



Description

Mircom's FX-3318 Addressable Fire Alarm Control Panel is an intelligent addressable multi-zoned panel with exceptional value while not compromising the Mircom features needed to satisfy small to medium jobs.

The FX-3318 is shipped pre-assembled with all main components including: main board, power supply, transformer, and main display in a red enclosure.

A built-in dialer is included to communicate panel status to the remote central monitoring station using 2 dedicated phone lines. Both SIA and Contact ID are supported

Up to 7 annunciators can be added with enclosure options in red, white or NEW stainless steel.

It has one built in signaling line circuit (SLC). With Mircom's Advanced Protocol (AP) a superior group polling method as well as an interrupt feature, allows a faster response to an alarm. The AP or Advanced Protocol allows for greater system capacity with support for up to 318 devices in AP mode and offers legacy CLIP support of up to 198 devices.

FX-3318 has four Power Limited Class B (Style Y) or Class A (Style Z) NAC circuits.

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. Sync strobe protocols are supported from major manufacturers.

The built-in trim ring accommodates both retrofits and new installs reducing time with semi-flush or surface mountable options.

The panel is UL 864 10th edition listed and has COA and CSFM listings.

Features

- One onboard SLC communication circuit
- Supports up to 318 intelligent devices in AP mode
- Legacy Clip support of up to 198 devices
- Built-in Dialer Module for remote monitoring
- 4 x 20 LCD with 80 characters
- Supports up to 7 annunciators
- Optional City Tie/Polarity Reversal module for central station monitoring & field installable
- Four Power Limited Class B (Style Y) or Class A (Style Z) NAC circuits (max 1.5 Amps each – 5.0 amps total).
- Auxiliary power is available in the form of 24V FWR unfiltered and unsupervised, 24VDC filtered and regulated, and resettable auxiliary power supply.
- Positive Alarm Sequence (PAS)- provides an alarm delay of up to 180 seconds if an alarm is acknowledge at the control panel within 15 seconds. This action provides the responding personnel time to investigate an alarm before evacuating a building.
- Supports sync strobe protocols from major manufacturers.
- Two-stage, alarm verification, waterflow retard and positive alarm sequence operations.
- Configurable Signal Silence Inhibit, Auto Signal Silence, and One-Man Walk Test.
- Beam Detector and Duct Detector AP types
- USB port on core board for simple programming and firmware upgrade
- Common configurator for FX-3500 and FX-3318
- Full Windows 10 compatibility
- CO-Photo-Heat Combinations



10th edition
UL 864



7165-1477:503

NYC
Fire Dept.

COA# 6288



CATALOG NUMBER

5686

User Interfaces

Indication and Controls:

- 12 control buttons with associated LEDs
- 16 button Numeric Keypad with cursor buttons

LCD Display:

The display is a four line, 4 x 20 80 character back-lit alphanumeric LCD.

It displays information regarding the panel, its circuits, and devices. Report information provided by the LCD display includes:

- Alarm Log
- Event Log
- Current Levels
- Device Information
- Verification and Maintenance Reports

BATTERIES:

BAT-12V12A (12 AH) and BAT-12V18A (18 AH) will fit into the FX-3318 enclosure. To house BAT-12V26A (26 AH) batteries a BC-160/R Battery Cabinet is required. Use of alternative batteries may result in failure of the panel to meet agency and regulatory requirements and may result in shortened battery life. Batteries should be tested regularly and replaced at least every three years.

ADVANCED PROTOCOL AND CLIP DEVICES

- Maximum Loop Current = 350mA
- Maximum Loop Resistance = 40 ohms
- Maximum Loop Capacitance = 0.5uF
- Maximum number of isolators = 20

Agency Listings and Approvals:

UL-864 Rev 10, NFPA 70, 72, CSFM and COA

Cabinet Dimensions	
Dimensions of Enclosure (minus built-in trim ring)	14.5" W x 4.25" D x 21" L
Complete Dimensions of Enclosures	16.7" W x 5.78" D x 23" L

Suitable for Flush or surface mounting with a built in trim ring.

Temperature and Humidity Ranges	
Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity	0 to 93% relative humidity (noncondensing)

Software and Operational Features

Audible alarm response within three seconds of activation in Advanced Protocol mode (when using AP devices only);

- AP is a completely digital protocol;
- AP is an Interrupt base protocol;
- Individual LED Control;
- Supports up to 1 SLC loops and 318 points
- Supports CLIP and AP System Sensor protocols;
- Built-in strobe synchronization support for Mircom, System Sensor, Gentex and Wheelock protocols;
- Grouped inputs and outputs;
- NACs can be configured as Silenceable or Non-Silenceable for both signals and strobes;
- Group bypass with built-in false alarm prevention technology;
- Built-in Drift Compensation for AP protocol;
- Positive Alarm Sequence;
- Configurable Signal Silence Inhibit, Auto Signal Silence, Two Stage Operation and One-Man Walk Test;
- Relay contacts for Common Alarm, Auxiliary/Alarm (Disconnectable), Common Supervisory and Common Trouble;
- 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;

Additional Features

- Compatible with INX-10A Addressable Intelligent NAC Expander Panel.
- Supports Acclimate smoke detection sensors

Sensors can be configured as:

- Alarm Input
- Priority Alarm
- Verified Alarm
- Latched Supervisory
- Non-Latching Supervisory
- Monitor
- Trouble Input
- Water-Flow Alarm

FX-3318 Features and Benefits

- 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.
- USB port on core board for simple programming and firmware upgrade
- Common configurator for FX-3500 and FX-3318
- Full Windows 10 compatibility
- CO-Photo-Heat Combinations

Enclosures



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 to 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.



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.



BB-1001 / 2 / 3 / 8 / 12 – Remote Annunciator Enclosures

The 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, RAX-1048TZDS, 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
BB-1008D / DR / DB	33" x 22.5" W x 1.85" D
BB-10012D / DR / DB	45" H x 22.5" W x 1.85" D

Optional Adder Modules



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 PR-300 provides an interface between the control panel indicating circuits and a master box. As a polarity reversal module the PR-300 provides an interface between the control panel and a reverse polarity receiver.

Remote Annunciators



RAM-3318-LCD Remote LCD Annunciator

The RAM-3318-LCD provides remote annunciation through a 4 line x 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-3318-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-3318-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.



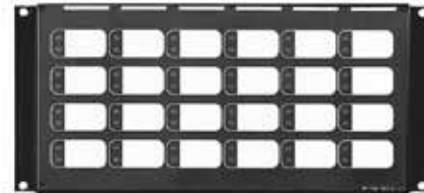
RAX-LCD-Lite Remote LCD Annunciator

The FX-3318 also supports the RAX-LCD-LITE Remote LCD Annunciator. The RAX-LCD-LITE display mimics the main Fire Alarm Panel display at a remote location. 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. There are five types of enclosure available: the BB-1001, BB-1002, BB-1003, BB-1008, and BB-1012 which can take 1,2,3,8,12 chassis respectively.



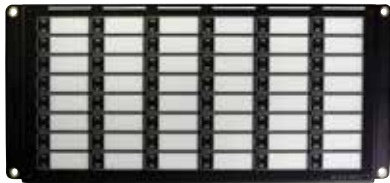
RAX-1048TZDS Programmable LED Annunciator Module

The RAX-1048TZDS Programmable LED Annunciator provides the FX-3318 with 48 Programmable Alarm/Supervisory Bi-colored LEDs & 48 Trouble LEDs which can be configured as: Alarm (Red), Supervisory (Amber), Trouble (Amber) or Monitor (Amber). There are five types of enclosure available: the BB-1001, BB-1002, BB-1003, BB-1008, and BB-1012 which can take 1,2,3,8,12 chassis respectively.



IPS-2424DS Programmable Input Switches Module

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



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-1048TZDSCC connects to the main panel or either the RAXN-4000LCD or RAM-1032TZDS when mounted remotely. The RAX-1048TZDS-CC occupies one display position in the BB-1002WP(R)A Series enclosures.



IPS-4848DS Programmable Input Switches Module

IPS4848DS provides 48 programmable switches complete with bi-colored LEDs and slide in labels. It can be configured for ancillary functions such as zone by-pass or added common control functions. In a zone by-pass configuration, a group of addressable devices or hardwired circuits can be assigned to a programmable switch and when the switch is operated, those devices or zones are by-passed. The switches operate in a toggle operation for on and off. There are two LEDs for each switch; one for selection, the other is bi-colored to indicate point status when switch is returned to normal (unbypassed) position. Each switch: one for selection, the other is bi-colored to indicate point status when switch is returned to normal (unbypassed) position.



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. The RAM-1032TZDS-CC occupies one display position in the BB-1001WP(R)A or BB-1002WP(R)A enclosures.

Specifications

FX-3318 Series Fire Alarm Control Panel			
General	Digital signal processor based design, fully configurable from LCD display with optional password protection		
Electrical ratings	<p>AC line voltage 120VAC 60Hz/240VAC 50Hz, 10A slow blow micro in-line fuse (not field replaceable)</p> <p>Power supply rating 29VAC 6A maximum (secondary of transformer) 120VAC 60Hz 1.81 Amp (maximum primary of transformer) 240VAC 50Hz 0.98 Amp (maximum primary of transformer) Total load not to exceed 5A @ 24VDC</p>		
Battery	<p>Type 24VDC Gel Cell/Sealed lead acid – 10Ah to 24Ah</p> <p>Charging capability 10Ah to 24Ah</p> <p>Charging current 1.575A maximum</p> <p>Protection 10A on-board slow blow micro fuse built (not field replaceable)</p> <p>Standby current rating at full load 0.7A</p>		
Addressable loops	<p>Advanced Protocol mode with one loop with 159 addressable sensors and 159 addressable modules per loop. CLIP mode with one loop with 99 addressable sensors and 99 addressable modules per loop. Maximum loop resistance is 40 ohms. For a complete list of compatible devices see document LT-1023.</p> <p>Power Limited / 24VDC / 350mA alarm maximum / 0.5 μF</p> <p>Power Limited / 24VDC / 280mA normal standby maximum / 0.5 μF</p>		
NAC Circuits	<p>4 supervised Class B (Style Y) or Class A (Style Z) NAC circuits, configured as strobes or audibles. Terminals are labelled as "NAC 1", "NAC 2", "NAC 3" and "NAC 4".</p> <p>Rating Power limited / Regulated 24V FWR / 1.5A @ 49C per circuit</p> <p>Max power allowed Total 5.0A 1.5A per circuit</p>		
Aux supply 1	Power limited / 24VDC regulated / 500mA max.		
Aux supply 2	Power limited / 24VDC regulated / 300mA max.		
Unfiltered supply	<p>Power limited / 24V FWR special application / 1.7A max. @ 49C</p> <p>The voltage range for this output is 18.6 VDC - 36.4 VDC.</p> <p>List of Compatible Devices: RAM-1016TZDS, RAM-1032TZDS(-CC), RAM-3500-LCD, RAX-LCD-LITE</p> <p>Do not use this output to power sounder bases or CZ-6, MIX-M502M, MIX-M502MA, MIX-M502MAP, MIX-M502MAPA devices.</p>		
Auxiliary relays	<table border="1"> <tr> <td>Common Alarm/MSupv./Trouble/Auxiliary Alarm</td> <td>Must be connected to a listed power limited source of supply C/28VDC/1A max</td> </tr> </table>	Common Alarm/MSupv./Trouble/Auxiliary Alarm	Must be connected to a listed power limited source of supply C/28VDC/1A max
Common Alarm/MSupv./Trouble/Auxiliary Alarm	Must be connected to a listed power limited source of supply C/28VDC/1A max		
RS-485 port	For remote annunciators. Terminals are labelled "RS-485".		
Ground Fault Impedance	10 kilohms or less		
Open Circuit Fault	100 kilohms or more		
Short Circuit Fault	0.1 ohms or less		
Applicable Standards	UL-864 Rev 10, NFPA 70, 72		

FX-3318 Series System Modules and Annunciators	
RAM-3318LCD	Remote Annunciator Standby 70mA / alarm 100mA
RAX-LCD-LITE	Remote Annunciator Standby 65mA / alarm 80mA
RTI-1	Remote Trouble Indicator Normal standby 0mA / alarm 30mA maximum
PR-300	<p>Polarity Reversal and City Tie Module</p> <p>City Tie: power limited / 24VDC unfiltered / 270mA max. / 13.7 and 14.4 ohms</p> <p>Polarity Reversal: power limited / 24VDC open / 12VDC at 3.5mA / 8mA max. (shorted)</p> <p>Polarity Reversal Supv. Terminal: 24VDC (normal) / ~24VDC (supervisory) / 0V (trouble)</p> <p>Polarity Reversal Alarm Terminal: 24VDC (normal) / ~24VDC (alarm) / 0V (trouble)</p> <p>Current Consumption: standby 50mA / alarm 300mA (city tie in use) / alarm 70mA (city tie not in use)</p>
IPS-2424DS	Programmable Input Switches Module with 24 switches standby 5mA / alarm 22mA
IPS-4848DS	Programmable Input Switches Module with 48 switches standby 10mA / alarm 22mA

Battery Calculations

IMPORTANT NOTICE

The main AC branch circuit connection for Fire Alarm Control Unit must provide a dedicated continuous power without provision of any disconnect devices. Use #12 AWG wire with 600-volt insulation and proper over-current circuit protection that complies with the local codes. For specifications see Appendix D - Specifications And Features on page 89.

Power Requirements (All currents are in amperes)

Model Number	Description	Qty		Standby	Total Standby	Alarm	Total Alarm
FX-3318(-NG)	FACP with Dialer		X	0.225	=	0.430	=
RAM-3318-LCD	Remote Annunciator with 4- line LCD Display		X	0.070	=	0.100	=
RAX-LCD-LITE	Remote Annunciator with 4- line LCD Display		X	0.065	=	0.080	=
PR-300	Polarity Reversal and City Tie Module		X	0.050	=	0.300	=
SRM-312W/312R	Smart Relay Module		X	0.030	=		=
RAM-1016TZDS	16 Point Annunciator Chassis		X	0.050	=	0.150	=
RAM-1032TZDS	32 Point Remote Annunciator		X	0.050	=	0.300	=
IPS-2424DS	Programmable Input Switches Module with 24 switches			0.005		0.022	
IPS-4848DS	Programmable Input Switches Module with 48 switches			0.010		0.022	
RTI-1	Remote Trouble Indicator, Buzzer and LED		X	0.035	=	0.035	=
MIX-1251AP	Advanced Protocol Ion Smoke Detector		X	0.0003	=	0.0050	=
MIX-2251AP	Advanced Protocol Photo Smoke Detector		X	0.00036	=	0.0050	=
MIX-2251TAP	Advanced Protocol Photo Heat Detector		X	0.00036	=	0.0050	=
MIX-2251TMAP	Advanced Protocol Acclimate Detector		X	0.00036	=	0.0050	=
MIX-5251AP	Advanced Protocol Heat Detector		X	0.0003	=	0.0050	=
MIX-5251HAP	Advanced Protocol High Temperature Heat Detector		X	0.0003	=	0.0065	=
MIX-5251RAP	Advanced Protocol Rate of Rise Heat Detector		X	0.0003	=	0.0065	=
MIX-M500MAP	Advanced Protocol Monitor Module		X	0.0004	=	0.0052	=
MIX-M500RAP	Advanced Protocol Relay Control Module		X	0.0003	=	0.0051	=
MIX-M500SAP	Advanced Protocol Supervised Control Module		X	0.0004	=	0.0052	=
MIX- M501DMAP	Advanced Protocol Dual Input Mini Monitor Module		X		=		=
MIX-M501MAP	Advanced Protocol Mini Monitor Module		X	0.0004	=	0.0020	=
MIX-M502MAP	Advanced Protocol Conventional Zone Module		X	0.0004	=	0.0052	=
B501BH	Intelligent Sounder Base		X	0.001		0.015	
B501BHT	Intelligent Temporal Tone Sounder Base		X	0.001		0.015	
APB200(-LF)	Sounder Base		X	0.01	=	0.140	=
INX-10A	Main Chassis (10 Amp)		X	0.0045	=	0.0045	=
Device & Remote LEDs (Maximum 20 per loop)			X				=
Signal Load (bells, horns, strobes, and etc.)			X				=
Auxiliary Power Supply (Aux 1, Aux 2, Un-filtered)					=	Alarm	=
Total currents (Add above currents)					(A)		(B)

Battery Capacity Requirement

Battery (AH) = (Standby Current Total x Discharge Time) + (Alarm Current Total x Alarm Time)
 ([STANDBY (A) _____] X [(24 Hours) ____]) + ([ALARM (B) _____] X [Alarm in Hr.] _____) = (C) _____Ah
 Total Alarm Current must be **5** amperes or less. NAC Circuits must not exceed **5** amperes.

Battery Selection

Battery Size = Multiply (C) by 1.20 to derate battery.

See the following table for the recommended Mircom batteries for use with this panel

Battery Model	Battery Size	UL/ULC Rating
BA-12V12A	12Ah	10Ah
BA-12V18A	18Ah	17Ah
BA-12V26A	26Ah	24Ah

BAT-12V12A (12Ah) and BAT-12V18A (18Ah) will fit into the FX-3318(-NG) enclosure.

To house BAT-12V26A (26Ah) batteries a BC-160 Battery Cabinet is required.

Use of alternative batteries may result in failure of the panel to meet agency and regulatory requirements, and may result in shortened battery life. Batteries should be tested regularly, and replaced at least every three years. If the Battery Trouble indicator activates, obtain required service.

Ordering Information

Model	Description
Panel	
FX-3318	Black backbox and red door enclosure. Comes complete with main board, power supply, transformer and main display
Remote Annunciators	
RAM-3318-LCD	Remote Annunciator with 4-line LCD display
RAX-LCD-LITE	Remote Annunciator with 4-Line LCD display
SRM-312R	Smart Relay module with red enclosure. Can support up to 12 relays
RAX-1048TZDS	Programmable Remote LED Display Adder with 48 programmable bi-colored LEDs and 48 Trouble LEDs. Mounts in a BB-1000 Series enclosure.
RAX-1048TZDS-CC	Conformal coated Adder Annunciator Chassis c/w 48 Bi-Colored LEDs
RAM-1016TZDS	16 Zone Remote LED Annunciator with trouble LEDs. Mounts in a BB-1000 Series enclosure.
RAM-1032TZDS	32 Zone Remote LED Annunciator with trouble LEDs. Mounts in a BB-1000 Series enclosure.
RAM-1032TZDS-CC	Conformal coated 32 zone remote LED annunciator with trouble LEDs
AGD-048	Graphic Annunciator Adder Driver Module
MGD-32	Graphic Annunciator Driver Module
RTI-1	Remote Trouble Indicator, Buzzer and LED
Optional Adder Modules	
PR-300	Polarity reversal and city tie module
PCS-100	Power Supply interface board. Use for powering 3G4010 and 3G4010CF universal wireless alarm communicator.
Enclosures	
BB-1001D	Remote enclosure, white door. Houses 1 module.
BB-1001DR	Remote enclosure, red door. Houses 1 module.
BB-1002D	Remote enclosure, white door. Houses 2 modules.
BB-1002DR	Remote enclosure, red door. Houses 2 modules.
BB-1003D	Remote enclosure, white door. Houses 3 modules.
BB-1003DR	Remote enclosure, red door. Houses 3 modules.
BB-1008D	Remote enclosure, white door. Houses 8 modules.
BB-1008DR	Remote enclosure, red door. Houses 8 modules.
BB-1012D	Remote enclosure, white door. Houses 12 modules.
BB-10012DR	Remote enclosure, red door. Houses 12 modules.
BB-1001WP(R)A	Weather Protected Enclosure Enclosure Houses one module. White. BB-1001WPRA for red.
BB-1002WP(R)A	Weather Protected Enclosure Enclosure Houses two modules. White. BB-1002WPRA for red.
Other	
INX-10A	Intelligent NAC Expander Panel
BC-160	External Battery Cabinet
SRM-312W	Smart Relay Module with White Enclosure. Can support up to 12 relays.
SRM-312R	Smart Relay Module with Red Enclosure. Can support up to 12 relays.
MP-3500R	Solenoid EOL Module (Red) - 47K.
MP-3500W	Solenoid EOL Module (White) - 47K.
MP-300	End of Line Plate, White.
MP-300R	End of Line Plate, Red.

Note: *Please see manual for list of compatible devices



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



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