

## MR-401

### ADDRESSABLE FIRE ALARM CONTROL PANEL



MR-401R shown with two optional RAX-1048TZDS modules

### Description

The MR-401 Addressable Fire Alarm Control Panel is an addressable panel, ideal for small to medium jobs.

The MR-401 is shipped pre-assembled with main board, power supply, black backbox, and red door enclosure.

Compatible with Secutron addressable devices (MRI-4000 Series), the MR-401 can have up to three addressable (SLC) loop with a maximum of 720 Secutron addressable devices in total.

The MR-401 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.

### Specifications

|                                 |  |
|---------------------------------|--|
| AC Input                        | 120VAC @ 60Hz / 240VAC @ 50Hz  |
| Charging Capability             | 10AH to 42AH   |
| Current Consumption             | Standby 50mA / Alarm 300mA (city tie in use) / Alarm 70mA (city tie not in use)  |
| Notification Appliance Circuits | Power limited / Regulated 24V FWR / 1.5A @ 49C per circuit / Max power allowed Total 6.0A                                      |
| Aux supply 1                    | Power limited / 24VDC regulated / 500mA max  |
| Aux supply 2                    | Resettable Power limited / 24VDC regulated / 300mA max   |
| Unfiltered supply               | Power limited / 24V FWR special application / 1.7A max at 49C  |
| Auxiliary relays                | Common Alarm/Supv./Trouble/ Auxiliary Alarm / Must be connected to a listed power limited source of supply Form C/28VDC/1A max |



NYC  
Fire Dept



### Features

- Main 4 x 20 LCD display, Main Board, Power Supply and Backbox
- One on-board addressable (SLC) loop for Secutron addressable devices (MRI-4000 Series), 240 devices per loop
- Expandable to three addressable loops for a maximum of 720 Secutron addressable devices (MRI-4000 Series), 240 devices per loop
- Flexible zone and group configuration options
- Compatible with Secutron addressable devices (MRI-4000) including photoelectric duct 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 Secutron MRI- 4042 Conventional Zone module, refer to document LT-1023SEC for compatible detectors
- Class A (DCLA), Class X (DCLC), or Class B (DCLB) analog addressable SLC loop(s)
- Four Power Limited Class B, Class A NAC circuits (max 1.5 Amps each - 6.0 Amps total)
- NAC circuits may be configured as silenceable signal, non-silenceable signal, silenceable strobes, non-silenceable strobes, or relay 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 Walk Test
- Two-stage, alarm verification, and positive alarm sequence operations
- Subsequent Alarm, Supervisory, Monitor and Trouble operation
- Dedicated common alarm, supervisory, trouble, and auxiliary alarm relays
- Additional two RAX-1048TZDS Display Adder Modules can be added to provide 48 annunciation points per Adder
- Relay Contacts for Common Alarm, Common Supervisory and Common Trouble all non disconnectable and Auxiliary Alarm Relay (disconnectable)
- Additional outputs include connections for a MR-2300T remote trouble indicator, MR-2300-PR Reverse Polarity Module, an RS- 485 bus for connection of up to seven RAX-LCD-LITES, RAM- 3500-LCDs, MR-2312-SR12s 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-3500-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.

## System Components



### RAM-3500 – Remote Annunciator

The RAM-3500-LCD provides remote annunciation through a 4 line by 20 character LCD display. It is a direct mimic of the main panel display so that the LCD, LEDs and switches are an exact duplicate of the main display. The RAM-3500-LCD provides control switches for System Reset, Signal Silence, Fire Drill and Acknowledge, four Status Queues with selector switches and LEDs for Alarm, Supervisory, Trouble and Monitor, along with a numeric keypad to access the menu functions. The RAM-3500-LCD mounts in separately orderable single unit enclosures or in larger enclosures that support up to two optional RAX-1048TZDS remote LED annunciators. All remote enclosures are equipped with a CAT-30 Lock and key. The RAM-3500-LCD occupies one display position in the MMX-BB-1000 Series enclosures.



### RAX-LCD-LITE - Remote LCD Annunciator

The MR-401 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 MMX-BB-1000 Series 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 MMX-BB-1001WP and MMX-BB-1002WP enclosures.



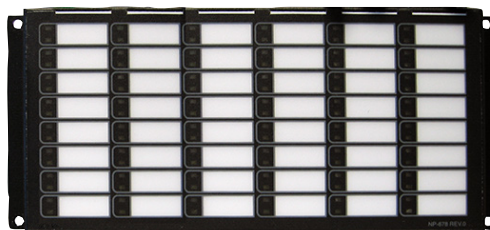
### RAM-1032TZDS Main Remote LED Annunciator

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 MMX-BB-1000 Series enclosure.



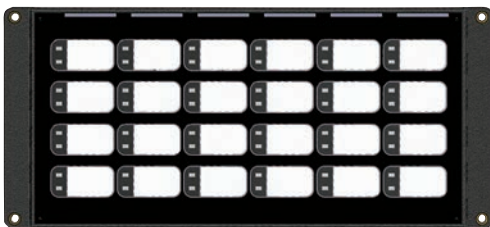
### RAX-1048TZDS-CC Conformal Coated Programmable LED Annunciator Module

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-CC) when mounted remotely. Each display point can be identified by the slide-in label that slides in besides the LED. The RAX-1048TZDS-CC occupies one display position in the MMX-BB-1001WP and MMX-BB-1002WP Series enclosures.



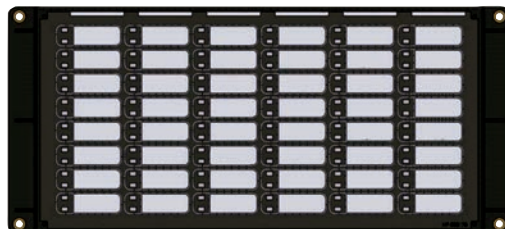
### RAX-1048TZDS Programmable LED Annunciator Module

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 beside the LED. The RAX-1048TZDS occupies one display position in the MMX-BB-1000 Series enclosures.



#### IPS-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.



#### 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 the remote LCD annunciator when mounted remotely. The IPS-4848DS occupies one display position in the BB-1000 Series enclosures.



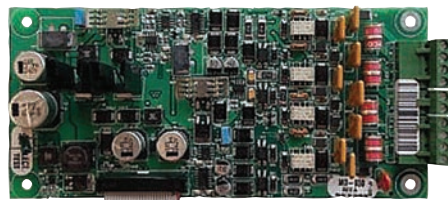
#### AGD-048 Graphic Annunciator Adder Driver Board

The AGD-048 Adder Graphic Driver Module can be used with the MGD-32 Master Graphic Driver modules. 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.



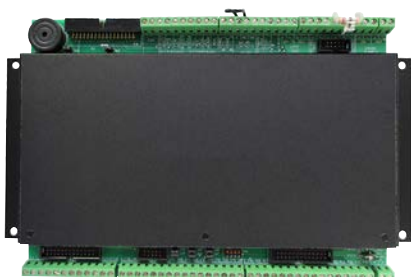
#### UIMA4 – Interface for Configuring MGC Fire Panels

The UIMA4 is an interface for configuring the MR-401. 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.



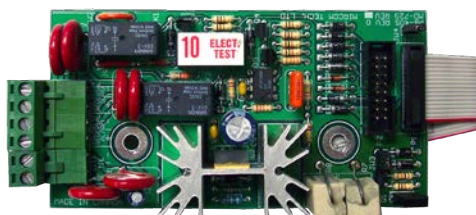
#### ALC-480 – 480 Point Dual Loop Adder

The ALC-480 provides two addressable (SLC) loops that support Secutron MRI-4000 Series devices. Each SLC supports a maximum of 240 devices, providing a total capacity of 480 devices per adder module.



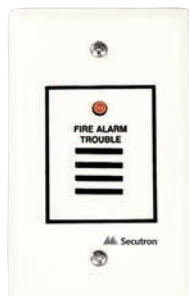
#### MGD-32 Master Graphic Driver Module

For use with the MR-401 Fire Alarm Control Panel. 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.



#### MR-2300-PR Polarity Reversal/City Tie Module

The MR-2300-PR provides reversal 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 MR-2300-PR provides an interface between the control panel and a reverse polarity receiver.



#### MR-2300T – Trouble Remote Indicator

Secutron's Remote Trouble Indicator provides remote annunciation of fire alarm troubles. The MR-2300T mounts onto a standard single gang electrical box. The MR-2300T can be used with any of Mircom's fire alarm control panels.



#### MP-300 – End of Line Plates

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





#### MMX-BB-1001WP – Outdoor Weather Protected Enclosure

The MMX-BB-1001WP is a complete enclosure that comes with a RED 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 conforms with the UL installation requirements.

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



#### MMX-BB-1002WP – Outdoor Weather Protected Enclosure

The MMX-BB-1002WP is a complete enclosure that comes with a RED 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 installation requirements.

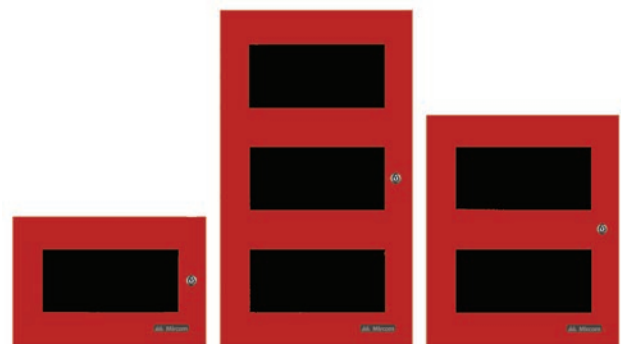
**Note: there is no need for thermostat or heater. RAM-1032TZDS-CC and RAX-1048TZDS-CC must be ordered separately to match UL installation requirements.**

|                              |   |
|------------------------------|---|
| 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  |



#### MR-2312-SR12 – Smart Relay Module with Red Enclosure

The MR-2312-SR12 provides twelve configurable form-C 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 MR-2312-SR12 is DIP switch configurable and connects to the RS-485 bus. The MR-2312-SR12 come complete with a red enclosure and a CAT-30 lock and key.



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

The MMX-BB-1000 Series comes complete with a backbox, door and hinge. The enclosure doors come with Lexan windows, two keys and a durable lock. The enclosures can handle the RAM-1032TZDS, RAM-3500-LCD, RAXN-LCD-LITE, Main Annunciator Chassis.

|               |                              |
|---------------|------------------------------|
| MMX-BB-1001DR | 9" H x 12.75" W x 1.85" D    |
| MMX-BB-1002DR | 18" H x 12.75" W x 1.85" D   |
| MMX-BB-1003DR | 26.4" H x 12.75" W x 1.85" D |

## Ordering Information

| Model                         | Description  |
|-------------------------------|--|
| <b>Panel</b>                  |  |
| MR-401R                       | Addressable Fire Alarm Control Panel - Red door  |
| MR-401RP                      | Addressable Fire Alarm Control Panel - Red door <b>U.S.A. Market Only</b>                                |
| <b>Annunciators</b>           |  |
| RAM-3500-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.                                       |
| MGD-32                        | Master Graphic Driver Board  |
| IPS-2424DS                    | Programmable Input Switches Module with 24 switches  |
| PS-4848DS                     | Programmable Input Switches Module with 48 switches  |
| AGD-048                       | Adder Graphic Driver Board   |
| MR-2312-SR12                  | Smart Relay Module with Red Enclosure. Supports up to 12 relays  |
| <b>Optional Adder Modules</b> |  |
| ALC-480                       | 480 Point Dual Loop Adder  |
| MR-2300-PR                    | Polarity reversal and City Tie Module  |
| <b>Enclosures</b>             |  |
| MMX-BB-1001DR                 | Red Remote Annunciator Enclosure. Houses one module.   |
| MMX-BB-1002DR                 | Red Remote Annunciator Enclosure. Houses two modules.  |
| MMX-BB-1003DR                 | Red Remote Annunciator Enclosure. Houses three modules.  |
| MMX-BB-1001WP                 | Red Weather Protected Enclosure. Houses one module.  |
| MMX-BB-1002WP                 | Red Weather Protected Enclosure. Houses two modules.   |
| <b>Accessories</b>            |  |
| MR-2300T                      | Common Remote Trouble Indicator, Buzzer and LED  |
| MP-300                        | End of Line Resistor plate. 3K9  |
| MMX-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 MMX-BC-160 Battery Cabinet is required). |
| BAT-12V42A                    | Battery 42AH (To house BAT-12V42A (42 AH) batteries an external MMX-BC-160 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)   |
| <b>Devices</b>                |  |
| MRI-4001                      | 6" Diameter Base   |
| MRI-4002                      | 4" Diameter Base   |
| MRI-4003-S                    | 4000 Series Sounder Base   |
| MRI-4003-R                    | 4000 Series Relay Base   |
| MRI-4010                      | Photoelectric Smoke Sensor   |
| MRI-4010-ISO                  | Photoelectric Smoke Sensor with Built-in Short Circuit Isolator  |
| MRI-4020                      | Multi-Sensor Detector  |
| MRI-4020-ISO                  | Multi-Sensor Detector with Built-in Short Circuit Isolator   |
| MRI-4030                      | Tri-Mode Heat Detector   |
| MRI-4030-ISO                  | Tri-Mode Heat Detector with Built-in Short Circuit Isolator  |
| MRI-4040                      | Dual Input Module  |
| MRI-4041                      | Mini Dual Input Module   |
| MRI-4042                      | Conventional Zone Module   |
| MRI-4045                      | Dual Relay Module  |

|                            |  |
|----------------------------|--|
| MRI-4046                   | Supervised Output Module   |
| MRI-4050                   | Sync Module  |
| MRI-4070                   | Short Circuit Isolator Module  |
| MIX-4090                   | MGC Devices Programmer   |
| MRM-401MPU                 | Intelligent Single Stage Manual Station MP   |
| MRM-407MPU                 | Intelligent Single Stage Manual Station MP with Additional N.C. Switch             |
| MRM-710MPU                 | Intelligent Key-Resettable Single Stage Dual Action Manual Station MP              |
| MIX-4010-DUCT              | 4000 Series Addressable Photoelectric Duct Smoke Detector                          |
| MIX-4010-D                 | Series Non-Isolated Photoelectric Duct Detector Sensor head (For replacement only) |
| MRI-4040-M                 | 4000 Series Multi Input Module (6 Class A/12 class B)                              |
| MRI-4045-M                 | 4000 Series Multi Relay Module (8 form C SPDT contacts)                            |
| MRI-4070-M                 | 4000 Series Multi Isolator Module (8 isolator sections)                            |
| MRM-810MPU                 | MP 1 Stage addressable double action pull station, UL                              |
| <b>Devices Accessories</b> |  |
| 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)                                 |
| MRM-800                    | Surface back box for 800 Series manual station                                     |
| MRM-700                    | Series 700 Surface mount back box  |
| MRM-700WP                  | Series 700 weatherproof surface mount back box                                     |
| BB-300                     | Mounting box, surface mount, RED   |