Simplex

UL, ULC, CSFM Listed;
*FM, NYC Fire Dept Approved**

4100ES Fire Control Panels

*Info*Alarm Command Center for Fire Alarm Control Panels with EPS Power Supplies

Features

Compatible with Simplex ES Net or 4120 Fire Alarm Networks
Multi-line expanded content display interface for Simplex® 4100ES Series fire alarm control panels, available with the following products:

- Fire alarm control panels (stand-alone or networked)
- Network Display Units (NDU) with support for up to 12,000 points
- Remote InfoAlarm Command Centers mounted in a dedicated cabinet (4100ES control panels support Remote InfoAlarm Command Centers independent of host panel display type)
- Models include an Enhanced Power Supply (EPS) and battery charger (9 A total) with on-board: ***IDNAC*** SLCs for addressable appliance control, an electrically isolated ***IDNet 2*** addressable device control module with dual short circuit isolating output loops; and programmable function auxiliary output
- For additional information concerning EPS power supplies and their enhanced features, refer to 4100ES data sheet S4100-0100
- For additional 4100ES related applications, including models with power supplies for conventional non-addressable NACS, refer to data sheet S4100-0045

InfoAlarm Command Centers provide customized operating convenience:

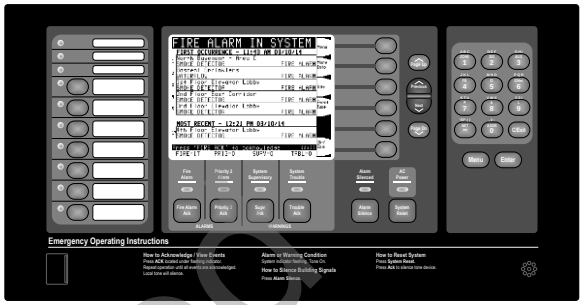
- "Activity in System" primary display choices include: First and Most Recent, First 5 and Most Recent, First 8, Site Plan with activity status icons, General Alarm, or Direct to List; selectable individually by event type
- System reports are easily viewed; logs can be read with minimal scrolling required
- Up to six "softkeys" per screen provide functions that aid operators in determining how to proceed
- Up to two languages are available per system, easily selected by programmable key press (systems with IMS/GCC/NPU or 2 x 40 LCD panels or annunciators require one language to be the default font)
- International models allow customized language legends for operator keys and status LEDs
- Information sent to Remote InfoAlarm Command Centers can be vectored by point

Display properties:

- 320 x 240 dot matrix (QVGA) display provides an active area of 4.53" W x 3.4" H (115 mm x 86 mm)
- Bright white LED backlighting provides efficient and long lasting illumination; operation is selectable as continuous or off with power fail or with no key presses

UL listed to Standard 864

* 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 7165-0026:0251 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 #6151. At the time of publication only UL and ULC listings are applicable to ES Net network products. 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.



InfoAlarm Command Center for Control Panel Mounting

InfoAlarm Command Center in Remote Cabinet

Introduction

Displaying more information. 4100ES Controls using the InfoAlarm Command Center provide an expanded content, multi-line LCD interface that requires minimal key presses to access detailed information. Because it is system-powered, its detailed information is provided without requiring separate supplementary equipment.

InfoAlarm Command Center Control Panel. By using a larger area format instead of an individual text line display, the LCD provides text information for Alarm, Supervisory, or Trouble. The format is flexible and able to be customized per application allowing additional information to be presented to suit the specific application.

Description

InfoAlarm Command Centers for 4100ES fire alarm systems provide a large display with extended information content, dual language support including 2 byte character languages, and an intuitive control key interface per the following:

- Up to 10 InfoAlarm Command Centers are supported per 4100ES control panel; able to allow one InfoAlarm Command Center to take-control and to designate access levels for interfaces not in-control; LEDs can be programmed for in-control status indications
- Menu-driven format conveniently prompts operators for the next action required
- Key controls are provided to select the highlighted entry, load next screen of information, or jump to top or bottom of activity lists

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Description *(Continued)*

- Direct point callup displays individual points alphabetically and then homes in on the logical choice as more point information is entered
- A Site Plan bitmap can be displayed for reference; icons can be added to indicate system status
- Up to 50 custom point detail messages can be generated
- 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 gray scale bitmap (watermark) for location name, company logo, or site plan

Control Panel Operation Reference

THREE PROGRAMMABLE LEDs provide custom labeling, the top two LEDs are selectable as red or yellow, the third LED is selectable as red or green

ULC SYSTEMS require designating a Ground Fault indicator

Custom label insert (typical choices shown for reference)

320 x 240 DOT MATRIX DISPLAY, White LED backlighting provides easy viewing; operation is programmable for key inactivity timeout and/or AC power fail

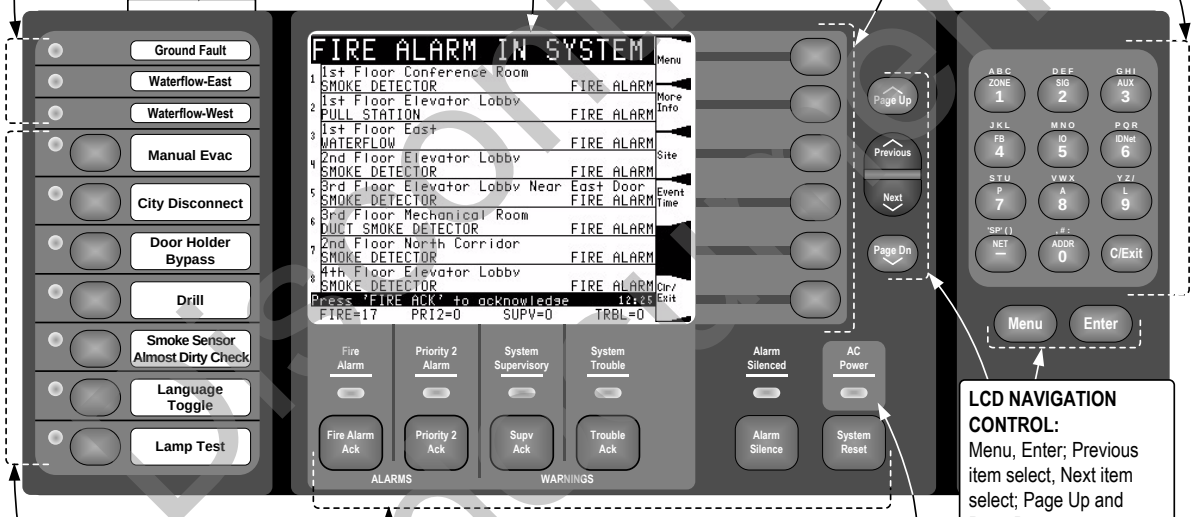
PRIMARY "ACTIVITY IN SYSTEM" DISPLAY OPTIONS: Choices include "First 8" (shown below for "Fire Alarm in System"), "First and Most Recent," "First 5 and Most Recent," "Site Plan," "General Alarm," or "Direct to List." After the event is acknowledged, screen reverts to the sequential event list until Clr/Exit softkey is selected or after timeout (~ 30 seconds); applicable to Fire Alarm, Priority 2 Alarm, System Supervisory, and System Trouble, each category is independently selectable for primary display mode

SIX SOFT KEYS are available when required. This sample provides **Menu** to call up the available operations; **More Info** to call up specific point details, **Site** to call up the Site Plan Graphic Screen, **Event Time** (while pressed) displays time and date for all displayed events, and **Clr/Exit**; the following are other typical soft keys:

Point Enable and Disable
Force On or Arm
Force Off or Disarm
Return On/Off or
Arm/Disarm to Auto Mode
Event Time Request
More Information Request

NUMERIC KEYPAD for point category and point selection (alphabet characters are not used at this time)

C/Exit Key duplicates the **Clr/Exit** softkey when present



LCD NAVIGATION CONTROL: Menu, Enter; Previous item select, Next item select; Page Up and Page Down

SEVEN PROGRAMMABLE FUNCTION SWITCHES, each equipped with dual color LED indicators; the top six LEDs are selectable as either red or yellow, the bottom LED is selectable as either red or green; **NOTE: Program the bottom switch as "Lamp Test" for UL listed systems**

FIRE ALARM ACK acknowledges a Fire Alarm condition, logs the acknowledge, silences the operator panel and all annunciator tone-alerts, and displays sequential alarm list

PRIORITY 2 ACK acknowledges a Priority 2 Alarm condition, logs the acknowledge, silences the operator panel and all annunciator tone-alerts, and displays sequential Priority 2 alarm list

SUPV ACK acknowledges system supervisory conditions, logs the acknowledge, silences the operator panel and all annunciator tone-alerts, and displays sequential supervisory condition list

TROUBLE ACK acknowledges system troubles, logs the acknowledge, silences the operator panel and all annunciator tone-alerts, and displays sequential trouble list

ALARM SILENCE causes audible and visible notification appliances to be silenced (default operation, may be modified through panel programming for compliance with local requirements)

SYSTEM RESET restores control panel to normal when all alarmed inputs are returned to normal

SIX SYSTEM STATUS INDICATOR LEDs provide system status indications in addition to LCD information, LEDs flash to indicate the condition and then when acknowledged, remain on until reset :
Fire Alarm & Priority 2 Alarm, red LED
Supervisory & Trouble, yellow LED
Alarm Silenced, yellow LED
AC Power, green LED (on for normal)

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Display Feature Reference (shown actual size)

FIRST OCCURRENCES (UP TO 5) AND MOST RECENT OCCURRENCE, ACTIVITY IN SYSTEM DISPLAY ("Fire Alarm in System" screen shown for reference, see page 2 for a First 8 Events display)

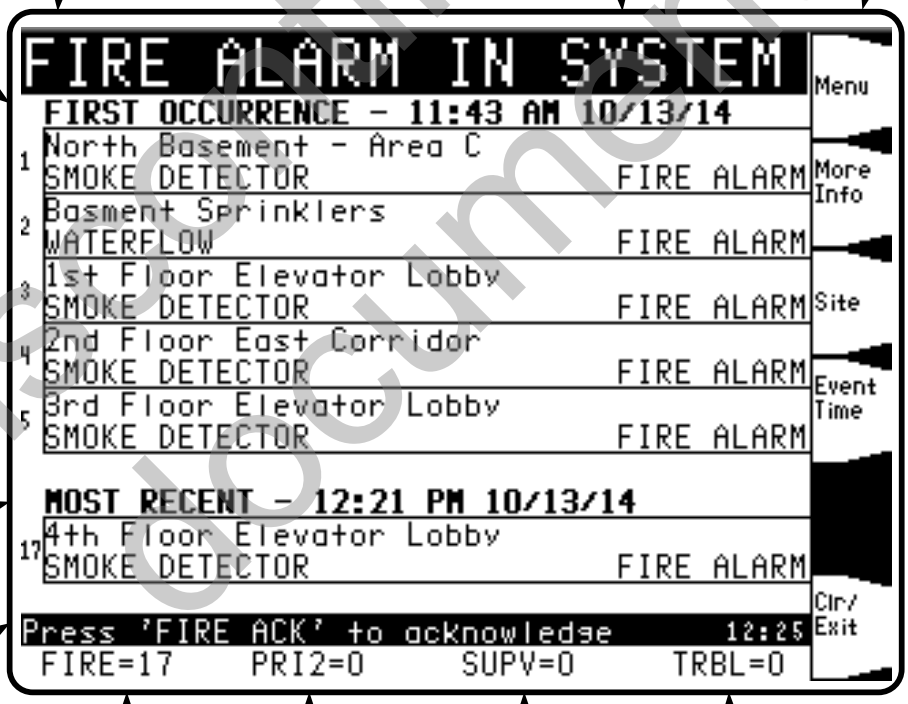
FIRST OCCURRENCE advises of the time, date, device type, and custom label of the first occurrence of the event type displayed; the numerical count identifies the sequence of occurrence; when selected as the primary display screen, display of first occurrence and most recent occurrence is maintained until events are acknowledged which brings up the event list (similar to the First 8 display); the display reverts back to "First and Most Recent" when the Clr/Exit softkey is selected or after a time delay

FONT ATTRIBUTES include:

Normal, **Bold**, Underline, Double, Dim, Reverse, Flash On/Off, Flash On/Dim, and commands for Vertical and Horizontal Placement

SOFT KEYS in this column correspond to the panel pushbutton switches; programming allows the soft keys to appear only when the functions are enabled

DISPLAY SIZE:
4.53" W x 3.4" H
(115 mm x 86 mm)



TALLY COUNTS list the number of activities per category of Fire Alarm (FIRE), Primary 2 Alarm (PRI2), Supervisory (SUPV), and Trouble (TRBL)

COMMAND PROMPT advises the operator of the action required and displays local panel time

MOST RECENT advises of the time, date, device type, and custom label of the most recent occurrence of the list shown, in this case, the Fire Alarm list

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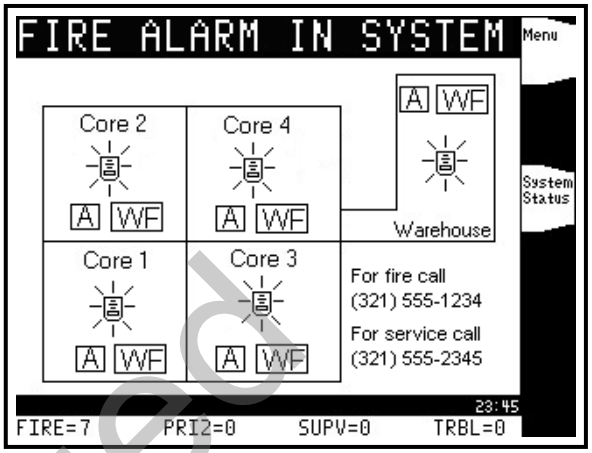
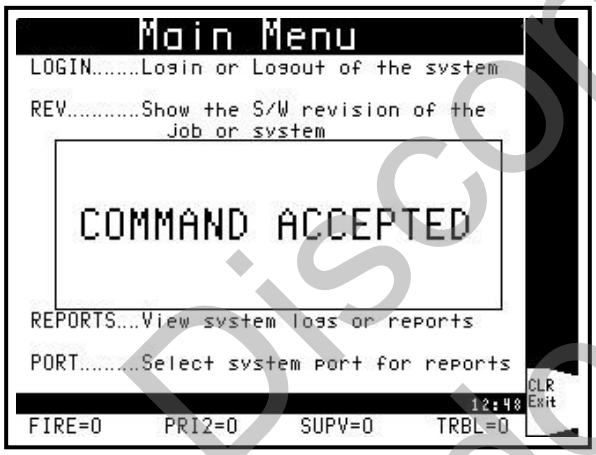
Site Plan with Event Icons

Site Plan Bitmap. The InfoAlarm Command Center supports a site plan monochrome bitmap image (size is 281 pixels wide by 192 pixels high) that can also display icons indicating activity and location. Shown to the right is a sample site plan with icons shown in each building area. For this example, each area is showing an “A” for an initiating device in alarm, a “WF” for waterflow occurring, and an icon indicating notification appliances in alarm. (Icons can be created for site specific symbology, these are for example only.)

Site Plan Selection and Detail. If desired, the site plan can be the primary display screen for system activity or can be for reference, available by selecting the “Site” softkey. Depending on the facility layout, the site plan can also be a convenient location for common reference information such as primary call phone numbers, street address, etc. to assist operators in their assigned response.

System Normal Screen. The site plan (or another bitmap image) can be displayed on the System Normal screen as a grey image watermark behind the screen text. (Size and type are the same as that for a site plan bitmap). This can be used to identify the specific location of the 4100ES or can display a site-specific logo or other information. (A sample is shown on page 6.)





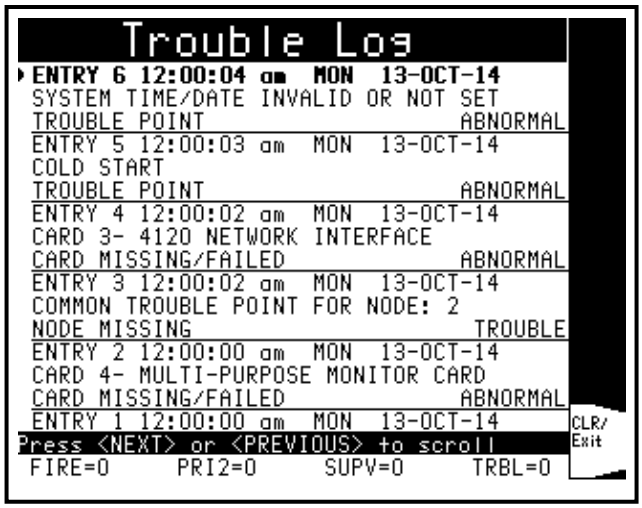
Customized Emphasis

The Main Menu screen illustration to the left demonstrates how print/display statements appear for status information or for prompting of user input. Other examples of this format occur when setting time and date, entering a password, or identification of a status change such as point enabling or disabling. Use of this feature allows the display to clearly focus the user on required information or actions.

Information Review

The Trouble Log History screen shown to the right identifies the ability to view multiple event entries with minimal scrolling. For specific information access, pressing “Next” or “Previous” on the keypad highlights the selected next or previous item in the list as indicated by the arrow and the bolded first line of Entry 6.

For access to the next or previous full screen of information, use the Page Dn or Page Up keys located to the right of the soft keys, each to the right of the display.



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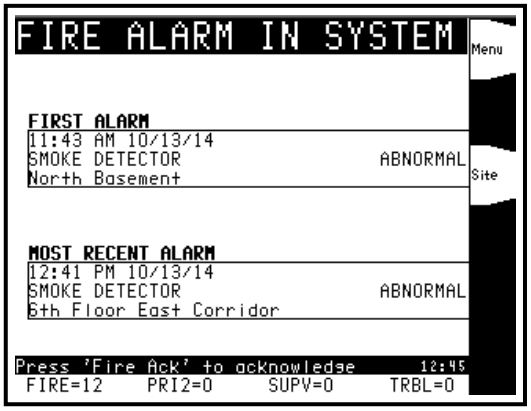
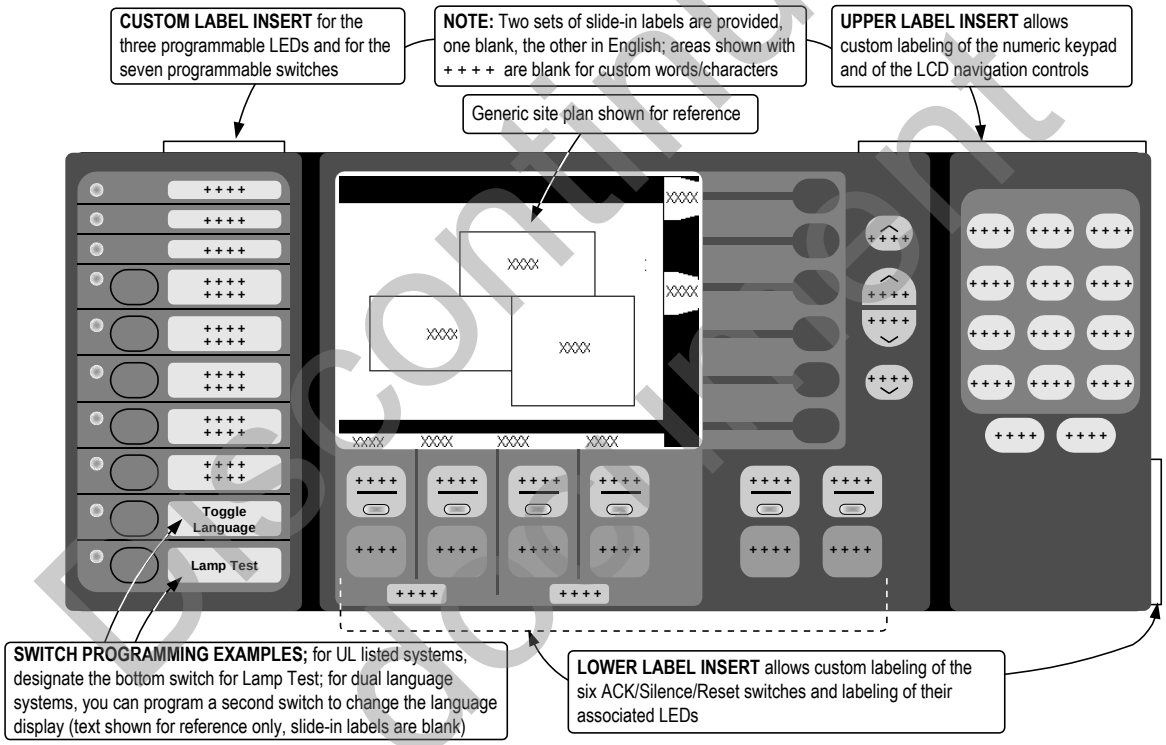
Additional Primary Display Screens

Below are samples of a First and Most Recent primary display and of a General Alarm display.



First and Most Recent Primary Display

Option General Alarm Primary Display Option



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Additional 4100ES and Network Product Reference

Subject	Data Sheet	Subject	Data Sheet
Serial DACT (SDACT) for 4100ES, 4010ES, 4007ES	S2080-0009	4100ES Enclosures	S4100-0037
Battery and Battery Cabinet Reference for 4100ES	S2081-0006	InfoAlarm Command Center with SPS Power Supplies	S4100-0045
110 Ah Batteries and Cabinets for 4100ES	S2081-0012	4120 Network Products and Specifications	S4100-0056
Seismic Battery Brackets Reference	S2081-0019	ES Net Network Products and Specifications	S4100-0076
External 110 Ah Battery Charger for 4100ES, 4010ES	S4081-0002	NDU with SPS Power Supplies for ES Net	S4100-0077
4100ES Basic Panels with SPS Power Supplies	S4100-0031	4100ES Basic Panels with EPS Power Supplies	S4100-0100
4100ES LED/Switch Modules & Printer	S4100-0032	NDU with EPS Power Supplies for 4120 Network	S4100-0102
4100ES Emergency Voice/Alarm Equipment	S4100-0034	NDU with EPS Power Supplies for ES Net	S4100-0104
NDU with SPS Power Supplies for 4120 Network	S4100-0036		

Product Selection

4100ES Master Controller with InfoAlarm Command Center*

Model	Model Type	UL	ULC	Voltage	InfoAlarm Command Center Type	Master Controller Features
4100-9314	English	✓	—	120 VAC, 50/60 Hz	**Master Controller Assembly;** raised keys with fixed labels	Standard CPU Module with RUI+ (isolated or un-isolated) communications interface; 9 A Enhanced Power Supply (EPS) with battery charger, electrically isolated 250 Point IDNet 2 Module, three Class B IDNAC SLCs, one 2 A output configurable for Auxiliary Power or Simple NAC operation and expansion slot for City Circuit or Alarm/Supv/Tbl Relay option.
4100-9315	English	—	✓			
4100-9316	French					
4100-9513	International	✓	—	120 VAC, 50/60 Hz	**Master Controller Assembly**; flat keys with inserts for custom key labels	
4100-9512	International	✓	—	220/240 VAC, 50/60 Hz		

Network Display Unit (NDU) with Voice, Master Controller with InfoAlarm Command Center

(**NOTE:** See data sheet S4100-0102 for NDU feature details)

Model	Model Type	UL	ULC	Voltage	Description
4100-9352	English	✓	—	120 VAC, 50/60 Hz	**Top Bay Equipment:** InfoAlarm Command Center (raised keys with fixed labels); Network Interface Card (select media cards separately), Standard CPU Module with RUI+ (isolated or un-isolated) communications interface; 9 A System Power Supply (SPS) with battery charger, one 2 A Auxiliary Power output and expansion slot for City Circuit or Alarm/Supv/Tbl Relay option (NOTE: SPS IDNet channel, NACs and Aux Relay are disabled in NDU bay). **Second Bay Equipment:** Voice Command Center (VCC) Bay includes Standard CPU Module with RUI+ (isolated or un-isolated) communications interface; Network Interface Card (select media cards separately); 9 A Enhanced Power Supply (EPS) with battery charger, electrically isolated 250 Point IDNet 2 Module, three Class B IDNAC SLCs, one 2 A output configurable for Auxiliary Power or Simple NAC operation, and expansion slot for City Circuit or Alarm/Supv/Tbl Relay option.
4100-9355	English	—	✓		

InfoAlarm Command Center Memory Option (may be required to be ordered separately, see description details)

Model	Description
4100-0640	**Display Memory Expansion Module**; included with NDU systems; **required for *all* InfoAlarm Command Centers connected to a panel *if any* are using 2 byte character fonts**; 6 Meg module mounts on rear of display board

Four Loop IDNet Master Controller Option

Model	Description
4100-3112	**Four Loop IDNet Master Controller;** for the Master Controller and VCC Assemblies listed above, this option moves the standard IDNet 2 Module from the Master Controller/VCC EPS to an available block space in the associated master controller or VCC bay and adds 2, 4100-3111 IDNet Loop Output Modules; requires selection of Factory Built Option 4100-7905; current requirements remain the same (refer to data sheet S4100-0100 for IDNet module details)

Remote InfoAlarm Command Center Control Assembly with Cabinet for Surface Mounting

Model	Cabinet Color	Application Type	Listing	Description
4100-9401	Red	English	UL & ULC	**Remote InfoAlarm Command Center with NEMA 1 cabinet**; for surface mounting; includes mounting box and door assembly with glass insert; uses RUI or RUI+ communications; requires external 24 VDC system voltage; see illustrations on page 7 and Installation Instructions 579-687 for details
4100-9403	Platinum			
4100-9421	Red	French/Canada	ULC	
4100-9423	Platinum			
4100-9441	Red	International	UL	
4100-9443	Platinum			

* Please refer to data sheet S4100-0100 for detailed descriptions of the 4100ES with EPS Basic Control Panel details, standard product features, options, and reference for related fire alarm control panel products, see data sheet list on page 5 for additional reference.

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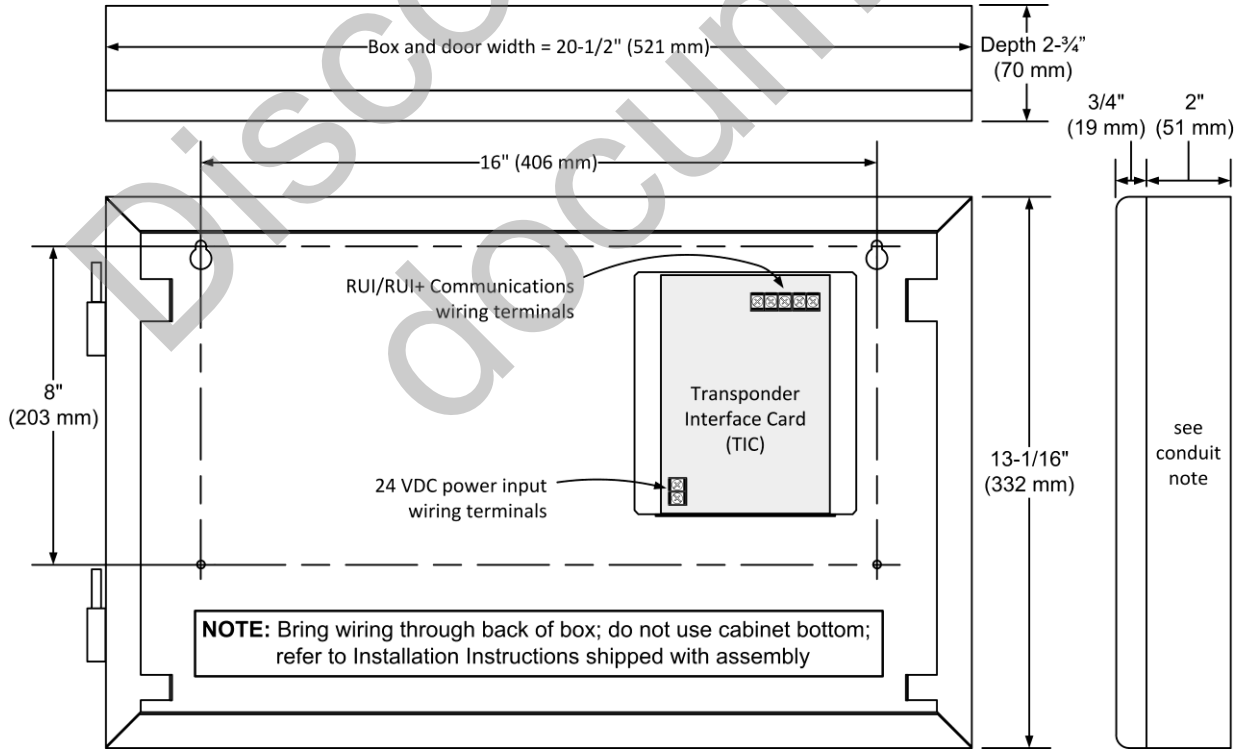
Remote InfoAlarm Command Center Front View

Remote InfoAlarm Command Center Mounting Reference



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Specifications

General Display Specifications		
Size Reference	Dot Matrix Size	320 x 240
	Active Display Area	4.53” W x 3.4” H (115 mm x 86 mm), includes header, footer, and softkey area; 5.66” diagonal measurement (144 mm)
	Characters	Up to 854 characters total using standard ASCII character font
	Designation	QVGA; one quarter of standard VGA (Video Graphics Array) display
Display Polarizer Type		Transflective with rear backlight
Display Adjustment		Contrast adjustment is located on the controller module
Backlight		White LEDs with intensity adjustment and selectable AC power fail operation; intensity adjustment is located on the controller module
Backlighting Operation Options		On continuously; Off with AC power fail until a switch is pushed; selectable timeout without switch activity

Control Panel Mounted InfoAlarm Command Center Current Requirements			
Master Controllers (4100-9314, 4100-9315, 4100-9316, 4100-9513, 4100-9512)	Supervisory	497 mA @ 24 VDC	With 250 IDNet devices and 20 device LEDs in alarm; calculate other external loads separately
	Alarm	805 mA @ 24 VDC; backlight and tone-alert on	
Network Display Units, Voice (4100-9352, 4100-9355)	Supervisory	952 mA @ 24 VDC	
	Alarm	1.212 A @ 24 VDC; backlight and tone-alert on	

Remote Annunciators with InfoAlarm Command Center, Powered from Control Panel		
Voltage		19 to 33 VDC (24 VDC nominal), system supplied; requires separate wiring
Current	Supervisory	169 mA @ 24 VDC
	Alarm	202 mA @ 24 VDC; backlight and tone-alert on
Mounting Details; Stand-Alone Cabinet Models		See page 6 for reference illustration
4100ES Capacity, RUI+ Output Reference	Type	RUI+ (Remote Unit Interface) isolated or un-isolated external annunciator communications line SLC (signaling line circuit); Class B or Class A operation
	Capacity	Up to 31 total remote RUI devices, including up to 10 InfoAlarm Command Center devices
	RUI Device Reference List	4100ES: InfoAlarm Command Center, Remote Annunciators, MINIPLEX Transponders; 4603-9101 LCD Annunciator, 4602-9101 Status Command Unit (SCU), and 4602-9102 Remote Command Unit (RCU); refer to data sheet S4100-0100 for additional 4100ES RUI information (4602 series annunciators require un-isolated communications)
Wiring Requirements	Data	Single twisted, shielded pair, 18 AWG (0.82 mm^2)
	Power	18 to 12 AWG (0.82 mm^2 to 3.31 mm^2) wires for 24 VDC system power
	Earth	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

Custom Point Detail Messages		
Message Location Details		Select “more info” softkey when investigating point detail and scroll to the bottom of the information; typical messages might include contact details (phone numbers, pager numbers, etc.) and other contact or reference information
Number of Messages		Up to 50
Message Size	Character Details	120 characters; visible characters = 116; (lines 1 and 2 require one carriage return character and one line feed character)
	Line Details	3 lines total; 40 characters maximum per line; line 3 may be limited to 36 visible characters depending on characters in lines 1 and 2
Environmental	Operating Temperature	32° to 120°F (0° to 49° C)
	Operating Humidity	Up to 93% RH, non-condensing @ 90° F (32° C) maximum

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