# **Simplex**

## Life Alarm<sup>™</sup> Fire Alarm Systems

UL, ULC Listed; FM, CSFM, and NYC, MEA Approved\* Remote Annunciator Cabinets 4100/4120-8009 for LED, Switch, Telephone, and Microphone Modules

#### FEATURES

- Remote panel mounting of fire alarm annunciation controls:
  - Modular design allows selection of annunciation and control modules as required for individual applications
  - For use with Simplex 4100 and 4120 Series master fire alarm control panels (FACPs)

#### • Remote panel mounting of:

- LED and switch control modules
- Remote microphone and microphone control modules
- Remote master telephone and telephone control modules
- Remote Command Center with LCD
- Modules are available for support of graphic annunciation
- Operation and status supervision:
  - Supervised communications require a single, twisted, shielded pair to the master FACP (power requires a second wire pair)
- UL listed to Standard 864

#### DESCRIPTION

The 4100-8009 remote annunciator panel works with a Simplex 4100 or 4120 Series fire alarm control panel to provide remote annunciator functions. System monitor and/or control points can be clearly indicated by labeled LEDs. Point and system status can be controlled by labeled toggle switches.

This annunciator series supports panel mounted switches and LEDs and modules for connection to remote graphic annunciation. Supervision is provided, allowing indication upon loss of communication at both the remote annunciator and main control panel. LED failure or removal is individually indicated as a trouble on the host panel display.

For audio applications, a remote audio command center is available. Modules can include a remote microphone enclosure and/or a remote master telephone enclosure.

(For use with 4120 Networks, substitute 4120 for 4100 in the model number.)



4100-8009 Remote Annunciator in 4-Unit Cabinet (Shown with optional LED/Switch Modules, Remote Microphone, and Remote Master Telephone)

#### **GENERAL SPECIFICATIONS**

Operating Voltage	24 VDC nominal from fire alarm system
Communications Wiring Distance	Up to 2500 ft (762 km) from control panel
Operating Temperature	32° F to 120° F (0° C to 49° C)
Humidity Range	Up to 85% R.H. @ 86° F (30° C)

\* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7165-0026:167 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. Accepted for use – City of New York Department of Buildings – MEA35-93E. Additional listings may be applicable, contact Simplex for the latest status. Applicable FM approval information is available on request.

#### 4100/4120 Series Annunciator Feature Selection and Specification Reference

(For additional information, refer to document S4100-0013, 4100 Series Fire Alarm Control Panels. Substitute 4120 for 4100 when ordering for use with a 4120 Network.)

#### System Type

Model	Description	Supv. Current	Alarm Current	Internal Requirements
4100-8009	Remote Annunciator Panel	25 mA	25 mA	2 inch width

#### Internal Modules

Model	Description	Supv. Current	Alarm Current	Internal Requirements	
4100-0301	64/64 LED/Switch Controller (for internal connections) 15 m/		260 mA	2 inch width	
4100-0302	24 Point I/O Module (for external connections)	34 mA	75 mA		

#### **Front Panel Modules**

Model	Description and Current (currents not listed are included wi	Door Requirements		
4100-0401	00-0401 LED Module with 8 Red LEDs			
4100-0402	0-0402 LED Module with 8 Red LEDs and 8 Yellow LEDs			
4100-0403	4100-0403 LED/Switch Module with 8 Red LEDs and 8 momentary switches			
4100-0404	0-0404 LED/Switch Module with 8 Red LEDs, 8 green LEDs, and 8, three position maintained switches			
4100-0405	4100-0405 LED/Switch Module with 8 Red LEDs, 8 yellow LEDs, and 8 momentary switches			
4100-0408	0-0408 Annunciator Control Switch Module with 8 LEDs and 8 switches			
4100-0412	00-0412 Single Channel Audio Control Switch Module			
4100-0413 Dual or Triple Channel Audio Control Switch Module				
4100-0415	100-0415 Three Channel Speaker Selector Switch Module			
4100-0416	Audio Annunciator Control Switch Module with 8 LEDs ar			
4100-0410	Remote Microphone Module	3 mA Supv.	7 mA Alarm	4 inch width
4100-0411	Remote Master Telephone Module (Requires Master Telephone at FACP)			
4100-0450	0 Remote Command Center with LCD 30 mA Supv. 170 mA Alarm			16 inch width

#### Package Size, Finish and Trim Options

Model	Description				
4100-2001	2-Unit				
4100-2002	4-Unit	Select cabinet size, includes glass door and retainer, order cabinet separately (see below)			
4100-2003	6-Unit				
4100-2201	201 Red finish option				
2975-9801	Semi-flush trim option, beige, 1 7/16" wide (37 mm)				
2975-9802	Semi-flush trim option, red, 1 7/16" wide (37 mm)				

#### **Cabinets and Dimensions**

Model	Color	Size	Height	Cabinet Width	Cabinet Depth	Door Width
2975-9190	Beige	2-Unit	20 3/4"	25 3/4" (654 mm)	6 3/4" (171 mm)	26 3/8" 670 mm)
2975-9191	Red		(527 mm)			
2975-9192	Beige	4-Unit	36 1/4"			
2975-9193	Red		(921 mm)			
2975-9194	Beige	6-Unit	52 1/8"			
2975-9195	Red		(1324 mm)			

#### ANNUNCIATOR MODULE DESCRIPTIONS

4100 Series annunciator modules provide a variety of functions for manual control and LED status annunciation. The modular panel construction allows functions to be selected per individual application requirements.

#### 4100-0301, 64/64 LED/Switch Controller:

- Controls LEDs and switches of cabinet mounted LED/Switch Modules, supporting up to 64 switches and 64 LEDs
- Switches can be momentary or maintained, two or three 3 position switches
- LED drivers provide 5 mA average current per LED
- Supervision is performed on individual LEDs and on the LED and Switch module connections (switches are unsupervised)

### 4100-0302, 24 Point I/O Graphic Interface Controller:

- Controls up to 24 External Points, selectable as either a switch input or a lamp/relay driver output
- Switches can be momentary or maintained, two or three position (maximum distance is 2500 ft (762 m), or 65 Ω from the module for connection to remote graphic annunciators)
- Switch monitoring includes: unsupervised, supervision for opens, supervision for opens or shorts, and supervised monitoring of HOA (hand/off/auto) switches
- Each output driver is rated at 150 mA @ 24 VDC per point, inrush is current limited for compatibility with incandescent bulbs, relays need to be diode suppressed at the relay coil (maximum distance is 600 ft (183 m), or 2  $\Omega$  from the module for connection to remote graphic annunciators)
- Outputs are supervised for open circuits and can be steady on or can be selected to pulse at a slow or fast rate
- Additional inputs are included for communicating a remote power supply trouble and for lamp testing, the module can also be configured to provide local indication of communications loss

#### LED/Switch Module Common Features:

- Socketed LEDs are provided to allow a choice of LED color to clearly indicate the status being annunciated
- Switch modules can be used to perform manual control such as for HVAC, pressurization fans, damper control, speaker circuits, etc.
- Modules are available with a variety of LEDs or LEDs and switches (see selection chart on page 2)



LED/Switch Module Reference (4100-0408 Annunciator Control Switch Module Shown)

#### 4100-0408, Annunciator Control Switch Module

provides the remote annunciator panel with many of the features of the host fire alarm control panel. Seven pre-programmed features are provided:

- Communications Loss Acknowledge allows a local loss of communications with the master FACP to be acknowledged
- Lamp Test allows functional testing of each of the annunciator LEDs and provides a power on indicator
- Alarm Acknowledge allows alarms that are displayed on the remote annunciator to be acknowledged
- Supervisory Acknowledge allows general system supervisory conditions that are displayed on the remote annunciator to be acknowledged
- Trouble Acknowledge allows troubles that are displayed on the remote annunciator to be acknowledged
- Alarm Silence duplicates the Alarm Silence Switch at the host panel and is used to silence notification appliances system wide
- System Reset duplicates the System Reset Switch at the host panel and is used to provide system reset
- Manual Evacuation initiates a general evacuation operation

#### ANNUNCIATOR MODULE DESCRIPTIONS (Continued)

#### 4100-0410 Remote Microphone

Module (shown to the right)

When remote paging is required, this module provides a dynamic push-to-talk microphone at the remote annunciator panel location. To provide manual control, LED/switch modules are required.



#### 4100-0416 Audio Annunciator Control Switch



This module (shown to the left) provides eight pre-programmed features. The five common operation functions are: Communications Loss Acknowledge, Lamp Test with power on indicator, Alarm Acknowledge, Alarm Silence, and System Reset (each functions as described for the 4100-0408 Annunciator Control Switch Module).

Additionally there are three audio control functions:

All Speakers Evac manually controls speaker circuits and plays the evacuation message over all speakers.

**Selective Evac** plays the evacuation message to selected speaker circuits (separate individual speaker

circuit selection switches are required).

**All Speakers Talk** activates all speakers for microphone announcements (microphone has higher priority than Evac message).

#### CABINET INSTALLATION REFERENCE

(2-Unit cabinet is shown with semi-flush trim)

**Installation Note:** A system ground must be provided for Earth Detection and transient protection devices. This connection shall be made to an approved, dedicated Earth connection per NFPA 70, Article 250, and NFPA 780.





Simplex, the Simplex logo, and Life Alarm are registered trademarks of the Simplex Time Recorder Co.



4100-0411 Remote Master

**Telephone Module** (shown to the right) provides a remote master telephone enclosure for use whenever a private two-way voice communication is desired. To provide manual control of telephone circuits, LED/switch modules are required. (Requires a Master Telephone and a dedicated remote phone signal circuit at the main FACP.)

#### 4100-0450 Remote Command

**Center** (shown below) provides an LCD readout and control switches similar to those at the host FACP. A keyswitch is provided for controlled access.



#### **Audio Annunciator Modules**

**4100-0403,** 8 red LEDs and 8 momentary switches, typically used for single channel speaker selection and/or firefighter's phone selection.

**4100-0405**, 8 red LEDs, 8 yellow LEDs, 8 momentary switches, similar to the 4100-0403 module except with the addition of yellow LEDs for trouble indications per circuit.

**4100-0404,** 8 red LEDs, 8 green LEDs, 8 three position maintained switches, used for dual channel speaker selection or HOA operation.



Westminster, Massachusetts 01441-0001 U. S. A. Offices and Representatives Throughout the World Visit us on the world wide web at **www.simplexnet.com**.

All specifications and other information shown were current as of printing and are subject to change without notice.

