Simplex

*UL, ULC, CSFM Listed; FM Approved, OTCR/NYC Approved**

Datasheet

4100ES Fire Control Panels

Remote Annunciator Panels

Features

Remote Annunciator Panels provide fire alarm control panel status information at locations distant from the fire alarm control panel

Typical functions include:

- Remote status LED indicators and dedicated switch input controls located on LED/switch modules
- Remote status LED indicator modules with 8 red or 16 (8 red/8 yellow) LEDs that are pluggable for color choice (yellow, green, or red LEDs are ordered 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
- Also available with InfoAlarm Command Center expanded content user interface (refer to Two Bay Remote Annunciator LED/Switch Module Reference, InfoAlarm Command Center Detail Reference, and to datasheet *S4100-1045* for additional information)

Additional optional modules include:

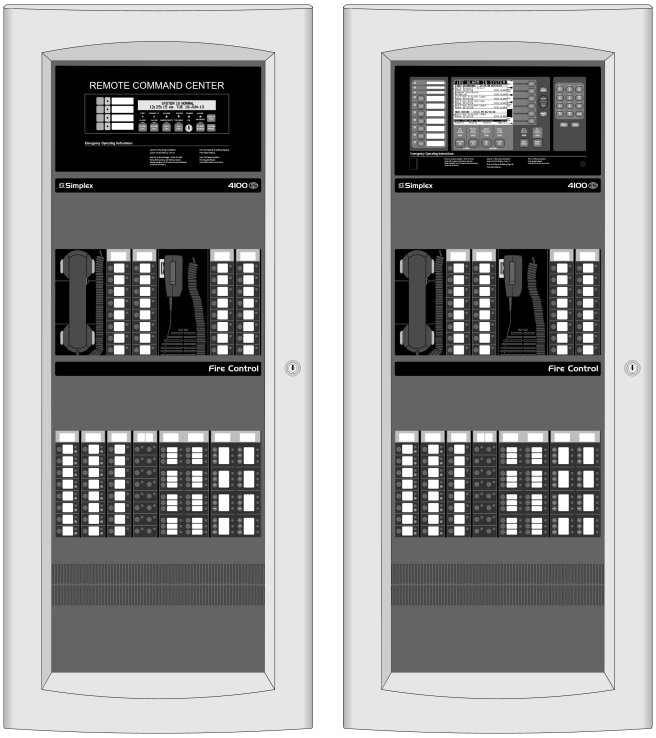
- Remote Command Center module for LCD status readout and keyswitch controlled functions
- 24 Point I/O module
- RS-232 ports for remote printer or terminal connections
- Power supplies with battery charger for annunciator
- Panel mounted printer for system status recording

Wiring requirements:

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

Listed to:

- UL 864, Fire Detection and Control (UOJZ), Smoke Control Service (UUKL), Releasing Device Service (SYZV), Emergency Communication and Relocation Equipment (UOQY)
- 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)
- 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. Typical use is when the host fire alarm control panel is located away from the area where those responding to a fire situation need status information.

Status and Control

Controls are suitable for firefighter 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 callers can be connected to each other. Although intended for use in assisting fire responders, these system are also helpful during system setup and test.

*Additional listings may be applicable. Contact your local Simplex product supplier for the latest status.

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 fire alarm control panel are through a Remote Unit Interface (RUI or RUI+) connection that allows for up to 2500 ft (762 m) distance. RUI can communicate with up to a total of 31 remote devices for each master controller (on one or multiple RUI channels) and can be wired as a Class B or Class X communication pathway. Wiring can be either shielded or unshielded, twisted, or untwisted single pair wiring.

Optional Expansion Bays

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

The Battery Compartment

The battery compartment (bottom) accepts two batteries, up to 50 Ah. Battery mounting does not interfere with available module space.

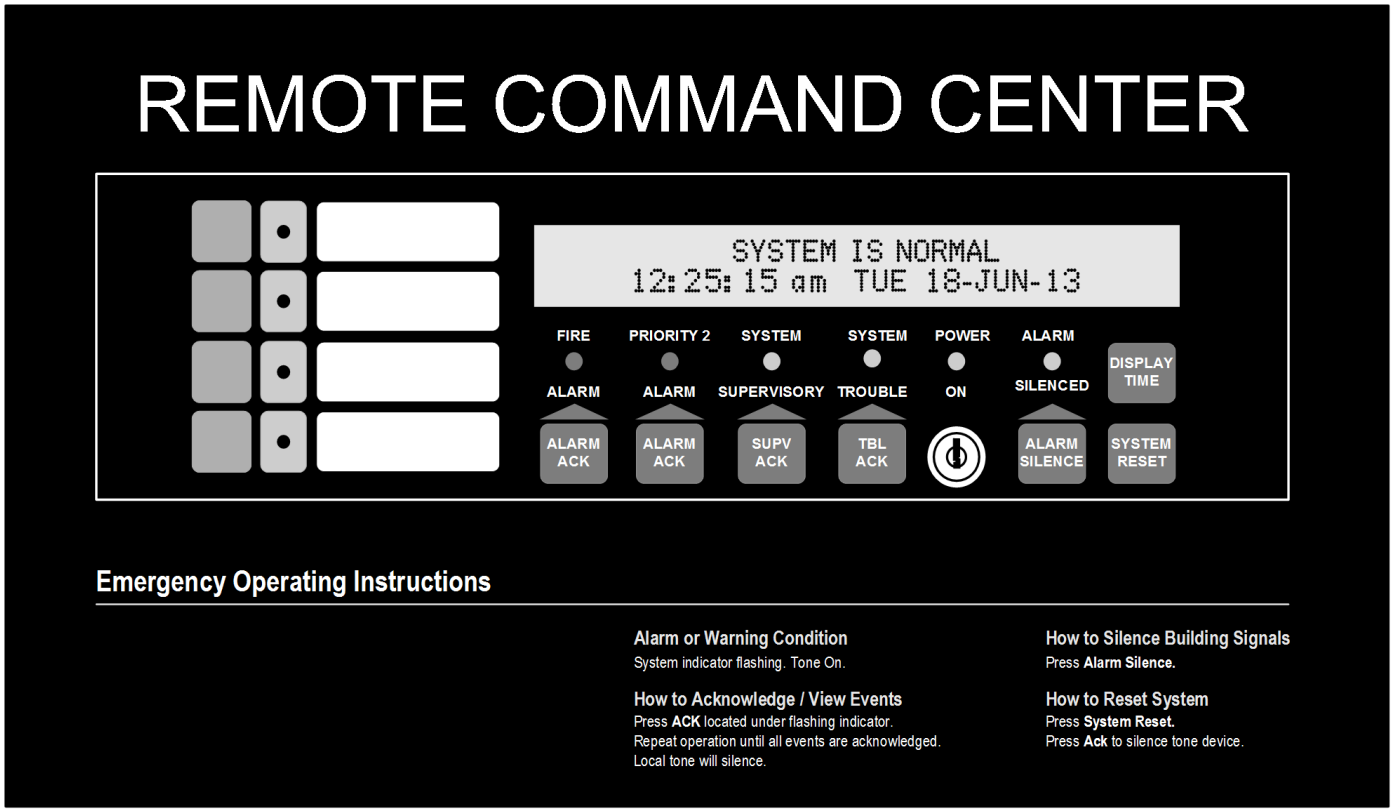
Packaging Availability

- Modules are power-limited (except as noted, such as relay modules)
- Enclosure 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 (ordered separately)
- Refer to document *S4100-0037* for enclosure details.

Remote Command Center

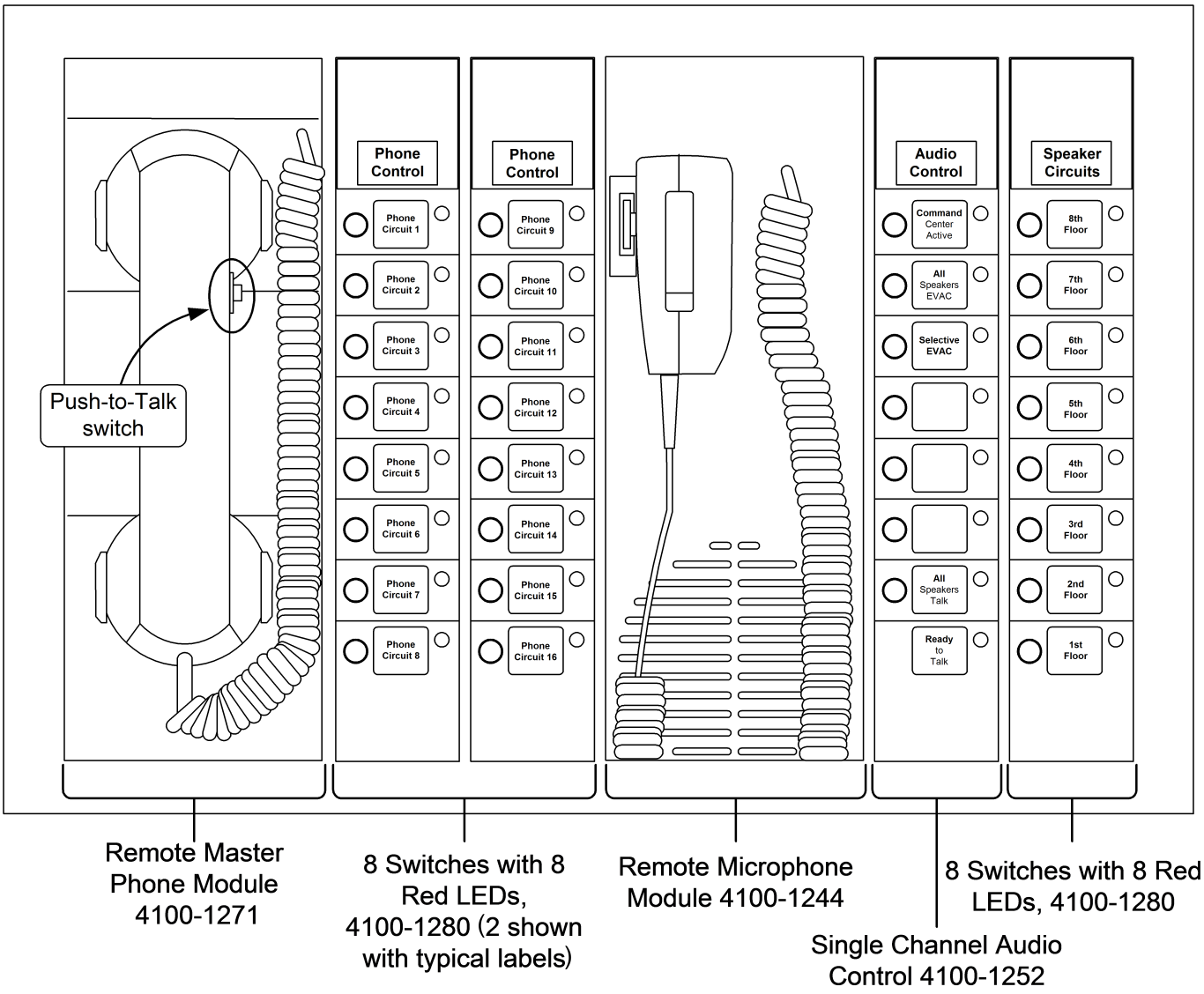
The optional Remote Command Center occupies the top bay of a Remote Annunciator. It provides an LCD status readout with keyswitch activated control switches and a local tone-alert sounder. Features are essentially identical to the Remote LCD Annunciator model 4603-9101 (reference document *S4603-0001*).

Figure 1: 4100-1292 Remote Command Center



Remote Annunciator Audio Module Reference

Figure 2: Remote Annunciator Audio Module Reference



Product Selection

Table 1: 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 Basic Transponder Interface Module (4100-0620) mounted in Block A, and an interconnect harness for connecting to 4100ES Slot modules
		Supervisory and Alarm current = 87 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 Module mounted in Block A, and an interconnect harness for connecting to 4100ES/4100U Slot modules
		Supervisory and Alarm current = 87 mA

Table 2: Remote Command Center Option

Model	Description	Details and Mounting Reference
4100-1292	Panel Mounted LCD Annunciator; 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, RUI/RUI+ connection is required
		Supervisory current = 65 mA (w/o backlight)
		Alarm current = 140 mA
Note: for InfoAlarm Command Center expanded content display products, refer to data sheet *S4100-1045*		

Table 3: Emergency Voice/Alarm Communications Operator Interface Options

Model	Description		Details and Mounting Reference
4100-1244	Remote Microphone (mike) Module		Front panel module; requires 2 Slots (4 in. [51 mm]), space behind accepts 4100ES/4100U flat modules only (requires dedicated wiring to fire alarm control panel audio control module); Supv. = 2.4 mA, Active = 6 mA
4100-1252	1 Channel (audio or mike)	Operator Interface Modules	Single slot modules requiring connection to an LED/switch controller; space behind accepts 4100ES/4100U flat modules only; adjacent LED/switch module(s) are required for specific speaker circuit selection (refer to document S4100-1034 for audio reference and document *S4100-0032* for LED/switch module reference); Supv. = 0, Alarm = 24 mA
4100-1253	1.5 Channel (audio + mike)		
4100-1254	2 Channel (full audio)		
4100-1255	3-8 Channel		

Table 4: 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; 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
Note: refer to document *S4100-1034* for additional detail		

Table 5: LED and LED/Switch Modules, General Purpose

LEDs per Switch	LEDs	Switches	Model	LED Color(s)	Model	LED Color(s)
One	8		4100-1280	Red	4100-1281	Yellow
Two	16	8	4100-1282	Red on top, Yellow on bottom	4100-1283	Yellow, top and bottom
Two			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
Note: LED/switch controller and label kit is ordered separately. Refer to data sheet *S4100-0032* for additional LED/Switch module selections.						

Table 6: LED and LED/Switch Modules, General Purpose

LEDs per Switch	LEDs	Switches	Model	LED Color(s)
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; Note: UL, ULC, and CSFM listed only
One	24	24	4100-1287	Red
Note: LED/switch controller and label kit is ordered separately. Refer to data sheet *S4100-0032* for additional LED/Switch module selections.				

Table 7: LED/Switch Modules, Special Purpose

Model	Operation	Switch Function (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
Note: LED/switch controller, label kit, and separate LEDs are ordered separately. Refer to data sheet *S4100-0032* for additional LED/Switch module selections.			

Table 8: 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	**Note:** LED/switch controllers and their connected LED/switch modules must be in the same bay; (see data sheet *S4100-0032* for details)
4100-1289	64 LED/64 Switch Controller Module without mounting plate; mounts on extra space of 4100-1288; controls an additional 64 LEDs and 64 switches	
4100-1294	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; for more detail refer to *S4100-0032*.	
Note: LED kits for 4100-1276/4100-1277/4100-1300 are in Product Selection. Refer to data sheet *S4100-0032* for additional LED/Switch module selections.		

Table 9: Communication Modules

SKU	Description	Size	Supv.	Alarm
4100-6038	Dual RS-232 Interface, mounts in Slot 3 or Slot 2	1 Slot	132 mA	

Table 10: 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

Table 11: 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 12: 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 w/loads
4100-5130	Voltage Regulator Module, 22.8 to 26.4 VDC (25VDC 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 more than one power supply to be installed in a single bay and may increase total DC output power capacity per power supply. See Table 16 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 fire alarm control panel		
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 13: Power Distribution Modules

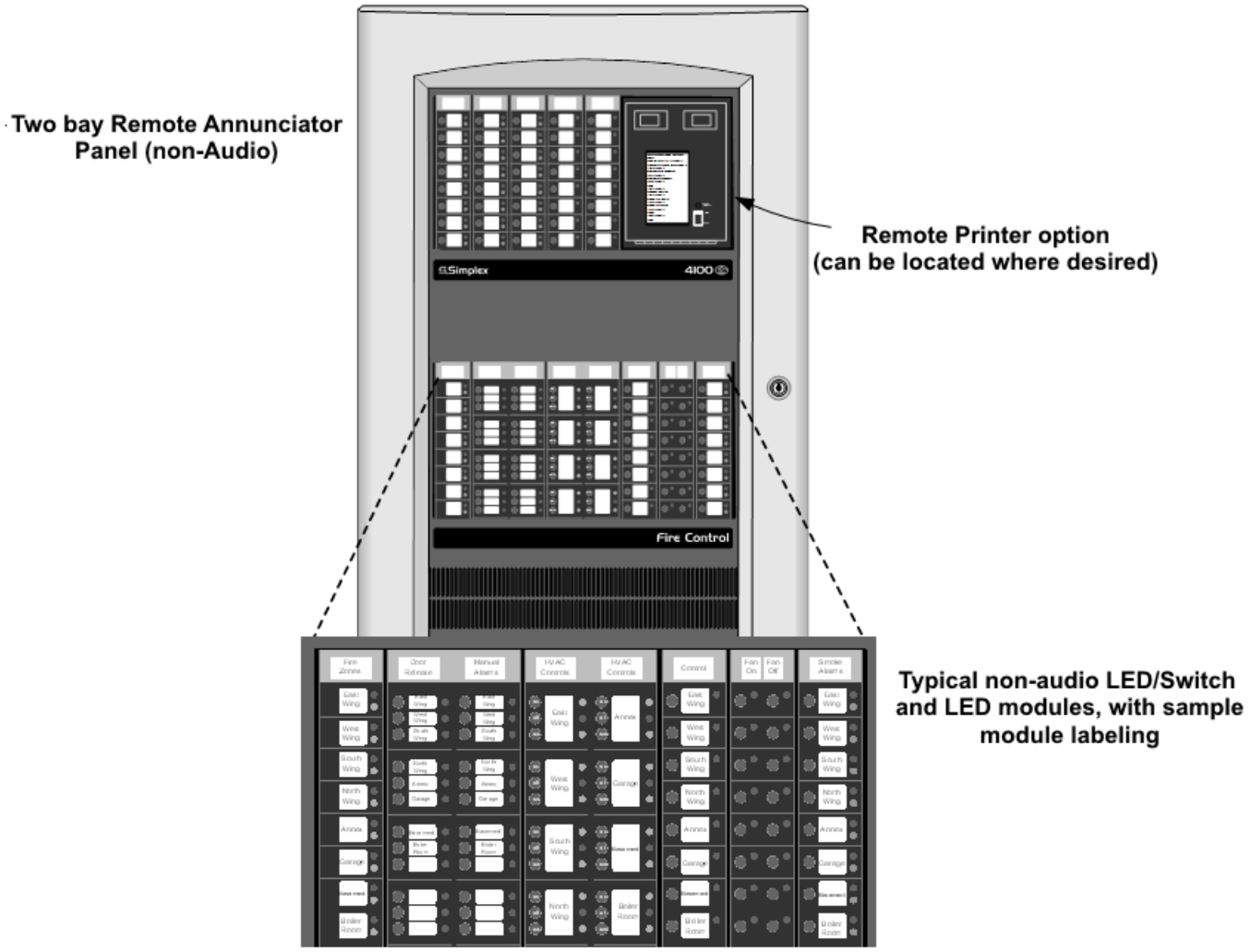
SKU	Voltage	Description
4100-0634	120 VAC	Power Distribution Module (PDM); select for every system voltage
4100-0635	220/230/240 VAC	

Table 14: 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	
4100-0633	Door Tamper Switch (connects to Transponder Interface Module)	
4100-9843	Yellow	Kits of 8 LEDs; order as required for 4100-1276/1277/1300 modules
4100-9844	Green	
4100-9845	Red	
4100-9855	Blue	

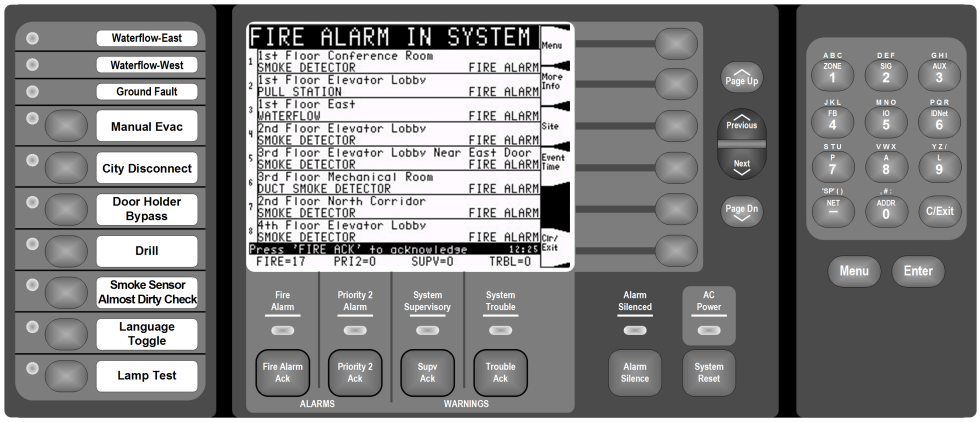
Two Bay Remote Annunciator LED/Switch Module Reference

Figure 3: Module Reference



InfoAlarm Command Center Detail Reference

Figure 4: InfoAlarm Command Center Detail Reference



Single Slot LED/Switch Module Detail Reference

Figure 5: Single Slot LED/Switch Module Detail Reference

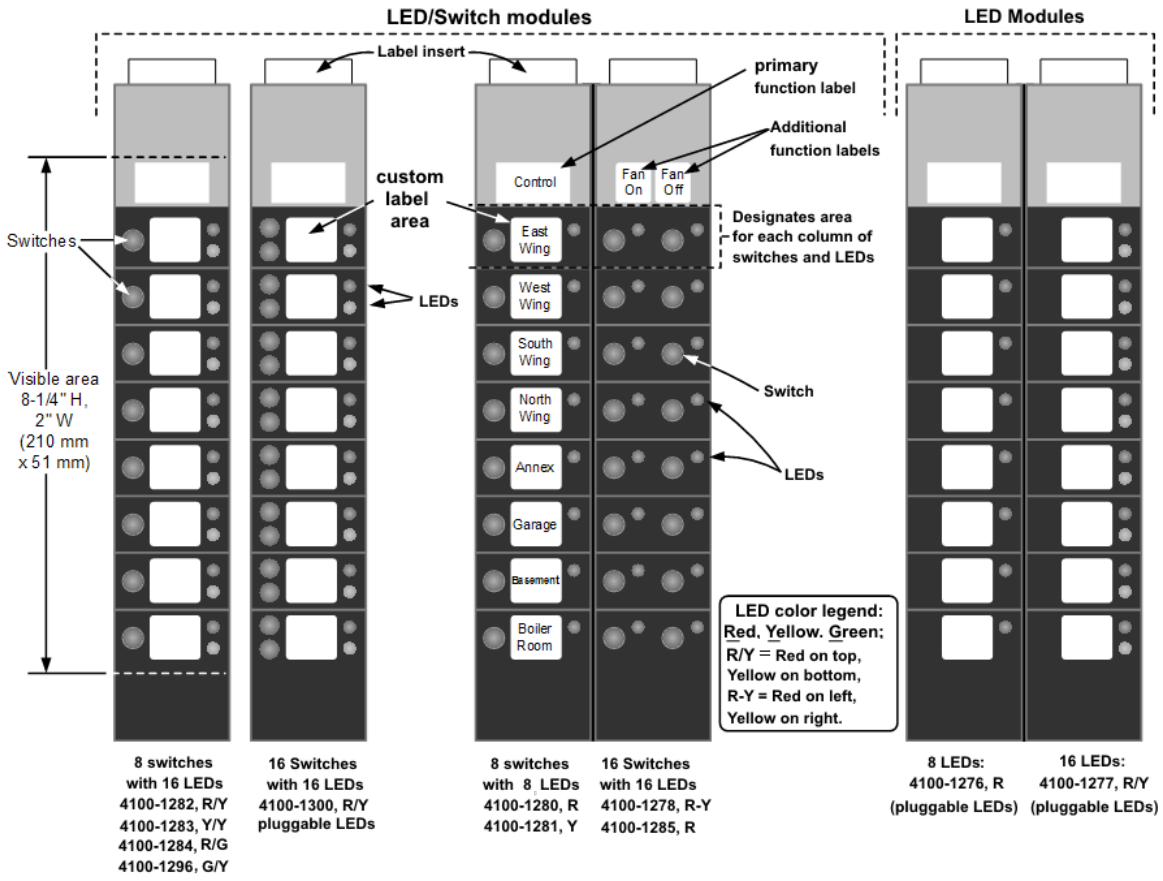
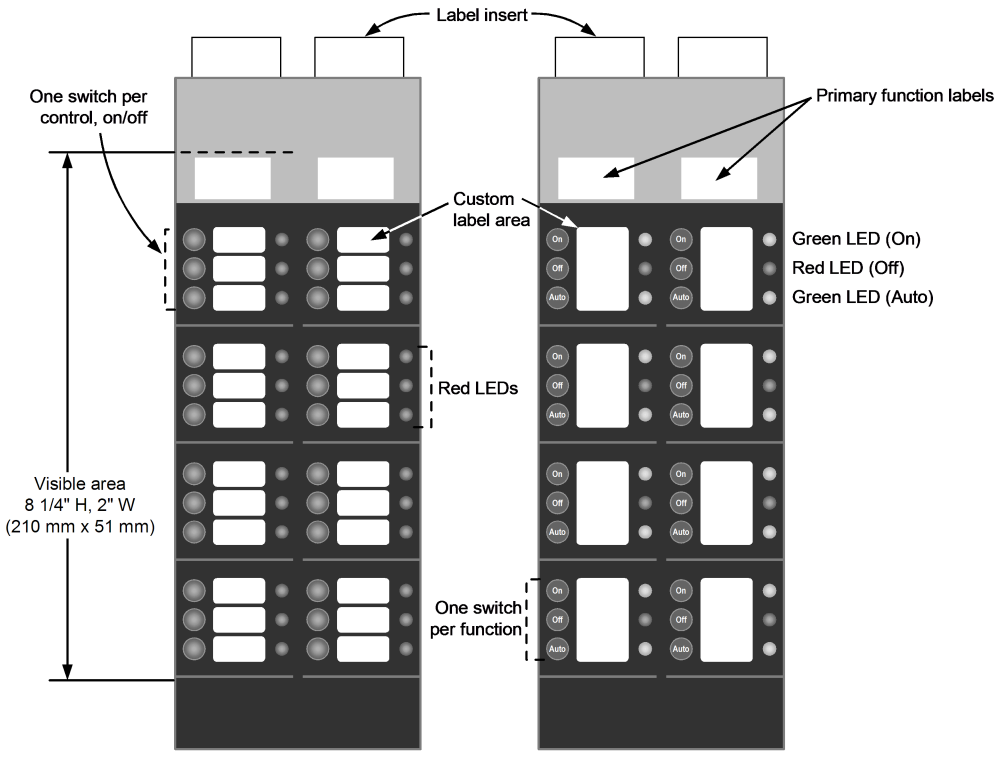


Table 15: LED/Switch reference

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 6: Dual Slot LED/Switch Module Detail Reference

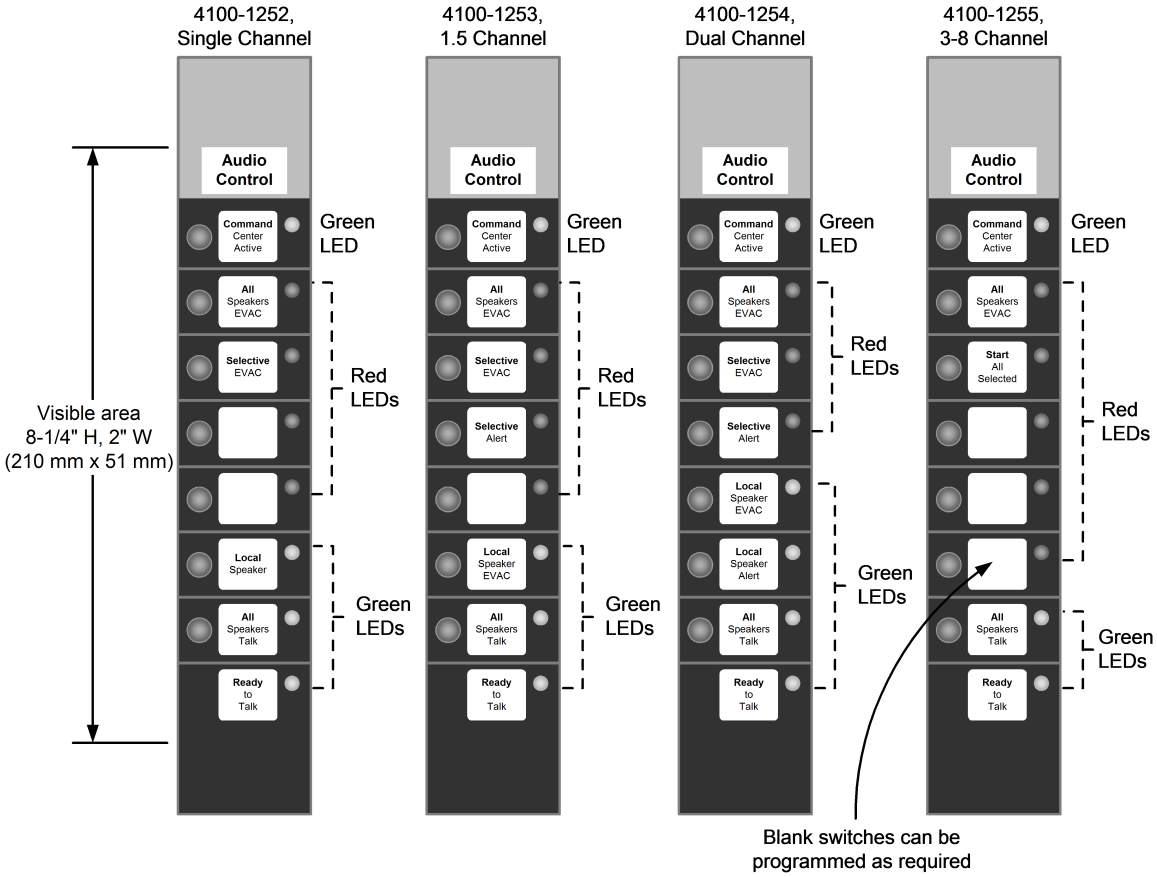


4100-1287
24 Switches, 24 LEDs

HOA Modules, 8 Controls (3 switches each), 24 LEDs:
4100-1286, with labelled switches (shown)

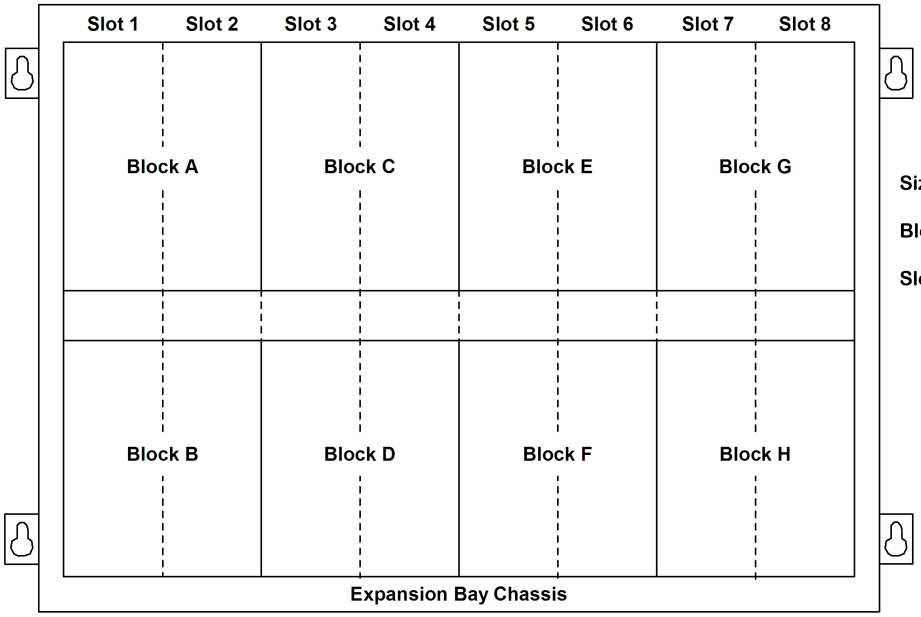
Audio Control Module Detail

Figure 7: Audio Control Module Detail



Expansion Bay Module Loading Reference

Figure 8: Expansion Bay Module Loading Reference



Size definitions:

Block = 4 “ W x 5 ” H card area

Slot = 2 “ W x 8 ” H motherboard with daughter card

General Specifications

Table 16: ES Power Supply Specifications (ES-PS and ES-XPS)

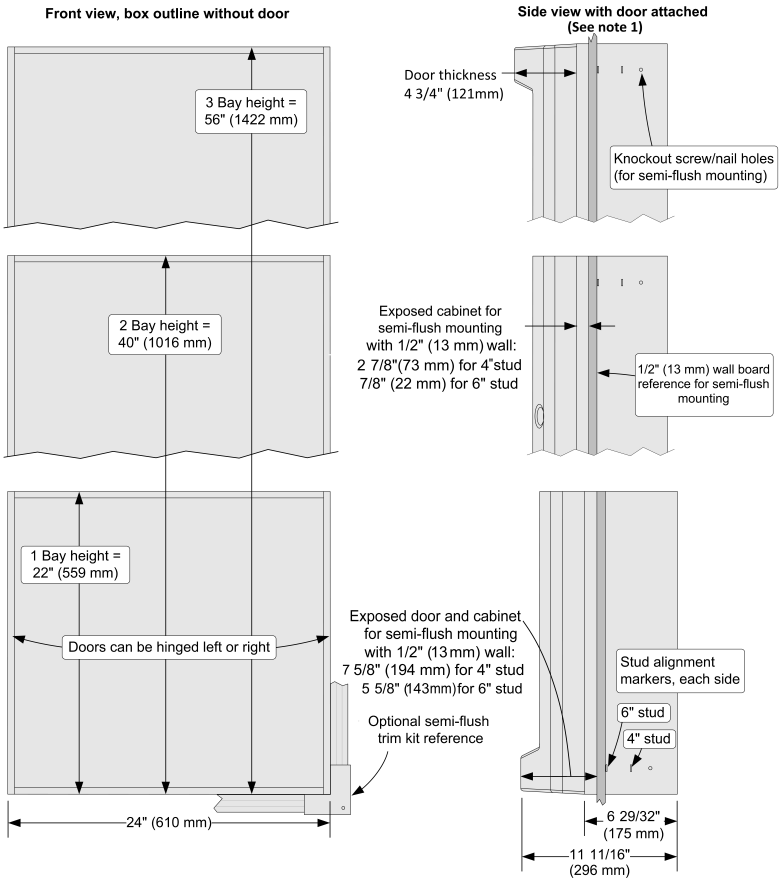
Specifications	Rating
AC Input Power	120-240 VAC
120 VAC	3.72 A
220 - 240 VAC	1.82 A
Total DC Output Power Capacity	
Without Fan	9.5 A
With 4100-5131 Fan and 4100-5451 IDNAC Module(s)	9.7 A
With 4100-5131 Fan (without 4100-5451 IDNAC Module)	12.7 A
With Regulated 24V Appliance Loads (with or without 4100-5131 Fan)	5.0 A
Special Application Appliance Loads: 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)
Regulated 24V Appliances: reduces total DC output power capacity to 5.0 A	Power for other UL listed appliances; use associated external synchronization modules where required
Auxiliary Power Tap	2 A maximum (taken from total output power capacity)
NACs Programmed for Auxiliary Power	3 A maximum per NAC, 5 A maximum total (taken from total output power capacity)
Battery Charger (ES-PS only)	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
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
Option Card Mounting	2 vertical blocks are available fore compatible modules (refer to 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 9: Installation Reference



Note:

1. Side View dimensions are shown with minimal cabinet and door protrusion from the exterior wall. For 6 inch 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 inches (76 mm) for both 4 inch and 6 inch 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 17: Datasheet 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
InfoAlarm Command Center with ES-PS Power Supplies	S4100-1045
NDU with ES-PS Power Supplies for ES Net	S4100-1077

© 2025 Johnson Controls. All rights reserved. All specifications and other information shown were current as of document revision and are subject to change without notice. Additional listings may be applicable, contact your local Simplex® product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. Simplex, and the product names listed in this material are marks and/or registered marks. Unauthorized use is strictly prohibited. NFPA 72 and National Fire Alarm Code are registered trademarks of the National Fire Protection Association (NFPA).