System Accessories, LCD Annunciators

4603-9101 LCD Annunciator for 4100ES and 4100U Fire Alarm Control Panels

Features

Remote LCD annunciator for use with Simplex®

- 4100ES and 4100U fire alarm control panels
- Legacy products 4100, 4120, and 4020 fire alarm control panels, and 4100/4120 Universal Transponders

Information display features:
- Maintained display of first alarm is available with 4100ES and with 4100U at software revision 11.11 or higher
- Wide viewing angle, super-twist LCD technology with green LED backlighting
- Two lines of 40 characters each
- LED status indicators
- During battery backup, backlighting is disabled until there is switch activity

Controls include:
- Switches for system acknowledge, alarm silence, and system reset
- Four programmable control switches
- Lamp/LCD test

Wiring information:
- RUI (Remote Unit Interface) communications require a single twisted wire pair (see p. 3 for more information)
- Separate wiring is required for 24 VDC control panel power

Flush mount on standard electrical boxes

Options:
- 2975-9206, Surface mount box
- 4603-9111, Brushed stainless steel trim

UL Listed to Standard 864

Description

Remote Control and Annunciation is provided using an 80 character, back-lit, alphanumeric display. Information is presented in clear, descriptive English language and includes: Point Status (alarm, trouble, etc.); Alarm Type (smoke detector, manual station, etc.); Number of System Alarms, Supervisory Conditions, and Trouble Conditions; and a Custom Location Label.

Wiring. A single twisted wire pair provides serial RUI communications that also supports other Simplex serial annunciators on the same wire pair.

Multiple Indications. Alarm, Supervisory, and Trouble conditions are also indicated by dedicated LEDs and a tone-alert audible sounder. 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. Switch operation is either globally or individually acknowledgeable, determined by the control panel operation.

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

Consult local code requirements for guidance in determining applications and location of the 4603-9101 LCD annunciator.

Operation

System Controls. Notification appliances can be deactivated by pressing the “ALARM SILENCE” switch. (Exact operation is determined by the host control panel such as visible appliances remaining on until system is reset.) 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.”

Control Switches. Four programmable “CONTROL” switches and associated LEDs are included. Typical applications include manual evacuation, door holder release bypass, and elevator capture bypass.

Keyswitch Enable. 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.

Battery Backup Operation. During battery backup, the LED backlighting is disabled to conserve battery power. When an annunciator switch is activated, the backlighting is automatically enabled. After approximately 30 seconds of inactivity, the backlighting will again be disabled.

* 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 7120-0026:0179 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 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

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Additional Details</th>
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</thead>
<tbody>
<tr>
<td>4603-9101</td>
<td>Remote LCD Annunciator with beige trim</td>
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<tr>
<td>4603-9101CF</td>
<td>Remote LCD Annunciator with beige trim, with French keypad for Canada</td>
<td>Refer to specifications on page 3 for additional details</td>
</tr>
<tr>
<td>4603-9111</td>
<td>Brushed stainless steel trim option</td>
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</tr>
<tr>
<td>2975-9206</td>
<td>Matching surface mount box; ivory finish</td>
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<tr>
<td>2081-9044</td>
<td>Overvoltage protector; required where annunciator communications and power wiring exits and enters a building; refer to data sheet S2081-0016 for details</td>
<td></td>
</tr>
</tbody>
</table>

### 4603-9101 Operator Information

- **2 X 40 LCD READOUT**, green LED backlit during normal conditions and abnormal operating conditions.
- **SIX STATUS INDICATOR** LEDs provide system status indications in addition to LCD information; LEDs flash to indicate the condition and then when acknowledged, remain on steady until reset; Fire Alarm and Priority 2 Alarm are red; System Supervisory, System Trouble, and Alarm Silenced are yellow; Power On is green.
- **DISPLAY TIME** displays time of last occurrence of event list being displayed; or displays current time when viewing system status information.
- **SYSTEM RESET** restores control panel to normal when all alarmed inputs are returned to normal.
- **CONTROL ENABLE KEYSWITCH** controls all switch functions; key is removable only in disabled position.
- **ALARM SILENCE** causes audible and visible notification appliances to be silenced (default operation, may be modified through panel programming for compliance with local requirements).
- **ALARM ACK/FIRE ALARM** acknowledges a Fire Alarm condition and silences the panel and all annunciator tone-alerts.
- **ALARM ACK/PRIORITY 2** acknowledges a Priority 2 Alarm condition and silences the panel and all annunciator tone-alerts.
- **SUPV ACK** acknowledges System Supervisory conditions and silences the panel and all annunciator tone-alerts.
- **TROUBLE ACK** acknowledges System Troubles and silences the panel and all annunciator tone-alerts.

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**Model Description**

- 4603-9101CF Remote LCD Annunciator with beige trim, with French keypad for Canada
- 4603-9111 Brushed stainless steel trim option
- 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

**Refer to specifications on page 3 for additional details**
### General Operating Specifications

- **Voltage**: 18 to 32 VDC, system supplied
- **Normal Operating Current**: 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**: 32° to 120° F (0° to 49° C)
- **Operating Humidity Range**: Up to 93% RH, non-condensing at 100° F (38° C)

### Communications

- **4100ES/4100U Capacity**, **Per RUI Output**: Type RUI (Remote Unit Interface) external annunciator communications line SLC (signaling line circuit)
  - **Capacity**: Up to 31 remote annunciators/MINIPLEX transponders per channel including the 4603-9101 LCD Annunciator, the 4602-9101 Status Command Unit (SCU), and 4602-9102 Remote Command Unit (RCU); refer to data sheet S4100-0031 for additional 4100ES information

### Wiring Requirements

<table>
<thead>
<tr>
<th>Standard Wiring Type</th>
<th>Unshielded twisted pair (UTP), 18 AWG (0.82 mm²) for most applications, see below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiring Characteristics</td>
<td>0.58 µF (580 nF) maximum capacitance between conductors; 35 Ω maximum total line resistance</td>
</tr>
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<td><strong>Wiring Applications Requiring Shielded, Twisted Pair (STP)</strong></td>
<td></td>
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<td>1. <strong>Wiring Applications Requiring Shielded, Twisted Pair (STP)</strong></td>
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<tr>
<td>1. <strong>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)</strong></td>
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<tr>
<td>2. <strong>Wiring run in 500 ft (152 m) or more of conduit.</strong></td>
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<tr>
<td>3. <strong>Wiring closely bundled with standard IDNet communications or TrueAlert addressable communications (not required when run with IDNet+ communications).</strong></td>
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<tr>
<td><strong>Class B “T-Tap” wiring distance</strong></td>
<td>Up to 10,000 ft (3048 m) total wiring; up to 2500 ft (762 m) to farthest device</td>
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<tr>
<td><strong>Class X wiring distance</strong></td>
<td>Up to 2500 ft (762 m)</td>
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<tr>
<td><strong>Power Wiring</strong></td>
<td>18 to 12 AWG (0.82 mm² to 3.31 mm²) wires for 24 VDC system power</td>
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<tr>
<td><strong>Earth Wiring</strong></td>
<td>A dedicated earth ground connection to the electrical box is required for proper ESD and EMI protection; wire in accordance with NFPA 70 (National Electrical Code) Article 250</td>
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</tbody>
</table>

### Mounting Information

**NOTE**: General Conduit Entrance Requirement | Conduit entrance must be located a minimum of 2 ¾” (70 mm) from the front of the box to clear assembly

- **Trim Dimensions**: 4 ½“ H x 11 13/16” W (114 mm x 300 mm)
- **Standard Trim Finish**: Steel, painted beige
- **4603-9111, Optional Trim**: Brushed stainless steel (ordered separately); supplied with both slotted and tamper resistant screws
- **Boxes for Flush Mounting** (supplied by others) | 6-Gang, 3 ½” (89 mm) deep: Steel City GW-635-G, 6-gang masonry box; RACO 590, gangable switch box, 6 required; or equal

**2975-9206, Surface Mount Box Option** (ordered separately)

- **Dimensions**: 11 3/32” W x 4 ¾” H x 2 ¾” D (304 mm x 117 mm x 70 mm)
- **Finish**: Painted steel, ivory finish
Mounting Information

Flush Mount Ganged Boxes:
Requires 6-gang box, 3-1/2” (89 mm) min. depth, use (6) RACO # 590 or equal (supplied separately)

Flush Mount Masonry Box:
Use Steel City GW-635-G or equal, 3-1/2” (89 mm) deep or equal (supplied separately)

Surface Mount Box:
Simplex model 2975-9206
2-3/4” deep (70 mm)
(ordered separately)

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

LCD Annunciator Assembly

Trim plate

Terminal block access at rear of assembly, this side

Wiring Reference

Wiring Notes:
1. Communications require a single 18 AWG twisted pair.
2. Power requires two, 18 to 12 AWG wires for 24 VDC system power, plus Earth Ground to each electrical box.
3. Refer to Installation Instructions 579-979 for additional wiring specifications.

Fire Alarm Control Panel
(4100ES shown)

4603-9101 LCD Annunciators