1.6.1 Event List
If there are no events active on the fire panel, pressing the Event/Graphic Screen soft key on the Main Menu screen will display the Graphic Screen.

Pressing the soft key to the left of the Event/Graphic Screen message on the Main Menu brings up the Event List screen if there are any events active on the fire panel. This screen will automatically display if an off-normal event requiring acknowledgment occurs, unless the panel is in programming mode. Fire alarm events will display even in programming mode.

Line 1 displays the type of event list currently displayed. Line 15 displays the current counts of off-normal events in five categories. The counts include both acknowledged and unacknowledged events. Line 16 contains the current date and time.

![Figure 1.6 Main Menu Screen](image)

FAULT: 3 OF 5
ACKNOWLEDGED FAULT ACM PSI
PSI EXT FLT MONITOR
10:03:23A TUE 22, JAN, 2019 ACM01P30
1 FLT L01M001 Module L01M001
2 FLT L01M002 Module L01M002
3 FLT PSI EXT FLT MONITOR
ALM:0 SUP:1 FLT:5 DIS:0 OTHER:4
11:58:43A TUE 22, JAN, 2019

MORE INFO - Press this key to go to the MORE INFORMATION screen, described in Section 1.6.2 below. This button will not display if no off-normal events exist.

Pressing an Event key shows off-normal events simultaneously by event type. The currently selected event is shown at the top, and three are shown in the list below it. Events will be listed with unacknowledged events first in reverse chronological order (oldest events at the top to newest events at the bottom), followed by acknowledged events in reverse chronological order.

- Using the Next/Previous special function keys will scroll to the next/previous page of the list and replace the event at the top of the screen with the event at the cursor’s location on the next/previous screen.
- Using the Up/Down arrow keys will scroll the cursor through the three events below, replacing the event at the top of the screen with the currently highlighted event. Continuing past the third event will scroll through the remaining list.
- Pressing one of the fixed function Event keys will cause the first event of that type (e.g., supervisory, fault, etc.) to display at the top, and subsequent events of that type to display in sequence below it. If there are no events of the type, the following screen will be displayed:

![Figure 1.7 Events Count Display Screen](image)
1.6.2 More Information

Pressing the More Information soft key displays a screen that contains additional information about the event shown in the top four lines.

![Figure 1.9 More Information Screen](image)

**Display**

- Lines 1 through 4: Event information
- Line 5: Screen title
- Lines 6 through 9: The Custom Action Message programmed for the point in alarm
- Line 10: blank
  - Line 11 and 14: These lines exist only for smoke/heat detectors. They do not display for wireless smoke detectors.
- Line 11
  - **VALUES:**
    - The screen displays the Alarm and Prealarm values that are in effect when more information is requested. For example, if occupied settings are in effect, occupied values will display.
    - 121% OF ALARM: This field gives the detector reading as it relates to its preprogrammed alarm level value (indicated in the next line on the screen). The example above shows the detector exceeding the alarm level by 21%.
    - Note: For Beam detectors in CLIP mode, the alarm value will always equal zero (0)% when it is not in alarm or 100% when it is in alarm.
    - 145% OF PREALARM: This field gives the detector reading as it relates to its preprogrammed prealarm level value (indicated in the next line on the screen). The example above shows the detector exceeding the prealarm level by 45%.
- Line 12
  - The screen displays the Alarm and Prealarm levels that are in effect when more information is requested. For example, if unoccupied settings are in effect, they will display.
  - **ALARM: 6 = 1.66%** - Six is the preprogrammed alarm level value for this detector: its value is 1.66%, indicating the percent per foot obscuration value assigned to level 6.
PREALARM: 3 = 0.47% - Three is the preprogrammed alarm level value for this detector: its value is 0.47%, indicating the percent per foot obscuration value assigned to level 3.

Line 13

ACTION/STATUS: NONE/VERY CLEAN - This displays the maintenance status of the device. The message that appears in this field depends on the drift compensation value. A detector will automatically compensate for environmental contaminants and other factors over time, until the tolerance value has been exceeded. The FACP will signal a fault condition when this level has been reached. Refer to the following table for messages and required action.

<table>
<thead>
<tr>
<th>Message</th>
<th>Drift Compensation %</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None/Very Clean</td>
<td>Less than 50</td>
<td>No action necessary. The detector readings are near ideal.</td>
</tr>
<tr>
<td>None/Fairly Clean</td>
<td>50 - 69</td>
<td>No action necessary. The detector will activate at the selected sensitivity level.</td>
</tr>
<tr>
<td>Needs Cleaning</td>
<td>70 - 79</td>
<td>Clean the detector soon. The detector may cause a false alarm because it has reached the drift compensation tolerance value.</td>
</tr>
<tr>
<td>Needs Immediate Cleaning</td>
<td>80 - 100</td>
<td>Clean immediately! The detector is a false alarm risk. The drift compensation tolerance value has been exceeded.</td>
</tr>
</tbody>
</table>

Table 1.3

For FSC-851 IntelliQuad detectors in CLIP mode, the status will display as None/Very Clean until it displays Needs Immediate Cleaning. No intermediate levels are displayed.

Line 14

PEAKS: 56% - This value represents the highest percent per foot obscuration reading taken by this detector. It can be a historical figure, and does not necessarily represent the highest reading for this particular alarm. Re-initializing the detector would reset this value to zero.

VERIFY COUNT: 02 - This displays the number of times the detector has gone into alarm. This count aids in differentiating false alarms from actual alarms by showing repeated alarm events that have come into the device. In this example, the detector has gone into alarm two times since the verification count was begun. The FACP will signal a fault condition when the verify count is exceeded. Displays as COUNT for FSC-851 IntelliQuad and aspiration detectors.

CO-OP: D100, 158 - Indicates the address(es) of any detector(s) linked with the detector that’s in alarm for Co-operative Multi-alarm Sensing. This field does not display for Acclimate, FSC-851 IntelliQuad, FCO-851 detectors, Beam detectors or Heat detectors.

CO: - FSC-851 IntelliQuad and FCO-851 detectors only, FlashScan only - Carbon Monoxide reading in parts per million.

TEMP: - Displays degrees Centigrade for Acclimate, FSC-851, FCO-851, heat, and aspiration detectors

Line 15 - The current time and date are displayed in this line.

Line 16

BACK - Press to return to the previous screen.

1.6.3 History Display (History Select Screen)

The History Select screen allows the user to select a type of history file to view, and to set time/date or point range viewing parameters. The particular menu items will not appear on the History Display screen if no associated events are in the queue.

![Figure 1.10 History Display Select Screen]

Soft Keys

ALL EVENTS, ALARMS ONLY, FAULTS ONLY, SUPERVISORY ONLY, AND OTHERS - Pushing the associated soft key selects the type of history to be viewed.

TIME/DATE INTERVAL - Sets a time/date interval of events to be displayed.

POINT RANGE - Sets a range of points for which events will be displayed.
1.6.4 Read Status
Pressing the Read Status soft key brings up screens to view the present status of points, zones, and other system information. Refer to the section Section 3, “Read Status”, on page 34 for a full description of Read Status.

1.6.5 Program/Alter Status
Pressing the Program/Alter Status soft key brings up screens for panel programming, point programming, autoprogramming, clear programming, altering the status of points, walk test, and other information. A password is required. Refer to this panel’s programming manual for information on these functions.

1.6.6 Printer Functions
Pressing the Printer Functions soft key brings up screens to print reports. Refer to Section 5, “Printing Reports”, on page 47 for descriptions and illustrations. This key will appear only if a printer has been selected through programming. Refer to this panel’s programming manual for information on printer selection.
Section 2: Operation of the Control Panel

2.1 Overview

The control panel periodically checks for events. An event can be any change in the status of a device, a transfer of information between a device and the FACP, or a transfer of information between two devices. Some events are considered background events and are not seen by the user. The events that are of primary concern to the operator are those identified as off-normal events. An off-normal event is an event which indicates activity or change in condition that requires the attention and/or response of an operator. Examples of possible off-normal events are:

- Activation or change in condition of a monitoring device such as a detector or module
- System faults, such as battery problems, device supervision problems, etc.

When there are no off-normal events, the panel displays the System Normal screen (refer to Figure 2.1). When there is an off-normal event, the panel will display it (for event formats, refer to “Point Events Format” on page 10). The action required will vary according to the type of event.

2.1.1 System Normal

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

![System Normal Screen](image)

Figure 2.1  System Normal Screen

The control panel performs the following functions at regular intervals:

- Polls all SLC devices to check for valid replies, alarms, faults, circuit integrity, and supervisory signals, etc.
- Checks power supply faults and batteries
- Refreshes the panel display and updates time
- Scans for any panel screen, keypad, and Control Key entries
- Performs a detector automatic test operation
- Tests system memory
- Monitors for microcontroller failure

No action is required of the operator when the panel is operating in Normal mode.

2.1.2 Acknowledging an Event

When the panel detects an off-normal event and the information is displayed on-screen, use the SILENCE BUZZER key to respond to new alarm or fault signals. When this key is pressed, the control panel does the following:

- It silences the piezo sounder on the panel if it is enabled
- It transfers the event to the history buffer
- If the panel is networked, it will send a network message.

Alarms and all types of off-normal events are block acknowledged: these events are acknowledged all at the same time, with a single stroke to the SILENCE BUZZER key.

2.2 Fire Alarm Event

2.2.1 How the Control Panel Indicates a Fire Alarm

When an initiating device (detector or monitor module) activates, the control panel does the following:

- Produces a steady audible tone (if the piezo is enabled)
- Activates the System Alarm relays
- Illuminates the FIRE LED
Operation of the Control Panel

System or Point Fault Event

- Displays the FIRE ALARM Events List with the first fire alarm in the top section of the display containing a Type Code that indicates the type of device that activated the fire alarm, and other information specific to the device. The message occupies the second and third lines of the screen, replacing the System Normal message as shown in Figure 2.2 below. Refer to “Point Events Format” on page 10 for a full description of each message field.
- Sends an Alarm message to the History buffer and installed printer and annunciators.
- Latches the control panel in alarm. (You cannot return the control panel to normal operation until you correct the alarm condition and reset the control panel)
- Initiates any Control-By-Event actions.
- Starts timers (such as Silence Inhibit, Auto Silence).
- Activates the general alarm zone (Z000).

NOTE: If a monitor module programmed with a waterflow Type Code initiates a fire alarm, the control panel disables the SIGNAL RESOUND ALARM key and the Auto Silence Timer.

![Figure 2.2 Fire Alarm Message Display Example](image-url)

2.2.2 How to Respond to a Fire Alarm

If the control panel indicates a fire alarm, the operator can do the following:
- To silence the panel sounder:
  Press the SILENCE BUZZER key. The local sounder will silence. The control panel will send an acknowledge message to the panel display, history buffer, installed printers and annunciators.
- To silence any activated outputs that are programmed as silenceable:
  Press the SIGNAL RESOUND ALARM key. ALARM DEVICES SILENCED LED light steady. The control panel sends a Signal Silenced message to the History buffer, installed printers and annunciators.

1. Check the Alarm message for its location and type. Press the MORE INFORMATION soft key to display the MORE INFORMATION screen and view additional information on the device and possibly preprogrammed text for recommended action. (Refer to Figure 1.9 on page 14 for an example of the this screen and an explanation of its fields.)

2. Correct the condition causing the alarm.

3. When the alarm condition is corrected, press the RESET key to return the control panel to normal operation (indicated by the “System Normal” message). The control panel sends a “System Normal” message to the panel display, History buffer and installed printer.

If both fire and mass notification events are present on the fire panel at the same time, a second System Reset will need to be performed to reset the fire panel. The panel will display MN SYSTEM RESET or FIRE SYSTEM RESET, depending on which event has priority. Refer to the AFP-3030 Programming Manual for event priority programming information.

2.2.3 Interpreting Type ID Codes

The Type ID code that displays in the fire alarm message is related to the type and function of the point that initiates the fire alarm. For example, a monitor module with a PULL STATION Type ID code means that the monitor module connects to a manual pull station. If the Type ID code is unfamiliar, refer to Appendix A, “Software Type ID Codes”, on page 53. This appendix is an alphabetical list of Type ID codes with an explanation of each.

2.3 System or Point Fault Event

2.3.1 How the Control Panel Indicates a System or Point Fault

A system or point fault occurs when the control panel detects an electrical or mechanical fault. The panel will react differently depending on whether or not there are higher priority unacknowledged events.

When no higher priority unacknowledged events are exist, the control panel:
- Produces a pulsed audible tone (if the piezo is enabled)
- Activates the Fault relay.
- Illuminates the SYSTEM FAULT or FAULT LED.
- Displays a Type Code that indicates the type of device with a fault (if a point fault)
• Displays FAULT in the upper left corner of the panel display and, if a point fault, the type of fault and information specific to the device. (A system and a point fault message are shown in the figures below)
• Sends a Fault message to the history buffer, installed printer and annunciators

When an unacknowledged event with a higher priority exists, the control panel retains the indications of the higher priority event (the message, lit LED, audible tone, etc.) while activating the Fault relay, illuminating the SYSTEM FAULT or FAULT LED, and sending a Fault message to the history buffer, installed printer and annunciators.

A system fault message is shown in Figure 2.3, and a point fault is shown in Figure 2.4. Refer to Section 1.4.2, “Event Reporting Format”, on page 9 for identification of each message field.

![Figure 2.3 Sample Message for System Fault](image)

![Figure 2.4 Sample Message for Point Fault](image)

### 2.3.2 How to Respond to a System or Point Fault

If the control panel indicates a fault, the operator can do the following:

1. Press the SILENCE BUZZER key to silence the panel sounder.
   The control panel sends an acknowledge message to the History buffer, installed printers and annunciators.
2. Check the fault message for an indication of the fault.
   • Refer to Table 2.1 or Table 2.2 below for point and system fault explanations, if necessary.
   • Press the MORE INFO soft key to display the MORE INFORMATION screen and view additional information on the device and possibly preprogrammed text for recommended action. (Refer to Figure 1.9 on page 14 for an example of the this screen and an explanation of its fields.)
3. Correct the condition causing the fault. If the fault clears, the control panel sends a Clear Fault message to the History buffer, installed printers and annunciators.

If all faults clear and no supervisory signals or fire alarms exist, the control panel does the following:

• Returns to Normal operation (indicated by the “System Normal” message)
• Sends a “System Normal” message to the panel display, History buffer, installed printers and annunciators
• Restores faults automatically - even if faults are not acknowledged
2.3.3 Fault Types

There are a variety of point or system fault types that may appear in the fault message. The tables below give lists of the faults and indications of their cause.

### Point (Device) Faults

A message from the “Fault Type” column in Table 2.1, “Point (Device) Faults,” on page 20 will appear in the upper right corner of the panel display when a point (device) fault occurs. Use this table to help determine what the fault is.

<table>
<thead>
<tr>
<th>POINT FAULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAULT TYPE</td>
</tr>
<tr>
<td>ACTION</td>
</tr>
<tr>
<td>AC FAILURE</td>
</tr>
<tr>
<td>ADDRESS FAULT</td>
</tr>
<tr>
<td>ALIGNMENT MODE</td>
</tr>
<tr>
<td>AMPLIFIER LIMIT</td>
</tr>
<tr>
<td>AMPLIFIER SUPERVISION</td>
</tr>
<tr>
<td>ANALOG OUTPUT x FAULT</td>
</tr>
<tr>
<td>ASPIRATOR FAULT</td>
</tr>
<tr>
<td>AUDIO LIBRARY CORRUPT</td>
</tr>
<tr>
<td>AUDIO LIBRARY INCOMPATIBLE</td>
</tr>
<tr>
<td>AUTOLEARN FAILURE</td>
</tr>
<tr>
<td>AUXIN FAULT</td>
</tr>
<tr>
<td>BATTERY HIGH</td>
</tr>
<tr>
<td>BATTERY LOW</td>
</tr>
<tr>
<td>BEAM BLOCKED</td>
</tr>
<tr>
<td>BRAND MISMATCH</td>
</tr>
<tr>
<td>BUZZER OFF</td>
</tr>
<tr>
<td>CHARGER FAULT x</td>
</tr>
<tr>
<td>CLASS A FAULT x</td>
</tr>
<tr>
<td>CO 6 MONTHS</td>
</tr>
<tr>
<td>CO EXPIRED</td>
</tr>
<tr>
<td>CO FAULT</td>
</tr>
<tr>
<td>COMM LOSS</td>
</tr>
<tr>
<td>CONFIGURATION FAULT</td>
</tr>
<tr>
<td>DAL DOWNLOADING</td>
</tr>
<tr>
<td>DAL DUAL ADDRESS CONFLICT</td>
</tr>
<tr>
<td>DAL NO ANSWER</td>
</tr>
<tr>
<td>DAP PORT x FAILURE</td>
</tr>
<tr>
<td>DATABASE CORRUPTED</td>
</tr>
<tr>
<td>DATABASE INCOMPATIBLE</td>
</tr>
</tbody>
</table>

**Table 2.1 Point (Device) Faults (1 of 3)**
<table>
<thead>
<tr>
<th>FAULT TYPE</th>
<th>FAULT DESCRIPTION</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DET FAILED TEST</td>
<td>This detector has failed the PAC9's periodic detector test for alarm capabilities.</td>
<td>The detector should be removed and replaced by an authorized service representative.</td>
</tr>
<tr>
<td>DETECTOR FAULT</td>
<td>The detector unit has detected a fault condition.</td>
<td>Check wiring and air flow to the unit. Refer to the detector's product guide for additional information.</td>
</tr>
<tr>
<td>DEVICE INHIBIT</td>
<td>The FMM-4-20 module is in a self-calibration state.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>DUAL ADDR†</td>
<td>Two or more wireless devices on the same mesh network that are set to the same address report a duplicate address fault. An address set to zero will report an illegal address.</td>
<td>Change the address of the device(s) to avoid duplication and error.</td>
</tr>
<tr>
<td>DUAL ADDRESS</td>
<td>There is more than one device of a single type (detector or module) with the same SLC address. A detector and a module can share the same address on an SLC, but two detectors, or two modules, can not. Note that some addressable devices (e.g. certain power supplies and RFXs) may not appear to be detectors or modules, but are addressed on the SLC as such.</td>
<td>Redress the incorrect device.</td>
</tr>
<tr>
<td>DVC COMM LOSS</td>
<td>The DAL device is not in communication with the DVC.</td>
<td>The DVC will generate a DAL NO ANSWER error to the panel or network annunciator for investigation.</td>
</tr>
<tr>
<td>EXTERNAL RAM ERROR</td>
<td>The internal RAM test failed on the DVC or DAL device.</td>
<td>Call Technical Services.</td>
</tr>
<tr>
<td>FAULT1</td>
<td>An FMM-4-20 module threshold fault as determined in point programming.</td>
<td>Refer to the AFP-3030 Programming Manual.</td>
</tr>
<tr>
<td>FAULT2</td>
<td>An FMM-4-20 module threshold fault as determined in point programming.</td>
<td>Refer to the AFP-3030 Programming Manual.</td>
</tr>
<tr>
<td>FFT FAULT</td>
<td>There is a short or open on the FFT riser.</td>
<td>Check the 4-wire switch is correctly set and that there is an end-of-line resistor in place for 2-wire operation.</td>
</tr>
<tr>
<td>FILTER FAULT</td>
<td>The device's air filter needs to be replaced.</td>
<td>Refer to the related device's product guide for air filter replacement procedures.</td>
</tr>
<tr>
<td>FLASH IMAGE FAULT</td>
<td>The DVC or DAL device software is corrupt.</td>
<td>Re-download the panel code software from VeriFire Tools. If the fault still does not clear, call Technical Services.</td>
</tr>
<tr>
<td>GENERAL FAULT</td>
<td>The power supply is not working properly.</td>
<td>Check the battery for problems. Replace battery if necessary.</td>
</tr>
<tr>
<td>GROUND FAULT</td>
<td>There is a ground fault on the main, auxiliary, or DAL device power supply.</td>
<td>Locate and correct the fault.</td>
</tr>
<tr>
<td>GROUND FAULT PORT x</td>
<td>A ground fault has occurred on the Digital Audio Port (DAP) x</td>
<td>Locate and correct the fault.</td>
</tr>
<tr>
<td>HIGH FLOW</td>
<td>Air flow to the device is too high.</td>
<td>Inspect the pipes for damage.</td>
</tr>
<tr>
<td>INCORRECT ADDRESS†</td>
<td>The address of the detector does not match that of the sounder base it is plugged into.</td>
<td>Correct the addressing error. Re-install the device in its original physical position on the loop.</td>
</tr>
<tr>
<td>INIT MODE†</td>
<td>The wireless device is in initialisation and mesh formation is in progress.</td>
<td>This fault will clear once mesh formation is complete and the device is no longer in initialisation.</td>
</tr>
<tr>
<td>INITIALIZATION MODE</td>
<td>A beam detector is running through its initialisation sequence.</td>
<td>The detector will not detect a fire until the initialisation process is complete and this fault has cleared.</td>
</tr>
<tr>
<td>INVALID RESPONSE</td>
<td>The device has returned a response to the panel that the panel did not expect.</td>
<td>Check the device for functionality, addressing and wiring.</td>
</tr>
<tr>
<td>IR FAULT</td>
<td>The infrared element is not working properly on a FSC-851 detector. This fault is generated for FlashScan mode only.</td>
<td>Replace the detector.</td>
</tr>
<tr>
<td>LOADING...NO SERVICE</td>
<td>The DVC or DAL device is in bootloader mode. The DVC/DAL device is NOT providing fire protection communication while this fault is active.</td>
<td>Proper authorities should be notified while this fault is active so that other means of protection can be supplied, if necessary.</td>
</tr>
<tr>
<td>LOCAL MIC FAULT</td>
<td>The local microphone is in fault. There is no communication, or paging has been enabled for over 28 seconds and no signal has been received.</td>
<td>Investigate whether the mic is plugged into the DVC, or whether there is a problem with the handset.</td>
</tr>
<tr>
<td>LOCAL PHONE FAULT</td>
<td>The local FFT handset is in fault. There is either a failure with the local handset, or paging from FFT has been enabled for over 28 seconds and no signal has been received.</td>
<td>Investigate whether the handset is plugged into the DVC, or whether there is a problem with the handset.</td>
</tr>
<tr>
<td>LOW FLOW</td>
<td>Air flow through the pipe is too low.</td>
<td>Inspect the pipes for damage or clogging.</td>
</tr>
<tr>
<td>LOW TEMPERATURE</td>
<td>The temperature read by a Heat+ or Acclimata™+ detector is too low.</td>
<td>Raise the heat in the area of the detector.</td>
</tr>
<tr>
<td>LOW THRESHOLD</td>
<td>The detector chamber reading is too low; the detector is not operating properly.</td>
<td>The detector must be removed and replaced by an authorized service representative.</td>
</tr>
<tr>
<td>MAINT URGENT</td>
<td>The detector requires cleaning immediately. It is a false alarm risk.</td>
<td>Clean the detector immediately.</td>
</tr>
<tr>
<td>MISMAT HDWE TYPE</td>
<td>The programming information in the panel's database for this device does not match the type of device at the address specified.</td>
<td>Correct programming.</td>
</tr>
<tr>
<td>MOD EXT PWR LOSS</td>
<td>The control module or sounder base has lost external power.</td>
<td>Determine whether there is a DC power loss.</td>
</tr>
<tr>
<td>NCM COMM LOSS</td>
<td>Communication has been lost between the fire panel or DVC and the NCMHS-NCM (Network Communication Module).</td>
<td>Investigate cause and restore communication.</td>
</tr>
<tr>
<td>NETWORK FAIL PORT x</td>
<td>Communication lost between the Noti•Fire•Net port x and the corresponding node.</td>
<td>Investigate cause and restore communication.</td>
</tr>
<tr>
<td>NO ANSWER</td>
<td>The device (module or detector) is not responding to the poll.</td>
<td>Determine whether the device is functional, and connected and addressed properly on the SLC.</td>
</tr>
</tbody>
</table>

Table 2.1 Point (Device) Faults (2 of 3)
## Point (Device) Faults (3 of 3)

<table>
<thead>
<tr>
<th>Fault Type</th>
<th>Fault Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Thresholds Programmed</td>
<td>No threshold parameters have been programmed for the FMM-4-20 module.</td>
<td>Refer to the AFP-3030 Programming Manual.</td>
</tr>
<tr>
<td>Normal</td>
<td>Indicates activated monitor module set to monitor fault condition.</td>
<td>Correct fault condition.</td>
</tr>
<tr>
<td>Number of Co-Existant Wireless Systems Exceeded†</td>
<td>The maximum number of wireless systems within the allowable range has been exceeded. No more than four (4) wireless systems can operate within a specified range. Remove additional system or combine systems to eliminate device overlap.</td>
<td></td>
</tr>
<tr>
<td>NVRAM BATT FAULT</td>
<td>The Battery backup and or clock backup is low.</td>
<td>Replace the battery.</td>
</tr>
<tr>
<td>Open Circuit</td>
<td>The module device has an open circuit on its supervised wiring.</td>
<td>Check the connections from the module to the input or output device to which it is wired.</td>
</tr>
<tr>
<td>Over Range</td>
<td>The FMM-4-20's 4-20 mA sensor has exceeded 20 mA.</td>
<td>Determine if the sensor is functional and correctly installed.</td>
</tr>
<tr>
<td>Power Fault</td>
<td>The GPI (General Purpose Input) on the detector has detected a closure of the contact it is monitoring. Inspect the local Vesda power supply and correct the condition.</td>
<td></td>
</tr>
<tr>
<td>Power Supply Fault</td>
<td>There is a communication failure with the fire panel or DAL device power supply.</td>
<td>If the power supply is onboard, service is required. If the power supply is standalone, investigate the cause at the power supply.</td>
</tr>
<tr>
<td>Primary Supervision Fault</td>
<td>Internal supervision is not working on the primary amplifier at address x (one through four).</td>
<td>Call Technical Services.</td>
</tr>
<tr>
<td>Radio Jamming†</td>
<td>Jamming occurs when a wireless device is overloaded with an interfering RF signal and is unable to process incoming messages, but is able to report the condition to its parents. A jammed device will automatically remove itself from the mesh network after reporting the jamming. The device will attempt to self-heal and recover into the network. Identify any possible sources of the jamming signal and see if the spacing can be increased to an acceptable range. A site survey RF scan test can be used to categorise the jamming signal.</td>
<td></td>
</tr>
<tr>
<td>Remote Microphone Fault</td>
<td>The remote microphone is in fault. It is installed and supervised, but no signal is coming from it. Investigate and fix.</td>
<td></td>
</tr>
<tr>
<td>RFX COMM Loss</td>
<td>Communication has been lost with an RFX device.</td>
<td>Check the RFX to determine the problem.</td>
</tr>
<tr>
<td>Scanner Fault</td>
<td>The scanner unit has detected a problem.</td>
<td>Inspect the unit’s valve for possible jam and correct the condition.</td>
</tr>
<tr>
<td>Security Tamper</td>
<td>An RFX device has been removed from its base.</td>
<td>Check the RFX device for tampering.</td>
</tr>
<tr>
<td>Self Test Failed</td>
<td>Diagnostic test failed.</td>
<td>Call Technical Services.</td>
</tr>
<tr>
<td>Service Mode</td>
<td>The FAAST is in Service Mode.</td>
<td>N/A</td>
</tr>
<tr>
<td>Short Circuit</td>
<td>The module device has a short circuit on its supervised wiring.</td>
<td>Check the connections from the module to the input or output device to which it is wired.</td>
</tr>
<tr>
<td>Software Mismatch</td>
<td>The software installed on a device is incompatible with the fire alarm control panel, or devices installed on the system are programmed with software that is incompatible with each other. LCM software may need to be updated.</td>
<td></td>
</tr>
<tr>
<td>Sounder No Answer</td>
<td>The sounder base is no longer communicating with the loop card.</td>
<td>Investigate and fix.</td>
</tr>
<tr>
<td>Therm. Fault</td>
<td>The thermistors are not functioning properly on a FSC-851 detector. This fault is generated for FlashScan mode only. Replace the detector.</td>
<td></td>
</tr>
<tr>
<td>Time Base Fault</td>
<td>The time needs to be set on the FAAST detector.</td>
<td>Use PipeIQ to download the FAAST configuration.</td>
</tr>
<tr>
<td>Under Range</td>
<td>The FMM-4-20's 4-20 mA sensor has dropped below 4 mA.</td>
<td>Determine if the sensor is functional and correctly installed.</td>
</tr>
<tr>
<td>Verify Over Max</td>
<td>This detector or FZM-1 monitor module, which has been programmed to participate in alarm verification, has gone into and come out of its programmed verification limit without going into alarm. Either something is wrong with the detector or there is a condition nearby (such as someone smoking) that causes it to go into verification frequently. Check the detector and the conditions nearby to determine the problem.</td>
<td></td>
</tr>
<tr>
<td>Weak Link Fault†</td>
<td>The weak link trouble denotes a connection of insufficient primary parent link signal strength. To resolve a weak link fault: Reduce the distance between devices, place them away from obstructions, or add a repeater. Tamper the device when moving it to a new location. Restart mesh formation after a repeater is installed or after a device has been relocated and the tamper condition is cleared. Terminate mesh formation once the devices have joined the mesh or allow mesh formation to timeout. Restructuring will automatically start and the FWSGAUJS will re-evaluate the link connectivity between all devices and select suitable signal paths.</td>
<td></td>
</tr>
<tr>
<td>Wireless No Answer†</td>
<td>The wireless device is not responding. Either the device is not working or it is not connected properly. Determine whether the device is functional, and connected and addressed properly on the FWSGAUJS. (This trouble will latch until a reset is performed on the FACP and/or FWSGAUJS)</td>
<td></td>
</tr>
<tr>
<td>Wiring Fault</td>
<td>The detector has discovered a fault in the VESDA.net wiring.</td>
<td>Inspect the VESDA.net wiring and correct the condition.</td>
</tr>
</tbody>
</table>

* This fault may be fire panel or backup battery related. Test and replace backup batteries if necessary.  
† For additional information on wireless device troubles, refer to the SWIFT Smart Wireless Integrated Fire Technology manual.
System Faults

A message from the “Fault Type” column in Table 2.2 will appear in the second line on the left of the panel display when a device fault occurs. Use this table to help determine the cause of the fault.

<table>
<thead>
<tr>
<th>FAULT MESSAGE TYPE</th>
<th>FAULT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA FAULT BUS FAIL</td>
<td>The AA Fault Bus has failed. Investigate and fix.</td>
</tr>
<tr>
<td>AC FAIL</td>
<td>Loss of AC power. Investigate whether there is an AC power loss, or whether the power supply is correctly installed and wired.</td>
</tr>
<tr>
<td>ADV WALK TEST</td>
<td>There is an Advanced Walk Test in progress.</td>
</tr>
<tr>
<td>AMPLIFIER LIMIT</td>
<td>The DAA is overloaded. Remove outputs to lower the load on the speaker circuits. Press reset when done.</td>
</tr>
<tr>
<td>AMPLIFIER SUPERVISION</td>
<td>The amplifier’s internal supervision is not working. Call Technical Services.</td>
</tr>
<tr>
<td>AMPLIFIER FAULT</td>
<td>The DAA is in fault. The output is overloaded or the amplifier is damaged. Remove outputs to determine if the DAA was overloaded. If it still does not work, call Technical Services.</td>
</tr>
<tr>
<td>ANALOG OUTPUT x FAULT</td>
<td>A fault has occurred on DVC-AO analog output x (1 - 4). The analog output is configured for Style 7, but no audio signal is returned. Investigate and fix.</td>
</tr>
<tr>
<td>ANNUN x NO ANSWER</td>
<td>The annunciator at address x is not responding.</td>
</tr>
<tr>
<td>ANNUN x FAULT</td>
<td>The annunciator at address x is in fault.</td>
</tr>
<tr>
<td>ANNUN x TYPE MISMATCH</td>
<td>The annunciator at address x does not match the annunciator type programmed at that address. Investigate and fix.</td>
</tr>
<tr>
<td>AUDIO LIBRARY CORRUPTED</td>
<td>The DVC’s audio library is corrupted. Re-create and/or re-download an intact database.</td>
</tr>
<tr>
<td>AUDIO LIBRARY INCOMPATIBLE</td>
<td>The audio library version is incompatible with the database and/or the application version.</td>
</tr>
<tr>
<td>AUXIN FAULT</td>
<td>Generated when the auxiliary input is supervised (as determined in VeriFire® Tools programming) and no signal is coming from the input. Check wiring and source.</td>
</tr>
<tr>
<td>BACKUP AMP x FAIL</td>
<td>The Backup Amp at address x has failed. Call Technical Services.</td>
</tr>
<tr>
<td>BACKUP AMP x HARDWARE FAIL</td>
<td>The Backup Amp at address x has had a hardware failure. Call Technical Services.</td>
</tr>
<tr>
<td>BACKUP AMP x LIMIT</td>
<td>The Audio Circuit of the Backup Amplifier at address x has been overloaded or shorted so the Audio Signal has been attenuated. Check wiring and source and ensure that there are no shorts.</td>
</tr>
<tr>
<td>BACKUP AMP x OVERCURRENT</td>
<td>The Backup Amplifier at address x has overloaded and shut down. Check the total Load calculations for the DS-AMP and/or DS-BDA and ensure the total values do not exceed 120 watts.</td>
</tr>
<tr>
<td>BACKUP AMP x NOT INSTALLED</td>
<td>The Backup Amplifier that is programmed at address x is not communicating with the DS-AMP. Ensure the ribbon and power cables are properly attached to the DS-AMP and DS-BDA. If there is no Backup Amplifier at that address, remove the Backup Amplifier from programming.</td>
</tr>
<tr>
<td>BACKUP AMP x TRIP</td>
<td>The DS-BDA at DS-BUS address x (1-4) is drawing more current from the power supply than expected and has been disabled. Refer to the DVC manual for additional troubleshooting.</td>
</tr>
<tr>
<td>BASIC WALK TEST</td>
<td>A Basic Walk Test is in progress.</td>
</tr>
<tr>
<td>BATTERY</td>
<td>The power supply’s battery voltage is too high or too low. Check the batteries for problems. Replace batteries if necessary.</td>
</tr>
<tr>
<td>BUZZER OFF-LINE</td>
<td>The piezo is disabled.</td>
</tr>
<tr>
<td>CHARGER FAIL*</td>
<td>The power supply’s battery charger is not functioning. Investigate and correct.</td>
</tr>
<tr>
<td>CLOSED POS. LOOP x</td>
<td>There is an open circuit on the positive side of loop x. Closed wiring is a supervised method of communicating with addressable devices. If the control panel detects a fault (open only), it will drive both ends of the loop, maintaining communication in an unsupervised method. The latching fault will display on the panel as a Closed fault until you correct the condition and press reset.</td>
</tr>
<tr>
<td>CLOSED NEG. LOOP x</td>
<td>There is an open circuit on the negative side of loop x. Closed wiring is a supervised method of communicating with addressable devices. If the control panel detects a fault (open only), it will drive both ends of the loop, maintaining communication in an unsupervised method. The latching fault will display on the panel as a Closed fault until you correct the condition and press reset.</td>
</tr>
<tr>
<td>CLOSED SHORT LOOP x</td>
<td>Closes wiring is a supervised method of communicating with addressable devices. If the control panel detects a fault (open or short), it will drive both ends of the loop, maintaining communication in an unsupervised method. The latching fault will display on the panel as a Closed fault until you correct the condition and press reset.</td>
</tr>
<tr>
<td>CORRUPT LOGIC EQUAT</td>
<td>The database that houses the panel’s logic equations is corrupt. It must be re-downloaded, or all programming must be cleared and re-entered.</td>
</tr>
<tr>
<td>DAA ADDRESS CONFLICT</td>
<td>More than one DAA has the same address. Readress DAA(s).</td>
</tr>
<tr>
<td>DAA DOWNLOAD IN PROGRESS</td>
<td>A DAA download is in progress.</td>
</tr>
<tr>
<td>DAA NO ANSWER</td>
<td>A DAA is not responding. Investigate and fix.</td>
</tr>
<tr>
<td>DAL DEVICE NO ANSWER</td>
<td>The DAL device is not communicating with the fire panel. Check wiring and source.</td>
</tr>
<tr>
<td>DAP PORT x FAILURE</td>
<td>Digital Audio Port x (A or B) is not communicating due to a break in the connection, a short, or faulty hardware. Locate and fix the break or short. If the problem is not a short or break, call Technical Services.</td>
</tr>
<tr>
<td>DATABASE CORRUPTED</td>
<td>The DVC database programming file is corrupted. Re-download or re-recreate &amp; download an intact database.</td>
</tr>
<tr>
<td>DATABASE INCOMPATIBLE</td>
<td>The DVC database programming file is incompatible with the application version.</td>
</tr>
<tr>
<td>DIGIN FAULT</td>
<td>The DAA has determined that its DVC has stopped transmitting audio data to the Digital Audio Loop (DAL), even though the loop is still functional. Update code, ensure all code on the DAL is compatible. If the DVC still does not transmit digital audio data, call Technical Services.</td>
</tr>
<tr>
<td>DISPLAY COMM LOSS</td>
<td>Communication with the keypad display has been lost. Check cable connection, investigate and fix.</td>
</tr>
<tr>
<td>DISPLAY NODE LIMIT EXCEEDED</td>
<td>The number of display nodes on the network has been exceeded. This fault will only be displayed if at least one of the AFP-3030s on the network are in Network Display Mode and the total number of display nodes has exceeded 25. Remove one or more display nodes to correct this fault. (Display nodes include NCA-2, a Gateway node, or an AFP-3030 in Network Display Mode.)</td>
</tr>
<tr>
<td>DOOR INTERLOCK FAULT</td>
<td>A fault has occurred on the door interlock. Investigate and fix.</td>
</tr>
</tbody>
</table>

Table 2.2 System Faults (1 of 3)
### Operation of the Control Panel

<table>
<thead>
<tr>
<th>SYSTEM FAULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FAULT MESSAGE TYPE</strong></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>DSBUS x AC FAIL</strong></td>
</tr>
<tr>
<td><strong>DSBUS x COMMFAIL</strong></td>
</tr>
<tr>
<td><strong>DSBUS x HIGH BATT</strong></td>
</tr>
<tr>
<td><strong>DSBUS x LOW BATT</strong></td>
</tr>
<tr>
<td><strong>DSBUS x SELF TEST FAIL</strong></td>
</tr>
<tr>
<td><strong>EPROM ERROR</strong></td>
</tr>
<tr>
<td><strong>EXTERNAL RAM ERROR</strong></td>
</tr>
<tr>
<td><strong>FLASH IMAGE ERROR</strong></td>
</tr>
<tr>
<td><strong>FFT FAULT</strong></td>
</tr>
<tr>
<td><strong>GROUND FAULT</strong></td>
</tr>
<tr>
<td><strong>GROUND FAULT LOOP x</strong></td>
</tr>
<tr>
<td><strong>GROUND FAULT PORT x</strong></td>
</tr>
<tr>
<td><strong>HARDWARE MISMATCH</strong></td>
</tr>
<tr>
<td><strong>INTERNAL RAM ERROR</strong></td>
</tr>
<tr>
<td><strong>INVALID NODE TYPE MAPPED</strong></td>
</tr>
<tr>
<td><strong>LCD80 SUPERVISORY</strong></td>
</tr>
<tr>
<td><strong>LOADING...NO SERVICE</strong></td>
</tr>
<tr>
<td><strong>LOCAL MIC FAULT</strong></td>
</tr>
<tr>
<td><strong>LOCAL PHONE FAULT</strong></td>
</tr>
<tr>
<td><strong>LOOP x- x COMM FAILURE</strong></td>
</tr>
<tr>
<td><strong>MANUAL MODE ENTERED</strong></td>
</tr>
<tr>
<td><strong>MODBUS COMMUNICATIONS FAULT</strong></td>
</tr>
<tr>
<td><strong>NCM COMM LOSS</strong></td>
</tr>
<tr>
<td><strong>NCM CONNECTION LIMIT EXCEEDED</strong></td>
</tr>
<tr>
<td><strong>NCM SNIFER MODE ACTIVE</strong></td>
</tr>
<tr>
<td><strong>NETWORK FAIL PORT x</strong></td>
</tr>
<tr>
<td><strong>NETWORK INCOMPATIBILITY</strong></td>
</tr>
<tr>
<td><strong>NETWORK MAPPING LIMIT EXCEEDED</strong></td>
</tr>
<tr>
<td><strong>NEST PAGING CHANNEL LIMIT EXCEEDED</strong></td>
</tr>
<tr>
<td><strong>24HR REMINDER</strong></td>
</tr>
<tr>
<td><strong>NVRAM BATT FAULT</strong></td>
</tr>
<tr>
<td><strong>NO DEV. INST ON L1</strong></td>
</tr>
<tr>
<td><strong>NO POWER SUPPLY INST</strong></td>
</tr>
<tr>
<td><strong>OPEN SHORT x LOOP x</strong></td>
</tr>
<tr>
<td><strong>PANEL DOOR OPEN</strong></td>
</tr>
<tr>
<td><strong>PHONE CHANNEL LIMIT EXCEEDED</strong></td>
</tr>
<tr>
<td><strong>POWER SUPPLY FAULT</strong></td>
</tr>
<tr>
<td><strong>PRIMARY AMP x FAIL</strong></td>
</tr>
<tr>
<td><strong>PRIMARY AMP x HARDWARE FAIL</strong></td>
</tr>
<tr>
<td><strong>PRIMARY AMP x LIMIT</strong></td>
</tr>
<tr>
<td><strong>PRIMARY AMP x OVERCURRENT</strong></td>
</tr>
<tr>
<td><strong>PRIMARY AMP x TRIP</strong></td>
</tr>
<tr>
<td><strong>PRINTER OFF LINE</strong></td>
</tr>
<tr>
<td><strong>PRINTER PAPER OUT</strong></td>
</tr>
<tr>
<td><strong>PROGRAM CORRUPTED</strong></td>
</tr>
<tr>
<td><strong>PROG MODE ACTIVATED</strong></td>
</tr>
</tbody>
</table>

Table 2.2 System Faults (2 of 3)
2.3.4 Interpreting Type ID Codes

The Type ID code that displays in a point fault message is related to the type and function of the point that initiates the fault. For example, a monitor module with a PULL STATION Type ID code means that the monitor module connects to a manual pull station. If the Type ID code is unfamiliar, refer to Appendix A, “Software Type ID Codes”, on page 53. This appendix is an alphabetical list of Type ID codes and an explanation of each.

2.4 Prealarm Event

The Pre-alarm function is used to receive an early warning of potential or incipient fire conditions. The Pre-alarm function provides one of two settings as follows:

- **Alert** – a non-latching setting that causes a Prealarm when a detector reaches its programmed Pre-alarm sensitivity threshold. Non-latching means the condition will automatically restore to normal once the detector’s obscuration readings drop below its Prealarm threshold.
- **Action** – a latching setting that causes a Prealarm when a detector reaches its programmed Pre-alarm level. Latching means the condition will not restore itself to normal once the detector’s obscuration readings drop below its Prealarm threshold. The panel must be reset.

Alert and Action settings are set individually with detector point programming. Individual detector sensitivity threshold settings can have a value of one through nine, and are set by the programmer. A sensitivity threshold setting of zero indicates the detector does not participate in prealarm.

For more detailed information on Prealarm, refer to this panel’s programming manual.

2.4.1 How the Control Panel Indicates a Prealarm

When a detector activates a Prealarm, the control panel does the following if there are no higher priority unacknowledged events:

- Pulses the panel sounder (if the piezo is enabled)
- Illuminates the OTHER LED
- Displays PREALARM in the upper left corner of the LCD, as well as the sensitivity reading, the type code and other information specific to the detector as shown in Figure 2.5.
- Sends a Prealarm message to the History buffer, installed printer and annunciators.

When an unacknowledged event with a higher priority exists, the control panel retains indications of the higher priority event (the message, lit LED, audible tone, etc.) while illuminating the OTHER LED and sending a Prealarm message to the History buffer, installed printer and annunciators.

The Prealarm screen display is the same for both alert and action conditions. Following is a sample screen for a Pre-alarm message.

![Sample Prealarm Message](image-url)
2.4.2 How to Respond to a Prealarm Warning

If the control panel indicates a Prealarm, the operator can do the following:

1. Press the SILENCE BUZZER key to acknowledge the Prealarm.
2. Press the MORE INFO soft key to display the MORE INFORMATION screen and view additional information on the device and possibly preprogrammed text for recommended action. (Refer to Figure 1.9 on page 14 for an example of this screen and an explanation of its fields.)
3. Investigate and correct the condition causing the Prealarm.

4. Press the RESET key if the Prealarm message does not clear when the condition causing it is cleared.

2.4.3 Interpreting Type ID Codes

The Type ID code that displays in a prealarm message is related to the type and function of the detector point that initiates the prealarm. For example, a detector with a SMOKE(PHOTO) Type ID code means that the detector is a photoelectric type detector. If the Type ID code is unfamiliar, refer to Appendix A, “Software Type ID Codes”, on page 53. This appendix is an alphabetical list of Type ID codes and an explanation of each.

2.5 Supervisory Signal Event

2.5.1 How the Control Panel Indicates an Active Supervisory

The system indicates a Supervisory alarm when a monitor module point programmed with a supervisory Type Code activates. The panel will react differently depending on whether or not there are higher priority unacknowledged events.

When no higher priority unacknowledged events are exist, the control panel:
- Produces a warbling audible tone (if the piezo is enabled)
- Activates the Supervisory relay
- Illuminates the SUPERVISORY LED (yellow)
- Displays a Type Code that indicates the type of supervisory signal being generated
- Displays SUPERVISORY in the upper left corner of the panel display along with information specific to the device
- Sends a Supervisory message to the History buffer, installed printer and annunciators.

When an unacknowledged event with a higher priority exists, the control panel retains the indications of the higher priority event (the message, lit LED, audible tone, etc.) while activating the Supervisory relay if it is selected for supervision, flashing the SUPERVISORY LED, and sending a Supervisory message to the history buffer, installed printer and annunciators. If there are silenced alarms (the ALARM DEVICES SILENCED LED is lighted), a Supervisory alarm will resound the panel sounder.

Following is a typical supervisory message that would appear on a panel display:

![Sample Supervisory Message](image)

2.5.2 How to Respond to an Active Supervisory

If the control panel indicates a Supervisory condition, the operator can do the following:

1. Press the SILENCE BUZZER key to acknowledge the Supervisory message.
2. Press the MORE INFO soft key to display the MORE INFORMATION screen and view additional information on the device and possibly preprogrammed text for recommended action. (Refer to Figure 1.9 on page 14 for an example of this screen and an explanation of its fields.)
3. Investigate and correct the condition causing the Supervisory.

NOTE: A supervisory condition caused by a device with a “tracking” type code automatically clears and restores the panel to normal when the condition causing its activation disappears.
4. Press the RESET key to clear any supervisory condition caused by a device with a latching type code: the supervisory will not automatically clear when the condition causing it is cleared. Latching supervisory type codes are WATERFLOW S, LATCH SUPERV, and SPRINKLR SYS. The panel will send a system normal message to the History buffer, installed printer and annunciators.

2.5.3 How to Interpret Type Codes

The Type Code that displays in the Supervisory message indicates the function of the point that initiates the Supervisory. For example, a monitor module with a WATERFLOW S Type Code means that the module monitors the state of a waterflow switch. If the Type ID code is unfamiliar, refer to Appendix A, “Software Type ID Codes”, on page 53. This appendix is an alphabetical list of Type ID codes and an explanation of each.

2.6 CO Alarm Event

2.6.1 How the Control Panel Indicates a CO Alarm

When a CO alarm occurs on a detector or monitor module with a CO type code, the control panel does the following:

- Produces a pulsed audible tone (if the piezo is enabled)
- Illuminates the OTHER LED (yellow)
- Displays CO ALARM in the upper left corner of the display, a Type Code that indicates the type of device that activated the CO alarm, and other information specific to the device.
- Sends a CO Alarm message to the History buffer and installed printer and annunciators.
- Latches the control panel in CO alarm. (You cannot return the control panel to normal operation until you correct the alarm condition and reset the control panel)
- Activates Special Function Zone 18 (ZF18)

![Figure 2.7 CO Alarm Message Display Example](image-url)

2.6.2 How to Respond to a CO Alarm

If the control panel indicates a fire alarm, the operator can do the following:

- To silence the panel sounder:
  Press the SILENCE BUZZER soft key. The local sounder will silence and the OTHER LED will change from flashing to steady. The control panel will send an acknowledge message to the panel display, history buffer, installed printers and annunciators.
- To silence any activated outputs that are programmed as silenceable:
  Press the SIGNAL RESOUND ALARM key. ALARM DEVICES SILENCED LED lights steady. The control panel sends a Signal Silenced message to the History buffer, installed printers and annunciators.

5. Check the Alarm message for its location and type. Press the MORE INFO soft key to display the MORE INFORMATION screen and view additional information on the device and possibly preprogrammed text for recommended action. (Refer to Figure 1.9 on page 14 for an example of this screen and an explanation of its fields.)

6. Correct the condition causing the CO alarm.

7. When the CO alarm condition is corrected, press the RESET key to return the control panel to normal operation (indicated by the “System Normal” message). The control panel sends a “System Normal” message to the panel display, history buffer and installed printer.

2.6.3 Interpreting Type ID Codes

The Type ID code that displays in the CO alarm message is related to the type and function of the point that initiates the CO alarm. For example, a monitor module with a CO MONITOR Type ID code means that the monitor module monitors a conventional CO detector. If the Type ID code is unfamiliar, refer to Appendix A, “Software Type ID Codes”, on page 53. This appendix is an alphabetical list of Type ID codes with an explanation of each.
2.7 CO Prealarm Event

The CO Pre-alarm function is used to receive an early warning of potential or incipient CO conditions.

2.7.1 How the Control Panel Indicates a CO Pre-alarm

When a detector activates a CO Pre-alarm, the control panel does the following if there are no higher priority unacknowledged events:

- Pulses the panel sounder (if the piezo is enabled)
- Illuminates the OTHER LED (yellow)
- Displays CO PREALARM in the upper left corner of the LCD, the type code and other information specific to the detector as shown in Figure 2.8.
- Sends a CO Pre-alarm message to the History buffer, installed printer and annunciators.
- Activates CBE position 5.
- Activates Special Function Zone 19 (ZF19)

When an unacknowledged event with a higher priority exists, the control panel retains indications of the higher priority event (the message, lit LED, audible tone, etc.) while flashing the OTHER LED and sending a CO Prealarm message to the History buffer, installed printer and annunciators.

The following is a sample screen for a CO Pre-alarm message.

![Figure 2.8 Sample CO Prealarm Message]

2.7.2 How to Respond to a CO Pre-Alarm Warning

If the control panel indicates a Prealarm, the operator can do the following:

1. Press the SILENCE BUZZER key to acknowledge the CO Prealarm.
2. Press the MORE INFO soft key to display the MORE INFORMATION screen and view additional information on the device and possibly preprogrammed text for recommended action. (Refer to Figure 1.9 on page 14 for an example of this screen and an explanation of its fields.)
3. Investigate and correct the condition causing the CO Prealarm.

2.7.3 Interpreting Type ID Codes

The Type ID code that displays in a CO prealarm message is related to the type and function of the detector point that initiates the CO prealarm. For example, a detector with a PHOTO/CO Type ID code means that the detector is a photo/CO type detector. If the Type ID code is unfamiliar, refer to Appendix A, “Software Type ID Codes”, on page 53. This appendix is an alphabetical list of Type ID codes and an explanation of each.

2.8 Mass Notification Alarm Event

2.8.1 How the Control Panel Indicates a Mass Notification Alarm

When a Mass Notification initiating device (monitor module) activates, the control panel does the following:

- Produces a steady audible tone (if the piezo is enabled)
- Does not activate the System Alarm relay(s).
- Illuminates the OTHER LED
- Displays MN ALARM in the upper left corner of the display, a Type Code that indicates the type of device that activated the alarm, and other information specific to the device. The message occupies the top four lines of the screen, replacing the System Normal message as shown in Figure 2.9 below. Refer to “Mass Notification Events” on page 11 for a full description of each message field
- Sends an MN Alarm message to the History buffer and installed printer and annunciators
- Latches the control panel in MN alarm. (You cannot return the control panel to normal operation until you correct the alarm condition and reset the control panel). If a fire condition is present on the control panel, a second system reset may be required to clear the MN alarm, depending on MN Priority programming. Refer to the AFP-3030 Programming Manual.
- Activates any devices programmed as General Pending
- Activates special zone ZF20.
Mass Notification Supervisory Event

- Initiates any Control-By-Event actions
- Does not activates the general alarm zone (Z000) or any devices programmed as General Alarm or Alarm Pending
- Does not cause any devices programmed as “Resound on Fire” to resound.

Figure 2.9  Mass Notification Alarm Message Display Example

2.8.2  How to Respond to an MN Alarm

If the control panel indicates a MN alarm, the operator can do the following:

1. To silence the panel sounder:
   - Press the SILENCE BUZZER key. The local sounder will silence. The control panel will send an acknowledge message to the panel display, history buffer, installed printers and annunciators. If more than one MN alarm is present on the control panel, Acknowledge must be pressed for each alarm.

2. To silence any activated outputs that are programmed as silenceable:
   - Press the SIGNAL RESOUND ALARM key. ALARM DEVICES SILENCED LED light steady. The control panel sends a Signal Silenced message to the History buffer, installed printers and annunciators.

   NOTE:
   - If MN events have priority over fire events, any active silenceable devices that were activated by the fire event will silence when the MN Alarm occurs.
   - If fire events have priority over MNS events, silenceable outputs will remain active when an MN Alarm occurs until SIGNAL RESOUND ALARM is pressed or a system reset is initiated.

3. Check the MN Alarm message for its location and type. Press the MORE INFO soft key to display the MORE INFORMATION screen and view additional information on the device and possibly preprogrammed text for recommended action. (Refer to Figure 1.9 on page 14 for an example of the this screen and an explanation of its fields.)

4. Correct the condition causing the MN alarm.

5. When the alarm condition is corrected, press the RESET key to return the control panel to normal operation (indicated by the “System Normal” message). The control panel sends a “System Normal” message to the panel display, History buffer and installed printer. If both fire and MN alarms are present on the control panel and MN events have priority over fire events, the initial reset will clear the MN alarm from the control panel. If fire has priority over MN events, a second reset must be initiated to clear the MN alarm from the panel.

2.8.3  Interpreting Type ID Codes

The Type ID code that displays in the fire alarm message is related to the type and function of the point that initiates the fire alarm. For example, a monitor module with a MN MON Type ID code means that the monitor module connects to a mass notification device. If the Type ID code is unfamiliar, refer to Appendix A, “Software Type ID Codes”, on page 53. This appendix is an alphabetical list of Type ID codes with an explanation of each.

2.9  Mass Notification Supervisory Event

An MN Supervisory point event will occur when a monitor module programmed with an MN supervisory type code activates.

2.9.1  How the Control Panel Indicates an MN Supervisory Point Event

The panel will react differently depending on whether or not there are higher priority unacknowledged events. When no higher priority unacknowledged events are exist, the control panel:

- Produces a warbling audible tone (if the piezo is enabled)
- Activates the Supervisory relay and any devices programmed as General Supervisory and General Pending
- Illuminates the SUPERVISORY LED (yellow) on the fire panel and any annunciator points programmed for general supervisory
- Displays a Type Code that indicates the type of supervisory signal being generated
- Displays MN SUPERVISORY in the upper left corner of the panel display along with information specific to the device
- Sends a MN Supervisory message to the History buffer, installed printer and annunciators.
- Activates special zone ZF21
- Does not cause any devices programmed for “Resound on Supervisory” to resound
• Does not suppress any fire events regardless of MN/Fire priority programming

When an unacknowledged event with a higher priority exists, the control panel retains the indications of the higher priority event (the message, lit LED, audible tone, etc.), flashing the SUPERVISORY LED, and sending a Supervisory message to the history buffer, installed printer and annunciators. If there are silenced alarms (the ALARM DEVICES SILENCED LED is lighted), a Supervisory alarm will resound the panel sounder.

Following is a typical MN supervisory message that would appear on a panel display:

![Figure 2.10 Sample MN Supervisory Point Message](image)

### 2.9.2 How to Respond to an Active MN Supervisory

If the control panel indicates a MN Supervisory condition, the operator can do the following:

1. Press the SILENCE BUZZER key to acknowledge the MN Supervisory event, steady the SUPERVISORY LED, and silence the panel sounder. An acknowledge message is sent to the remote annunciators, history buffers, installed printers, and CRT-2s.
2. Press the MORE INFO soft key to display the MORE INFORMATION screen and view additional information on the device and possibly preprogrammed text for recommended action. (Refer to Figure 1.9 on page 14 for an example of this screen and an explanation of its fields.)
3. Investigate and correct the condition causing the Supervisory.
4. For tracking MN Supervisory events: If the supervisory condition was initiated by a device that is programmed with an MN supervisory type code that tracks, the panel will return to Systems Normal once the condition has been corrected.

For latching MN Supervisory events:

If the supervisory condition was initiated by a device that is programmed with an MN supervisory type code that latches upon activation or a General MN Supervisory event occurs, press the RESET key to clear the event.

The panel will send a system normal message to the History buffer, installed printer and annunciators.

### 2.9.3 How to Interpret Type Codes

The Type Code that displays in the MN Supervisory message indicates the function of the point that initiates the MN Supervisory. For example, a monitor module with an ESC/MN SUPT Type Code means that the module monitors the state of a mass notification device. If the Type ID code is unfamiliar, refer to Appendix A, “Software Type ID Codes”, on page 53. This appendix is an alphabetical list of Type ID codes and an explanation of each.

### 2.10 Mass Notification Fault Event

#### 2.10.1 How the Control Panel Indicates a Mass Notification Fault

A mass notification fault point activates when a device programmed as MN Fault activates due to an electrical short or open. The panel will react differently depending on whether or not there are higher priority unacknowledged events.

When no higher priority unacknowledged events exist, the control panel:

- Produces a pulsed audible tone (if the piezo is enabled)
- Flashes the SYSTEM FAULT LED on the fire panel and any annunciator points programmed for general fault
- Displays a Type Code that indicates the type of device with a fault
- Displays FAULT in the upper left corner of the panel display the type of fault and information specific to the device.
- Sends a Fault message to the history buffer, installed printer and annunciators
- Activates special zone ZF22
- Activates the Fault relay and any devices programmed as General Fault and General Pending
- Does not cause any devices programmed as “Resound on Fault” to resound
- Sends a Fault message to the proprietary receiver via the network, if applicable
When an unacknowledged event with a higher priority exists, the control panel retains the indications of the higher priority event (the message, lit LED, audible tone, etc.) illuminating the SYSTEM FAULT LED, and sending a Fault message to the history buffer, installed printer and annunciators.

![Disabled Points Event](image)

**Disabling Points Event**

The control panel indicates disabled points by displaying a screen for each disabled detector, monitor module, and control/relay module. Disabled points do not cause an alarm or any Control-by-event activity. If more than one point is disabled, the control panel automatically displays each point in the sequence in which the point was disabled.

**CAUTION:**

WHEN A ZONE IS DISABLED, ANY INPUT AND OUTPUT DEVICES MAPPED TO THE ZONE ARE DISABLED IF THE ZONE IS THE POINT’S PRIMARY ZONE. (THE PRIMARY ZONE IS THE ZONE IN THE FIRST POSITION OF THE ZONE MAP.)

When one or more points are disabled, the control panel does the following:

- Holds all disabled output points in the off-state
- Illuminates the DISABLE LED
- Sends a Disabled Point message to the History buffer, installed printer and annunciators

**2.10.2 How to Respond to a Mass Notification Fault**

If the control panel indicates a fault, the operator can do the following:

1. Press the SILENCE BUZZER key to silence the panel sounder.
   - The control panel sends an acknowledge message to the History buffer, installed printers and annunciators.
2. Check the fault message for an indication of the fault.
   - Press the MORE INFO soft key to display the MORE INFORMATION screen and view additional information on the device and possibly preprogrammed text for recommended action. (Refer to Figure 1.9 on page 14 for an example of the this screen and an explanation of its fields.)
3. Correct the condition causing the fault. If the fault clears, the control panel sends a Clear Fault message to the History buffer, installed printers and annunciators.

If all faults clear and no supervisory signals or fire alarms exist, the control panel does the following:

- Returns to Normal operation (indicated by the “System Normal” message)
- Sends a “System Normal” message to the panel display, History buffer, installed printers and annunciators
- Restores faults automatically - even if faults are not acknowledged

**2.11 Disabled Points Event**

The control panel indicates disabled points by displaying a screen for each disabled detector, monitor module, and control/relay module. Disabled points do not cause an alarm or any Control-by-event activity. If more than one point is disabled, the control panel automatically displays each point in the sequence in which the point was disabled.
• Displays a message for each disabled point, with DISABLED in the upper left corner of the LCD as well as other information about the point.

![Sample Disabled Point Message](image)

**Figure 2.12 Sample Disabled Point Message**

### 2.12 Active Event

#### 2.12.1 How the Control Panel Indicates an Active Fire Control Point

A point with a Type ID of FIRE CONTROL is used for air handler shutdown, intended to override normal operating automatic functions. Activation of a FIRE CONTROL point causes the control panel to do the following:

- Initiates the monitor module Control-by-Event
- Sends a message to the panel display, History buffer, installed printer and annunciators
- Does NOT light an indicator at the control panel
- Displays **ACTIVE** in the upper left corner of the LCD, as well as a FIRE CONTROL Type Code and other information specific to the device

#### 2.12.2 How the Control Panel Indicates an Active Non-fire Point

A point with a Type ID of NON-FIRE is used for energy management or other non-fire situations. NON-FIRE point operation does not affect control panel operation, nor does it display a message at the panel LCD. Activation of a NON-FIRE point activates CBE—but does not cause any indication on the control panel. For example, you can program a NON-FIRE point to turn lights in a zone to a lower setting when activated. In this case, when the point activates the control panel activates the point’s CBE to turn the lights down without any audio or visual indication on the control panel.

### 2.13 Operation of Special System Timers, and Output Delay Time

#### 2.13.1 System (Panel) Timers

There are user-programmable time delays for four specific functions: Alarm Verification, AC Fail, Silence Inhibit, and Auto Silence. Refer to this panel’s programming manual for instructions on viewing or modifying these values. (They may be viewed only in programming mode.)

**Alarm Verification Timer (VERIFY TIME)**

A timer that directs the control panel to ignore a fire alarm for a smoke detector, programmed for Alarm Verification, while the Alarm Verification Timer is counting. The timer value can be set from 0-60 seconds, and may not exceed 30 seconds for ULC installations. Table 2.3 contains a summary of how the Alarm Verification Timer works.

<table>
<thead>
<tr>
<th>If this event occurs</th>
<th>The control panel does this</th>
</tr>
</thead>
<tbody>
<tr>
<td>A second fire alarm occurs while the Alarm Verification Timer is counting</td>
<td>Ignores the Alarm Verification Timer and alarms are reported by the panel for both detectors.</td>
</tr>
<tr>
<td>The Alarm Verification Timer elapses and a fire alarm still exists</td>
<td>Activates the fire alarm</td>
</tr>
<tr>
<td>The Alarm Verification Timer expires and a fire alarm no longer exists</td>
<td>The control panel returns to normal operation and increments the verification counter</td>
</tr>
</tbody>
</table>

**Table 2.3 Alarm Verification Timer Operation**

**AC Fail Delay Timer**

This timer delays the time from the start of AC failure to when the fault is reported. The timer value may be set to none, or from 1-12 hours. A value of “none” will cause immediate notification. The onboard fault relay and municipal box output will activate when the countdown is complete. Note that this panel notifies the central station communicator as soon as AC failure occurs, and the central station communicator follows its own programmed schedule for reporting the failure.
 Silence Inhibit Timer
This timer disables the SIGNAL RESOUND ALARM and RESET key function for the programmed time (MM:SS seconds) when a fire alarm occurs. A Silence Inhibit Timer starts at the first fire alarm. A panel reset is required to re-enable this timer. It can be set with a value from 0 (the timer is disabled) to 5 minutes.

Auto Silence Timer
This timer functions like pressing the SIGNAL RESOUND ALARM key. When the Auto Silence Timer reaches its programmed value (0, 10 minutes, 15 or 20 minutes, with the setting = 20 for Canadian installations), the control panel automatically shuts off all active outputs programmed as silenceable.

2.13.2 Output Delay Time
Output Delay Time is a feature that initially delays activation of outputs with ZF0 in their zone map until the Output Delay Timer has expired. This feature allows for the initial sounding of outputs only in specific areas, monitored by qualified personnel. To participate in Output Delay Time, inputs and outputs must include Special Zone ZF0 in their zone map. The Output delay Timer is programmed to a value from 60 to 180 seconds.

How the Panel Indicates a Output Delay
When an initiating device participating in Output Delay goes into alarm, the panel LCD displays a fire alarm message. (Refer to Section 2.2, “Fire Alarm Event”, on page 17.) If a second alarm occurs while the Output Delay timer is counting down, the control panel aborts the Output Delay timer countdown and activates all programmed outputs. The fire alarm LED flashes and the panel sounder pulses a steady tone. The control panel latches until the alarm is corrected and the SYSTEM RESET key is pressed to reset the panel.

How to Respond to a Output Delay Alarm
Once the Output Delay timer has begun counting down, the operator has the duration of the countdown time to respond to the alarm before the control panel automatically activates all outputs with ZF0 in their zone map and CBE linkage to the alarm. The operator can reset the panel if the alarm is determined false.
Section 3: Read Status

This section contains instructions and screen illustrations for Read Status functions and menus using the AFP-3030 display. Read Status allows viewing of detailed device status information without entering a password or halting full fire protection. Information can be viewed while a fire alarm or fault condition exists. Read Status screens are refreshed periodically with up-to-date information. Read Status can be reached from the Main Menu screen, which is accessible from the System Normal screen and from most other screens by pressing the BACK soft key until it displays. (Refer to Figure 1.6 for an illustration of the Main Menu screen.) Press the READ STATUS soft key on the Main Menu screen to bring up the following screen.

3.1 Point Select Screen

When READ STATUS is pressed at the Main Menu, the following screen appears.

![Figure 3.1 Point Select Screen for Read Status](image)

Soft Keys

POINT SELECT - Pressing this soft key scrolls through the various device types. The types and their address formats are illustrated in Table 3.1, “Address Formats,” on page 34.

<table>
<thead>
<tr>
<th>Type</th>
<th>Address Format*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detector</td>
<td>NxxxLyyDzzz</td>
</tr>
<tr>
<td>Module</td>
<td>NxxxLyyMzzz</td>
</tr>
<tr>
<td>General Zone</td>
<td>NxxxZyyy</td>
</tr>
<tr>
<td>Logic Zone</td>
<td>NxxxZLyyyy</td>
</tr>
<tr>
<td>Annunciator Point</td>
<td>NxxxAxxPyy</td>
</tr>
<tr>
<td>PAM (Prioritized Audio Matrix)</td>
<td>NxxxyyyyyAzzSn</td>
</tr>
<tr>
<td>Release Zone</td>
<td>-</td>
</tr>
<tr>
<td>Special Function Zone</td>
<td>NxxxZFxx</td>
</tr>
<tr>
<td>Fault Zone</td>
<td>NxxxZTyyy</td>
</tr>
<tr>
<td>DAA Speaker CKT</td>
<td>NxxxAyySn</td>
</tr>
</tbody>
</table>

N indicates Node number, xxx = DVC/DVC-EM Node number, 1 indicates audio input number, yyyy = audio input number, A indicates DAA-5025 or DAA-5070 Audio Amplifier, zz = DAA address (01 through 32), S indicates DAA speaker circuit, n = DAA speaker circuit (A, B, C or D).

* The Nxxx preface to all the above address formats refers to the node number, where N = node, xxx = the network node number.

Enter an address to view its attributes (the cursor will be in the underlined section).

NEXT POINT/ PREVIOUS POINT - Press to view next or previous point.

ACCEPT - Press to accept the displayed point for further viewing.

Pressing the ACCEPT soft key on the Point Select Screen will display the information that corresponds to the chosen point. Each point type has its own screen.

**NOTE:** The first four lines of the display may indicate an alarm for a point unrelated to the requested point information displayed below them.
3.2 Smoke Detector

When a detector address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display if the detector is a smoke detector.

![Smoke Detector Screen - Read Status](image)

**Figure 3.2 Smoke Detector Screen - Read Status**

**Display**

Lines 1-4 - This could display any current event message, or, as in this example, the System Normal message.

Line 5 - This line contains the screen title and the address of the point being read.

The area between the separator lines, lines 6-14, shows all information concerning the selected point, which is N124L03D052 in the above example.

Line 6 - Line 6 displays two statistics that display for inputs (detectors and modules) and zones; in the above example they are:

<table>
<thead>
<tr>
<th>Point Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOMATIC</td>
<td>The point is being controlled automatically by the panel.</td>
</tr>
<tr>
<td>DISABLED</td>
<td>The point has been disabled by an outside source.</td>
</tr>
<tr>
<td>FAULT</td>
<td>The point is in a fault state and is no longer functioning automatically.</td>
</tr>
</tbody>
</table>

**Table 3.2**

The second field displays the point status. There are three designations that could appear in this field.

<table>
<thead>
<tr>
<th>Point Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INACTIVE</td>
<td>The point is currently reporting no events.</td>
</tr>
<tr>
<td>ACTIVE</td>
<td>The point is currently in an off-normal status.</td>
</tr>
<tr>
<td>PREALARM</td>
<td>The point is currently in a prealarm status.</td>
</tr>
</tbody>
</table>

**Table 3.3**

The device is a detector (an input device) so by referring to the descriptions below, it can be determined that the point is in a normal state.

**Inputs: (detectors, monitor modules, zones)**

If the point is not in fault or disabled, and the point is automatically controlled by the panel, the display will be one of the following:

- AUTOMATIC INACTIVE
- AUTOMATIC ACTIVE
- AUTOMATIC PREALARM

If the point is disabled, the display will be one of the following. The Fault Status field will appear if the point is in fault.

- DISABLED INACTIVE <Fault Status>*
- DISABLED ACTIVE <Fault Status>*
- DISABLED PREALARM <Fault Status>*

If the point is in fault, the display will read:

For FSC-851 detectors, the values appear in line 14 above. Refer to More Information on page 14 for explanation of fields.
3.3 Heat Detector

When a detector address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display if the detector is a heat detector.

![Figure 3.3 Heat Detector Screen - Read Status](image)

**Display**

Lines 1 through 10 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.

Line 11 - VALUES - This field indicates the percentage of alarm value being read by the detector.

Line 15 - The current time and date are displayed in this line.

Line 16 - Press BACK to return to the previous screen.
3.4 Photo/CO Detector

When a detector address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display if the detector is a smoke detector.

Figure 3.4 Photo/CO Smoke Detector Screen - Read Status

Display

Lines 1 through 5 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.
Line 6 - Refer to the description for Status in Section 3.2, “Smoke Detector”, on page 35. The MORE option will only be displayed when performing a Read Status on a Photo/CO detector. Refer to the MORE option screen below for further details.
Lines 7 through 14 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.
Line 15 - The current time and date are displayed in this line.
Line 16 - Press BACK to return to the previous screen.

Figure 3.5 Photo/CO Smoke Detector Screen (2) - Read Status

Lines 1 through 13 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.
Line 14 - CO - This field represents the level of Carbon Monoxide for the device. The value is in parts per million.
Line 15 - The current time and date are displayed in this line.
Line 16 - Press BACK to return to the previous screen.
3.5 Aspiration Detector

When a detector address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display if the detector is an aspiration detector.

![Aspiration Detector Screen - Read Status](image)

**Figure 3.6 Aspiration Detector Screen - Read Status**

**Display**

- Lines 1 through 14 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.
- Line 15 - The current time and date are displayed in this line.
- Line 16 - Press BACK to return to the previous screen.

3.6 Monitor Module

When a module address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display if the point is a monitor module.

![Monitor Module Screen - Read Status](image)

**Figure 3.7 Monitor Module Screen - Read Status**

**Display**

- Lines 1 through 10 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.
- Line 12 - When a Read Status is performed on an FMM-4-20 module, the current 4-20 mA sensor’s reading will be displayed in the units specified in point programming.
- Lines 13 and 14 - When a module is monitoring an AMPS-24, ACPS-610/E, or an ACPS-2406, information will appear in these lines in the following format.
  
  - **Battery Voltage**: 27.9 Volts
  - **Charger Current**: 0.0 Amps

- Line 15 - The current time and date are displayed in this line.
- Line 16 - Press BACK to return to the previous screen.
3.7 Control Module

When a module address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display if the module is a control module.

Display

Lines 1 through 10 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35 with the exception of line 6, which is described below.

Line 6 - This line displays statistics that display for control module output points; in the above example they are:

AUTOMATIC OFF

The first field displays the point control. There are four designations that could appear in this field.

<table>
<thead>
<tr>
<th>Point Control Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOMATIC</td>
<td>The point is being controlled automatically by the panel.</td>
</tr>
<tr>
<td>MANUAL</td>
<td>The point has been forced into manual control state by an outside source.</td>
</tr>
<tr>
<td>DISABLED</td>
<td>A status change other than a change to MANUAL control has caused the point to go off automatic control.</td>
</tr>
<tr>
<td>FAULT</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.4

The second field displays the point status. There are three designations that could appear in this field.

<table>
<thead>
<tr>
<th>Point Status Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>The point is currently not activated.</td>
</tr>
<tr>
<td>ON</td>
<td>The point is currently activated.</td>
</tr>
<tr>
<td>OFF-HOOK</td>
<td>The telephone point is currently off-hook.</td>
</tr>
</tbody>
</table>

Table 3.5

The device is a control module (an output device) so by referring to the descriptions below, it can be determined that the point is in a normal state.

Outputs: (Control Modules)

If the point is not in fault or disabled and the status isAutomatic, the display will read:

AUTOMATIC OFF
AUTOMATIC ON
AUTOMATIC OFF-HOOK

If the point has been forced into a manual control state, the display will read as follows. <Fault Status> will appear when there is a point fault.

MANUAL OFF <Fault Status>*
MANUAL ON  <Fault Status>*
MANUAL OFF-HOOK <Fault Status>*

If the point is disabled, the display will read as follows. <Fault Status> will appear when there is a point fault.

DISABLED OFF <Fault Status>*
DISABLED ON  <Fault Status>*
DISABLED OFF-HOOK <Fault Status>*

If the point is in fault, the display will read:

FAULT OFF <Fault Status>*
3.8 General Zone

When a general zone address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display:

![Figure 3.9 General Zone Screen - Read Status]

Display

Lines 1 through 7 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.

Line 8 - The non-resettable control setting for this zone is displayed on this line.

Line 9 - The silenceable setting for this zone is displayed on this line.

Line 15 - The current time and date

3.9 Logic Zone

When a logic zone address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display:

![Figure 3.10 Logic Zone Screen - Read Status]
Display
Lines 1 through 6 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.
EQUATION: The logic equation for this logic zone is displayed here
Line 15 - Current time and date.

3.10 Special Function Zone

When a special function zone address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display:

![Figure 3.11 Special Function Zone Screen - Read Status](image)

Figure 3.11 Special Function Zone Screen - Read Status

Display
Lines 1 through 6 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.
Line 7 - The special zone number and function is displayed here.

3.11 Fault Zone

When a Fault zone address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display:

![Figure 3.12 Fault Zone Screen - Read Status](image)

Figure 3.12 Fault Zone Screen - Read Status

Display
Lines 1 through 6 - Refer to the descriptions in Section 3.2, “Smoke Detector”, on page 35.
EQUATION: The equation for this Fault zone is displayed here.
Line 15 - Current time and date.
3.12 Annunciator

When an annunciator address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display if the point is a monitor module.

---

**Figure 3.13 Annunciator Screen - Read Status**

Display

Lines 1- 4 - This could display any current event message, or, as in this example, the System Normal message

Line 5 - Screen title and the address of the point being read.

Line 6 - Displays the annunciator mode.

Line 7 - Displays the state of the active LED.

Line 8 - Displays the state of the fault LED.

Line 10 - Displays the annunciator source(s).

3.13 DAA Speaker Circuit

When a DAA Speaker circuit address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display.

---

**Figure 3.14 Speaker Point - Read Status**

Lines 1- 4 - This could display any current event message, or, as in this example, the System Normal message

Line 5 - Screen title and the address of the point being read.

Line 6 - Refer to the line 6 description in “Control Module” on page 39 for explanations of the messages that can appear in this line.
3.14 PAM Points

When a PAM (Prioritized Audio Matrix) address is entered into the Point Select Screen and the ACCEPT soft key is pressed, the following screen will display.

Figure 3.15  PAM (Prioritized Audio Matrix) Point - Read Status

Lines 1 - 6 - Refer to the line 6 description in “Smoke Detector” on page 35
Line 9 - DVC General Zone Map.

MAPPED LOGIC EQUATION: - The logic equation associated with this PAM point is displayed here, or NONE if there is no associated equation.
WALK TEST: - The screen will display the PAM point’s programmed setting for Walk Test participation (Yes or No).
SWITCH INHIBIT: - The screen will display the PAM point’s programmed setting for Switch Inhibit (Yes or No).
SILENCEABLE: - The screen will display the PAM point’s programmed Silenceable setting (Yes or No).
Section 4: Viewing and Printing History Information

NOTE: History can be downloaded from the panel using VariFire Tools V9.40 or higher via a USB cable.

The control panel maintains a history file of alarm, fault, and supervisory events, each with a time/date stamp. An alarm history is maintained in a buffer that can include up to 1000 events. All events, including alarms, are included in a 4000-event buffer. History events may be viewed on-screen, and a printed list may be generated.

To choose a history display screen:
Press the HISTORY DISPLAY soft key at the Main Menu. The following menu screen titled History Display will appear.

Press the soft key for the type of event history desired to view all of those types of events that are in the history buffer, OR
Press the TIME/DATE INTERVAL or POINT RANGE soft key to choose limiting parameters for what will display on-screen.

The following sections illustrate and explain the history displays.

4.1 Events History

Pressing a soft key on the History Select screen will display the history for whatever event type chosen. The OTHER softkey will display disable, prealarm, active, and active outputs events. If the ALL EVENTS soft key is pressed, any events in the history file will display, no matter what the type.

The screen below is an example of what displays when the ALL EVENTS soft key is pressed. The displayed fields are the same for each event type.

![Figure 4.1 Event History Screen]

MAGNET indicates that the device event occurred due to a magnet activation.

Display

Lines 1-4: Displays any current event message, or, as in this example, the System Normal message
Line 5: Screen title. It will vary depending on the history type chosen for viewing. For example, it will display ALARM HISTORY if the ALARMS ONLY soft key is pressed at the History Select screen.
Line 6: Queue location of event that is described in lines 8-11: In the above example, the fire alarm is the fourth of 17 events in the history file.

Lines 8 through 11 give more information about the event. Refer to Section 1.4.2, “Event Reporting Format”, on page 9 for an explanation of these fields.

NOTE: If an Acclimate™ Detector activates, the event history screen will display whether it was due to heat or smoke. This will be shown in Line 8 and will also show in a printed history report.

4.2 Time and Date Range Selection for All Events

Pressing the Time/Date Interval soft key on the History Select screen displays the Time & Date Range Select screen. This screen allows for selection of a time period that defines the range of events to be viewed and/or printed.

Display

See description in Section 4.1, “Events History”, on page 44 for lines 1-5.

Soft Keys

START TIME: - Use the keypad to enter a start time for event viewing in the following format:

HH:MM/P DDD DD/MM/YY

END TIME: - Use the keypad to enter an end time for event viewing.

EVENT TYPE: - Press this soft key to scroll through the following: ALL EVENTS, ALARMS ONLY, FAULTS ONLY, SUPERVISORY ONLY, OTHER ONLY. Stop scrolling at the desired event type.

ACCEPT: - When entries are made, press this soft key to proceed to the All Events in Interval Screen.

4.3 Point Range Select for All Events in Range

Pressing the Point Range soft key on the Local History Select screen displays the Point Range Select screen. This screen allows for selection of a beginning and an end point that defines the range of events to be viewed and/or printed.
Viewing and Printing History Information

Range is selected in the following order:
1. Loop 1 Detectors
2. Loop 2 Detectors, etc....
3. Loop 10 Detectors
4. Loop 1 Modules
5. Loop 2 Modules, etc....

This FACP can have up to 10 loops, which would all follow the above order for range selection.

20. Loop 10 Modules

The range selected below includes all supervisory event types for every point: the selection begins with the first detector on loop one and ends with the last module on loop 10.

![Figure 4.3 Point Range Select Screen](image)

**Display**

See description in Section 4.1, “Events History”, on page 44 for lines 1-5.

**Soft Keys**

START POINT: - Press this key to scroll through the list of various device types: the format will change for each device. Stop at the desired format/device type, then use the keypad to enter a start point for event viewing.

END POINT: - Press this key to scroll through the list of various device types: the format will change for each device. Stop at the desired format/device type, then use the keypad to enter an end point for event viewing.

EVENT TYPE: - Press this soft key to scroll through the following: ALL EVENTS, ALARMS ONLY, FAULTS ONLY, SUPERVISORY ONLY, OTHER ONLY. Stop scrolling at the desired event type.

ACCEPT: - When entries are made, press this soft key to proceed to the All Events in Range Screen.

**All Events in Range Screen**

This screen is the same as the Event History screen, except for its title. Refer to Figure 4.1 on page 44.
Section 5: Printing Reports

A variety of reports can be generated and printed from the AFP-3030. Reports listing all event, alarm, fault, or supervisory history can be generated from the history screens in Section 4, “Viewing and Printing History Information”, on page 44. The following section describes how to print programming, Walk Test, and active point information.

NOTE: Report formats are shown below as printed by an 80-column printer. When these reports are printed on a Keltron, which is a 40-column printer, the formats are the same except they are displayed on two lines instead of one.

5.1 Printer Functions Screen

The following screen displays when the Printer Functions soft key is pressed at the Main Menu. This key will appear only if a printer has been selected through programming.

![Printer Functions Screen](image)

Figure 5.1 Printer Functions Screen

**Soft Keys**

PROGRAMMING: Press this soft key to display the Print Programming Menu screen.

ACTIVE POINTS: Press this soft key to display the Active Points Menu screen.
DETECT MAINTENANCE REPORT: Press this soft key to print a list from the printer connected to the control panel that contains the detector maintenance status for each installed addressable detector. The report looks like this:

******DETECTOR MAINTENANCE***********************************************************************************************
NORMAL SMOKE(LASER) Detector  L01D001 000330us 000340us  Comp:000% Pk: 002%
Alarm: 000% PreAlarm: 000% A6P6 V000  L01D001

NORMAL SMOKE ACCLIM Detector  L01D002 000030us 000000us  Comp:000% Pk: 000%
Alarm: 000% PreAlarm: 000% A8P8 V000  L01D002

FIELD IDENTIFICATION
Detector Maintenance Report

<table>
<thead>
<tr>
<th>State</th>
<th>Label</th>
<th>Extended Label</th>
<th>Current reading of raw analog value in microseconds</th>
<th>Long term average of raw analog value in microseconds</th>
<th>Compensation percentage</th>
<th>Detector peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORMAL SMOKE(LASER) Detector</td>
<td>L01D001</td>
<td>000330us</td>
<td>000340us</td>
<td>000%</td>
<td>002%</td>
<td></td>
</tr>
</tbody>
</table>

Alarm: 000% PreAlarm: 000% A6P6 V000  L01D001

* Whichever occupancy value is in effect when the report is printed.

INSTALLED POINTS: Press this soft key to display the Installed Points Menu screen.

5.2 Print Programming Menu Screen

This screen displays when the PROGRAMMING soft key is pressed on the PRINTER FUNCTIONS screen. Refer to Figure 5.1 on page 47).

---

**Figure 5.2 Print Programming Screen**

**Soft Keys**

NETWORK PARAMETERS: Press to print node number, node label, Channel A and B threshold, network style. The report looks like this:
5.3 Print Programming Menu Screen (2)

The second PRINT PROGRAMMING MENU screen displays when MORE is pressed at the first PRINT PROGRAMMING MENU screen:

![Figure 5.3 Print Programming Screen](image)

**Soft Keys**

**SUPERVISION:** Press to print information on power supply and printer monitoring. The report looks like this:

```
************************SUPERVISION****************************
MAIN PS NODE: N023
PRINTER: 80-column
TAMPER INPUT: NO
AUXILIARY FAULT: NO
**************************************************************************
```
CUSTOM ACTION MESSAGES: Press to print all custom action messages (1-100). The report looks like this:

****CUSTOM ACTION MESSAGE******************************************************************************
CUSTOM ACTION MESSAGE: 001
GO TO ALARM SITE AND INVESTIGATE APPROACH THE ALARM LOCATION WITH CAUTION
BRING CELL PHONE AND REPORT WHEN ON SITE

CUSTOM ACTION MESSAGE: 002
CALL MANAGER WITH REPORT
******************************************************************************

EVENT LOGGING: Press to print non-fire and output activations if these events have been chosen for logging during panel programming. The report looks like this:

****EVENT LOGGING******************************************************************************
NON-FIRE ACTIVATIONS: NO OUTPUT ACTIVATIONS: NO
LOG WIRELESS STATES: NO
******************************************************************************

5.4 Active Points Report Screen

This screen displays when the ACTIVE POINTS soft key is pressed on the PRINTER FUNCTIONS screen (refer to Figure 5.1 on page 47).

![Figure 5.4 Print Active Points Screen](image)

Soft Keys

This screen provides a menu for printing a list of active points for whatever type of list is chosen. The soft key will display on the screen only if there is at least one event in the queue.

**NOTE:** For a printed list of history information, refer to the history screens in Section 4, "Viewing and Printing History Information".

---

LAKEVIEW GENERAL HOSPITAL
SYSTEM NORMAL

10:22:34 A TUE JAN 22, 2019
ACTIVE POINTS

ALARMS ONLY PREALARMS
FAULTS ONLY DISABLED POINTS
SUPERVISORY ALARMS ACTIVE OUTPUTS
OTHER BACK
5.5 Installed Points Report Screen

This screen displays when the INSTALLED POINTS soft key is pressed on the PRINTER FUNCTIONS screen (refer to Figure 5.1 on page 47).

---

**Figure 5.5 Print Programming Screen**

**Soft Keys**

SLC POINTS: Press to print information on installed SLC points. When the soft key is pressed, a field appears to allow choice of a single SLC or ALL. Toggle until the desired choice appears in the field, then press ACCEPT. The report looks like this.

```
*****INSTALLED POINTS******************************************************************************
NORMAL SMOKE (ION) Detector L02B129 *** *** NTL*Y *** ** 6666
Z002 0 0 L02B129
ON RELAY Module L02M005 NL * *** **
Z002 0 0 L02M005
******************************************************************************
```

---

GENERAL ZONES: Press to print a report of installed general zones.

```
*****INSTALLED POINTS******************************************************************************
ON GENERAL ZONE General Alarm Z000
ON GENERAL ZONE Zone 001 Z001
OFF GENERAL ZONE Zone 002 Z002
******************************************************************************
```
Printing Reports

LOGIC ZONES: Press to print a report of installed logic zones.

ACS: Press to print information on the device types for addresses 1-32. The report looks like this:

SPECIAL ZONES: Press to print a report of installed special zones.

FAULT ZONES: Press to print a report of installed fault zones.

RANGE: Press to bring up the following screen, which allows the programmer to choose a range of installed points to print.

---

**Figure 5.6 Installed Points Menu - Range**

**Soft Keys**

**START POINT**: Press to place the cursor in this field, and to toggle between the choices, which appear in print order: DETECTOR (loop1, detector 1 through loop 10, detector 159), MODULE (loop 1, module 1 through loop 10, module 159), GENERAL ZONE, LOGIC ZONE, RELEASE ZONE, ACS PTS, SPECIAL ZONE, FAULT ZONE. Using the keypad, type in the start point address.

**END POINT**: Press to place cursor in this field, and to toggle between the choices as described above. Using the keypad, type in the end point address.
## Appendix A: Software Type ID Codes

### A.1 Alphabetical List

The following chart lists AFP-3030 Type ID codes in alphabetical order. These codes are assigned during programming based on the types and functions of the devices they are assigned. The codes appear in point message formats.

<table>
<thead>
<tr>
<th>Software Type ID Code</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAM SILENCE</td>
<td>Silences all the outputs mapped to the associated AAM zone.</td>
</tr>
<tr>
<td>ABORT SWITCH</td>
<td>Monitor that provides an abort function for a releasing zone through connection to an abort station</td>
</tr>
<tr>
<td>ACK SWITCH</td>
<td>Monitor used to silence panel sounder, and to give an acknowledge message on the panel display</td>
</tr>
<tr>
<td>AIR REF</td>
<td>FSL-751 detector used to monitor air quality entering a protected area</td>
</tr>
<tr>
<td>ALARM DEV</td>
<td>Supervised NAC for speaker circuits.</td>
</tr>
<tr>
<td>ALARM DEV FLT</td>
<td>Monitoring audio equipment.</td>
</tr>
<tr>
<td>ALARMS PEND</td>
<td>Control module or NAC for output that will activate upon receipt of an alarm condition, and remain in the alarm state until all alarms have been acknowledged. Programmed for switch inhibit</td>
</tr>
<tr>
<td>ALARM TRACK</td>
<td>Supervise premises for all notification and evacuation.</td>
</tr>
<tr>
<td>ASPIR. (NON)</td>
<td>For use with an aspiration detector, reports to the fire panel as a non-fire event when its threshold is reached</td>
</tr>
<tr>
<td>ASPIR. (PRE)</td>
<td>For use with an aspiration detector, reports to the fire panel as a prealarm condition when its threshold is reached</td>
</tr>
<tr>
<td>ASPIR. (REF)</td>
<td>For use with an aspiration detector, reports to the fire panel as a non-fire activation, used as a reference for other aspiration detectors on the loop</td>
</tr>
<tr>
<td>ASPIR. (SUP)</td>
<td>For use with an aspiration detector, reports to the fire panel as a supervisory when its threshold is reached</td>
</tr>
<tr>
<td>ASPIRATION</td>
<td>For use with an aspiration detector, reports to the fire panel as a fire alarm when threshold is reached</td>
</tr>
<tr>
<td>AUDIO SYSTEM</td>
<td>Monitor for audio equipment</td>
</tr>
<tr>
<td>BELL CIRCUIT</td>
<td>Control module used with NAC with bells</td>
</tr>
<tr>
<td>blank</td>
<td>Operates as CONTROL with no Type ID label</td>
</tr>
<tr>
<td>CO MONITOR</td>
<td>Monitor Module for use with conventional CO detectors. Activation will generate a CO Alarm on the FACP.</td>
</tr>
<tr>
<td>CONTROL</td>
<td>Control module used with NAC</td>
</tr>
<tr>
<td>CONTROL NAC</td>
<td>Control module or NAC</td>
</tr>
<tr>
<td>ECS/MN MON</td>
<td>Monitor for mass notification alarms, latching</td>
</tr>
<tr>
<td>ECS/MN SUPL</td>
<td>Monitor for mass notification supervisory inputs, latching</td>
</tr>
<tr>
<td>ECS/MN SUPT</td>
<td>Monitor for mass notification supervisory inputs, tracking</td>
</tr>
<tr>
<td>ECS/MN TMON</td>
<td>Monitor used for mass notification fault inputs, tracking</td>
</tr>
<tr>
<td>FIRE CONTROL</td>
<td>Monitors non-fire activations</td>
</tr>
<tr>
<td>FMM-420</td>
<td>Monitors 4-20 mA industrial sensors</td>
</tr>
<tr>
<td>FORM C RESET</td>
<td>Control module used to interrupt 24 V power to four-wire conventional detectors for 30 seconds upon reset. Used in conjunction with a monitor module with a conventional detector Type ID.</td>
</tr>
<tr>
<td>GEN ALARM</td>
<td>Control module, XPC-8 circuit, or XP5-C (NAC mode) configured as a Municipal Box Transmitter (MBT-1 required). This Type ID can also be used for general alarm activation. It is programmed as “switch inhibit”.</td>
</tr>
<tr>
<td>GEN PEND</td>
<td>Control module, XPC-8 circuit, or XP5-C (NAC mode) that will activate upon receipt of an alarm and/or fault condition, and remain in the ON state until all events have been acknowledged</td>
</tr>
<tr>
<td>GEN SUPERVIS</td>
<td>Control module, XPC-8, or XP5-C (NAC mode) activated under any supervisory condition (includes sprinkler type). It is programmed as “switch inhibit”</td>
</tr>
<tr>
<td>GEN FAULT</td>
<td>Control module, XPC-8, or XP5-C (NAC mode) activated under any System Fault condition. It is programmed as “switch inhibit”</td>
</tr>
<tr>
<td>HAZARD ALERT</td>
<td>Indicated a hazard condition, tracking</td>
</tr>
<tr>
<td>HEAT</td>
<td>Adjustable threshold heat detector</td>
</tr>
<tr>
<td>HEAT+</td>
<td>Adjustable threshold heat detector with a low temperature warning.</td>
</tr>
<tr>
<td>HEAT(FIXED)</td>
<td>Intelligent 135°F thermal sensor detector</td>
</tr>
<tr>
<td>HEAT(ROR)</td>
<td>15°F per minute rate-of-rise detector</td>
</tr>
<tr>
<td>HEAT DETECT</td>
<td>Monitor for conventional heat detector</td>
</tr>
<tr>
<td>INST RELEASE</td>
<td>Control module used with NAC. Always non-silenceable and switch-inhibited</td>
</tr>
<tr>
<td>ISOLATED NAC</td>
<td>Supervised NAC for notification appliance, used with audio isolators. Activates even if there is a short on its NAC circuit. Canada installations only.</td>
</tr>
<tr>
<td>ISOLATED SPK</td>
<td>Supervised NAC for speaker circuit, used with audio isolators. Activates even if there is a short on its audio circuit. Canada installations only.</td>
</tr>
<tr>
<td>LATCH SUPERV</td>
<td>Indicates latching supervisory condition</td>
</tr>
<tr>
<td>LP PWR SOUND</td>
<td>Used to support intelligent powered AV devices.</td>
</tr>
<tr>
<td>MAN RELEASE</td>
<td>Monitor module that provides manual release for a releasing zone through connection to a pull station</td>
</tr>
</tbody>
</table>

---

Table A.1 Software Type ID Codes, Alphabetical List (1 of 3)
<table>
<thead>
<tr>
<th>Software Type ID Code</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAN REL DELAY</td>
<td>Monitor module that provides manual release with a 10 second delay for a releasing zone through connection to a pull station</td>
</tr>
<tr>
<td>MCP</td>
<td>Manual fire-alarm-activating device</td>
</tr>
<tr>
<td>MONITOR</td>
<td>Alarm-monitoring device</td>
</tr>
<tr>
<td>MNS CONTROL</td>
<td>Activates control module mass notification devices when an MNS event occurs</td>
</tr>
<tr>
<td>MNS GENERAL</td>
<td>Activates NAC mass notification devices when an MNS event occurs</td>
</tr>
<tr>
<td>MNS RELAY</td>
<td>Activates relay mass notification devices when an MNS event occurs</td>
</tr>
<tr>
<td>MNS SPEAKER</td>
<td>Activates speaker mass notification devices when an MNS event occurs</td>
</tr>
<tr>
<td>MNS STROBE</td>
<td>Activates strobe mass notification devices when an MNS event occurs</td>
</tr>
<tr>
<td>NAC</td>
<td>Supervised NAC for notification appliance</td>
</tr>
<tr>
<td>NON (DUCTP)</td>
<td>Non-latching duct detector</td>
</tr>
<tr>
<td>NON FIRE</td>
<td>Monitors non fire activations</td>
</tr>
<tr>
<td>NONRESET CTL</td>
<td>Output unaffected by “System Reset” command</td>
</tr>
<tr>
<td>P/CO (C SUP)</td>
<td>For use with a Photo/CO detector. If the CO element in the detector activates, a supervisory condition is generated on the fire panel. An activation via the heat or photo element of the Photo/CO detector will generate an alarm condition on the panel</td>
</tr>
<tr>
<td>P/CO (P SUP)</td>
<td>For use with a Photo/CO detector. If the photo element in the detector activates, a supervisory condition is generated on the fire panel. An activation via the CO or heat element of the Photo/CO detector will generate an alarm condition on the panel</td>
</tr>
<tr>
<td>PHOTO/CO</td>
<td>For use with a Photo/CO detector. Activation of the CO, photo or heat elements will generate an alarm condition on the fire panel</td>
</tr>
<tr>
<td>POWER MONITR</td>
<td>Monitor for main and auxiliary power supplies</td>
</tr>
<tr>
<td>PROCESS AUTO</td>
<td>Indicates process condition, tracking</td>
</tr>
<tr>
<td>PROCESS MON</td>
<td>Indicates process condition, latching</td>
</tr>
<tr>
<td>PULL STATION</td>
<td>Manual fire-alarm activating device</td>
</tr>
<tr>
<td>REL AUDIBLE</td>
<td>Activates audio or visual devices steady when releasing starts</td>
</tr>
<tr>
<td>REL END BELL</td>
<td>Control module used to activate NAC audio or visual device when releasing circuits shut off</td>
</tr>
<tr>
<td>RELAY</td>
<td>Form-C relay control module</td>
</tr>
<tr>
<td>REL. FORM C</td>
<td>Form-C relay that directs outputs to perform a releasing function</td>
</tr>
<tr>
<td>RELEASE CKT</td>
<td>Directs outputs to perform a releasing function</td>
</tr>
<tr>
<td>RESET SWITCH</td>
<td>Monitor used to reset the control panel</td>
</tr>
<tr>
<td>SECOND SHOT</td>
<td>Monitor module that provides a second manual release for a releasing zone through connection to a pull station</td>
</tr>
<tr>
<td>SIL SWITCH</td>
<td>Monitor used as Signal Silence switch, turning off all activated silenceable outputs</td>
</tr>
<tr>
<td>SMOKE ACCLIM</td>
<td>Combination photoelectric/heat detector</td>
</tr>
<tr>
<td>SMOKE(ACCLIM+)</td>
<td>Combination photoelectric/heat detector with low temperature warning</td>
</tr>
<tr>
<td>SMOKE CONVEN</td>
<td>Conventional smoke detector attached to an FZM-1</td>
</tr>
<tr>
<td>SMOKE(DUCTL)</td>
<td>Duct laser smoke detector</td>
</tr>
<tr>
<td>SMOKE(DUCTP)</td>
<td>Duct photoelectric smoke detector</td>
</tr>
<tr>
<td>SMOKE(HARSH)</td>
<td>HARSH smoke detector</td>
</tr>
<tr>
<td>SMOKE(ION)</td>
<td>Ionization smoke detector</td>
</tr>
<tr>
<td>SMOKE(LASER)</td>
<td>Laser smoke detector</td>
</tr>
<tr>
<td>SMOKE(PHOTO)</td>
<td>Photoelectric smoke detector</td>
</tr>
<tr>
<td>SPEAKER</td>
<td>Control module for speaker</td>
</tr>
<tr>
<td>SPRINKLR SYS</td>
<td>Monitor for a waterflow device</td>
</tr>
<tr>
<td>SUP L(DUCTL)</td>
<td>Duct laser smoke detector, latching</td>
</tr>
<tr>
<td>SUP L(DUCTP)</td>
<td>Photoelectric smoke detector used as a duct detector to report supervisory condition rather than alarm, latching</td>
</tr>
<tr>
<td>SUP L(LASER)</td>
<td>Laser smoke detector, latching</td>
</tr>
<tr>
<td>SUP L(PHOTO)</td>
<td>Photoelectric smoke detector, latching</td>
</tr>
<tr>
<td>SUP T(DUCTL)</td>
<td>Duct laser smoke detector, tracking</td>
</tr>
<tr>
<td>SUP T(DUCTP)</td>
<td>Photoelectric smoke detector used as a duct detector to report supervisory condition rather than alarm, tracking</td>
</tr>
<tr>
<td>SUP T(LASER)</td>
<td>Laser smoke detector, tracking</td>
</tr>
<tr>
<td>SUP T(PHOTO)</td>
<td>Photoelectric smoke detector, tracking</td>
</tr>
<tr>
<td>TAMPER</td>
<td>Monitor for activation of tamper switch</td>
</tr>
</tbody>
</table>

Table A.1  Software Type ID Codes, Alphabetical List (2 of 3)
### Table A.1 Software Type ID Codes, Alphabetical List (3 of 3)

<table>
<thead>
<tr>
<th>Software Type ID Code</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELE PAGE</td>
<td>Monitor used to emulate the page button on an FFT-7, allowing remote paging to a fire area</td>
</tr>
<tr>
<td>TRACKING SUPERV</td>
<td>Monitor for workflow tamper switches for alarm points</td>
</tr>
<tr>
<td>FAULT MON</td>
<td>Monitor for fault inputs</td>
</tr>
<tr>
<td>WATERFLOW</td>
<td>Monitor for workflow alarm switch</td>
</tr>
<tr>
<td>WATERFLOW S</td>
<td>Monitor for supervisory condition for activated workflow switch</td>
</tr>
<tr>
<td>WEATHER ALRT</td>
<td>Monitor for weather condition, tracking</td>
</tr>
</tbody>
</table>
Appendix B: Releasing Zones

B.1 Introduction

The control panel provides ten Releasing Zones (ZR00-ZR09). These are special zones that can be used for up to ten independent releasing operations. This section contains descriptions of each releasing function option and an example of how Releasing Zone options work.

For instructions on programming Releasing Functions, refer to this panel’s programming manual.

Each Releasing Zone includes the following releasing options:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
</table>
| Cross Zone     | Cross Zones let you program the control panel to activate a Releasing Zone when two or more detectors or modules are alarmed. Cross Zone selections are:  
                 | Yes Two or more detectors or modules are alarmed that are mapped to one of the ten Releasing Zones (ZR00-ZR09).  
                 | Zone Two or more detectors or modules are alarmed that are mapped to two different Software Zones and mapped to one of the ten Releasing Zones (R0-R9).  
                 | Heat At least one smoke detector mapped to one of the ten Releasing Zones (ZR00-ZR09) is alarmed and at least one heat detector mapped to the same Releasing Zone as the smoke detector is alarmed.  
                 | None Cross Zones are not used.                                                                                                               |
| Delay Timer    | A 0–60 second programmable delay before activating a zone.                                                                                   |
| Abort Switch   | An Abort Switch Type Code used to abort activation of a zone.                                                                                  |
| Manual Release | Allows immediate zone activation by overriding the abort function, cross-zone function, and delay timer.                                     |
| Soak Timer     | Automatically shuts off the releasing device after a preprogrammed period of time. Select 0001-9999 seconds for Soak Time or 0000 seconds for no Soak Time. |

Table B.1 Releasing Options

The Read Status function allows the operator to view the current selections for a Releasing Zone. Refer to Section 3.10, “Special Function Zone”, on page 41 for more information.
B.2 How Releasing Zones Operate

The figure below contains an illustrated example of how Releasing Zones work, using cross zone selections with four detectors and an NAC mapped to Releasing Zone 1 (listed as ZR01 in the zone map). Table B.3 on page 57 lists the cross zone selections and the conditions that activate the Releasing Zone:

![Illustrated Example of Cross Zone Programming](image)

<table>
<thead>
<tr>
<th>Cross Zone Selection (Cross=)</th>
<th>Condition(s) Required to Activate the Releasing zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross=NONE</td>
<td>An alarm from any detector or module activates the releasing circuit.</td>
</tr>
<tr>
<td>Cross=YES</td>
<td>An alarm from any two detectors or modules activates the releasing circuit.</td>
</tr>
</tbody>
</table>
| Cross=ZONE                    | An alarm from two detectors or modules mapped to different Software Zones, but mapped to the same Releasing Zone.  
• An alarm from L02D101 and L02D103 – detectors mapped to different zones, but both list ZR01 in their zone map.  
• An alarm from L02D102 and L02D104 – detectors mapped to different zones, but both list ZR01 in their zone map.  
• An alarm from L02D101 and L02D104 – detectors mapped to different zones, but both list ZR01 in their zone map.  
• An alarm from L02D102 and L02D103 – detectors mapped to different zones, but both list ZR01 in their zone map. |
| Cross=HEAT                    | Activation of heat detector L02D104 and one smoke detector (L02D101, L02D102, or L02D103). |

Table B.3 Example of Cross Zone Selections
Index

A
Abort 56
AC Fail Delay Timer 32
Setting report 49
ACCEPT soft key 12
Acknowledge
An Event 17
ACS Points Report 52
Active Fire Control Point
Panel indication 32
Active Non-fire Point
Panel indication 32
Active Points Report 50
Address formats 34
ALARM DEVICES DISABLE fixed function key 8
ALARM DEVICES TEST fixed function key 8
Alarm Verification timer 32
Alphanumeric keyboard, function of 7
Annunciator
Address format 34
Read Status 42
Arrow Keys
about 8
use of 12
Auto Silence timer 33
Setting report 49
B
BACK soft key 12
BATT key, about 8
Block acknowledge setting report 49
Broadcast time setting report 49
C
CAUTION
Information about the Caution notation 5
When a zone is disabled, any input or output devices mapped… 31
CO Alarm
How to respond 27
Panel indications 27
CO Prealarm 28
How to respond 28
Panel indications 28
Control Keys, functions of 8
Control Module
Read Status 39–40
Co-operative Multi-Alarm Sensing display 15
Cross Zone 56
Cross Zone Programming illustration 57
Custom Action Message 14
Custom Action Messages report 50
D
DAA Speaker Ckt Address 34
Delay Timer 56
DELAYS ON/OFF fixed function key 8
Detector
Action/Status display 15
Address format 34
Aspiration Detector Read Status 38
Co-operative Multi-alarm Sensing 15
Heat Detector Read Status 36
Peaks display 15
Read Status 35–37
values display 14
Verify Count display 15
Device Faults 20
Disable
about 8
DISABLE SCROLL fixed function key 7
Disabled Points
Panel indication 31
primary zone 31
E
Enter key, about 8
Esc key, about 8
Event
Acknowledging 17
CO Alarm 27
Definition of 17
Fire Alarm 17
History report 45
History screen 44
Mass Notification 28
Off-normal 17
Event Key 7, 13
Event Logging
Report listing 50
Event reporting format 9
point events 10
system events 10
F
Fault - See System or Point fault 19
FAULT SCROLL fixed function key 7
Fault Zone
Address format 34
Read Status 41
Fault Zones Installed Points Report 52
Fields, adding/modifying 12
Fire Alarm
How to respond 18
Panel indications 17
Firmware version numbers, to view 8
Fixed Function Keys, functions of 7
G
General Zone
Address format 34
Read Status 40
General Zones Installed Points Report 51
H
History Information, viewing & printing 44–46
All events 44
Event History report 45
Event History screen 44
Point Range 45
Range 46
Time & Date Range 45
I
Installed Points Report 51
Interval selection, all events 45
L
Label 10, 12
LAMP TEST key, about 8
LCD Display report 49
LED Indicators 8
Logic Zone
Address format 34
Read Status 40
Logic Zones Installed Points Report 52
M
Main Menu 12
Event Counts display 13
History Select 15
More Information 14
Printer Functions 16
Program/Alter Status 16
Read Status 16
Manual Release 56
Mass Notification
MN Alarm Indication 28
MN Fault Indication 30
MN Supervisory Indication 29
Point Fault Indication 30
Supervisory Point Indication 29
Message Formats
Point Events 10
System Events 10
System Normal 9
Message Formats, about 9–11
MN Alarm
How to respond 29
MN Fault
How to respond 31
MN Supervisory
Panel indication 29
Module
Address format 34
See also Control Module 39
See also Monitor Module 38
Monitor Module
Read Status 38
Multiple Event List 15
N
Navigating menu and programming screens 12
Network parameters report 48
NEXT/PREVIOUS key, about 8
Note
For a printed list of history information, refer to… 50
If a monitor module programmed with a
Waterflow type code… 18
Information about Notes 6
Report formats are shown below as printed by an 80-column printer… 47
The first four lines of the display may indicate an alarm for a point unrelat-ed… 34
O
Off-normal events 17
OTHER EVENT SCROLL fixed function key 7
Output Delay
How to respond 33
Indication 33
Output Delay Time 33

P
PAM
Address format 34
Panel
when it can not read a specified point 12
Panel resound
if supervisory alarm and Alarms Silenced 26
Panel Timers, See System Timers 32
Point (Device) Fault table 20
Point events format 10
Point Fault
How to respond 19
Panel indication 18
Point Range select, all events 45
Power supply
supervision setting report 49
Prealarm
Action 25
Alert 25
How to respond 26
latching 25
non-latching 25
Panel indications 25
Primary Zone
Disabling 31
Print
Programming Menu 48
Programming Menu 2 49
PRINT SCREEN key, about 8
Printer
supervision setting report 49
Printer Functions screen 47
Program/Alter Status 16
Proprietary Reminder timer
Setting report 49

R
Read Status 34–42
Annunciator 42
Aspiration Detector 38
Detector 35, 37
Fault Zone 41
General Zone 40
Heat Detector 36
Logic Zone 40
Monitor Module 38
Special Function Zone 41
Receive Mode 8
Releasing Zone
Abort Switch 56
Cross Zone 56
Delay Timer 56
Manual Release 56
Soak Timer 56
Releasing Zones (R0-R9) 56–57
Remote Reminder timer
Setting report 49
Report
ACS Points 52
Custom Action Messages 50
Event Logging 50
Installed Points 51
LCD display settings 49
Network parameters 48
Settings 49
Supervision 49
Timers 49
Reports 47
Resound, see Panel Resound

S
Several Alarms - Scroll about 8
Silence Buzzer about 8
Acknowledgment Alarms 17
Silence Inhibit timer 8, 33
Setting report 49
Silence Resound Alarm
about 8
SLC Installed Points Report 51
Smoke Control
SMOKE CONTROL DISABLE fixed function key, about 8
SMOKE CONTROL RESET fixed function key, about 8
Smoke Detector, See Detector 35, 37
Soak Timer 56
Soft Keys, functions of 7
Software Type ID Codes 53
Speaker
Address format 34
Special Function Keys 8
Special Function Zone
Address format 34
Read Status 41
ZF0 and Output Delay Time 33
Special Function Zones
Declared Points Report 52
Supervisory report 49
Supervisory Signal (Active Supervisory)
How to respond 26, 30
Panel indication 26
Supplemental Information 5
System (Panel) Timers
AC Fail 32
AC Fail Delay 49
Alarm Verification 32
Auto Silence 32, 49
Silence Inhibit 32, 49
System event format 10
System Fault
How to respond 19
Panel indication 18
System Faults 23
System Normal
Internal panel activity 17
System Normal screen 9, 17
custom graphic 9
System Reset
if Silence Inhibit Timer is running 8
silencing active outputs 8
SYSTEM RESET fixed function key, about 8

T
Time & Date Range selection, all events 45