# **5** Simplex

UL, ULC listed\*

#### 4100ES Fire Control Panels

InfoAlarm Command Center for the 4100ES Fire Alarm Control Panel

#### 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) including Redundant CPU options (Software Revision 12 or higher is required)
- Network Display Units (NDU) with support for up to 12,000 points
- Remote Annunciator panels and models that mount in a dedicated cabinet (4100ES and 4100U control panels support Remote InfoAlarm Command Centers independent of host panel display type)
- Upgrade kits are available for legacy 4100 (1000 pt, 4100+ systems) and 4100ES and 4100U standard panels
- UL listed to Standard 864

## 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 vary with the particular screen information aiding operators to determine 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 in. W x 3.4 in. H (115 mm x 86 mm) displaying up to 854 characters using standard ASCII character font
- 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

#### Introduction

**InfoAlarm Command Center Control Panel** LCD interface requires minimal key presses to access detailed information. 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 can be customized per application allowing additional information to be presented to suit the specific application.

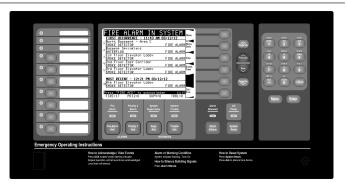


Figure 1: InfoAlarm Command Center for Control Panel Mounting



#### Figure 2: InfoAlarm Command Center in Remote Cabinet

#### 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/4100U 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
- 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

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

#### 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.

#### **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 (See Figure 4).

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.

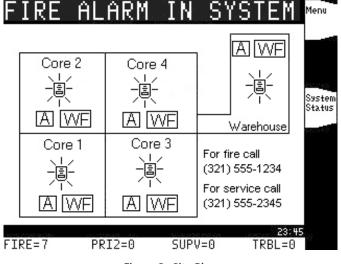


Figure 3: Site Plan

Trouble Log
ENTRY 6 12:00:04 am MON 13-0CT-14
SYSTEM TIME/DATE INVALID OR NOT SET
TROUBLE POINT ABNORMAL
ENTRY 5 12:00:03 am MON 13-0CT-14
COLD START
TROUBLE POINT ABNORMAL
ENTRY 4 12:00:02 am MON 13-0CT-14
CARD 3- 4120 NETWORK INTERFACE
CARD MISSING/FAILED ABNORMAL
ENTRY 3 12:00:02 am MON 13-0CT-14
COMMON TROUBLE POINT FOR NODE: 2
NODE MISSING TROUBLE
ENTRY 2 12:00:00 am MON 13-0CT-14
CARD 4- MULTI-PURPOSE MONITOR CARD
CARD MISSING/FAILED ABNORMAL
ENTRY 1 12:00:00 am MON 13-OCT-14 CLR/ Press (NEXI) or (PREVIOUS) to scroll Exit
1633 (MEATZ OF VEREATOOSZ TO SCIOTE
FIRE=0 PRI2=0 SUPV=0 TRBL=0

Figure 4: Trouble Log

#### **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.

Main Menu	
LOGINLogin or Logout of the system	
REVShow the S/W revision of the	
COMMAND ACCEPTED	
REPORTSView system logs or reports	
PORTSelect system port for reports	
12:4%E× FIRE=0 PRI2=0 SUPV=0 TRBL=0	(it

Figure 5: Main Menu

#### **Additional Primary Display Screens**

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

FIRE ALARM 1	IN SYSTEM Menu
FIRST ALARM 11:43 AM 10/13/14 SMOKE DETECTOR North Basement	ABNORMAL
Nor III Busement	
MOST RECENT ALARM 12:41 PM 10/13/14	
SMOKE DETECTOR 6th Floor East Corrido	ABNORMAL
Press 'Fire Ack' to ack	nowledge 12:45
	SUPV=0 TRBL=0

Figure 6: First and Most Recent Primary Display Option



Figure 7: General Alarm Primary Display Option

#### **Control Panel Operation Reference**

Note: Refer to Figure 10 for international control panel reference information. Detailed operator instructions are on document 579-685.

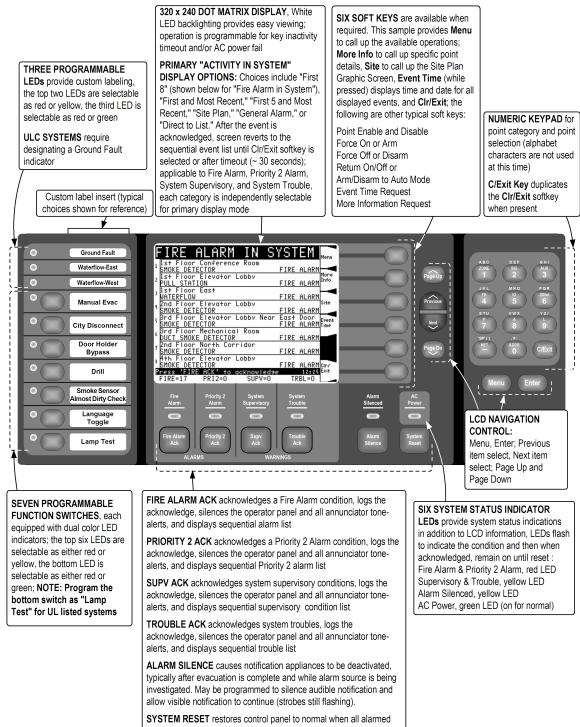


Figure 8: Control Panel Operation Reference

#### **Display Feature Reference**

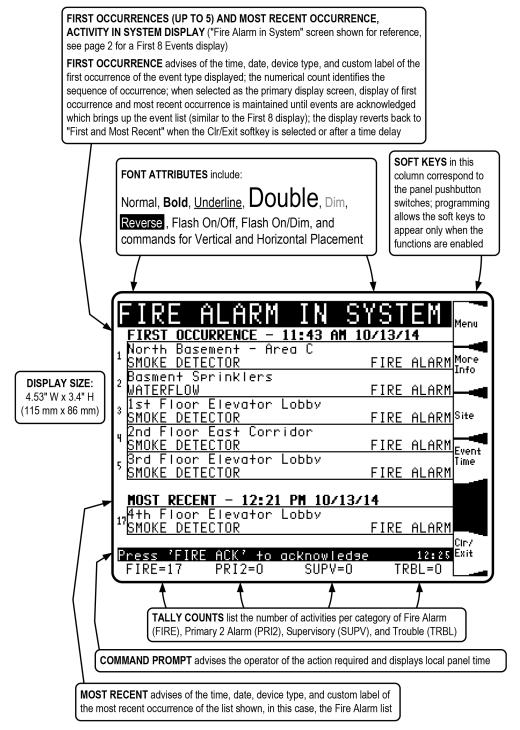


Figure 9: Display Feature Reference

## **5** Simplex

InfoAlarm Command Center for the 4100ES Fire Alarm Control Panel

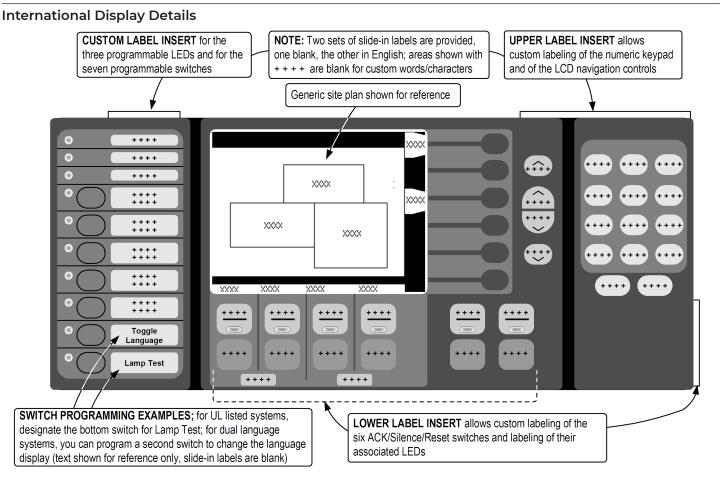
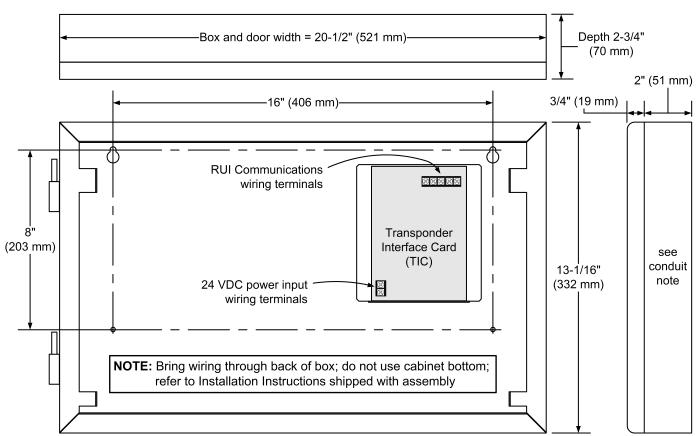


Figure 10: International Display Details

#### **Remote InfoAlarm Command Center Front View**



Figure 11: Remote InfoAlarm Command Center Front View



#### Remote InfoAlarm Command Center Mounting Reference

Figure 12: Remote InfoAlarm Command Center Mounting Reference

#### **Product Selection**

See data sheet S4100-1031 for descriptions of the 4100ES Basic Control Panel details, standard product features, options, and reference for related fire alarm control panel products.

Table 1: 4100ES Master Controller with I	nfoAlarm Command Center
--	-------------------------

Model	InfoAlarm Command Center Type	Listings	Master Controller Features	Supv.	Alarm
4100-9703	InfoAlarm Master Controller with English fixed labeled raised keys	UL/ULC	InfoAlarm Display, CPU Card, IDNet 2 Card supports up to 250 addressable/analog points, ES Power Supply (120 V to 240 V 50/60Hz, 24 V Aux. Relay, 24 V Aux. Power Tap/ Simple NAC, 110 Ah Battery Charger), and external RUI+ (isolated or un-isolated) communications interface	349 mA	391 mA
4100-9704	InfoAlarm Master Controller with Canadian French fixed labeled raised keys	ULC			
4100-9705	<b>InfoAlarm Master Controller</b> with slide-in labels and flat keys	UL/ULC			

Table 2: 4120 Network Display Unit (NDU) and Voice Command Center (VCC) Master Controllers with InfoAlarm Command Center (NOTE: See data sheet S4100-1036 for NDU feature details and for details on ratings for NDU with VCC)

Model	NDU Type	Listings	Master Controller Features	Supv.	Alarm
	4120 NDU (Standard, Non-	UL/ULC		430 mA	472 mA
4100-9722	Voice); with English fixed labeled				
	raised keys		NDU Master Controller Bay with InfoAlarm Display, CPU Card,		
	4120 NDU (Standard, Non-	ULC	4120 Network Interface Card, ES Power Supply (120 V to 240		
4100-9723	Voice); with Canadian French fixed		V 50/60 Hz, 24 V Aux. Relay, 24 V Aux. Power Tap, 110 Ah		
	labeled raised keys		Battery Charger), and external RUI+ (isolated or un-isolated)		
	4120 NDU (Standard, Non-	UL/ULC	communications interface		
4100-9724	<b>Voice);</b> with slide-in labels and flat				
	keys				

## Table 2: 4120 Network Display Unit (NDU) and Voice Command Center (VCC) Master Controllers with InfoAlarm Command Center (NOTE: See data sheet S4100-1036 for NDU feature details and for details on ratings for NDU with VCC)

Model	NDU Type	Listings	Master Controller Features	Supv.	Alarm		
4100-9732	<b>4120 NDU and Voice Command</b> <b>Center</b> ; with English fixed labeled raised keys	UL/ULC	NDU Master Controller Bay with InfoAlarm Display, CPU Card, 4120 Network Interface Card, ES Power Supply (120 V to 240 V 50/60 Hz, 24 V Aux. Relay, 24 V Aux. Power Tap, 110 Ah	708 mA	759 mA		
	4120 NDU and Voice Command Center; with Canadian French fixed labeled raised keys	ULC					
4100-9734	<b>4120 NDU and Voice Command</b> <b>Center;</b> with slide-in labels and flat keys	UL/ULC					

Table 3: ES Net Network Display Unit (NDU) and Voice Command Center (VCC) Master Controllers with InfoAlarm Command Center (NOTE: See data sheet S4100-1077 for NDU feature details and for details on ratings for NDU with VCC)

Model	NDU Type	Listings	Master Controller Features	Supv.	Alarm
	ES Net NDU (Standard, Non- Voice); English InfoAlarm Display with raised keys	UL/ULC	NDU Master Controller Bay English InfoAlarm Display with raised keys, CPU Card, ES Network Interface Card, ES Power Supply (120 V to 240 V 50/60 Hz, 24 V Aux. Relay, 24 V Aux. Power Tap, 110 Ah Battery Charger), and external RUI+ (isolated or un-isolated communications interface	469 mA	511 mA
4100-9753	ES Net NDU (Standard, Non- Voice); Canadian French InfoAlarm Display with raised keys	ULC	Same as 4100-9752 except with Canadian French InfoAlarm user interface		
4100-9754	ES Net NDU (Standard, Non- Voice); with slide-in labels and flat keys	UL/ULC	Same as 4100-9752 except with InfoAlarm user interface with flat keys and slide in labels	_	
4100-9762	100-9762 ES Net NDU Master Controller Bay and Voice Command Center; English InfoAlarm Display with raised keys		NDU Master Controller Bay with InfoAlarm Display with raised keys, CPU Card, ES Network Interface Card, ES Power Supply (120 V to 240 V 50/60 Hz, 24 V Aux. Relay, 24 V Aux. Power Tap, 110 Ah Battery Charger), and external RUI+ (isolated or un-isolated) communications interface VCC Master Controller Bay with CPU Card, ES Network Interface Card, IDNet 2 Card supports up to 250 addressable/analog points, ES Power Supply (120 V to 240 V 50/60 Hz, 24 V Aux. Relay, 24 V Aux. Power Tap, 110 Ah Battery Charger), and external RUI+ (isolated or un-isolated) communications interface	856 mA	907 mA
4100-9763	ES Net NDU Master Controller Bay and Voice Command Center; Canadian French InfoAlarm Display with raised keys	ULC	Same as 4100-9762 except with Canadian French user interface in NDU Master Controller Bay	_	
4100-9764	ES Net NDU Master Controller Bay and Voice Command Center; with slide-in labels and flat keys	UL/ULC	Same as 4100-9762 except with flat keys and slide in labels in NDU Master Controller Bay		

#### Table 4: Upgrade Kits (see NOTE for NDU upgrades; Upgrade kit are UL and ULC listed)

Model	SKU Type	Description	NOTE			
4100-7153	English	<b>Upgrade Kit for existing 4100ES or 4100U Series Fire Alarm Control Panels</b> ; includes complete bay front assembly with InfoAlarm Command Center providing raised keys with fixed labels; uses				
		existing power supply and Master Controller Board (CPU card) Upgrade Kit for existing 4100 (Legacy 1000 pt, 4100+ systems) Series Fire Alarm Control				
4100-7154	English		NDU upgrades require			
4100-7155	International	Upgrade Kit for existing 4100ES or 4100U Series Fire Alarm Control Panels; includes complete bay front assembly with InfoAlarm Command Center providing flat keys with inserts for custom key				
4100-7156	Upgrade Kit for existing 4100 (Legacy 1000 pt, 4100+ systems) Series Fire Alarm Control Panels (non-410011): includes complete bay front assembly with Infollarm Command Center: flat					

## **Simplex**

InfoAlarm Command Center for the 4100ES Fire Alarm Control Panel

	Table 5: Remote Annunciator with InfoAlarm Command Center (see data sheet 54100-1038 for Remote Annunciator features)								
Model	SKU Type	UL	ULC	InfoAlarm Command Center Type	foAlarm Command Center Type Master Controlle				
4100-9612	English	Yes	Yes	With raised keys and fixed labels		Includes Expansion Bay with PDI,			
4100-9613	French	—	Yes	With raised keys and fixed labels	Annunciator supplied from host contr				
4100-9614	International	Yes	_	With flat keys & inserts for custom key labels					
4100-9607	English	Yes	Yes	With raised keys and fixed labels		Includes Expansion Bay with			
4100-9608	French	-	Yes			PDI, Remote TIC module; <b>power</b>			
4100-9609	International	Yes	_	With flat keys & inserts for custom key labels	Annunciator	supply is specified separately when configured			

Table 6: 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
4100-0640	a panel if any are using 2 byte character fonts; 6 Meg module mounts on rear of display board

Table 7: Remote InfoAlarm Command Center Control Assembly with Cabinet for Surface Mounting

SKU Number/	er/Cabinet Color		Listing	Description		
Red	Platinum	Application Type	Listing	Description		
4100-9401	4100-9403	English	UL & ULC	Remote InfoAlarm Command Center with cabinet; for surface		
4100-9421	4100-9423	French/Canada	ULC	—mounting; includes mounting box and door assembly with glass —insert; uses RUI or RUI+ communications; requires external 24 VDC		
4100-9441	4100-9443	International	UL	system voltage; see Remote InfoAlarm Command Center Front View, Remote InfoAlarm Command Center Mounting Reference and Installation Instructions 579-687 for details		

#### Specifications

#### **Table 8: General Display Specifications**

Specification		Rating	
	Dot Matrix Size	320 × 240	
Size Reference	Active Display Area4.53 in. W x 3.4 in. H (115 mm x 86 mm), includes header, footer, ar area; 5.66 in. 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	

#### Table 9: Control Panel Mounted InfoAlarm Command Center Current Requirements

Specification			Rating		
Basic Master Controllers (4100-9703, 4100-9704, 4100-9705)		Supervisory	349 mA @ 24 VDC		
		Alarm	391 mA @ 24 VDC; backlight and tone-alert on		
4120 Network Display Units, Non-Voice (4100-9722, 4100-9723, 4100-9724 )		Supervisory	395 mA @ 24 VDC	Panel currents only are shown, add external device loading per system requirements	
		Alarm	437 mA @ 24 VDC; backlight and tone-alert on		
4120 Network Display Units, Voice (4100-9732, 4100-9733, 4100-9734 )		Supervisory	708 mA @ 24 VDC		
		Alarm	759 mA @ 24 VDC; backlight and tone-alert on		
ES Net Network Display Units, Non-Voice		Supervisory	469 mA @ 24 VDC		
(4100-9752, 4100-9753, 4100-9754)		Alarm	511 mA @ 24 VDC		
ES Net Network Display Units, Voice		Supervisory	856 mA @ 24 VDC		
(4100-9762, 4100-9763, 4100-9764)		Alarm	907 mA @ 24 VDC		
Upgrade Kits 4100-7153 & 4100-7155 for 4100U		add 82 mA supervisory; add 127 mA for alarm	Panel currents only are shown, add external device loading per system requirements		
Upgrade Kits	4100-7154 & 4100-7156 for Legacy 4100+		add 235 mA supervisory; add 280 mA for alarm	Panel currents only are shown, add external device loading per system requirements	

#### Table 10: Remote Annunciators with InfoAlarm Command Center, Powered from Control Panel

Specification		Rating	
Voltage		19 to 33 VDC (24 VDC nominal), system supplied; requires separate wiring	
Current Supervisory Alarm		169 mA @ 24 VDC	
		202 mA @ 24 VDC; backlight and tone-alert on	
Mounting Details; Stand-Alone Cabinet Models		See Figure 12 for reference illustration	
	Туре	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	
4100ES Capacity, RUI+ Output	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 S4100-1031 for additional 4100ES RUI information (4602 series annunciators require un-isolated communications)	
Wiring Requirements Data   Power Earth		Single twisted, shielded pair, 18 AWG (0.82 mm <sup>2</sup> )	
		18 to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> ) wires for 24 VDC system power	
		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	

#### Table 11: Custom Point Detail Messages

Item	Description	
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	

#### **Table 11: Custom Point Detail Messages**

ltem		Description	
Character Details character)		120 characters; visible characters = 116; (lines 1 and 2 require one carriage return character and one line feed character)	
Message Size	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	
IEnvironmental		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	

#### Additional 4100ES and ES Net Product Reference

#### Table 12: Additional 4100ES and ES Net Product Reference

Subject	Datasheet
4100ES Basic Panels with ES-PS Power Supplies	S4100-1031
NDU with ES-PS Power Supplies for 4120 Network	S4100-1036
NDU with ES-PS Power Supplies for ES Net	S4100-1077

© 2020 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).