# **5**Simplex

# **System Accessories, LCD Annunciators**

UL, ULC, CSFM Listed; FM, NYC Fire Dept Approved\* 4606-9102 LCD Annunciator for 4010ES Fire Alarm Control Panels

#### **Features**

Remote LCD annunciator for use with Simplex® model 4010ES fire alarm control panels

## LCD readout provides:

- Two lines of 40 characters each
- Wide viewing angle, super-twist design
- LED backlighting

#### Control switches and status LEDs for:

- Alarm, Priority 2, Supervisory, or Trouble acknowledge (keyswitch access controlled)
- Alarm silence, System reset
- Three programmable control switches with yellow LEDs and provisions for custom labeling

#### **Additional features:**

- Information is transmitted over a single unshielded twisted pair; separate wiring is required for 24 VDC control panel power (see p. 3 for more information)
- Tone-alert sounder provides local audible indication
- Lamp and LCD are functionally tested each time the keyswitch is turned on
- Mounts flush on standard 6-gang electrical box
- Up to up to 20 internal and external card addresses per 4010ES fire alarm control panel

**Mounting and trim options** (ordered separately, see page 3 for more details):

- Surface mount box model 2975-9206
- Brushed stainless steel trim model 4603-9111

# **Description**

**Local Annunciation.** 4606-9102 LCD Annunciator allows 4010ES fire alarm control panels to provide information and control switches at convenient locations away from the control panel. The LCD is an 80 character, back-lit, alphanumeric display with information presented in clear and descriptive English. Typical content includes: point status (alarm, trouble, etc.), alarm type (smoke detector, manual station, etc.), number of system alarms, supervisory conditions, troubles, and custom location labels up to 40 characters long.

**Communications.** Data communications require a single unshielded twisted pair that supports other annunciators on the same communications channel.



4606-9102 LCD Annunciator

# **Description** (Continued)

**Indications.** Alarm, Priority 2, Supervisory, and Trouble conditions are also indicated by dedicated LEDs and a tone-alert audible indication. Each condition has a dedicated acknowledge push-button switch that silences the tone-alert but leaves the LED on until all conditions in that category are restored to normal.

**Activity Scrolling.** Repeated operation of the appropriate acknowledge switch will scroll the LCD display showing activity in the sequence of occurrence. The internal tone-alert also sounds to indicate the operation of any of the push-button switches.

## Operation

**Keyswitch Access.** All switches on the annunciator are controlled by the "ENABLE" keyswitch with a key that is removable only in the disabled position. A brief Lamp/LCD test is performed whenever the keyswitch is changed from enabled to disabled.

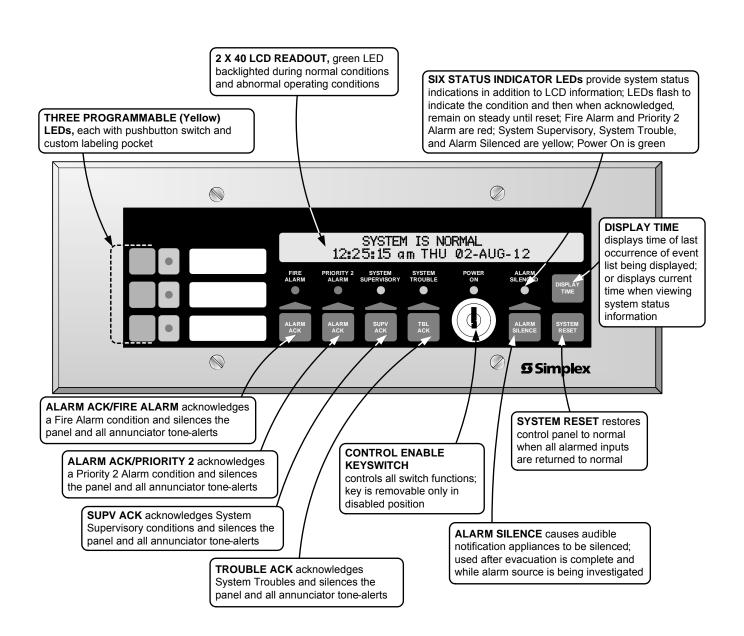
**Enabled Operations.** When enabled, notification appliances can be deactivated by pressing the "ALARM SILENCE" switch. Pressing the "SYSTEM RESET" switch restores the system to normal operation. When system activity is normal, the LCD displays the time, date, and "SYSTEM IS NORMAL."

<sup>\*</sup> 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 7300-0026:0370 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. NYC Fire Dept COA #6095. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products.

# **Product Selection**

Model	Description				
4606-9102	Remote LCD Annunciator with beige trim for use with 4010ES fire  alarm control panels  Refer to specifications on page 3				
4603-9111	Brushed stainless steel trim option for additional details				
2975-9206	Matching surface mount box; ivory finish				
2081-9044	Overvoltage protector; required where annunciator communications and power wiring exits and enters a building; refer to data sheet S2081-0016 for details				

# 4606-9102 Operator Information

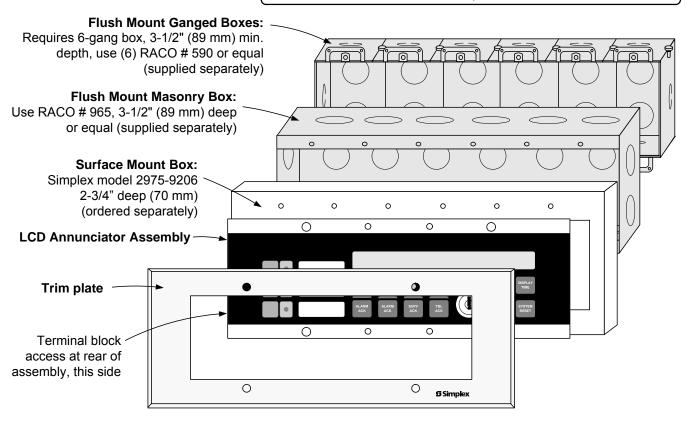


# 4606-9102 LCD Annunciator Specifications

General C	perating S	pecificatio	ons (refer to Installation Instructions 579-977 for additional information)		
Voltage			18 to 32 VDC, system supplied		
Normal Operating Current		nt	110 mA (with LED backlighting on)		
Battery Standby Current			65 mA (during battery backup, LED backlighting is turned off after 30 seconds without switch activity)		
Alarm Current			140 mA maximum (LED backlighting is on and tone-alert is sounding)		
Operating Temperature Range		Range	32° to 120° F (0° to 49° C)		
Operating Humidity Range		ge	Up to 93% RH, non-condensing at 100° F (38° C)		
Communi	cations				
For 4010ES Panels* Type Capacity		Туре	RUI (Remote Unit Interface) external annunciator communications line SLC (signaling line circuit)		
		Capacity	Up to 20 total internal and external card addresses		
Wiring Re	quirements	3			
RUI Data	Standard Wiring Type		Unshielded twisted pair (UTP), 18 AWG (0.82 mm <sup>2</sup> ) for most applications, see below		
	Wiring Characteristics		0.58 $\mu\text{F}$ (580 nF) maximum capacitance between conductors; 35 $\Omega$ maximum total line resistance		
	Wiring Applications Requiring Shielded, Twisted Pair (STP)		<ol> <li>Wiring that leaves the building. Also requires Isolated Loop Circuit Protectors on each end, refer to data sheet S2081-0007 for 2081-9027 (200 mA), or S2081-0008 for 2081-9028 (5 A)</li> <li>Wiring run in 500 ft (152 m) or more of conduit.</li> <li>Wiring closely bundled with standard IDNet communications or TrueAlert addressable communications (not required when run with IDNet+communications).</li> </ol>		
	Class B "T-	Γap" wiring distance	Up to 10,000 ft (3048 m) total wiring; up to 2500 ft (762 m) to farthest device		
	Class X wirin	g distance	Up to 2500 ft (762 m)		
Power Wiring			18 to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> ) wires for 24 VDC system power		
Earth Wiring			A dedicated earth ground connection to the electrical box is required for proper ESD and EMI protection; wire in accordance with NFPA 70 ( <i>National Electrical Code</i> ) Article 250		
Mounting	Informatio	n			
Trim Dimensions			4 ½" H x 11 <sup>13</sup> / <sub>16</sub> " W (114 mm x 300 mm)		
Assembly Depth			$1.5^{1}_{16}$ (33 mm), $1.1^{1}_{2}$ at terminal block location (38 mm)		
Standard Trim Finish			Steel, painted beige		
4603-9111, Optional Trim		n	Brushed stainless steel (ordered separately); supplied with both slotted and tamper resistant screws		
Boxes for	Maso	onry boxes	Six-gang box, RACO # 965, 3 1/2" (89 mm) deep or equal		
Flush Mounting	Single g	ang boxes	Six, single gang boxes, 3 1/2" (89 mm) deep minimum, RACO # 590 or equal		
(supplied separately)	Box sele	ection note	Conduit entrance is box dependent, refer to Installation Instructions 579-977 for additional mounting information and conduit entry requirements		
2975-9206	S, Surface N	lount Box	Option (ordered separately)		
Dimensions			12" W x 4 %" H x 2 ¾" D (305 mm x 117 mm x 70 mm)		
Finish			Painted steel, ivory finish		

<sup>\*</sup> Refer to the 4010ES control panel data sheet for additional panel information.

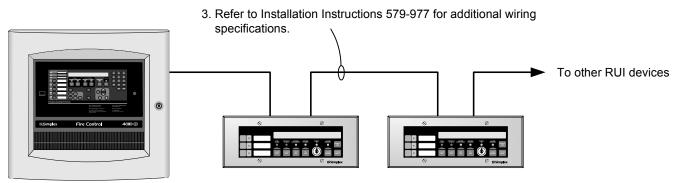
**Note:** Review box choice with assembly layout before selecting conduit entrance location to allow easy access to terminals



## Wiring Reference

#### **Interconnection Wiring Notes:**

- 1. Communications require 18 to 12 AWG unshielded twisted pair.
- 2. Power requires two, 18 to 12 AWG wires for 24 VDC system power, plus Earth Ground to each electrical box.



4010ES Fire Alarm Control Panel

4606-9102 LCD Annunciators

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