



Fire-LITE[®] Alarms
INCORPORATED

May 19, 1998

A2-475

Sensiscan 200

Fire Alarm Control Panel

Section: Conventional

GENERAL

The **Fire-Lite Sensiscan 200** Fire Alarm Control Panel (FACP) is a medium-size unit designed for maximum flexibility and ease of installation. The microprocessor control and modular construction enable users to configure the system to meet their precise requirements. Field programmability simplifies initial installation and allows quick updates to meet future needs.

The center of the system is the Central Processor Unit (CPU-200) module which monitors and controls one or two additional user-selected modules. The Sensiscan 200 may be configured as a 4, 8, 12, or 16-zone system.

Internal communications are accomplished over a high-speed serial data bus. Each module on the bus is automatically addressed, supervised and controlled by the CPU-200.

FEATURES

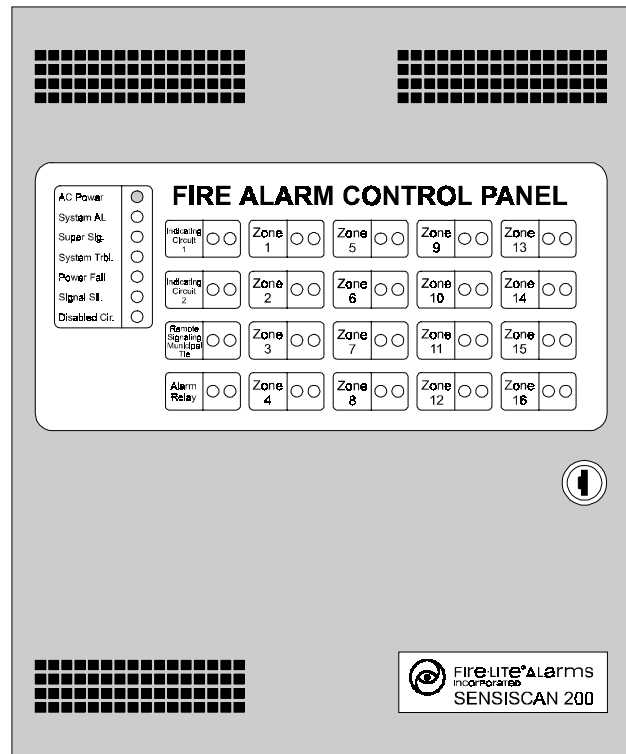
- Medium conventional system capacity: up to 16 Style B or Style D (Class B or A) Initiating Device Circuits (IDCs).
- IDCs may be expanded in increments of 4 or 8 utilizing IZ-4F or IZ-8F modules.
- Dual Style Y or Style Z (Class B or A) Notification Appliance Circuits (NACs) standard.
- NACs may be expanded in increments of 4 or 8 utilizing IC-4F modules or a combination of IC-4F and ICE-4F modules.
- Integral power supply with ground fault detection, battery supervision, and charging capability for 7.0 to 17.0 AH batteries. **Note:** For batteries greater than 12.0 AH, use a BB-17F battery box.
- Small size permits semi-flush mounting between 16" (40.64 cm) center wall studs.
- Field-programmable with separate access for initial system programming and system program changes.
- Multiple passwords and a special programming key are used to ensure the integrity of field program information.
- Each initiating zone may be programmed for normal, waterflow, or supervisory operation.
- Walk Test feature for single-person test of the system. Includes special zone-change audible indication and zone trouble indication.
- Alarm verification, programmable per zone, with automatic discrimination between smoke detectors and dry-contact initiating devices.
- Releasing service capability with selectable time delays, abort circuit, and manual release.



S624



CS68/CS702



- Multiple-hazard releasing option. Four (4) cross-zone circuits per module.
- Two-stage Alert/Evacuation option meets Canadian and U.S. requirements.
- Pre-signal capability with selectable time delays and Positive Alarm Sequence (PAS) per latest NFPA 72 standards.
- Initiating zones may be programmed to function as remote Acknowledge, Silence, or Reset inputs.
- Field-programmable supervisory complies with NFPA standards requiring distinction between supervisory condition and open-circuit trouble conditions.
- March time or temporal code, selectable per output circuit.
- Map any output circuit to any input circuit in non-volatile program memory.
- All initiating and notification appliance circuits are power-limited to meet the latest UL requirements.

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 **Fire-Lite**. Phone: (203) 484-7161 FAX: (203) 484-7118



12 Clintonville Road, Northford, Connecticut 06472

ISO-9001
Engineering and Manufacturing
Quality System Certified to
International Standard ISO-9001



Made in the U.S.A.

- Enable/Disable of circuits from the front panel switches.
- Silence inhibit timer option with selectable times.
- Auto Silence option (alarm cutout) with selectable times.
- Non-alarm selection for lower priority monitor and control of non-fire signals.
- Resound of subsequent alarms, troubles, or supervisory signals, each with a distinct local audible indication.
- Alarm and trouble reminder option.
- ALARM (red) and TROUBLE (yellow) LEDs indicate status of each initiating device circuit.
- ON (green) and TROUBLE (yellow) LEDs indicate status of notification and control circuits.
- EIA-485 serial port for high-speed data communication with remote annunciators. May be used for remote ACKNOWLEDGE, SIGNAL SILENCE, and SYSTEM RESET.
- Labels may be easily inserted to provide identification of all circuits.
- Non-volatile memory retains program information even with total loss of power. Automatic memory checks verify integrity.
- Optional auxiliary power supply available to provide additional power for notification appliances.
- Extensive transient protection.

STANDARDS & APPROVALS

See the first page of this catalog sheet for listing agencies and file numbers. These listings and approvals apply to the basic Sensiscan 200 control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be pending. Consult factory for latest listing status.

The Sensiscan 200 complies with the following standards:

- **NFPA-72 — 1993 National Fire Alarm Code.** Local Auxiliary, Remote Station and Proprietary Fire Alarm Systems.
- **UL 864 — Standard for Control Units for Fire Protective Signaling Systems.**
- **CAN/ULC - S527-M87 — Standard for Control Units for Fire Protective Signaling Systems.**

BASIC CONFIGURATIONS

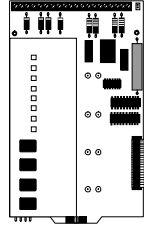
The following are minimum quantities of modules required to configure complete 4, 8, 12, or 16 zone controls.

| | 4 Zone | 8 Zone | 12 Zone | 16 Zone |
|--|--------|--------|---------|---------|
| BE-200C | 1 | 1 | 1 | 1 |
| CAB-200 | 1 | 1 | 1 | 1 |
| IZ-4F or IZ-4AF | 1 | 0 | 1 | 0 |
| IZ-8F | 0 | 1 | 1 | 2 |
| IC-4F, CR-4F, TC-2F, or TC-4F allowed? | 1 | 1 | 0 | 0 |
| CR-4L or ICR-4L allowed? | 1 | 2* | 2* | 2* |

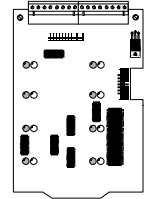
NOTE: *Reduce to 1 if an expander (ICE-4F, IZE-AF, or CRE-4F) or AVPS-24F is employed. Reduce to 0 when both an expander and an AVPS-24F are employed.

PRODUCT LINE INFORMATION

BE-200C: Basic Equipment for Sensiscan 200. Includes CPU-200, MPS-24BF power supply/charger, power transformer, programming key, labels, basic cables, manual, and miscellaneous hardware. The CPU-200 includes two (2) notification appliance circuits, system alarm and trouble relays, remote station and master box transmitters. The CPU communicates with up to two modules (any mix of IZ, IC, CR, and TC). **Note:** If an IC, CR or TC module is installed, only one IZ module (4 or 8 zones) may be installed.



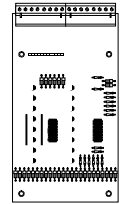
IZ-8F: Initiating Zone module, provides eight (8) Style B (Class B) initiating device circuits (zones). Plug-in terminal blocks are included for ease of installation and service.



IZ-8FCS4: Same as IZ-8F with four (4) yellow supervisory Initiating Device Circuits (zones), (points 5-8). Required for Canadian Supervisory Service.

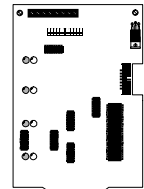
IZ-8FCS8: Same as IZ-8F with eight (8) yellow supervisory Initiating Device Circuits (zones), (points 1-8). Required for Canadian Supervisory Service.

IZE-AF: Initiating Zone Expander, converts IZ-8F to eight (8) Style D (Class A) initiating device circuits (maximum of one per IZ-8F). Plug-in terminal blocks are included for ease of installation and service.

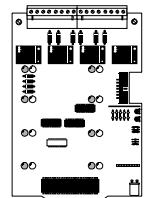


IZ-4F: Initiating Zone module. Provides four (4) Style B (Class B) initiating device circuits. **Note:** Will not accept an IZE-AF.

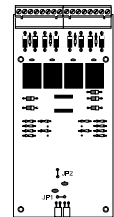
IZ-4AF: Same as IZ-4F but with four (4) Style D (Class A) zones.



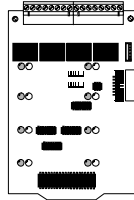
IC-4F: Indicating (Notification Appliance) Circuit module. Provides four (4) Style Y or Style Z (Class B or A) notification appliance circuits. Maximum signaling current is 3.0 amps per circuit or 6.0 amps per module, subject to power supply limitations (includes auxiliary bell power harness and ELRs). Plug-in terminal blocks.



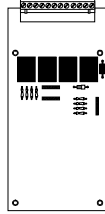
ICE-4F: Indicating (Notification Appliance) Circuit Expander, expands IC-4F to provide a total of eight (8) Style Y or Style Z NACs. Circuit ratings are same as IC-4F (maximum of one per IC-4F). Plug-in terminal blocks.



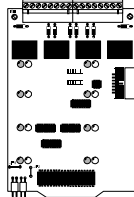
CR-4F: Control Relay module, provides four (4) Form-C relay contacts, rated at 5.0 A, 120 VAC or 28 VDC (resistive) per circuit. Plug-in terminal blocks.



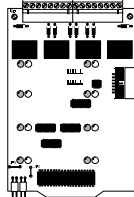
CRE-4F: Control Relay Expander, expands CR-4F to provide a total of eight (8) Form-C relay contacts (maximum of one per CR-4F). May also be connected to add four (4) relays to an IC-4F, TC-2F, or TC-4F. Plug-in terminal block.



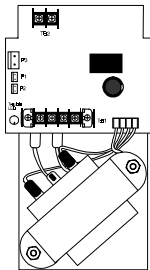
TC-2F: Time Control module used for single-hazard release and pre-signal alert/evacuate applications. Release mode includes: cross-zone; abort circuit; two (2) solenoid circuits; warning bell circuit with triple-code option; and countdown time display. Presignal option includes programmable timer. Plug-in terminal blocks.



TC-4F: Time Control module used for multiple-hazard releasing service or two-stage alert/evacuation. Release mode provides four (4) independent release circuits, each with programmable cross-zone, delay timer, and soak timer. Two-stage alert/evacuate mode provides four (4) independent circuits, meeting Canadian two-stage requirements, with one-minute timer. Plug-in terminal blocks.



AVPS-24F: Audio-Visual Power Supply (expander). Provides 3.0 amps of full-wave unregulated power for compatible notification appliance circuits. Includes battery input and transfer relay, AC circuit breaker, over-current protection. Mounts beneath third (far-right) module.



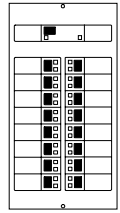
NOTE: If the AVPS-24F is installed, the module on the far right will not accept an expansion module (ICE, IZE, or CRE).

AFM Annunciators

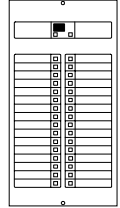
The AFM Series Annunciators communicate along a two-wire, twisted-pair EIA-485 circuit, which can be run up to 6,000 feet from the control panel. Designed to provide remote annunciation of Sensiscan 200 I/O circuits, each AFM annunciator includes: an internal alarm/trouble piezo, SILENCE switch, LAMP TEST switch, POWER-ON LED, and SYSTEM TROUBLE LED. Each AFM includes slide-in zone labels for custom messages that may be printed or typed. Unique features of each AFM Series annunciator are listed below.

Limited Expansion AFM Annunciators (one per panel)

AFM-16ATF: Provides up to 16 zones of alarm and trouble indication. Alternately, it may be selected to annunciate up to 8 zones of alarm and trouble and may be used to remotely control system operation such as SILENCE, RESET, and ACKNOWLEDGE of the control panel. Maximum of one per system.



AFM-32AF: Provides up to 32 zones of alarm indication. May not be used for control (reset, silence) of the Sensiscan 200. Maximum of one per system.



"X" Series AFM Expansion Annunciators (32 per panel)

AFM-16AF: Provides up to 16 zones of alarm indication. May not be used to control (reset, silence) the Sensiscan 200. Up to 32 AFM-16AFs may be used per system (subject to limitations of regulated 24 VDC power supply).

AFM-16ATX: Provides up to 16 zones of alarm and trouble indication. Alternately, it may be selected to annunciate up to 8 zones of alarm and trouble and may be used to remotely control system operation such as SILENCE, RESET, and ACKNOWLEDGE of the control panel. Expandable to 64 points with one, two, or three AEM-16ATF modules. Up to 32 AFM-16ATXs may be installed per Sensiscan 200 (subject to limitations of regulated 24 VDC power supply).

AFM-16ATXCS4: Same as AFM-16ATX with four (4) yellow supervisory indications (points 13-16). *Required for Canadian Supervisory Service.*

AFM-16ATXCS8: Same as AFM-16ATX with eight (8) yellow supervisory indications (points 9-16). *Required for Canadian Supervisory Service.*

AFM-16ATXCS16: Same as AFM-16ATX with sixteen (16) yellow supervisory indications (points 1-16). *Required for Canadian Supervisory Service.*

AEM-16ATF: Annunciator Expander Module. Expands the AFM-16ATX by 16 points of alarm and trouble. Up to three AEM-16ATFs may be controlled by one AFM-16ATX.

AFM-32AX: Provides 32 red alarm indications. Expandable to 64 with one AEM-32AF.

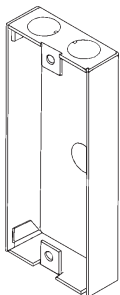
AFM-32AXCS8: Same as AFM-32AX with eight (8) yellow supervisory indications (points 25-32). *Required for Canadian Supervisory Service.*

AFM-32AXCS16: Same as AFM-32AX with sixteen (16) yellow supervisory indications (points 17-32). *Required for Canadian Supervisory Service.*

AEM-32AF: Annunciator Expander Module. Expands the AFM-32AX to 64 points.

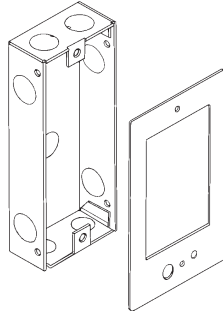
AFM Annunciator Accessories

ABS-1F: Annunciator Surface Box provides for the remote mounting of one (1) annunciator module in a surface-mount enclosure. Knockouts are provided for use with 1/2" (1.27 cm) conduit. Height = 8-1/2" (21.59 cm), Width = 4-1/2" (11.43 cm), Depth = 1-3/8" (3.49 cm).



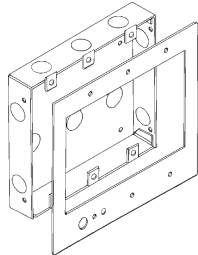
ABS-2F: Surface Annunciator Box. Mounts two (2) annunciator modules (H = 8-1/2" [21.59 cm], W = 8-15/16" [22.70 cm], D = 1-3/8" [3.49 cm]).

ABF-1F: Annunciator Flush Box. Provides a position for one (1) annunciator module. Knockouts are provided for use with 1/2" (1.27 cm) conduit. The ABF-1F includes a trim plate (H = 11" [27.94 cm], W = 6-1/4" [15.88 cm]), mounting hardware, and an adhesive-backed annunciator label for the dress plate. Height = 9-15/16" (25.24 cm), Width = 4-5/8" (11.75 cm), Depth = 2-1/2" (6.35 cm).



ABF-2F: Flush Annunciator Box. Mounts two (2) annunciator modules (H = 9-15/16" [25.24 cm], W = 9-3/16" [23.34 cm], D = 2-1/2" [6.35 cm]).

ABF-4F: Flush Annunciator Box. Mounts four (4) annunciator modules (H = 9-15/16" [25.24 cm], W = 17-3/8" [44.13 cm], D = 2-1/2" [6.35 cm]).

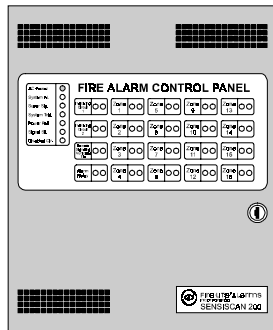


AKS-1F: The Annunciator Key Switch provides access security for the control switches on the AFM-16ATF and AFM-16ATX. Includes a key, hardware, and labels. **NOTE:** The AKS-1F can only be employed with a flush-style backbox.

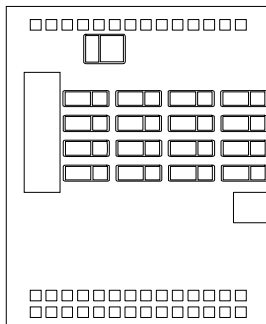
ABM-1: Annunciator Blank Module. Covers unused module positions when using AFM-16ATX or AFM-32AX. Labeled on one side to exactly match the appearance of an AFM-16ATX, and on the reverse side to match an AFM-32AX.

Other Accessories

CAB-200: Backbox and door for Sensiscan 200. Dimensions: 17" (43.18 cm) high x 14-1/2" (36.83 cm) wide x 5" (12.70 cm) deep. Includes lock and keys. Slide-in labels provide custom information.



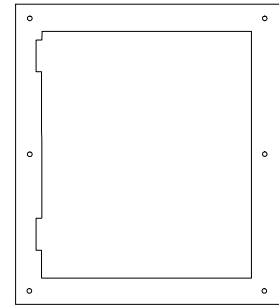
DP-200: Optional inner dress panel for Sensiscan 200. Order if full dead-front is needed with door open. (Required for Canadian applications.)



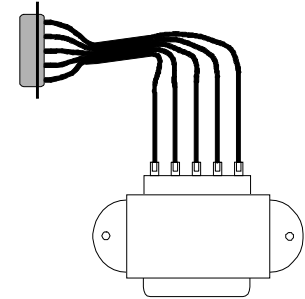
TR-200: Semi-flush trim ring.

Height = 21" (53.34 cm)

Width = 18-1/2" (46.99 cm)



4000TAR: Transformer assembly used with each Sensiscan 200 (included with basic equipment package).



CONSTRUCTION

Each module consists of one or two printed circuit cards that mount to the chassis with captive screws.

Windows in the hinged door allow for viewing of the status LEDs. Slide-in pockets allow the insertion of descriptive labels for the circuits (label windows are 0.88" [2.235 cm] high by 0.98" [2.489 cm] wide).

The MPS Main Power Supply mounts in the back of the enclosure. Space is provided next to the power supply for up to 12 amp-hours of gelled electrolyte batteries.

The Central Processor Unit (CPU-200) module monitors and controls up to two initiating, notification or control modules. The AVPS-24F power supply may be mounted below the far-right module.

A key-locked hinged door enclosure allows viewing of the modules with the door closed. The door assembly is separable from the backbox to allow easy installation.

ELECTRICAL SPECIFICATIONS

- Primary input power, 120 volts, 50/60 Hz.
- 240 volts, 50/60 Hz primary input power options are available (order **BE-200E**).
- Ground fault detection.
- Low primary AC input power supervision with brown-out indication.
- Available 24 VDC notification circuit power: 2.0 amps RMS regulated.
- Available resettable power: 200 mA @ 24 VDC regulated.
- Integral battery charger for 7.0 to 17 AH batteries.

BATTERIES:

- **PS1270:** Battery, 12 V, 7.0 AH, gel cell (order 2).
- **PS12120:** Battery, 12 V, 12.0 AH, gel cell (order 2).
- **PS12170:** Battery, 12 V, 17.0 AH, gel cell (order 2). Requires BB-17F battery box.