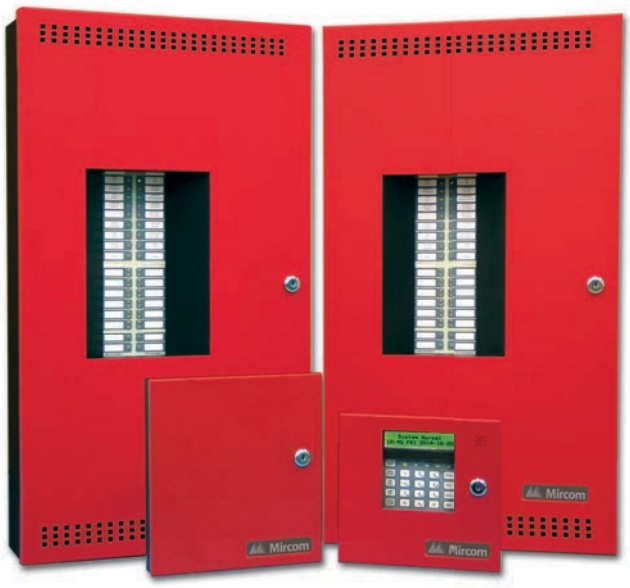
Mircom™

LED DISPLAY FIRE ALARM CONTROL UNITS FA-300 SERIES



Description

Mircom's FA-300 Series fire alarm control panels consist of eight and twelve zone models which are equipped with an LED display and an integrated UDACT/Digital Communicator on select models. The FA-300 Series family also includes remote LED and LCD annunciators as well as remote relay modules.

The FA-300 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 installation demands.

Mircom's FA-300 Series panels are configurable by the keypad (using the CFG-300 Configuration Tool) for onsite programming or by a PC for both onsite and remote programming. Easy to install and simple to operate and configure, the FA-300 Series panels enable the installer to configure the system to meet their specific requirements.

All of the FA-300 Series panels are equipped with a 5 Amp power supply, 4-wire resettable smoke power supply (300mA max.), an interface for a Remote Trouble Indicator (RTI) and an RS-485 interface for remote LCD annunciators, LED annunciators and Remote Relay modules.

The FA-300 Series panels come complete with a red door, black enclosure, durable CAT-30 lock and key and space to mount up to 12 AH batteries. An optional trim ring is available for semi-flush mounting.

Features

- Listed to UL 864, 9th edition
- Available in eight and twelve zone configurations with an integrated UDACT/Digital Communicator on select models
- Front panel (using CFG-300 configuration tool) and PC programmable
- Remote upload/download capabilities
- Base panel is equipped with Class "B" (Style "B") initiating circuits which may be configured as Class "A" (Style "D") using a Class "A" converter module
- Initiating 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" (Style "B") indicating circuits which may be configured as Class "A" (Style "Z") using a Class "A" signal converter module
- Individual disconnect buttons for both initiating and indicating circuits
- Audible signals may be configured for Steady, Temporal Code, California Code and March Time
- Indicating Circuits may be configured as Silenceable or Non-Silenceable for both signals and strobes
- Built-in sync protocols for the following strobe manufacturers: Mircom, 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
- Support i3 Series Smoke Detectors
- 5 Amp Power Supply
- Optional modules for additional internal relay circuits and City Tie/Polarity Reversal
- Optional trim ring for semi-flush mounting

MEA approved

CATALOG NUMBER 5661

Features

Initiating Circuits

The FA-300 Series panels are equipped with Class “B” (Style “B”) initiating circuits with individual disconnect buttons. The initiating circuits may be configured as Class “A” (Style “D”) using an ICAC-306 Class “A” converter adder module. Each initiating circuit has two LEDs; one dual colour (Red/Amber) for Alarm and Supervisory and one Trouble LED (Amber).

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

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

Indicating Circuits

The FA-300 Series panels are equipped with equipped with Class “B” (Style “B”) indicating circuits with individual disconnect buttons. The indicating circuits may be configured as Class “A” (Style “Z”) using an OCAC-304 or OCAC-302 Class “A” signal converter adder module. Each indicating circuits has an individual trouble LED (Amber).

The audible signals may be configured for Steady, Temporal Code, California Code and March Time.

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

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

The FA-300 has built-in sync protocols for the following strobe manufacturers; Mircom, Amseco, System Sensor, Gentex, Faraday and Wheelock.

i3 Series Protocol

The FA-300 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 FA-300 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
The devices on the i3 zone are dirty.

Out of sensitivity
The devices on the i3 zone is out of sensitivity and cannot detect an alarm condition.

Freeze trouble
The device 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.

UDACT/Digital Communicator

Select FA-300 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 FA-300 panel from remote computers for uploading and downloading of configuration data. It also allows for the viewing of the event history logs. The FA-300 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.

FA-300 Series LED Version Models

FA-301-8LR / FA-301-8LDR Eight Zone LED Display Fire Alarm Control Panels

The FA-301-8LR and FA-301-8LDR are equipped with eight Class “B” (Style “B”) initiating circuits and four Class “B” (Style “Y”) indicating circuits rated @ 1.7 Amps maximum. (Total of 5 Amps) The FA-301-8LDR is equipped with a built-in UDACT/ Digital Communicator. Two ICAC-306 Six Initiating Circuit Class “A” Converter Modules may be used for Class “A” (Style “D”) wiring of the initiating circuits. One OCAC-304 Four Indicating Circuit Class “A” Converter Module may be used for Class “A” (Style “Z”) wiring of the indicating circuits. The FA-301-8LR and FA-301-8LDR are configurable by the keypad (using the CFG-300 Configuration Tool) for onsite programming or by a PC for both onsite and remote programming. The cabinet will support up to 12 AH batteries. The panels can be semi-flush mounted with the optional FA-UNIV-TRB trim ring.

Dimensions

FA-301-8LR:	26”H x 14.5”W x 4.5”D
FA-301-8LDR:	26”H x 14.5”W x 4.5”D
FA-UNIV-TRB:	28.5”H x 17”W

FA-301-12LR / FA-301-12LDR Twelve Zone LED Display Fire Alarm Control Panels

The FA-301-12LR and FA-301-12LDR are equipped with twelve Class “B” (Style “B”) initiating circuits and four Class “B” (Style “Y”) indicating circuits rated @ 1.7 Amps maximum. (Total of 5 Amps) The FA-301-12LDR is equipped with a built-in UDACT/ Digital Communicator. Two ICAC-306 Six Initiating Circuit Class “A” Converter Modules may be used for Class “A” (Style “D”) wiring of the initiating circuits. One OCAC-304 Four Indicating Circuit Class “A” Converter Module may be used for Class “A” (Style “Z”) wiring of the indicating circuits. The FA-301-12LR and FA-301-12LDR are configurable by the keypad (using the CFG-300 Configuration Tool) for onsite programming or by a PC for both onsite and remote programming. The cabinet will support up to 12 AH batteries. The panels can be semi-flush mounted with the optional FA-UNIV-TRB trim ring.

Dimensions

FA-301-12LR:	26”H x 14.5”W x 4.5”D
FA-301-12LDR:	26”H x 14.5”W x 4.5”D
FA-UNIV-TRB:	28.5”H x 17”W

Remote Annunciators

RAM-300LCDR/RAM-300LCDW Remote LCD Annunciator

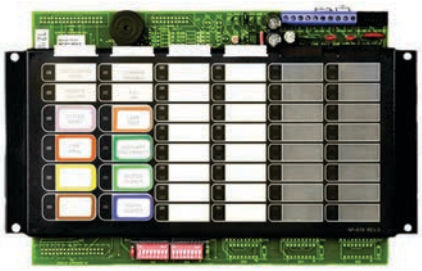
The RAM-300LCD provides remote LCD annunciation through a two line by 20 character LCD display. The RAM-300LCD provides control switches for System Reset, Signal Silence, Fire Drill and Acknowledge as well as a numeric keypad to access the menu functions. The common control functions can be disabled on a per function basis. The RAM-300LCDR has LED indicators for A.C. On, Alarm, Supervisory, Trouble and CPU Fail. The RAM-300LCD is available in a red (RAM-300LCDR) or white (RAM-300LCDW) enclosure and comes complete with and a CAT-30 lock and key.

SRM-312R Smart Relay Module

The SRM-312R provides twelve Form C 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.

RAM-208/RAM-216 Remote LED Annunciators

The RAM-208 and RAM-216 provide 8 or 16 points respectively of LED annunciation. Both models feature bi-coloured 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 RAM-208 and RAM-216 are equipped with a keyswitch which allows for enabling and disabling of the Common Control functions. Both models are available in a red finish and mount in a 4-gang electrical box.



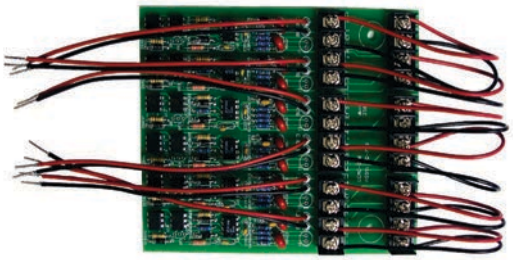
RAM-1016TZDS Remote LED Annunciator

The RAM-1016TZDS Remote LED Annunciator provides 16 points of LED annunciation. The RAM-1016 comes standard with bi-coloured LEDs which are automatically configured for either Alarm (Red) or Supervisory (Amber). The RAM-1016TZDS 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. In addition it allows for the control switches to be disabled on a per function basis. Mounts in a BB-1000 series enclosure.

RTI-1 Remote Trouble Indicator

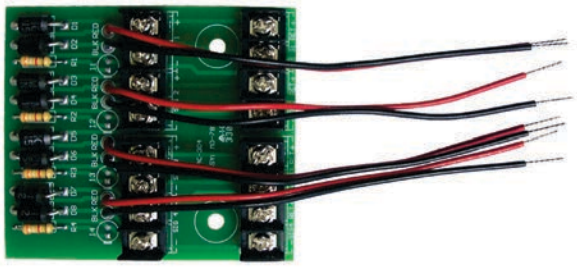
Mircom's Remote Trouble Indicator provides remote annunciation of fire alarm troubles. The RTI-1 mounts onto a standard single gang electrical box.

Adder Modules



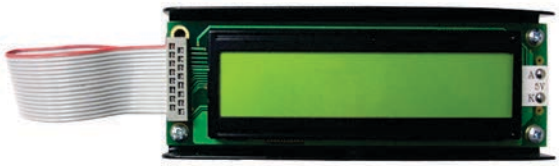
ICAC-306 Six Initiating Circuit Class "A" Converter Module

The ICAC-306 converts six Class "B" (Style "B" initiating circuits on the FA-300 main board to Class "A" (Style "D") circuits. The ICAC-306 is equipped with wire leads to connect to the FA-300 main board. It mounts to the right of the main board Class "B" (Style "B") initiating circuits. Two ICAC-306 modules are required to convert all twelve initiating circuits on an FA-301-12 series panel.



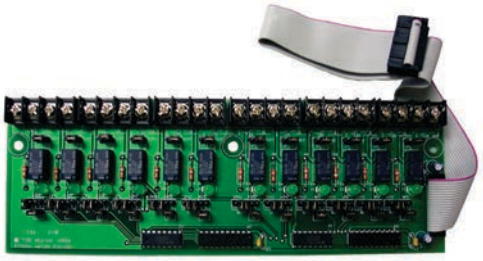
OCAC-304 Four Indicating Circuit Class "A" Converter Module

The OCAC-304 converts four Class "B" (Style "Y") indicating circuits on the FA-300 main board to Class "A" (Style "Z") circuits. The OCAC-304 is equipped with wire leads to connect to the FA-300 main board. It mounts to the right of the main board Class "B" (Style "Y") indicating circuits.



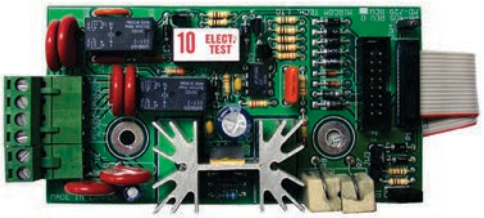
CFG-300 Configuration Tool

The CFG-300 Configuration Tool is required for onsite front panel programming of the FA-300 Series LED version panels. The CFG-300 plugs into the FA-300 main board to provide a two line by 20 character LCD display. The FA-300 Series LED version panels are configured using the CFG-300 and push buttons on the main board. In configuration mode, the initiating and indicating circuit disconnect buttons act as function keys. Removing the zone labels reveals the programming function buttons. The CFG-300 tool is used for configuration purposes only and not for normal operation.



RM-306/RM-312 Relay Circuit Adder Modules

The RM-306 provides six Form C configurable relay circuits, rated @ 28 VDC, 1 amp (resistive). The RM-312 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.



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. 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. It provides off-premises signal transmission for systems that must comply with NFPA requirements.

ELRX-300 Active End-of-Line Resistors

The ELRX-300 are power saving End-of-Line resistors which eliminates the need for an additional battery cabinet or larger batteries in order to meet the 60 hour standby requirement. (*Please refer to Battery Calculation Chart in manual for more details.)* The ELRX-300 can also be used when larger batteries than can fit in the cabinet are required. The ELRX-300 are available with or without a mounting plate.

Specifications

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

Model	Standby	Alarm
FA-301-8L(D)	136mA (96 mA*)	366mA (326 mA*)
FA-301-12L(D)	164mA (104 mA*)	424mA (364 mA*)

* Using Active End of Line Resistors (Refer to the installation and operation manual for more information.

Indicating 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)
FormC / 28VDC / 1A max.

Ordering Information

Model	Description
Control Panels	
FA-301-8LR	Eight-Zone LED Display Fire Alarm Control Panel (Red door)
FA-301-8LDR	Eight-Zone LED Display Fire Alarm Control Panel with UDACT/Digital Communicator (Red door)
FA-301-12LR	Twelve-Zone LED Display Fire Alarm Control Panel (Red door)
FA-301-12LDR	Twelve-Zone LED Display Fire Alarm Control Panel with UDACT/Digital Communicator (Red door)
Remote Annunciators and modules	
RAM-300LCDR	Remote LCD Annunciator (Red enclosure)
RAM-300LCDW	Remote LCD Annunciator (White enclosure)
RAM-208R	Eight zone Remote LED Annunciator
RAM-216R	Sixteen zone Remote LED Annunciator
RAM-1016TZDS	Sixteen zone Remote LED Annunciator with individual Trouble LEDs
SRM-312R	Remote Relay Module
RTI-1	Remote Trouble Indicator
BB-1001R	Red Semi-Flush Enclosure for RAM-1016/RAM-1016TZ
BB-1001S	Semi-Flush Stainless Steel Enclosure for RAM-1016/RAM-1016TZ
BB-1001WPR	Red Semi-Flush Weatherproof Enclosure for RAM-1016/RAM-1016TZ
TH-101	Heater Kit for use with BB-1001WPR
Adder Modules	
ICAC-306	Six Initiating Circuit Class “A” Converter Module
OCAC-304	Four Indicating Circuit Class “A” Converter Module
OCAC-302	Two Indicating Circuit Class “A” Converter Module
RM-306	Six Relay Circuit Adder Module
RM-312	Twelve Relay Circuit Adder Module
PR-300	Polarity Reversal/City Tie Module
ELRX-300	Active End-of-Line Resistor
ELRX-300R	Active End-of-Line Resistor with red mounting plate
Accessories	
FA-UNIV-TRB	Black Universal Semi-Flush Trim Ring
UIMA	Universal Programming Tool

Mircom™

Canada
25 Interchange Way
Vaughan, Ontario 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

Web page: http://www.mircom.com Email: mail@mircom.com

Distributed by:

ISO 9001:2008 REGISTERED

CAT. 5661
Rev. 8