



# Mircom FA-300 Series Lcd Display Fire Alarm Control Units Owner's Manual

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## Mircom FA-300 Series Lcd Display Fire Alarm Control Units



## Description

Mircom's FA-300 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 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. The FA-300 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 FA-300 Series panels enable the installer to configure the system to meet their specific requirements. 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 Smart Relay modules. All 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. Optional trim rings are available for semi-flush mounting.

## Features

- Listed to UL 864, 9th 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" (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
- 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
- 5 Amp Power Supply
- Optional modules for additional internal relay circuits and City Tie/Polarity Reversal
- Optional trim rings for semi-flush mounting

**Initiating Circuits** The FA-300 Series panels are equipped with Class "B" (Style "B") initiating circuits. The initiating circuits may be configured as Class "A" (Style "D") using an ICAC-306 Class "A" converter adder module.

**Each Initiating 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 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** This trouble indicates that one or more device on the i3 zone is dirty.

**Out of sensitivity** This trouble indicates that one or more device 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 2WMOD Maintenance Module.

**Indicating Circuits** The FA-300 Series panels are equipped with Class “B” (Style “B”) indicating circuits. The indicating circuits may be configured as Class “A” (Style “Z”) using an OCAC-304 or OCAC-302 Class “A” signal converter adder module. 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:**

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

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

**UDACT/Digital Communicator** The 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 LCD Version Models



**FA-300-6DR Six Zone LCD Display Fire Alarm Control Panel** The FA-300-6DDR is equipped with six Class “B” (Style “B”) initiating circuits and two Class “B” (Style “Y”) indicating circuits rated @ 1.7 Amps maximum. (Total of 5 Amps) One ICAC-306 Six Initiating Circuit Class “A” Converter Modules may be used for Class “A” (Style “D”) wiring of the initiating circuits. One OCAC-302 Two Indicating Circuit Class “A” Converter Module may be used for Class “A” (Style “Z”) wiring of the indicating circuits. The cabinet will support up to 12 AH batteries. The panel can be semi-flush mounted with the optional FA-300TRB trim ring.

### Dimensions

- **FA-300-6DR:** 20”H x 14.5”W x 4.5”D
- **FA-300TRB:** 22.5”H x 17”W

**FA-300-6DDR Six Zone LCD Display Fire Alarm Control Panel with UDACT/Digital Communicator** The FA-300-6DDR is equipped with six Class “B” (Style “B”) initiating circuits and two Class “B” (Style “Y”) indicating circuits rated @ 1.7 Amps maximum. (Total of 5 Amps) One ICAC-306 Six Initiating Circuit Class “A” Converter Modules may be used for Class “A” (Style “D”) wiring of the initiating circuits. One OCAC-302 Two Indicating Circuit Class “A” Converter Module may be used for Class “A” (Style “Z”) wiring of the indicating circuits. The FA-300-6DDR 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 FA-300TRB trim ring.

### Dimensions

- **FA-300-6DDR:** 20”H x 14.5”W x 4.5”D
- **FA-300TRB:** 22.5”H x 17”W



**FA-301-12DDR Twelve Zone LCD Display Fire Alarm Control Panel with UDACT/Digital Communicator** The FA-301-12DDR is equipped with twelve Class "B" (Style "B") initiating circuits and four Class "B" (Style "Y") indicating circuits @ 1.7 Amps maximum. (Total of 5 Amps). One ICAC-306 Six Initiating Circuit Class A Converter Module 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-301-12DDR has a builtin UDACT/Digital Communicator and the cabinet will support up to 12 AH batteries. The panel can be semi-flush mounted with the optional FA-UNIV-TRB trim ring.

### Dimensions

- **FA-301-12DDR:** 26"H x 14.5"W x 4.5"D
- **FA-UNIV-TRB:** 28.5"H x 17"W

### Remote Annunciators



**RAM-300LCDR Remote LCD Annunciator** The RAM-300LCDR provides LCD remote annunciation through a 2 line by 20 character LCD display. The RAM300LCDR 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-300LCDR comes complete with a red enclosure and a CAT-30 Lock and key.

**RAM-208R/RAM-216R Remote LED Annunciators** The RAM-208R and RAM-216R provide 8 or 16 points respectively of LED annunciation. Both models feature bi-coloured LEDs which are auto-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-208R and RAM-216R 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.



**SRM-312R Smart Relay Module** The SRM-312 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 SRM-312 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-1016TZDS Remote LED Annunciator** The RAM-1016TZDS Remote LED Annunciator provides 16 points of LED annunciation. The RAM-1016TZDS 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.



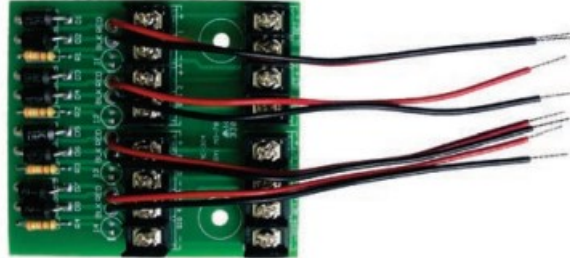
**RTI-1 Remote Trouble Indicator** Mircom's Remote Trouble Indicator provides remote annunciation of fire alarm troubles. The RTI-1 mounts onto a standard single gang electrical box.

#### Adder Modules

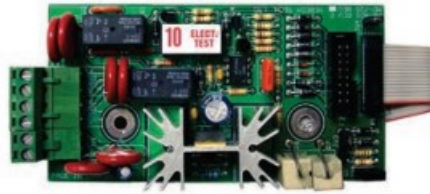


**ICAC-306 Six Initiating Circuit Class "A" Converter Module** The ICAC-306 converts six Class "B" (Style "B") initiating circuits on the FA-300 main board to Class "A" (Style "D") circuits. The ICAC-306 is equipped with wire leads to connect to the FA-300 main board. It mounts to the right of the main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

**RM-306/RM-312 Relay Circuit Adder Modules** The RM-306 provides six 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.



**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 and is used with the FA-301-12DDR series panels.



**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.



**OCAC-302 Two Indicating Circuit Class “A” Converter Module** The OCAC-302 converts two Class “B” (Style “Y”) indicating circuits on the FA-300 main board to Class “A” (Style “Z”) circuits. The OCAC-302 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 and is used with the FA-300-6DDR series panels.





**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** 4 to 12 AH

## Current Consumption

- **Model**
  - FA-300-6D(D)
  - 142 mA (112 mA")
  - **Standby**
  - FA-301-12DD
  - 174mA(104 mA)
- **Alarm**
  - (282 mA")
  - 444mA (394 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-300-6DR Six Zone LCD Display Fire Alarm Control Panel
- FA-300-6DDR Six Zone LCD Display Fire Alarm Control Panel with built-in UDACT/Digital Communicator
- FA-301-12DDR Twelve Zone LCD Display Fire Alarm Control Panel with built-in UDACT/Digital Communicator

### 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 with red enclosure
- RTI-1 Remote Trouble Indicator
- BB-1001R Red 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-300TRB** Black Semi-Flush Trim Ring for FA-300-6 enclosures
- **FA-UNIV-TRB** Black Universal Semi-Flush Trim Ring for FA-301-12 enclosures
- **UIMA** Universal Programming Tool

## Documents / Resources

	<p><a href="#">Mircom FA-300 Series Lcd Display Fire Alarm Control Units</a> [pdf] Owner's Manual FA-300 Series Lcd Display Fire Alarm Control Units, FA-300 Series, Lcd Display Fire Alarm Control Units, Alarm Control Units</p>
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## References

-  [Fire Alarm Resources | Download fire alarm documents](#)
-  [Mircom - Smart Buildings. Smarter Solutions.](#)