



Fire-Lite® Alarms
INCORPORATED

March 23, 1998

A1-100

MS-9200(C/E)
Addressable
Fire Alarm Control Panel
Section: Addressable

GENERAL

The **MS-9200** is a compact, cost-effective, addressable fire alarm control panel with a capacity of 198 **Fire-Lite 300 Series** devices. A single Signaling Line Circuit (SLC) loop supports up to 99 smoke detectors and 99 control or monitor modules. The panel uses surface-mount technology and is designed for ease of installation and programming. It features the latest in fire protection technology, including maintenance alert and automatic detector test.

FEATURES

- SLC supports up to 198 addressable devices (99 detectors and 99 monitor or control modules).
- SLC can be configured for Style 4, 6, or 7 operation.
- Dual Integral Notification Appliance (bell, signal) Circuits (NAC's), Style Y or Z (Class B or A).
- 3.0 Amp Notification Appliance (bell, signal) power, expandable to 6.0 Amperes.
- NAC's may be programmed for Steady, March Time, Temporal or California Code (*requires software P/N 73750 or greater*).
- Alarm, trouble and supervisory relays, standard.
- Maintenance alert warns when smoke detector dust accumulation is excessive.
- Optional UDACT-F Digital Alarm Communicator reports 56 zones or 198 points to a Central Station.
- Optional LCD-40 Series alphanumeric, 40-character, backlit remote serial annunciators operate over high-speed EIA-485 port. Up to 32 may be supported by MS-9200 (*requires software P/N 73750 or greater*).
- Optional printer interface — UL listed for permanent attachment.
- Integral 40-character LCD display with backlighting.
- Keypad programmable on panel, with two user-defined passwords, plus an Autoprogram feature.
- Custom English labels per point may be manually entered or selected from an internal library file.
- Autoprogram and Walk Test features identify 2 or more devices set to same address.
- Real-time clock/calendar.
- History file with 500-event capacity.
- Waterflow or supervisory selection per monitor point.
- System alarm verification, smoke only.
- Presignal delay option per NFPA 72.
- Silence Inhibit and Auto Silence timer options.
- Battery charger for up to 60 hours of standby power.
- Fuseless, power-limited technology meets new UL power-limiting requirements, effective May 1, 1995.

MEA

- 16-94-E**
(MS-9200 & M302)
- 3-94-E**
(M300, M301, I300, SD300, CP300)
- 326-94-E**
(SD300T, C304)



S624
(MS-9200, MS-9200E)

OX9A3.AY
(MS-9200, CP300, SD300, BG-10LX, M300, M301, M302, C304, I300)
(Requires DP-9200)
OY6A3.AY (SD300T)



CS68
(MS-9200C)

- 7165-0075:158**
(MS-9200)
- 7300-0075:159**
(M300, M301, I300, C304)
- 7300-0075:162**
(M302)
- 7272-0075:172**
(SD300, SD300T)



MS-9200

- Rapid poll algorithm for manual stations. Responds to alarm/activation in less than two seconds.
- Operates with untwisted, unshielded wire (up to 1,000 feet) for retrofit applications (U.S. Patent 5,210,523).
- 300 Series addressable devices feature decimal address selection. Address of each device can be easily set in the field by use of a screwdriver. Smoke detectors also feature a plug-in wiring connector for ease of installation and serviceability.
- Remote Acknowledge/Silence/Reset/Drill via M300 modules.
- SLC loop maximum length 10,000 ft. @ 12 AWG (3.25 mm²).

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



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



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COMPATIBLE ADDRESSABLE DEVICES

- SD300(A)** Addressable Photoelectric Smoke Detector. Includes mounting plate and plug-in wiring terminal block.
- SD300T(A)** Same as SD300, plus a 135°F thermostat heat detector.
- CP300(A)** Addressable Ionization Smoke Detector.
- BG-10LX(A)** Addressable Manual Station based on the popular **Fire•Lite** BG-10L dual-action station.
- M300(A)** Addressable Monitor Module for one zone of normally open dry contact initiating devices. Mounts in standard 4" box. Includes plastic cover plate and end-of-line resistor. Features polling/alarm LED and decimal address switches. May be configured for either Style B (Class B) or Style D (Class A) operation.
- M301(A)** Miniature version of M300. Excludes LED and Style D option. Connects with wire pigtailed. May mount in device backbox.
- M302(A)** Similar to M300, but may monitor up to 20 conventional 2-wire detectors. Requires external 24 VDC power. (Consult factory for compatible smoke detectors.)
- C304(A)** Addressable Control Module for one Style Y/Z (Class B/A) zone of supervised polarized Notification Appliances, or may be configured as a dry contact (Form-C) relay rated at 2 amps. Mounts in standard 4" box. Features polling LED and decimal address switches. Notification Appliance Circuit option requires external 24 VDC power. (Consult factory for compatible Notification Appliances.)
- I300(A)** This module isolates the SLC loop from short circuit conditions (required for Style 7 operation).

NOTES: 1) "A" suffix should be included only when ordering ULC listed units (e.g. SD300A, M300A). 2) For more detailed information on **Compatible Addressable Devices** for use with the MS-9200, please see the following data sheets (document numbers): **SD300/SD300T** (DF-51320), **CP300** (DF-51311), **MS-9200 Addressable Modules** (DF-51339), and **BG-10LX** (DF-51366).

COMPATIBLE ANNUNCIATORS

LCD-40 Series: 40-character, backlit LCD-type fire annunciators capable of displaying English-language text (requires one DIM-485 per MS-9200 panel to interface with up to 32 LCD-40 annunciators).

AFM/AFM-X Series: LED-type fire annunciators capable of providing up to 56 software zones of annunciation. Available in increments of 16 or 32 with expandable (AFM-X Series) and non-expandable (AFM Series) configurations to meet a variety of applications.

LDM Series: Lamp Driver Module series for use with custom graphic annunciators.

NOTE: For more detailed information on **Compatible Annunciators** for use with the MS-9200, please see the

following data sheets (document numbers): **LCD-40** (DF-51474), **AFM/AFM-X** (DF-51465), and **LDM Series** (DF-51384).

FIELD-PROGRAMMING FEATURES

Off-Line Programming: Create entire program in your office using a Windows®-based PC computer (order programming kit PK-9200W separately). Upload/Download system programming locally to the MS-9200 in less than one minute.

Auto-Programming: Command the MS-9200 to program itself (takes less than 30 seconds). In the Auto-Program mode, the MS-9200 scans for all possible devices at all addresses, stores the device types, and addresses found, and then loads default values for all options (General Alarm). It also checks for two or more devices set to the same address.

On-Line Edit: While still providing fire protection, the MS-9200 may be programmed from the front panel. Simple menu trees displayed on the LCD allow the trained user to perform all functions without referring back to the programming manual.

English Label Library: Quickly select labels from a standard library of more than 50 adjectives/nouns, such as "FLR 3 HALLWAY," or enter custom labels letter-by-letter. Use recall function to repeat previously used label.

Program Check: Automatically catch common errors, such as relays not linked to any zone or point.

MAINTENANCE ALERT

The MS-9200 continually monitors each smoke detector and responds to a reading of 80% of the detectors alarm threshold. If the detector continually reports an 80% threshold reading (8/10 of what is required to be an alarm condition) for 24 hours, a trouble condition is created. This reduces the risk of false alarms due to dust and dirt by alerting a trouble (maintenance) condition rather than initiating a false alarm.

AUTOMATIC TEST OPERATION

The MS-9200 performs an automatic test of each detector every 2 hours. Failure to meet the test limits causes an AUTO TEST FAIL trouble type. System Reset clears this trouble.

NFPA STANDARDS

The MS-9200 complies with the following NFPA 72-1993 Edition, Fire Alarm Systems:

- **LOCAL** (Automatic, Manual, Waterflow, and Sprinkler Supervisory).
- **AUXILIARY** (Automatic, Manual, and Waterflow) (*requires RTM-8F*).
- **REMOTE STATION** (Automatic, Manual, and Waterflow) (*requires RTM-8F or UDACT-F*).
- **PROPRIETARY** (Automatic, Manual, and Waterflow).
- **CENTRAL STATION** (Automatic, Manual, and Waterflow) (*requires UDACT-F*).

SPECIFICATIONS

- Primary input power: 120 VAC, 50/60 Hz, 2.3 Amps.
- Total 24 V system power: 3.6 A (expandable to 6.6 A).
- Standard Notification Circuits: 2 (Style Y or Z).

- Expansion Notification Circuits: up to 99 (using C304 module).
 - Notification Appliance Power: 3.0 A (expandable to 6.0A with XRM-24).
 - Four-wire detector power: 300 mA.*
 - Non-resettable regulated power: 300 mA.*
 - Non-regulated power: 2.5 Amps maximum.*
- *NOTE:** Subtract from total 24 V system power.
- Battery charger range: 7 AH - 17 AH (BB-17F battery cabinet for 12 - 17 AH batteries).
 - Remote charger (panel charger disabled, requires MS-9200 circuit board #71741, available June 1, 1998): 25-120 AH (use CHG-120F).
 - Charge float rate: 27.6 V.
 - Charger current limited to 0.8 A.
 - Control panel Alarm, Trouble, Supervisory Relay contact ratings: 2.0 A @ 30 VDC.

CABINET SPECIFICATIONS

Door: 15.218" (38.65 cm) high x 14.718" (37.38 cm) wide x 0.375" (0.95 cm) deep.

Backbox: 15.0" (38.1 cm) high x 14.5" (36.83 cm) wide x 2.625" (6.67 cm) deep.

Trim Ring: 18.12" (46.02 cm) high x 17.62" (44.75 cm) wide — 16 gauge.

SYSTEM CAPACITY

- Total programmable input/output points: 198
- Addressable Detectors: 99
- Addressable monitor or control modules: 99
- Notification Appliance (Bell) Circuits (NACs) in panel: 2*
- Programmable software zones: 56
- AFM/LDM/LCD-40 Series Annunciators per System: 32
- UDACT-F Digital Alarm Communicator Transmitter: 1

***NOTE:** NAC's can be added using C304 control modules.

CONTROLS AND INDICATORS

LED INDICATORS

1. AC POWER (green).
2. FIRE ALARM (red).
3. SUPERVISORY (yellow).
4. ALARM SILENCE (yellow).
5. SYSTEM TROUBLE (yellow).

MEMBRANE SWITCH CONTROLS

1. ACKNOWLEDGE/STEP
2. ALARM SILENCE
3. DRILL
4. SYSTEM RESET (lamp test)
- 5 — 16. 12-key pad with full alphabet
- 17 — 20. 4 cursor keys
21. ENTER

LCD DISPLAY

40 characters (2 x 20) with long-life LCD display, backlit.

COMPATIBLE ADDRESSABLE DEVICES

See page 3 of this document.

EIA-232 PORT

MODEL DESCRIPTION

PIM-24 Printer/PC Interface Module, Cable, DB9F Connector and 9-pin male to 25-pin female adapter.

DIM-485 LCD-40 Display Interface Module.

NOTE: PIM-24 and DIM-485 options are not available simultaneously.

COMPATIBLE DEVICES, EIA-485 PORT

UDACT-F: Digital Alarm Communicator Transmitter.

LCD-40 Series: 40-character, backlit LCD-type fire annunciators capable of displaying English-language text (requires one DIM-485 per MS-9200 panel to interface with up to 32 LCD-40 annunciators).

AFM/AFM-X Series: LED-type fire annunciators capable of providing up to 56 software zones of annunciation. Available in increments of 16 or 32 with expandable (AFM-X Series) and non-expandable (AFM Series) configurations to meet a variety of applications.

LDM Series: Lamp Driver Module series for use with custom graphic annunciators.

NOTE: For more detailed information on **Compatible EIA-485 Port Devices** for use with the MS-9200, please see the following data sheets (document numbers): **UDACT-F** (DF-51294), **LCD-40** (DF-51474), **AFM/AFM-X** (DF-51465), and **LDM Series** (DF-51384).

PRODUCT LINE INFORMATION

MODEL	DESCRIPTION
MS-9200	Addressable Fire Panel. Includes display, single printed circuit board, and cabinet.
MS-9200C	Same as above with ULC listing and DP-9200 dead-front panel.
RTM-8F	Plug-in Relay Transmitter Option Module. Provides 8 Form-C relays, plus municipal box & remote station connections.
DP-9200	Full-length internal dead-front panel (required for FM applications).
UDACT-F	Digital Alarm Communicator Transmitter.
XRM-24	120 VAC, 100 VA Transformer. Expands system power supply. Expands Notification Appliance power from 3.0 amps to 6.0 amps.
PIM-24	Printer Interface Module required to connect a 40- or 80-column printer.
DIM-485	LCD-40 Display Interface Module required to convert EIA-232 to EIA-485 for use with the LCD-40 Series annunciators.
PK-9200W	Programming Kit for Windows®-based PC computer (<i>requires PIM-24 and associated hardware</i>).
TR-1-R	Trim Ring for semi-flush mounting.
BB-17F	Battery box, required to mount PS-12120 or PS-12170 batteries.
BB-55F	Battery box, required to house two (2) PS-12250 batteries and one (1) CHG-120F battery charger. <i>For batteries greater than 25 AH, consult factory for housing/mounting arrangements.</i>
CHG-120F	Remote battery charging system. <i>Required for charging 25 to 120 AH batteries (can only be used in conjunction with MS-9200 circuit board #71741 available June 1, 1998).</i>
PS-1270	Battery, 12 volt, 7.0 AH, (two required).
PS-12120	Battery, 12 volt, 12.0 AH, (two required).
PS-12170	Battery, 12 volt, 17.0 AH, (two required).
PS-12250	Battery, 12 volt, 25 AH, (two required).
PS-12600	Battery, 12 volt, 60 AH, (two required; requires CHG-120F).
FCPS-24F	Remote Power Supply expands NAC outputs by 6 Amps or total system power by 4 Amps.

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