MR-2300 SERIES
LCD Display Fire Alarm Control Units

Description

Mircom's MR-2300 Series fire alarm control panels consist of 6 and 12 zone models which are equipped with a two line by 20 character back-lit LCD display, numerical keypad and an integrated UDACT/Digital Communicator. The MR-2300 Series family also includes remote LED and LCD annunciators as well as remote relay modules.

The MR-2300 Series panels are ideal for both new and retrofit applications. Designed for small to medium commercial, institutional and industrial occupancies, these panels are powerful enough to meet today's application demands. The MR-2300 Series panels are configurable by the keypad for onsite programming or by a PC for both onsite and remote programming. Easy to install and simple to operate and configure, the MR-2300 Series panels enable the installer to configure the system to meet their specific requirements.

The MR-2300 Series panels are equipped with a 5 Amp power supply, 4-wire resettable smoke power supply (300mA max.) (500mA) non resettable power, an interface for a Remote Trouble Indicator (RTI) and an RS-485 interface for remote LCD annunciators, LED annunciators and Remote Smart Relay modules.

All MR-2300 Series panels come complete with a red door, black backbox, durable CAT-30 lock and key and space to mount up to 12 AH batteries. Optional black trim rings are available for semi-flush mounting.

Features

- Listed to UL 864, 10th edition
- Available in 6 and 12 zone models
- Integrated UDACT/Digital Communicator on select models
- Equipped with 2 line by 20 character back-lit LCD display and numerical keypad
- Front panel and PC programmable
- Remote upload/download capabilities
- Base panel is equipped with Class "B" initiating device circuits which may be configured as Class "A" using a Class "A" converter module
- Initiating device circuits may be configured as Alarm, Verified Alarm, Waterflow Alarm, Sprinkler Alarm, Latching or Non-Latching Supervisory, Monitor and Trouble-Only
- Base panel is equipped with Class "B" Notification Appliance Circuits which may be configured as Class "A" using a Class "A" signal converter module
- Audible signals may be configured for Steady, Temporal Code, California Code and March Time
- Notification Appliance Circuits may be configured as Silenceable or Non-Silenceable for both signals and strobes
- Built-in sync protocols for the following strobe manufacturers: MGC, Amseco, System Sensor, Gentex, Faraday and Wheelock
- Relay contacts for Common Alarm, Auxiliary/Alarm (Disconnectable), Common Supervisory and Common Trouble
- Configurable Signal Silence Inhibit, Auto Signal Silence and One-Man Walk Test
- Subsequent Alarm, Supervisory, and Trouble operation
- RS-485 Interface for Remote LED Annunciators, LCD Annunciators and Remote Smart Relay Modules
- Interface for a Remote Trouble Indicator (RTI)
- Two event history logs comprised of a 200 event alarm log for alarm related events and a 200 event general log for all other events
- 5 Amp Power Supply
- Optional modules for additional internal relay circuits and City Tie/Polarity Reversal
- Optional black trim rings for semi-flush mounting
- Any combination of remote annunciators or smart relays can be used as long as the number does not exceed 6

UL   MEA approved

Features

Initiating Device Circuits

The MR-2300 Series panels are equipped with Class "B" initiating device circuits. The initiating device circuits may be configured as Class "A" using an MR-2300-A Class "A" converter adder module.

Each Initiating device circuit may be configured for one of the following modes of operation:

- Alarm (Without smoke detector verification)
- Verified Alarm (With smoke detector verification)
- Waterflow Alarm (Water flow sensors)
- Sprinkler Alarm (Sprinkler flow sensors)
- Latching Supervisory
- Non-Latching Supervisory
- Monitor (non-latching input used mainly for correlating to a relay circuit)
- Trouble-Only (for monitoring a trouble condition from an external device)

i3 Series Protocol

The MR-2300 Series panels have the i3 Series protocol built-in. The panels support the two-wire i3 Series smoke detectors (2W-B/2WT-B). These i3 series detectors communicate with the MR-2300 to provide the following status information:

Open circuit trouble
This trouble indicates that loop is broken.

Communication trouble
This trouble indicates that there is a fault in the line or the line is too noisy, the panel cannot communicate with the devices.

Dirty device
This trouble indicates that one or more devices on the i3 zone is dirty.

Out of sensitivity
This trouble indicates that one or more devices on the i3 zone is out of sensitivity range and cannot detect an alarm condition.

Freeze trouble

This trouble indicates that a device on the i3 zone has detected a freeze condition, e.g. the temperature is below 41°F / 5 °C (available only on model 2WT-B).

The built-in protocol removes the need for the 2W-MOD Maintenance Module.

Specifications

AC Input: 120VAC @ 60Hz / 240VAC @ 50Hz
Standby Power: 24VDC standby batteries
Charging Capability: 4 to 12 AH
Current Consumption:

Model	Standby	Alarm
MR-2306-D(D)R	142 mA	312 mA
MR-2312-DDR	174mA	444mA

Notification Appliance Circuits

The MR-2300 Series panels are equipped with Class "B" notification appliance circuits. The notification appliance circuits may be configured as Class "A" using an MR-2300-NC4 or MR-2300-NC2 Class "A" signal converter adder module. The audible signals may be configured for Steady, Temporal Code, California Code and March Time.

Each of the notification appliance circuits may be configured for one of the following modes of operation:

- Silenceable Signal
- Non-Silenceable Signal
- Silenceable Strobe
- Non-Sileneceable Strobe

The MR-2300 has built-in sync protocols for the following strobe manufacturers; MGC, Amseco, System Sensor, Gentex, Faraday and Wheelock.

UDACT/Digital Communicator

The MR-2300 Series panels are equipped with a fully integrated UDACT/Digital Communicator 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. The UDACT/Digital Communicator is configured via the main display and keypad on the main panel.

In addition to its reporting functions, the integrated UDACT/Digital Communicator can be used to connect to the MR-2300 panel from remote computers for uploading and downloading of configuration data. It also allows for the viewing of the event history logs. The MR-2300 Series panels have two event history logs comprised of a 200 event alarm log for alarm related events and a 200 event general log for all other events.

The integrated UDACT/Digital Communicator can be configured for either DACT or UDACT operation. In DACT mode the Digital Communicator reports common alarm, trouble and supervisory information. In UDACT mode the Digital Communicator reports point specific information.

Notification Appliance Circuits:
Power limited / 24VDC unfiltered / 1.7A @ 49°C per circuit. Maximum 5 Amps.

Aux supply (non resetable):
Power limited / 22.3VDC regulated / 500mA max

4-wire smoke supply (resetable):
Power limited/22.3VDC regulated / 300mA max

Unfiltered supply (full wave rectified):
Power limited / 24VDC unfiltered / 1.7A max at 49°C

Auxiliary Relays (Common alarm/supv/trb/ and auxiliary second alarm): Form-C / 28VDC / 1A max.

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MR-2306-DR / MR-2306-DDR Six Zone LCD Display Fire Alarm Control Panel

The MR-2306-DR and MR-2306-DDR are equipped with six Class "B" initiating device circuits and two Class "B" notification appliance circuits rated @ 1.7 Amps maximum. (Total of 5 Amps) . The MR-2306-DDR is equipped with a built-in UDACT/Digital Communicator. One MR-2300-A Six initiating device circuit Class "A" Converter Modules may be used for Class "A" wiring of the initiating device circuits. One MR-2300-NC2 Two Indicating Circuit Class "A" Converter Module may be used for Class "A" wiring of the notification appliance circuits. The cabinet will support up to 12 AH batteries. The panel can be semi-flush mounted with the optional MR-2306-FT black trim ring.

Dimensions: MR-2306-DR: 20" H x 14.5" W x 4.5" D
      MR-2306-DDR: 20" H x 14.5" W x 4.5" D
      MR-2306-FT: 22.5" H x 17" W

MR-2312-DDR Twelve Zone LCD Display Fire Alarm Control Panel with UDACT/Digital Communicator

The MR-2312-DDR is equipped with twelve Class "B" initiating device circuits and four Class "B" notification appliance circuits @ 1.7 Amps maximum. (Total of 5 Amps). One MR-2300-A Six initiating devicec circuit Class A Converter Module may be used for Class "A" wiring of the initiating device circuits. One MR-2300-NC4 Four Indicating Circuit Class "A" Converter Module may be used for Class "A" wiring of the notification appliance circuits. The MR-2312-DDR has a built-in UDACT/Digital Communicator and the cabinet will support up to 12 AH batteries. The panel can be semi-flush mounted with the optional MR-2312-FT black trim ring.

Dimensions: MR-2312-DDR: 26" H x 14.5" W x 4.5" D
      MR-2312-FT: 28.5" H x 17" W

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

The MMX-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, conforms 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.

NOT TO BE USED FOR INSTALLATION PURPOSES.
THIS INFORMATION IS FOR MARKETING PURPOSES ONLY AND NOT INTENDED TO DESCRIBE THE PRODUCTS TECHNICALLY.

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Remote Annunciators

MR-2312-ATR Remote LED Annunciators

The MR-2312-ATR provides 16 points respectively of LED annunciation. This model features bi-colored LEDs which are configurable for either Alarm (red) or Supervisory (amber). The LED annunciators have indicators for A.C. On, Common Trouble and Signal Silence and control switches for System Reset, Signal Silence, Lamp Test and Buzzer Silence. The MR-2312-ATR is equipped with a keyswitch which allows for enabling and disabling of the Common Control functions. Available in a red finish and mount in a 4-gang electrical box.

MR-2312-SR12 Smart Relay Module

The MR-2312-SR12 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 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.
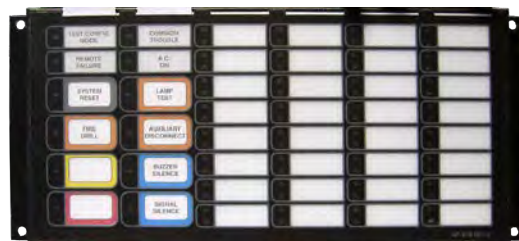

MR-2300T Remote Trouble Indicator

Secutron's Remote Trouble Indicator provides remote annunciation of fire alarm troubles. The MR-2300T mounts onto a standard single gang electrical box.
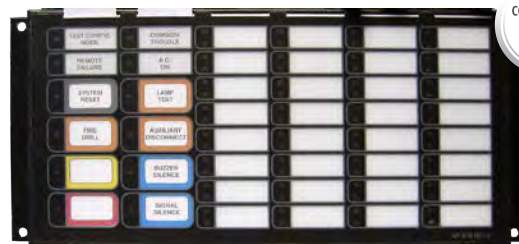

MR-2300-LCDR Remote LCD Annunciator

The MR-2300-LCDR provides LCD remote annunciation through a 2 line by 20 character LCD display. The MR-2300-LCDR provides control switches for System Reset, Signal Silence, Fire Drill and Acknowledge as well as a numeric keypad to access the menu functions. The common control functions can be disabled on a per function basis. The MR-2300-LCDR has LED indicators for A.C. On, Alarm, Supervisory, Trouble and CPU Fail. The MR-2300-LCDR comes complete with a red enclosure and a CAT-30 Lock and key.

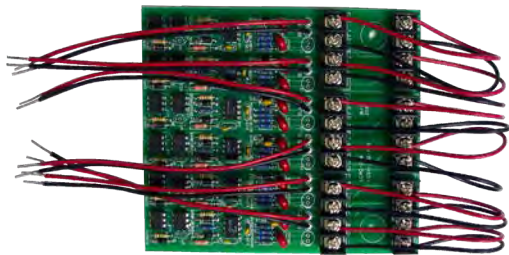## RAM-1032TZDS Main Remote LED Annunciator

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 enclosures.

CONFORMAL COATED PRODUCT

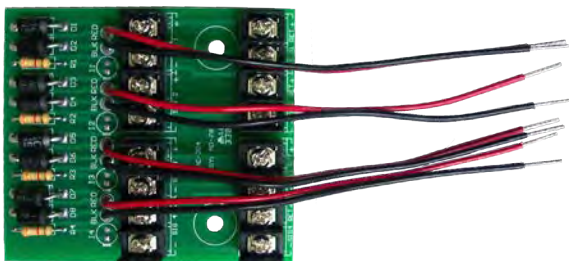## RAM-1032TZDS-CC Conformal Coated Main Remote LED Annunciator

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(R)A or MMX-BB-1002WP(R)A enclosures.

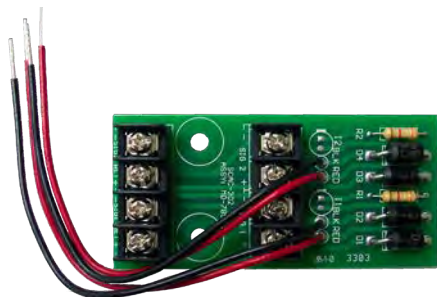**Secutron**™

Adder Modules

MR-2300-A Six Initiating Device Circuit Class "A" Converter Module

The MR-2300-A converts six Class "B" initiating device circuits on the MR-2300 main board to Class "A" circuits. The MR-2300-A is equipped with wire leads to connect to the MR-2300 main board. It mounts to the right of the main board Class "B" initiating device circuits. Two MR-2300-A modules are required to convert all twelve initiating device circuits on an MR-2312-DDR panel.
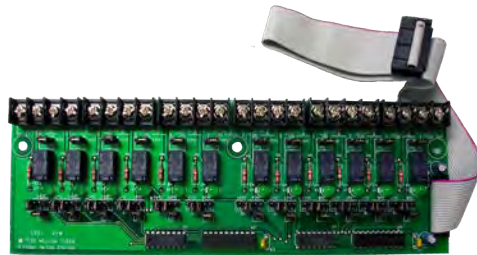

MR-2300-NC4 Four Indicating Circuit Class "A" Converter Module

The MR-2300-NC4 converts four Class "B" notification appliance circuits on the MR-2300 main board to Class "A" circuits. The MR-2300-NC4 is equipped with wire leads to connect to the MR-2300 main board. It mounts to the right of the main board Class "B" notification appliance circuits and is used with the MR-2312-DDR panel.
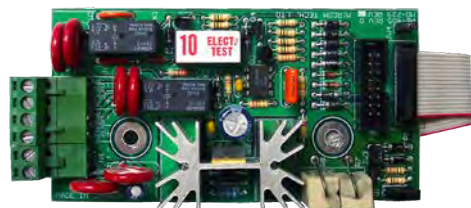

MR-2300-NC2 Two Indicating Circuit Class "A" Converter Module

The MR-2300-NC2 converts two Class "B" indicating circuits on the MR-2300 main board to Class "A" circuits. The MR-2300-NC2 is equipped with wire leads to connect to the MR-2300 main board. It mounts to the right of the main board Class "B" notification appliance circuits and is used with the MR-2306-DR and MR-2306-DDR panels.

MR-2306-R6/MR-2312-R12 Relay Circuit Adder Modules

The MR-2306-R6 provides six configurable form-C relay circuits, rated @ 28 VDC, 1 amp (resistive). The MR-2312-R12 provides twelve Form C configurable relay circuits, rated @ 28 VDC, 1 amp (resistive). On both models 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 logical or adjacent zone configuration. An adjacent zone configuration will turn on adjacent zone when configured zone is active. A chaining configuration allows for multiple relays to turn on.

MR-2300-PR Polarity Reversal/City Tie Module

The MR-2300-PR provides outputs for city box and polarity reversal applications. As a city tie module the MR-2300-PR 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. It provides off-premises signal transmission for systems that must comply with NFPA requirements.

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Ordering Information

Model	Description	1051
Control Panels		
MR-2306-DR	Six Zone LCD Display Fire Alarm Control Panel	
MR-2306-DDR	Six Zone LCD Display Fire Alarm Control Panel with built-in UDACT/Digital Communicator	
MR-2312-DDR	Twelve Zone LCD Display Fire Alarm Control Panel with built-in UDACT/Digital Communicator	
Remote Annunciators and modules		
MR-2300-LCDR	Remote LCD Annunciator (Red enclosure)	
MR-2300-LCDW	Remote LCD Annunciator (White enclosure)	
MR-2312-ATR	Sixteen zone Remote LED Annunciator	
RAM-1032TZDS	32 zone Remote LED Annunciator with individual Trouble LEDs	
RAM-1032TZDS-CC	Conformal Coated 32 Point Remote Main Annunciator with 32 Trouble and Alarm LEDs	
MR-2312-SR12	Remote Relay Module with red enclosure	
MR-2300T	Remote Trouble Indicator	
MMX-BB-1001DR	Red Semi-Flush Enclosure for RAM-1032TZDS	
MMX-BB-1001WPRA	Red Semi-Flush Weather Protected Enclosure for RAM-1032TZDS-CC	
Adder Modules		
MR-2300-A	Six Initiating Device Circuit Class "A" Converter Module	
MR-2300-NC4	Four Indicating Circuit Class "A" Converter Module	
MR-2300-NC2	Two Indicating Circuit Class "A" Converter Module	
MR-2306-R6	Six Relay Circuit Adder Module	
MR-2312-R12	Twelve Relay Circuit Adder Module	
MR-2300-PR	Polarity Reversal/City Tie Module	
Accessories		
MR-2306-FT	Black Semi-Flush Trim Ring for MR-2306 enclosures	
MR-2312-FT	Black Universal Semi-Flush Trim Ring for MR-2312 enclosures	
UIMA4	Universal Programming Tool	