## INTELLIGENT FIRE ALARM \& EMERGENCY COMMUNICATIONS NETWORK FX-MNS

FleXNet


## Description

Mircom's FleX-Net ${ }^{\text {TM }}$ 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


CATALOG NUMBER


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, TNC5000 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 (BBXFXMNSR) doors.
BBX-FXMNS Dimensions: 61.5 " $\mathrm{H} \times 20$ "W x 9"D


DSPL-420 Main Display Module
The DSPL-420 Main Display Module provides the FXMNS 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 QMT5302NV 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-200912N. 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-200912 N . It seamlessly connects to the interface on the FNC2000 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
TheALCN-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-1004AFour Notification Appliance Circuit Module The SGM-1004A provides 4 Style Z/Y(Class A/B) NotificationAppliance 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 FXMNS 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 mAmax. (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 $\times 20$ character back-lit alphanumeric LCD display that provides an exact replica of the main FleXNet 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-1032TZMain Remote LEDAnnunciator provides common annunciator functions and 32 points of LED annunciation. The RAM-1032TZ has indicators forA.C. On, Common Trouble and Signal Silence and controls forSystem 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 ordamper 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 40 character back-lit graphical LCD display that is used to display 9 events perpage. 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

 ModuleThe 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, BB1000 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.

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 QMT5302N supports the QAZT-5302 Paging and Telephone selector modules. The QMT-5302N 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 QMP5101N 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.

Annunciator/Programmable Module Enclosures
BB-1001: 9"H x 12.75"W x 1.2"D
BB-1002: 18 " $\mathrm{H} \times 12.75$ " $\mathrm{W} \times 1.2^{\prime \prime} \mathrm{D}$
BB-1003: 26.4 " $\mathrm{H} \times 12.75$ "W x 1.2 "D
BB-1008: $33^{\prime \prime} \mathrm{H} \times 22.5^{\prime \prime} \mathrm{W} \times 1.25$ "D
BB-1012: 45"H x 22.5"W x 1.25"D

## Audio Amplifiers



QAA-5415-70 and QAA-5415-25Quad15WattAmplifiers 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 BB5000 Series enclosure and supports Audio Lobby Control modules, Fire Fighter's Lobby Control modules and FX2000 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.


## 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 QPS5000N 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.

BB-5008 Dimensions: 36 " $\mathrm{H} \times 30$ "W x 7"D
BB-5014 Dimensions: 60 " $\mathrm{H} \times 30$ "W x 7"D

## 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 (OPENGNMINI) 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 BB5000 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 FXLOC enclosure supports one RAXN-LCD remote LCD annunciator, a QMP-5101N master paging microphone and one FDS-008 selector control panel (with an IM10(A) monitor module mounted to the back) in a small compact enclosure. (Ordered separately)
Add suffix "R" for red door.
Dimensions: $25^{\prime \prime} \mathrm{H} \times 15^{\prime \prime} \mathrm{W} \times 5.5^{\prime \prime} \mathrm{D}$


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 FXLOC 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 Components |  |  |  |
| 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 <br> 2 zone active: 0.170 <br> 4 zone active: 0.275 <br> 6 zone active: 0.370 <br> 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 | 112 mA |
| 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 <br> Power | $120 \mathrm{~V} 60 \mathrm{~Hz} / 240 \mathrm{~V}, 50 \mathrm{~Hz}$ <br> $4 \mathrm{Amps} / 2 \mathrm{Amp}$ (primary) |
| :--- | :--- |
| Power Supply Ratings | 12 Amps . max. (secondary) |
| For NAC Circuits | 24 VDC unfiltered, 10 Amps. max. |
| Battery Type | 24 VDC, Gel-Cell/Sealed Lead-Acid |
| Battery Charging Capability | $17-65 \mathrm{AH}$ batteries |
| Audio Primary Input Power <br> (QPS-5000N) | $120 \mathrm{VAC}, 60 \mathrm{~Hz} / 240 \mathrm{VAC}, 50 \mathrm{~Hz}$ <br> 12 Amps |

Dimensions for Annunciator Module Enclosures

| Model | Dimensions |
| :--- | :--- |
| BB-1001 | $9 " \mathrm{H} \times 12.75$ "W x 1.2"D |
| BB-1002 | $18 " \mathrm{H} \times 12.75$ "W x 1.2"D |
| BB-1003 | $26.4 " \mathrm{H} \times 12.75 " \mathrm{~W} \times 1.2$ "D |
| BB-1008 | $33 " \mathrm{H} \times 22.5 " \mathrm{~W} \times 1.25 " \mathrm{D}$ |
| BB-1012 | $45 " \mathrm{H} \times 22.5 " \mathrm{~W} \times 1.25 " \mathrm{D}$ |

Ordering Information

| Model | Description |
| :---: | :---: |
| Mass Notification Control Panels |  |
| FX-2000MNS | FX-MNS Main Network Board with 12Amp power supply and $120 / 240 \mathrm{~V}$ 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 $(120 / 240 \mathrm{~V})$ |
| BBX-FXMNS | Black backbox enclosure with white doors for FX2000MNS. Add suffix 'R' for red doors. |
| DSPL-420 | $4 \times 20$ 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 Controller 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 Controller Modules |  |
| ALC-792M | Network Quad Loop Controller Module |
| ALC-792D | Daughter board for ALC-792M Quad Loop Controller Module |
| Adder Hardwire Modules |  |
| 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 Modules |  |
| UDACT-300A | Digital Alarm Communicator Transmitter/Dialer Module |
| PR-300 | Polarity Reversal and City Tie Module |
| Remote Annunciators |  |
| RAXN-LCD | Remote Network LCD Annunciator c/w $4 \times 20$ 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 $48 \mathrm{Bi}-$ Coloured LEDs and 48 Trouble LEDs |
| Programmable Modules |  |
| 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 Module |  |
| INX-10AC | Internal Booster Power Supply Module |
| Fire \& Audio Expansion 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 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.

## Mircom

Canada
25 Interchange Way
Vaughan, Ontario L4K 5W3
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Fax: (905) 660-4113
U.S.A.

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

## 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

| Nominal voltage <br> Charging voltage <br> Float <br> Cycle | 12 volts |
| :--- | :--- |
| Operating Temp. Range <br> Discharge | $13.5-13.8 \mathrm{VDC}$ |
|  | $-76^{\circ} \mathrm{F}$ to +14.8 VDC |
| Charge | $\left(-60^{\circ} \mathrm{C}\right.$ to $+50^{\circ} \mathrm{F}$ |
|  | $-4^{\circ} \mathrm{F}$ to $+122^{\circ} \mathrm{F}$ |
|  | $\left(-20^{\circ} \mathrm{C}\right.$ to $\left.+50^{\circ} \mathrm{C}\right)$ |



PS12180


PS12350, PS12550

## BATTERYFEATURES

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


## SPECIFICATIONS

| Model | Capacity Terminal Type <br> (20 hr. rate) |  |
| :--- | :--- | :--- |
| PS1270 | 7 AH | Faston tab ". 187 " series |
| PS12120 | 12 AH | Faston tab ".250" series |
| PS12180 | 18 AH | Terminal posts w/5 mm <br> nut \& bolt connectors <br> "L" blade w/.6.4 mm <br> hole |
| PS12350 | 35 AH | "L" blade w/6.4 mm <br> hole at negative, 8.9 mm <br> sq. cutout at positive |
| PS12550 | 55 AH |  |

Dimensions
$5.11 \mathrm{~cm} \mathrm{~L} \mathrm{x} 10.03 \mathrm{~cm} \mathrm{H} \times 6.6 \mathrm{~cm} \mathrm{~W} \quad 5.75 \mathrm{lbs} .(2.61 \mathrm{~kg})$
5.95" L x $3.95^{\prime \prime}$ H x $2.6^{\text {" W }}$
12.48 mm L x $5.97 \mathrm{~mm} \mathrm{H} \times 4.72 \mathrm{~mm} \mathrm{~W} \quad 9.33 \mathrm{lbs}$. 4.24 kg )
5.94" L x 3.70" H x 3.98 " W
18.11 cmL x $16.69 \mathrm{~cm} \mathrm{H} x 7.59 \mathrm{~cm} \mathrm{~W} \quad 13.2 \mathrm{lbs}$ ( 5.99 kg )
7.13" L x 6.57 " H x 2.99 " W
$19.69 \mathrm{~cm} \mathrm{~L} \mathrm{x} 18.54 \mathrm{~cm} \mathrm{H} \times 12.95 \mathrm{~cm} \mathrm{~W} \quad 24$ lbs. $(10.89 \mathrm{~kg})$
7.75" L x 7.3" H x 5.1" W
$26.04 \mathrm{~cm} \mathrm{~L} \mathrm{x} 22.23 \mathrm{~cm} \mathrm{H} \times 17.27 \mathrm{~cm} \mathrm{~W} \quad 39 \mathrm{lbs} .(17.69 \mathrm{~kg})$
10.25" L x 8.75 " H x $6.8^{\prime \prime}$ W

Weight


PS1270


PS12120

## ORDERING INFORMATION

| Model |
| :--- |
| PS1270 |
| PS12120 |
| PS12180 |
| PS12350 |
| PS12550 |

Model
PS1270
PS12120

PS12350
PS12550

Description
Sealed lead calcium battery, 7 AH
Sealed lead calcium battery, 12 AH
Sealed lead calcium battery, 18 AH
Sealed lead calcium battery, 35 AH
Sealed lead calcium battery, 55 AH





| Job NAME |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Maine College of Art - Art Gallery and Music Program522 Congress St |  |  |  |  |
| Portland |  |  |  |  |
| FACP Replacement |  |  | $\begin{gathered} \text { SUP } \\ \text { CURRENT } \end{gathered}$ | ALARM CURRENT |
| QTY | PART \# | DESCRIPTION |  |  |
|  | Main FACP |  |  |  |
| 1 | BBX-FXMNSR | COMPLETE ENCLOSURE (FX2000MNS) |  |  |
| 1 | FX/2000MNS | NETWORK FACP 1/SLC 4/NAC 12A | 0.3100 | 0.7330 |
| 1 | DSPL-420 | MODULAR LCD DISPLAY (4 LINES/20 CHAR EA) | 0.0240 | 0.0250 |
| 1 | PS-2040 | PANEL/AUDIO POWER SUPPLY TRANSFORMER | - |  |
| 1 | ALCN-792M | NETWORK ANALOG LOOP MODULE | 0.1300 | 0.1450 |
| 1 | RM/1008A | 8 RELAY CIRCUIT MODULE | 0.0250 | 0.1500 |
| 1 | PR/300 | POLARITY REVERSAL/MASTER BOX MODULE | 0.0500 | 0.3000 |
| 1 | FNC-2000 | FIRE NETWORK CONTROL BOARD | 0.1900 | 0.1900 |
| 1 | QMB-5000N | AUDIO CARD CAGE (HOLDS 4QAA'S) |  | - |
| 1 | ANC-5000 | AUDIO NETWORK CONTROL BOARD | 0.2550 | 0.2650 |
| 3 | QAA/5160/70/25 | 160 WATT CKT AMPLIFIER 25/70 VOLTS | 0.1650 | 1.0500 |
| 1 | NOTES | existing battery cabinet to be reused | - |  |
| 2 | PS12550 | 55 AH 12V SEALED BATTERY |  |  |
|  | Audio Control |  |  |  |
| 1 | FX-LOCR | LOCAL OPERATOR CONSOLE CABINET |  |  |
| 1 | RAXN/LCD | FLEXNET LCD ANNUNCIATOR (4X20) | 0.1000 | 0.1500 |
| 1 | QMP-5101N | NETWORK MASTER MIC/PAGING MODULE | 0.0040 | 0.0120 |
| , | QAZT-5302DS | 24 SW PAGING/TELEPHONE SELECTOR MODUL | 0.0100 | 0.0150 |
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|  |  |  |  |  |  |  |
|  | TOTAL |  | 1.2630 | 3.0350 |
| 15 |  |  |  |  |
| 24 |  |  |  |  |  |  |
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