

INTELLIGENT FIRE ALARM CONTROL PANEL **FX-2000 SERIES**





Description

Mircom's FX-2000 Series Microprocessor Based Intelligent Fire Alarm Control Panel is designed to provide maximum flexibility of analog system requirements while also providing easy installation and operation at a cost-effective price.

The FX-2000 base panel consists of one intelligent analog loop controller capable of supporting 99 Analog Sensors and 99 Addressable Modules which can be wired in Class A (Style 6 or 7) or Class B (Style 4). The system can be expanded by adding additional Analog Loop Controller Modules. In addition the base panel supports 16 conventional hardwire adder modules such as the DM-1008A Initiating Circuit Module, SGM-1004A Indicating Circuit Module and the RM-1008A Relay Circuit Module. Additional conventional hardwire adder modules can be added with the ALC-H16 Adder Hardwire Loop Controller Module, which allows the system to support an additional 16 conventional adder modules. The base panel also consists of 4 Class A/B (Style Z/Y) Indicating Circuits rated at 1.7 Amps each and either a 6 or 12 Amp Power Supply.

Equipped with a large 4 x 20 Back-lit Alphanumeric LCD display, the FX-2000 utilizes a simple Menu system complete with a directional keypad, common control switches and LEDs, Alarm Queue switches and LEDs and two configurable input switches.

Features

- Listed to UL 864, 9th edition
- Large system capacity
- Modular design
- Each Analog Loop is capable of supporting 99 Analog Sensors and 99 Addressable Modules which can be wired in Class A (Style 6 or 7) or Class B (Style 4)
- Base system supports 16 conventional hardwired modules with the provision to add more using the ALC-H16 Hardwire Loop Controller Module
- 6 or 12 Amp power supply
- Four Class A/B (Style Z/Y) Indicating Circuits rated at 1.7 Amps each
- Configurable for Two Stage operation
- Three level password protection with field programmable definition which enables the installer to determine what functions are accessible for each password level
- Panel Security to protect site configurations
- Manual Control Enable which allows password protection for all front panel function switches
- Correlatable Switch Inputs which allows for multifunctional outputs
- Four Alarm Queues with selector switches and LEDs for Alarm, Supervisory, Monitor and Trouble
- Auxiliary relay contacts for Common Alarm, Common Supervisory and Common Trouble
- RS-232 output for remote system printer or CRT
- Two Event History Logs comprised of a 1000 Alarm History Log for alarm related events and a 2000 Event Log for all events
- Front Panel Auto-Configure and/or Computer laptop Programmable
- Large 4 by 20 character Back-lit LCD Display with user friendly menu
- Common Control switches and/or indicating LEDs for System Reset, Signal Silence, Fire Drill, Acknowledge, General Alarm, Lamp Test, A.C. On, Pre-Alarm and Ground Fault
- Built-in One Man Walk Test operation
- Configurable for Coded Operation
- Supports an RS-485 interface to the QX-5000 Voice **Evacuation System**
- Panel selection for Canadian (ULC) or U.S.A. (UL) requirements for smoke sensors (sensitivity) via computer laptop
- Capability to adjust Intelligent Smoke Detector sensitivity level











CATALOG NUMBER

Operation

The FX-2000 is field programmable via the front panel auto configuration or a laptop computer. In addition, it allows for a three level password protection that can be field defined via a laptop computer. This unique feature allows the installer to determine what functions are accessible for each password level.

The system is also equipped with two Event History Logs; one for Alarm and the other for full panel sequence events. The Alarm History Log (1000 events) contains all alarm related functions while the Event Log (2000 events) provides a full sequence log of all operations, as well as alarms and troubles. Both Event History Logs can be used during the One Man Walk Test operation. This allows the event logs to be downloaded to a laptop or printer for a permanent record.

The FX-2000 is a very flexible system which supports both internal and external annunciation modules. The internal annunciation modules consist of the RAX-1048TZDS Programmable Zone LED Annunciator, the IPS-2424DS Programmable Input Switches Module, the FDX-008 Fan Damper Module and the AGD-048 Adder Graphic Driver Module.

Input Correlations

All input circuits (addressable or hardwired) can be configured for non-verified alarm, verified alarm, waterflow, latching/non-latching supervisory, monitor, trouble only or remote switch inputs. All of the input configuration types listed above, with the exception of remote switch can be programmed to operate relays, signal and strobe circuits for hardwired or addressable devices. Please refer to the chart below for correlations. The input circuits configured as non-latching will cause the output circuits configured to them to follow the state of the input device. This feature allows for the connection of multiple panels together for signal operation.

All of these modules mount within the panel and are driven from the main LCD display. The external annunciator modules include the RAM-1032TZDS and RAX-1048TZDS LED Remote Annunciators, the MGD-32 Master Graphic Driver Module, the MGDS-16/16 Master Graphic Driver Module and the RAX-LCD Remote LCD Shared Display. The RAX-LCD Remote LCD Shared Display provides the same features as the main display on the FX-2000. In addition the RAX-LCD also acts as a driver module that allows for the RAX-1048TZDS. IPS-2424DS. FDX-008 and AGD-048 to be connected to it. The RAX-LCD is required as a driver module any time any of the above mentioned external annunciator modules are programmed differently from those on the main panel or are mounted remote from the main panel.

In addition to these adder modules, the FX-2000 also supports the UDACT-300A Digital Communicator Module and the PR-300 Polarity Reversal/City Tie Module. The FX-2000 also supports an RS-485 interface to the QX-5000 Emergency Zoned Audio System.

The Remote Switch input, which must be momentary, allows any input type device (addressable or hardwired) to be configured as a common control functions such as fire drill, system reset, signal silence etc. The remote switches operate in a momentary mode like the control switches on the FX-2000 main panel. For functions such as fire drill, the remote switch functions in a toggle mode, with one press for "on" and one press for "off". The remote switch is supervised for "stuck in on" positions, where the switch input is activated (stuck) for more than 30 seconds. If this occurs, a trouble is generated and clears when the input goes away.

Intelligent or Conventional	Output			Control Switches
Input Types	Relay	Signal	Strobe	Control Switches
Non-Verified Alarm	Yes	Yes	Yes	No
Verified	Yes	Yes	Yes	No
Waterflow	Yes	Yes	Yes	No
Non-Latching Supervisory	Yes	Yes	Yes	No
Latching Supervisory	Yes	Yes	Yes	No
Monitor	Yes	Yes	Yes	No
Trouble Only	Yes	Yes	Yes	No
Remote Switch Input	No	No	No	Yes

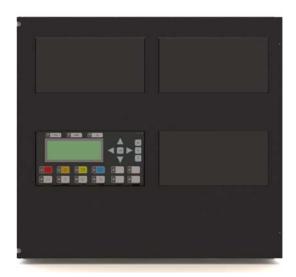


FX-2000 Standard Series



FX-2003-6DS/FX-2003-12DS Compact Main Control Units

The FX-2003-6DS and FX-2003-12DS Compact Main Control Units come complete with one Intelligent Signaling Line Circuit, Four Style Z/Y (Class A/B) Notification Appliance Circuits rated at 1.7 Amps each and a 4 line by 20 character back-lit LCD display. The FX-2003-6DS is equipped with a 6 Amp Power Supply which charges 10-24 AH batteries while the FX-2003-12DS includes a 12 Amp Power Supply which charges 17-55 AH batteries. The FX-2003-6DS/FX-2003-12DS provides space for 3 adder modules and 2 internal annunciator adder modules. The FX-2003-6DS/FX-2003-12DS mount in a UB-1024DS backbox.



FX-2017-12ADS Mid-Size Main Control Unit

The FX-2017-12ADS Mid-Size Main Control Unit comes complete with one intelligent Signaling Line Circuit (SLC) Four Style Z/Y (Class A/B) NAC Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display and a 12 Amp Power Supply which charges 17-55 AH batteries. The FX-2017-12ADS has space for up to 17 adder modules and 3 internal annunciator adder modules. The FX-2017-12ADS mounts in the BBX-1072ADS enclosure.



FX-2009-12DS Large Size Main Control Unit

The FX-2009-12DS Large Size Main Control Unit comes complete with one Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display and a 12 Amp Power Supply which charges 17-55 AH batteries. The FX-2009-12DS supports 16 conventional adder modules and provides space for up to 9 adder modules and 3 internal annunciator adder modules. The FX-2009-12DS mounts in the BB-5000 Series enclosures.



ECX-0012 Expander Chassis

The ECX-0012 Expander Chassis for the FX-2009-12DS/FX-2009S-12 supports up to 12 adder modules and has space for 2 internal annunciator modules. The ECX-0012 mounts in the BB-5000 series enclosures.

FX-2000 Standard Series System Maximums

- 500 Input Circuits
- 150 Output Circuits
- 5 Intelligent Addressable Loops
- 4 Remote LCD Annunciators
- 4 Main LED Annunciators
- 100 Manual Control Switches



Adder Loop Controller Modules



ALC-198S Single Analog Loop Controller Module

The ALC-198S Single Analog Loop Controller Module provides an additional analog loop to the FX-2000 consisting of 99 Analog Sensors and 99 Addressable Modules. The ALC-198S occupies one module slot in the FX-2000 main or expander chassis.



ALC-396S Dual Analog Loop Controller Module

The ALC-396S Dual Analog Loop Controller Module provides two additional analog loops to the FX-2000 consisting of 99 Analog Sensors and 99 Addressable Modules per loop. The ALC-396S occupies one module slot in the FX-2000 main or expander chassis.



ALC-H16 Hardwire Loop Controller Module

The ALC-H16 Hardwire Loop Controller Module allows the FX-2000 to support an additional sixteen (16) conventional hardwire adder modules. The hardwire modules consist of the DM-1008 Eight Initiating Circuit Module, SGM-1004 Four Indicating Circuit Module and the RM-1008 Eight Relay Circuit Module. The ALC-H16 occupies one module slot in the FX-2000 main or expander chassis.

Adder Auxiliary Modules



UDACT-300A Digital Alarm Communicator Module

The UDACT-300A Digital Alarm Communicator Module allows the FX-2000 to transmit addressable point information to a central station. The UDACT-300A can be configured locally via the on-board keypad and the CFG-300 Configuration Tool or with a UIMA programming tool and a computer with an available serial or USB port. The UDACT-300A occupies one module slot in the FX-2000 main or expander chassis.

Adder Hardwire Modules



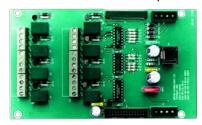
DM-1008A Eight Initiating Circuit Module

The DM-1008A provides 8 Class B (Style B) or 4 Class A (Style D) Initiating Circuits configurable for Alarm, Supervisory or Trouble zones. The DM-1008A occupies one module slot in the FX-2000 main or expander chassis.



SGM-1004A Four Indicating Circuit Module

The SGM-1004A provides 4 Class A/B (Style Z/Y) Indicating Circuits configurable as Silenceable or Non-Silenceable. Each Indicating Circuits is rated at 1.7 Amps. Each of the indicating circuits have individual signal silence inputs which are jumper selectable. The SGM-1004A occupies one module slot in the FX-2000 main or expander chassis.



RM-1008A Eight Relay Circuit Module

The RM-1008A provides the FX-2000 with 8 individual configurable relays per module. Each relay provides one Form C contact rated at 28 VDC @1 Amp (resistive load). The RM-1008A occupies one module slot in the FX-2000 main or expander chassis.



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 mA max. (shorted)). The PR-300 mounts in the FX-2000 main chassis.



Programmable Modules



RAX-1048TZDS Programmable Zone LED Annunciator Module

The RAX-1048TZDS Programmable Zone LED Annunciator Module provides 48 programmable bicoloured LEDs. The RAX-1048TZDS connects to the main panel or the RAX-LCD Shared Display when mounted remotely. The RAX-1048TZDS occupies one display position in the BB-1000 or BB-5000 enclosures.



FDX-008 Fan Damper Module

The FDX-008 Fan Damper Module provides individually programmed circuits which can be used for fan or damper control. Each circuit has a slide-in label, a three position selector switch, green "run or open" LED and an amber "off or closed" LED. The three-position selector switch has a centre "auto" position, a left "off or close" position and a right "on or open" position. The FDX-008 connects to the main panel or the RAX-LCD when mounted remotely. It uses MIX-M500CH for control of fans or dampers and two MIX-M501A for status. The FDX-008 occupies one display position in the BB-1000 or BB-5000 enclosures.



IPS-2424DS Programmable Input Switches Module

The IPS-2424DS Programmable Input Switches Module provides 24 programmable switches that can be configured for ancillary functions such as zone bypass or added common control functions. The switches operate in a toggle operation with one press for "on" and one press for "off". The IPS-2424DS connects to main panel or the RAX-LCD when mounted remotely. The IPS-2424DS occupies one display position in the BB-1000 or BB-5000 enclosures.

Electrical Ratings

Current Consumption

Model	Standby	Alarm
FX-2003-6DS FX-2003-12DS	230 mA	380 mA
FX-2017-12ADS	230 mA	380 mA
FX-2009-12DS	230 mA	380 mA
ALC-198S/ALC-396S	35 mA	50 mA
ALC-H16	35 mA	50 mA
DM-1008A	80 mA	100 mA
SGM-1004A	35 mA	150 mA
RM-1008A	25 mA	150 mA
PR-300	50 mA	300 mA
UDACT-300A	40 mA	60 mA
RAX-LCD	100 mA	150 mA
IPS-2424DS	10 mA	144 mA
FDX-008	10 mA	100 mA
MGD-32	35 mA	1.6 Amps
AGD-048	25 mA	2.4 Amps
RAM-1032TZDS	50 mA	150 mA
RAX-1048TZDS	15 mA	100 mA



Remote Annunciators



RAX-LCD Remote Shared Display

The RAX-LCD Remote Shared Display is a remote annunciator that provides the same functions as the main display on the fire alarm control panel, less the 16 zone LEDs. In addition to operating as a remote annunciator, it can also be used as a driver module for standard LED annunciation or reduced zone annunciation (different from the main panel annunciation), graphic drivers programmed different from the main annunciators, programmable switch modules with a unique configuration and fan damper control also with a unique configuration. Each time a different type of annunciation configuration is needed an additional RAX-LCD is required. The RAX-LCD occupies one display position in the BB-1000 or BB-5000 enclosures.



RAM-1032TZDS Main Remote LED Annunciator

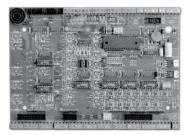
The RAM-1032TZDS Main Remote LED Annunciator provides common annunciator functions and 32 points of LED annunciation. Each display point can be identified by the slide-in label that slides in beside the LED. The RAM-1032TZDS is equipped with sealed membrane-like buttons for Common Control functions. The RAM-1032TZDS allows for the control switches to be disabled on a per function basis for areas that do not require certain common control functions to be remotely located from the fire alarm control panel. The RAM-1032TZDS can be programmed differently than the main panel annunciator or a remote RAX-LCD. All RAM-1032TZDS remote annunciators on the system must be programmed the same. The RAM-1032TZDS occupies one display position in the BB-1000 or BB-5000 enclosures.



RAX-1048TZDS Adder Remote LED Annunciator

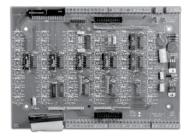
The RAX-1048TZDS Adder Remote LED Annunciator provides an additional 48 points of LED annunciation. The RAX-1048TZDS is an expandible module that connects to the RAM-1032TZDS. The RAX-1048TZDS occupies one display position in the BB-1000 or BB-5000 enclosures.

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. Any or all of these switch inputs can be used. There are supervised outputs for all of the support LEDs and the common control switches. The MGD-32 can also drive up to 32 supervised outputs. These output points are capable of driving LEDs or incandescent lamps. Mounts in a graphic annunciator wallbox or in the BB-5000 enclosures. External power supply required for incandescent lamps and lamp test.



AGD-048 Adder Graphic Driver Module

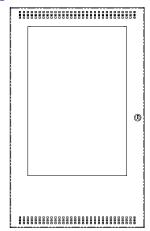
The AGD-048 Adder Graphic Driver Module can be used with either the MGD-32 or MGDS-16/16 Master Graphic Driver modules, or if located remotely it must be connected and mounted with the RAX-LCD Shared Display. The AGD-048 will support an additional 48 supervised outputs. As with the master modules, the AGD-048 will support both LEDs and incandescent lamps. Mounts in a graphic annunciator wallbox or in the BB-5000 enclosures.

NOTE

The combined total of RAM-1032TZDS and MGD-32 per system is eight. All RA-1000 Series annunciators or Graphic driver modules must have the zoned LED or graphic LED correlated to the same combination of addressable devices or hardwired zones. However, the zoned LED annunciator on the FX-2000 main panel can be programmed differently from the annunciators mounted remotely.



Enclosures



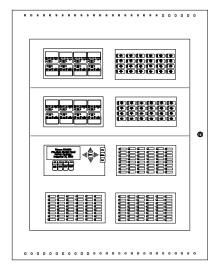
UB-1024DS Universal Backbox

The UB-1024DS Universal Backbox houses the FX-2003-6DS or FX-2003-12DS main control unit and provides space to mount up to 17 AH batteries. A DOX-1024DS(R) door is ordered separately.

Dimensions (minus built-in trim ring): 26"H x 14.5"W x 4.2"D

DOX-1024DS(R) Door

The DOX-1024DS mounts on the UB-1024DS backbox. The door features the universal CAT-30 lock and is available in a white (DOX-1024DS) or red exterior (DOX-1024DSR).



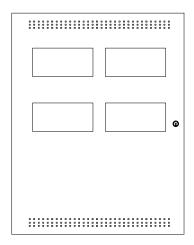
BB-5008

The BB-5008 is a lobby control centre enclosure which is capable of handling one FX-2009-12DS Large Main Control Unit which supports 2 internal annuciator modules such as the IPS-2424DS, FDX-008, RAX-1048TZDS, etc. In addition the BB-5008 allows for 4 footprints for mounting Audio Lobby Control modules, Fire Fighter's Lobby Control modules and FX-2000 Internal Annunciator modules. The cabinet hold up to 24 AH batteries. Door and Chassis hardware are ordered seperately.

Dimensions: 36"H x 30"W x 7"D

Other Enclosures

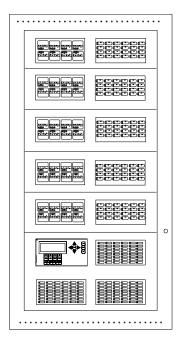
BB-1001: 9"H x 12.75"W x 1.2"D BB-1002: 18"H x 12.75"W x 1.2"D BB-1003: 26.4"H x 12.75"W x 1.2"D BB-1008: 33"H x 22.5"W x 1.25"D BB-1012: 45"H x 22.5"W x 1.25"D



BBX-1072ADS

The BBX-1072ADS enclosure is capable of handling one FX-2017-12ADS Mid-Size Main Control Unit as well as up to 24 AH Batteries. The cabinet features the universal CAT-30 lock and a removable door for easy installation and servicing. The cabinet is available in a white or red exterior (BBX-1072ARDS).

Dimensions (minus built-in trim ring): 32.5"H x 25"W x 6 .5"D

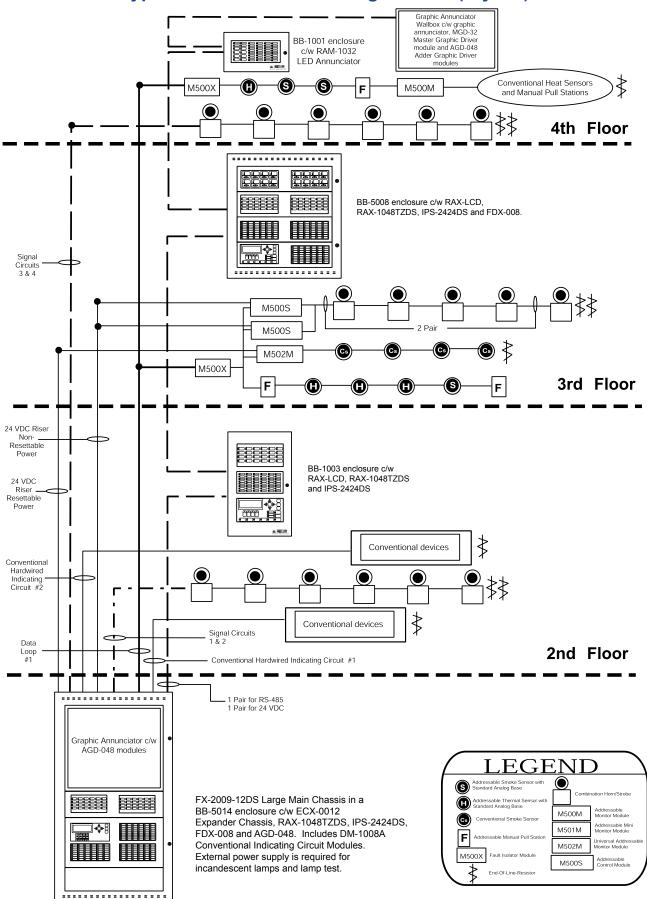


BB-5014

The BB-5014 is a lobby control centre enclosure which is capable of handling one FX-2009-12DS Large Main Control Unit which supports 2 internal annuciator modules such as the IPS-2424DS, FDX-008, RAX-1048TZDS, etc. In addition the BB-5014 allows for 10 footprints for mounting Audio Lobby Control modules, Fire Fighter's Lobby Control modules and FX-2000 Internal Annunciator modules. The BB-5014 can also support a graphic annunciator in place of these modules. The cabinet holds up to 24 AH batteries. Door and Chassis hardware are ordered seperately. Dimensions: 60"H x 30"W x 7"D



Typical FX-2000 Panel Wiring Class B (Style 4)





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Ordering Information

Description Model

FX-2000 Standard Series

FX-2017-12ADS

FX-2009-12DS

FX-2003-6DS Compact Main Control Unit c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD

display, 4 Class A/B (Style Z/Y) Indicating Čircuits (1.7 Amps each), a 6 Amp power supply and a backbox. Supports up to 16 Conventional Adder

FX-2003-12DS

Modules. Provides space for 3 Adder Modules and 2 internal annunciation modules. Order UB-1024DS and DOX-1024DS(R) separately. Compact Main Control Unit c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD display, 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each), a 12 Amp power supply and a backbox. Supports up to 16 Conventional Adder Modules. Provides space for 3 Adder Modules and 2 internal annunciation modules. Order UB-1024DS and DOX-1024DS(R) separately.

Mid-Size Main Control Unit c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lif LCD

display, 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each) and a 12 Amp power supply. Supports up to 16 Conventional Adder Modules. Provides space for 17 Adder Modules and 3 Internal Annunciation modules. Mounts in the BBX-1072ADS enclosure.

Large Main Control Unit c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD display, 4 Class A/B (Style Z/Y) Indicating Circuits (1.7 Amps each) and a 12 Amp power supply. Supports up to 16 Conventional Adder Modules. Provides space for 9 Adder Modules and 3 Internal Annunciation modules. Mounts in the BB-5000 series enclosures.

ECX-0012 Expander Chassis for the FX-2009-12DS c/w space to add up to 12 adder modules and 2 Internal Annunciation modules. Mounts in the BB-5000

series enclosures.

Adder Loop Controller Modules

Single Loop Intelligent Analog Loop Controller Module (99 Analog Sensors and 99 Addressable Modules)
Dual Loop Intelligent Analog Loop Controller Module (198 Analog Sensors and 198 Addressable Modules) ALC-198S ALC-396S

Hardwire Loop Controller Module. Supports 16 Conventional Hardwired Modules. ALC-H16

Adder Hardwire Modules

DM-1008A

SGM-1004A

Eight Class B (Style B) or 4 Class A (Style D) Initiating Circuit Module Four Class A/B (Style Z/Y) Indicating Circuit Module (Rated at 1.7 Amps per circuit) Eight Relay Circuit Module c/w eight form C relays (Rated for 28 VDC @ 1 Amp max. per relay) RM-1008A

Adder Auxiliary Modules

UDACT-300A Digital Alarm Communicator Transmitter/Dialer Module

PR-300 Polarity Reversal and City Tie Module

Programmable Modules

RAX-1048TZDS Programmable Zone LED Annunciator Module c/w 48 bi-coloured LEDs

IPS-2424DS Programmable Input Switches Module c/w 24 selector switches and 24 bi-coloured LEDs

FDX-008 Fan Damper Control Module c/w 8 programmable switches

Remote Annunciators

Main Annunciator Chassis c/w Common Control Features, Indicators and 32 Bi-Coloured LEDs RAM-1032TZDS

RAX-1048TZDS Adder Annunciator Chassis c/w 48 Bi-Coloured LEDs

Remote Trouble Indicator

Remote Shared Display Annunciators

Remote Shared Display LCD Annunciator c/w Display Queues and Common Controls. RAX-LCD

Graphic Annunciator Driver Modules

Master Graphic Driver Module c/w Fire Alarm Common Control Switch Inputs and 32 Supervised Outputs

AGD-048 Adder Graphic Driver Module c/w 48 Supervised Outputs

Enclosures

Universal backbox for FX-2003-6DS/FX-2003-12DS. Order DOX-1024DS separately. UB-1024DS White door for UB-1024DS backbox.

DOX-1024DS Red door for UB-1024DS backbox. DOX-1024DSR

BBX-1072ADS Black backbox enclosure for FX-2000 c/w removable door and CAT-30 lock and key. Houses one FX-2017-12ADS Mid-Size Main Control Unit

and up to 24 AH batteries. Includes White door.

BBX-1072ARDS Black backbox enclosure for FX-2000 c/w removable door and CAT-30 lock and key. Houses one FX-2017-12ADS Mid-Size Main Control Unit

and up to 24 AH batteries. Includes Red door.

Lobby Control Centre Wallbox Enclosure. Supports 8 Module Footprints. BB-5008

DOX-5008M White Metal Door for BB-5008. DOX-5008MR Red Metal Door for BB-5008.

CCH-5008 Custom Mounting Kit for BB-5008. One required per BB-5008.

BB-5014 Lobby Control Centre Wallbox Enclosure. Supports 14 Module Footprints.

DOX-5014M White Metal Door for BB-5014 DOX-5014MR Red Metal Door for BB-5014.

CCH-5014 Custom Mounting Kit for BB-5014. One required per BB-5014.

NOT TO BE USED FOR INSTALLATION PURPOSES.



25 Interchange Way Vaughan, Ontario L4K 5W3 Telephone: (905) 660-4655 Fax: (905) 660-4113

Web page: http://www.mircom.com

U.S.A.

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

Email: mail@mircom.com

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