



## Description

The FX-400 is an Addressable Fire Alarm Control Panel, ideal for small to medium jobs.

The FX-400 is shipped pre-assembled with main board, power supply, transformer, main display, black backbox, and black or red door enclosure.

Compatible with MGC devices (MIX-4000 Series) including photo electric duct smoke detector and multi-modules. The FX-400 comes with one addressable (SLC) loop with a maximum of 240 MGC devices in total.

The FX-400 is equipped with a built-in POTs dialer. The dialer provides a means to communicate panel status to the remote central monitoring station using two dedicated phone lines.

Cabinet Dimensions	
Dimensions of Enclosure (minus built in trim ring)	14.5" W x 4.25" D x 21" H (36.83 cm x 10.79cm x 53.34cm)
Complete Dimensions of Enclosures	16.7" W x 5.7" D x 23" H (42.42cm x 14.48 x 58.42cm)
Electrical Specifications	
Primary Input Power	120VAC 60Hz / 240VAC 50Hz 1.81 Amp / 0.98 Amp (primary)
Battery Type	24VDC Gel Cell / Sealed lead acid
Temperature and Humidity Ranges	
Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity	0 to 93% relative humidity (noncondensing)

## Features

- 4 x 20 LCD display
- Main Board, Power Supply and Backbox.
- One addressable (SLC) loop with a maximum of 240 MGC devices (MIX-4000 series) in total.
- Flexible zones and group configuration options allowing for grouped inputs and outputs.
- Compatible with MGC devices (MIX-4000 Series) including photoelectric duct smoke detector and multi-modules.
- Device sub-addressing which saves physical address space for multi modules, sounder bases, relay bases and dual input module.
- Compatible with conventional detectors using MGC MIX- 4042 Conventional Zone module, refer to document LT-1023 for compatible detectors.
- Class A, Class X or Class B analog loop(s).
- Four Power Limited Class B, Class A NAC circuits (max 1.5 Amps each - 5.0 Amps total).
- NAC circuits may be configured as silenceable signal, non-silenceable signal, silenceable strobes, non-silenceable strobes, or auxiliary power output. The audible signal may be Steady, Temporal Code, California Code, or March Time.
- Supports sync strobe protocols from major manufacturers.
- USB port on core board for simple programming and firmware upgrade by local keypad or PC.
- Configurable Signal Silence Inhibit, Auto Signal Silence, and One-Man WalkTest.
- Two-stage, Alarm verification and positive alarm sequence operations.
- Dedicated common alarm, supervisory, trouble, and auxiliary alarm relays.
- Additional outputs include connections for a RTI remote trouble indicator, PR-300 Reverse Polarity Module, an RS-485 bus for connection of up to seven RAX-LCD-LITEs, RAM-3318-LCDs, SRM-312s and RA-1000 Series annunciators.
- Built-in POTs dialer which allows for the reporting of events to a monitoring facility. The UDACT/Digital Communicator can be configured for single or dual line operation and uses the Security Industry Association (SIA) and Ademco Contact ID protocols.
- Full Windows 10 compatibility
- Bypass modules IPS-2424DS and IPS-4848DS can be used when connected to this panel as remote annunciators. These modules are mounted into a series of enclosures and connected to the RAM-3318-LCD.
- Two event history logs comprised of a 400 event alarm log for alarm related events and a 400 event general log for all other events.
- Buzzer Silence can be repurposed as Auxiliary Reset
- The addressable devices will not flash their LEDs when no flashing flag is enabled.
- Each SLC current capability is 200mA in standby and 400mA in alarm. SLC Maximum line resistance 40 Ohms and maximum line capacitance 0.47uF.
- No Flashing flag is re-purposed to indicate the device will not flash its LED.
- Support 4-20mA functionality on the MIX-4042 module.
- Support Auto Suite Silence
- Buzzer Silence can be repurposed as Auxiliary Reset
- Dual relay module to operate independent relays
- Group bypass switch



NYC  
Fire Dept

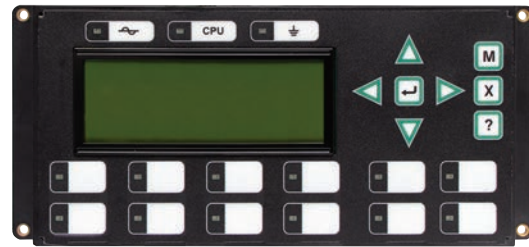


## System Components



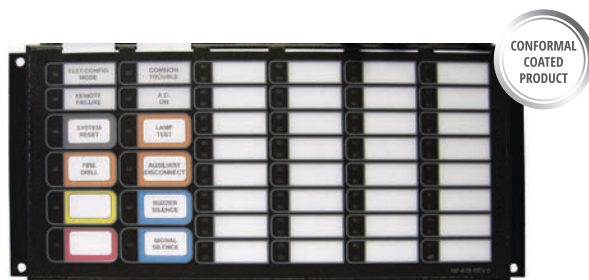
### RAM-3318-LCD Remote Annunciator

The RAM-3318-LCD Remote Annunciator is used as a component of an FX-400 Fire Alarm System. It provides an exact mimic of the FX-400 display at a remote location. The display is four lines, 20 characters back-lit alphanumeric LCD. It displays information regarding the panel, its circuits, and devices. An on-screen cursor is controlled by the cursor buttons for menu selection and control. the RAM-3318-LCD occupies one display position in the BB-1000 enclosure.



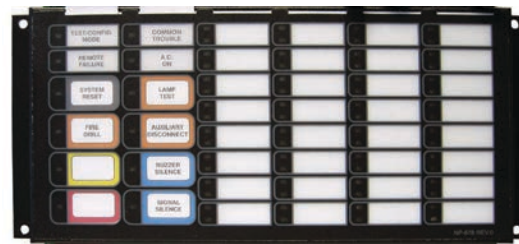
### RAX-LCD-LITE Remote LCD Annunciator

The FX-400 also supports the RAX-LCD-LITE Remote LCD Annunciator. It is equipped with a large 4-line x 20-character back-lit alphanumeric LCD display that uses a simple menu system complete with a directional keypad and switches for Enter, Menu, Cancel and Info. The RAX-LCD-LITE occupies one display position in the BB-1000 enclosures.



### RAM-1032TZDS-CC Conformal Coated Main Remote LED Annunciator

The RAM-1032TZDS-CC Conformal Coated Main Remote LED Annunciator provides common annunciator functions and 32 points of LED annunciation. The RAM-1032TZDS-CC 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. Each display point can be identified by the slide-in label that slides in beside the LED. The RAM-1032TZDS-CC occupies one display position in the BB-1001WP(R)A or BB-1002WP(R)A enclosures.



### 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 enclosure.



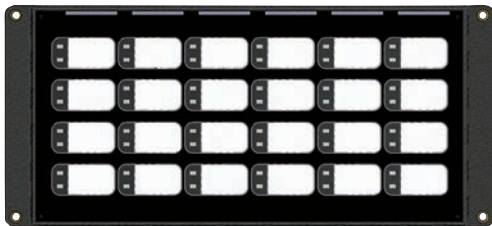
### RAX-1048TZDS-CC Conformal Coated Programmable LED Annunciator Module

The RAX-1048TZDS-CC Conformal Coated Programmable LED Annunciator Module provides 48 programmable bi-colored LEDs. The RAX-1048TZDS-CC connects to the main control unit or main annunciator module (RAM-1032TZDS) when mounted remotely. Each display point can be identified by the slide-in label that slides in besides the LED. The RAX-1048TZDS occupies one display position in the BB-1001WP(R)A or BB-1002WP(R)A Series 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 control unit or main annunciator module (RAM-1032TZDS) when mounted remotely. Each display point can be identified by the slide-in label that slides in besides the LED. The RAX-1048TZDS occupies one display position in the BB-1000 Series enclosures.



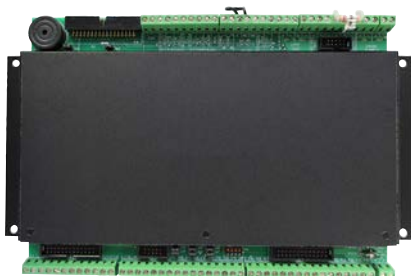
#### PS-2424DS Programmable Input Switches Module

The IPS-2424DS provides 24 programmable switches that can be configured for zone bypass. The IPS-2424DS connects to the main panel or the remote LCD annunciator when mounted remotely. The IPS-2424DS occupies one display position in the BB-1000 Series enclosures.



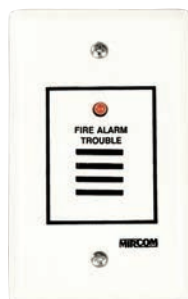
#### AGD-048 Graphic Annunciator Adder Driver Board

The AGD-048 Adder Graphic Driver Module can be used with the MGD-32 Master Graphic Driver modules, or if located remotely it must be connected and mounted with the RAX-LCD Shared Display. The AGD-048 will support an additional 48 supervised outputs. As with the master modules, the AGD-048 will support both LEDs and incandescent lamps.



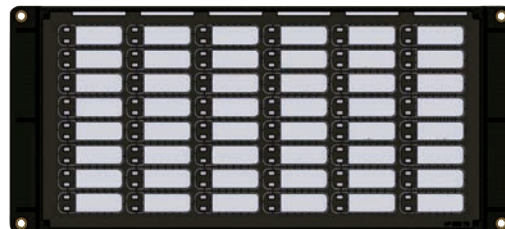
#### MGD-32 Master Graphic Driver Module

For use with FX-400 Fire Alarm Control Panels. The MGD-32 Master Graphic Driver Module provides common control inputs for the switches such as System Reset, Signal Silence, Auxiliary Disconnect, Fire Drill, Lamp Test and Acknowledge.



#### RTI-1 Trouble Remote Indicator

Mircom's Remote Trouble Indicator provides remote annunciation of fire alarm troubles. The RTI-1 mounts onto a standard single gang electrical box. The RTI-1 can be used with any of Mircom's fire alarm control panels.



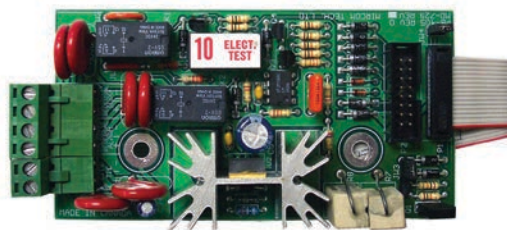
#### IPS-4848DS Programmable Input Switches Module

The IPS-4848 provides 48 programmable switches that can be configured for zone bypass. The IPS-4848DS connects to main control unit or the remote LCD annunciator when mounted remotely. The IPS-4848DS occupies one display position in the BB-1000 Series enclosures.



#### UIMA4 Interface for Configuring MGC Fire Panels

The UIMA4 is an interface for configuring FX-400. The UIMA4's ribbon cable can be disconnected and replaced – the replacement part number is RPL-WC-25022 (it comes with 3 replacement cables). The UIMA4 interface has 3 connectors: 9 pin male serial connector, USB B female connector, and 10 pin female connector.



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

The PR-300 provides outputs for city box and polarity reversal applications. As a city tie module, the PR300 provides an interface between the control panel indicating circuits and a master box. It provides off-premises signal transmission for systems that must comply with NFPA requirements for Auxiliary Protective Systems. As a polarity reversal module, the PR-300 provides an interface between the control panel and a reverse polarity receiver.



#### MP-300 End of Line Plates

Mircom's MP-300 is a 3.9K End Of Line resistor for use with Mircom conventional panels and detection circuits.



#### BB-1001WP(R)A Outdoor Weather Protected Enclosure

The BB-1001WP(R)A is a complete enclosure that comes with either a RED or WHITE door, a black back-box, two keys and a durable lock at the top of the door. The door comes hinged to the bottom side of the box for added weather protection. The box is capable of handling one RAM-1032TZDS-CC Main Annunciator Chassis which provides up to 32 points of annunciation. RAM-1032TZDS-CC is ordered separately conform with the UL, ULC installation requirements.

**Note: there is no need for thermostat or heater. RAM-1032TZDS-CC must be ordered separately to match UL, ULC installation requirements.**

Dimensions	11-5/32" H x 12-15/16" W x 3-1/2" (283mm x 329mm x 89mm)
Rated for Outdoor Enviroment	+50°C to -40°C (-122°F to -40°F)
Wet Location	95% R.H. @60°C



#### BB-1002WP(R)A Outdoor Weather Protected Enclosure

The BB-1002WP(R)A is a complete enclosure that comes with either a RED or WHITE door, a black back-box, two keys and a durable lock at the top of the door. The door comes hinged to the bottom side of the box for added weather protection. The box is capable of handling one RAM-1032TZDS-CC Main Annunciator Chassis which provides up to 32 points of annunciation and one RAX1048TZDS-CC Adder Annunciator, which provides up to 48 points of annunciation. RAM-1032TZDS-CC and RAX1048TZDS-CC are ordered separately to match the UL, ULC installation requirements.

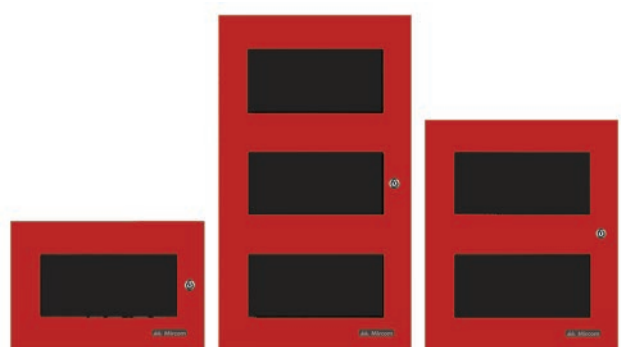
**Note: there is no need for thermostat or heater. RAM-1032TZDS-CC and RAX-1048TZDS-CC must be ordered separately to match UL, ULC installation requirements.**

Dimensions	17-15/16" H x 12-15/16" W x 3-1/2" (456mm x 329mm x 89mm)
Rated for Outdoor Enviroment	+50°C to -40°C (-122°F to -40°F)
Wet Location	95% R.H. @60°C



#### SRM-312R Smart Relay Module with Red Enclosure

The SRM-312R provides twelve configurable relay circuits, rated @ 28 VDC, 1 amp (resistive). Each circuit can be configured as a Normally Open (N.O.) or Normally Closed (N.C.) contact. Each relay is equipped with an LED that is lit when the relay is energized. The relays can be configured as relay per zone (1 to 1), Common on Alarm, Common on Supervisory or programmable for a logical or adjacent zone configuration. An adjacent zone configuration will turn on an adjacent zone when the configured zone is active. A chaining configuration allows for multiple relays to turn on. The SRM-312R is DIP switch configurable and connects to the RS-485 bus. The SRM-312R come complete with a red enclosure and a CAT-30 lock and key.



#### BB-1001 / 2 / 3 Remote Annunciator Enclosures

The BB-1000 Series comes complete with a backbox, door and hinge. The enclosures doors come with Lexan windows, two keys and a durable lock. The enclosures can handle the RAM-1032TZDS, RAM-3318-LCD, RAXN-LCD-LITE, Main Annunciator Chassis.

BB-1001D / DR / DS / DB	9" H x 12.75" W x 1.85" D
BB-1002D / DR / DS / DB	18" H x 12.75" W x 1.85" D
BB-1003D / DR / DS / DB	26.4" H x 12.75" W x 1.85" D



## Ordering Information

Model	Description
<b>Panel</b>	
FX-400B	Addressable Fire Alarm Control Panel - Black door
FX-400R	Addressable Fire Alarm Control Panel - Red door
<b>Displays</b>	
RAM-3318-LCD	Remote Annunciator with 4-Line LCD Display
RAX-LCD-LITE	Remote Annunciator with 4-Line LCD Display
RAM-1032TZDS	32 Point Remote Main Annunciator with 32 Trouble and Alarm LEDs
RAM-1032TZDS-CC	Conformal Coated 32 Point Remote Main Annunciator with 32 Trouble and Alarm LEDs
RAX-1048TZDS	Adder Annunciator Chassis c/w 48 Bi-Colored LEDs
RAX-1048TZDS-CC	Conformal Coated Adder Annunciator Chassis c/w 48 Bi-Colored LEDs.
IPS-2424DS	Programmable Input Switches Module with 24 switches
PS-4848DS	Programmable Input Switches Module with 48 switches
MGD-32	Master Graphic Driver Board
AGD-048	Adder Graphic Driver Board
SRM-312R	Smart Relay Module with Red Enclosure. Supports up to 12 relays
<b>Optional Adder Modules</b>	
PR-300	Polarity reversal and City Tie Module
<b>Enclosures</b>	
BB-1001D	White Remote Annunciator Enclosure. Houses one module.
BB-1001DR	Red Remote Annunciator Enclosure. Houses one module.
BB-1001DS	Stainless Steel Remote Annunciator Enclosure. Houses one module.
BB-1001DB	Black Remote Annunciator Enclosure. Houses one module
BB-1002D	White Remote Annunciator Enclosure. Houses two modules.
BB-1002DR	Red Remote Annunciator Enclosure. Houses two modules.
BB-1002DS	Stainless Steel Remote Annunciator Enclosure. Houses two modules.
BB-1002DB	Black Remote Annunciator Enclosure. Houses two modules.
BB-1003D	White Remote Annunciator Enclosure. Houses three modules.
BB-1003DR	Red Remote Annunciator Enclosure. Houses three modules.
BB-1003DS	Stainless Steel Annunciator Enclosure. Houses three modules.
BB-1003DB	Black Annunciator Enclosure. Houses three modules.
BB-1001WPA	White Weather Protected Enclosure. Houses one module.
BB-1001WPRA	Red Weather Protected Enclosure. Houses one module.
BB-1002WPA	White Weather Protected Enclosure. Houses two modules.
BB-1002WPRA	Red Weather Protected Enclosure. Houses two modules.
<b>Accessories</b>	
RTI-1	Common Remote Trouble Indicator, Buzzer and LED
MP-300	End of Line Resistor plate. 3K9
BC-160R	External Battery Cabinet - Red
BAT-12V12A	Battery 12AH
BAT-12V18A	Battery 18AH
BAT-12V26A	Battery 26AH (To house BAT-12V26A (26 AH) batteries, an external BC-160R Battery Cabinet is required.)
UIMA4	Interface for Configuring MGC Fire Panels
MGC-CONFIG-KIT4	Fire Panel Configuration KIT with UIMA4
RPL-WC-25022	Replacement Ribbon Cable for UIMA4 (Pack of 3)
ARW-VESP211-KIT	1-port Ethernet Serial Server Kit Kit includes: 1 x 1-port Ethernet Serial Server 1 x DB9 Female to 5-pin 3.8mm Terminal Block RS485 Adapter 1 x DIN Rail Kit

MGC Devices	
MIX-4001	6" Diameter Base
MIX-4002	4" Diameter Base
MIX-4003-S	4000 Series Sounder Base
MIX-4003-R	4000 Series Relay Base
MIX-4010	Photoelectric Smoke Sensor
MIX-4010-ISO	Photoelectric Smoke Sensor with Built-in Short Circuit Isolator
MIX-4020	Multi-Sensor Detector
MIX-4020-ISO	Multi-Sensor Detector with Built-in Short Circuit Isolator
MIX-4030	Tri-Mode Heat Detector
MIX-4030-ISO	Tri-Mode Heat Detector with Built-in Short Circuit Isolator
MIX-4010-DUCT	4000 Series Addressable Photoelectric Duct Smoke Detector
MIX-4010-D	Series Non-Isolated Photoelectric Duct Detector Sensor head (For replacement only)
MIX-4040-M	4000 Series Multi Input Module (6 Class A/12 class B)
MIX-4045-M	4000 Series Multi Relay Module (8 form C SPDT contacts)
MIX-4070-M	4000 Series Multi Isolator Module (8 isolator sections)
MIX-4040	Dual Input Module
MIX-4041	Mini Dual Input Module
MIX-4042	Conventional Zone Module
MIX-4045	Dual Relay Module
MIX-4046	Supervised Output Module
MIX-4050	Sync Module
MIX-4070	Short Circuit Isolator Module
MIX-4090	MGC Devices Programmer
MS-401MPU	Addressable Single Stage Manual Station MP
MS-407MPU	Addressable Single Stage Manual Station MP with Additional N.C. Switch
MS-710MPU	Addressable Key-Resettable Single Stage Dual Action Manual Station MP
MPS-810MPU	MP 1 Stage addressable double action pull station, UL
MGC Devices Accessories	
DUCT-ST1	Sampling tube width up to 1ft (0.3m) for MIX-4010-DUCT
DUCT-ST2	Sampling tube widths 1ft to 2ft (0.6m) for MIX-4010-DUCT
DUCT-ST5	Sampling tube widths 2ft to 5ft (0.6m) for MIX-4010-DUCT
DUCT-EXTEND	Sampling Tube Extension (3.5 ft) for MIX-4010-DUCT
DUCT-MB	Mounting bracket for MIX-4010-DUCT
DUCT-RG	Rubber gasket for MIX-4010-DUCT (Pack of 10 units)
BB-800	Surface back box for 800 Series manual station
BB-700	Series 700 Surface mount back box
BB-700WP	Series 700 weatherproof surface mount back box
BB-300	Mounting box, surface mount, RED



**Canada**  
25 Interchange Way Vaughan, ON L4K 5W3  
Telephone: (905) 660-4655 | 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

www.mircom.com



This document is provided by Mircom Technologies Ltd., MGC Systems Corp., or their affiliates, subsidiaries and brands, for convenience or marketing only and does not describe products or services technically. For technical information refer to technical manuals. We do not make representations or warranties regarding this information, including as to completeness or accuracy. We may change these contents at any time and reserve all rights in the contents, including copyrights, trademarks and other intellectual property.

CAT. 5981

Page 6 of 6

Rev. 10