NOTIFIER® by Honeywell

October 31, 2005 DN-5262 • A-103

AFP-300 and AFP-400
Analog Fire Panels

Section: Intelligent Fire Alarm Control Panels

GENERAL

The AFP-300 and AFP-400 are compact, cost-effective, intelligent fire alarm control panels with a total capacity of up to 563 points and an extensive list of powerful features. The AFP-300/400 integrates conventional output circuits, such as notification, telephone, and speakers, with the intelligent features of one or two signaling line circuits (SLC) and 198 or 396 intelligent/addressable points.

LISTED S635

CS118/733

California State Fire Marshal 7170-0028:182 7165-0028:181

MEA 17-96-E *(AFP-400)* 17-96-E Vol. II *(AFP-300)*

FM APPROVED

City of Chicago CLASS 1: 1291E CLASS 2: 1729E

City of DENVER *(AFP-400)*

FEATURES

- **One loop** (AFP-300) or **two loops** (AFP-400) Style 4, 6 or 7.
- **198 intelligent devices per loop** (99 intelligent detectors and 99 intelligent modules).
- **396 intelligent device capacity** on the AFP-400; **198** on the AFP-300.
- **VIEW®**, **HARSH™**, **Advanced Multi-Sensor** (AMS) options.
- **Up to 68 internal circuits/relays**, plus 99 programmable zone output relays for a total capacity of 563 points.
- **Four integral Notification Appliance (signal) Circuits** (NACs), Style Z or Y (Class A or B).
- **6.0 A power supply**, plus 6.0 A expanders.
- **NACs may be programmed** for Steady, March Time, Temporal, California code, or Canadian Two-Stage.
- **Modified California code**, pulsed on time.
- **Tornado Warning** activates different Notification Appliance Circuit code.
- **Alarm, Trouble, Supervisory, and Security** relays, standard.
- **Peer-to-peer network-ready.**
- **Intelligent features:**
  - ✔ *Manual sensitivity adjustment — 9 levels.*
  - ✔ *Pre-alarm intelligent sensing — 9 levels.*
  - ✔ *Day/Night automatic sensitivity adjustment.*
  - ✔ *Drift compensation.*
  - ✔ *Multi-detector algorithm involves nearby detectors in alarm decision.*
  - ✔ *Auto detector test (meets NFPA 72).*
  - ✔ *Maintenance alert (two levels).*
  - ✔ *Self-optimizing pre-alarm adjusts pre-alarm level to environment automatically.*
  - ✔ *Activate local sounder base on pre-alarm.*
  - ✔ *LED blink control for sleeping areas.*
  - ✔ *Automatic device type check.*
  - ✔ *Trouble after 20 detector verifications.*
- **Releasing features:**
  - ✔ *Ten independent hazards.*
  - ✔ *Sophisticated cross-zone (three options).*
  - ✔ *Delay timer and Discharge timers (adjustable).*
  - ✔ *Abort (four options).*

5262cov.tif, NotiWH2001.wmf, notifblk.WMF

- **Sensitivity windows:**
  - ✔ *ION — 0.5 to 2.5%/foot obscuration.*
  - ✔ *PHOTO — 0.5 to 2.35%/foot obscuration.*
  - ✔ *MULTI-SENSOR — 0.71 to 4.0%/foot obscuration.*
  - ✔ *VIEW® — 0.03 to 1.0%/foot obscuration.*
- **Low-pressure CO_2 support:**
  - ✔ *Expanded soak timer – 0 to 9999 seconds.*
  - ✔ *Manual release delay (10 seconds) type ID.*
  - ✔ *"Second shot" monitor module type ID.*
  - ✔ *Triple-coded notification circuit type ID.*
- **Voice and telephone features:**
  - ✔ *Solid state message generation.*
  - ✔ *Hard-wired voice control module options (single-address mode modules).*

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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact **NOTIFIER.** Phone: (203) 484-7161 FAX: (203) 484-7118

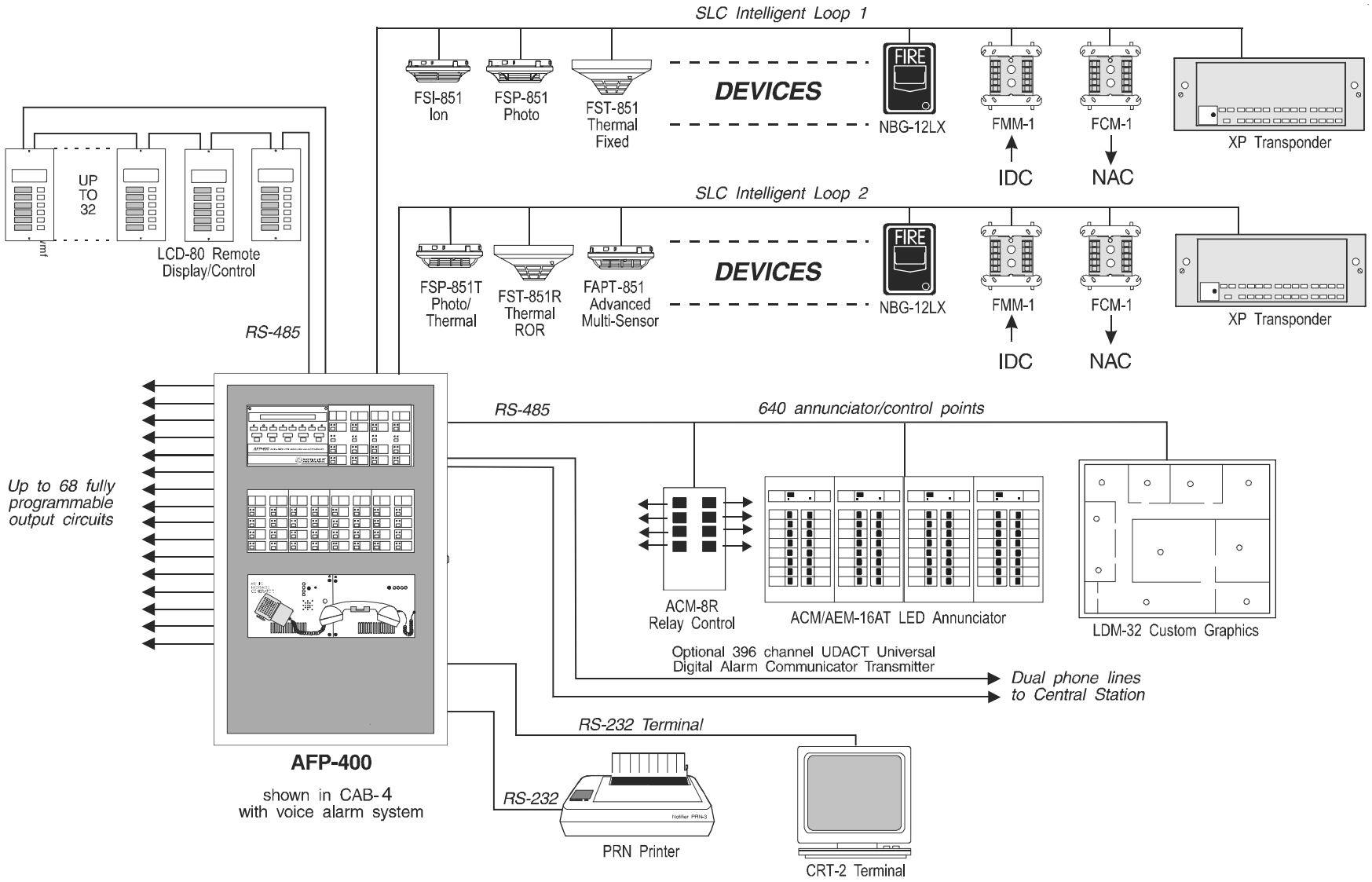
NOTIFIER® by Honeywell 12 Clintonville Road, Northford, Connecticut 06472

ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

- ✔ *Distributed voice options (XP transponders).*
- ✔ *Firefighter telephone option.*
- ✔ *30- to 120-watt high-efficiency amplifier.*
- ✔ *Backup tone generator and amplifier option.*
- ✔ *Dual channel option.*

- **Telephone control module type ID.**
- Optional **UDACT**, 396-channel digital alarm communicator transmitter with AC fail delay.
- 80-character displays (up to 32) for remote annunciation.
- **ACS** annunciators (EIA-485), including **LDM** custom.
- Two-wire detector interface provides compatibility with many manufacturers' detectors for retrofit applications.
- Integral printer interface (80-column and 40-column printers).
- Integral 80-character LCD display, backlit (2 lines x 40 characters).
- Field-programmable on panel or on PC, with program check, compare, simulate.
- Full QWERTY keypad behind flip-down door.
- Autoprogramming and Walk Test.
- Identifies two devices set to the same address.
- History file with 800-event capacity in nonvolatile memory, plus separate 200-event alarm-only file.
- Programmable waterflow or supervisory selection per point.
- Alarm Verification selection per point, with tally.
- Verification Trouble counter. Trouble indication after a detector verifies 20 times.
- Programmable Positive Alarm Sequence (PAS) Presignal per NFPA 72.
- Silence inhibit and Auto Silence timer options.
- Programmable non-alarm points for lower priority functions.
- Remote ACK / Silence / Reset / Drill via addressable modules.
- Maintenance Reports may be sorted via PC by compensation value (dirty detector), peak alarm value, or address.
- Automatic time control functions, with holiday exceptions.
- Dual rate charger for up to 90 hours of standby power.
- Rapid poll algorithm for manual stations. Responds to alarm/activation in less than three seconds.
- SLC loop maximum length 10,000 feet (3,048 m) @ 12 AWG (3.31 mm^2).
- Surface Mount Technology (SMT) electronics.
- High-speed RISC 16-bit microprocessor.
- Extensive built-in transient protection.

SAMPLE SYSTEM BLOCK DIAGRAM



The CPU-300/400

EIA-232 Printer Port
EIA-232 Terminal Port
EIA-485 Port "Terminal Mode"
EIA-485 Port
SLC Loop #1 (Style 4, 6, or 7)
SLC Loop #2 *(AFP-400 only)* (Style 4,6, or 7)
80-Character (2 x 40) Back-Lit LCD Display
Slide-in Label
Status LED's
Control Switches
EPROM
Programming Keypad
Flip-Down Door (covers the programming keypad)

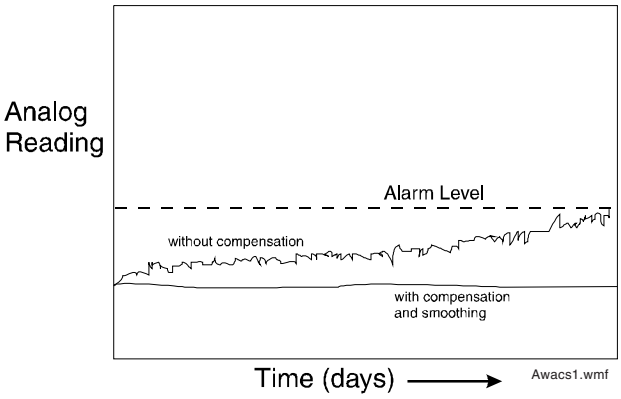
The MPS-400 Main Power Supply

Form-C Alarm, Trouble, Supervisory, and Security contacts. (3 amps @ 30 VDC) (***Note:*** Supervisory and Security contacts can be converted to alarm contacts.)
2 non-resettable 24 VDC circuits rated 1.25 amps each*
Resettable 24 VDC @ 1.25 amps*
NAC or Releasing circuits 1 & 2. Class A or Class B, 24 VDC @ 2.5 amps each.*
AC Power 120/240 VAC (Field Selectable)
NAC or Releasing Circuits 3 & 4. Class A or B, 24 VDC @ 2.5 amps each.*
Battery (12-60 A.H.)
Status/Trouble LEDs
Optional Transmitter module (4XTM connector).
*The MPS-400 is a 6 amp power supply. Total power, including internal modules, cannot exceed 6 amps.
UZC Coder Input
Door Tamper Switch (STS-200)
Meter Module Option (MPM-2)

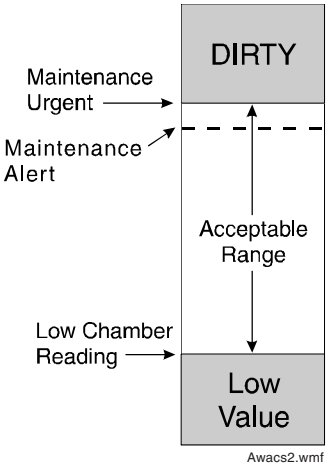
Intelligent Sensing

Intelligent Sensing is a set of software algorithms that provide the AFP-300/400 with industry-leading smoke detection capability. The development of these sophisticated algorithms are made possible by the close cooperation between Notifier and System Sensor, the world leaders in fire detection and alarm technology. These complex algorithms require many calculations on each reading of each detector, and are made possible by the very high speed microcomputer used by the AFP-300/400 (16-bit RISC Reduced Instruction Set Computer).

❶ Drift Compensation and Smoothing. These algorithms (U.S. patent pending) identify and compensate for long-term changes in the analog readings from each smoke sensor. Long-term changes are usually caused by dust accumulation inside the smoke chamber. Drift compensation allows the detector to retain its original ability to detect actual smoke, and resist false alarms, even as dirt accumulates. It reduces maintenance requirements by allowing the system to automatically perform the periodic sensitivity measurements required by NFPA. Smoothing filters are also provided by software to remove transient noise signals, usually caused by electrical interference. Different smoothing algorithms are used, depending on the sensitivity selection of each detector.

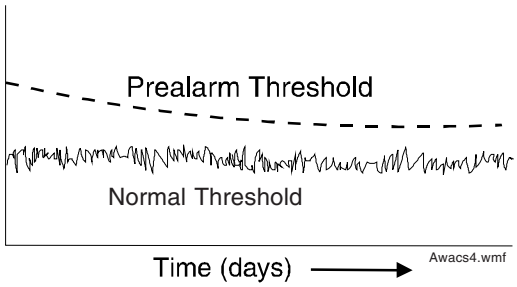


❷ Maintenance Warnings. When the drift compensation performed for a detector reaches a certain level, the performance of the detector may be compromised, and special warnings are given. There are three warning levels: (1) Low Chamber value, usually indicative of a hardware problem in the detector; (2) Maintenance Alert, indicative of dust accumulation that is near but below the allowed limit; (3) Maintenance Urgent, indicative of dust accumulation above the allowed limit. The Maintenance Alert level allows maintenance before the performance of the device is compromised.

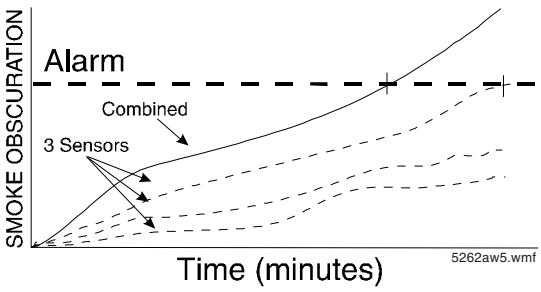


❸ Sensitivity Adjust. Nine sensitivity levels are provided for alarm detection. These levels can be set manually, or can change automatically between day and night. Nine levels of pre-alarm sensitivity can also be selected, based on predetermined levels of alarm. Pre-alarm operation can be latching or self-restoring, and can be used to activate special control functions that are a subset of the alarm control program.

❹ Self-Optimizing Pre-Alarm. Each detector may be set for "Self-Optimizing" pre-alarm. In this special mode, the detector "learns" its normal environment, measuring the peak analog readings over a long period of time, and setting the pre-alarm level just above these normal peaks. This allows extremely sensitive pre-alarm capability with reasonable protection against non-fire signals.



❺ Cooperating Multi-Detector Sensing. A feature of intelligent sensing is the ability of a smoke sensor to consider readings from nearby sensors in making alarm or pre-alarm decisions. Using logic algorithms, each sensor can include up to two other sensors in its decision. Without statistical sacrifice in the ability to resist false alarms, it allows a sensor to increase its sensitivity to actual smoke by a factor of almost 2 to 1. Multi-detector sensing also allows the combination of ionization with photoelectric technology in reaching an alarm decision.



FIELD PROGRAMMING OPTIONS

AUTOPROGRAM

```
AUTOPROGRAM  PLEASE WAIT
```

```
L1:80 DETS, 15 MODS L2:93 DETS, 35 MODS
PANEL OUTPUTS:24  BELLS: 04
```

Autoprogram is a timesaving feature of the 300/400. It is a special software routine that allows the 300/400 to "learn" what devices are physically connected and automatically load them in the program with default values for all parameters. Requiring less than 30 seconds to run, this routine allows the user to have almost immediate fire protection in a new installation, even if only a portion of the detectors are installed. The routine will find all intelligent detectors and modules, and present them to the installer for edit of the default option selections, if desired. If a device is found that already exists in memory, autoprogram skips over that device (only new devices or missing devices are presented to the installer). Often the installer will perform autoprogram as a first step in a new installation, then upload the program into a PC to add all custom labels and other information, then download from the PC to the 300/400.

KEYPAD PROGRAM EDIT

```
ENTER PROG OR STAT PASSWORD, THEN
ENTER (ESCAPE TO ABORT) *****
```

```
0=CLR 1=AUTO 2=POINT 3=PASSWD 4=MESSAGE
5=ZONES 6=SPL FUNCT 7=SYSTEM 8=CHECK PRG
```

The 300/400 has the exclusive feature of full program creation and edit capability from the front panel keypad, ***while continuing to provide fire protection***. The architecture of the 300/400 software is such that each point entry carries its own program, including control-by-event links to other points. This allows the program to be entered with independent per-point segments, while the 300/400 simultaneously monitors other (already installed) points for alarm conditions.

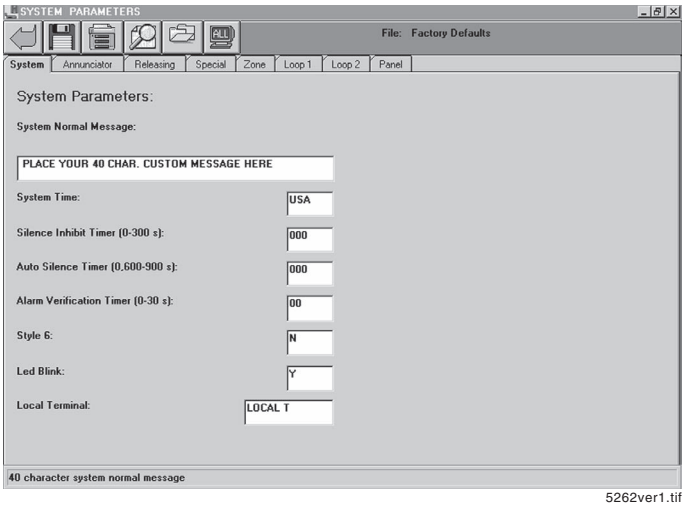
In addition to avoiding system shutdown, program edit from the panel keypad has the advantage of not requiring an on-site PC. This can save significant installation time for minor program changes. The 300/400 site-specific program is password protected, and all information is stored in nonvolatile memory. Menu "trees" are provided to lead the trained installer through the program steps without the necessity to refer to the programming manual.

VeriFire® Software

PC software is available for off-line programming and test utility that can greatly reduce installation programming time, and increase confidence in the site-specific software. VeriFire® is a Windows®-based program providing technologically advanced capabilities to aid the installer. The installer may create the entire program for the 300/400 in the comfort of the office, test it, store a backup file, then bring it to the site and download from a laptop into the panel.

The program includes error checks for common programming mistakes, such as an input point that does not activate any outputs, or an output point that is not linked to any inputs. It also includes a simulation routine that will list all of the output points that are activated by a particular input point (alternatively, it will list all the input points that are linked to a particular output). Although this does not eliminate on-site testing, it greatly increases confidence in the final installation. For example, a 200-input and 100-output point system, without using the software, could require 20,000 test observations to verify all possible I/O links.

The software includes a compare routine, pictured at right, that can also greatly help the installer. When a new program is created, it may be compared with a previous version and differences are highlighted. If the program is modified from the panel keypad, it may be uploaded into the PC, and compared with the previous version stored on disk. The identification of program ***differences*** greatly helps the installer in testing the installation. NFPA 72 requires that reacceptance test of a fire alarm system be performed on 100% of all points that are "known" to be modified. The software allows the installer to determine the exact points that are changed.



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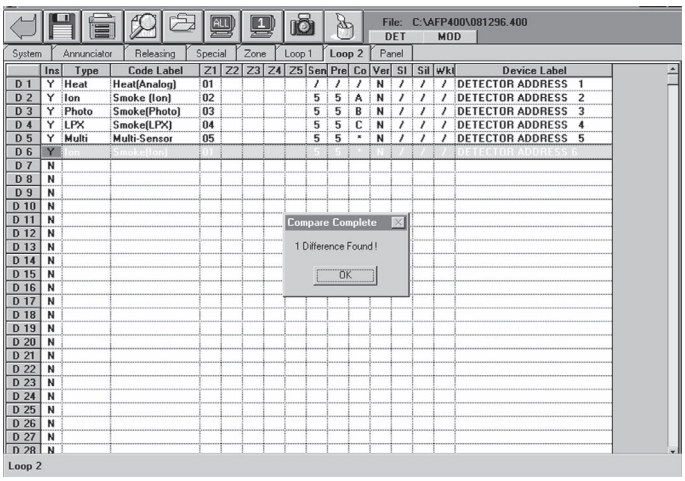

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BASIC EQUIPMENT PACKAGES

There are two packages available to configure an AFP-300 or 400 system. The standard model, BE-300 or BE-400, is designed to mount in a NOTIFIER full-sized cabinet in the CAB-3/-4 Series. The BE-300AA or BE-400AA is a miniature package designed for a smaller cabinet, the CAB-400AA. Order one of the following BE packages:

BE-400: *Base Equipment includes the CPU (2 loops) module (CPU-400), an 80-character display, programming keypad, MPS-400 main power supply, installation instructions, chassis and required hardware. Order CAB-3/-4 Series cabinet separately.*

BE-400AA: *Base Equipment for use with CAB-400AA mini cabinet. It is similar to BE-400 but for use in smaller cabinet. Includes MPS-400RB and transformers. Supports one output option module. Order CAB-400AA cabinet separately.*

BE-300: *Base Equipment includes the CPU (1loop) module (CPU-300), an 80-character display, programming keypad, MPS-400 main power supply, installation instructions, chassis and required hardware. Order CAB-3/-4 Series cabinet separately.*

BE-300AA: *Base Equipment for use with CAB-400AA mini cabinet. It is similar to BE-300 but for use in smaller cabinet. Includes MPS-400RB and transformers. Supports one output option module. Order CAB-400AA cabinet separately.*

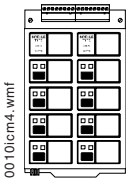
CAB-3/4 Series: *The AFP-300/400 utilizes CAB-3/-4 Series cabinets.* ***See data sheets DN-3549 and DN-6857.***

SYSTEM MODULES

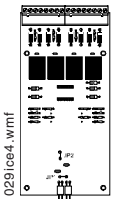
The AFP-300/400 includes the ability to communicate with up to 8 conventional modules each with up to 8 circuits. Any mix of notification, relay, speaker, or telephone may be used.

Choose any combination of up to eight output modules: ICM/ICE, CRM/CRE, DCM-4 or VCM/VCE.

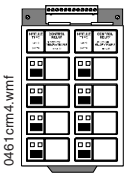
ICM-4: *Notification Appliance Circuit Module, provides four Style Y or Style Z alarm Notification Appliance Circuits. Maximum signaling current is 3.0 amps per circuit or 6.0 amps per module, subject to power supply limitations (includes auxiliary power harness, ELRs and slide-in labels). Includes ON/OFF controls and ON/OFF LEDs* ***See ICM-4 data sheet DN-0010.***


0010icm4.wmf

ICE-4: *Notification Appliance Circuit Expander, expands ICM-4 to provide a total of eight (8) Style Y or Style Z alarm Notification Appliance Circuits. Circuit ratings are same as ICM-4. (Maximum of one per ICM-4.) May also be used to add four Notification Appliance Circuits to VCM-4.* ***See ICE-4 data sheet DN-0010.***


029ice4.wmf

CRM-4: *Control Relay Module, four (4) Form-C relay contacts, rated at 5.0 A, 120 VAC or 28 VDC (resistive) per circuit. Includes manual ON/OFF controls and LEDs.* ***See CRM-4 data sheet DN-0461.***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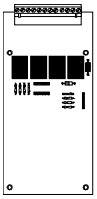
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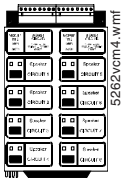
CRE-4: *Control Relay Expander, expands CRM-4 to provide a total of eight (8) Form-C relay contacts. (Maximum of one per CRM-4.) May also be connected to add four relays to ICM-4, TCM-2, TCM-4, or VCM-4.* ***See CRE-4 data sheet DN-0461.***

VCM-4: *Voice Control Module provides four Style Y or Style Z speaker circuits, eight manual select switches and indicators, slide-in labels, and plug-in terminal blocks. Move jumper to convert to telephone circuits with remote ring signal and local call-in flash. May be expanded to 8 circuits with VCE-4, ICE-4, or CRE-4.*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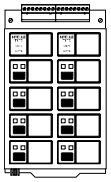
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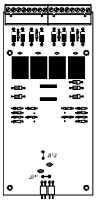
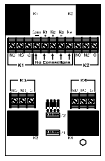
VCE-4: *Voice Control Expander adds four circuits to VCM-4.* ***Note:*** *VCM-4 / VCE-4 combination must be 8 speaker or 8 phone circuits.*


029ice4.wmf

DCM-4: *Dual Channel Module provides four Style Y or Style Z speaker circuits plus four channel A/B select relays. Not expandable.*

OTHER OPTION MODULES

ARM-4: *Auxiliary Relay Module, four (4) Form-C relays controlled by a relay module (CRM-4 or CRE-4). N.O. contacts rated 20 amps, N.C. contacts rated 10 amps at 125 VAC and 30 VDC. Maximum of one for each CRM-4 or CRE-4.* ***See ARM-4 data sheet DN-0461.***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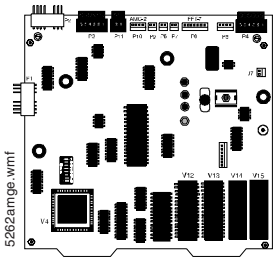
VCC-1: *Voice Control Center. Provides a variety of user selectable tones on a single channel. Up to two different tones or messages may be selected on a single channel. Also provides optional digital voice message capability and on-site programmable voice messages. Includes Audio Message Generator (AMG-1) microphone, cables, dress panels, and instructions.*

VTCC-1: *Voice/Telephone Control Center. Provides all that the VCC-1 provides plus two-way Fire Fighter's Telephone (FFT-7) capability.*

TCC-1: *Telephone Control Center. Provides a stand-alone two-way Fire Fighter's telephone (FFT-7S). Includes cables, dress panel and instructions.*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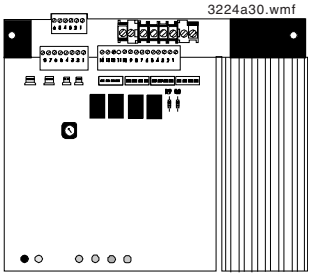
AMG-E: *Audio Message Generator (without microphone). Order in addition to VCC-1 or VTCC-1 if two-channel system is required.*

FFT-7/FFT-7S: *Fire Fighter's Telephone control with master handset.*

AA-30: *Audio Amplifier - 30 watts. Switch-mode power. Includes amplifier and audio*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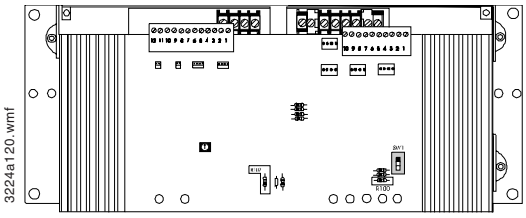
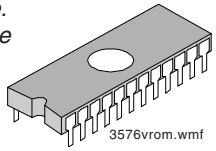
input supervision, backup input, and automatic switchover, power supply, cables.

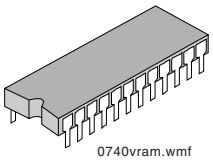


AA-120/AA-100: *Audio Amplifier provides up to 120 watts of 25 VRMS audio power for the AFP-400. The amplifier contains an integral chassis for mounting to a CAB-B3/-B4, -C3/-C4, or -D3/-D4 backbox (consumes one row). Switch-mode power. Includes audio input and amplified output supervision, backup input, and automatic switchover to backup tone. Order the AA-100 for 70.7 VRMS systems and 100 watts of power.*

VROM-(n): *Factory-programmed message for installation in AMG-1. Provides up to 24 seconds of evacuation message on nonvolatile memory chip. Choose one of many standard messages available. Up to two of these messages may be installed in one AMG. Includes VROM, instructions for installation and operation, and written text of message.*

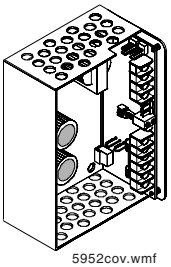

3576vrom.wmf

VRAM-1: *Field-programmed memory to be installed in AMG-1. Provides up to 24 seconds of field-programmable evacuation message on nonvolatile memory chip. Message is programmed from microphone or cassette tape. Up to two of these nonvolatile memory chips may be installed in one AMG. Includes VRAM and instructions for installation and operation.*


0740vram.wmf

XPIQ: *Intelligent transponder designed for multi-channel applications.* ***See XPIQ data sheet DN-6823.***

APS-6R: *Auxiliary Power Supply (expander). Provides up to 6.0 amperes of regulated power for compatible Notification appliance circuits. Includes battery input and transfer relay, and overcurrent protection. Mounts on one of four positions on a CHS-4L or CHS-4 chassis.* ***See APS-6R data sheet DN-5952.***


5952cov.wmf

FCPS-24: *The FCPS-24 is a remote 6-amp (4-amp continuous) repeater/power supply.* ***See FCPS-24 data sheet DN-5132.***

FCPS-2456/-2458: *Remote six-amp and eight-amp power supplies.* ***See FCPS-2456/-2458 data sheet DN-6927.***

UZC-256: *Programmable Universal Zone Coder provides positive non-interfering successive zone coding. Microprocessor-controlled, field-programmable from IBM-compatible PCs (requires programming kit).* ***See UZC-256 data sheet DN-3404.***

LCD-80/LCD-80TM: *80-character, backlit LCD display. Mounts up to 6,000 ft. from panel. Up to 32 per AFP-400.* ***See LCD-80, LCD-80TM data sheet DN-3198.***

ACS: *Annunciator Control Modules ACM-16AT, AEM-16AT, ACM-32A, and AEM-32A.* ***See ACS data sheet DN-0524.***

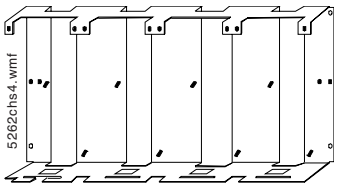
AFM: *Annunciator Fixed Modules AFM-16A, AFM-16AT, and AFM-32A.* ***See AFM data sheet DN-0056.***

LDM: *Lamp Driver Modules LDM-32, LDM-E32, and LDM-R32.* ***See LDM data sheet DN-0551.***

ACM-8R: *Remote Relay Module with eight Form-C contacts. Can be located up to 6,000 ft. from panel on four wires.* ***See ACM-8R data sheet DN-3558.***

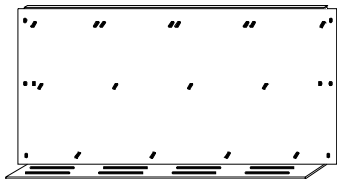
RPT-485: *Repeats EIA-485 over twisted pair or converts to fiber-optic medium.* ***See RPT data sheet DN-4737.***

XP: *The XP Series Transponder provides conventional monitor and control points.* ***See XP data sheet DN-0759.***


5262chs4.wmf

CHS-4: *Chassis for mounting up to four APS-6R.*

CHS-4L: *Low-profile four-position Chassis. Mounts two AA-30 amplifiers or one AMG-E and one AA-30.*

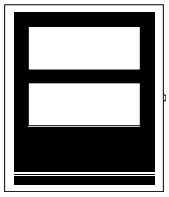

5262ch4L.wmf

CHS-4M: *Expansion Chassis. Mounts up to four modules. Includes CHS-4, MP-1 (Module Dress Panel), and Expander Ribbon Cable.*

DP-1: *Blank Dress panel. Provides dead-front panel for unused tiers or to cover AA-30, AA-120, or AMG-E.*

5262dp1.wmf

CAB-4 Series: *The CAB-4 Series cabinets are fabricated from 16-gauge steel with unique full-front LEXAN®, reverse silk-screened for durability. The cabinet assembly consists of two basic parts: a backbox (SBB-_4), and a locking door (DR-_4)that may hinge right or left. Cabinets are arranged in four (4) sizes, A through D (B [two-tier] is pictured at right). A trim ring option is available for semi-flush mounting.* ***See CAB-4 Series data sheet DN-6857.***


5871cab3.wmf

LEXAN® is a registered trademark of GE Plastics, a subsidiary of General Electric Company.

CAB-400AA: *Provides small cabinet for CPU-400 and MPS-400RB. Use with BE-400AA only. Space for one (only) output circuit module plus expander.*

MPS-400: *Power Supply module. The MPS-400 includes 4 Notification Appliance Circuits (NAC) that can connect four Class A (Style Z) or Class B (Style Y) circuits. The NAC also can be used for Releasing applications. Includes four built-in system relays (alarm, trouble, security, and supervisory). For BE-400 replacement only. The MPS-400 is included in the BE kits.*

MPS-400RB: *MPS-400 PC board only. Less transformers and mounting chassis.*

AGENCY LISTINGS AND APPROVALS

See the first page of this catalog sheet for listing agencies and file numbers. These listings and approvals apply to the basic AFP-300 or AFP-400 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.

The AFP-300/400 is UL Listed, per Standards 864 (Fire) and 1076 (Burglary). It meets NFPA 72 Local, Auxiliary, Remote Station, Proprietary, and Emergency Voice/Alarm Fire System Requirements.

SPECIFICATIONS

- Primary input power, 120 VAC, 50/60 Hz, 3.0 Amps.
- ***Total*** output 24 V power — 6.0 A.*
- Standard Bell circuits (4) per MPS-400 — 2.5 A each.
- Four-wire detector power — 1.25 A.
- Two non-reset regulated power outputs — 1.25 A each.
- Battery charger range: 12 AH - 60 AH.
  (Use separate BB-55 cabinet for 55/60 AH batteries.)
- Charge high rate: 29.1 V. Float Rate: 27.6 V.

* ***Note****: The MPS-400 has a total of 6.0 Amps of available power. This is shared by all internal modules and each MPS-400 circuit.*

SYSTEM CAPACITY: AFP-400

- Intelligent Signaling Line Circuits 2
- Intelligent Detectors 198
- Addressable monitor/control modules 198
- Programmable internal hardware and output circuits (four standard) 68
- Programmable software zones 99
- Special Programming zones 14
- Programmable remote relay/annunciator points 99
- LCD-80 annunciators per system (observe power) 32
- ACS annunciators per system...10 Address x 64 points

SYSTEM CAPACITY: AFP-300

- Intelligent Signaling Line Circuits 1
- Intelligent Detectors 99
- Addressable monitor/control modules 99
- Programmable internal hardware and output circuits (four standard) 68
- Programmable software zones 99
- Special Programming zones 14
- Programmable remote relay/annunciator points 99
- LCD-80 annunciators per system (observe power) 32
- ACS annunciators per system...10 Address x 64 points

CONTROLS AND INDICATORS

Program Keypad: QWERTY type (keyboard layout).

8 LED indicators: AC Power; Fire Alarm; Pre-Alarm; Security Alarm; Supervisory Signal; System Trouble, Disabled points, Alarm Silenced.

Membrane Switch Controls: Acknowledge/Step; Silence; Evacuate; System Reset; Lamp Test.

LCD Display: 80 characters (2 x 40) with long-life LED backlight.

COMPATIBLE DEVICES, EIA-232 Port

PRN-5: 80-column printer. ***See DN-6769.***

PRN-6: 80-column printer. ***See DN-6956.***

VS4095/S2: Printer, 40 column, 24 V. Mounted in external backbox. ***See DN-3260****; order from Keltron, Inc.*

CRT-2: Video display terminal. ***See DN-3756.***

NAM-232W: Wire peer-to-peer **NOTI•FIRE•NET**™ network interface module. ***See DN-5331.***

NAM-232F: Fiber peer-to-peer **NOTI•FIRE•NET**™ network interface module. ***See DN-5331.***

COMPATIBLE DEVICES, RS-485 Port

ACS Series: Remote Serial Annunciator/Control systems. ***See DN-0524.***

FDU-80: Remote LCD display, 80 characters. ***See DN-6820.***

LCD-80: Remote LCD display, 80 characters. ***See DN-3198.***

LDM Series: Remote custom graphic driver modules. ***See DN-0551.***

ACM-8R: Remote relay module, 8 Form-C relays. ***See DN-3558.***

NIB-96: Network Interface Board. ***See DN-0597.***

RPT-485 Series: Repeater, isolator and/or fiber optic modem. ***See DN-4737.***

UDACT: Universal Digital Alarm Communicator Transmitter. ***See DN-4867.***

UZC-256: Zone Coder, up to 256 programmable codes. ***See DN-3404.***

COMPATIBLE INTELLIGENT DEVICES

BEAMHK: Heating kit for transmitter/receiver unit of FSB-200(S) below. ***See DN-6985.***

BEAMHRK: Heating kit for use with the reflector of FSB-200(S) below. ***See DN-6985.***

BEAMLRK: Long-range accessory kit, FSB-200(S) below.

BEAMMRK: Multi-mount kit, FSB-200(S) below.

BEAMSMK: Surface-mount kit, FSB-200(S) below.

FSB-200: Intelligent beam smoke detector. ***See DN-6985.***

FSB-200S: Intelligent beam smoke detector with integral sensitivity test. ***See DN-6895.***

FSI-851: Low-profile ionization detector. ***See DN-6934.***

FSP-851: Low-profile photoelectric detector. ***See DN-6935.***

FSP-851T: Low-profile photoelectric detector with 135°F (57°C) thermal. ***See DN-6935.***

FST-851: Thermal detector 135°F (57°C). ***See DN-6936.***

FST-851R: Thermal detector 135°F (57°C) with rate-of-rise. ***See DN-6936.***

FST-851H: 190°F (88°C) high-temperature thermal detector. ***See DN-6936.***

FSD-751PL: Low-flow photo duct detector with housing. ***See DN-6955.***

FSD-751RPL Low-flow photo duct detector with relay and housing. ***See DN-6955.***

FAPT-851: Acclimate Plus™ low-profile multi-sensor detector. ***See DN-6937.***

FSH-751: HARSH™ Hostile Area Smoke Head. ***See DN-6875.***

FSL-751: VIEW® laser photo detector, will replace LPX-751. ***See DN-6886.***

LPX-751: Low-profile VIEW® laser photo detector. ***See DN-5306.***

NBG-12LX: Addressable pull station, visible LED. ***See DN-6726.***

B224RB: Low-profile relay base.

B224BI: Isolator base for low-profile detectors.

B710LP: Low-profile base. Standard U.S. style.

B501: European-style, 4" (10.16 cm) base.

B501BH: Sounder base, includes B501 base above.

FMM-1: Monitor module. ***See DN-6720.***

FMM-101: Monitor module, miniature. ***See DN-6720.***

FDM-1: Monitor module, dual, two independent Class B circuits. ***See DN-6720.***

FZM-1: Monitor module, two-wire smoke detectors. ***See DN-6720.***

FCM-1: Control module. ***See DN-6724.***

FRM-1: Relay module. ***See DN-6724.***

ISO-X: Isolator module. ***See DN-2243.***

XP Series: Transponder. ***See DN-0759.***

XP5-M: Transponder, five monitor points. ***See DN-6625.***

XP5-C: Transponder, five control points or Form-C relays. ***See DN-6625.***

XP6-C: Six-circuit supervised control module. ***See DN-6924.***

XP6-MA: Six-zone interface module; connects intelligent alarm system to two-wire conventional detection zone. ***See DN-6925.***

XP6-R: Six-relay (Form-C) control module. ***See DN-6926.***

XP10-M: Ten-input monitor module. ***See DN-6923.***

XPIQ: Intelligent quad transponder. ***See DN-6823.***

OTHER ACCESSORIES

4XTM: Plug-in Transmitter Module. Provides municipal box and remote station connection.

BAT Series: Batteries; the AFP-300/400 battery range is 12 AH to 60 AH. ***See DN-6933.***

ROM-AFP400: Panel software upgrade kit. Includes latest factory software *(consult factory)*.

BB-55(F): Battery Box *(required for 55/60 AH)*. Order "F" suffix for red cabinet.

VeriFire-CD: Programming kit for PC. Includes CD, cable, and instructions.

VeriFire-CDUG: Same as VeriFire-CD above except it does not include the cable.

Other options as listed in previous sections.