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Conventional Systems

411 Series

Dialer Runaway

What is the Dialer Runaway feature found on 411 Series communicators?

When a control panel encounters a large number of trouble conditions within a certain timeframe, and its digital communicator bombards the Central Station with phone calls, it is considered Dialer Runaway. The 411 Series Digital Communicators feature the ability to understand this condition and stop the repetitive dialing after 20 trouble incidents.

DACT Troubles

The piezo sounder is sounding on my 411 DACT but the COMM FAIL light is not lit. What can be the problem?

The following DACT troubles include: input channel open circuits, Phone Line 1 or 2 Voltage Fault, Phone Number 1 or 2 Communication Fail (in which case the Comm Fail LED would be illuminated in this case), total communications fail or communications disabled.

Power On Trouble

As soon as I power up my 411 DACT it goes into trouble. Why?

The 411 DACT is defaulted to "Communications Disabled" at Address #64 so it annunciates a trouble at power up. This is completely normal.

411 Won't Power Up

I'm using a 12-volt Fire Alarm Control Panel to power a 411 DACT. The power is attached correctly to the dialer but it won't power up. What's wrong?

THIS APPLIES TO THE 411 and the 411UD ONLY: Jumper J4 on the 411/411UD configures the DACT for its operating voltage. Remove the jumper to accept 24 VDC; leave the jumper intact to accept 12 VDC.

Silence Button

There's no SILENCE button pictured on the 411 DACT manual - how do you silence a trouble?

The latest version of the 411 DACT has a button for silencing local trouble signals.

Default Programming

Can I default the programming on a 411 DACT?

To return the 411 DACT to its default program, press <mode> 3337, <enter>. Within 5 seconds you must press <mode>, 3337, <enter> again. When reprogramming is complete, the display will go blank.

4X Series - MS-4424/MS-4424B/MS-4412B/MRP-4424

Using the 4XZMF with MS-4424

When using the 4XZMF zone relay module with MS-4424, what causes the activation of the relays on the module?

When using the 4XZMF zone relay module, the relays will activate when the initiating zone activates: Zone 1 trips relay 1, zone 2 trips relay 2, zone 3 trips relay 3, and zone 4 trips relay 4. Any zone programmed for alarm will activate its associated relay, and the general alarm relay on the 4XZMF. Any trouble condition on the panel will activate the general trouble relay on the module. Note: If zone 4 has been programmed as a Supervisory zone it will activate relay 4 on the module, but not the general alarm or general trouble relay.

Activating Relays 3 and 4

Using a 4XZM, how can I get relays 3 and 4 to activate with outputs 3 and 4 when the control panel only has two NAC Circuits?

When using the 4XZMF zone relay module, the relays will activate when the initiating zone activates: Zone 1 trips Relay 1, Zone 2 trips Relay 2, Zone 3 trips Relay 3, Zone 4 trips Relay 4. Any zone programmed for alarm will activate its associated relay, and the general alarm relay on the 4XZMF. Any trouble condition on the panel will activate the general trouble relay on the module. Note: If Zone 4 has been programmed as a Supervisory zone, it will activate Relay 4 on the module, but not the

General Alarm or System Trouble relay.

Supervisory Input

If Zone 4 on the MS-4412B/4424B is set as a Supervisory input, how do you keep the Notification Appliance Circuits from activating?

If Zone 4 has been set as a Supervisory input, both Notification Appliance Circuits will activate for Supervisory conditions. To activate only one Notification Appliance Circuit (Circuit 2), cut SUPV 1 jumper. To disable both Notification Appliance Circuits from activating on a Supervisory, cut SUPV 2 jumper. Refer to the manual for jumper location.

BG-10 Manual Pull Station

Installation Alert

BG-10 Lock Style Pull Station

December 20, 1999

In August of 1998 Fire•Lite made a construction change to the locking assembly of the BG-10L (only with Lock models - BG-10L, BG-10LA, BG-10LX) Series Pull Stations. Upon investigation of reported false alarms from the field, we have determined that tolerances on the new lock assembly may be compromised during installation of the pull station or by repeated opening and closing of the station, resulting in the potential activation of the alarm switch with minimal force.

Care should be taken to insure that the integrity of these pull stations is not compromised during installation. Special care needs to be taken in regards to the tightening of the BG-10 series (all models) to the backbox. Should the screws that mount the BG-10 series station be over tightened, the backplate can bend. When the backplate bends, the plunger switch (the switch that causes an alarm) can be pulled further away from the cover (which is used to push the switch in). This can cause the station to false alarm.

Should you find that you have BG-10L series pull stations installed that are suspected of or are experiencing high sensitivity, a field retrofit assembly is available that replaces the locking assembly. Please note that this replacement lock will improve the integrity of the key lock but it may not correct stations damaged by improper installation. Changing the lock to the current design (all shipments after December 3, 1999) can alleviate the lock issue above. New locks can be ordered free of charge from your customer service representative utilizing the following part number:

Fire• Lock – 17023

We apologize for any inconveniences this may have caused and we will continue to do our best to make sure issues such are kept to a minimum. It is also our intention to inform you of product issues in a timely and judicious manner.

Please feel free to contact me should you have any further questions or concerns.

Sincerely,
Product Marketing Manager – Fire•Lite

Batteries & Chargers

Charge Time

How long does it take for the CHG-120F to fully-charge completely-discharged batteries?

That depends on the size of the battery. The CHG-120F can recharge 25 AH batteries in 9 hours, 55 AH batteries in 20 hours, and 120 AH batteries in 38 hours.

Connecting 100 AH batteries

How do I connect two 100 AH batteries to the CHG-120F?

Reference the [CHG-120 Series Addendum](#).

Disabling a Battery Charger

How do I know if a remote battery charger can be used with a particular control panel?

In order to use a remote battery charger, you have to be able to disable the control panel's onboard battery charger. The only Fire•Lite panels that permit this disabling are the MS-9600, the Sensiscan 2000, and the new-design MS-9200 (available 8/2001).

Low Battery Voltage

Why do I get a "No Bat" message when I have batteries connected to the panel?

Some Fire•Lite panels shut off their internal battery charger and report "No

Bat" when the battery voltage drops below 17 volts. Since the charger has been shut off, the batteries must be recharged using means other than the control panel.

A "Lo Bat" message is generate when the battery voltage drops below 20.4 volts.

Doubling Amp-Hours

How do I connect two sets of batteries to double the amp-hours?

On a 24 VDC control panel, you normally use two 12-volt batteries connected in series. To double the amp-hour capacity of your secondary power source, you have to connect two sets of *series*-connected batteries in *parallel*. This will double the amp-hours. However, before you do this, be advised of the following:

1. Factory Mutual (FM) does not recognize (thereby voiding FM approval of the system) series-parallel battery connections.
2. Make sure the battery charger is capable of adequately charging the total amp-hours.
3. Never mix batteries of different voltages (6, 12 or 24), amp-hours or age (old and new). Always use four identical batteries in this scheme.
4. Make sure you can supply an adequate housing for the four batteries.

Battery Calculations

The data sheet for the notification appliances I want to use lists two alarm current draws - regulated and FWR. Which value do I use for battery calculations? My NAC supply is FWR.

Use the regulated current draw for your notification appliances because the battery is the perfect filter - it provides straight, clean DC. However, if your NAC supply is FWR (Full-Wave Rectified) and you are doing supply calculations to ensure that you don't overload the power supply in alarm while operating on AC, use the unfiltered current draw.

Charger Output

How can I test the charger output to see if the charger is working?

Most questions of charger integrity stem from the existence of a trouble condition. The system indicates a battery trouble or display a "LO BAT"

or "NO BAT" message. The vast majority of times, failing batteries are the cause of these troubles. Batteries have a limited life and must be replaced regularly. The easiest, and most useful way to test the charger functioning on any fire panel is to install a known good set of batteries in the system, let them charge up 24-30 hours, and then disconnect AC and run a load test.

Beyond this, there is no simple way to test the battery charger of a FireLite control panel.

The MS-9600 displays the charger output voltage in its Read Status function. Alternately, you can test if the charger is basically functioning by measuring the voltage across the batteries with a Digital VoltMeter (DVM). If the voltage fluctuates in the millivolt range (regardless of the actual value), the charger is functioning. This is because the output of the charger is pulsed (not steady DC).

FC-25/50

Trouble LED

What would cause the system trouble LED to be the only LED on?

This is usually caused by not having an ELR (4.7k ohm resistor) on the "MASTER COMMAND OUTPUT" (TB6 1&2). Also, if you configure Command Inputs 1 OR 2 (TB2 & TB5 respectively) for contact closure, you will need a 4.7k ohm resistor on those as well.

Power Requirements

What are the power requirements for the FC-25/50?

When providing power to the Fire Command from a Fire Alarm Control Panel (FACP), or other source of power, the proper amount of filtered, regulated power will be required to activate all the speakers. The amount of current needed depends upon your application. The optional FC-PSM (Fire Command-Power Supply Module) can provide enough power for any configuration supported by the FC-25/50.

Amp Output

Why is there no output from the amplifier?

The two factory installed jumpers on P1 of the FC-AAM25 audio amplifier

module must be installed for use in 25Vrms configuration. If the jumpers are removed, the output of the amplifier will not function.

FCPS-24F

Nonresettable Power Output

On the FCPS-24F, can I have two circuits activate notification appliances and the two remaining circuits supply a steady 24 volts?

All four circuits are factory set as Notification Appliance Circuits (NACs). Alternately, circuits 2 and 4 can be nonresettable power outputs. To change circuit 2 to a nonresettable power circuit, cut R175. To change circuit 4 to nonresettable, cut R176.

Synch NAC

Can the inputs of an FCPS-24F be activated by a NAC circuit that has a System Sensor MDL module on it?

Yes, but the Synch signal will not be transferred from the inputs of the FCPS-24F to the outputs so the FCPS-24F's NACs will not be synchronized. Furthermore, some distortion of the audible signal may occur, particularly with a steady DC NAC signal.

For full synchronization, install a slave MDL module on the outputs of the FCPS-24 and synchronize it with a master MDL module. However, do not daisy-chain the FCPS-24F outputs in this case. Note: The inputs on the FCPS-24F can be activated by 9-32 VDC filtered or unfiltered.

Alternately, consider the FCPS-2404 (4 amp/1 NAC) which will transparently transfer a synchronized signal from an MDL module though to its output.

Synch Modules and Appliances

Can I use a synchronization module with any manufacturer's notification appliance?

No. The notification appliances and the synchronization module(s) have to be specifically designed to work with each other. System Sensor, Wheelock and Gentex manufacture synchronization modules to work exclusively with their own appliances. Refer to each manufacturer for

more information.

Amp/Volt Meter

What is the part number for the Amp/Volt meter for the FCPS-24F?

The part number for the Amp/Volt meter is MPM-4F. The meter mounts in the lower left-hand corner of the FCPS-24 cabinet and connects to the circuit board with a cable that is provided with the meter.

FCPS-24FS6

Cascading Two or More Power Supplies

How do I daisy chain or "Cascade" two or more FCPS-24FS6's together so that they will all be in Synch?

The first FCPS-24FS6 in a series of 2 or more should be set as a Synch Generator or "Master." Use one of the output circuits off the "Master" FCPS-24FS6 to trip the second power supply. The second power supply, and all others after it will all be configured as Synch Followers or "Slaves." Then use an output circuit off the second power supply to trip the third and so on.

Use the following diagram as an example.

Nonresettable Power Output

On the FCPS-24FS6, can I have two circuits activate notification appliances and the two remaining circuits supply a steady 24 volts?

All four circuits are factory set as Notification Appliance Circuits (NACs). Output circuit 4 can be configured as steady by putting dip switch 8 in the ON position. You can also use the auxiliary power from terminals 9 and 10, and feed them into terminals 7 and 8 observing the proper polarity. This will activate Outputs 3 and 4 continuously.

Synch NAC

Can the inputs of an FCPS-24FS6 be activated by a NAC circuit that has a System Sensor MDL module on it?

Yes, but in order for the FCPS-24FS6 to follow the sync signal, you must jumper the NAC input trigger to Sync In+ and Sync In - (jump terminals 3

to 1 & 4 to 2 on TB4) and set Dip Switch 3 ON which makes the power supply a "Sync Follower" or "Slave." The outputs of the FCPS-24FS6's NACs will now be synchronized with the circuit used to activate it.

*When using a DC NAC that is unfiltered, the outputs of the FCPS-24FS6 will sync with one another but may not sync with the synched circuit used to activate the power supply.

Alternately, consider the FCPS-2404 (4 amp/1 NAC) which will transparently transfer a synchronized signal from an MDL module through to its output.

Synch Modules and Appliances

Can I use a synchronization module with any manufacturer's notification appliance?

No. The notification appliances and the synchronization module(s) have to be specifically designed to work with each other. System Sensor, Wheelock and Gentex manufacture synchronization modules to work exclusively with their own appliances. Refer to each manufacturer for more information.

Amp/Volt Meter

What is the part number for the Amp/Volt meter for the FCPS-24FS6?

The part number for the Amp/Volt meter is MPM-4F. The meter mounts in the lower left-hand corner of the FCPS-24 cabinet and connects to the circuit board with a cable that is provided with the meter.

Gentex notification devices

Why won't my Gentex notification devices (horns, strobes, horn/strobes or mini-horns) synchronize properly off of the outputs of my FCPS-24FS6/8?

The FCPS-24FS6/8 uses the Gentex Commander 2 synchronization protocol. If the Gentex devices do not utilize this protocol, they may not operate properly. To correct this problem, disable the synchronization output of the FCPS-24FS6/8 by setting dip switches 1 and 2 to the OFF position. Next, install the necessary Gentex Sync Module. (consult Gentex for the proper sync module)

FCPS-2404

Output Supervision

How is the output circuit supervised?

The output circuit is supervised by the FACP's Notification Appliance Circuit's End-of-line resistor.

Coded Signals

Will coded signals pass through the FCPS-2404?

A coded (e.g ANSI Temporal) NAC circuit may be used to drive the FCPS-2404's, the power supply will repeat the code.

Note: JP10 (External Strobe Sync Feature) must be positioned in the DISABLED position (left two pins jumpered) to support coded signals. Refer to the FCPS-2404 manual.

Multiple FCPS'S

How many FCPS-2404's may be daisy-chained together?

Four (4) may be connected together.

Mounting Modules

Can Sync or Control Modules be mounted in a FCSP-2404 cabinet?

The optional hardware kit p/n 90273 allows for mounting of two Control Modules or one Control Module and one Sync Module.

MS-5012

Mode Codes

How do you exit Programming on the MS-5012?

To leave one mode, you have to go into another mode, including a return to normal operation from any other mode. To accomplish this, press the *Mode* key, followed the code that represents the mode of operation desired. For instance, to return to normal mode from programming mode, press the *Mode* key, then 6676, then ENTER/STORE. Mode entry codes are listed

below.

MODE	CODE	SPELLS
Normal	6676	NORM
Program	7764	PROG
History	4478	HIST
Walktest	9255	WALK
Troubleshoot	8768	TROU
Lampstest	5267	LAMP

Phone Line Faults

What is the difference between a "PH 1", "PH 2", "NO 1", or "NO 2" trouble?

"PH 1" represents a failure to communicate to the Primary Central Station Phone Number, "PH 2" represents a failure to communicate to the Secondary Central Station Phone Number (in order to get a "PH" trouble the panel tried the number 5 times on each phone line). A "NO" trouble indicates that the phone line voltage has fallen below 4 volts for a minimum of 2 minutes. The primary telephone line is represented by "1" and the secondary phone line is represented by "2".

NOTE: All Fire•Lite communicators come factory defaulted to send a 24-hr test report to each number (Primary and Secondary) each day, MAKE sure the test times are not the exact same time.

Step Through Programming

What is the proper way to step through the program?

You can step through programming with either the up/down arrow keys, or the enter/store key, BUT, if you have changed or deleted any of the Primary or Secondary phone number factory default event codes, pressing enter while scrolling through addresses 16, 42, and 56 will default the event codes back to factory settings.

Changing Phone Numbers

I am having trouble changing the phone numbers and the transmission codes.

The telephone number and/or transmission codes can not be changed while the dialer is communicating with the central station. Enter programming mode and allow the panel to dial the central station and receive a "kiss off" and release the phone line. After this occurs, the information may be

changed. DO NOT attempt to disable the dialer in programming by entering a zero in field 56.

Enabling the Communicator

Why does the MS-5012 not attempt to communicate to the Central Station?

The MS-5012 comes factory defaulted with address 56 programmed as a "0", for Fire Panel only operation. In order for the panel to communicate, address 56 would have to be programmed with a "1", for a slave communicator operation, or a "2" for Fire panel/communicator operation.

Powering up on batteries

Can the control panel be powered up on batteries only?

No. It is not possible to power up any of these panels on batteries alone - AC power must be applied first.

Two-Wire Smoke Detectors

How many zones on the MS-5012 can support 2-wire smoke detectors?

Zone 2 and Zone 3 are the only zones on the MS-5012 that can support 2-wire smoke detectors. For Zone 3 to support 2-wire smoke detectors, address 52 has to be programmed with a "2" and the zone has to be wired for NFPA Style B.

Slave Communicator

Upon activation of zone#2 the display reads A2 but the 5012 is sending a "FF" and an "EF" for restoral. Why?

When address #56 is programmed as a "1" for Slave Communicator enabled, the reporting codes are altered for zone #2 to send a TROUBLE condition, "FF" and "EF". Refer to Chapter 6 (Slave Communicator Configuration) in the 5012 manual.

MS-5024 & MS-5024UD

Mode Codes

How do you exit Programming Mode on the MS-5024?

To leave one mode, you have to go into another mode, including a return to normal operation from any other mode. To accomplish this, press the *Mode* key, followed the code that represents the mode of operation desired. For instance, to return to normal mode from programming mode, press the Mode key, then 6676, then ENTER/STORE. Mode entry codes are listed below.

MODE	CODE	SPELLS
Normal	6676	NORM
Program	7764	PROG
Disable	3472	DISA
Enable	3622	ENAB
History	4478	HIST
Drill	3745	DRIL
Walktest	9255	WALK
Troubleshoot	8768	TROU
Lampstest	5267	LAMP
Print	7746	PRIN (MS-5024UD only)
Download	3696	DOWN (MS-5024UD only)

Phone Troubles

What is the difference between a "PH 1", "PH 2", "NO 1", or "NO 2" trouble?

A "PH 1" trouble is a failure of the primary telephone number and "PH 2" trouble is a failure of the secondary telephone number to communicate with the Central Station. A "NO" trouble indicates that the phone line voltage has fallen below 4 volts for a minimum of 2 minutes. The primary telephone line is represented by "1" and the secondary phone line is represented by "2".

Step Through Programming

What is the proper way to step through the program?

The proper way to step through the program is to use the up or down arrow keys, not the ENTER key. If the ENTER key is pressed in fields 16 or 42, the transmission codes will default. Also if the ENTER key is pressed in field 56, some codes could default.

Changing Phone Numbers

I am having trouble changing the phone numbers and/or the transmission codes.

The telephone number and/or transmission codes can not be changed while the dialer is communicating with the central station. Enter programming mode and allow the panel to dial the central station and receive a "kiss off" and release the phone line. After this occurs, the information may be changed. DO NOT attempt to disable the dialer in programming by entering a zero in field 56.

Programming Test Times

How do I program the Test Times?

When programming the times to test to the central station, addresses 21-24 are where you set the Primary time and addresses 47-50 are where you set the Secondary time. The time you set for the Primary test time should be at least 15 minutes apart from the Secondary test time. The reason for this is that both the Primary and the Secondary information is transmitted over the same incoming telephone line. If this procedure is not followed, either the Primary or the Secondary central station telephone numbers could FAIL to communicate and the panel will display either (PH-1 or PH-2).

Enabling Communication

Why does the MS-5024UD not attempt to communicate to the Central Station?

The MS-5024UD comes factory defaulted with address 56 programmed as a "0", for fire panel only operation. In order for the panel to communicate, address 56 would have to be programmed as a "1", for slave communicator operation, or a "2" for Fire Panel/Communicator operation.

PK-5024UD

Will the PK-5024UD software work with Windows 95?

Earlier versions of his software did not operate in a Windows 95 environment. Version 1.4 (and higher) of this software is Windows 95 compatible.

Powering up on batteries

Can the control panel be powered up on batteries only?

No. It is not possible to power up any of these panels on batteries alone -

AC power must be applied first.

The MS-5024 and the MS-5024UD

What is the difference between the MS-5024 and the MS-5024UD?

The MS-5024UD has a built-in communicator for DACT operation and upload/downloading programming..

ADM-24 Supervision

After installing the ADM-24 and wiring the RZA-5F, the panel wont recognize/supervise the keypad. Why?

Address #78 needs to be programmed to a "1" for the panel to recognize/supervise the annunciator.

Supervisory

Activation of a "Supervisory" zone sends a different code than shown in the Event Code table. Why?

When ANY zone is programmed as a "SUPERVISORY", the event code for that zone is automatically changed from a "1" for alarm to an "8" for supervisory.

Example: Panel is programmed for a 4+2 format, Zone #4 is programmed for Supervisory. Activation of zone #4 will display "SUP 4" on the panel and the code sent will be an "84" instead of a "14". Refer to the programming section of the manual.

MS-5210UD

Mode Codes

How do you exit Programming on the MS-5210UD?

To leave one mode, you have to go into another mode, including a return to normal operation from any other mode. To accomplish this, press the *Mode* key, followed the code that represents the mode of operation desired. For instance, to return to normal mode from programming mode, press the Mode key, then 6676, then ENTER/STORE. Mode entry codes are listed below.

MODE	CODE	SPELLS
Normal	6676	NORM
Program	7764	PROG
Disable	3472	DISA
Enable	3622	ENAB
History	4478	HIST
Drill	3745	DRIL
Walktest	9255	WALK
Troubleshoot	8768	TROU
Lampstest	5267	LAMP
Print	7746	PRIN
Download	3696	DOWN
Default Prog.	3337	DEFP*

**Has to be entered twice in rapid succession.*

Programming

How do you get in and out of programming?

To get into programming: Press Mode, then 7764, then Enter/Store, then select the level of programming you need: P"1" = Level 1, P"2" = Level 2, P"3" = Level 3, P"4" = Level 4. To exit programming back to Normal mode, Press Mode, 6676, Enter/Store.

Phone Troubles

What is the difference between a "PH 1", "PH 2", "NO 1", or "NO 2" trouble?

A "PH 1" trouble is a failure of the primary telephone number and "PH 2" trouble is a failure of the secondary telephone number to communicate with the Central Station. A "NO" trouble indicates that the phone line voltage has fallen below 4 volts for a minimum of 2 minutes. The primary telephone line is represented by "1" and the secondary phone line is represented by "2".

Enabling Annunciators

After adding an LED-10 or AFM-series annunciator, why do all the trouble LEDs flash?

Annunciators needs to be enabled in Level 3 programming (P3) of the MS-5210UD.

Changing Enter Codes

Can the Enter/Exit codes be changed?

The Enter/Exit codes cannot be changed.

Saving Program Changes

Why am I having trouble saving my program changes?

This could be caused by not stepping through the program correctly. The proper way to step through or review the program is to use the "up" and "down" arrow keys. Do not use the ENTER key - this key should only be used when making changes to the program.

Changing Phone Numbers

I am having trouble changing the phone numbers and the transmission codes.

The telephone number and/or transmission codes cannot be changed while the dialer is communicating with the central station. Enter programming mode and allow the panel to dial the central station and receive a "kiss off" and release the phone line. After this occurs, the information may be changed. DO NOT attempt to disable the dialer in programming by entering a zero in field 56.

Relays

Are there standard relays on the MS-5210UD board?

The panel comes standard with a N.O.(Normally-Open) general alarm contact, and a N.C. (Normally-Closed) general trouble relay. These relays are programmable for general panel conditions only, not for specific zones: Alarm, trouble, supervisory, comm fail, process monitor. Note: If you need Form-C (Common, Normally-Open, and Normally-Closed) relays, use the optional NAC-REM module, or ACM-8RF module. The ACM-8RF module can be used to follow zones.

More NAC Power

Is it possible to increase the output of the Notification Appliance Circuits by using the APS-6RF?

No - the only way to add more NAC power is to use a remote supply, such as the FCPS-24F or FCPS-2404.

Powering up on batteries

Can the control panel be powered up on batteries only?

No. It is not possible to power up any of these panels on batteries alone - AC power must be applied first.

SENSISCAN-200 FIRE ALARM CONTROL PANEL

System Trouble

My CPU-2000 indicates a trouble by turning on the AC, System Alarm, Supervisory and System Trouble LEDs and initiates a system trouble condition.

The CPU-500 indicates a trouble by illuminating the AC, System Alarm, Supervisory, and System Trouble LEDs.

SENSISCAN-2000 FIRE ALARM CONTROL PANEL

Walk Test

Why do only some of my Notification Appliance Circuits activate during Walk Test on the System 2000?

Walk Test will only activate Notification Appliance Circuits that are programmed to be silenceable.

How do I enter Walk Test mode?

When entering the Walk Test mode, plug in the programming key, press "123-1233", then press ENTER twice. If you do not press Enter twice, Walk Test will not function properly.

Fuse Ratings

What are the CPU 2000 NAC fuse ratings?

F1 and F2 are part of the protection circuitry for Indicating Circuits one and two on the CPU. They are rated at A4, 125V.

Remote Switch Functions

Is it possible to have remote switch functions?

Yes, it is possible to have remote switch functions to perform Reset, Acknowledge, Signal Silence, Emergency Alert, and Pre-signal Inhibit from the IZ-8F card. Circuits 1,5,6,7 and 8 are used to perform these functions. The selected circuit must be programmed as a supervisory and non-alarm point. The circuits will act as panel points, performing the desired function when the end-of-line resistor is shorted.

Ground Fault LEDs

What do the illuminated Ground Fault LEDs on the power supply mean?

This could indicate an actual ground fault, but could also indicate a problem with a supervisory cable. Check that the Power Supply Supervision Ribbon (P3) is connected correctly. The colored trace wire on the ribbon cable should be on the right when plugged into the CPU. On the power supply side, it must be down on the MPS-24A and to the left for both the MPS-24BF and the MPS-24F. This ribbon, though keyed, CAN be installed improperly and the only indication will be the illumination of the two Ground Fault LEDs.

AC Failure

At what point does the AC Power LED on the CPU to turn off?

If the AC voltage drops below 102 VAC, OR if a trouble condition is being transmitted via the Supervision Cable, which is connected to P5 on the MPS-24AF/MPS-24F or P4 on the MPS-24BF. Check the power supply first and confirm that the incoming AC supply is above 102 VAC. If sufficient AC is present, disconnect the Supervision Cable from the supply. If this cause the AC Power LED to turn on, the problem exists somewhere along the supervisory chain.

CPU Programming Key

What do I do if I don't have a CPU Programming Key?

Temporarily short out the program key pins on the CPU with a 47K-ohm resistor.

New Install

On a new install, there are no LEDs lit on any module, and the piezo constantly sounds. What is wrong?

Check the top Row Ribbon Cable (P/N 71087) for proper connection - the connector with none of the gray ribbon wires "notched/cutout" is the end that should go into the CPU-2000.

Difficulty Disabling a Zone

I have disabled a Sensiscan 2000 zone and the Disable LED is on, but no LED on any zone cards. Why?

Disabling a circuit will cause the trouble led for that circuit, and the disabled circuits led to turn on. But, if an IZ-4F module is installed it is possible that one of the "phantom" zones has been disabled. The phantom zones are the 4 unused circuits on the right hand side of the IZ-4F. Even though they are unused, the CPU still see's those circuits when stepping through Disabling/Enabling Circuits. So a phantom zone could be disabled, but since there is no trouble led for that circuit, only the Disabled Circuits led would be lit.

To correct this condition:

- If you have an IZ-8F installed in the system, power down the system completely and swap the IZ-4F and IZ-8F positions, upon power up it should show which phantom zone had been disabled. Enable the zone, power down, swap the modules back, power up.

OR:

- Perform a Clear Program. NOTE: The panel will have to be reconfigured, and then Programmed again after the Clear Program.

Silence Switch Won't Silence

On a new installation, the panel is in trouble and I don't have the ability to silence the system. Why doesn't the silence button work?

The first thing that needs to be done after the initial installation of a Sensiscan 2000's components is to perform a RECONFIGURE on the CPU-2000. This identifies the components attached to the CPU. The reconfigure can be performed by installing your programming key and the pressing 123-1231 <ENTER>. You MUST then press the #3 button to store the configuration before removing your programming key.

After a RECONFIGURE, correctly installed modules will act as follows:

- IZ-8F all red and yellow LEDs will light.

- IZ-4F all red and yellow LEDs will light.
- IC-4F/ICE-4F four green LEDs on left - all eight if expander is installed - will light.
- CR-4F/CRE-4F four yellow LEDs on the right - all eight if the expander is installed, will light.
- TC-2F/TC-4F all eight green LEDs will light.

SMOKE DETECTORS

Device Compatibility

I am doing panel retrofit of an existing system and want to know if the panel is compatible with the 2-wire smoke detectors presently installed. What do I do?

Reference the Device Compatibility Document. If the detectors or devices are not listed in this document, it is recommended that they be replaced.

Innovair Duct Detectors

Why do the Innovair duct detectors show a tamper fault even with the cover on?

The main reason for this problem is that the cover of the duct detector is only secured to the housing on one half of the cover. When the duct detector is mounted and there is some flex in the housing, the unsecured side of the cover separates causing the tamper to activate. System Sensor is addressing the problem and will be adding more screws to the cover. To solve the problem with duct detectors that have already been installed, place a screw at the end of the post that presses down on the tamper switch.

DH100 Troubles

What causes the DH100 duct detector to go into trouble exactly 20 minutes after the panel has been reset?

If the cover of the DH100 has been removed for a period longer than 20 minutes, it will cause a trouble condition at the FACP.

DH400ACDA Duct Detector

The DH400 ACDC duct detector housing auxiliary contacts are not

functioning properly.

The current that the auxiliary relay contacts are switching must be at least 500 mA. If the current being switched is less, the contacts may chatter or not function at all.

UDACT-F

Phone Troubles

What is the difference between a "PH 1", "PH 2", "NO 1", and "NO 2" trouble?

A "PH 1" trouble is a failure of the primary telephone number and the "PH 2" trouble is a failure of the secondary telephone number to communicate with the Central Station. A "NO" trouble indicates that the phone line voltage has fallen below 4 volts for at least 2 minutes. The primary telephone line is represented by "1" and the secondary phone line is represented by "2".

Connection Troubles

How come I can't connect to the Central Station?

Try changing the dialing type to rotary. The phone line may be a rotary dial line only. Also, switching to rotary slows the dialing rate which may help if the phone system is slow.

Pump Failure in Alarm?

Why is the Central Station receiving a "Pump Failure" message for an alarm?

Under certain circumstances, the UDACT-F ships with default value of "F" for Point Types. While this is processed as an alarm in reporting to the Central Station, the point is given the label "Pump Failure". When programming the UDACT-F, make sure that the Point Type for each point or zone is set as desired. The table of Point Types is listed below.

- 0 = Zone/Point defined as a fire alarm
- 1 = Disable Zone/Point Report
- 2 = Zone/Point defined as a supervisory
- 3 = Zone/Point defined as a manual pull station
- 4 = Zone/Point defined as a heat detector
- 5 = Zone/Point defined as a waterflow

6 = Zone/Point defined as a duct detector
7 = Zone/Point defined as a flame sensor
8 = Zone/Point defined as a smoke zone

Primary and Secondary Numbers

Must both the primary and secondary phone numbers be programmed the same, i.e. with "9" or without "9"?

Yes. Although it would appear that you can program the numbers differently, if the first phone line is lost, the primary phone number will automatically try to call out on the second line.

Saving Changes to Programming

Why am I having trouble saving my UDACT program changes?

The proper way to step through the program is to use the up or down arrow keys, not the ENTER key. To move directly to a field, push the 1st EVENT key twice, then enter the field number, and ENTER. If the ENTER key is pressed in fields 16 or 42 the transmissions codes will default. If the ENTER key is pressed in field 63, fields 52-55 will default. To exit the programming mode, push MODE, 6676, ENTER.

Changing Phone Numbers

How do I change the phone numbers and/or the transmission codes?

The telephone number and/or transmission codes can not be changed while the dialer is communicating with the central station. Enter programming mode and allow the panel to dial the Central Station and receive a "kiss off" signal and release the phone line. After this occurs, the information can be changed.

Transmitting by Point

Which formats are used to transmit by point or zone?

The only format that can transmit by point or zone is Ademco Contact ID. All other transmission formats send general conditions, alarm, trouble, supervisory, etc. only.

Changing the Communication Format

Why am I having trouble changing the Communication Format?

There is nothing in the Fire-Lite communicators that would prevent the changing of the communication formats, account codes and telephone numbers. When dealing with the UDACT-F, the 411 series communicators, or the 5X series panels, there may be a time when the panel beeps as you are trying to change the format, account codes, or telephone numbers. The result is that most people think that the panel will not allow the options to be changed. This usually happens when the panel is busy trying to communicate. If the panel is trying to communicate to the central station, it will not allow any changing of any information it is trying to send out.

One way around that is to wait until the panel is finished communicating, and then change those options. The second way around that is to go into programming and turn the communicator off. Then you can go make any changes to those options, and turn the communicator back on when the changes are complete.

VOICE SYSTEMS

VEC-25/50 Trouble

What would cause the system trouble LED on a VEC-25/50 Voice Evacuation Control to be the only LED lit?

This is usually is caused by not having a 4.7kohm End-of-Line Resistor (ELR) on the Master Command Output (TB6 1&2). Also, if you configure Command Inputs 1 & 2 (TB2 & TB5) for contact closure, you will need a 4.7kohm resistor on those as well.

TROUBLE-SHOOTING ZONES

Zone Alarm

I just installed a control panel. Why is one of the zones in alarm?

Besides the obvious activated initiating device, a number of conditions can cause a control panel to go into alarm:

1. The initiating circuits wires may have been switched at one or more

- of the devices on the circuit.
2. If the wiring was pulled through conduit, it may have been stripped of its insulation, shorting the wires together and causing an alarm condition on that circuit. This can also cause a Ground Fault condition as the bare wiring comes into contact with the grounded conduit.
 3. Too many conventional smoke detectors have been installed on the circuit. Each detector adds a small amount of supervisory current to the circuit. As this current increases with each device, it approaches the alarm current threshold. When too many detectors have been installed, the supervisory current puts the zone into alarm. Reference the Device Compatibility Document for details on the number of specific-model detectors that can be installed on a specific control panel Initiating Device Circuit.
 4. The wrong value of End-of-Line Resistor (ELR) has been installed on the circuit. Refer to the control's documentation for the correct value.
 5. An initiating device has malfunctioned, causing a short on the circuit.
 6. Electrical "noise", such as produced by hand-held radios and other communications equipment, may be inducing a voltage spike that latches the zone into alarm.

Remove the circuit wires from the control panel and return the End-of-Line Resistor to the terminal block. If this clears the alarm, the problem exists out on the circuit. Inspect the circuit beginning with the first installed device.

To determine if the alarm (on a new or existing panel) is a field wiring/device problem, or a possible panel problem, remove the field wiring and place the proper End of Line Resistor (ELR) value on the zone terminals of the panel. Reset the panel. If the alarm condition clears, the problem lies in the field wiring/devices. If the problem stays with zone, power down completely, remove ALL the field wiring, and place ELR's on all the zones. If the problem remains, have the control unit repaired and/or replaced.

Zone Troubles

What causes a zone trouble?

Any open-circuit (or near-open circuit) condition will cause an Initiating Device Circuit to register a trouble condition. This can be due to a wire break, a missing or wrong-value End-of-Line Resistor, or too many broken strands on stranded wire.

To determine if the trouble (on a new or existing panel) is a field

wiring/device problem, or a possible panel problem, remove the field wiring and place the proper End of Line Resistor (ELR) value on the zone terminals of the panel. If the trouble condition clears, the problem lies in the field wiring/devices. If the problem stays with zone, power down completely, remove ALL the field wiring, and place ELR's on all the zones. If the problem remains, have the control unit repaired and/or replaced.

Missing ELR

What if I do not have the ELR to place on the zone terminals?

If there is another zone on the panel that is not in alarm or trouble, swap the field wiring of the normal zone with the abnormal zone. If the problem moves to the normal zone, the problem exists somewhere on the circuit's field wiring. If the problem remains with the abnormal zone, the control panel itself may be at fault.

ADDRESSABLE SYSTEMS

ADDRESSABLE APPLICATIONS

This section contains possible solutions to application challenges. They are recommendations offered to foster a better understanding of the flexibility of FireLite's addressable product line. The system designer and installer bear full responsibility for the complete and correct implementation of any idea offered herein. It is recommended that designer secure preapproval from the Local Authority Having Jurisdiction (LAHJ) for any design solution derived from an application listed here. *As with any fire alarm installation, the proper functioning and operation requires full and complete testing before commissioning of the system.*

If you have further questions about these applications, contact Technical Support.

Elevator Recall

How can I accomplish elevator recall with an MS-9600 control panel?

Basic elevator recall generally requires that the system be able to recall elevators under three conditions:

- 1) Elevators are to be recalled to the main floor of egress (exit) when the fire hazard occurs on any floor BUT the main floor of egress.
- 2) Elevators are to be recalled to a secondary floor when the fire hazard occurs on the main floor of egress.
- 3) The Elevator system is to be shut down whenever an fire occurs in the elevator equipment room or hoistway.

The following steps effect this elevator recall solution:

- 1) Identify a software zone (1-99 on the MS-9600; 1-56 on the MS-9200) dedicated to the primary recall function - *recall to main floor*. Enter this zone into the program for all lobby smoke detectors on all floors but the main floor of egress. Enter this zone number into the program for a CRF-300 relay to be activated by this software zone. Wire the CRF-300 relay to transfer the primary recall signal to the elevators accordingly.
- 2) Identify a software zone dedicated to the secondary recall function. Enter this zone number into the program for the lobby smoke detector on the main floor of egress. Enter this zone number into the program for a CRF-300 relay to be activated by this software zone. Wire the relay to

transfer the secondary recall signal to the elevators accordingly.

3) Identify a software zone dedicated to the purpose of shunt trip. Enter this zone number in the program for heat detector(s) installed in the elevator equipment room and smoke detectors installed in the hoistway to this zone. Enter this zone number in the program for a CRF-300 relay to be activated by this zone. Wire the CRF-300 relay to transfer the shunt trip signal to the elevators to shut down power in this situation.

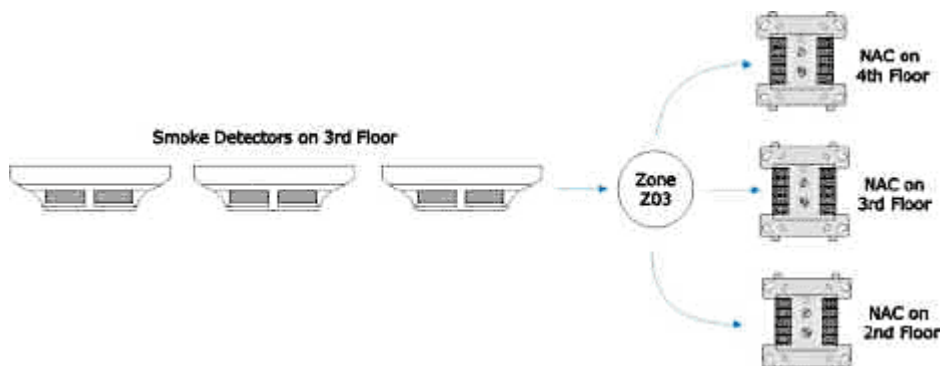
Floor Above-Floor Below

How can I achieve Floor Above-Floor Below operation with an addressable control panel?

Floor Above-Floor Below operation requires for an alarm condition on any given floor, the notification appliances on the floor above it and the floor below it activate as well as the alarmed floor. To accomplish this:

- 1) Identify software zones for each of the floors within the installation.
- 2) Program initiating devices on each floor to their respective software zones.
- 3) For each floor, program CMF-300 Control Modules to be activated by the software zone on that floor, as well as the software zones assigned to the floor above and the floor below.

Initiation of an alarm on any floor will result in the activation, through the software zone assignment, of the notification appliances on the floor above and floor below that zone.



If using an MS-9600, this concept can be extended to activation of two additional floors (for instance, two floors above and two floors below) because of the panel's ability to map up to five software zones to any one

detector or module.

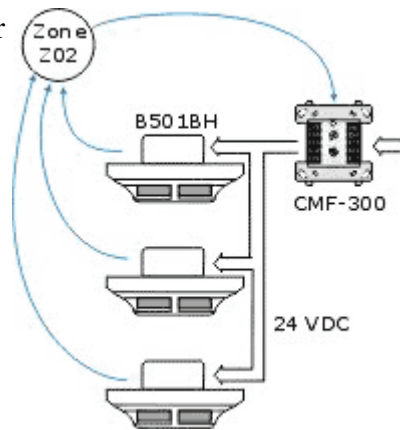
Sounder/Base

To deal with false alarms in apartment units, how can I use a B501BHT Detector/Sounder Base to achieve local notification without General Alarm?

All devices autoprogrammed into the MS-9600, and the two onboard NACs are automatically default-mapped to Software Zone 00 for General Alarm. Establish a new General Alarm zone by reprogramming all outputs (NACs and control modules) intended for General Alarm to a different zone, say "50". Then map each detector/sounder base in a local area to its own software zone not mapped to activate a NAC or control module. When the control panel processes an alarm from detector and instructs the detector to latch its LED, the sounder in the base will activate. The control panel will register an alarm, the General Alarm relay contacts will switch states and a digital communicator will transmit the alarm, if installed and programmed accordingly.

It is recommended that you install a heat detector (mapped to a General Alarm software zone) in each local area to insure evacuation in the event of a real fire threat.

If you need more than one detector/sounder base to sound simultaneously, add a CRF-300 Control Relay to each local area. This module provides two Form-C relays that you can wire to reverse the polarity of a 24VDC connection to each of the sounder bases in the local area. Map each of the detectors in the local area to activate a dedicated software zone, say "Z02". Map the CMF-300 to be activated by this same software zone (Z02). Upon initiation of an alarm from any one of the detectors, all of the sounders in this location will activate.



Software Zone

What is a software zone?

Conventional fire panels have zones of initiating devices. When an alarm occurs, you didn't know *which* device initiated the alarm, but because it was wired on a particular zone, and indicated as such at the control panel,

you knew the general location.

Addressable devices are not wired on zones, but are all located in a Signaling Line Circuit (SLC). The panel knows exactly which device initiates an alarm, and in response, could activate all notification appliances in the system (General Alarm). But because this is an addressable system and the panel is programmable, we have much more flexibility in defining how the control panel should react to an alarm condition. The panel can be instructed to activate its outputs selectively, based on a variety of alarm initiating scenarios. This allows the panel to react to special circumstances.

Consider the application, *Floor Above-Floor Below*. If a control panel could understand English, you would instruct (program) it to do the following:

Whenever an alarm occurs on the third floor, I want you to ring all notification appliances on the second, third and fourth floors, but do nothing with the rest of the floors.

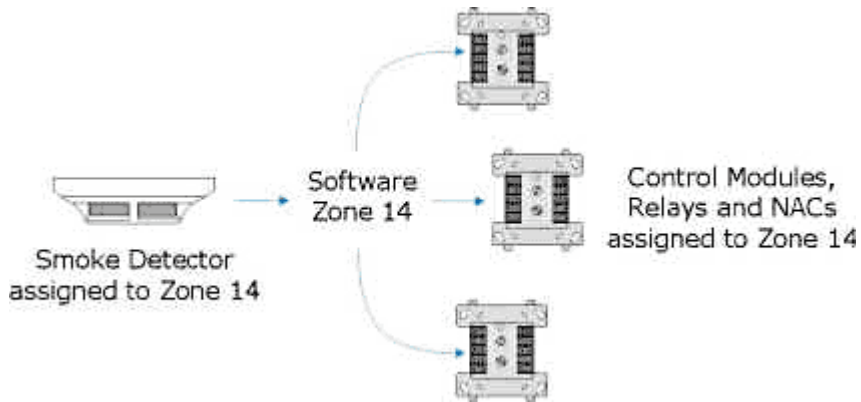
But the control panel doesn't know which addressable initiating devices are on the third floor, nor which notification appliances are on the third, fourth and second floors, unless you tell it. So you would have to instruct:

If the Detector with address 30 initiates an alarm, activate Notification Appliance Circuits (control modules) 31,32,33,41,42, 43,44,21,22,23,24 and 25.

But imagine having to repeat this command for every detector, pull station and monitor module in the system! So to simplify the instructions that you give the control panel, it allows you to tell it which outputs will be turned on by which inputs (known as *input-output mapping*) using only a simple number.

When an alarm occurs, the control panel looks up which "number" has been entered by the programmer for the initiating device. The panel then identifies all of the outputs that share the same number (as programmed by the installer) and activates them.

The number that the input and output devices share is referred to as the *software zone*. It is a virtual wiring of outputs to inputs by a common association within the control panel's programmed memory. Fire•Lite's MS-9200 can have up to 56 software zones; the MS-9600 has up to 99.



The most basic of software zones is the General Alarm zone. In the MS-9600, all inputs and outputs are initially assigned the number "00". This means that an alarm from any initiating device will activate ALL output devices. The programmer can change this default assignment for each device for special situations.

ADDRESSABLE MODULES & INTELLIGENT DETECTORS

Switching 120 VAC

Can I use the CMF-300 addressable relay module to switch 120 VAC, such as for holding doors?

Yes, but to comply with UL, you must use the CB500 Control Module Barrier to separate the 120 VAC from the 24 VDC wiring in the same junction box as the CMF-300. The barrier mounts to the bottom of a 4" x 4" x 2-1/8" junction box. Use this barrier anytime you want to use a non-power-limited supply with an addressable control module. All non-powerlimited wiring has to be placed into the isolated quadrant of the barrier.

Addressable Duct Detectors

Does the D350P/D350RP Intelligent Photoelectric Duct Detector work with the MS-9200?

Yes, but the system will recognize it as a regular photoelectric smoke detector. After the duct has been programmed into the system, you can enter a custom label to refer to the device as a Duct Detector. The MS-9600 supports a Device Type for Duct Detectors.

Double Blink

When being polled, why does the MDF-300 appear to blink twice?

The MDF-300 assumes two addresses on the SLC - one for each of its Initiating Device Circuits. The double blink is the control panel polling both addresses in succession.

D350RP Relay Wire

Do I have to pull additional wire for the relay when installing the D350RP Addressable Duct Detector?

The new addressable Duct Detector D350RP requires a separate power source run (24VDC, 24VAC, 120VAC or 220VAC) for the relay to operate.

SD350 in Black

Is the SD350 Smoke Detector offered in any color other than white?

No. But you can purchase black covers for the SD350 and the CP350 Ion Detector. Sets of 10 (P/N "BRK-200") are available. The cover will NOT work SD350T Photo Detector with Thermal Element.

H350 Compatibility

Will the H350 addressable heat detector work with the MS9200?

The H350 Addressable Heat Detector is NOT compatible with the MS9200. It is compatible with the MS-9600.

Control Module Trouble

What causes a "Trouble 3" message to occur on a control module?

- If it's a *Relay* module, it should be programmed with the type code "Relay" and not as a type of Control module.
- If it is a *Control* module, it may not be able to see the ELR (47k) on the output of that module (terminals 6 and 7).

Blinking LED Colors

How can I tell the type of module from the color of its blinking LED?

- MMF-300 Monitor Module blinks **RED**
- MDF-300 Dual Monitor Module blinks **RED** (twice)

- MMF-301 Mini Monitor Module
 - Module with flying leads does not have an LED)
 - Module inside BG-12LX blinks **RED**
- MMF-302 Monitor Module blinks **RED**
- CMF Control Module blinks **GREEN**
- CRF Relay Module blinks **GREEN**

D350RP Communication

Does the D350RP require auxiliary power to communicate with the MS-9200 or MS-9600?

If jumper J1 (power supervision jumper) is removed, auxiliary power (24 VDC, 24 VAC, 120 VAC, or 220/240 VAC) is required for the detector to communicate with the panel. If J1 is installed (factory setting) auxiliary power is not required for the detector to communicate with the panel.

Note: Auxiliary power **IS** required for the relays to operate. There is a delay, of approximately 10 seconds after alarm, before the relays activate.

MS-9200

SLC Distances and Wiring

What type of wire should I use for the SLC? What are the maximum distances at each gauge of wire?

Each SLC on the MS-9200 (one standard, one optional) can run twisted-shielded pair to the following limits:

Twisted Shielded Wire	Maximum Distance	Manufacturer Part Number
12 AWG	10,000 feet (3048 meters)	Genesis 4410; Signal 98230, Belden 9583, WPW D999.
14 AWG	8,000 feet (2438 meters)	Genesis 4408 & 4608; Signal 98430, Belden 9581, WPW D995.
16 AWG	4875 feet (1486 meters)	Genesis 4406 & 4606; Signal 98360, Belden 9575, WPW D991.
18 AWG	3,225 feet (983 meters)	Genesis 4402 & 4602; Signal 98300, Belden 9574, WPW D975.

** For retrofit applications using existing open wire (untwisted, unshielded), maximum distance @ 12-18 AWG is 1,000 ft (900 meters).*

Note: Initiating Device Circuits (zones) and Notification Appliance Circuits (bells) monitored/controlled by addressable modules can add thousands of feet of protected space to a system.

Addressable Duct Detectors

Do the D350P/D350RP Addressable Photoelectric Duct Detectors work with the MS-9200? Can they report as a supervisory device?

Yes, but if the system will recognize the duct as a normal detector. You will have to give the device the custom point label of "DUCT DETECTOR" to have this displayed for any device activity. Also the MS-9200 does not have the ability to register an alarm signal from a duct detector as a supervisory condition (DUCT SUPERVISORY).

LCD-40 Tight Fit

The LCD-40 literature states that it will fit into a standard 3-gang electrical box but I am having trouble doing so.

The LCD-40 may not easily fit into a standard 3-gang electrical box if locking clamps are used to secure wiring entering the rear or side knockouts. Use only the top or bottom knockouts on the box.

LCD-40 Communication Fail

Why does the LCD-40 display read "Communications Fail"?

This problem could be due to a number of factors:

1) Incompatible software in the MS-9200. Enter programming and navigate to the *System Edit*. If the program options appear as below,

```
VF=N SI=N AS=N PS=N  
CD=N AN=N ST=4 REM=N
```

then you have an earlier version of MS-9200 operating software that does not support the LCD-40. You will require software P/N 73750 or greater.

If the System Edit screen has an entry for "L/P", make sure it is set to "L" for LCD-40, as in the example below:

```
V=N I=N A=N P=N C=N  
A/V=N L/P=L S=4 R=N
```

2) Incorrect DIP Switch Setting on the LCD-40. Make sure DIP switch 1 is set to - *Receive-only* - "ON" (up) for all but the LAST or ONLY LCD-40 on the circuit. For the LAST or only LCD-40, set the switch to "OFF" (down)."

3) A wiring problem between the MS-9200 and the LCD-40. The EIA-485 circuit that the LCD-40 connects to must be terminated back at the panel (out and back). Check all connections and confirm terminal assignments at the panel and the annunciator.

Battery Charger

Can the battery charger be disabled to allow the use of a separate charger?

Not with older MS-9200 boards. New-design MS-9200 boards (available August 2001) have jumper JP1 located in the lower left portion of the board.

Supervisory Operation

Can a smoke detector be programmed as a supervisory?

No - an addressable smoke detector for the MS-9200 cannot be programmed as a Supervisory point. However, it is possible to use a monitor module, M301/M300 to monitor a conventional four-wire smoke detector, or a M302 module to monitor a conventional two wire smoke detector, and program the module with a Supervisory Type Code label. This should only be done with the approval of the Local Authority Having Jurisdiction (LAHJ).

Default NAC Coding

Why does my panel perform March Time coding as a default setting?

Earlier revisions of the MS-9200 manual state that the default NAC code is (N) for none. But actually the default NAC code is (M) for "March Time", 120 pulses per minute. Unless you program C=N in System Edit programming, you will NOT have a steady 24 VDC output as defined in the manual - you will have a "March Time" coded output.

Autoprogramming Problem

I have just performed an Autoprogram and the display reads "Program Smoke Det 01" with no "I" or "P" to the left of it.

After performing an Autoprogram, if the display reads "Program Smoke Det 01" with no "I" or "P" to the left of the 01, there is a problem with the

SLC (data) loop. At this point, discontinue programming and check the SLC loop. The most likely problem will be a reversed positive and negative connection of a device.

Program Corrupt

What does the "Program Corrupt" message on LCD display mean?

"Program Corrupt" will display on the MS-9200 screen if programming mode is not exited properly. The proper way to exit programming is by pressing the left arrow key until the screen shows "System All Normal". If the panel was in trouble before entering programming, the trouble message will be displayed not the "Systems All Normal" message. In order to clear the "Program Corrupt" trouble, you will need to Autoprogram the panel. DO NOT clear the program or all of your point information will be lost! After the display shows how many devices are installed, use the <left arrow> key to exit programming.

DACT Trouble

What causes the "DACT Trouble" message to be displayed on the MS-9200?

The "DACT Trouble" message will be displayed when the MS-9200 has been programmed for operation with a UDACT-F Digital Communicator, and a trouble exists on the EIA-485 data bus. Check the UDACT-F display for any trouble, such as "NO 1, NO 2" or "PH 1, PH 2". If it displays any trouble, correct the problem. In addition to the UDACT-F, this problem can be caused by a data communication problem anywhere along the EIA-485 annunciator circuit. This includes AFM and ACS-Series remote annunciators, LDM-32F lamp driver modules, and ACM-8RF relay modules. The data is supervised by the last or only device on the bus, which must be set for *Transmit and Receive* operation. All other EIA-485 devices connected on the data bus would have to be set for *Receive Only* operation. The trouble could be caused by wiring or programming, and may be related to any device connected on the data bus. Check any other devices connected on the EIA-485 bus for trouble. When the EIA-485 data bus trouble clears, then the "DACT Trouble" message will clear. Refer to the MS-9200 and EIA-485 device manuals for programming and wiring information.

Alarm Silence

On an alarm condition, why does the Alarm Silence switch not silence the system?

Depending on the software installed in the MS-9200, the onboard NAC's could be programmed as silenceable or non-silenceable. If a module with a

type code label of "waterflow" is in alarm, all outputs are non-silenceable regardless of programming. Any control module with a type code label of "strobe" will be non-silenceable.

Panels with software P/N 73750 or greater allow programming of NAC 1 and NAC 2 in Point Edit programming. Press the * key, then the # key, press '1' for NAC 1 and '2' for NAC 2. Select either 'BELL_CKT' for silenceable operation or 'STROBE' for non-silenceable operation. Coding is only possible if the NAC is programmed as 'BELL_CKT'. With software versions prior to 73750, NAC 1 was silenceable and NAC 2 was non-silenceable.

PK-9200

Do I need to order the PIM-24 Printer/PC Interface Module separately to use the PK-9200W?

The old PK-9200, was a DOS based package that included the PIM-24, cable, and DB connector. The current PK-9200W, windows based package, does not include the PIM-24, cable, or DB connector. If you are upgrading to PK-9200W, from PK-9200, you should already have the PIM-24, cable, and DB connector. For those ordering PK-9200W, and never had PK-9200, the PIM-24 would have to be ordered separately. The PIM-24 includes the Printer/PC interface module, cable, and DB connector.

Powering up on batteries

Can the control panel be powered up on batteries only?

Earlier version of this control panel could be powered up with batteries only. New-design MS-9200 units (available August 2001) do not work this way - AC power must be applied first.

Sounder Activation

Why does the sounder in the B501BH Sounder Base go off when there is no alarm?

If an alarm is detected from an addressable smoke detector programmed for Alarm Verification, the sounder in this detector's base will activate IMMEDIATELY because the MS-9200 latches the detector's LED during a verification cycle. If an alarm condition does not exist at the end of the verification cycle, the detector LED and the sounder will be turned off by

the control panel.

Optional Modules

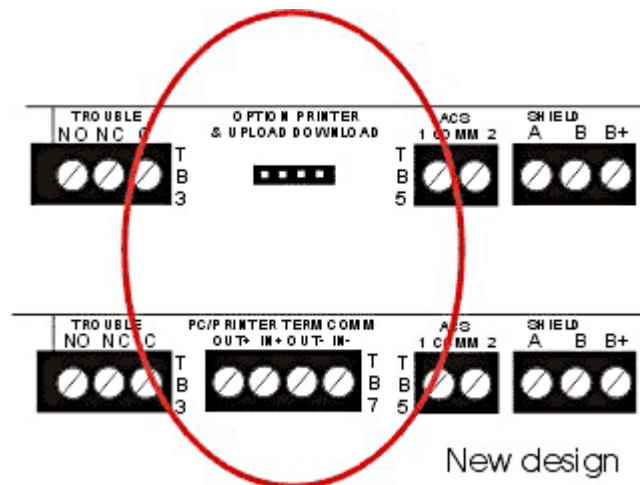
Do I need a Printer Interface Module (PIM) or DIM on the MS-9200?

The new design of the MS-9200 mainboard (available August 2001) have the PIM and DIM circuitry built in. MS-9200 boards manufactured prior to this required these optional modules.

MS-9200 New Design

How do I tell the difference between the older and newer design MS-9200?

The initial MS-9200 had a pin connector for the optional modules in the upper right-hand portion of the board. The newer design has a four-position terminal block (TB7).



Municipal Box

When removing the circuit from the RTM-8F to a Local Energy Municipal Box, why doesn't the panel go into Trouble?

If the RTM-8F has been configured, via JP2 jumper settings, for Local Energy Municipal Box activation, and jumper JP4 (RTM-8F supervision) HAS been cut, the MS-9200 will display " Trouble in System Option Module". The same message would be displayed, if RTM-8F is configured properly, and the Local Energy Box has not been reset after an alarm condition.

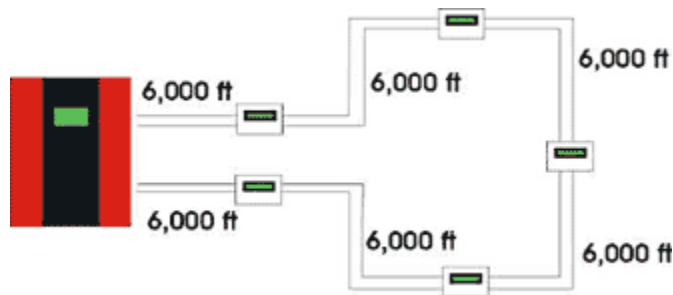
NOTE: When installing an RTM-8F, for either Local Energy Municipal

Box or Polarity Reversal, jumper JP4 MUST be cut for proper supervision of the module.

LCD-40 Distances

How far apart can I install LCD-40 Annunciators?

The LCD-40 can be installed at a maximum distance of 6,000 between annunciators and 6,000 feet between the first and last annunciators and the control panel.



Printer

What kind of printer can be used?

Any serial printer can be used. For permanent attachment use a printer UL listed for fire.

Printer Supervision

Does the 9200 have the ability to supervise a printer?

No

Maintenance alert

Does maintenance alert exist in all software versions on the MS-9200?

Yes, with the exception of the obsolete initial version 73492. 73492 should be replaced with the current version.

Walktest

Do the outputs activate during walktest?

The 9200 allows for a Silent walktest or a Pulse Sounders walktest. During Silent walktest, all sounding devices, control modules, and NAC 1 and NAC 2 outputs remain off. During Pulse Sounders walktest, all silenceable control modules, and NAC 1, and NAC 2 (if programmed as "BELL CKT" in point edit programming) will activate. NOTE: Relay modules (CRF-300 and C-304's configured as a RELAY) are non-silenceable therefore DO NOT activate during either walktest mode.

Deleting Points

How do you delete a point from the MS-9200?

The MS-9200 programming does not provide the ability to delete a specific point (PK-9200W local upload/download software does). To delete a point from the MS-9200 program: Remove the point from the SLC loop, or set the address to 00, the panel will display "TRBL 1" (Invalid Reply) , preform an autoprogram, the panel will prompt you to delete the point "No answer Delete? press the enter key to delete the point, left arrow key to skip over it.

If the point location is unknown, or it can not be reached (such as high ceiling requiring a lift): Remove the SLC loop from the panel, all points will go into "TRBL 1", preform an autoprogram, press enter ONLY for the point/points you want to delete, press the left arrow key for all other points. NOTE: Be careful deleting a point/points in this fashion, once you delete the point the information is lost..

MS-9200UDLS

Trouble in System Remote Sync Fault

What's does the message: Trouble In System Remote Sync Fault on the panel mean?

The Remote Power Supply Sync output TB2 requires a 4.7K ohm resistor for proper supervision.

Printers

Can a Printer and a LCD-80F be connected at the same time?

No, only on the MS-9600 panel.

How many conductors are required when installing the LCD-80F?

6.

What is the proper wiring of the LCD-80F?

MS-9200UDLS	LCD-80F
Out +	IN +
IN +	OUT +
OUT -	IN -
IN -	OUT -

Are the AD-355 detectors compatible for Litespeed?

No, only CLIP mode.

I am replacing a MS-9200 with a MS-9200UDLS. Can I use all the same devices?

Everything on the 9200 works on the 9200UDLS except the LCD-40 annunciator. However, please note the loop Protocol will need to be changed to CLIP.

Why is my central station getting the wrong point device report for my modules and pull stations and I'm sending CID?

See page 114 of your manual. The UDLS reports modules and pull stations with a 159 point shift. This means whatever address point (barring detectors) reports, you will need to add 159 to the address itself. (Pull station address 10 is activated, central station will get a 169 reported).

Will a LCD-40 work on an MS-9200UD/UDLS - MS-9600?

No. The LCD-40 can only annunciate 40 characters. The MS9200UD/UDLS has 80 characters.

Since the ACS series annunciators use a different communication bus than the LCD-80, can I employ both at the same time?

Yes.

MS-9200UD

Will a LCD-40 work on an MS-9200UD/UDLS - MS-9600?

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MS-9600

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No. The LCD-40 can only annunciate 40 characters. The MS9200UD/UDLS has 80 characters.

Since the ACS series annunciators use a different communication bus than the LCD-80, can I employ both at the same time?

Yes.

Can I use the printer and LCD-80F together on the 9600 panel?

Yes.

NAC Synch

Do I need a synchronization module for the MS-9600?

No. The two Notification Appliance Circuits on the MS-9600 mainboard provide synchronization. Also, if activated simultaneously, the two NACs will operate in synchronization with each other. However, if the NACs are programmed to be activated by different software zones, and these zones are not activated simultaneously, the two NACs will operate asynchronously with respect to each other.

Keyboard

What kind of keyboard can I use to program the MS-9600?

Any standard PS2-style computer keyboard should work. **IMPORTANT:** To connect, remove both sources of power from the MS-9600, plug the keyboard into the PS2 port, and reapply power.



Function Keys

I accidentally put my system into drill with my keyboard. Why?

The F1, F2, F3 and F4 function keys serve the same purpose as the ACK/STEP, SILENCE, DRILL, and RESET switches on the MS-9600's keypad.

Optional Modules

Do I need a Printer Interface Module (PIM) or DIM on the MS-9600?

No - that circuitry is built into the MS-9600 mainboard.

LCD-80F DIP Switches

I've made changes to the DIP switches on the LCD-80F, but the annunciator does not recognize them.

You have to power down-power up the LCD-80F before it will recognize any configuration changes. While some Fire•Lite products will recognize and accept configuration changes with power applied, this practice is not recommended. To prevent damage to the control, personal injury, and to properly initialize the new configuration, Fire Lite Alarms, Inc., recommends that you power down any control panel or peripheral BEFORE cutting zero-ohm resistors, inserting/removing jumpers or changing DIP switch positions.

LCD-80F Tight Fit

The LCD-80F literature states that it will fit into a standard 3-gang electrical box but I am having trouble doing so.

The LCD-80F may not easily fit into a standard 3-gang electrical box if locking clamps are used to secure wiring entering the rear or side knockouts. Use only the top or bottom knockouts on the box.

Powering up on batteries

Can the control panel be powered up on batteries only?

No. It is not possible to power up this panel on batteries alone - AC power must be applied first.

Dress Panel

Do I need to order a dress panel in addition to the MS-9600?

No - the dress panel is a standard offering on the MS-9600.

Installing PK-9600UD

When installing the PK-9600UD, how do I respond to the screen prompt: "A file being copied is not newer than the file currently on your system. It is recommended that you keep your existing file"?

Refer to the section [Upload/Download Software](#)

Lost Username

How do I get into the PK-9600UD if I have forgotten my username?

If you are the only person using this program on this computer, and you are willing to permanently delete all user accounts, you can delete the file "operator.mdb" in the directory that the PK-9600UD has been installed. *All user account information on this computer will be deleted!* After you run the program again, you will be prompted to Create A New User.

SLC Distances and Wiring

What type of wire should I use for the SLC? What are the maximum distances at each gauge of wire?

Each SLC on the MS-9600 (one standard, one optional) can run twisted-shielded pair to the following limits:

Twisted Shielded Wire	Maximum Distance	Manufacturer Part Number
12 AWG	10,000 feet (3048 meters)	Genesis 4410; Signal 98230, Belden 9583, WPW D999.
14 AWG	8,000 feet (2438 meters)	Genesis 4408 & 4608; Signal 98430, Belden 9581, WPW D995.
16 AWG	4875 feet (1486 meters)	Genesis 4406 & 4606; Signal 98360, Belden 9575, WPW D991.
18 AWG	3,225 feet (983 meters)	Genesis 4402 & 4602; Signal 98300, Belden 9574, WPW D975.

** For retrofit applications using existing open wire (untwisted, unshielded), maximum distance @ 12-18 AWG is 3,000 ft (305 meters).*

Note: Initiating Device Circuits (zones) and Notification Appliance Circuits (bells) monitored/controlled by addressable modules can add thousands of feet of protected space to a system.

UDACT-F

Will the UDACT-F work with the MS-9600?

The UDACT-F had to be revised to support the MS-9600. This revision coincided with the release of the MS-9600. The MS-9600 shipping carton has a label that reads "Compatible with UDACT-F Rev I or Higher." The UDACT-F shipping carton now has a label that reads "Compatible with MS-9600 and MS-9200". If the UDACT shipping carton does not contain this label, you must assume it is the earlier model that is not compatible with the MS-9600.

PK Compatibility

Which operating systems will the PK-9600UD work under?

The PK-9600UD Upload/Download program was designed and tested to work under Microsoft Windows versions 95 and 98. Beyond this, the program has been successfully tested on a small number of computers running Windows 2000 and Windows ME. In any case, make sure you follow the installation guidelines set forth in the README file to minimize problems.

Programming Changes Not Saved

Why does the MS-9600 not seem to save my programming changes?

After making changes to MS-9600 programming, you have to exit Programming Mode by pressing the ESC key until you get back to the main screen. If you reset the panel without escaping out of programming, the changes will not be saved.

Software Version

How do I tell what version of software is running in the MS-9600?

After pressing the RESET button, the MS-9600 will display the version number.

ACS Communications Fault

Why does the MS-9600 report "ACS Communications Fault"?

Under some configurations of the MS-9600 and the UDACT-F, the trouble "ACS Communications Fault" occurs. The MS-9600 operating software requires a Flash upgrade.

Duct Detector Trouble

After I select the DUCT Type ID, why do I get an "INV ID" error message?

The MS-9600 operating software requires a Flash upgrade.

Unwanted Disables

After I program the MS-9600 with the PK-9600UD, why do I get multiple

troubles indicating disabled NACs, points and software zones?

Version 1.0.5 of the PK-9600UD automatically defaults NACs and software zones to DISABLED upon initial programming. You must manually enable these devices in this version of the software. Future versions of the PK-9600UD will default these devices to ENABLED. To patch version 1.0.5 to default these devices to ENABLE when creating a new customer file, you can download a new sample database.

1. Download SAMPLE.MDB to your PC.
2. Copy this database to the PK install directory, overwriting the existing sample.mdb file there. The default location for the PK program is C:\Program Files\PK9600.
3. Program the MS-9600 using the PK program (note: this will only work for new configurations - disabled devices in existing configurations will still have to be enabled).

Silence Switch and LED

Why doesn't the ALARM SILENCED LED come on when I press the ALARM SILENCE switch?

If ANY output is programmed for non-silenceable operation, the MS-9600 will not turn on the ALARM SILENCED LED upon depression of the ALARM SILENCE switch .

Walk Test Timeout

How long before Walk Test times out?

The MS-9600 will automatically exit Walk Test Mode and return to normal operation after 1 hour of no activity.

Batteries

What size batteries can I fit in the MS-9600 FACP?

The MS-9600 cabinet will hold up to 18AH batteries UNLESS you have the BRKT-9600 installed. The installation of this bracket limits the MS-9600's maximum battery size to 12AH size. In this case - add a BB-17F Battery Backbox for batteries up to 18AH; a BB-26 for batteries up to 26 AH.

Enabling/Disabling in Maintenance Mode

When enabling/disabling a point in Maintenance Mode, the command does not seem to work. Why?

When an addressable point (smoke detector or module) is disabled/enabled in Maintenance Mode, both sources of power to the MS-9600 must be removed and reapplied before the action will take effect. If power is not cycled, the MS-9600 will allow you to disable the point, giving you a trouble condition. However, the addressable device will remain in communication with the control panel (the LED will flash) and the device still initiate an alarm. The potential is for a technician to believe he/she has disabled/enabled a point when they have not

Use the Master Programming Level as described in the manual (doc #51335) if you need to disable/enable an addressable device. If disabling/enabling a point within the Maintenance Mode is required, cycle both sources of power to the MS-9600.

This condition has been corrected in software and it is currently undergoing testing.

Converting MS-9200 files to MS-9600

I converted an MS-9200 file and downloaded it into the MS-9600 using the PK-9600UD. Now I can't get into Maintenance Mode on the MS-9600. Why?

Both of the MS-9200's programming passwords default to "00000", a condition in the MS-9600 that would prevent Maintenance-level access. To correct this, enter Master Mode and change the Maintenance Mode password to something other than the password used for Master level access.

Additionally, any type codes for a Control Module or Control Relay will be converted to a "user defined 13" Type Code by the PK-9600UD. This will result in "Invalid Reply" troubles if the file is downloaded into the panel. To prevent this from occurring, verify all programming in the converted file prior to download. To correct an existing condition, repeat the PK programming steps, verifying all programming in the process.

PK-9600UD Lock Ups

Why does the Floor Plan Designer lock up the PK-9600UD program?

The Floor Plan Designer function in Version 1.0 of the PK-9600UD occasionally locks up, forcing the user to press "<Ctrl> <Alt> <Delete>" and shut down the PK-9600UD program. Note that this condition may still

be prevalent in later versions of the PK software if Version 1.0 was ever installed on that computer.

To correct this:

1. Uninstall the existing PK program (any version).
2. Search for the file "IMTwain3.ocx", typically found in the directory "C:\Windows\System\", and if found, delete it..
3. Reinstall the latest version of the PK-9600UD.

SLC-2 Board Fault

Why do I get an "SLC-2 Board Fault" when the card is not installed?

If an addressable device is programmed into the MS-9600 on the second SLC loop and the card has not been installed or is later removed, the control will generate the trouble message:

TROUBL IN SYSTEM
SLC2 BOARD FAULT

The solution is to remove this device or devices from programming, clear the entire SLC2 in programming or install the SLC-2 card.

Non-Silenceable Waterflow

How do I program a non-silenceable Waterflow alarm?

To program a waterflow circuit as NONSILENCEABLE, connect the waterflow device(s) to a monitor module programmed as a Waterflow device and assign the module to a particular zone. Program a control module as nonsilenceable and assign it to the same zone as the waterflow type monitor module. All notification appliances connected to the control module will be nonsilenceable as will any other devices assigned to the same zone.

Stepping Through Events

After I have viewed a list of events, how can I step back through them again?

In the earliest versions of the MS-9600, the ACK/STEP key could not be used to step back through a series of alarm and troubles events after they had been viewed. At that point, use the UP and DOWN arrow keys on the

keypad to scroll backwards and forwards through the event list.

Printer Supervision

Does the 9600 have the ability to supervise a printer?

Printer supervision, if enabled in programming, will detect if the printer is abnormal.

Walktest

Do the outputs activate during a Walktest?

The MS-9600 allows for a Silent walktest or an Audible walktest. During Silent walktest the onboard NAC's and control modules do not activate. During an Audible walktest, the onboard NAC's activate, and any control module programmed for walktest and silenceable will activate, non-silenceable control modules will not activate. NOTE: All addressable devices (input and output) can be programmed for walktest participation, if not programmed the device will not respond during walktest.

Aux Trouble

What would cause Auxiliary Trouble 1 or Auxiliary Trouble 2 to be displayed?

J16 and J17 on the motherboard are Auxiliary Trouble inputs which can be connected to the trouble bus output of auxiliary equipment such as power supplies, or normally-open dry contacts of a trouble relay to allow monitoring by the MS-9600. A short on J16 would cause Auxiliary Trouble 1, a short on J17 would cause Auxiliary Trouble 2.

Programming Lockout

Why can't I enter Programming Mode when the panel is in Alarm?

The MS-9600 prevents access to Programming Mode during an alarm condition to prevent undesirable alteration of affected device information. Clear the Alarm and then enter Programming Mode.

Error attempting connection

"Error attempting connection or user aborted call?"

Check OPTION MODULE programming of the MS-9600, PRINTER/PC

has to be programmed for PC. After changing this setting, escape from programming and let the MS-9600 initialize. Verify the TB-7 wiring connections.

MS-9600UD

Installing PK-9600UD

When installing the PK-9600UD, how do I respond to the screen prompt: "A file being copied is not newer than the file currently on your system. It is recommended that you keep your existing file"?

Refer to the section [Upload/Download Software](#)

Lost Username

How do I get into the PK-9600UD if I have forgotten my username?

If you are the only person using this program on this computer, and you are willing to permanently delete all user accounts, you can delete the file "operator.mdb" in the directory that the PK-9600UD has been installed. *All user account information on this computer will be deleted!* After you run the program again, you will be prompted to Create A New User.

PK Compatibility

Which operating systems will the PK-9600UD work under?

The PK-9600UD Upload/Download program was designed and tested to work under Microsoft Windows versions 95 and 98. Beyond this, the software will install correctly using Windows 2000 or Windows NT versions, but will not upload/download to the panel.

Converting MS-9200 files to MS-9600

I converted an MS-9200 file and downloaded it into the MS-9600 using the PK-9600UD. Now I can't get into Maintenance Mode on the MS-9600. Why?

Both of the MS-9200's programming passwords default to "00000", a condition in the MS-9600 that would prevent Maintenance-level access. To correct this, enter Master Mode and change the Maintenance Mode password to something other than the password used for Master level

access.

Additionally, any type codes for a Control Module or Control Relay will be converted to a "user defined 13" Type Code by the PK-9600UD. This will result in "Invalid Reply" troubles if the file is downloaded into the panel. To prevent this from occurring, verify all programming in the converted file prior to download. To correct an existing condition, repeat the PK programming steps, verifying all programming in the process.

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The Floor Plan Designer function in Version 1.0 of the PK-9600UD occasionally locks up, forcing the user to press "<Ctrl> <Alt> <Delete>" and shut down the PK-9600UD program. Note that this condition may still be prevalent in later versions of the PK software if Version 1.0 was ever installed on that computer.

To correct this:

1. Uninstall the existing PK program (any version).
2. Search for the file "IMTwain3.ocx", typically found in the directory "C:\Windows\System\\"", and if found, delete it..
3. Reinstall the latest version of the PK-9600UD.

Voice Evacuation Systems

ACC-25/50

How does the ACC 25/50 voice system get triggered?

The voice system can be triggered by 3 different means: Polarity Reversal, Contact Closure and, the Annunciator Control System (ACS ACC-25/50ZS only).

Why does the voice message get cut off and the ACC 25/50 is still being triggered by my NAC circuit?

Most likely, because the NAC circuit that is triggering it is set for some sort of sync protocol or coded signal.

I have an ACC-25/50 that is showing a system trouble. How can I clear this trouble?

Make sure on the main ACC-25/50 that The 4.7K EOL resister is on the Master CMD Output, and CMD2, CMD3, CMD4, or CMD5 Inputs.

Can Speakers be attached to the Audio Riser of the ACC-25/50 Head end unit, to the ACC-25/50DA?

Yes speakers can be added to the Audio Riser.

Can I install a ZPMK or an ACC-ZSM on my ACC25/50?

No. These modules can only be replaced on an ACC25/50ZS. The ACC25/50 cannot support these modules if you attempt to add them to the no "ZONE SPLITTER" system.

Why aren't my speakers working?

Did you select the correct wattage output jumper on the back of the

speaker? I.e. ¼ watt, ½ watt, 1 watt or higher. Also did you include the jumper for the correct voltage i. e. 25 vrms or 70vrms?

How many remote mics can I have on my ACC-25/50?

Only ONE for the main ACC-25/50 and one for each ACC-25/50DA distributed audio panel you add to the main ACC-25/50.

Can I use a ACC-25/50DA or a ACC-25/50DAZS without an ACC-25/50?

You have to have either an ACC-25/50 or ACC-25/50ZS to trigger a DA panel. The DA series are not standalone panels and cannot operate independently.

Can I use a non-Fire-Lite panel to trip an ACC-25/50ZS?

An ACC-25/50ZS requires an ACS connection from a Fire-Lite panel such as the MS-9200UDLS or MS-9600 for ACS-Bus control. However the ACC-25/50 can be configured for non-ACS-Bus activation if the application calls for a non-Firelite panel.

Do I have to use ACS to control an ACC-25/50ZS panel?

No, though it is true that Zone control is done only through ACS of a Fire-Lite FACP. The ACC-25/50ZS can be configured for operation without a connected ACS-Bus.

Guides

- [MS 5024 Trouble-Shooting and Program Guide](#)
- [MS 5210UD Trouble-Shooting and Program Guide](#)
- [MS 9200 and SLC Trouble Shoot Guide](#)

Miscellaneous

ACADEMY TRAINING

NICET Certification Credit

Can Academy Training be credited toward maintaining my NICET Certification?

To get the most current information on this topic, please go to www.nicet.org/policy30.shtml. This is the Recertification Policy of the National Institute for the Certification of Engineering Technologies (NICET).

The Fire•Lite Academy currently offers the following courses:

- Basic Fire Course, 1 day, 0.6 Continuing Education (CEU) credits (7 hours)
- Large Addressable Course, 1-1/2 days (11 hours)
- Conventional Fire Panels and Communicators 1/2 day (4 hours)

The above information above will be useful when reviewing Exhibit 1 of the policy.

MISCELLANEOUS

Does the dialer require 2 phones lines?

Yes, or the panel will always have a phone line 2 trouble.

Why is my newly installed beam detector coming up on the FACP's display as "Dirty 1"?

As the beam detector was being manually aligned the chamber values were being calculated and changing with the changes being made to it. As a result, the chamber value(s) are now out of tolerance. To correct this, change the beam detector's address to a new unused address, delete the old address of the beam detector, and then do an auto-program.

I am replacing a MS-5024UD with an MS-5UD -or - replacing

a MS-5210 panel with a MS-10UD. Can I use all the option modules from the old panel?

No, the option modules on the new panels are different.

I am replacing a MS-4424 panel with an MS-4. Can I use all the same option modules?

Yes

DIP Switches and Jumper Settings

Do I have to power down a control panel before changing DIP switch settings?

YES! While some Fire•Lite products will recognize and accept configuration changes with power applied, this practice is not recommended. To prevent damage to the control, personal injury, and to properly initialize the new configuration, Fire•Lite Alarms recommends that you power down any control panel or peripheral BEFORE cutting zero-ohm resistors, inserting/removing jumpers or changing DIP switch positions.

Sounder Base

How does the B501BHT Sounder Base for addressable detectors work?

This sounder (T = Temporal pattern sounder), built into an addressable detector base, is activated in one of two ways.

1) Once the control panel has determined that an alarm condition exists, it latches the LED of the addressable detector head, which will further activate the sounder in the base.

MS-9200: When the alarmed detector has been programmed for Alarm Verification, the sounder is activated immediately .

MS-9600: When the alarmed detector has been programmed for Alarm Verification, the sounder is activated only after an affirmative verification of the alarm signal by the control panel.

2) The second method is used to activate a number of sounders with one alarm initiation. Activation occurs by reversing the 24 VDC power supplied to the sounder, using two sets of alarm contacts from the control

panel or module.

Mounting Note: The B501BHT Sounder Base is the regular/classic profile and can be used with the SD350SD350T, CP350 and H350, which are low profile devices. This combination requires the F110 retrofit flange.

Protecting Circuits

How can I use surge suppressors on a control panel's circuits?

You may use any UL-listed surge suppressor for your AC service line. Phone lines on all FireLite DACT panels and the UDACT-F communicator have built-in suppression meeting UL 1459 requirements. You would not put suppression on any IDC or NAC circuit. If you are using the MS-9200 and MS-9600, reference Appendix B of the SLC Devices Manual for detailed information on surge suppression of the SLC.

UL compatible SLC surge protection devices can be purchased from the following manufacturers:

DIREK
1720 Starkey Road
Largo, FL 33771
Phone: 727-812-5000
Part Number 2LVLP-F

Northern Technology
23123 E. Madison Avenue
Liberty Lake, WA 99019
Phone: 800-727-9119
Part Number PLP-42N

EDCO
1850 NE 19th Avenue
Ocala, FL 34470
Phone: 352-732-3029
Part Number SLCP-30

Intrinsically Safe Devices

Who manufactures barriers that can be used with intrinsically safe devices?

System Sensor has recommended the following two companies:
Measurement Technology Ltd. and Peperl & Fuchs, Inc.

Measurement Technology Ltd.
Sales Headquarters
8576 Wellington Road

Manassas, VA 20109
Fax - 703-368-1029
E-mail - mtlincdrl@attmail.com

Pepperl & Fuchs Inc.
Headquarters, North and Central America
1600 Enterprise Parkway
Twinsburg, OH 44087
Fax - 330-425-4607
E-mail - sales@us.pepperl-fuchs.com
<http://www.pepperl-fuchs.com>

Noti-Fire 911 Dialer

What setting of "Class B Mode" should be selected for the Noti-Fire 911 to be compatible with Fire•Lite fire alarm control panels?

The 911 dialer must be set for "Class B mode" = 3. You must enter the code "1234" upon plugging in the D5050 programmer to get into "Supervisor Mode". Once this mode has been entered, press the <next> key twice, then press the <enter> key and proceed with normal programming.

Printing Acrobat Reader PDF files

I am having a problem printing PDF files.

After opening them in your browser, please be sure you are printing from the Print Icon within the Adobe plug-in.

Corrupt Acrobat Reader PDF

The text on a data sheet looks corrupted on my print out and some of the page information is missing.

This will happen if you are using a Acrobat Reader version less than 4.0. Make sure you uninstall ALL previous Reader version FIRST, then install version 4.0 or higher. If you need to download the latest Adobe Acrobat Reader, visit Adobe's website at www.adobe.com.

Printing the Wiring Connections Diagram

How can I print an 11"x17" Connections Diagram on a standard 8-1/2"x11" printer?

Select the Acrobat Reader PDF version of the desired diagram. From the FILE drop down menu, select PRINT. Check the **Fit To Page** box, then print the file. *When you're done, uncheck this box because it will down-size*

normal letter-size documents in further printings.

Surge Protection

What can I do to reduce damage to a control panel from surges?

Various parts of the world experience higher than normal thunderstorm activity. In these geographical areas, extra caution needs to be undertaken when installing sensitive electronic systems. Good grounding is a basic need for onboard devices to shunt dangerous currents and voltages away from the internal devices that would be damaged by electrical overstresses caused by power line surges.

If good grounding is not found to be a problem, maybe additional standalone surge protection devices should be considered. Depending on the severity of the surge hazard, additional surge devices are recommended at three major points within a building. This is of course for the worst cases: at the main electrical entrance service to the building, at the distribution panel and finally at the outlet to the electronics being protected.

There are several sources for these devices and our technical support staff will help you find the right UL approved products.

Additional information on this subject can be found on the World Wide Web. One site specifically dedicated to this subject is the National Lightning Safety Institute at www.lightningsafety.com.

CODES & STANDARDS

UL-Recognized

When a fire alarm component or device is UL listed as "Recognized", what does this mean?

It means that the component meets most, but not all of the requirements for UL listing as a fire alarm device for a particular function, but the listing has certain "Conditions of Acceptability" which must be met at the time of installation to be acceptable and conform to the listing standard. For example, a relay may be sold without an enclosure, but an enclosure is required to obtain a UL listing. The manufacturer of the relay may apply for the "Recognized" listing, based on the relay being installed in a UL listed enclosure (the condition of acceptability). The enclosure manufacturer would have to get the relay tested by UL to obtain a listing for the relay in the enclosure and publish documentation showing the

proper installation/application of the relay. It is then incumbent upon the installer to install the relay in the UL listed enclosure in accordance with the documentation.

Horn/Strobe Mounting Requirements

What are the mounting requirements for pull stations and horn/strobes as per ADA?

NFPA 72 sets the guidelines for installation. Basically, the highest operable part of the pull station must be no more than 48 inches above the floor if only a forward reach is possible or no more than 54 inches if the clear floor space allows a parallel approach by a person in a wheelchair. A strobe must be 80 inches above the highest floor level, or 6 inches below the ceiling, whichever is lower.

NFPA 72 and NFPA 101

What is the relationship between NFPA 72 and NFPA 101 as they apply to fire alarm systems?

NFPA 72 is an installation standard for fire alarm systems. It defines how a system is to be installed, how it is to function and how it is to be maintained.

NFPA 101, the Life Safety Code, has the function of defining when a fire alarm system is required in a building of a particular occupancy and what functions are necessary for that occupancy.

EIA

What does EIA mean?

The Electronics Industry Association. Its standards are used to define what protocol certain classes of circuits should follow. For instance, many Fire•Lite panels have a serial communication circuit for interfacing with a serial printer or personal computer. This circuit follows the conventions set forth in the EIA-232 standard (formerly the RS-232 standard). Some Fire•Lite annunciators follow the EIA-485 standard.

DIGISCAN

Installation Problems

Why won't Digiscan install?

If you are having difficulty installing the program, it may be due to the following reasons:

- There isn't enough hard drive space on your C Drive
- There are too many temp files in the c:\windows\temp directory
- There are programs running in the background that conflict with the installation
- There is a DLL that conflicts with the installation program (OLE2NLS.dll)

If you are getting an error message referencing "ISINST30" with a Close or Ignore button, do the following:

If more than one attempt was made to install the program, there will be several folders that have the same files in each folder. Every time you try to install a program, it begins by writing to your temp directory. If your installation fails, those temp files remain in that directory. To resolve this do the following:

- Go to C:\Windows\Temp - Delete all the temp files in the directory.
- If there are unnecessary software programs on your C drive and there is another hard drive that you can install onto, remove those unnecessary software programs for the meantime. After you get our program to install, you can either reinstall your other programs to the C drive again, or install them on the D drive.

You may have conflicts installing due to applications that run in the background of your PC, do the following:

Applications that run in the background on the computer, conflict with DLLs and files required for installation (e.g. virus checking software, networking software, toolbars, etc.).

- Close all applications running on your computer by pressing CTRL + ALT + DEL
- Close every running program EXCEPT "Explorer" and Systray
- Now try to install the program.

Certain software programs "lock" Dynamic Linked Libraries (DLLs) and prevent DigiScan 2001 from installing, for instance if you get an error message mentioning the OLE2NLS.dll do the following steps:

- Restart the computer and hit the F8 button while it is rebooting. You will have an option screen. Select command line mode.
- At the C:\ prompt type: cd\windows\system
- Press Enter
- Type: rename ole2nsl.dll ole2nls.old (type it exactly how you see it here)
- If you get an error message, there might be a file already named ole2nls.old if that happens follow these steps:
- At the c:\windows\temp prompt type del ole2nls.old Hit enter
- Type: rename ole2nsl.dll ole2nls.old hit enter
- Type: cd\c: and press enter
- Type win and press enter. This will start windows.
- When windows restarts you have to hit CTRL + ALT + DEL and close all running programs except explorer.
- Now you can install your program and there shouldn't be any problems.

GROUND FAULTS

Ground Fault Condition

How can I troubleshoot a ground fault condition?

There are a lot of questions that center around what a ground fault is and how to accurately troubleshoot it. A ground fault detected on a fire panel means that there is another reference to ground coming into the system *other* than the system ground. This is usually caused by a wire making electrical contact with something it shouldn't (such as conduit).

The best way to troubleshoot a ground fault would be to remove all field wiring from the panel, along with any option modules, phone lines and batteries, leaving only AC connected to the panel. The ground fault detection on the panel is immediate, so any ground coming in from the bell circuits, zone wiring, annunciators, or communicators will disappear once the wiring is disconnected. That will allow you to track the circuit bringing in the ground fault. Then you can check that particular circuit to see where the fault is coming from. If everything is off the panel except AC, and the ground fault is still present, call Technical Support for assistance.

Ground faults are very often caused by pulling wiring through conduit during installation, which can strip off the insulation and cause the bare wire to come in contact with the grounded conduit.

Examples of what can cause a ground fault:

- A wire “grounding out” to conduit.
- Moisture or water in a backbox
- Ground on a phone line.

SERIAL PRINTERS

Printers

What type of printer can I use with my Fire•Lite Control?

The ADEMCO Model 6220 Printer is a 40-column impact dot matrix-type serial printer that can be used for printing diagnostic and maintenance information. Note that only certain Fire•Lite Control Panels have printer outputs.

How do I set the Ademco 6220 printer when using it with the MS-9200 or MS-9600?
The proper settings for the Ademco 6220 printer are:

- BAUD RATE = 2400
- Data bits = 7
- Parity = even
- Stop Bits = 1
- Hshake = Xon/Xoff-Buff
- Cols = 40
- Invert = No
- Font = 5 X 8
- Mag = Double High

WEB SOFTWARE - PANEL PICKER, QUOTE DEVELOPER, ETC...

Web Applications and Windows 2000

Why can't restricted users on a Windows 2000 professional use your web software (Panel Picker, QDP, etc)?

Our web applications all use the software plug-in "NEURON" that must be installed first. Neuron has to be able to write data to the Windows TEMP directory on a regular basis, something that users with restricted rights might not be enabled to do. To correct this, give users the ability to write to the Windows TEMP folder. See your Network Administrator for assistance.

UPLOAD / DOWNLOAD SOFTWARE

Installing PK packages

When installing any Fire•Lite PK package, how do I respond to the screen

prompt: "A file being copied is not newer than the file currently on your system. It is recommended that you keep your existing file"?

In general, follow these guidelines whenever installing upload/download software:

- YOU MUST CLOSE ALL APPLICATIONS BEFORE PROCEEDING. This includes antivirus software, taskbars, and any TSR (Terminate and Stay Resident) utilities.
- On Windows 95 installs, you may get the message that some of

your files need to be updated and windows restarted before continuing. Click "OK" to update these files and reboot your computer. After Windows has restarted, you must run the PK setup again to continue the installation process.

- If you are prompted with the Version Conflict message during installation: "A file being copied is not newer than the file currently on your system. It is recommended that you keep your existing file."
- Examine the path of each file in conflict and follow these guidelines for answering the install question.

a) If the path is the directory in which the program is to be installed, answer "NO" to the question "Do you want to keep this file?"

b) If path is NOT the directory in which the program will be installed, answer "YES" to the question "Do you want to keep this file?"

- Be sure to restart your computer after the installation completes.

Modem Troubles

Why doesn't my PC modem work when I attempt to communicate with the control panel during an Upload/Download session?

Due to the wide variations in modem standards, we cannot guarantee that your modem will be compatible with our control panel's communications protocol. It is advised that you contact our Technical Service Department for specific help.

Upload/Download

Which way is Upload and which way is Download?

FireLite Alarms defines upload and download from the perspective of the fire alarm control panel, not the user of the PK software. So if you transfer a program from the control panel to your PC for back up and/or editing, you are *uploading* the file. When you copy the file back to the control panel, you are *downloading* the file.

Local versus Remote

How do you define remote programming?

Remote programming of a Fire•Lite control panel is accomplished through

a PC modem talking to the control modem over phone lines. Local programming does not refer to programming the control from its internal keypad but rather, it is accomplished via an EIA-232 serial cable between the PC and the control panel.

Remote Programming

Can you use a remote programming utility to program the panel locally?

Not technically. Local programming refers to a physical connection between the control panel the programming computer, as in an EIA-232 connection. The only way to program a control panel *locally* with a remote programming package at the panel is to connect using two separate phone lines in the same room or building.

Panel Capabilities

Which Fire•Lite controls can perform remote programming?

The table below outlines the local and remote programming capabilities of Fire•Lite control panels. These panels require optional PK programming software.

Control Panel	Local Programming	Remote Programming
411UD & 411UDAC	No	Yes
MS-5024UD	No	Yes
MS-5210UD	No	Yes
MS-9200	Yes	No
MS-9600	Yes	Future capability
