

## Features

Remote Annunciator Panels provide fire alarm control unit (FACU) status information at locations distant from the FACU.

### Typical functions include the following features:

- Remote status LED indicators and dedicated switch input controls located on LED/switch modules
- Remote status LED indicator modules with 8 red LEDs or 16 LEDs, 8 red and 8 yellow, that are pluggable to allow color selection. Order yellow, green, or red LEDs separately
- Remote microphone and operator interface for access to the emergency voice/alarm communications system
- Remote master telephone for communicating to the firefighter telephone system
- Models available with Color ES Touch Screen Display User Interface

### Additional optional modules include the following items:

- Remote Command Center option for LCD status readout and keyswitch controlled functions, for models 4100-9610 and 4100-9611 without Color ES Touch Screen Display
- 24 Point I/O module
- RS-232 ports for remote printer or terminal connections
- Power supplies with battery charger for annunciator
- Panel mounted printer for system status recording

### Wiring requirements:

- Remote unit interface (RUI) or RUI+ supervised communications from the host FACU provide Class B or Class X signaling line circuit (SLC) pathway connections
- Microphone and telephone circuits require their own dedicated wiring

### Listed to the following standards:

- UL 864, Fire Detection and Control (UOJZ), Smoke Control Service (UUKL), Releasing Device Service (SYZV), Emergency Communication and Relocation Equipment (UOQY), Control Unit Accessories (UOXX)
- UL 1076, Proprietary Alarm Units - Burglar (APOU)
- UL 2017, Process Management Equipment (QVAX), Emergency Alarm System Control Units (FSZI)
- UL 1730, Smoke Detector Monitor (UULH)
- UL 2572, Mass Notification Systems (PGWM)
- CAN/ULC-S527 Control Units for Fire Alarm Systems (UOJZ7), Releasing Device Service (SYZV7), Control Unit Accessories (UOXX7)
- CAN/ULC-S559 Central Station Fire Alarm System Units (DAYR7)
- ULC/ORD-C1076 Proprietary Burglar Alarm Units and Systems (APOU7)
- ULC/ORD-C100 Smoke Control System Equipment (UUKL7)



## Introduction

### Remote Annunciator Panels

Remote Annunciator Panels are dedicated purpose transponders that support fire alarm system status information. A typical use case is when the host FACU is located away from the area where those responding to a fire situation need status information.

### Status and control

The controls are suitable for firefighters or other fire brigade responders to access particular information and for system control. When equipped with a remote microphone and emergency voice/alarm communications system control, an authorized user can take command of the system and either play selected pre-recorded messages or select specific tones, or initiate live broadcast information either globally into the system, or to selected areas.

### Remote Master Firefighter Phone

When equipped with a remote master phone, the authorized user can connect to remote phone call-in requests and allow callers to connect to each other. Although intended for use in assisting fire responders, these systems are also helpful during system setup and test.

\* 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 7165-2269:0542 for allowable values and/or conditions concerning material presented in this document. Additional listings may be applicable; contact your local Simplex product supplier for the latest status.

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## Module bay description

### Remote Annunciators

Remote Annunciators include a bay assembly, a power distribution interface module (PDI), a Transponder Interface Module, and an interconnect harness. Communications with the host FACU are through a RUI or RUI+ connection that allows for a distance of up to 2500 ft (762 m). RUI can communicate with up to a total of 31 remote devices for each master controller, on one or multiple RUI channels. You can wire RUI as a Class B or Class X communication pathway. You can use either shielded or unshielded wiring, twisted, or untwisted single pair wiring.

### 4100-9610 Remote Annunciator or 4100-9616 Remote Annunciator with Enhanced ES Touch Screen Display

These models are for applications that may require a full complement of the Remote Annunciator functions, see [Product selection](#). Power is from a cabinet mounted ES-PS power supply.

### 4100-9611 Basic Remote Annunciator or 4100-9617 Basic Remote Annunciator with Enhanced ES Touch Screen Display

For remote annunciator applications that require less features in the cabinet, these models are powered from a separate fire alarm control cabinet. These models do not accept the following items: a cabinet mounted power supply, expansion phone cards, Class A phone modules, RS-232 modules, panel mounted printers, or 24 I/O modules.

### Optional expansion bays

Each includes a PDI and accepts a variety of optional modules for specific annunciator functions.

### The battery compartment

The bottom battery compartment accepts two batteries, up to 50 Ah. Battery mounting does not interfere with available module space. Not applicable to the model 4100-9611.

### Packaging availability

- Modules are power-limited except as noted, such as relay modules.
- Enclosures are available for one, two, or three bay sizes or for cabinet rack mounting.
- Boxes, doors with tempered glass inserts, and dress panels are available in beige or red. Order separately.
- Refer to document [S4100-0037](#) for enclosure details.

## Color ES Touch Screen Display included on models 4100-9616 and 4100-9617

The Color ES Touch Screen Display interface offers intuitive operation similar to a tablet or smart phone. With a larger area format versus an individual text line display, more information is available at a glance and minimal key presses are needed to access detailed information.

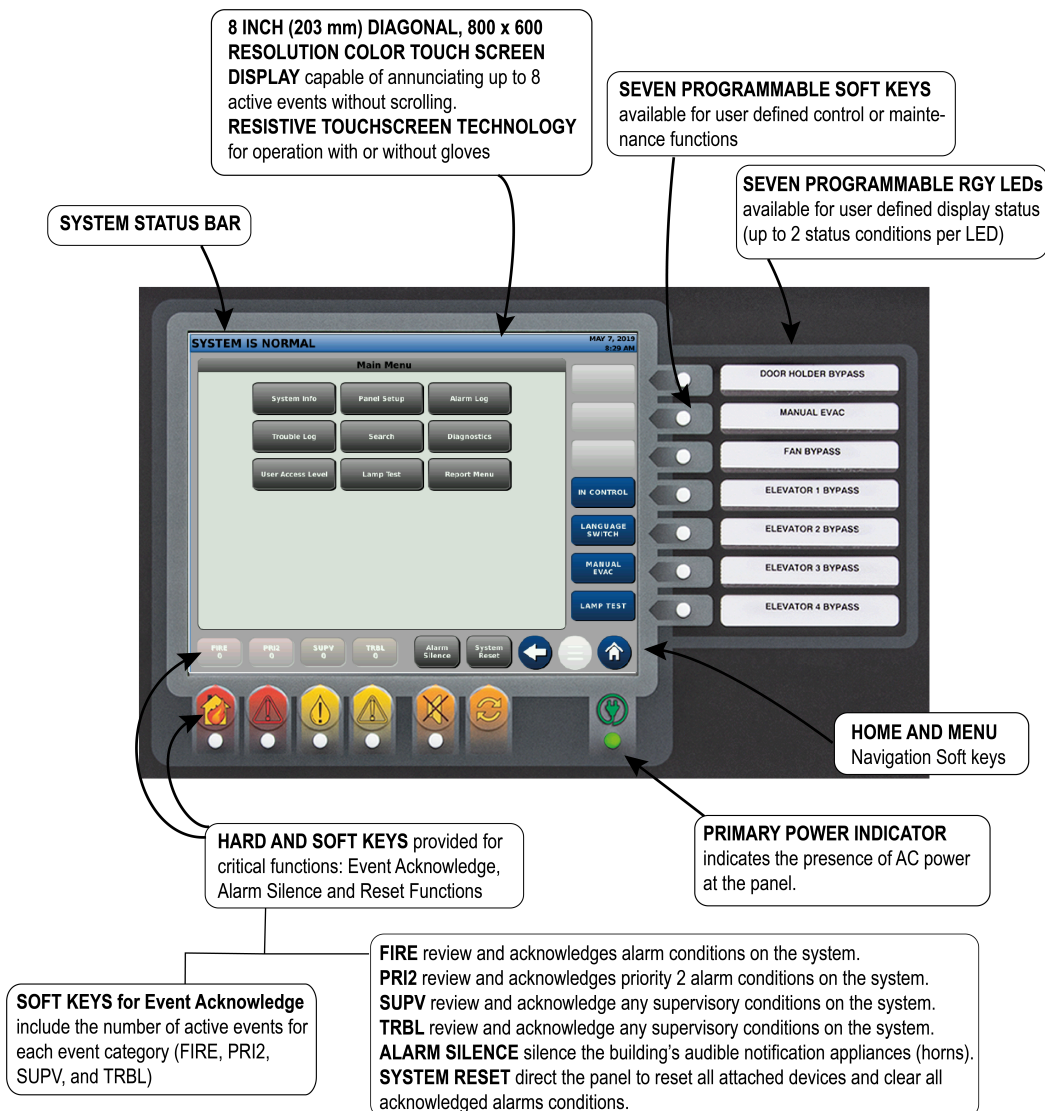


Figure 1: ES Touch Screen Display operator interface

## Features

ES Touch Screen Displays provide a customized operating experience with the following features:

- Event activity display choices include **First 8 Events**, or **First 7 Events** with emphasis on **Most Recent**, or **First 6 Events** with emphasis on **First** and **Most Recent**, individually selectable for each event type.
- System reports are easily viewable and you can read logs with minimal scrolling.
- Up to two languages are available for each system, easily selected by programmable key press
- Vector the information sent to Remote ES Touch Screen Displays by point or zone.
- Both hard and soft keys are available for the following critical functions: Event Acknowledge, Alarm Silence, Reset Functions.
- Resistive touchscreen technology allows operation with or without gloves.
- Seven programmable RGY LEDs are available for user-defined display status, with up to two status conditions for each LED.
- Seven programmable soft keys are available for user-defined control or maintenance functions
- You can change the PRI2 soft key label to CO to annunciate carbon monoxide detection status.
- You can program the ES Touch Screen Display to report individual points or groups of points as a single zone.
- Supports the ability to display a custom watermark background file of a company logo or other desired display content.
- Seismically compliant under the State of California Statewide Office of Housing and Development (OSHPD) Special Seismic Certification (SSC) program guidelines. Refer to *Simplex Seismic Application Guide* 579-1213 and *Battery Brackets for Seismic Activity Applications* S2081-0019 for details.

### Display properties

- 8 in. (203 mm) diagonal, 800 x 600 resolution color touch screen display, capable of annunciating up to 8 active events without scrolling.
- Bright white LED backlighting provides efficient and long lasting illumination. The backlight is dim in quiescent state and automatically switches to full power on touch or on event activity in system.

### Description

The ES Touch Screen Displays for 4100ES fire alarm systems provide a large display with extended information content, dual language support including UTF-8 character languages, and an intuitive control key interface with the following features:

- Up to 10 ES Touch Screen Displays are supported for each 4100ES control panel with the capacity to allow one ES Touch Screen Display to take control and to designate access levels for interfaces not in-control. You can assign programmable LEDs to in-control status indications.
- The menu-driven format conveniently prompts operators for the next action required.
- Direct point callup displays individual points alphabetically and then homes in on the logical choice as more point information is entered.
- Event categories are color coded for quick visual representation: red for **Alarm** and **Priority 2** events, yellow for **Supervisory** and **Trouble** events.
- Date formats are either MM/DD/YY or DD/MM/YY.
- Time formats are either 24 hour or 12 hour with AM/PM.
- System Normal screen supports a color background or watermark for company name, company logo, or other desired display content.

### Specifications

**Table 1: General ES Touch Screen Display specifications**

Specification	Rating
Resolution	800 x 600 pixels (RGB)
Size and type	8 inch (203 mm) diagonal, color touch screen
Touch screen technology	Resistive
Event display	Up to 8 events without scrolling
Normal screen custom watermark file format	680 x 484 pixels: BMP, JPG, TIFF, GIF, or PNG file format
Environmental	Operating temperature: 32°F to 120°F (0°C to 49°C)
	Operating humidity: up to 93% RH, non-condensing @ 90°F (32°C) maximum



Example display screens

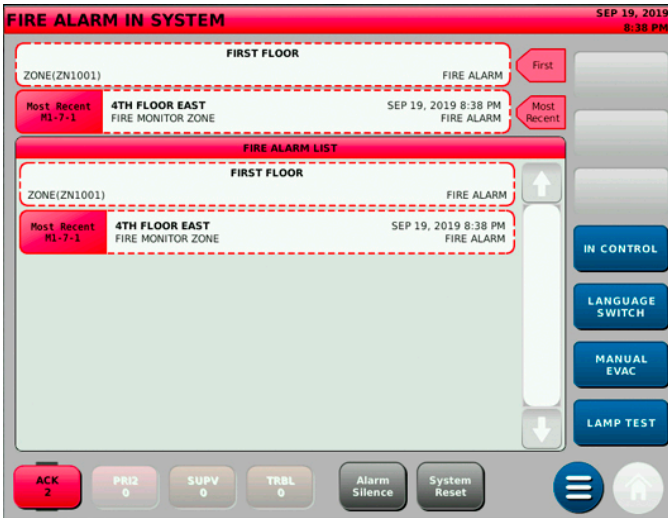


Figure 2: First and Most Recent alarm display

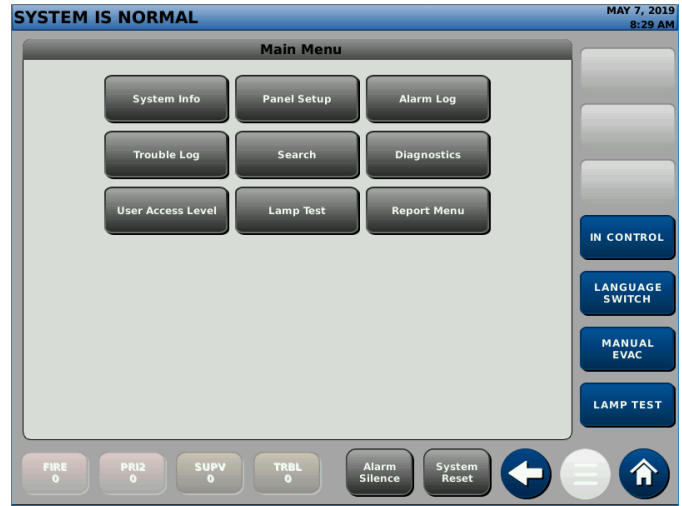


Figure 3: Main Menu

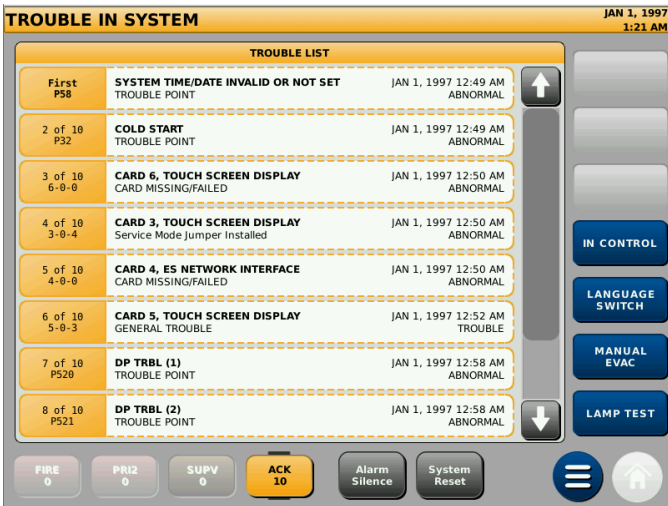


Figure 4: First eight active trouble events list



Figure 5: Direct point callup

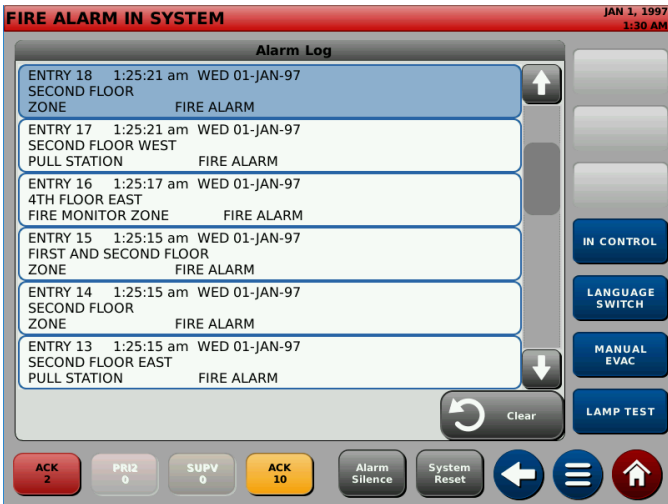


Figure 6: Alarm history log

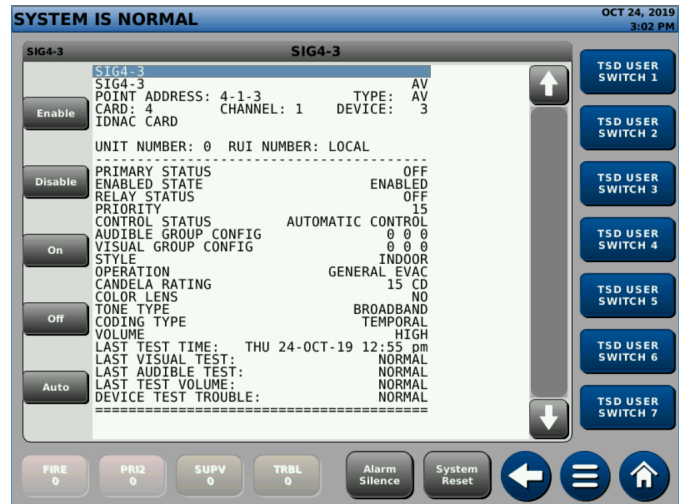


Figure 7: Detailed point status screen for TrueAlert ES appliance

**Remote Command Center for models 4100-9610 and 4100-9611, order 4100-1290 Remote Command Center option separately**

The optional Remote Command Center occupies the top bay of a Remote Annunciator. It provides a 2 line x 40 character LCD status readout with keyswitch activated control switches and a local tone-alert sounder. Its features are essentially identical to the Remote LCD Annunciator model 4603-9101, refer to document *S4603-0001*. For the Color ES Touch Screen Display user interface, order models 4100-9616 or 4100-9617. See Table 2 for Remote Annunciator Model selections.

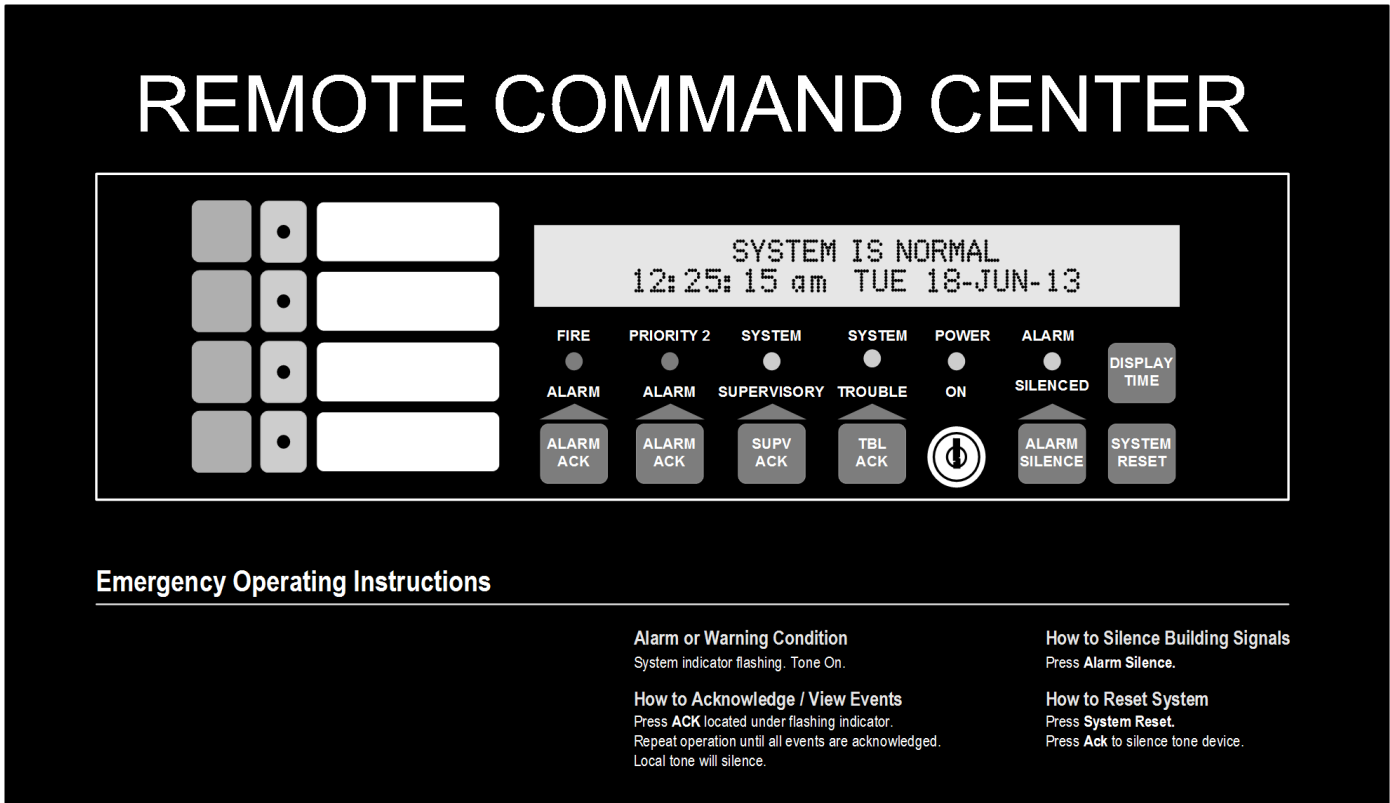


Figure 8: 4100-1292 Remote Command Center

**Remote Annunciator Audio Module reference**

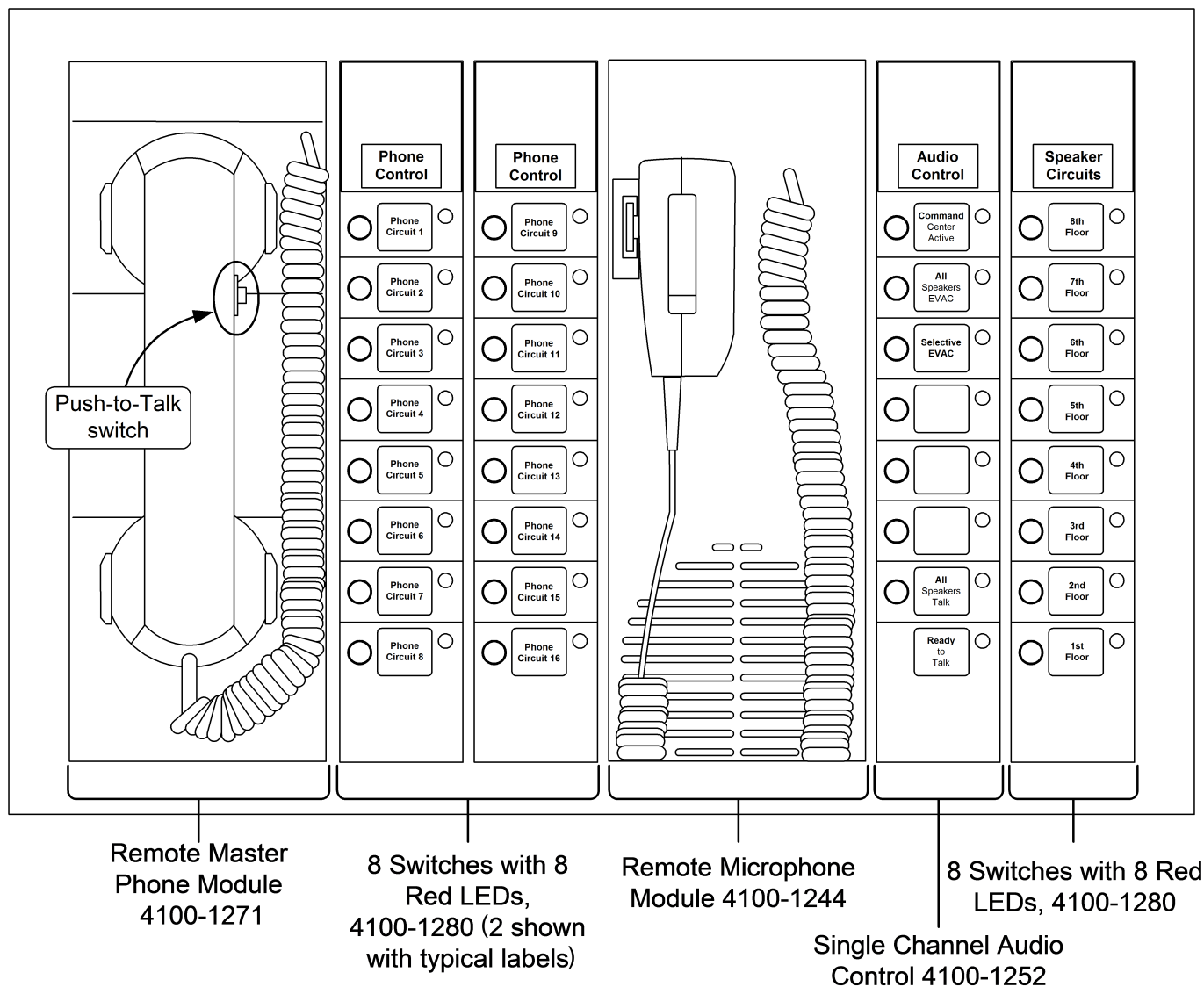


Figure 9: Remote Annunciator Audio Module reference

**Product selection**

Table 2: Remote Annunciator Panel type

Model	Description	Details and mounting reference
4100-9610	Remote Annunciator Panel, requires an internal power supply	Includes a bay assembly with power distribution board, a 4100-0620 Basic Transponder Interface Card, mounted in Block A, and an interconnect harness for connecting to 4100ES Slot modules. Supervisory and alarm current = 34 mA
4100-9611	Basic Remote Annunciator Panel, requires power from another cabinet. See module exclusion list.	Includes a bay assembly with power distribution board, a remotely powered Transponder Interface Card mounted in Block A, and an interconnect harness for connecting to 4100ES/4100U Slot modules. Supervisory and alarm current = 34 mA
4100-9616	Remote Annunciator with ES Touch Screen Display	Remote Annunciator includes the following items: Color ES Touch Screen Display, Expansion Bay with PDI, a 4100-0620 Basic Transponder Interface Card. Power supply is specified separately when configured. Supervisory current = 95 mA, alarm current = 165 mA
4100-9617	Basic Remote Annunciator with ES Touch Screen Display, see module exclusion list.	Basic Remote Annunciator includes the following items: Color ES Touch Screen Display, Expansion Bay with PDI, Transponder Interface Card. Power is supplied from host control panel. Supervisory current = 95 mA, alarm current = 165 mA

**Table 3: Remote Command Center option**

Model	Description	Details and mounting reference
4100-1292	Panel Mounted LCD Annunciator with 2 line by 40 character LCD with LED illumination. LED illumination is off during supervisory, turning on with alarm or when switches are activated.	Mounting requires the top bay. 4100ES/4100U flat modules are allowed behind it. RUI device and RUI/RUI+ connection is required. Supervisory current = 65 mA, without backlight Alarm current = 140 mA
4100-9616	Remote Annunciator with ES Touch Screen Display	Remote Annunciator includes the following items: ES Touchscreen Display, Expansion Bay with PDI, Remote TIC module. Power supply is specified separately when configured. Supervisory current = 95 mA, alarm current = 165 mA
4100-9617	Basic Remote Annunciator with ES Touch Screen Display	Basic Remote Annunciator includes the following items: ES Touchscreen Display, Expansion Bay with PDI, Remote TIC module. Power is supplied from host FACU. Supervisory current = 95 mA, alarm current = 165 mA
<b>Note:</b> For the Color ES Touch Screen Display user interface, order models 4100-9616 or 4100-9617. See Table 2 for Remote Annunciator Model selections.		

**Table 4: Emergency voice/alarm communications operator interface options**

Model	Description	Details and mounting reference
4100-1244	Remote Microphone (mic) module	Front panel module requires 2 Slots, 4 in. (51 mm). The space behind accepts 4100ES/4100U flat modules only and requires dedicated wiring to FACU audio control module. Supervisory current = 2.4 mA, active = 6 mA
4100-1252	1 channel, audio or mic	Operator interface modules Single slot modules that require connection to an LED/switch controller. The space behind accepts 4100ES/4100U flat modules only. Adjacent LED/switch modules are required for specific speaker circuit selection. Refer to document S4100-1034 for audio reference, and document <b>S4100-0032</b> for LED/switch module reference. Supervisory current = 0, alarm current = 24 mA
4100-1253	1.5 channel, audio and mic	
4100-1254	2 channel, full audio	
4100-1255	3-8 channel	

**Table 5: Firefighter Telephone System products**

Model	Description	Details and mounting reference
4100-1271	Remote Master Telephone	Mounts in two vertical blocks of bay front, locate as required. The space behind allows 4100ES/4100U flat modules only.
4100-1272	Phone Module with 3 Class B phone NACs	Single Block module, mounts to bay mounting plate.
4100-1273	Phone Class A Adapter Module	Mounts to 4100-1272, no additional space required.
<b>Note:</b> Refer to document <b>S4100-1034</b> for additional details.		

**Table 6: LED and LED/Switch Modules, general purpose**

LEDs per switch	LEDs	Switches	Model	LED Color	Model	LED Color
One	16	8	4100-1280	Red	4100-1281	Yellow
Two		8	4100-1282	Red on top, yellow on bottom	4100-1283	Yellow, top and bottom
Two		8	4100-1284	Red on top, green on bottom	4100-1296	Green on top, yellow on bottom
One		16	4100-1285	Red	4100-1278	8 red on left, 8 yellow on right
<b>Note:</b> LED/switch controller and label kit is ordered separately. Refer to data sheet <b>S4100-0032</b> for additional LED/Switch module selections.						

**Table 7: LED and LED/Switch Modules, general purpose**

LEDs per switch	LEDs	Switches	Model	LED Color
LEDs only	8	LEDs only	4100-1276	Red, pluggable
LEDs only	16	LEDs only	4100-1277	Pluggable LEDs, shipped red on top, yellow on bottom
One		16	4100-1300	Pluggable LEDs, shipped red on top, yellow on bottom. UL, ULC, and CSFM listed only
One	24	24	4100-1287	Red
<b>Note:</b> LED/switch controller and label kit is ordered separately. Refer to data sheet <b>S4100-0032</b> for additional LED/Switch module selections.				

**Table 8: LED/Switch Modules, special purpose**

Model	Operation	Switch function and location	LED description
4100-1286	Eight function HOA (On, Off, Auto) Control Module with labeled switches	On, top	Green LED
		Off, middle	Red LED
		Auto, bottom	Green LED
4100-1295	Eight function HOA (On, Off, Auto) Control Module, same as 4100-1286 except switches are unlabeled		
<b>Note:</b> LED/switch controller, label kit, and separate LEDs are ordered separately. Refer to data sheet <b>S4100-0032</b> for additional LED/Switch module selections.			

**Table 9: LED/Switch Controller modules and accessories**

Model	Description	
4100-1288	64 LED/64 Switch Controller module with mounting plate. Controls up to 64 LEDs and interfaces to up to 64 switches. Mounts behind the LED/switch modules and has provisions for one 4100-1289 Controller module.	<b>Note:</b> LED/switch controllers and their connected LED/switch modules must be in the same bay, see data sheet <i>S4100-0032</i> for details.
4100-1289	64 LED/64 Switch Controller Module without mounting plate. Mounts on extra space of 4100-1288 and controls an additional 64 LEDs and 64 switches.	
A100-1294	LED/Switch Module Slide-in Labels, required when LED/switch modules are present, order one per cabinet.	
4100-1290	24 Point I/O Module for external connections, select each point as either input or output. 2 in. (51 mm) wide. 1 Slot, refer to <i>S4100-0032</i> for more detail. Not available with 4100-9611	
<b>Note:</b> LED kits for 4100-1276/4100-1277/4100-1300 are in <a href="#">Product selection</a> . Refer to data sheet <i>S4100-0032</i> for additional LED/Switch module selections.		

**Table 10: Communication modules**

SKU	Description	Size	Supv.	Alarm
4100-6038	Dual RS-232 Interface, mounts in Slot 3 or Slot 2.	1 Slot	132 mA	
4100-9816	Master Clock Interface Module with one standard RS-232 port, see <i>S4100-0033</i>		132 mA	
<b>Note:</b> Not available with 4100-9611				

**Table 11: Panel Mounted Printer**

SKU	Description
4100-1293	Panel Mount Thermal Printhead Printer, supplied with one roll of paper; requires 3 expansion slots.
4190-9803	Replacement Paper for 4100-1293 Printer, one roll
<b>Note:</b> Not available with 4100-9611, refer to document <i>S4100-0032</i> for additional detail.	

**Table 12: ES Power Supplies**

Model	Voltage	Description	Includes	Provides power to bay	Size	Supv.	Alarm
4100-5401	120-240 V 50/60 Hz	ES-PS	24 V aux. relay, 24 V aux. power 2 A Tap/ Simple NAC, 110 Ah battery charger, 2 PDI blocks for compatible option cards	Yes	2 Blocks	68 mA	77 mA
4100-5402	120-240 V 50/60 Hz	ES-XPS	Same as ES-PS above except without battery charger	No			

**Table 13: Power supply accessories**

Model	Description	Size	Current
4100-5152	12 VDC Power Option, 2 A maximum	1 Block	1.5 A maximum
4100-0156	8 VDC Converter, required for multiple Physical Bridge Modules, 3 A maximum	1 Block	Included with loads
4100-5130	Voltage Regulator Module, 22.8 to 26.4 VDC, 25 VDC nominal. Isolated and resettable output, includes earth detection circuit and trouble relay for status monitoring.	1 Block	3 A maximum with 2.5 A load, 4.9 A maximum with 4 A load
4100-5131	ES-PS Fan Module. Allows the installation of more than one power supply in a single bay and may increase total DC output power capacity per power supply. See Table 17 for specifications.	N/A	0 mA Supv. 200 mA Alarm
4100-0636	Box Interconnection Harness Kit. Order one for each close-nippled cabinet. Also used if power is supplied from host FACU.		
4100-0638	4100 Slot Module Additional 24 VDC Harness. Needed when 4100 Slot Module requirements exceed 2 A from ES-PS.		
4100-5403	Harness for ES-PS backup power supply		
4100-0644	120 VAC PDM Harness	1 PDM harness is required per power supply, select as required for appropriate input voltage.	
4100-0645	220 VAC PDM Harness		
4100-0646	230 VAC PDM Harness		
4100-0647	240 VAC PDM Harness		

**Table 14: Power Distribution Modules**

SKU	Voltage	Description	
4100-0634	120 VAC	Power Distribution Module (PDM). Select	Required for 4100-9610, select one per box or cabinet rack. Not applicable for 4100-9611
4100-0635	220/230/240 VAC	per system voltage.	

**Table 15: Miscellaneous accessories**

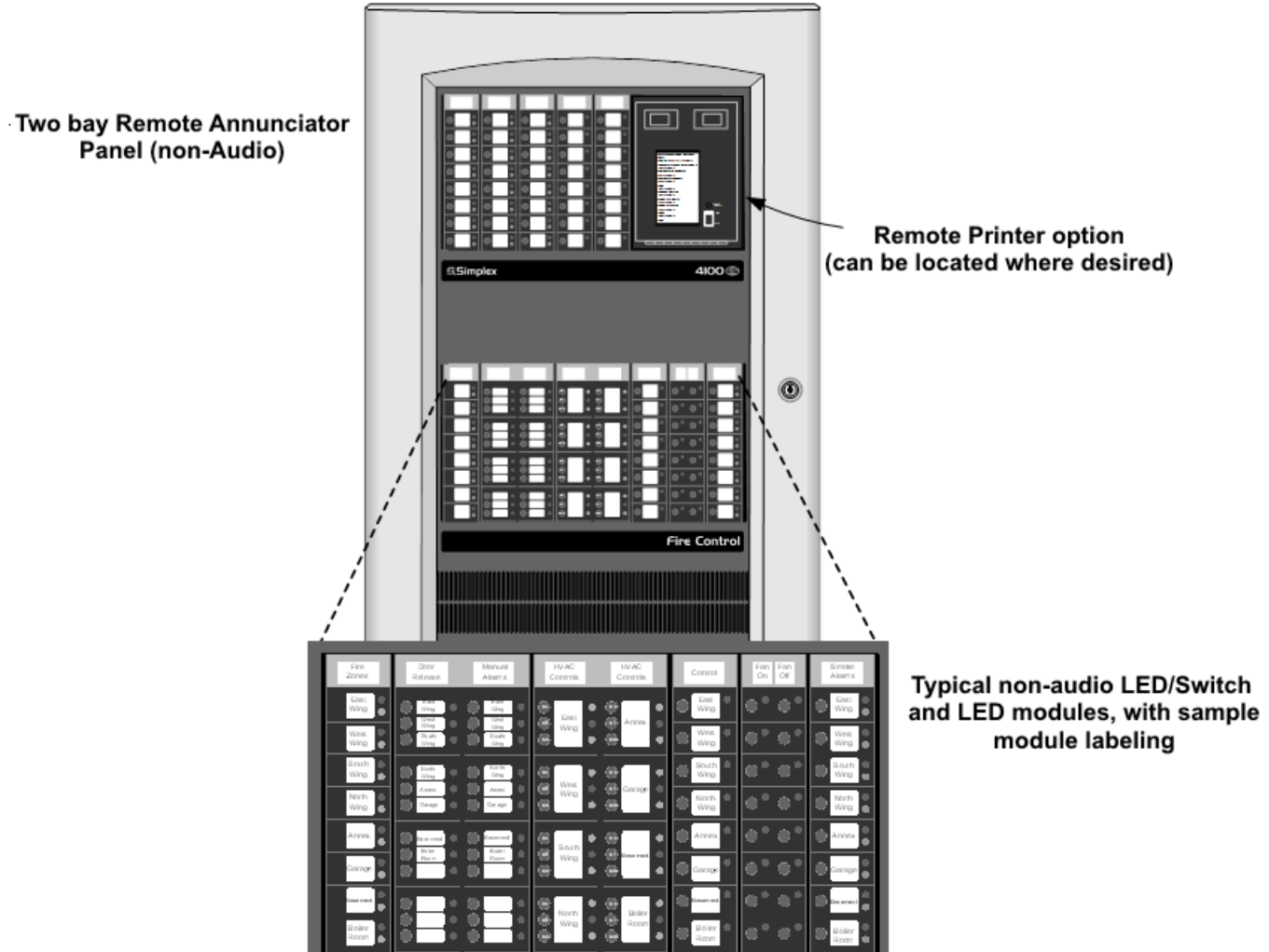
SKU	Description
4100-2300	Expansion bay hardware. Order one for each expansion bay, unless included with selected option.
4100-1279	Single Blank 2 in. Display Cover. Order as required, 8 fill a bay front. 2 max between LED/switch modules
4100-9835	Termination and Address Label Kit, for module marking. Provides additional labels for field installed modules.
4100-0632	Terminal Block Utility Module. Provides 2, 16 position terminal blocks mounted on 4 in. x 5 in. single block size, capable of up to 12 AWG wire (3.31 mm <sup>2</sup> ).

**Table 15: Miscellaneous accessories**

SKU	Description
4100-0633	Door Tamper Switch. Connects to Transponder Interface Module.
4100-9843	Yellow
4100-9844	Green
4100-9845	Red
A100-9855	Blue

Kits of 8 LEDs, order as required for 4100-1276/1277/1300 modules.

**Two Bay Remote Annunciator LED/Switch Module reference**



**Figure 10: Module reference**

Single Slot LED/Switch Module detail reference

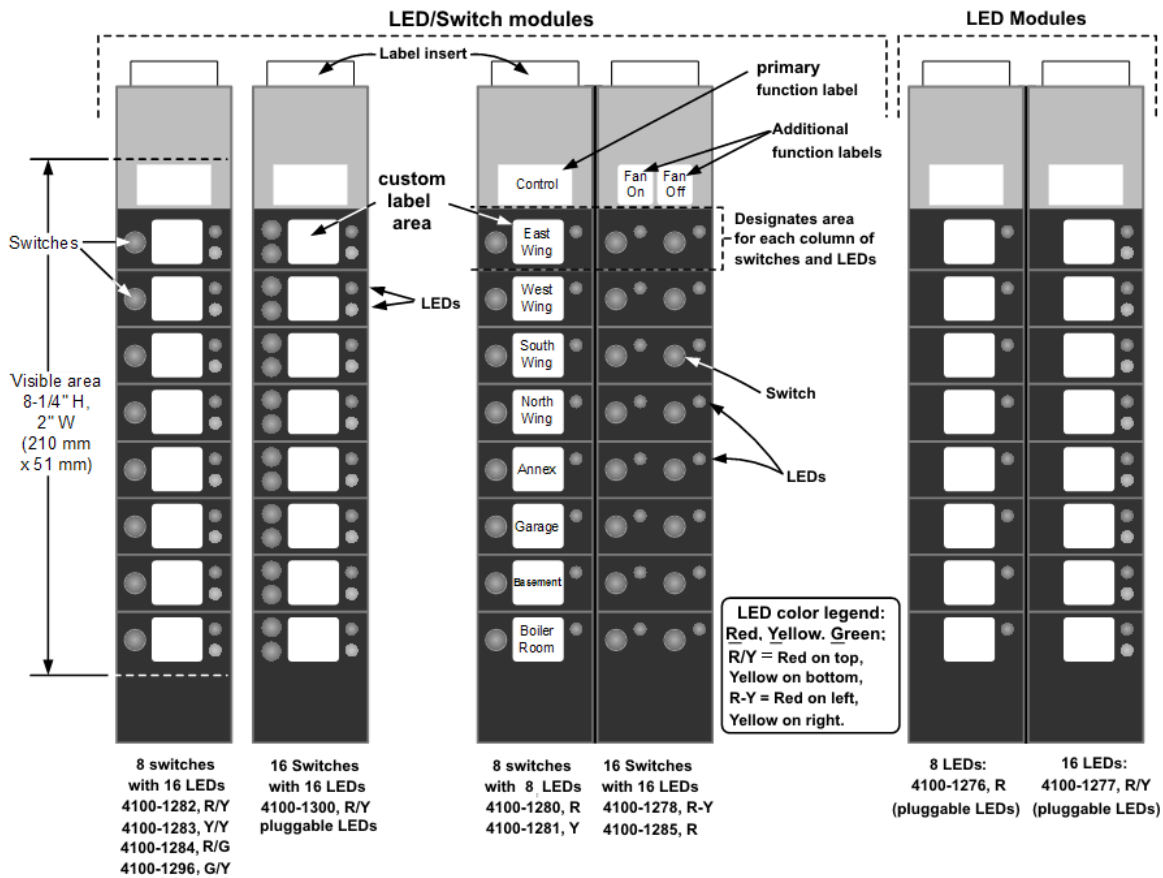


Figure 11: Single Slot LED/Switch Module detail reference

Table 16: LED/Switch reference

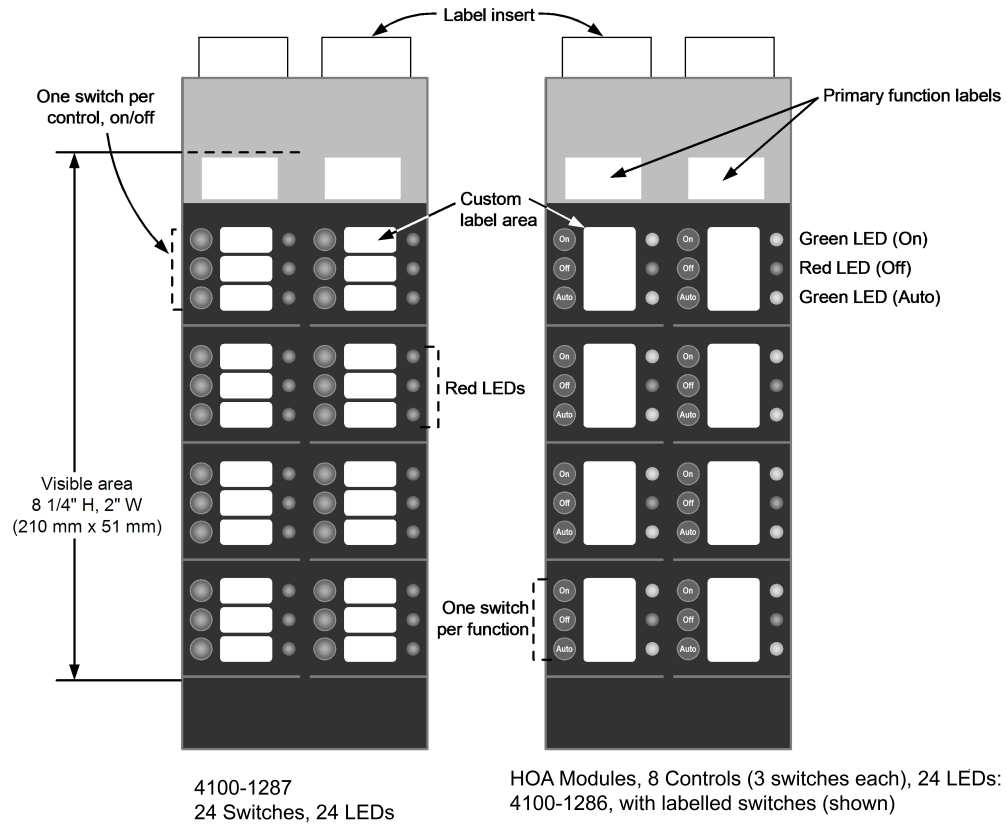
Module no.	No. of switches	No. of LEDs	LED color	LED position
4100-1276*	-	8	red	right
4100-1277*	-	16	red	top
			yellow	bottom
4100-1278	16	16	red	left
			yellow	right
4100-1280	8	8	red	right
4100-1281	8	8	yellow	right
4100-1282	8	16	red	top
			yellow	bottom
4100-1283	8	16	yellow	top
			yellow	bottom
4100-1284	8	16	red	top
			green	bottom
4100-1285	16	16	red	left/right
4100-1296	8	16	green	top
			yellow	bottom
4100-1300*	16	16	red	top
			yellow	bottom

\*Models with pluggable LEDs



Dual Slot LED/Switch Module detail reference

Figure 12: Dual Slot LED/Switch Module detail reference



**Audio Control Module detail**

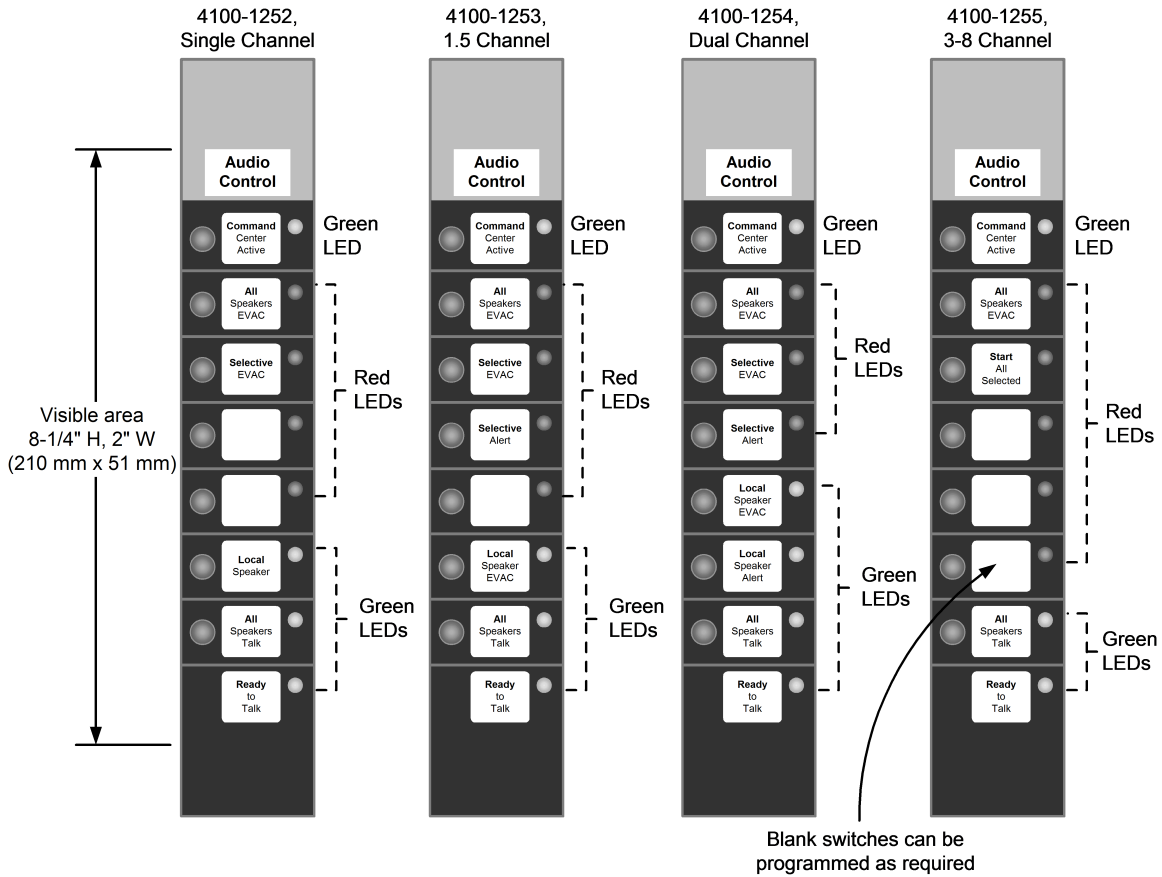


Figure 13: Audio Control Module detail

**Expansion Bay Module loading reference**

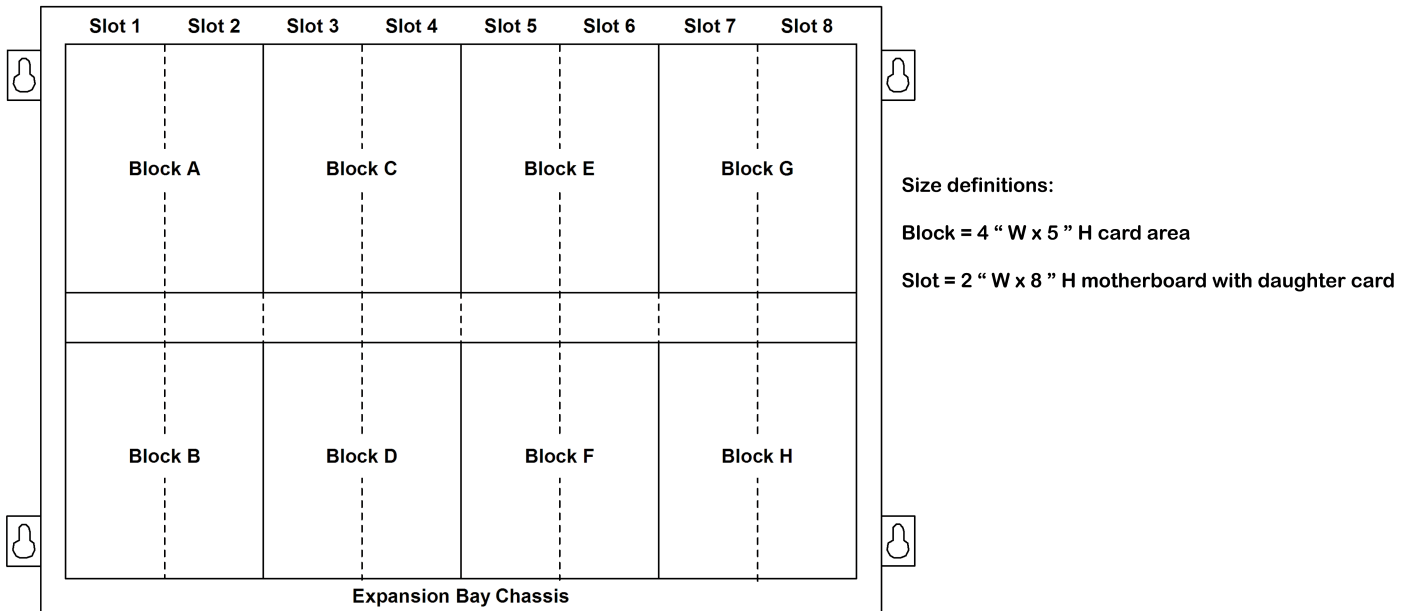


Figure 14: Expansion Bay Module loading reference

## General specifications

**Table 17: ES Power Supply specifications, ES-PS and ES-XPS**

Specifications	Rating
<b>AC Input Power</b>	120 VAC to 240 VAC
120 VAC	3.72 A
220 VAC to 240 VAC	1.82 A
<b>Total DC Output Power Capacity</b>	
Without Fan	9.5 A
With 4100-5131 Fan and 4100-5451 IDNAC Module(s)	9.7 A
With 4100-5131 Fan (without 4100-5451 IDNAC Module)	12.7 A
With Regulated 24V Appliance Loads (with or without 4100-5131 Fan)	5.0 A
<b>Special Application Appliance Loads:</b> supports full total DC output power capacity ratings above	Simplex horns, strobes, and combination horn/strobes and speaker/strobes. Contact your Simplex product representative for compatible appliances.
<b>Regulated 24V Appliances:</b> reduces total DC output power capacity to 5.0 A	Power for other UL listed appliances. Use associated external synchronization modules where required.
<b>Auxiliary Power Tap</b>	2 A maximum, taken from total output power capacity.
<b>NACs Programmed for Auxiliary Power</b>	3 A maximum per NAC, 5 A maximum total, taken from total output power capacity.
<b>Battery Charger (ES-PS only)</b>	Sealed Lead-Acid Batteries
Battery Ah Capacity	UL/ULC listed for battery charging of up to 110 Ah. Batteries larger than 50 Ah require a remote battery cabinet.
Charger characteristics and performance	Temperature compensated, dual rate. Recharges depleted batteries within 48 hours.
<b>Environmental</b>	
Operating Temperature	32 °F to 120 °F (0 °C to 49 °C)
Operating Humidity	Up to 93% RH, non-condensing at 90 °F (32 °C) maximum
<b>Option Card Mounting</b>	2 vertical blocks are available for compatible modules. Refer to the 579-1288 installation instructions for additional details.

**Note:**

1. Battery charger is only available on the ES-PS power supply.
2. When an ES-PS is used to power Flex-35 or Flex-50 Amplifiers the ES-PS battery charger is not available.

## Wall Mounted Enclosure installation reference

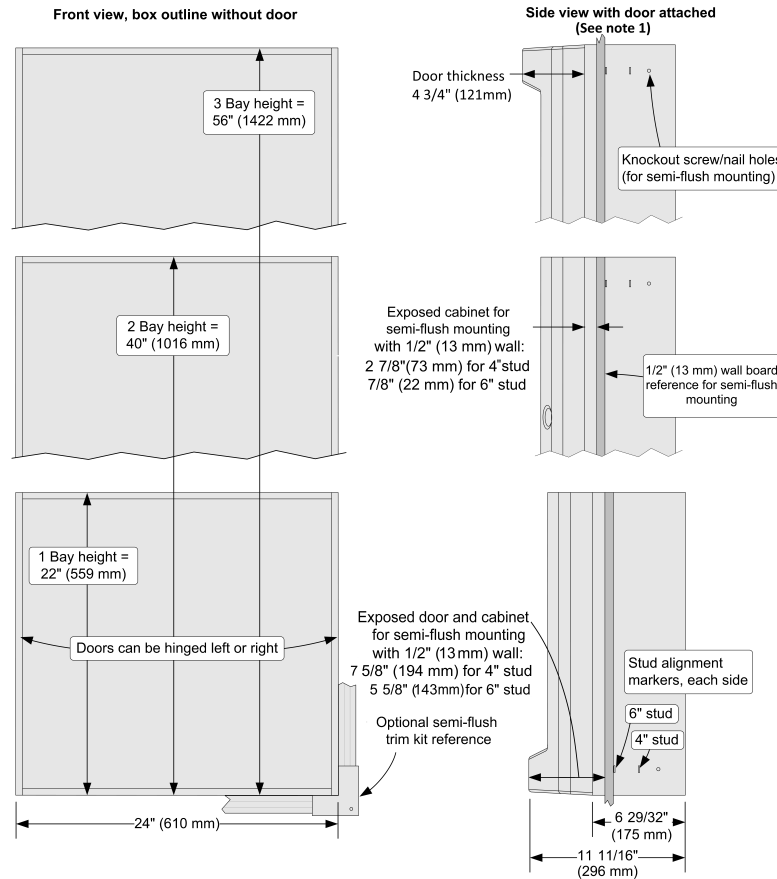


Figure 15: Installation reference

### Note:

1. Side view dimensions are shown with minimal cabinet and door protrusion from the exterior wall. For 6 in. stud construction with minimum protrusion shown, the door will open 90 degrees. To allow the door to open 180 degrees, the exposed cabinet dimension from the exterior wall must be a minimum of 3 in. (76 mm) for both 4 in. and 6 in. stud construction.

2. 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.

## Additional 4100ES data sheet reference

Table 18: Data sheet reference

Subject	Datasheet
Battery and Battery Cabinet Reference for 4100ES	S2081-0006
110 Ah Batteries and Cabinets for 4100ES	S2081-0012
Graphic I/O Modules for 4100ES, 4010ES, 4007ES	S4100-0005
4100ES LED/Switch Modules & Printer	S4100-0032
Master Clock Interface	S4100-0033
4100ES Enclosures	S4100-0037
4100ES Basic Panels with ES-PS Power Supplies	S4100-1031
4100ES Emergency Voice/Alarm Communications Equipment	S4100-1034
NDU with ES-PS Power Supplies for 4120 Network	S4100-1036
Remote ES Touch Screen Displays for 4100ES and 4010ES Panels	S4100-1070
NDU with ES-PS Power Supplies for ES Net	S4100-1077

