

### Features

#### Compatible with Simplex ES Net and 4120 fire alarm networks

#### Satisfies a variety of new and retrofit applications

#### 4.3 in. (109 mm) diagonal color touchscreen display:

- Provides detailed system status and point information
- Supports dual language selection, including unicode character languages
- A custom background display appears when operation is normal

#### Eight Point Zone/Relay Module:

- Each point is selectable as an IDC input or Relay output, Class A IDCs require two points (one out and one return); one module is standard, up to three additional modules can be field installed for a total of four 8 point zone/relay modules per system
- Each point on the IDC/Relay Module can be configured as a control relay rated 2 A @ 30 VDC (resistive) as either normally open or normally closed
- Can be powered directly from the power supply or through the optional 25 VDC Regulator Module
- IDC end-of-line resistor value can be selected from a wide range of resistance values for retrofit convenience

#### Electrically isolated IDNet+ addressable initiating device SLC:

- Provides built-in short circuit isolation for monitoring and control of TrueAlarm analog sensors and IDNet communications monitoring and control devices; for use with either shielded or unshielded, twisted or untwisted single pair wiring; outputs are Class A or Class B
- Standard panel SLC provides up to 100 addressable points; optional additional loop expansion modules provide an additional isolated loop with short circuit isolation for the IDNet+ channel; each loop expansion module also provides an additional 75 addressable points

#### Power Supply Features:

- Four Notification Appliance Circuits (NACs) selectable as Class A or Class B with 6 A total available current
- NAC end-of-line resistor value can be selected from a wide range of resistance values for retrofit convenience
- Additional notification power capacity is available using the 4009 IDNet NAC Extender
- Battery backup charging of up to 33 Ah; up to 18 Ah for cabinet mounted batteries and up to 33 Ah batteries for mounting in close-nipped remote battery cabinet

#### General Mechanical:

- Red or platinum cabinet; rated NEMA 1 and IP30

#### 4007ES Listings reference:

- UL 864 - Control Units, System (UOJZ); Control Unit Accessories, System, Fire Alarm (UOXX); Control Units, Releasing Device Service (SYZV)
- UL 2017 - Emergency Alarm System Control Units (CO detection), (FSZI)
- ULC-S559 - Central Station Fire Alarm System Units (DAYRC)
- ULC-S527 - Control Units, System, Fire Alarm (UOJZC); Control Unit Accessories, System, Fire Alarm (UOXXC); Control Units, Releasing Device Service (SYZVC)



Figure 1: 4007ES Hybrid Panel Front View

#### Software Feature Summary:

- Current and previous panel configuration maintained in on-board memory
- An internal Ethernet service port is available for service computer connections to perform configuration updates, downloads and uploads; report downloads, and system software
- Internal USB interface allows a memory stick to store job revisions, update revised jobs and panel software, and save detailed system reports from the panel

#### Optional modules and connections include:

- Fire Alarm Network Interface Card for ES Net or 4120 network
- Peer-to-Peer network communications, supports either Class B or Class X operation
- Point or Event DACT assembly for IP Communicators
- Up to two additional IDNet+ addressable device output loop connections with short circuit fault protection and with 75 additional point capacity each
- Front mounted 48 LED annunciator with custom label inserts; LEDs are programmable for up to 24 IDC zones of alarm and trouble annunciation or other custom annunciation requirements
- Remote LED annunciator support through RUI communications port for use with UTP wiring
- Dual RS-232 ports (for printer, PC annunciator or third party interface)
- TrueInsight Remote Gateway
- Alarm relays and auxiliary relays
- City connections, with or without disconnect switch
- 4009 IDNet NAC Extenders to extend NAC capability for power and distance
- Battery brackets for seismic area protection (see [Mechanical Description](#).)

\* 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 7165-0026:0378 for allowable values and/or conditions concerning material presented in this document. NYC Fire Dept COA #6191A. 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 product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Fire Protection Products

## Introduction

4007ES Series Fire Detection and Control Units provide extensive installation, operator, and service features with point and module capacities suitable for a wide range of system applications. Panels can be configured for stand-alone or networked fire control operation. The convenient and intuitive color touchscreen provides easy access for typical system response actions and for detailed system review or configuration updates with password control to limit user access. Flexible for new and retrofit applications. Standard conventional IDCs and addressable IDNet+ communications provide flexibility for both new and retrofit systems. IDC and NAC end-of-line resistor values are selectable to match a wide range of existing initiating device circuits and notification appliance circuits.

## ES panel compatibility with ES Net

Simplex ES Network (ES Net) is a next generation IP based fire network that uses industry standard network technology and infrastructure and allows for simplified network upgrades, easy terminal connectivity and IP file transfer between nodes; and advanced network diagnostics.

ES fire alarm control units can be upgraded to operate on an ES network by adding an ES Net NIC to the panel.

To upgrade an existing 4120 network to ES Net, all of the 4120 NIC cards on the network loop must be replaced with ES Net NICs.

**Note:** ES NICs and 4120 NICs cannot be mixed on the same network loop.

For more detailed information on ES Net, consult datasheet S4100-0076, and talk to your local Simplex product supplier.

## Operator Interface

### Convenient Status Information

With the locking door closed, the glass window allows viewing of the display status LEDs. The user interface is a 4.3 in. diagonal color touchscreen LCD with separate status LEDs as shown below.

LED indicators describe the general category of activity being displayed with the LCD providing more detail. For the authorized user, unlocking the door provides access to the control functions and allows further inquiry by scrolling the display for additional detail.

### Operator Interface and Software Features

- Convenient and detailed operator information is easily accessed using a logical, menu-driven touchscreen display with password access control
- Multiple automatic and manual diagnostics for maintenance reduction
- Alarm and Trouble History Logs (up to 1000 entries for each, 2000 total events) are available for viewing from the display or for printing to a connected printer, or downloaded to a service computer
- Module level ground fault searching assists installation and service by locating and isolating modules with grounded wiring
- WALKTEST silent or audible system test performs an automatic self-resetting test cycle and supports up to eight WALKTEST groups
- Install Mode allows grouping of multiple troubles for uninstalled modules and devices into a single trouble condition (typical with future phased expansion); with future equipment and devices grouped into a single trouble, operators can more clearly identify events from the commissioned and occupied areas

## Touchscreen Display with LED Status Indicators

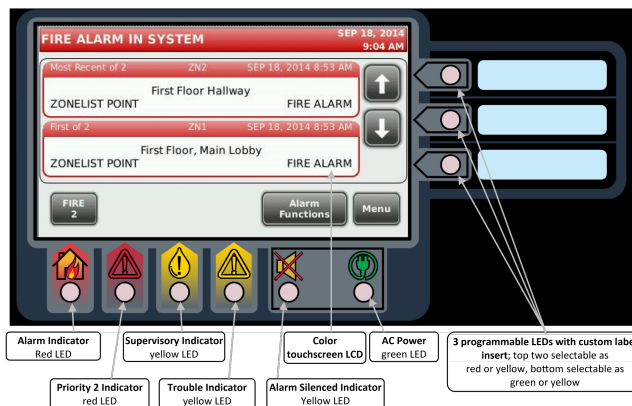
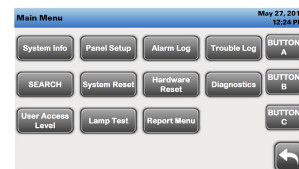


Figure 2: Touchscreen Display with LED Status Indicators

## Operator Screen Reference

**Main Menu Screen** provides easy navigation to the function programmable functions.



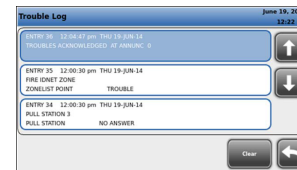
**System Alarm Screen** identifies active alarms with custom labels displayed, arrows allow navigation through the list.



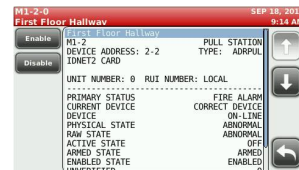
**System Trouble Screen** identifies active troubles with custom labels displayed, arrows allow navigation through the list.



**Trouble Log Screen** allows review of past troubles with time stamp and point details shown.



**Point Information Screen** allows review of point details, arrows allow navigation through the information.



**User Access Login Screen** controls access to panel operations as determined per panel.



## Mechanical Description

- Locking door with polycarbonate window
- Latching front panel assembly swings forward for convenient internal access
- Smooth box surfaces are provided for locally cutting conduit entrance holes exactly where required
- Modules are power-limited (except as noted, such as relay modules)
- Battery compartment (bottom) accepts two batteries, up to 18 Ah, to be mounted within the cabinet without interfering with module space; charger capacity is up to 33 Ah; for batteries greater than 18 Ah, refer to [Module and Accessories Selection Information](#) for external battery cabinet details

- Cabinet assembly design has been seismic tested and is certified to IBC and CBC standards as well as to ASCE 7 categories A through F, requires battery brackets as detailed on data sheet **S2081-0019**

### IDNet+ Addressable Device Control

The 4007ES Hybrid provides an IDNet+ addressable initiating device Signaling Line Circuit (SLC) that supervises wiring connections and the individual device communications status on the SLC. With 2-wire IDNet+ SLCs, initiation, monitoring, and control devices such as manual fire alarm stations, TrueAlarm sensors, control relays, and sprinkler waterflow switches can communicate their identity and status and receive fire alarm system control. Additional addressable interface modules include circuit isolators, conventional IDC zone adapters, and interface to other system circuits such as fans, dampers, and elevator controls.

### IDNet+ Addressable Device Operation

Each addressable device on the IDNet+ communication channel is continuously interrogated for status condition such as: normal, off-normal, alarm, supervisory, or trouble. Both Class B and Class A operation is available. Sophisticated poll and response communication techniques ensure supervision integrity and allow for "T-tapping" of the circuits for Class B operation. Devices with LEDs pulse the LED to indicate receipt of a communications poll and can be turned on steady from the panel. With addressable devices, the location and status of the connected device is monitored, logged, and displayed on the operator interface LCD with each device having its own 40 character custom label for precise identification.

### TrueAlarm Addressable Sensor Operation

Addressable initiating device communications include operation of TrueAlarm smoke and temperature sensors. Smoke sensors transmit an output value based on their smoke chamber condition and the CPU maintains a current value, peak value, and an average value for each sensor. Status is determined by comparing the current sensor value to its average value. Tracking this average value as a continuously shifting reference point filters out environmental factors that cause shifts in sensitivity.



Figure 3: TrueAlarm Photo Sensor with Base

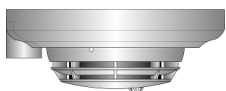


Figure 4: TrueAlarm Photo/Heat Sensor in CO Base

#### Programmable sensitivity

Programmable sensitivity of each sensor can be selected at the control panel for different levels of smoke obscuration (shown directly in percent) or for specific heat detection levels. To evaluate whether the sensitivity should be revised, the peak value is stored in memory and can be easily read (or downloaded as a report) and compared to the alarm threshold directly in percent.

#### CO sensor bases

CO sensor bases combine an electrolytic CO sensing module with a TrueAlarm analog sensor to provide a single multiple sensing assembly using one system address. The CO sensor can be enabled/disabled, and can be used in LED/Switch modes and custom control. Refer to **S4098-0052** for more details.

#### TrueAlarm heat sensors

TrueAlarm heat sensors can be selected for fixed temperature detection, with or without rate-of-rise detection. Utility temperature sensing is also available, typically to provide freeze warnings or alert to HVAC system problems. Readings can be selected as either Fahrenheit or Celsius.

### TrueSense Early Fire Detection

Multi-sensor 4098-9754 provides photoelectric and heat sensor data using a single 40070ES IDNet+ address. The panel evaluates smoke activity, heat activity, and their combination, to provide TrueSense early detection. For more details on this operation, refer to data sheet **S4098-0024**.

### Diagnostics and Default Device Type

#### Sensor Status

TrueAlarm operation allows the control panel to automatically indicate when a sensor is almost dirty, dirty, and excessively dirty. The NFPA 72 requirement for a test of the sensitivity range of the sensors is fulfilled by the ability of TrueAlarm operation to maintain the sensitivity level of each sensor. CO Sensors track their 10 year active life status providing indicators to assist with service planning. Indicators occur at: 1 year, 6 months, and end of life.

#### Modular TrueAlarm sensors

TrueAlarm sensors use the same base and different sensor types (smoke or heat sensor) and can be easily interchanged to meet specific location requirements. This allows intentional sensor substitution during building construction when conditions are temporarily dusty. Instead of covering smoke sensors (causing them to be disabled), heat sensors may be installed without reprogramming the control panel. The control panel will indicate an incorrect sensor type, but the heat sensor will operate at a default sensitivity to provide heat detection for building protection at that location.

### IDNet+ Addressable Channel Capacity

The 4007ES Hybrid provides an isolated output IDNet+ signaling line circuit (SLC) that supports up to 250 addressable monitor and control points intermixed on the same pair of wires. (250 total requires two 4007-9803 IDNet+ Loop Expansion Modules.)

Table 1: IDNet+ SLC Wiring Specifications

Specification	Rating
<b>Maximum Distance from Control Panel per Device Load</b>	0 to 125
	126 to 250
<b>Total Wire Length Allowed With "T" Taps for Class B Wiring</b>	Up to 12,500 ft (3.8 km); 0.60 $\mu$ F
<b>Maximum Capacitance Between IDNet+ Channels</b>	1 $\mu$ F
<b>Loading per device</b>	0.8 mA supv., 1 mA alarm; 2 mA per activated device LED
<b>Wire Type and Connections</b>	Shielded or unshielded, twisted or untwisted wire*
<b>Connections</b>	Terminal blocks for 18 to 12 AWG
Compatibility includes: IDNet communicating devices and TrueAlarm sensors including QuickConnect and QuickConnect2 sensors; see data sheet S4090-0011 for additional reference.	
<b>Note:</b> * Some applications may require shielded wiring. Review your system with your local Simplex product supplier.	

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## Power Supply Output and Zone/Relay Module Details

### Power supply output details

- RUI Communications controls up to 10 remote devices at up to 2500 ft (762 m) for single run, or 10,000 ft (3048 m) total if wiring is Class B and T-tapped; selectable as Class B or Class A
- Compatible RUI remote equipment includes: 4606-9202 and 4606-9205 Color Touchscreen Annunciators (up to 6 total), 4100 Series 24 I/O and LED/Switch modules, 4602 Series LED/Switch and I/O Annunciator modules, including 4602-9101 Status Command Units (SCU), and 4602-9102 Remote Command Units (RCU)
- IDNet+ SLC Output provides electrically isolated Class B or Class A communication; standard capacity is up to 100 addressable points with expansion for up to 250 points using up to two 4007-9803 IDNet+ Loop Expansion Modules (as described in [IDNet+ Addressable Channel Capacity](#))
- 6 A Output Rating. This includes current for: special application notification appliances; IDNet devices; module currents; and auxiliary output current (battery charging, CPU, and power supply current does not subtract from the 6 A); when NACs are controlling Regulated 24 DC Appliances, total NAC current available is 3 A
- Four on-board Class B/Class A NACs, rated 3 A each for Special Application appliances; selectable for SmartSync horn and strobe control, or strobe synchronization; rated 2 A each for Regulated 24 DC appliances
- NAC end-of-line (EOL) resistor values are selectable as: 10 k $\Omega$ , 3.9 k $\Omega$ , 4.7 k $\Omega$ , 5.1 k $\Omega$ , 5.6 k $\Omega$ , or 15 k $\Omega$
- Battery Charger is dual rate, temperature compensated, and charges up to 18 Ah sealed lead-acid batteries mounted in the battery compartment, and charges up to 33 Ah batteries mounted in an external cabinet
- Battery and Charger Monitoring includes battery charger status and low or depleted battery conditions; status information provided to the master controller includes analog values for: battery voltage, charger voltage and current, actual system voltage and current, and NAC current
- Low Battery Voltage Cutout is selectable when required (required for ULC listing applications)
- 2 A Auxiliary Output (AUX/SNAC) can be selected either as resettable auxiliary power of 2 A @ 24 VDC, or selected to be a simple NAC (SNAC) for sounder base power, four-wire detector power, or door holder power

### Zone/relay module details

- Select as IDC or Relay; configure up to eight Class B IDCs, or up to four Class A IDCs; or up to eight Relay outputs rated 2 A resistive @ 30 VDC (N.O. or N.C.); or combinations of IDCs and Relays; each zone is separately configurable as an IDC or Relay output
- IDC Support. Each IDC supports up to 30, two-wire devices
- IDC EOL resistor values are selectable as: 3.3 k $\Omega$ , 2 k $\Omega$ , 2.2 k $\Omega$ , 3.4 k $\Omega$ , 3.9 k $\Omega$ , 4.7 k $\Omega$ , 5.1 k $\Omega$ , 5.6 k $\Omega$ , 6.34/6.8 k $\Omega$ , and 3.6 k $\Omega$  + 1.1 k $\Omega$ ; see instructions for more details

4007ES Mounting and Module Location Reference

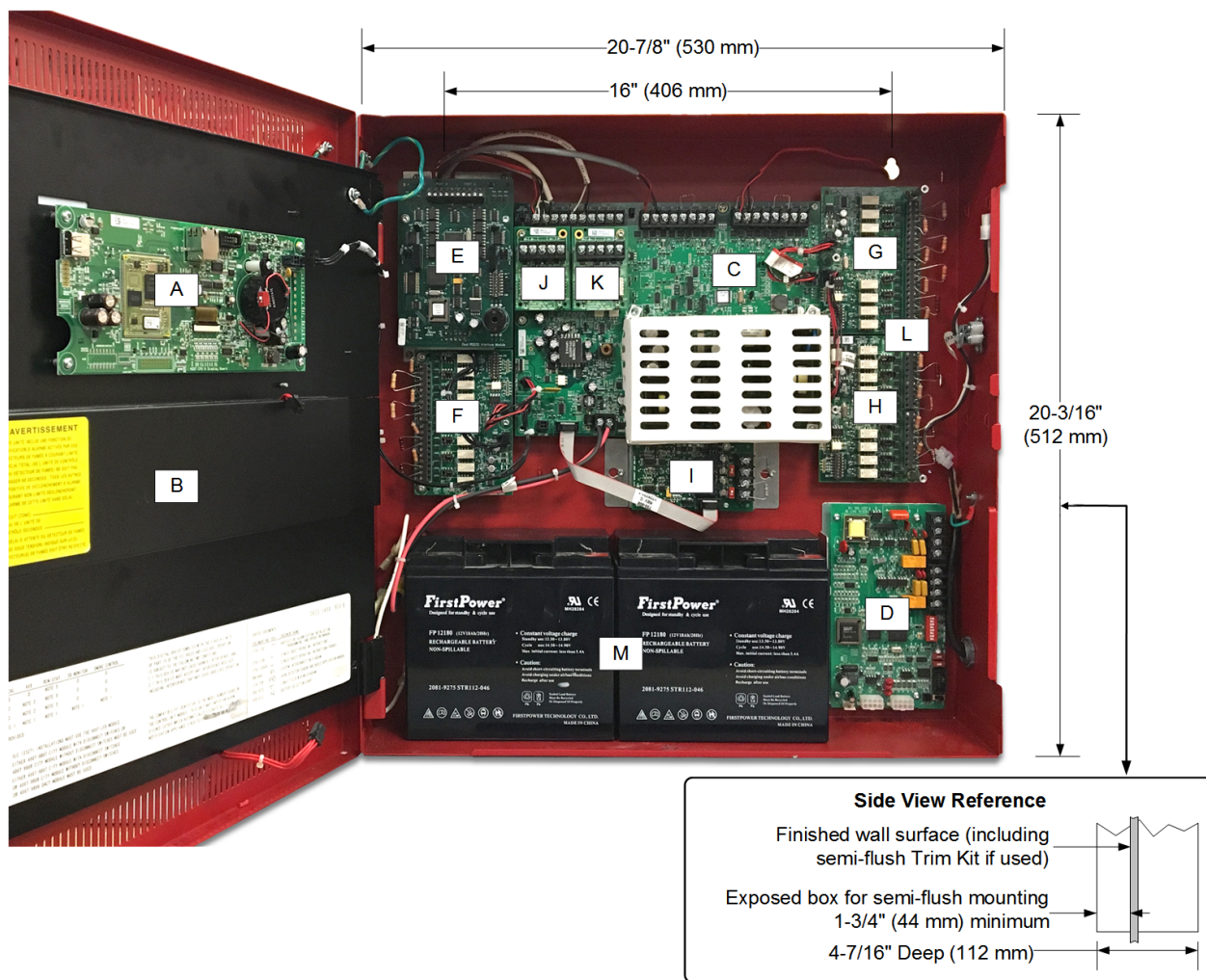


Table 2: Module locations

Key	Description
A	CPU and User Interface assembly.
B	Location for optional 4007-9805 LED Module.
C	Power Supply Assembly.
D	4007-9806 SDACT location. <b>Note:</b> The SDACT includes a 650-1838 flat mounting bracket (available separately). Some pre-existing systems with an angled SDACT bracket will need to be replaced with the flat mounting bracket when a Network Interface Card is installed.
E	Location for 4007-9801 Zone/Relay Module, 4007-9812 Dual RS-232 Interface, 4007-9804 Dual Class A IDNAC Isolator (DCAI), or (as shown) 4007-9802 25 V Regulator Module
F	Primary location for 4007-9801 Zone/Relay Module, or 4190-6106 TrueInsight Remote Service Gateway.
G	Location for additional 4007-9801 Zone/Relay Module.
H	Identical to Block G above.
I	4007-9807 or 4007-9808 City Circuit Module, or 4007-9809 Relay Module.
J	4007-9803 IDNet+ Loop Expansion Modules, maximum of two (two are shown).
K	Identical to block J above.
L	Block L is an additional block that sits on spacers above Block G and H. The 4007-9810 or 4007-9817 NIC can be mounted in block L with or without modules mounted below it in blocks G and H. When fiber media cards are used and an SDACT is present, the SDACT requires a 650-1838 flat mounting bracket (ordered separately).
M	Battery location for up to 18 Ah batteries. <b>Note:</b> No conduit entry or wiring in this area, 14 7/8 in. (378 mm) wide.

**Note:** 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.

## Product Selection

**Table 3: 4007ES Hybrid Product Selection**

Model	Color	Description	Supv.	Alarm
4007-9101	Red	4007ES Hybrid with four conventional NACs, 6 A output power supply/battery charger and one IDNet+ SLC for up to 100 addressable points	145 mA	190 mA
4007-9101BA				
4007-9102	Platinum			
4007-9102BA				
Both models above include		One 4007-9801 Zone/Relay Card	83 mA	295 mA

**Note:**

- Models with (BA) are available assembled in the USA by adding suffix "BA".
- The current draw for the 4007ES Hybrid Panel (without included modules) does not subtract from the 6 A of power available for optional modules and external loads. For power supply loading calculations include all modules plus all external loads and exclude the 4007ES Hybrid Panel current. For battery standby calculations include all modules, all external loads, and the base 4007ES Hybrid Panel current.

## Module and Accessories Selection Information

**Table 4: Factory Programming Options**

Model	Description
4007-8810	Factory Programming (select)
4007-0831	Custom Labels and Programming (requires 4007-8810)

**Table 5: Field Installed Optional Modules**

Model	Description	Supv.	Alarm	
4007-9801	Eight Point Zone/Relay Module, each point is selectable as an IDC input or Relay output, Class A IDCs require two points (one out and one return); one module is included as standard, select up to three additional. Alarm current shown is for eight Class B IDCs using 3.3K end-of-line-resistors with four IDCs in alarm and four IDCs in standby. Supervisory current shown is for all eight IDCs in standby. Detector current is added separately. Refer to <i>579-1103 Zone/Relay Module Installation Instructions</i> for more information.	83 mA max	295 mA max	
4007-9802	25 VDC Regulator Module; 2 A maximum output; use to power Zone/Relay modules connected to initiating devices requiring nominal 25 VDC voltage. Refer to technical publication <i>579-832 2-Wire Detector Compatibility Chart</i> for application details.	with 1 module	190 mA	445 mA
		with 2 modules	290 mA	801 mA
		with 3 modules	390 mA	1156 mA
4007-9803	IDNet+ Loop Expansion Module; provides an additional isolated loop with short circuit isolation to the existing IDNet+ channel, also provides an additional 75 addressable points to the IDNet+ channel capacity, maximum of two	NA	NA	
4007-9805	Panel Mounted 48 LED Status Annunciator Module; provides 24 Yellow LEDs, 20 Red LEDs, and four Red/Green LEDs that are programmable for up to 24 IDC zones of alarm and trouble annunciation, or as required for custom annunciation requirements	no LEDs on	10 mA	10 mA
		with LEDs on	1.75 mA per LED, 105 mA max	
4007-9806	SDACT Module for Point or Event Reporting Order 2080-9047 connection cables as required (see cable details under accessories)	30 mA	40 mA	
4007-9807	City Circuit Module with Disconnect Switch	20 mA	36 mA	
4007-9808	City Circuit Module without Disconnect Switch	20 mA	36 mA	
4007-9809	Relay Module; relays for Alarm, Supervisory, and Trouble; rated 2 A resistive @ 32 VDC	15 mA	37 mA	
4007-9812	Dual RS-232 Interface Module; Compatible with Simplex remote printer, PC annunciator or third party interface (two ports/connections maximum)	60 mA	60 mA	

**Table 6: Field Installed Optional Network Modules**

Model	Description	Supv.	Alarm
4190-8001*	TrueInsight remote service gateway module and programming selection	62 mA	73 mA
4190-6106 *	TrueInsight remote service gateway module installation kit; includes module and harness; configured for dynamic IP address operation unless ordered with 4190-4016		
4190-4016 *	TrueInsight remote service gateway module for fixed IP Addressing; optional, select if application will use fixed IP address		

**Note:** \* Refer to data sheet S4100-0063 for additional TrueInsight service gateway details

### Network Interface and Network Media Card Product Selection

4007ES fire alarm control units are compatible with Simplex ES Net network or 4120 network fire alarm products.

- Refer to datasheet S4100-0076 for additional information on compatible ES Net fire alarm products.
- Refer to datasheet S4100-0056 for additional information on compatible 4120 network fire alarm products.
- Refer to datasheet S4100-0061 for additional information on the Building Network Interface Card.

**Table 7: Batteries**

Model	Capacity	Battery Mounting Details	
2081-9272	6.2 Ah	12 V Batteries for cabinet mounting; select one battery model per system standby requirements; order quantity of two; to be wired in series for 24 VDC	
2081-9274	10 Ah		
2081-9288	12.7 Ah		
2081-9275	18 Ah		
2081-9287	25 Ah	For remote mount in Battery Box 4009-9801	Batteries for remote mounting; see battery cabinet details below
2081-9271	33 Ah	For remote mount in Battery Box 4009-9802	

**Table 8: Battery accessories**

Model	Color	Capacity	Dimensions	Description
4009-9801	Beige	For up to 25 Ah batteries	16 1/4 in. W x 13 1/2 in. H x 5 3/4 in D (413 mm x 343 mm x 146 mm)	External battery cabinet without charger, with locking solid door and battery harness; for close-nippled mounting to fire alarm control panel cabinet
4009-9802	Beige	For up to 33 Ah batteries	25 3/4 in. W x 20 3/4 in. H x 4 1/8 in. D (654 mm x 527 mm x 105 mm)	

**Table 9: Accessories**

Model	Description
2080-9047	DACT cable, 14 ft (4.3 m) long, RJ45 plug one end, spade lugs on the other; order one per phone line connection required
2975-9812	Red semi-flush box trim; 1 7/16 in. (37 mm) wide, four corners and trim pieces for top, bottom, and sides
2975-9813	Platinum semi-flush box trim; 1 7/16 in. (37 mm) wide, four corners and trim pieces for top, bottom, and sides
2081-9031	Platinum semi-flush box trim; 1 7/16 in. (37 mm) wide, four corners and trim pieces for top, bottom, and sides
4081-9002	3.3 kΩ, 1 W end-of-line resistor for Class B non-addressable initiating zones
4081-9018	10 kΩ, 1 W end-of-line resistor harness for non-addressable NACs

### General Specifications

**Table 10: General specifications**

Specification	Rating	
<b>Input Power</b>	120 VAC Input	2 A maximum @ 102 to 132 VAC, 50/60 Hz
	240 VAC Input	1 A maximum @ 204 to 264 VAC, 50/60 Hz
<b>4007ES Hybrid Power Supply Output Ratings</b>	Power Supply Output Rating	Including module currents and auxiliary power outputs; 6 A total
	NAC Ratings	3 A each for Special Application Appliances 2 A each for Regulated 24 DC Appliances
	Auxiliary Power Tap	2 A maximum, 24 VDC nominal (19.5 to 31.1 VDC)
<b>Special Application Non-Addressable Appliances</b>	Simplex horns, strobes, and combination horn/strobes and speaker/strobes (contact your Simplex product representative for compatible appliances)	
<b>Regulated 24 DC Non-Addressable Appliances</b>	Power for other UL listed appliances; use associated external synchronization modules where required	
<b>Battery Charger Ratings (sealed lead-acid batteries)</b>	Battery capacity range	UL and ULC listed for battery charging of 6.2 Ah up to 33 Ah (batteries larger than 18 Ah require a remote battery cabinet)
	Charger characteristics and performance	Temperature compensated, dual rate, recharges depleted batteries within 48 hours per UL Standard 864; to 70% capacity in 12 hours per ULC Standard S527

**Table 11: Custom background and environmental details**

Item	Description	
<b>Custom Background Display Details</b>	Supported file types: JPG, BMP, GIF, and PNG	
	Recommended image type is JPG, recommended image size is 480 x 240, and the file size limit is 100 kb	
<b>Environmental</b>	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 4007ES and Network Product Reference**

**Table 12: Additional 4007ES and network product reference**

<b>Subject</b>	<b>Datasheet</b>
Serial DACT (SDACT) for 4100ES, 4010ES, 4007ES	S2080-0009
Seismic Battery Brackets Reference	S2081-0019
4003EC Voice Control Unit	S4003-0002
4007ES Panels with Addressable Notification	S4007-0002
4007ES Extinguishing Release Applications	S4007-0003
4009 IDNet NAC Extender	S4009-0002
4009 IDNAC Repeater	S4009-0004
External 110 Ah Battery Charger for 4100ES, 4010ES	S4081-0002
Graphic I/O Modules for 4100ES, 4010ES, 4007ES	S4100-0005
Interface to VESDA Air Aspiration Detection Systems	S4100-0026
NDU with SPS Power Supplies for 4120 Network	S4100-0036
InfoAlarm Command Center with SPS Power Supplies	S4100-0045
Multiple Signal Fiber Optic Modems for 4120 Networks	S4100-0049
BACpac Ethernet Module	S4100-0051
4120 Network Products and Specifications	S4100-0056
Building Network Interface Card (BNIC)	S4100-0061
SafeLINC Internet Interface	S4100-0062
TrueInsight Remote Gateway	S4100-0063
ES Net Network Products and Specifications	S4100-0076
NDU with SPS Power Supplies for ES Net	S4100-0077
InfoAlarm Command Center with EPS Power Supplies	S4100-0101
NDU with EPS Power Supplies for 4120 Network	S4100-0102
NDU with EPS Power Supplies for ES Net	S4100-0104
PC Annunciator	S4190-0013
TrueSite Workstation	S4190-0016
TrueSite Incident Commander	S4190-0020
24-Pin Dot Matrix Fire Alarm System Remote Printer	S4190-0027
SCU/RCU Annunciators	S4602-0001
4606 Series Color Touchscreen LCD Annunciators	S4606-0003



**4007ES Hybrid Additional Reference**



Figure 5: 4007ES Hybrid with optional 48 LED Annunciator Module (4007-9805)



Figure 6: 4606-9205 (Platinum) Color LCD Touchscreen Remote Annunciator



Figure 7: 4606-9202 (Red) Color LCD Touchscreen Remote Annunciator

