

INTELLIGENT FIRE ALARM & EMERGENCY COMMUNICATIONS NETWORK FX-MNS





Description

FX-LOC

Mircom's FleX-Net™ Mass Notification System (MNS) is designed to provide real-time information to all building occupants or personnel in the immediate vicinity of a building during emergency situations. The system allows for real-time information regarding the type of emergency as well as safely instructing people on where to go and what to do.

Mircom's FleX-Net MNS system offers building owners and facility managers with a simple solution to their safety requirements. The system is designed to automatically change as emergency situations change. In addition it is able to manage all mass notification functions, allow responding authorities the ability to override fire alarm notification, issue external voice announcements, and simultaneously distribute different emergency communications on any geographic scale required.

Designed with the industry's most advanced hardware and software, Mircom's FleX-Net MNS system provides reliable and clear audible and visual notification, live voice instruction and Internet based text messaging. In addition it can be easily integrated to other public safety systems for emergency communications to wide area networks.

Mircom's FleX-Net MNS is UL 2572 listed for Mass Notification and complies with NFPA 72-2010 and UFC/DOD standards for emergency communications systems. Based on the proven and reliable FleX-Net Intelligent Network Fire Alarm Control Panel and Audio System the FleX-Net MNS provides a rich feature set that delivers an extensive number of configurable options that allow for flexibility in any environment while reducing the installation and maintenance burden with an easy to install, modular setup.

Features

Mass Notification

- Storage and activation of pre-programmed intelligible voice messages
- Supervision of all Mass Notification (MNS) equipment
- Auxiliary inputs for general paging, background music, or other non-emergency functions
- Tamper resistant enclosures with passwordprotected features for enhanced access control
- One-Way and Two-Way EVACS capability
- Automatic response to MNS inputs
- Local and remote controls and indicators
- Synchronized evacuation zone signalling
- Voice message priority according to risk analysis and emergency response plan Visible notification and strobes support
- Local Operating Console (FX-LOC) that provides on-site monitoring/control of voice and notification appliances
- Large LCD displays
- Fire Alarm Control Panel Interface (FACI)
- Building Management System Interface (BMSI)
- Autonomous Control Unit providing real time status of all FX-LOC units
- UL 2572 Listed for Mass Notification

Fire Alarm Control

- Base system is equipped with one Intelligent Signaling Line Circuit (SLC). Expandable up to 21 SLCs.
- Each SLC is capable of supporting 99 Analog Sensors and 99 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
- Built-in Ethernet port
- Remote diagnostics via a built-in web server

Audio Control

- Multi-channel operation
- Control and Audio multiplex over one digital link
- Distributed audio
- 5 hard wire fire fighter telephone channels that can be expanded with intelligent fire phone modules
- 25 or 70 volt system
- Multiple amplifier sizes
- Max. of 180 watts per Integrated Fire & Audio panel
- Expansion to three 360 watts expansion cabinets for a total of 1260 watts of power per node

Network Features

- Up to 63 nodes
- Fully integrated digital network audio and control over a single pair of copper wire or fibre optic cable
- Supports over 5,000 points per node
- Supports over 250,000 points on a single network
- Peer-to-peer network communications
- Style 4 (Class B) or Style 6 or 7 (Class A) wiring configuration







NYC Fire Dept. COA# 6064

Factory Mutual (Pending)

CATALOG NUMBER

FX-MNS Mass Notification Control Modules



FX-2000MNS Main Network Board

The FX-2000MNS main network board includes one intelligent Signaling Line Circuit (SLC) and Four Style Z/Y (Class A/B) NAC circuits. The FX-2000MNS has provisions to mount up to 9 internal adder modules and mounts in the BBX-FXMNS enclosure.



QMB-5000N Integrated Audio Network Chassis

The QMB-5000N includes the audio and telephone control which consists of an audio card cage designed for mounting the ANC-5000 Audio Network Controller Module, TNC-5000 Telephone Network Controller Module and up to four QAA style audio amplifiers. The QMB-5000N connects to the FX-2000MNS Network fire alarm main board and mounts in the BBX-FXMNS enclosure.



BBX-FXMNS Enclosure

The BBX-FXMNS enclosure supports the FX-2000MNS Network main board, DSPL-XXXX Main LCD display, QMB-5000N audio card cage, QMP-5101NV Master Paging Microphone and QMT-5302NV Master Telephone Handset. In addition the enclosure provides space for additional external modules and internal lobby control modules. The BBX-FXMNS holds up to 40 AH batteries and is available with white (BBX-FXMNS) or red (BBX-FXMNSR) doors.

BBX-FXMNS Dimensions: 61.5"H x 20"W x 9"D



DSPL-420 Main Display Module

The DSPL-420 Main Display Module provides the FX-MNS with a 4 line by 20 character backlit LCD display, Common Controls buttons and Four Status Queues with selector switches and LEDs for Alarm, Supervisory, Trouble and Monitor. The DSPL-420 occupies one display position in the FX-MNS enclosure.



DSPL-2440 Graphical Main Display Module

The DSPL-2440 Graphical Main Display Module provides the FX-MNS with a 24 line x 40 character backlit LCD display, common controls buttons and four status queues with selector switches and LEDs for Alarm, Supervisory, Trouble and Monitor. The DSPL-2440 occupies one display position in the FX-MNS enclosure.



QMP-5101NV Network Master Paging Control Module

The QMP-5101N Network Master Paging Control Module includes the paging microphone and common control indicators. The QMP-5101NV allows for all call paging or selective paging with the QAZT-5302 Zoned Paging and Telephone Selector Modules. The QMP-5101NV is vertical mount unit that mounts in the BBX-FXMNS enclosure.

QMT-5302NV Network Master Firefighters' Telephone Control Module

The QMT-5302NV includes the Master Telephone Handset and common control indicators. The QMT-5302NV supports the QAZT-5302 Paging and Telephone selector modules. The QMT-5302NV is a vertical mount unit that mounts in the BBX-FXMNS enclosure.



Fire Network Controller Modules



FNC-2000 Fire Network Controller Module

The FNC-2000 provides network capability to the FX-2009-12N. 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-MNS.



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-2009-12N. It seamlessly connects to the interface on the FNC-2000 Fire Alarm Network Controller Module.

Adder Loop Controller Modules



ALCN-792M Quad Loop Controller Module

The ALCN-792M Quad Loop Controller Module provides two Signaling Line Circuits (SLC) to the FX-MNX consisting of 99 Analog Sensors and 99 Addressable Modules per loop. The ALCN-792 can be expanded with the use of the ALCN-792D Daughter Board Module. The ALCN-792N occupies one module slot.



ALCN-792D Daughter board for Quad Loop Controller Module

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

Adder Hardwire 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.



SGM-1004A Four Notification Appliance Circuit Module

The SGM-1004A provides 4 Style Z/Y(Class A/B) Notification Appliance Circuits configurable as Silenceable or Non-Silenceable. Each NAC circuit is rated at 1.7 Amps and has individual signal silence inputs (jumper selectable). The SGM-1004A occupies one module slot.



RM-1008A Eight Relay Circuit Module

The RM-1008A provides the FX-2003-12N 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.

Adder Auxiliary Modules



UDACT-300A Digital Alarm Communicator Module

The UDACT-300A Digital Communicator allows the FX-MNS to transmit addressable point information to a central station. The UDACT-300A occupies one module slot.



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.



Remote LCD Annunciators



RAXN-LCD Remote LCD Annunciator

The RAXN-LCD Remote LCD Annunciator is equipped with a 4 line x 20 character back-lit alphanumeric LCD display that provides an exact replica of the main FleX-Net fire alarm control panel display. The RAXN-LCD occupies one display position in the BBX-FXMNS, BB-1000 or BB-5000 Series enclosures.

Remote LED Annunciators



RAM-1032TZ Main Remote LED Annunciator

The RAM-1032TZ Main Remote LED Annunciator provides common annunciator functions and 32 points of LED annunciation. The RAM-1032TZ 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-1032TZ occupies one display position in the BBX-FXMNS, BB-1000 or BB-5000 enclosures.

Programmable Modules



FDX-008 Fan Damper Control Module

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



RAX-1048TZ Programmable LED Annunciator Module

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



IPS-2424 Programmable Input Switches Module

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



FX-MNS Audio and Telephone Network Controller Modules



ANC-5000 Audio Network Controller Module

The ANC-5000 provides audio microphone control on the network system. The ANC-5000 mounts on a plate in the QMB-5000N.



TNC-5000 Telephone Network Controller Module

The TNC-5000 provides five hardwired telephone circuits for the local floor panel with the first circuit configurable for the master telephone handset. The TNC-5000 mounts in the QMB-5000N.

Paging Control Modules for Remote Applications



QMP-5101N Network Master Paging Control Module

The QMP-5101N Network Master Paging Control Module includes the paging microphone and common control indicators. The QMP-5101N allows for all call paging or selective paging with the QAZT-5302 Zoned Paging and Telephone Selector Modules. The QMP-5101N occupies one module space in the BB-5000 Series enclosures.



QAZT-5302 Zoned Paging and Telephone Selector Module

The QAZT-5302 Zoned Paging and Telephone Selector Module includes 24 zone selector switches and LEDs. The QAZT-5302 is used with the QMP-5101N Network Master Paging Control module or QMT-5302N Network Master Firefighters' Telephone module. Slide-in labels are provided to label the selector zones. The QAZT-5302 occupies one module space in the BB-1000 or BB-5000 Series enclosures.

Firefighter Telephone Control Modules



QMT-5302N Network Master Firefighters' Telephone Control Module

The QMT-5302N includes the Master Telephone Handset and common control indicators. The QMT-5302N supports the QAZT-5302 Paging and Telephone selector modules. The QMT-5302N occupies one module space in the BB-5000 Series enclosures.

Annunciator/Programmable Module Enclosures

BB-1001: 9"H x 12.75"W x 1.2"D BB-1002: 18"H x 12.75"W x 1.2"D BB-1003: 26.4"H x 12.75"W x 1.2"D BB-1008: 33"H x 22.5"W x 1.25"D BB-1012: 45"H x 22.5"W x 1.25"D



Audio Amplifiers



QAA-5415-70 and QAA-5415-25 Quad 15 Watt Amplifiers

The QAA-5415-70 and QAA-5415-25 consist of four 15 watt supervised paging/speaker circuits which can be wired in Class 'B' (Style 'Y') only. The QAA-5415-70 is a 70 Volt amplifier and the QAA-5415-25 is a 25 Volt amplifier. Both models mount in the FXQ-NN card cage and occupy one amplifier slot.

QAA-5230S-70/25 Dual 30 Watt Amplifier

The QAA-5230S-70/25 consists of two 25 or 70 Volt 30 watt amplifiers. Each amplifier has two 15 watt supervised speaker outputs which are used for 'A' 'B' speakers per floor and are wired in Class 'B' (Style 'Y') only. The QAA-5230S-70/25 mounts in the FXQ-NN card cage and occupies one amplifier slot.

QAA-5230-70/25 Dual 30 Watt Amplifier

The QAA-5230-70/25 consists of two 25 or 70 Volt 30 watt supervised paging/speaker circuits which can be wired in Class 'A' (Style 'Z') or Class 'B' (Style 'Y'). The QAA-5230-70/25 mounts in the FXQ-NN card cage and occupies one amplifier slot.

QAA-5160-70/25 60 Watt Amplifier

The QAA-5160-70/25 consists of one 25 or 70 Volt 60 watt supervised paging/speaker circuit which can be wired in Class 'A' (Style 'Z') or Class 'B' (Style 'Y'). The QAA-5160-70/25 mounts in the FXQ-NN card cage and occupies one amplifier slot.



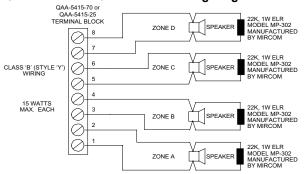
QAA-4CLA Class 'A' (Style 'Z') Converter Module

The QAA-4CLA converts each of the four Class 'B' (Style 'Y') outputs on a QAA-5415-70 or QAA-5415-25 Amplifiers to Class 'A' (Style 'Z'). The module attaches to the bottom of the amplifier. One QAA-4CLA is required for each amplifier.

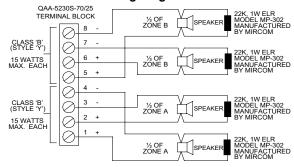
QAA-4CLAS Class 'A' (Style 'Z') Converter Module

The QAA-4CLAS converts each of the four Class 'B' (Style 'Y') outputs on a QAA-5230S-70/25 or QAA-5230S-525-70/25 Amplifier to Class 'A' (Style 'Z'). The module attaches to the bottom of the amplifier. One QAA-4CLA is required for each amplifier.

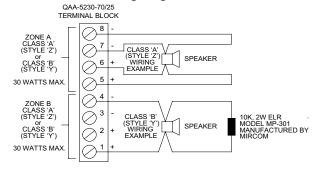
QAA 5415-70 or QAA-5415-25 Wiring Diagram



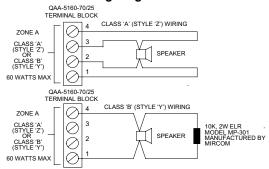
QAA-5230S-70/25 Wiring Diagram



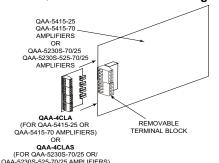
QAA-5230-70/25 Wiring Diagram



QAA-5160-70/25 Wiring Diagram



QAA-4CLA and QAA-4CLAS Connection Diagram





Network System Expansion Enclosures



FX-2009-12N Network Lobby Control Chassis

The FX-2009-12N Network Lobby Control Chassis consists of a base fire alarm panel with one isolated intelligent Signaling Line Circuit (SLC) Style 4, 6 or 7, Four Class A/B NAC circuits, a 4 line by 20 character LCD display, a 16 Zone LED Annunciator and a 12 Amp power supply. The FX-2009-12N has space to mount the FNC-2000 Fire Network Controller Module, ANC-5000 Audio Network Controller Module, TNC-5000 Telephone Network Controller Module and provision to mount up to 4 adder modules. The FX-2009-12N mounts in a BB-5000 Series enclosure and supports Audio Lobby Control modules, Fire Fighter's Lobby Control modules and FX-2000 Internal Annunciator / Programmable modules.



ECX-0012 Expander Chassis

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





BB-5008/BB-5014 Lobby Enclosures

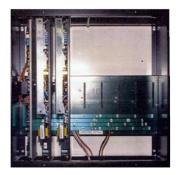
The BB-5008 and BB-5014 lobby enclosures support the FX-2009-12N Network Lobby Control chassis and provide space for internal lobby control modules. The cabinets hold up to 24 AH batteries. The door and chassis hardware are ordered separately.

BB-5008 Dimensions: 36"H x 30"W x 7"D **BB-5014 Dimensions:** 60"H x 30"W x 7"D



QBB-5001 Audio Backbox

The QBB-5001 holds one QMB-5000B Audio Motherboard and Card Cage, one QPS-5000 Audio Power Supply, one QBC-5000B Audio Battery Charger and up to 40 Ah batteries.



QMB-5000B Audio Motherboard and Card Cage

The QMB-5000B supports 7 QAA style audio amplifiers. The QMB-5000B requires one QPS-5000N Audio Power Supply and one QBC-5000N Audio Battery Charger and mounts in the QBB-5001 Audio Backbox.



QPS-5000N Audio Power Supply

The QPS-5000N supports up to 360 watts and mounts in the QBB-5001 Audio backbox.



QBC-5000N Audio Battery Charger

The QBC-5000N will charge up to 65 Ah batteries and mounts in QBB-5001 Audio Backbox.

Note: The QBB-5001 Audio Backbox will hold up to 40 Ah batteries. Larger batteries will require a BC-160 Battery Cabinet.



Graphics Software



Open Graphic Navigator (OpenGN)

Mircom's Open Graphic Navigator (OpenGN) software is an advanced fire alarm management and warning system that provides building ready monitoring, control and software management solutions that allows a user to monitor remote sites from multiple operator workstations located anywhere in the world.

The OpenGN software is available in two versions: Network (OPENGN-ENT) and Non-Network (OPENGN-MINI) for use with the Mircom FX-2000 and FleX-Net Intelligent Fire Alarm Control panels. In addition Mircom offers the OpenGN Workstation that includes a UL/ULC listed All-in-One PC with an OPENGN-ENT user license.

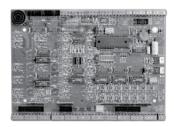
Power Supply Expansion



INX-10AC Internal Booster Power Supply Module

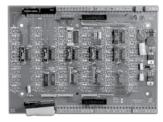
Mircom's INX-10AC is an Intelligent Booster Power Supply that extends the power capabilities of existing notification appliance circuits as well as provide power for other ancillary devices. The INX-10AC has 10 amps of power and mounts inside the BB-5014 enclosure.

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.

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.



M500-BK2 Module Mounting Bracket

The M500-BK2 Module Mounting Bracket mounts inside the BBX-FXMNS enclosure and provides space to mount up to two M500 style intelligent modules.



Local Operating Console Components



FX-LOC Lobby Operating Console

The FX-LOC Local Operating Console provides on-site monitoring/control of voice and notification appliances for Mass Notification applications. The FX-LOC enclosure supports one RAXN-LCD remote LCD annunciator, a QMP-5101N master paging microphone and one FDS-008 selector control panel (with an IM-10(A) monitor module mounted to the back) in a small compact enclosure. (Ordered separately)

Add suffix "R" for red door. Dimensions: 25"H x 15"W x 5.5"D



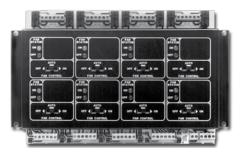
QMP-5101N Network Master Paging Control Module

The QMP-5101N Network Master Paging Control Module includes the paging microphone and common control indicators. The QMP-5101N interconnects between other QMP telephone modules at the FX-MNS and within the associated FX-LOC units. The QMP-5101N occupies one module space in the FX-LOC enclosure.



RAXN-LCD Remote LCD Annunciator

The RAXN-LCD Remote LCD Annunciator is equipped with a 4 line x 20 character back-lit alphanumeric LCD display that provides the exact functions as the FX-MNS main display. The RAXN-LCD occupies one display position in the FX-LOC enclosure.



FDS-008 Selector Control Panel

The FDS-008 Selector Control Panel provides eight audio area selection switches. The FDS-008 is power connected from the RAXN-LCD and connected within the FX-LOC to the IM-10(A) Ten Input Monitor Module. The FDS-008 occupies one display position in the FX-LOC enclosure.



IM-10(A) Ten Input Monitor Module

The IM-10(A) Ten Input Monitor module provides eight relay contact connections from the FDS-008 Selector Control Panel. In addition it provides an SLC connection the FX-MNS, if required. The IM-10(A) mounts behind the FDS-008 moudle in the FX-LOC enclosure.



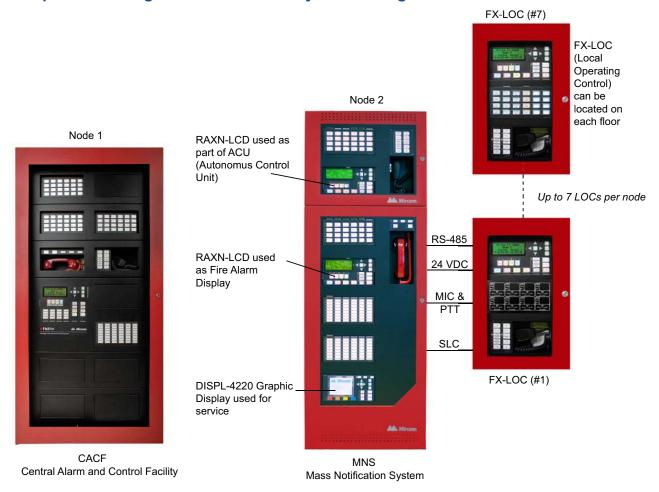
Mircom Mass Notification System

Mircom's FleX-Net Intelligent Fire Alarm & Emergency Communications Network is comprised of an Autonomous Control Unit (MNS-ACU) and the FX-LOC Local Operating Console that complies with the UL 2572 requirements for Mass Notification Systems (MNS).

The FX-LOC Local Operating Console along with the FleX-Net Network Fire Alarm provides compliance with the UL 2572 requirements for Mass Notification Systems (MNS).

The MNS-ACU Autonomous Control Unit is comprised of a BBX-FXMNS enclosure that includes a RAXN-LCD Annunciator and a Master Microphone to provide emergency audio. In addition the MNS-ACU is equipped with another RAXN-LCD which annunciates the fire alarm system events, a Master Telephone for emergency use and a DSPL-420 or DSPL-2440 LCD display which annunciates all system messages (Fire Alarm and Mass Notification). A maximum of seven FX-LOC units can be connected to a FleX-Net MNS node.

Sample In-Building Mass Notification System Configuration





Current Consumption

Model Number	Description	Standby (Amps)	Alarm (Amps)
Fire Alarm Compone	ents		
FX-2000MNS	Main Network Board	0.310	0.733
ALCN-792M	Dual Analog Loops	0.130	0.145
ALCN-792M/D	Quad Analog Loops	0.130	0.145
FNC-2000	Fire Network Controller Module	0.190	0.190
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-1004A	4 Notification Appliance Circuit Module	0.060	0.258
RM-1008A	8 Relay Circuit Module	0.025	0.150
FDX-008/KI	Fan Damper Control Module	0.015	0.035
DSPL-420	Narrow Display	0.024	0.025
DSPL-2440	Graphic Display	0.029	0.035
UDACT-300A	Dialer Module	0.045	0.120
PR-300	City Tie Module	0.035	0.300
FDS-008	Selection Control Panel for MNS	0.024	112mA
RAX-1048(TZ)	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-1032(TZ)	Adder Annunciator Chassis	0.050	32 zone active: 0.300
AGD-048	Adder Graphic Driver Board	0.035	# of LEDs x 4mA
IPS-2424	Programmable Input Switches Module	0.010	0.015
Audio Components		·	
ANC-5000	Audio Network Controller Module	0.255	0.265
TNC-5000	Telephone Network Controller Module	0.195	0.215
QAA-5160-70/25	1 Zone 60W Amplifier	0.055	0.350
QAA-5230-70/25	2 Zone 30W Amplifier	0.055	0.350
QAA-5230S-70/25	2 Zone 30W Amplifier (split)	0.055	0.350
QAA-5415-70	4 Zone 15W Amplifier, 70V	0.055	0.350
QAA-5415-25	4 Zone 15W Amplifier, 25V	0.055	0.350
QMP-5101N	Master Paging Module	0.004	0.012
QMP-5101NV	Vertical Master Paging Module	0.004	0.012
QMT-5302N	Master Telephone Module	0.003	0.013
QMT-5302NV	Vertical Master Telephone Module	0.003	0.013
QAZT-5302	Paging/Telephone Zone Module	0.010	0.015

Electrical Specifications

Fire Alarm 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.
Battery Type	24VDC, Gel-Cell/Sealed Lead-Acid
Battery Charging Capability	17-65 AH batteries
Audio Primary Input Power (QPS-5000N)	120 VAC, 60Hz / 240 VAC, 50Hz 12 Amps

Dimensions for Annunciator Module Enclosures

Model	Dimensions
BB-1001	9"H x 12.75"W x 1.2"D
BB-1002	18"H x 12.75"W x 1.2"D
BB-1003	26.4"H x 12.75"W x 1.2"D
BB-1008	33"H x 22.5"W x 1.25"D
BB-1012	45"H x 22.5"W x 1.25"D



Ordering Information

Ordering In	iformation
Model	Description
Mass Notification	Control Panels
FX-2000MNS	FX-MNS Main Network Board with 12 Amp power supply and 120/240V transformer. Mounts in the BBX-FXMNS enclosure.
QMB-5000N	Integrated Audio Network Control Chassis. Mounts in the BBX-FXMNS enclosure
PS-2040	FXMNS Network Fire Alarm and Audio Power Supply (120/240V)
BBX-FXMNS	Black backbox enclosure with white doors for FX-2000MNS. Add suffix 'R' for red doors.
DSPL-420	4 x 20 Main LCD Display for FX-2000MNS
DSPL-2440	Graphical Main Display for FX-2000MNS
FX-LOC	Local Operating Console enclosure for FXMNS
Paging/Telephone	Modules
QMP-5101NV	Master Network Paging Control Module for FXMNS, Vertical Mount. For use in BBX-FXMNS.
QMT-5302NV	Master Network Telephone Module for FXMNS, Vertical Mount. For use in BBX-FXMNS.
QMP-5101N	Master Network Paging Control Module
QMT-5302N	Master Network Telephone Control Module
QAZT-5302	Paging and Telephone Selector Panel
Network Controlle	r Modules
FNC-2000	Fire Network Controller Module
FOM-2000-SP	Fiber Optic Network Adder Module
ANC-5000	Audio Network Controller Module
TNC-5000	Telephone Network Controller Module
Adder Loop Contro	oller Modules
ALC-792M	Network Quad Loop Controller Module
ALC-792D	Daughter board for ALC-792M Quad Loop Controller Module
Adder Hardwire M	odules
DM-1008A	Eight Class B (Style B) or 4 Class A (Style D) Initiating Circuit Module
SGM-1004A	Four Class A/B (Style Z/Y) Notification Appliance 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)
Adder Auxiliary Mo	odules
UDACT-300A	Digital Alarm Communicator Transmitter/Dialer Module
PR-300	Polarity Reversal and City Tie Module
Remote Annuncial	tors
RAXN-LCD	Remote Network LCD Annunciator c/w 4 x 20 LCD display
RAXN-LCDG	Remote Graphic LCD Annunciator
RAM-1032TZ	Main Remote LED Annunciator c/w 32 Bi-Colored LEDs
RAX-1048TZ	Programmable LED Annunciator Module c/w 48 Bi- Coloured LEDs and 48 Trouble LEDs
Programmable Mo	dules
IPS-2424	Programmable Input Switches Module c/w 24 selector switches and 24 bi-coloured LEDs
FDX-008	Fan Damper Control Module

Graphic Annunciator Driver Modules			
MGD-32	Main Graphic Driver Module c/w 32 Supervised Outputs		
AGD-048	Adder Graphic Driver Module c/w 48 Supervised Outputs		
Audio Amplifiers			
QAA-5415-70	70 Volt Quad 15 Watt Amplifier		
QAA-5415-25	25 Volt Quad 15 Watt Amplifier		
QAA-4CLA	Class 'A' (Style 'Z') Converter Module for QAA-5415-25 and QAA-5415-70 Amplifiers		
QAA-5230S-70/25	25 or 70 Volt Dual 30 Watt Amplifier split 'A' 'B' circuits per floor		
QAA-4CLAS	Class 'A' (Style 'Z') Converter Module for QAA-5230S-70/25 and QAA-5230S-525-70/25 Amplifiers		
QAA-5230-70/25	25 or 70 Volt Dual 30 Watt Amplifier		
QAA-5160-70/25	25 or 70 Volt 60 Watt Amplifier		
Graphics Software			
OPENGN-MINI	Open Graphic Navigator Software, Mini Edition for standalone FleX-Net Systems		
OPENGN-ENT	Open Graphic Navigator Software, Enterprise Edition for FleX-Net Network Systems		
OPENGN-CTRL	Open Graphic Navigator Workstation c/w Enterprise Edition and UL/ULC listed computer		
Power Supply Mode	ule		
INX-10AC	Internal Booster Power Supply Module		
Fire & Audio Expan	sion Components and Enclosures		
FX-2009-12	Large Network Main Chassis. Mounts in the BB-5000 series enclosures.		
ECX-0012	Expander Chassis for the FX-2009-12N. Mounts in the BB-5000 series enclosures.		
BB-5008	Lobby Control 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 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.		
QBB-5001	Audio Backbox		
QMB-5000B	Audio Motherboard and Card Cage		
QPS-5000N	Audio Power Supply (120/240V)		
QBC-5000N	Audio Battery Charger		
Mounting Brackets			
M500-BK-9	M500 Series Mounting Bracket. Holds up to 9 modules in a BB-5000 Series enclosure.		
M500-BK-2	M500 Series Mounting Bracket. Holds up to 2 modules in a BBX-FXMNS enclosure.		
FX-LOC Componen	FX-LOC Components		
FDS-008	Selector Control Panel		
IM-10	Ten Input Monitor Module (Add suffix "A" for ULC model.)		

NOT TO BE USED FOR INSTALLATION PURPOSES.



25 Interchange Way Vaughan, Ontario L4K 5W3 Telephone: (905) 660-4655 Fax: (905) 660-4113

Web page: http://www.mircom.com

U.S.A. 4575 Witmer Industrial Estates Niagara Falls, NY 14305 Toll Free: (888) 660-4655 Fax Toll Free: (888) 660-4113

Email: mail@mircom.com

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BATTERIES

The rechargeable batteries are of sealed lead calcium maintenancefree construction with a fully gelled electrolyte in a polypropylene case. These batteries will not leak or spill even if left upside down for extended periods of time.

ELECTRICAL SPECIFICATIONS

Nomi	nal voltage	12 volts

Charging voltage

Float 13.5 - 13.8 VDC Cycle 14.4 - 14.8 VDC

Operating Temp. Range

Discharge -76° F to $+122^{\circ}$ F

 $(-60^{\circ} \text{C to } +50^{\circ} \text{C})$

Charge $-4^{\circ} F \text{ to } +122^{\circ} F$ $(-20^{\circ} C \text{ to } +50^{\circ} C)$

0°C)





PS1270





PS12180

PS12350, PS12550

BATTERY FEATURES

- Long Life
- Completely Sealed
- Charge and Discharge in any Position
- Low Self Discharge
- Maintenance Free

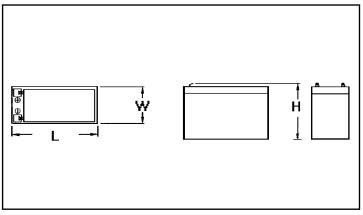
SPECIFICATIONS

Model	Capacity Ter (20 hr. rate)	rminal Type	Dimensions	Weight
PS1270	7 AH	Faston tab ".187" series	5.11 cm L x 10.03 cm H x 6.6 cm W 5.95" L x 3.95" H x 2.6" W	5.75 lbs. (2.61 kg)
PS12120	12 AH	Faston tab ".250" series	12.48 mm L x 5.97 mm H x 4.72 mm W 5.94" L x 3.70" H x 3.98" W	9.33 lbs. (4.24 kg)
PS12180	18 AH	Terminal posts w/5 mm nut & bolt connectors	18.11 cm L x 16.69 cm H x 7.59 cm W 7.13" L x 6.57" H x 2.99" W	13.2 lbs. (5.99 kg)
PS12350	35 AH	"L" blade w/.6.4 mm hole	19.69 cm L x 18.54 cm H x 12.95 cm W 7.75" L x 7.3" H x 5.1" W	24lbs. (10.89 kg)
PS12550	55 AH	"L" blade w/6.4 mm hole at negative, 8.9 mm	26.04 cm L x 22.23 cm H x 17.27 cm W 10.25" L x 8.75" H x 6.8" W	39 lbs. (17.69 kg)

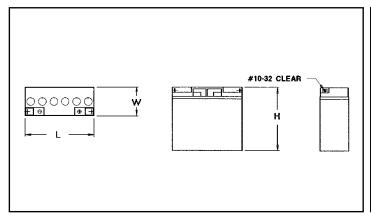
Specifications are provided for information only and are believed to be accurate. However, no responsibility is assumed by Mammoth Fire Alarms, Inc. for their use.

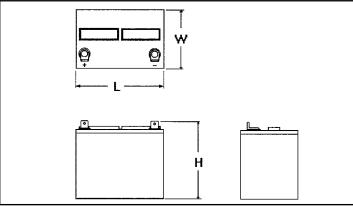
Specifications subject to change without notice.

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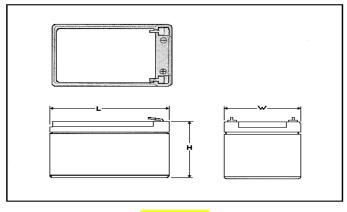
PS1270





PS12180

PS12350, PS12550



PS12120

ORDERING INFORMATION

Model	Description
PS1270	Sealed lead calcium battery, 7 AH
PS12120	Sealed lead calcium battery, 12 AH
PS12180	Sealed lead calcium battery, 18 AH
PS12350	Sealed lead calcium battery, 35 AH
PS12550	Sealed lead calcium battery, 55 AH

Specifications are provided for information only and are believed to be accurate. However, no responsibility is assumed by Mammoth Fire Alarms, Inc. for their use.

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3/10/2015 Mancini Electric Maine College of Art - Art Gallery and Music Program 179 Sheridan St 522 Congress St Portland Portland ME 04101 ME SIGNAL CKT # INX-10A **AREA** Remote Panel - 1 Remote circuits available Existing load not to exceed 2.5A 80% Existing ckt INX-10A 2.0000 80% Existing load not to exceed 2.5A 2 Existing ckt 2.0000 NX-10A 80% 3 Existing ckt Existing load not to exceed 2.5A NX-10A 2.0000 80% Existing load not to exceed 2.5A INX-10A 4 Existing ckt 2.0000 80% INX-10A 5 Existing load not to exceed 2.5A Existing ckt 2.0000 INX-10A 6 **Aux Power** Available Power from selected device 10.00 INX-10A 2.50 Ring Time, in Mins 15 (Total Alarm Current / (60 / Ring Time)) 4.80 Standby Time, in Hı 24 (Total Supervisory Current * Standby Time) AH Required ------7.30 8.76

3/10/2015 Mancini Electric Maine College of Art - Art Gallery and Music Program 179 Sheridan St 522 Congress St Portland Portland ME 04101 ME SIGNAL CKT # INX-10A **AREA** Remote Panel - 2 Remote circuits available Existing load not to exceed 2.5A 80% Existing ckt INX-10A 2.0000 80% Existing load not to exceed 2.5A 2 Existing ckt 2.0000 NX-10A 80% 3 Existing ckt Existing load not to exceed 2.5A NX-10A 2.0000 80% Existing load not to exceed 2.5A INX-10A 4 Existing ckt 2.0000 80% INX-10A 5 Existing load not to exceed 2.5A Existing ckt 2.0000 INX-10A 6 **Aux Power** Available Power from selected device 10.00 INX-10A 2.50 Ring Time, in Mins 15 (Total Alarm Current / (60 / Ring Time)) 4.80 Standby Time, in Hı 24 (Total Supervisory Current * Standby Time) AH Required ------7.30 8.76

Tel. (978) 934-9130 Sales

Mammoth Fire Alarms

Incorporated

Lowell, MA 01854-3126 1-800-995-9808 Fax (978) 934-9131

STANDBY BATTERY CALCULATIONS

SOLD TO:

Created: 2/5/2015 Updated: 3/8/2015

JOB NA	ME			
JOB IVA		Art Gallery and Music Program		
	522 Congress St	Alt Gallery and Music Program		
	Portland			
	MF			
	FACP Replacement		SUP	ALARM
QTY	PART #	DESCRIPTION	CURRENT	CURRENT
QII	Main FACP	DESCRIPTION	CONNENT	CONNENT
1	BBX-FXMNSR	COMPLETE ENCLOSURE (FX2000MNS)		
	FX/2000MNS	NETWORK FACP 1/SLC 4/NAC 12A	0.3100	0.7330
	DSPL-420	MODULAR LCD DISPLAY (4 LINES/20 CHAR EA)	0.0240	0.7330
	PS-2040	PANEL/AUDIO POWER SUPPLY TRANSFORMER	0.0240	0.0230
	ALCN-792M	NETWORK ANALOG LOOP MODULE		
	RM/1008A		0.1300	0.1450
		8 RELAY CIRCUIT MODULE	0.0250	0.1500
	PR/300	POLARITY REVERSAL/MASTER BOX MODULE	0.0500	0.3000
	FNC-2000	FIRE NETWORK CONTROL BOARD	0.1900	0.1900
	QMB-5000N	AUDIO CARD CAGE (HOLDS 4QAA'S)	-	- 0.0050
	ANC-5000	AUDIO NETWORK CONTROL BOARD	0.2550	0.2650
	QAA/5160/70/25	1 60 WATT CKT AMPLIFIER 25/70 VOLTS	0.1650	1.0500
	NOTES	existing battery cabinet to be reused	-	-
2	PS12550	55 AH 12V SEALED BATTERY	-	-
	Audio Control			
	FX-LOCR	LOCAL OPERATOR CONSOLE CABINET	-	-
	RAXN/LCD	FLEXNET LCD ANNUNCIATOR (4X20)	0.1000	0.1500
	QMP-5101N	NETWORK MASTER MIC/PAGING MODULE	0.0040	0.0120
1	QAZT-5302DS	24 SW PAGING/TELEPHONE SELECTOR MODUL	0.0100	0.0150
	TOTAL		1.2630	3.0350
15	Ring Time, in Min	(Total Alarm Current / (60 / Ring Time))	0.7588	ALM A/H
	Standby Time, in Hrs	(Total Supervisory Current * Standby Time)	30.3120	SUP A/H
24	Joianaby Time, III IIS	Total Amp Hours Required		001 7/11
		Standby Reserve 20% 20	37.2850	
		Otaliaby Neselve 2070	57.2000	l