NOTIFIER®

AFP-200
Analog Fire Panel

Section: Intelligent Fire Alarm Control Panels

GENERAL

The AFP-200 is a compact, cost-effective, intelligent fire alarm control with a capacity of 198 individually identified and controlled points and an extensive list of powerful features. The AFP-200 provides capabilities that exceed most large intelligent systems, at a cost comparable to conventional control panels.

FEATURES

- 198 intelligent device capacity (99 analog detectors and 99 monitor/control modules). Style 4, 6, or 7.
- Overall 301 point capability (198 intelligent points, 4 programmable NAC circuits, 99 programmable relays).
- Network ready (reference **NOTI•FIRE•NET**™ and NAM-232 data sheets for more information).
- **Intelligent features:**
  - ✔ Manual sensitivity adjustment.
  - ✔ Day/Night automatic sensitivity adjustment.
  - ✔ Drift compensation (U.S. Patent Pending) meets UL requirements as a calibrated test instrument.
  - ✔ Auto detector test (meets NFPA 72).
  - ✔ Maintenance alert (two separate algorithms).
  - ✔ Pre-alarm (AWACS™ U.S. Patent Pending).
  - ✔ Activate local sounder base on pre-alarm.
  - ✔ LED blink control for sleeping areas.
  - ✔ Automatic device type check.
- **Releasing features:**
  - ✔ Four independent hazards.
  - ✔ Sophisticated cross-zone (three options)
  - ✔ Delay timer and Discharge timers (adjustable).
  - ✔ Abort (four options).
- Optional DACT, with AC fail delay.
- LCD-80 remote display/control.
- ACS annunciators (EIA-485), including LDM custom.
- Printer interface (80-column and 40-column printers).
- 5.0 A usable regulated output power, plus 6.0 A expander (maximum 8.0 A to panel circuits).
- 80-character LCD display, backlit.
- Real-time clock, with European format option.
- History file with 650-event capacity in nonvolatile memory. Includes non-erasable shadow history.
- Waterflow or supervisory selection per point.
- Alarm Verification selection per point, with tally.
- Walk Test reports two devices set to same address.
- Positive Alarm Sequence (PAS) Presignal per NFPA 72.
- Silence inhibit and Auto Silence timer options.
- March time/temporal/California code for bell circuits.
- Field-programmable on panel or on PC, with user-defined passwords, plus Autoprogram feature.
- UL-Listed modem interface allows remote/off-site system integration.
- FZM-1 two-wire detector interface provides compatibility with many non-NOTIFIER detectors for retrofit applications (consult factory for latest compatibility listings).
- Dual-rate charger for up to 90 hours of standby power.

NOTI•FIRE•NET™ is a trademark of NOTIFIER, 1994.

UL LISTED S635

ULC CS118 (AFP-200C, AFP-200RC)

MEA 104-93-E Vol. XI

U.S. Coast Guard 161.002/23/3

California State Fire Marshal
7165-0028:164

FM APPROVED

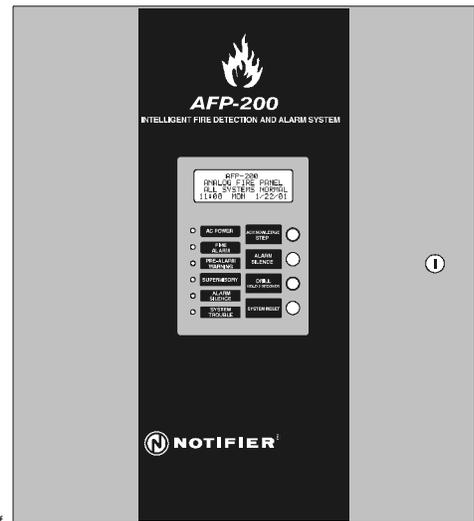*The AFP-200*

Lloyd's Register
TYPE APPROVED
94/60004 (E2)

City of Chicago
CLASS 1: 1928E

City and County of DENVER

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- Two-Stage option for notification circuits (Canada).
- Tornado Warning activates different notification circuit code.
- Non-alarm points for lower priority functions.
- Remote Silence/Reset/Evacuate via monitor modules.
- Automatic time control functions, with holiday exceptions.
- Rapid poll algorithm for manual stations. Responds in < 2 seconds.
- Operates with untwisted, unshielded wire (up to 1,000 ft./304.8 m) for retrofit applications (U.S. Patent 5, 210, 523).
- UL Listed for Fire Signaling per Standard 864 & NFPA 72.
- UL Listed for Burglary applications per Standard 1076.
- UL Listed for Releasing Service. Complies with NFPA 12, 12A, 12B, 13, 15, 16, 17, 17A, 2001 Standards when installed in accordance with appropriate NFPA standard.
- Approved for Agent Release and Preaction/Deluge by CSFM, City and County of Denver, FM, MEA, and ULC.
- Approved for marine applications by U.S. Coast Guard and Lloyd's Register of shipping.

AGENCY LISTINGS AND APPROVALS

Listing agencies and file numbers displayed above. These listings and approvals apply to the basic AFP-200 control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

Sample System Diagram

SLC Intelligent Loop

FSI-851 Ion
FSP-851 Photo
FST-851 Thermal Fixed
DEVICES
NBG-12LX
FMM-1
FCM-1
IDC
IAC

NOTI·FIRE·NET™
Optional Network Interface via the **NAM-232**

AFP-200

EIA-485

99 software zones

4 Notification Circuits

RS-232

ACM-8R Relay Control

ACM/AEM-16AT LED Annunciator

CRT-2

LDM-32 Custom Graphics

PRN Series Printer

UDACT
phone lines

3783diag.wmf

Four standard notification or releasing circuits

AUX relays

EIA-232 interface for CRT, printer, or PC computer

EIA-485 loop for LCD or LED annunciators

Full alpha keyboard for menu-driven programming

SLC loop — up to 198 devices on a single pair of wires

5 ampere regulated power supply

Connector for optional module

Voltmeter/ ammeter option

12 AH batteries, 18 AH with BB-17, up to 90 hours standby power
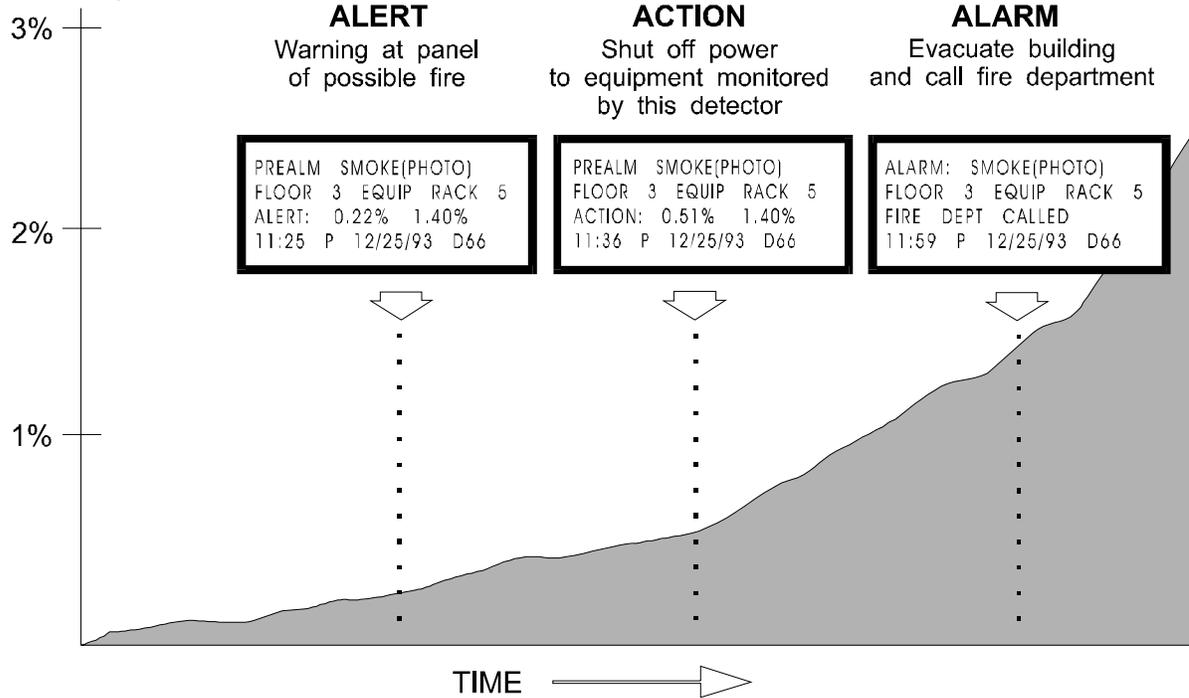
80-character backlit LCD display

3783open.tif
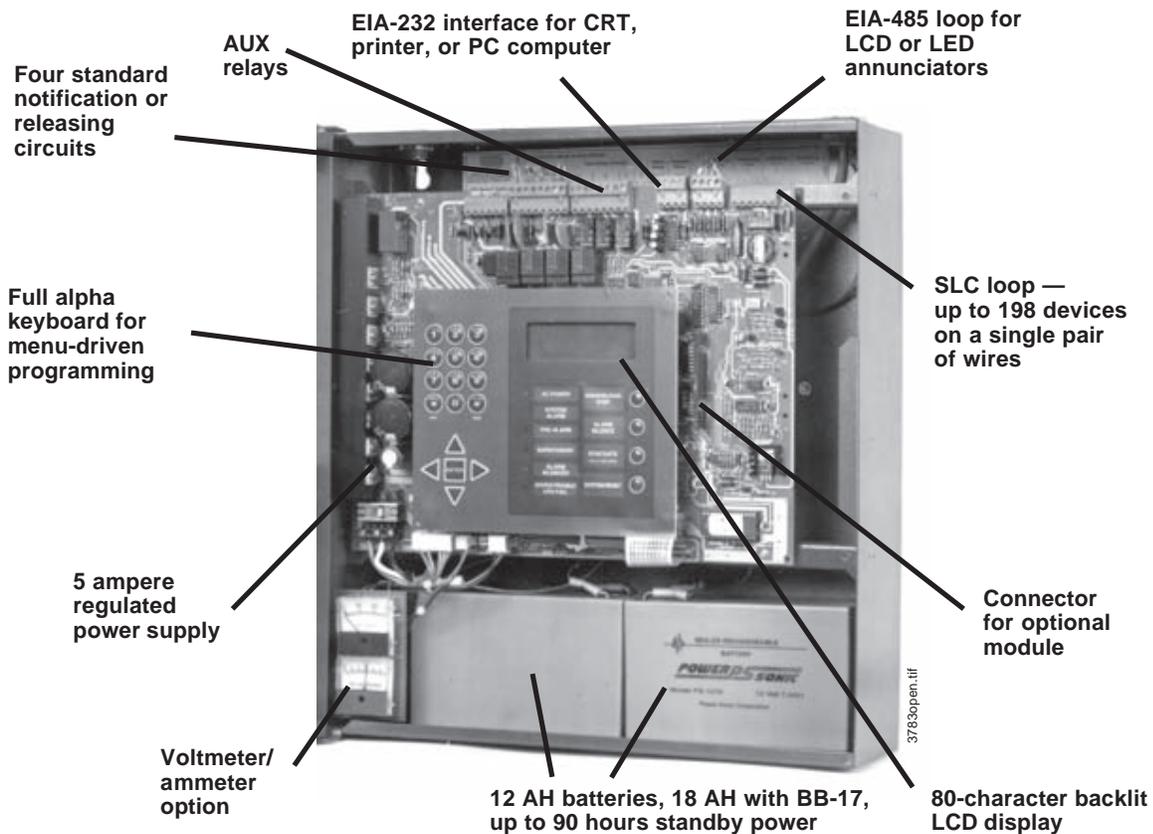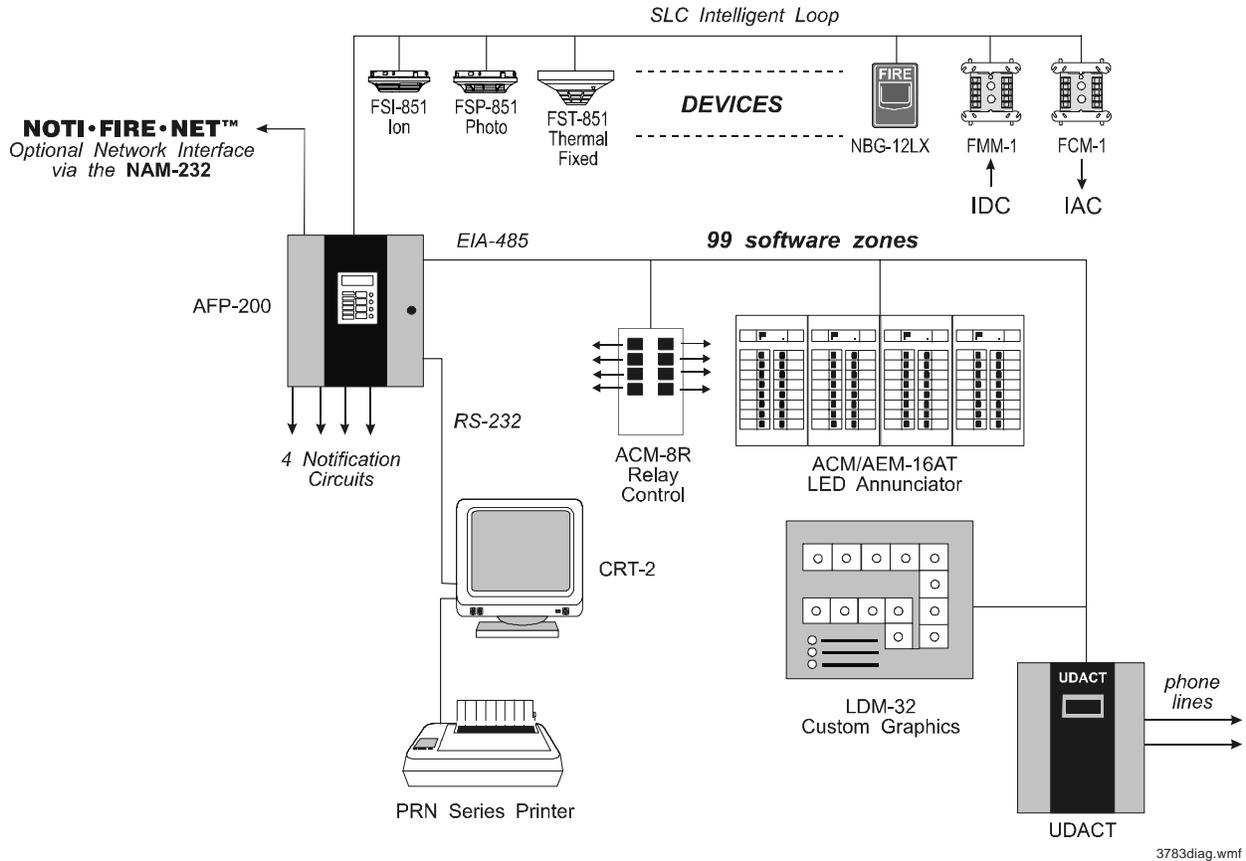
AWACS™ Advance Warning Addressable Combustion Sensing (U.S. Patent Pending)

SMOKE OBSCURATION % per foot

ALERT	ACTION	ALARM
Warning at panel of possible fire	Shut off power to equipment monitored by this detector	Evacuate building and call fire department

```
PREALM  SMOKE(PHOTO)
FLOOR  3  EQUIP  RACK  5
ALERT:  0.22%  1.40%
11:25  P  12/25/93  D66
```

```
PREALM  SMOKE(PHOTO)
FLOOR  3  EQUIP  RACK  5
ACTION:  0.51%  1.40%
11:36  P  12/25/93  D66
```

```
ALARM:  SMOKE(PHOTO)
FLOOR  3  EQUIP  RACK  5
FIRE  DEPT  CALLED
11:59  P  12/25/93  D66
```

TIME

ALERT and **ACTION** levels are completely adjustable in the field to suit the cleanliness and stability of the environment. **ALARM** levels are field adjustable to one of three levels within the UL permitted range. **ACTION** levels latch and may be used to perform control functions. **ALERT** levels self-restore and may be used to activate a local sounder base before general **ALARM** evacuation.

Field Programming — 3 Ways

1. AUTO-PROGRAM
The AFP-200 identifies all devices that are connected, determines the type of device, and loads default values (general alarm) into nonvolatile memory. This is completed in less than 30 seconds.

2. ON-LINE EDIT
While still providing fire protection, the AFP-200 program may be completely edited from the front keypad. Menu trees permit easy change of any parameter without referral to the programming manual. Recall, increment and edit function speeds entry of alphanumeric labels. New program check routine catches common errors.

3. OFF-LINE PC: VeriFire-200
(included with VeriFire-CD)
The complete AFP-200 program may be created in an off-line PC-compatible computer with a Windows®-based utility, then loaded into the AFP-200 EIA-232 port. The program may also be off-loaded to a PC at any time. High-speed data transfer completes upload or download in less than one minute. The PC program may also be used to access remote AFP-200 systems over dial-up phone lines, providing detail status information and history file search/sort.

1.
```
AUTOPROGRAM
PLEASE  WAIT
```

2.
```
0 = CLR    1 = AUTO    2 = POINT
3 = PASSWD    4 = MESSAGE
5 = ZONES    6 = SPL  ZONES
7 = SYS    8 = CHECK
```

3783v200.jpg

3.

SPECIFICATIONS

- Primary input power, 120 VAC, 50/60 Hz, 3.0 A; for AFP-200E: 230 VAC, 50/60 Hz, 1.5 A.
- Total Internal 24 VDC Power: 5.0 A (total shared power).
  - ✔ High-ripple regulated power: 1.5 A (suitable for EIA-485 devices, except ACM-8R); 1.0 A maximum standby.
  - ✔ Non-resettable power: 500 mA.
  - ✔ Four-wire smoke detector power: 500 mA.
  - ✔ Four built-in notification circuits:
    - NAC Circuit 1: 2.25 A.
    - NAC Circuits 2-4: 2.25 A (shared total).

  NOTE: *with optional APS-6R Power Supply NAC circuits 3 & 4 are expanded to 3.0 A (8.0 A total power).*
- Battery charger range: 7 AH - 18 AH.
- Charge high rate: 29.1 V. Float rate: 27.0 V.
- Relay contact rating: 2.0 A @ 30 VDC.
- Cabinet dimensions: 16.125" (40.958 cm) high x 14.5" (36.83 cm) wide x 5.5" (13.97 cm) deep.

SYSTEM CAPACITY

- Total programmable input/output points: 301
- Intelligent detectors: 99
- Addressable monitor/control modules: 99
- Programmable NAC circuits in panel: 4
- Programmable software zones: 99
- Programmable remote relay/annunciator points: 99
- LCD-80 annunciators per system: 4
- ACS annunciators per system: 10

CONTROLS AND INDICATORS

6 LED indicators: AC Power; Fire Alarm; Pre-Alarm; Supervisory/Security; Alarm Silenced; System Trouble.

21 Membrane Switch Controls: Acknowledge/Step; Silence; Evacuate; System Reset; 12-key Alpha pad; 4 cursor keys; Enter.

LCD Display: 80 characters (4 x 20) with long-life LED backlight.

Data sheets are available for many of the compatible products listed below.

COMPATIBLE INTELLIGENT DEVICES

FSI-851: Ion detector, *replaces FSI-751*.
FSI-751: Ion detector.
FSP-851: Photo detector, *replaces FSI-751*.
FSP-751: Photo detector.
FSP-851T: Photo detector with 135°F (57°C) thermal element, *replaces FSP-751T*.
FSP-751T: Photo detector with fixed thermal element.
FST-851: Thermal detector, 135°F (57°C), *replaces FST-751*.
FST-751: Thermal detector, fixed.
FST-851R: Thermal detector, 135°F (57°C) with rate-of-rise, *replaces FST-751R*.
FST-751R: Thermal detector, fixed and rate-of-rise.
FST-851H: 190°F (88°C) high-temperature thermal detector.
FSH-751: HARSH™ photo detector, *requires B710HD base, detector replaces HPX-751*.
HPX-751: HARSH™ photo detector, *requires B710HD base*.
LPX-751L: VIEW® laser detector.
FSD-751PL: Low-flow photo duct detector with housing, *replaces FSD-751P*.
FSD-751P: Duct detector, with housing.
FSD-751RPL: Low-flow photo duct detector with housing and relay, *replaces FSD-751P*.
FSD-751RP: Duct detector, with housing and relay.
B710LPBP: Standard flanged base, package of ten.
B501BP: Standard flangeless base, package of ten.
NOTE: *Remove "BP" suffix for single-pack bases.*
B710HD: Base for FSH-751 (HARSH™) only.
B224RB: Relay base.
B224BI: Isolator base.
B501BH: Sounder base.
B501BHT: Sounder base with temporal sounder.

NBG-12LX: Addressable pull station, visible LED.
ISO-X: Isolator module.
FMM-1: Monitor module.
FMM-101: Monitor module, miniature.
FDM-1: Monitor module, dual, two independent Class B circuits.
FZM-1: Monitor module, two-wire smoke detectors.
FCM-1: Control module.
FRM-1: Relay module.
FSM-101: Pull station monitor module.
XP5-M: Transponder, monitor, 5 addressable Class B circuits.
XP5-C: Transponder, control/relay, 5 addressable Class B circuits.
XP6-C: Six-circuit supervised control module.
XP6-MA: Six-zone interface module; connects intelligent alarm system to two-wire conventional detection zone.
XP6-R: Six-relay (Form-C) control module.
XP10-M: Ten-input monitor module.
XPIQ: Intelligent quad transponder.

COMPATIBLE DEVICES, EIA-232 Port

PRN Series: 80-column printer.
VS4095/S2: Printer, 40 column, 24 volts. Mounted in external backbox *(order from Keltron, Inc.)*.
CRT-2: Video display terminal.
NAM-232: Network Interface Module to **NOTI•FIRE•NET™** wire or fiber models.

COMPATIBLE DEVICES, RS-485 Port

ACS Series: Remote Serial Annunciator/Control systems.
LCD-80: Remote LCD display.
LDM Series: Remote custom graphic driver modules.
ACM-8R: Remote relay module. Eight Form-C relays.
NIB-96: Network Interface Board.
RPT-485: Series Repeater, isolator and/or fiber-optic modem.
UDACT: Universal Digital Communicator.

PRODUCT LINE INFORMATION

AFP-200: AFP-200 system. Includes main PC board with display and keypad, backbox and door (gray), hardware and instruction manual. 120 VAC.
AFP-200E: Same as AFP-200, but 230 VAC.
AFP-200R: Same as AFP-200, but with red backbox and door.
AFP-200RE: Same as AFP-200R, but 230 VAC.
AFP-200C: Same as AFP-200, but ULC-approved version.
AFP-200RC: Same as AFP-200R, but ULC-approved version.
DR-AFP200*: Replacement door, gray.
DR-AFP200R*: Replacement door, red.
*Add an "E" to end of part number for 230 VAC labeling.
SBB-4X: AFP-200 backbox (no door), gray, for replacement only.
SBB-4XR: AFP-200 backbox (no door), red, for replacement only.
CAB-AM: Heavy-duty outer enclosure. Required for marine agency approved applications.
4XTM: Plug-in Transmitter Module. Provides municipal box and remote station connection.
RTM-8: Plug-in Relay Transmitter Module. Provides eight Form-C relays, plus transmitter.
4XMM: Ammeter/Voltmeter.
TR-4XG: Gray Trim Ring for semi-flush mounting (**TR-4XR** for red).
DP-AFP200: Full-length dead-front panel *(required for Canadian applications)*.
PS Series: Batteries. The AFP-200 requires two 12-volt, 7.0 to 18.0 AH batteries.
BAT Series: Batteries. The AFP-200 requires two 12-volt, 7.0 to 18.0 AH batteries.
APS-6R: 6.0 A expansion supply *(requires BB-17)*.
BB-17: Battery box, required for batteries above 12.0 AH, or if APS-6R is used.
CHG-120: 120 AH battery charger for use with 25 to 120 AH batteries.
411 Series: Digital Alarm Communicator/Transmitter.
VeriFire-CD: Programming kit for PC. Includes a CD with a variety of VeriFire™ programs (including VeriFire-200), cable, and instructions.
ROM-AFP200SP: Spanish language kit. Includes software IC, manual, and labels.