



FX-2009-12NDS in a BB-5008R enclosure.

## Description

Mircom's Flex-Net Series is a powerful intelligent networkable fire alarm solution designed with many levels of flexibility to meet virtually any application of detection, control, notification and emergency communications. Features such as fire detection & alarm, audio/voice evacuation, BACnet, Boolean logic, networking and graphical work stations allow this modular solution to accommodate the simplest systems up to the most complex solutions

With the addition of the Advance Protocol (AP), Fire/CO detection and 520 Hz support on both the addressable loop and through the audio/voice evacuation, Mircom's Flex-Net is poised to take you even farther into the future with expanded capabilities..

Designed for peer-to-peer network communications, the FX-2009-12NDS allows for a maximum of 63 nodes, while providing reliability, flexibility and expandability.

Each base panel consists of one intelligent signaling line circuit (SLC) capable of supporting 159 analog Sensors and 159 addressable modules. In addition the base panel includes Four Style Z/Y (Class A/B) Notification Appliance Circuits and an easy to read and use, large 4 x 20 back-lit alphanumeric LCD display.

The network configuration allows the FX-2009-12NDS control panel to be connected to a Mircom network to provide additional input circuits, visual zones, programmable notification appliance circuits, and relays. The network interface module allows the panels to communicate on a peer-to-peer network via a Proprietary Arcnet Network Communications protocol.

## Features

### Fire Alarm Control

- 1 SLC loop expandable up to 29
- Each SLC Loop is capable of supporting 159 Analog Sensors and 159 Addressable Modules which can be wired in Style 6 or 7 (Class A) or Style 4 (Class B)
- Four Style Z/Y (Class A/B) Notification Appliance Circuits rated at 1.7 Amps each
- System has the ability to mix CLIP and AP devices on the same loop
- Large easy to use and readable 4 by 20 character Back-lit LCD Display
- English, French, Arabic\* and Hebrew\* language support (\*supported by RAXN-LCDG Annunciator in place of main display)
- Correlatable Switch Inputs which allow for multi-functional outputs
- Four Status Queues for Alarm, Supervisory, Trouble and Monitor
- Auxiliary relay contacts for Common Alarm, Supervisory and Trouble
- Group bypass with built-in false alarm prevention technology
- RS-232 output for remote system printer or CRT
- Two event History Logs; one for Alarm-related events and one for all events. Supports 3 configuration files with "hot swap" support
- Conventional Hardwire Adder Module expandability
- Built-in Walk Test operation
- Canadian Two Stage operation
- Provision for two programmable modules
- Configurable for Coded Operation
- Intelligent Smoke Detector sensitivity levels
- 3D graphical monitoring and control using Mircom's Open Graphic Navigator™
- BACnet support
- Advanced (Boolean) logic functions
- Built-in Ethernet port
- Remote diagnostics via a built-in web server
- Audio/Voice Evacuation with 520Hz capability
- UL listed for Smoke Control
- HVAC Fan and Damper Control

### Network Features

- Up to 63 nodes
- Peer-to-peer network communications
- Style 4 (Class B) or Style 6 or 7 (Class A) wiring configuration
- Proprietary Arcnet Network Communications protocol
- Supports copper and/or fiber optic network cable



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S7010



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NYC  
Fire Dept.  
COA# 6064



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## FleX-Net™ FX-2009-12NDS Network Series Fire Alarm Control Panels



### FX-2009-12NDS Large Size Network Main Control Unit

The FX-2009-12NDS Large Size Network Main Control Unit comes complete with one Intelligent Signaling Line Circuit (SLC) Style 4, 6 or 7, Four Style Z/Y (Class A/B) Notification Appliances Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display and a 12 Amp Power Supply. The FX-2009-12NDS provides space for the FNC-2000 Network Controller Module, up to 8 adder modules and 2 internal display adder modules. The FX-2009-12NDS mounts in a BB-5000 Series enclosures.

## Power Supply Expansion



### INX-10AC Internal Booster Power Supply Module

Mircom's INX-10AC is an Intelligent Booster Power Supply that extends the power capabilities of existing notification appliance circuits as well as provide power for other ancillary devices. The INX-10AC has 10 amps of power and mounts inside the BB-5014 enclosure.

## Mounting Brackets



### M500-BK9 Module Mounting Bracket

The M500-BK9 Module Mounting Bracket mounts inside the BB-5000 Series enclosures and provides space to mount up to nine M500 style intelligent modules.

## Electrical Specifications

Primary Input Power	120V 60Hz / 240V, 50Hz 4 Amps / 2 Amp (primary)
Power Supply Ratings	12 Amps. max. (secondary)
For NAC Circuits	24VDC unfiltered, 10 Amps. max. Max. Voltage Drop Permitted (Class A = 3.3V, and Class B = 3.7V)
Battery Type	24VDC, Gel-Cell/Sealed Lead-Acid
Battery Charging Capability	17-65 AH batteries



### ECX-0012 Expander Chassis

The ECX-0012 Expander Chassis for the FX-2009-12NDS supports up to 12 adder modules and has space for 2 internal display modules. The ECX-0012 mounts in the BB-5000 series enclosures.



### BB-5008/BB-5014 Lobby Enclosures

The BB-5008 and BB-5014 lobby enclosures support the FX-2009-12NDS and provide space for internal lobby control modules. The cabinets hold up to 24 AH batteries. The door and chassis hardware are ordered separately.

BB-5008 Dimensions: 36"H x 30"W x 7"D

BB-5014 Dimensions: 60"H x 30"W x 7"D

## Graphics Software



### Open Graphic Navigator (OpenGN)

Open Graphic Navigator (OpenGN) is a centralized fire alarm management system that provides building or campus monitoring. As a powerful integration tool, OpenGN allows operators to monitor remote sites from multiple workstations or smart phones located anywhere in the world. OpenGN displays monitored buildings and campuses in both 2D and 3D representations, and is highly customizable.

## Fire Network Controller Modules



### FNC-2000 Fire Network Controller Module

The FNC-2000 provides network capability to the FX-2009-12NDS. One Fire Network Controller Module is required per network node panel. In addition the FNC-2000 provides an interface for adding an optional FOM-2000-SP Fiber Optic Network Adder Module. The FNC-2000 mounts in the FX-2009-12NDS.



### FOM-2000-SP Fiber Optic Network Adder Module

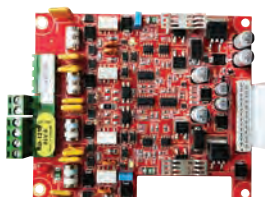
The FOM-2000-SP Fiber Optic Network Adder Module allows for the use of fiber optic cabling on the FX-2009-12NDS. It seamlessly connects to the interface on the FNC-2000 Fire Alarm Network Controller Module.

## Adder Loop Controller Modules



### ALCN-792MISO Isolated Quad Loop Controller Module

The ALCN-792MISO Isolated Quad Loop Controller Module provides two Signaling Line Circuits (SLC) to the Flex-Net system consisting of 159 Analog Sensors and 159 Addressable Modules per loop. The ALCN-792MISO can be expanded with the use of the ALCN-792D Daughter Board Module. The ALCN-792MISO occupies one module slot.



### ALCN-792D Daughter board for Isolated Quad Loop Controller Module

The ALCN-792D Daughter Board provides an additional two SLC loops when connected to the ALCN-792MISO Isolated Quad Loop Controller Module. The daughter board mounts on top of the ALCN-792MISO.

## Dimensions for Annunciator Module Enclosures

Model	Dimensions
BB-1001D/DR/DB/DS	9"H x 12.75"W x 1.85"D
BB-1002D/DR/DB/DS	18"H x 12.75"W x 1.85"D
BB-1003D/DR/DB/DS	26.4"H x 12.75"W x 1.85"D
BB-1008D/DR/DB	33"H x 22.5"W x 1.85"D
BB-1012D/DR/DB	45"H x 22.5"W x 1.85"D

## Adder Hardware Modules



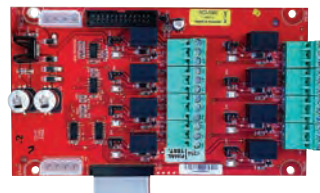
### DM-1008A Eight Initiating Circuit Module

The DM-1008A provides 8 Style B (Class B) or 4 Style D (Class A) Initiating Circuits configurable for Alarm, Supervisory or Trouble zones. The DM-1008A occupies one module slot in the FX-2009-12NDS.



### SGM-1004S Four Notification Appliance Circuit Output Module with Built-in Synchronization

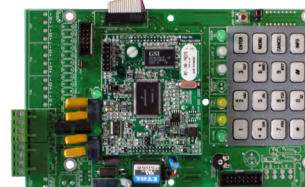
The SGM-1004S provides up to four indicating circuits each rated at regulated 24 VDC/FWR 1.7 Amps (5 Amps maximum per SGM-1004S) to signal devices such as strobes, bells, horns, etc., and for special applications it is rated at 33 VDC/FWR 2.1 Amps (5 Amps maximum per SGM-1004S). Each of the indicating circuits can be configured as non-silenceable (steady) or silenceable. SGM-1004S enables the compatible fire alarm control panels to have synchronized NAC circuits.



### RM-1008A Eight Relay Circuit Module

The RM-1008A provides the Flex-Net system with eight individual configurable relays per module. Each relay provides one Form C contact rated at 28 VDC @1 Amp (resistive load) as well as a Green LED to indicate that the relay is active. The RM-1008A occupies one module slot in the FX-2009-12NDS.

## Adder Auxiliary Modules



### UDACT-300A Digital Alarm Communicator Module

The UDACT-300A Digital Alarm Communicator Module allows the Flex-Net system to transmit addressable point information to a central station. The UDACT-300A occupies one module slot in the FX-2009-12NDS.



### PR-300 Polarity Reversal/City Tie Module

The PR-300 Polarity Reversal/City Tie Module provides the system with a supervised City Tie (24 VDC/200 mA max.) and Polarity Reversal connection (24 VDC (open circuit), 8 mA max. (shorted)). The PR-300 occupies one module slot in the FX-2009-12NDS.



## Remote LCD Annunciators



### RAXN-LCD Remote LCD Annunciator

The RAXN-LCD Remote LCD Annunciator provides the same functions as the main display on the fire alarm control panel. The RAXN-LCD occupies one display position in the BB-1000 or BB-5000 Series enclosures.



### RAXN-LCDG Remote Graphic LCD Annunciator

The RAXN-LCDG Remote Graphic LCD Annunciator equipped with a 24 line x 40 character back-lit graphical LCD display that is used to display 9 events per page. Each event is displayed over 2 lines with 40 characters per line allowing emergency information to be displayed in an easy to read format. The RAXN-LCDG occupies one display position in the BB-1000 or BB-5000 Series enclosures.

## Graphic Annunciator Driver Modules



### MGD-32 Master Graphic Driver Module

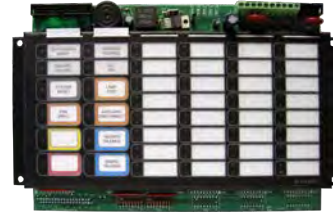
The MGD-32 Master Graphic Driver Module provides common control inputs for the common control switches such as System Reset, Signal Silence, Auxiliary Disconnect, Fire Drill, Lamp Test, Acknowledge and General Alarm. The MGD-32 can also drive up to 32 supervised outputs. These output points are capable of driving LEDs or incandescent lamps. The MGD-32 mounts in a graphic annunciator wallbox or in the BB-5000 enclosures. An external power supply is required for incandescent lamps and lamp test.



### AGD-048 Adder Graphic Driver Module

The AGD-048 Adder Graphic Driver Module can be used with the MGD-32 to support an additional 48 supervised outputs. The AGD-048 mounts in a graphic annunciator wallbox or in the BB-5000 enclosures.

## Remote LED Annunciators



### RAM-1032TZDS Main Remote LED Annunciator

The RAM-1032TZDS Main Remote LED Annunciator provides common annunciator functions and 32 points of LED annunciation. The RAM-1032TZDS has indicators for A.C. On, Common Trouble and Signal Silence and controls for System Reset, Lamp Test, Fire Drill, Buzzer Silence and Signal Silence. The RAM-1032TZDS occupies one display position in the BB-1000 or BB-5000 enclosures.



### RAX-1048TZDS Programmable LED Annunciator Module

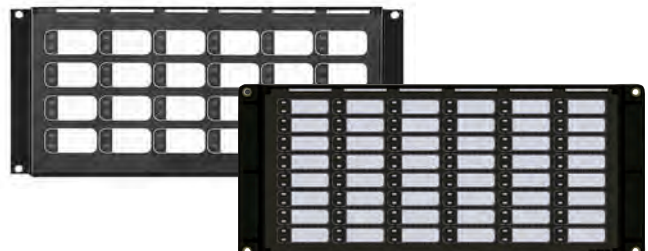
The RAX-1048TZDS Programmable LED Annunciator Module provides 48 programmable bi-colored LEDs. The RAX-1048TZDS connects to the main panel or either the RAXN-LCD or RAM-1032TZDS when mounted remotely. The RAX-1048TZDS occupies one display position in the BB-1000 or BB-5000 Series enclosures.

## Programmable Modules



### FDX-008W Fan Damper Control Module

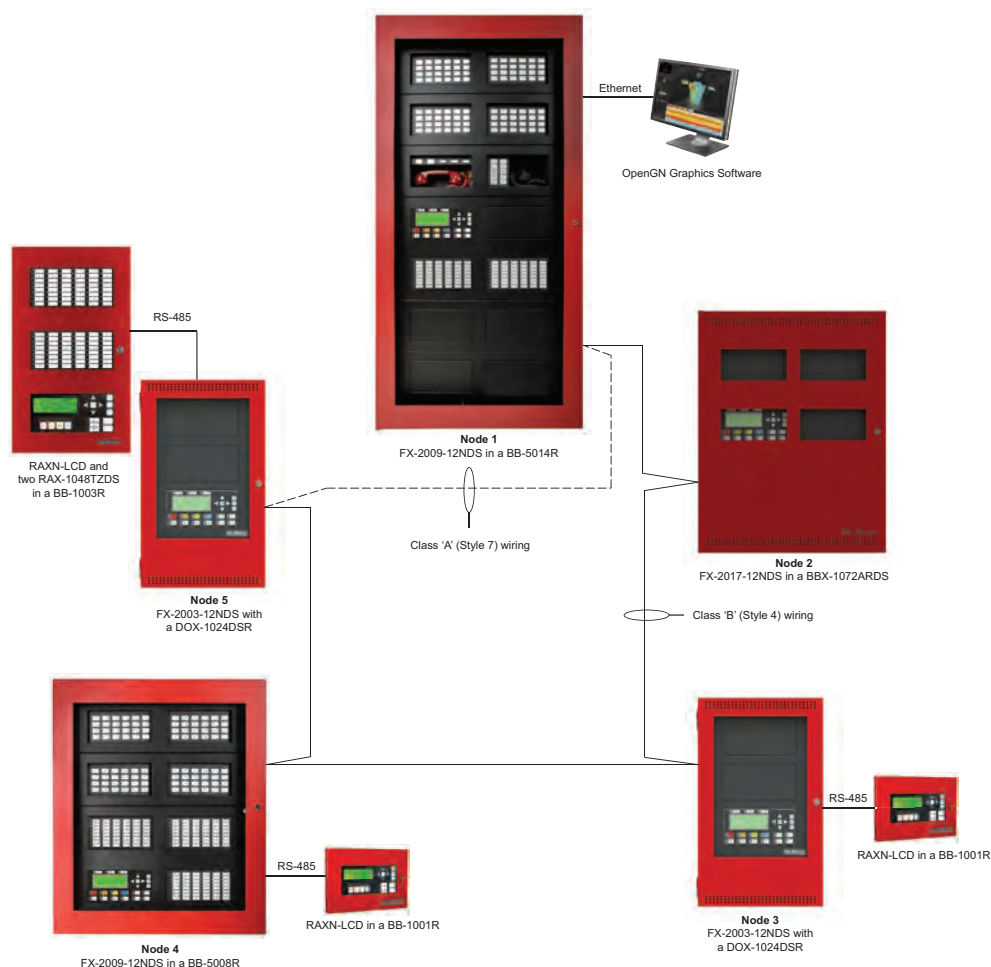
The FDX-008W Fan Damper Control Module provides individually programmed circuits which can be used for fan or damper control. The FDX-008W connects to the main panel or the RAXN-LCD and occupies one display position in the BB-1000 or BB-5000 Series enclosures.



### IPS-2424DS/IPS-4848DS Programmable Input Switches Module

The IPS-2424DS/IPS-4848DS provides 24/48 programmable switches that can be configured for ancillary functions such as zone bypass or added common control functions. The IPS-2424DS/IPS-4848DS connects to the main panel or the RAXN-LCD when mounted remotely. The IPS-2424DS/IPS-4848DS occupies one display position in the BB-1000 or BB-5000 Series enclosures.

## Typical FleX-Net™ FX-2009-12NDS Networked System Configuration



## Current Consumption

Model Number	Description	Standby	Alarm
FX-2009-12NDS	Main Control Unit (12 Amp)	0.310	0.733
ALCN-792MISO	Isolated Dual Analog Loops	0.130	0.145
ALCN-792MISO/D	Isolated Quad Analog Loops	0.130	0.145
FNC-2000	Fire Network Controller Module	0.190	0.0190
FOM-2000-SP	Fiber Optics Module	0.015	0.015
DM-1008A	8 Initiating Circuit Module	0.080	1 zone active: 0.125 2 zone active: 0.170 4 zone active: 0.275 6 zone active: 0.370 8 zone active: 0.465
SGM-1004S	4 Notification Appliances Circuit Module	0.031	0.096
RM-1008A	8 Relay Circuit Module	0.025	0.150
FDX-008W	Fan Damper Control Module	0.015	0.035
UDACT-300A	Dialer Module	0.045	0.120
PR-300	City Tie Module	0.035	0.300
RAX-1048TZDS	Adder Annunciator Chassis	0.022	1 zone active: 0.026 2 zone active: 0.030 3 zone active: 0.035 4 zone active: 0.039 48 zone active: 0.262
RAM-1032TZDS	Adder Annunciator Chassis	0.050	32 zone active: 0.300
MGD-32	Main Graphic Driver Module	0.035	1.6
AGD-048	Adder Graphic Driver Module	0.035	# of LEDs x 4mA
IPS-2424DS	Programmable Input Switches Module	0.010	0.015
IPS-4848DS	Programmable Input Switches Module	0.010	0.022

## Ordering Information

Model	Description
<b>Network Fire Alarm Control Panel</b>	
FX-2009-12NDS	Large Size Network Main Control Unit. Mounts in the BB-5000 series enclosures.
ECX-0012	Expander Chassis for the FX-2009-12NDS. Mounts in the BB-5000 series enclosures.
<b>Enclosures</b>	
BB-5008	Lobby Control Centre Wallbox Enclosure. Supports 8 Module Footprints.
DOX-5008M	White Metal Door for BB-5008. Add suffix 'R' for red enclosure.
CCH-5008	Custom Mounting Kit for BB-5008. One required per BB-5008.
BB-5014	Lobby Control Centre Wallbox Enclosure. Supports 14 Module Footprints.
DOX-5014M	White Metal Door for BB-5014. Add suffix 'R' for red enclosure.
CCH-5014	Custom Mounting Kit for BB-5014. One required per BB-5014.
<b>Network Controller Modules</b>	
FNC-2000	Fire Network Controller Module
FOM-2000-SP	Fiber Optic Network Adder Module
<b>Adder Loop Controller Modules</b>	
ALCN-792MISO	Network Isolated Quad Loop Controller Module
ALCN-792D	Daughter board for ALC-792MISO Isolated Quad Loop Controller Module
<b>Adder Hardware Modules</b>	
DM-1008A	Eight Class B (Style B) or 4 Class A (Style D) Initiating Circuit Module
SGM-1004S	Four Class A/B (Style Z/Y) Notification Appliances Circuit Module (Rated at 1.7 Amps per circuit)
RM-1008A	Eight Relay Circuit Module c/w eight form C relays (Rated for 28 VDC @ 1 Amp max. per relay)
<b>Adder Auxiliary Modules</b>	
UDACT-300A	Digital Alarm Communicator Transmitter/Dialer Module
PR-300	Polarity Reversal and City Tie Module
<b>Remote Annunciators</b>	
RAXN-LCD	Remote LCD Annunciator
RAXN-LCDG	Remote Graphic LCD Annunciator
RAM-1032TZDS	Main Remote LED Annunciator c/w 32 Bi-Colored LEDs
RAX-1048TZDS	Programmable LED Annunciator Module c/w 48 Bi-Coloured LEDs and 48 Trouble LEDs
<b>Programmable Modules</b>	
IPS-2424DS	Programmable Input Switches Module c/w 24 selector switches and 24 bi-coloured LEDs
IPS-4848DS	Programmable Input Switches Module c/w 48 selector switches and 48 bi-coloured LEDs
FDX-008W	Fan Damper Control Module
<b>Programmable Modules</b>	
INX-10AC	Internal Booster Power Supply Module
<b>Enclosures for Remote Annunciators / Programmable Modules</b>	
BB-1001D	Remote Enclosure. Houses one module. Add suffix "R" for red, "S" for stainless steel, and "B" for black door.
BB-1002D	Remote Enclosure. Houses two modules. Add suffix "R" for red, "S" for stainless steel, and "B" for black door.
BB-1003D	Remote Enclosure. Houses three modules. Add suffix "R" for red, "S" for stainless steel, and "B" for black door.
BB-1008D	Remote Enclosure. Houses eight modules. Add suffix "R" for red and "B" for black door.
BB-1012D	Remote Enclosure. Houses twelve modules. Add suffix "R" for red and "B" for black door.
<b>Graphic Driver Modules</b>	
MGD-32	Main Graphic Driver Module c/w 32 Supervised Outputs
AGD-048	Adder Graphic Driver Module c/w 48 Supervised Outputs
<b>Graphics Software</b>	
OGN-FLSLIC-ONE	Single Fire Alarm Control Panel License (Price per connection) Requires: OGN-KEY (sold separately) Contact us for non-Mircom panel connections
OGN-FLSLIC-EXP	Fire Alarm Control Panel License for 2-9 Connections (Price per connection) Requires: OGN-KEY(sold separately) Contact us for non-Mircom panel connections

OGN-FLSLIC-STD	Fire Alarm Control Panel License for 10-99 Connections (Price per connection) Requires: OGN-KEY (sold seperately) Contact us for non-Mircom panel connections
OGN-FLSLIC-ENT	Fire Alarm Control Panel License for 100+ Connections (Price per connection) Requires: OGN-KEY (sold seperately) Contact us for non-Mircom panel connections
OGN-KEY	OGN License Key Stick
<b>Accessories</b>	
UIMA4	Interface for Configuring MGC Fire Panels
MGC-CONFIG-KIT4	Fire Panel Configuration KIT with UIMA4.



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