



July 12, 2004

DF-51492 • A3-400

**MS-5210UD(C/E)**  
**Fire Alarm Control Panel with built-in DACT**  
**and remote-site Upload/Download capability**  
 Section: Control/Communicators

**GENERAL**

The **Fire-Lite MS-5210UD** is a 24-volt, ten-zone fire alarm control panel with built-in communicator and remote-site Upload/Download capability (*requires panel software revision #MS52103.0 or greater*). The integral communicator transmits event information (alarms, troubles, supervisorys, faults, etc.) to a UL listed central station. Selectable transmission formats allow the MS-5210UD to communicate to virtually all central stations.

**FEATURES**

- Ten programmable Initiating Device Circuits (zones). Each zone may be programmed for:
  - ✓ Two-wire smoke detectors.
  - ✓ N.O. contact devices (pull, heat).
  - ✓ Four-wire smoke detectors.
  - ✓ Waterflow operation (silenceable or nonsilenceable).
  - ✓ Supervisory operation.
  - ✓ Auto-reset supervisory operation.
  - ✓ Remote switch for Reset, Drill, Silence and Acknowledge.
  - ✓ Auto-reset or latching, critical and noncritical process monitoring.
- Zones programmed for process monitoring require a contact closure for activation and can be used to monitor:
  - ✓ Temperature (high/low temp).
  - ✓ Water level.
  - ✓ Refrigeration.
  - ✓ Gas detection.
  - ✓ Tamper (non-fire).
  - ✓ Loss of air flow.
  - ✓ Open/Close.
- Two built-in, Class B (Style Y) Notification Appliance Circuits (NACs) — expandable to four.
- Notification Appliance Circuits may be programmed:
  - ✓ Silenceable.
  - ✓ Non-Silenceable (a strobe circuit can keep flashing after the panel is silenced).
  - ✓ Auto-Silence (program 5 to 30 minutes).
  - ✓ Silence Inhibit (60 seconds).
  - ✓ Coding (March Time, Temporal, California).
- 3.0 Amps of Notification Appliance power, expandable to 6.0 amps (meets the critical power requirements for ADA and UL-1971 devices).
- Two built-in, fully programmable Form-A relays - expandable to four with two Form-C relays.
- Dual-line rotary- or Touch-Tone®-dial DACT interfaces to public telephone network (*leased phone lines are not required*).
- 24-Volt operation.



**LISTED**  
S5624

**FCC**

1W6USA-20723-AL-E

**INDUSTRY CANADA**  
21325785A



**MEA**  
122-96-E



California State Fire Marshal  
7165-0075:177



**MS-5210UD**

- Built-in voltmeter measures:
  - ✓ Zone voltage.
  - ✓ Primary AC line voltage.
  - ✓ Battery voltage.
  - ✓ Notification Appliance Circuit(s) voltage.
  - ✓ Resettable 24-volt power.
- Surface Mount Technology (SMT).
- Fully programmable via built-in keypad (no costly external programmers necessary).
- Complies with NFPA 72 (Local, Central Station and Remote Station [*DACT only - not polarity reversal*] Fire Alarm Systems).
- Reporting Formats include Ademco Contact ID and 14 others.
- Integral battery charger for up to 60 hours of standby power.
- Fuseless, power-limited technology meets new UL power-limiting requirements, effective May 1, 1995.
- Programmable Alarm Presignal Timer, Alarm Verification Timer and Optional Trouble Reminder.
- Single-person walk test with 256-event walk-test buffer.
- Fire drill function.
- Zone disable capability (software).
- 256-Event history buffer with time and date stamp, stored in permanent memory.
- Accurate real-time clock/calendar.

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 Alarms**, One Fire-Lite Place, Northford, Connecticut 06472. Phone: (800) 627-3473, Toll-Free FAX: (877) 699-4105, Website: [www.firelite.com](http://www.firelite.com)

**ISO 9001**  
**CERTIFIED**  
ENGINEERING & MANUFACTURING  
QUALITY SYSTEMS



Made in the U.S.A.

- Electronics and operational controls fully enclosed in a lockable cabinet capable of housing up to 12 AH batteries.
- Optional LED-10 Series Remote Annunciators operate off serial two-wire EIA-485 interface.
- Optional contact-by-zone module and printer interface for on- or off-line printing.
- 230 VAC, 50 Hz international version available.

## REMOTE SITE UPLOAD/DOWNLOAD

The MS-5210UD may be downloaded or uploaded (*requires panel software revision #MS52103.0 or greater*) without compromising the system fire protection at the protected premises.

- Download system programming.
- Upload key system information:
  - ✓ Current system status, history + walk test files.
  - ✓ Zone, AC line, NAC1, 2, 3 and 4, resettable power and battery voltages.
  - ✓ System programming.
- Upload or download within one minute without affecting normal fire panel functions.
- Multiple security techniques.
- Requires **PK-5210UD** programming kit, which works with most Hayes-compatible modems (*consult factory for listing*).

## SPECIFICATIONS

Single PC board design using Surface Mount Technology (SMT). Two modular telephone jacks for connection to RJ31X/Modules.

### AC Power

- 120 VAC, 50/60 Hz, 2.3 amps.
- 230 VAC, 50 Hz, 1.2 amps ("E" suffix).
- Wire size: minimum 14 AWG with 600-volt insulation.
- Built-in brownout circuitry.
- Built-in voltmeter.

### Communicator

- One line-active indicator for each of two phone lines.
- "Kiss-Off" signal LED.
- Dual "low telephone voltage detect" circuitry.
- Programmable event codes per each format.
- Up to 100 transmitted events/messages.
- Selectable/deselectable transmissions of 100 events.

### Communication Formats

Express and Ademco Contact ID formats allow complete transaction to be communicated in under five seconds.

- Ademco Contact ID.
- 20 PPS, 3+1 standard and expanded.
- 20 PPS, 4+1 standard and expanded.
- 20 PPS, 4+2 standard and expanded.
- 4+1 and 4+2 Ademco Express.

## INITIATING DEVICE CIRCUITS (ZONES)

The MS-5210UD includes ten programmable Class B Initiating Device Circuits (zones). Use the CAC-10F Class A converter module to convert *all* Class B IDC's/NAC's to Class A.

Each zone may support two-wire smoke detectors. Programming options include:

- Normally Open Contact devices (pull, heat).
- Four-wire smoke detectors.

- Waterflow (silenceable/non-silenceable) operation.
- Supervisory (standard/auto-reset) operation.
- Remote switch for Reset, Drill, Silence, Acknowledge.
- Critical and Noncritical Process Monitoring (standard/auto-reset).

All circuits are power-limited and fully supervised. They allow up to 100 ohms of line resistance and allow for use of 12 to 18 AWG wire.

## NOTIFICATION APPLIANCE CIRCUITS

- Two Style Y (Class B) @ 3.0 amps each. Use the CAC-10F Class A Converter Module to convert *all* Class B NAC's and IDC's to Class A.
- Option module adds two Style Z (Class A) NACs @ 1.5 amps each.
- All circuits are fully power-limited and meet the new UL power-limiting requirements effective May 1, 1995, using fuseless technology.

## AUXILIARY OUTPUTS

- Resettable four-wire smoke detector power @ 500 mA.
- Non-resettable power @ 500 mA.
- Two fully programmable Form-A/B relays.
- Option module adds two fully programmable Form-C relays.

## COMPATIBLE DEVICES, EIA-485 PORT

**LED-10IM:** EIA-485 Interface Module. Provides MS-5210UD with EIA-485 output, capable of supporting up to 32 compatible EIA-485 devices (listed below).

**LED-10 Series:** LED-type fire annunciators capable of displaying Alarm (red) and Trouble (yellow) LEDs for all ten Initiating Device Circuits (IDCs). **NOTE:** *For Canadian Supervisory Service, use LED-10LS2 only.*

**AFM-16AF:** LED-type fire annunciator capable of providing up to 16 zones of Alarm (red) annunciation and common system trouble LED. Mounts to 4-gang electrical box *ONLY*.

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

**ACM-8RF:** Remote Form-C relay module. Provides eight mappable Form-C relays driven by EIA-485 for contact-by-zone capability (two minimum required for contact-by-zone). Each requires ABS-8RF for mounting.

**NOTE:** *For more detailed information on Compatible EIA-485 Devices for use with the MS-5210UD, please refer to the LED-10, AFM/AFM-X, LDM or ACM-8RF data sheets, document numbers DF-51500, DF-51465, DF-51384, and DF-51555 respectively.*

## CABINET SPECIFICATIONS

The cabinet is red with a dark blue overlay. Knockouts on the top, sides, and back provide ease of wire entry. The cabinet can be surface or semi-flush mounted and is compact in design.

### Dimensions:

**Door:** 17.11" high x 14.71" wide  
(43.46 cm high x 37.36 cm wide).

**Backbox:** 16.90" high x 14.50" wide x 4.50" deep  
(42.93 cm high x 36.83 cm wide x 11.43 cm deep).

**Trim Ring:** **Part # TR-4-R**, 20.020" high x 17.620" wide  
(50.85 cm high x 44.75 cm wide).

## PRODUCT LINE INFORMATION

<b>MS-5210UD</b>	Ten-zone, 24-volt Fire Alarm Control Communicator (includes backbox, transformer, technical manual, and a frame & post operating instruction sheet).
<b>MS-5210UDC</b>	Same as above with ULC listing and DP-4-R dress panel included.
<b>MS-5210UDE</b>	Same as MS-5210UD with 230 VAC, 50 Hz transformer (UL listed).
<b>XRM-24</b>	120 VAC, 100 VA transformer. Expands NAC power from 3.0 to 6.0 amps and system power from 3.6 amps to 6.6 amps.
<b>NAC-REM</b>	Notification Appliance (Signal) Circuit, Relay Expander Module. Adds two (Class A) NACs and two Form-C relays.
<b>CAC-10F</b>	Class A Converter Module. Converts all Class B Initiating Device Circuits (zones) and standard Notification Appliance Circuits to Class A.

<b>PRT-24</b>	Printer Interface Module. Provides an EIA-232 printer output. Includes cable, DB9F and DB25 adapter.
<b>PK-CD</b>	Contains programming software for Windows-based PC computer.
<b>DP-4-R</b>	Internal Dress Panel ( <i>included when ordering MS-5210UDC</i> ).
<b>MCBL-7</b>	DACT phone cord, 7 feet long ( <i>two required</i> ).
<b>BB-17F</b>	UL listed battery backbox. Required for batteries over 12 AH.
<b>ABS-8RF</b>	Metal enclosure for mounting each ACM-8RF module.
<b>TR-4-R</b>	Trim ring.
<b>BAT-1270</b>	Battery, 12 volt, 7.0 AH ( <i>two required</i> ).
<b>BAT-12120</b>	Battery, 12 volt, 12.0 AH ( <i>two required</i> ).
<b>BAT-12180</b>	Battery, 12 volt, 18.0 AH ( <i>two required, requires BB-17F backbox</i> ).
<b>5210UDRB</b>	Replacement motherboard.

## UL LISTED RECEIVERS COMPATIBLE WITH THE MS-5210UD

	Format # (Addresses 16 & 42)	Ademco 685 (1)	Silent Knight 9000	ITI CS-4000 (3)	FBI CP220FB	Osborne Hoffman Models 1 & 2	Radionics 6000/6500 (5)	Sescoa 3000R (7)	SurGuard MLR-2 (9)
0	4+1 Ademco Express	✓			✓				✓
1	4+2 Ademco Express	✓			✓	4 (8)		✓	✓
2	3+1/Standard/1800/2300	✓	✓ (2)	✓	✓ (4)	✓	✓ (5,6)	✓	✓
3	3+1/Expanded/1800/2300	✓	✓ (2)	✓	✓ (4)	✓		✓	✓
4	3+1/Standard/1900/1400	✓	✓ (2)		✓ (4)	✓		✓	✓
5	3+1/Expanded/1900/1400	✓	✓ (2)		✓ (4)	✓		✓	✓
6	4+1/Standard/1800/2300	✓	✓ (2)	✓	✓ (4)	✓	✓ (5)	✓	
7	4+1/Expanded/1800/2300	✓	✓ (2)		✓ (4)	✓		✓	✓
8	4+1/Standard/1900/1400	✓	✓ (2)		✓ (4)	✓		✓	✓
9	4+1/Expanded/1900/1400	✓	✓ (2)		✓ (4)	✓		✓	✓
A	4+2/Standard/1800/2300	✓	✓ (2)	✓	✓ (4)	✓	✓ (5)	✓	✓
B	4+2/Expanded/1800/2300	✓	✓ (2)		✓ (4)	✓		✓	✓
C	4+2/Standard/1900/1400	✓	✓ (2)		✓ (4)	✓		✓	✓
D	4+2/Expanded/1900/1400	✓	✓ (2)		✓ (4)	✓		✓	✓
E	Ademco Contact ID	✓			✓	✓			✓

### KEY:

- (1) With 685-8 Line Card with Rev 4.4d software.
- (2) With 9002 Line Card Rev 9035 software or 9032 Line Card with 9326A software.
- (3) Rev. 4.0 software.
- (4) FBI CP220FB Rec-11 Line Card with Rev 2.6 software and a memory card with Rev 3.8 software.
- (5) Model 6500 with Rev 600 software.
- (6) Model 6000 with Rev 204 software.
- (7) With Rev B control card at Rev 1.4 software and Rev C line card at Rev 1.5 software.
- (8) Model 2 only.
- (9) Version 1.62 software.

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