Simplex

*UL Listed**

Datasheet

4007ES Fire Control Units

4007ES Fire Detection and Control Unit with MX Digital Addressable Initiation and Addressable Notification

Introduction



Figure 1: 4007ES fire alarm control unit (FACU) front view

4007ES series fire detection and control units

4007ES fire alarm control units (FACUs) provide extensive installation, operator, and service features with point and module capacities suitable for a wide range of system applications. You can configure the FACUs for stand-alone or networked fire control operation. You can access typical system response actions, detailed system reviews or configuration updates with the color touchscreen, with password control to limit user access. 4007ES FACUs are compatible with Simplex® ES Network (ES Net) or 4120 fire alarm networks.

4007ES FACUs have a flexible combination of MX Digital addressable initiation, MX Digital addressable loop powered notification, and IDNAC addressable notification communications as standard features. Refer to ***4007ES Hybrid Fire Detection and Control Unit with MX Digital Addressable Initiation and Notification and Conventional Notification (S4007-0022)*** for 4007ES FACUs that provide conventional notification.

Features

4.3 in. (109 mm) diagonal color touchscreen display

- User interface displays detailed system status and individual point information.
- Support for dual language selection, including unicode character languages.
- A custom background display that appears when not in use.

3 A IDNAC signaling line circuit (SLC) output power supply

- Enhanced power delivery to addressable notification appliances.
- Maintains a constant 29 VDC source voltage during alarm, even during battery operation. Strobes can operate at higher voltage with lower current, which ensures a consistent current draw and voltage drop margin under both primary power and secondary battery standby.
- Efficiencies include lower strobe currents, wiring distances up to two to three times farther than with conventional notification, support for more appliances for each IDNAC SLC, and smaller gauge wiring. These provide installation and maintenance savings, with high assurance that appliances will operate as normal during worst case alarm conditions.
- IDNAC SLCs are compatible with TrueAlert ES and TrueAlert addressable notification appliances, and remote 4009 IDNAC Repeaters.
- Extends power and wiring distance and provides for up to 127 addressable notification appliances.
- Power supply provides 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-nippled remote battery cabinet.

Electrically isolated MX Digital addressable SLC

- Includes a single dual isolated ESMX Class A loop.
- Connect up to 250 MX addressable devices, with up to 1A of output current to drive loop powered notification devices.
- Use the optional ESMX loop mezzanine card to share loop power and addresses across two loops.

Software feature summary

- You can select the current and previous panel configuration from the onboard memory.
- An internal Ethernet service port is available for service computer connections to perform configuration updates, downloads and uploads, report downloads, and system software updates.
- You can use the Internal USB interface to store job revisions, update revised jobs and panel software, and save detailed system reports from the panel to a memory stick or thumb drive.

Optional modules and connections

- Fire alarm network interface card (NIC) for ES Net or 4120 network.
- Peer-to-Peer network communications, supports either Class B or Class X operation.
- Point or Event DACT assembly that is compatible with Connected Services Gateway.
- ESMX loop mezzanine card to allow two loops to share loop power and addresses.
- Front mounted 48 LED annunciator with custom label inserts.
- Dual Class A IDNAC Isolator (DCAI).
- Remote LED annunciator support through a remote unit interface (RUI) communications port for use with unshielded, twisted pair wiring (UTP).
- Eight point zone/relay modules individually selectable as IDC or relay rated 2 A at 30 VDC (resistive).
- Alarm relays and auxiliary relays.
- Dual RS-232 ports for a printer, PC annunciator or third party interface.
- City connections, with or without a disconnect switch.
- 4003EC Voice Control Panels.
- 4009 Series IDNAC Repeaters.

Mounting options

- A compact red or platinum cabinet for surface or semi-flush mounting; rated NEMA 1 and IP30.

4007ES Listings reference

- UL 864 - Control Units, System (UOJZ); Control Unit Accessories, System, Fire Alarm (UOXX); Control Units.

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

ES panel compatibility with ES Net

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

You can upgrade ES fire FACUs to operate on an ES network by adding an ES Net Network Interface Card (NIC) to the panel.

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

You cannot mix ES NICs and 4120 NICs on the same network loop.

For more detailed information on ES Net, refer to ***ES Net Network Applications, Communications, Options and Specifications (S4100-0076)*** and talk to your local Simplex product supplier.

Operator interface

Status information

You can view the display status LEDs through the glass window when the locking door is closed. The user interface is a 4.3 in. (109 mm) diagonal color touchscreen LCD with separate status LEDs, see Figure 2.

LED indicators describe the general category of activity and the LCD provides more detail. Authorized users can unlock the door to gain access to the control functions and additional detail.

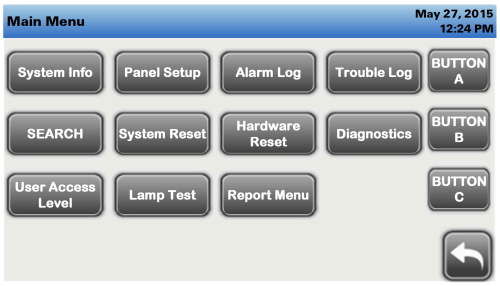
Touchscreen display with LED status indicators



Figure 2: Touchscreen display with LED status indicators

Operator screen reference

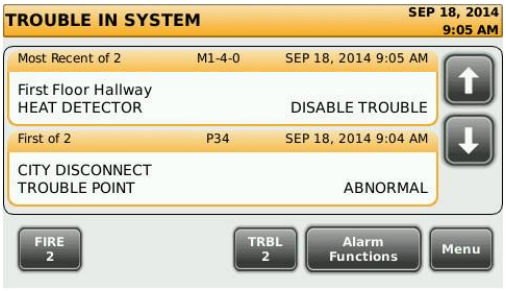
Main Menu: Use this screen to easily navigate to the required function. Buttons A, B, and C have programmable functions.



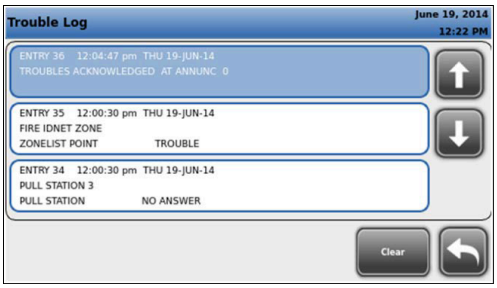
System Alarm: Identify active alarms, with custom labels shown. Use the arrows to navigate through the list.



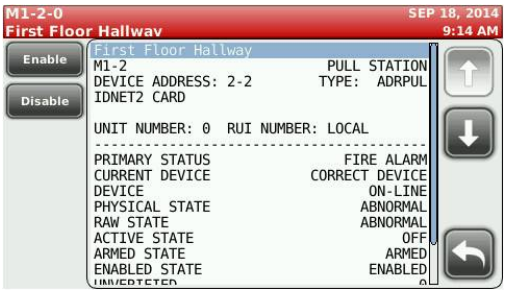
System Trouble: Identify active troubles, with custom labels shown. Use the arrows to navigate through the list.



Trouble Log: Review past troubles, with time stamp and point details shown.



Point Information: Review point details. Use the arrows to navigate through the information.



User Access Login: Controls access to panel operations as determined by the panel.



Operator interface and software features

- Use the touchscreen display with password access to easily access operator information.
- Multiple automatic and manual diagnostics to reduce maintenance.
- View alarm and trouble history logs from the display, print with a connected printer, or download to a service computer. Up to 1,000 entries are available for each, with a total of 2,000 events.
- You can use module-level ground-fault searching to locate and isolate modules with grounded wiring.
- The WALKTEST silent or audible system test performs an automatic self-resetting test cycle and supports up to eight WALKTEST groups.
- You can use Install Mode to group 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.

Mechanical description

- Features a locking door with a polycarbonate window.
- The latching front panel assembly swings forward for convenient internal access.
- You can use the smooth box surfaces to locally cut conduit entrance holes exactly where required.
- Modules are power-limited except as noted, such as relay modules.
- The bottom battery compartment takes two batteries, up to 18 Ah. Mount the batteries within the cabinet. The charger capacity is up to 33 Ah. For batteries greater than 18 Ah, see Module and accessories selection information for external battery cabinet details.

MX Digital addressable device control

The 4007ES addressable panel provides an MX Digital addressable Signaling Line Circuit (SLC) that supervises wiring connections and the individual device communications status on the SLC and also provides loop power to drive addressable notification devices.

With two-wire MX Digital SLCs, initiation, monitoring, and control devices can communicate their identity and status and receive fire alarm system control, see Compatible addressable devices. The MX Digital SLC is compatible with many types of existing cable, which helps with system retrofits. Communications distances can be up to 2 km (6560 ft).

Additional addressable interface modules include circuit isolators, conventional IDC zone adapters. The modules interface with other system circuits such as fans, dampers, and elevator controls.

MX Digital addressable device operation

Each addressable device on the MX Digital 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. 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 you can turn the LEDs on steady from the panel. The LCD monitors, logs, and displays the location and status of addressable devices, and each device has a unique 40 character custom label for identification.

Compatible addressable devices

- Smoke sensors, heat sensors, multi sensor smoke/heat sensors and triple sensors including smoke, heat and carbon monoxide detection.
- Sensor bases with loop powered sounder or sounder-beacon.
- Wall mounted loop powered beacons and sounder-beacons.
- Single, dual, and multiple I/O modules including relay, signal, monitor and separate line-powered isolator modules.
- Indoor and outdoor break glass call points.
- Single and dual action manual pull stations.

Diagnostics and default device type

Sensor status

With MX Digital operation, the FACU automatically indicates 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 MX Digital operation to maintain the sensitivity level of each sensor.

Modular MX Digital sensors

MX Digital sensors use the same base and different sensor types (smoke or heat sensor) and you can interchange them to meet specific location requirements. This means you can substitute sensors during building construction when conditions are temporarily dusty. Instead of covering smoke sensors, which disables them, you can install heat sensors without reprogramming the FACU. The FACU 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.

MX Digital addressable channel capacity

The 4007ES addressable FACU provides an isolated output MX Digital SLC that supports up to 250 addressable initiating, monitoring, control, and loop powered notification points intermixed on the same pair of wires.

Table 1: MX Digital SLC wiring specifications

Specification		Rating
MX Loop Output	Voltage	40 VDC maximum
	Current	1 A maximum
Addresses per Loop		250 maximum
Loop Distance		6560 ft (2000 m) typical maximum
		Note: Wire lengths may be longer depending on wiring characteristics and other conditions, consult your Simplex product representative for additional details
Loop Resistance		150 Ω maximum
Loop Capacitance		0.2 µF maximum
Loop Inductance		1.5 mH maximum
Communications Voltage		40 V peak maximum

IDNAC SLC control of TrueAlert and TrueAlert ES addressable notification

Addressable notification appliance communications

Addressable notification appliance communications include operation of TrueAlert and TrueAlert ES Visible only (V/O, strobe), Audible only (A/O, horn), Audible/Visible (A/V, horn/strobe), and strobes of Speaker/Visible (S/V) notification appliances. S/V appliances require separate speaker wiring. You can use IDNAC SLC addressable communications to individually control each horn and strobe with a single two-wire circuit. You can confirm the wiring connections to the individual notification appliance's electronic circuit, and confirm communications between each appliance and the FACU. Addressable communications increases supervision integrity in comparison with conventional notification systems because it provides supervision beyond the circuit wiring to each individual appliance and constantly verifies the ability of each appliance to communicate with the FACU.

Individual appliance status and settings

The FACU monitors and records each addressable notification appliance status, type of appliance, and its configured appliance settings. A fault in any individual appliance automatically reports a trouble condition to the control panel.



Figure 3: TrueAlert ES addressable appliance reference

Virtual NACs for control convenience

You can group IDNAC notification appliances into Virtual NACS (VNACs) for group control.

Panel control convenience

You can program applicable operation settings for each appliance without the need to replace appliances or remove them from the wall or ceiling. You can change an appliance's VNAC notification zone through programming without the need to add additional circuits, conduit, and wiring. You can program audible and visible appliances for non-fire emergency communications notification to operate separately on the same pair of wires as the fire alarm notification appliances. The result is lower installation, retrofit, and overall costs compared with traditional conventional notification systems.

Installation, retrofit, and life-cycle cost benefits

With the ability to separately control each addressable appliance on the same two-wire IDNAC SLC you can significantly reduce installation time and expense for both retrofit and new construction. Class B wiring can be T-tapped, which leads to more savings in distance, wire, conduit (size and utilization), and overall installation efficiency.

Location information, diagnostics and troubleshooting

Each addressable notification appliance has its own 40 character custom label to identify the location of the appliance and to aid in troubleshooting fault conditions. You can use the TrueAlert magnet test to identify each appliance's candela setting and address and to briefly operate if required. You can use the TrueAlert ES Appliance Self-Test feature for detailed performance verification for each appliance.

TrueAlert ES appliance Self-Test operation

On-board test sensors

TrueAlert ES appliances are equipped with on-board sensors to detect strobe or horn output for efficient and unobtrusive self-testing, see Figure 9. When you initiate Automatic Self-Test from the control panel, each appliance within the selected VNAC group briefly operates and then reports its Self-Test status to the control panel, all within several seconds. You can select silent Self-Test to only test visible appliances if required. The control panel is in a trouble condition during the test and in the event of an alarm, Self-Test is automatically terminated.

Automatic Self-Test

Results are communicated to the control panel with a time and date stamp and are stored in memory. Results are viewable at the front panel display and printed reports are available from the panel USB port.

Individual Self-Test

Select Self-Test from the FACU when you need to observe individual appliances in operation. Each appliance in the selected VNAC group turns on its LED until individually activated by applying a magnet. After performing the individual test, the appliance LED turns off to indicate completion. Results are recorded the same as during the automatic test, see Figure 10.

IDNAC SLC hardware reference

The 4007ES provides a 3 A IDNAC SLC for control and power to TrueAlert ES and TrueAlert addressable notification appliances. The power supply incorporates an efficient switching design that provides a regulated output of 29 VDC, even during battery operation. With 29 VDC minimum output at the FACU, addressable notification SLCs can support wiring distances two to three times farther than available with conventional notification, or support more appliances for each SLC, or work with smaller gauge wiring, or combinations of these benefits.

IDNAC SLC appliance wiring reference

IDNAC SLC capacity

The IDNAC SLC supports up to 127 addresses and up to 139 unit loads. Appliances are typically one unit load, but devices such as Isolators may require more than one load. Refer to individual device datasheets for specific information, see Table 12.

Table 2: IDNAC SLC appliance wiring reference

Wiring reference	Description
Recommended wire type	UTP, unshielded twisted pair
Maximum wire length allowed with T-tap for Class B wiring, for each SLC	10,000 ft (3048 m)
Maximum wire length for each SLC to any appliance	4000 ft (1219 m)
Appliance supervisory current	1 unit load = 0.8 mA per appliance
Wiring connections	Terminals for 18 AWG to 12 AWG

4007ES mounting and module location reference

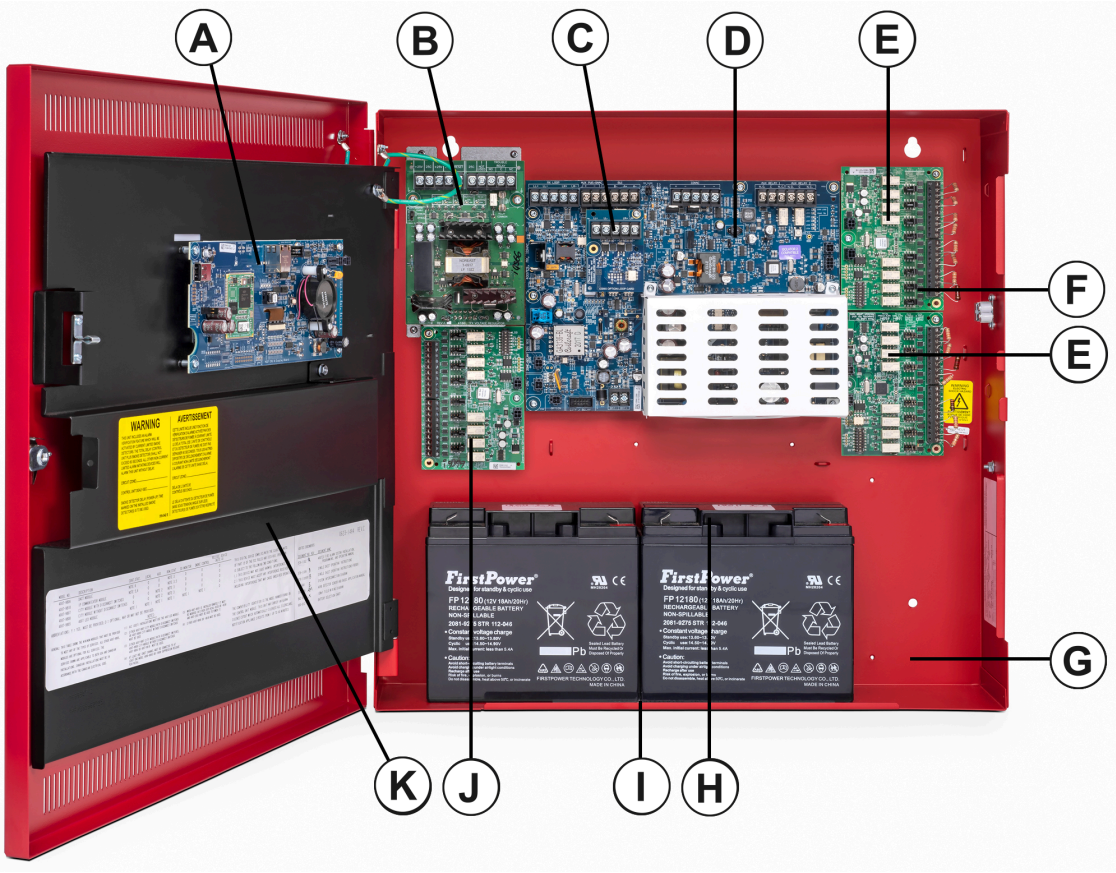


Figure 4: 4007ES mounting and module location reference

Table 3: Module locations

Key	Description
A	CPU and User Interface assembly, included.
B	Location for the following optional modules: • 4007-9801 Zone/Relay Module • 4007-9812 Dual RS-232 Interface • 4007-9804 Dual Class A IDNAC Isolator (DCAI) • 4007-9802 25 V Regulator Module, as shown
C	4007-6312 Loop Mezzanine Card, optional.
D	Power Supply Assembly, included.
E	Location for additional 4007-9801 Zone/Relay Module.
F	An additional block that sits on spacers above E. You can mount the 4007-9810 NIC or 4007-9817 NIC here with or without modules mounted below it in E. When you use fiber media cards and an SDACT is present, the SDACT requires a 650-1838 flat mounting bracket, ordered separately.
G	Location for optional 4007-9806 SDACT, module not shown. **Note:** The SDACT includes a 650-1838 flat mounting bracket, available separately. Some pre-existing systems with an angled SDACT bracket will require replacement with the flat mounting bracket when a Network Interface Card is installed.
H	Location for optional 4007-9807 or 4007-9808 City Circuit Module, or 4007-9809 Relay Module.
I	Battery location for up to 18 Ah batteries. **Note:** No conduit entry or wiring in this area, 14 7/8 in. (378 mm) wide.
J	Primary location for optional 4007-9801 Zone/Relay Module.
K	Location for optional 4007-9805 LED Module.

Note: You must provide a system ground for Earth Detection and transient protection devices. Make this connection to an approved, dedicated Earth connection in accordance with NFPA 70, Article 250, and NFPA 780.

Power supply output and zone/relay module details

- **2 A auxiliary output (AUX/SNAC):** Select either as resettable auxiliary power of 2 A at 24 VDC, or a simple NAC (SNAC) for sounder base power, four-wire detector power, or door holder power.
- **4 A output rating:** Includes current for IDNAC controlled notification appliances, MX devices, module currents, and auxiliary output current. Battery charging, CPU, and power supply current are not subtracted from the 4 A.
- **Low battery voltage cutout:** Select when required.
- **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 IDNAC SLC current.
- **Battery charger:** Dual rate, temperature compensated, and charges up to 18 Ah sealed lead-acid batteries in the battery compartment. Charges up to 33 Ah batteries in an external cabinet.
- **MX Digital SLC output:** Provides electrically isolated Class B or Class A communication. Capacity for 250 addressable points. Use the optional ESMX mezzanine card to share loop power and addresses across two loops.
- **Compatible RUI remote equipment:**
  - Up to six 4606-9202 and 4606-9205 Color Touchscreen Annunciators
  - 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)
- **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. You can select output as Class B or Class A.

Product selection

Table 4: Product selection

Model	Color	Description	Standby	Alarm
4007-9401	Red	4007ES with a 3 A, Class B, IDNAC SLC for up to 127 addressable notification appliances, and 4 A output power supply/battery charger. Includes MX Digital communications for 250 addressable points. No appliance, point, or circuit loads attached. **Note:** Add optional module and other currents separately for battery calculations. Base panel current does not subtract from the 4 A power available for optional modules and external loads.	190 mA	290 mA
4007-9402	Platinum			

Module and accessories selection information

Table 5: Factory programming options

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

Table 6: Field installed optional modules

Model	Description		Standby	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. Select up to four maximum. Alarm current shown is for eight Class B IDCs using 3.3K end-of-line (EOL) 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 ***4007ES Hybrid Fire Detection and Control Unit with MX Digital Addressable Initiation and Notification and Conventional Notification (S4007-0022)*** and ***Zone/Relay Module Installation Instructions (579-1103)*** for additional 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 that require nominal 25 VDC voltage. Refer to ***2-Wire Detector Compatibility Chart (579-832)*** for application details.	with one module	190 mA	445 mA
		with two modules	290 mA	801 mA
		with three modules	390 mA	1156 mA
4007-6312	ESMX optional loop mezzanine card. Provides a second dual isolated Class A loop to allow the onboard ESMX loop and the ESMX mezzanine card to share addresses and loop power.		NA	NA
4007-9804	Dual Class A IDNAC Isolator (DCAI). Converts a single Class B IDNAC SLC input to two Class A SLC outputs. Provides short circuit isolation between each Class A output circuit. Requires one IDNAC address. The total current remains controlled by the Class B input source SLC at 3 A maximum. A maximum of 30 appliances per isolated loop. **Note:** You can install up to 30 additional device addresses between each 4905-9929 TrueAlert Addressable Isolator+ Module, not to exceed the maximum address and unit loading specifications for the IDNAC channel.		12.7 mA	25 mA

Table 6: Field installed optional modules

Model	Description		Standby	Alarm
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 Table 10.		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. A maximum of two ports or connections.		60 mA	60 mA

Table 7: Field installed optional network modules

Model	Description	Standby	Alarm
4007-2504	Connected Services Gateway with IP Communicator.	125 mA	125 mA

Network interface and network media card product selection

4007ES FACUs are compatible with Simplex ES Net network or 4120 network fire alarm products. Refer to the following data sheets for more information:

- For compatible ES Net fire alarm products, refer to ***ES Net Network Applications, Communications, Options and Specifications (S4100-0076)***.
- For compatible 4120 network fire alarm products, refer to ***4120 Network Communications, Options, and Specifications; International (S4100-0056)***.
- For details on the Building Network Interface Card, refer to ***Building Network Interface Card (BNIC) Models 4100-6047 and 4010-9914 (S4100-0061)***.

Table 8: Batteries

Model	Capacity	Battery mounting details
2081-9272	6.2 Ah	12 V Batteries for cabinet mounting. Select one battery model in accordance with system standby requirements. 24 VDC requires two batteries wired in series.
2081-9274	10 Ah	
2081-9288	12.7 Ah	
2081-9275	18 Ah	
2081-9287	25 Ah	Requires 4009-9801 external battery cabinet, see Table 9.
2081-9276	33 Ah	

Table 9: Battery cabinets

Model	Color	Capacity	Dimensions (H x W x D)	Description
4009-9801	Beige	For batteries up to 33 Ah, see note.	13 1/2 in. x 16 1/4 in. x 5 3/4 in. (343 mm x 413 mm x 146 mm)	External battery cabinet without charger, for mounting close-nippled to the FACU cabinet. Includes locking solid door. Use battery harness 734-304 for a NAC power supply and harness 734-303 for an IDNAC power supply. Battery harnesses are shipped with the panel.

Note: 33 Ah capacity requires 2081-9276 square 33 Ah batteries.

Table 10: Accessories

Model	Description
2080-9047	DACT cable, 14 ft (4.3 m) long, RJ45 plug on one end, spade lugs on the other. Each phone line connection requires one cable.
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.
4081-9018	10 kΩ, 1 W EOL resistor harness for non-addressable NACs if 4007-9801 is used.
2081-9031	Series resistor for WSO, non-addressable IDCs. N.O. water flow and tamper on same circuit, wires after water flow and before tamper. 470 ohms, 1 W, encapsulated, two 18 AWG leads (0.82 mm^2), 2 1/2 in. L x 1 3/8 in. W x 1 in. H (64 mm x 35 mm x 25 mm)

General specifications

Table 11: General specifications

Specification		Rating	
Input power	120 VAC input	2 A maximum @ 102 VAC to 132 VAC, 50/60 Hz.	
	240 VAC input	1 A maximum @ 204 VAC to 264 VAC, 50/60 Hz.	
	Battery	6 A maximum @ 24 VDC (during battery operation).	
4007ES power supply output ratings	Power supply output rating	4 A output for Special Application appliances. **Note:** The 4 A output rating was determined such that optional module currents, and external device and appliance currents can be directly added together, not to exceed 4 A total.	Output switches to battery backup during mains AC failure or brownout conditions
	IDNAC SLC ratings	3 A, regulated 29 VDC during Alarm, 127 addresses, 139 unit loads. The DC-DC converter circuit is more than 92% efficient over operating range.	
	IDNAC SLC wiring	Output terminals are rated for 18 AWG to 12 AWG with duplicate output terminals rated for two wires each. This allows up to four Class B branch circuit T-taps to be made in the cabinet. You can make additional T-taps in external wiring junction cabinets or boxes.	
	Auxiliary power tap	2 A maximum, 24 VDC nominal (19.5 VDC to 31.1 VDC).	
Compatible special application appliances		Simplex TrueAlert ES and TrueAlert addressable notification appliances. Contact your Simplex product representative for compatible appliances.	
Battery charger ratings, sealed lead-acid batteries	Battery capacity range	UL 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	
Custom background display details		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 100kb	
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	

Additional 4007ES and network product reference data sheets

Table 12: Additional 4007ES and network product reference data sheets

Title	Document number
Serial DACT (SDACT) for 4100ES, 4010ES, 4007ES	S2080-0009
Connected Services Gateway - Central Station Communication and SafeLINC Cloud Services	S2080-0091
Seismic Battery Brackets Reference	S2081-0019
4003EC Voice Control Unit	S4003-0002
4007ES Extinguishing Release Applications	S4007-0003
4007ES Hybrid Fire Detection and Control Unit with MX Digital Addressable Initiation and Notification and Conventional Notification	S4007-0022
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
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 additional reference

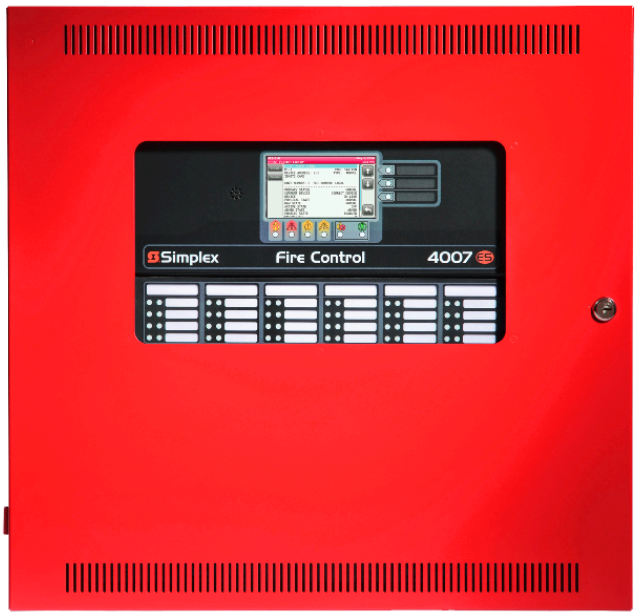


Figure 5: 4007ES with IDNAC Notification and optional 48 LED Annunciator Module, 4007-9805



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



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

TrueAlert ES appliance self-test last test results report example

```
Service Port                                                          Page 1
REPORT 10  TrueAlertES Self-Test Report          12:34:56pm   MON  01-JUN-15

Point ID     Custom Label                          Date        Visual      Audible
T1-1-1       VO FIRST FLOOR (up to 40 characters)  01-JUN-15   NO OUT      N/A
T1-2-5       AV FIRST FLOOR EAST WING              01-JUN-15   NO OUT      NORMAL
T7-3-55      AO SECOND FLOOR EAST WING             01-JUN-15   N/A         NO OUT
T8-2-45      AV SECOND FLOOR ROOM 29               01-JUN-15   NOT TST     N/A
T8-2-60      AV SECOND FLOOR ROOM 22               01-JUN-15   NORMAL      NORMAL
T1-2-4       AO FIRST FLOOR ROOM 17                01-JUN-15   N/A         UNSUPP
TRUEALERT_ES SELF-TEST REPORT COMPLETED
                Press RETURN for next Screen OR CTRL-X to abort
```

Figure 8: Last test results reports example

Results description:

`NORMAL` = works correctly

`NO OUT` = no output: no light or sound was detected

`NOT TST` = no result: either the appliance did not return a result before the test ended or the test was conducted as silent (strobes only) and audible appliance was not activated

`N/A` = not applicable: no strobe on audible only, for example

`UNSUPP` = appliance not compatible with Self-Test (TrueAlert addressable appliance not TrueAlert ES addressable appliance)

Note: Additional TrueAlert ES Self-Test information is detailed in *4007ES Operator's Manual (579-1165)* shipped with the FACU.

TrueAlert ES Appliance Self-Test all test results report example

Service Port Page 1

REPORT 10 TrueAlertES Self-Test Report 12:34:56pm MON 01-JUN-15

Point ID	Custom Label	Date	Visual	Audible
T1-1-1	VO FIRST FLOOR	01-JUN-15	NO OUT	N/A
T1-2-5	AV FIRST FLOOR EAST WING	01-JUN-15	NO OUT	NORMAL
T1-2-6	AV FIRST FLOOR NORTH ENTRANCE	12-MAY-15	NO OUT	NORMAL
T7-3-55	AO SECOND FLOOR EAST WING	01-JUN-15	N/A	NO OUT
T8-2-45	AV SECOND FLOOR ROOM 29	01-JUN-15	NOT TST	N/A
T1-1-11	AV FIRST FLOOR SOUTH ENTRANCE	12-MAY-15	NORMAL	NORMAL
T8-2-60	AV SECOND FLOOR ROOM 22	01-JUN-15	NORMAL	NORMAL
T1-2-4	AO FIRST FLOOR ROOM 17	01-JUN-15	N/A	UNSUPP
T1-2-7	AO FIRST FLOOR ROOM 12	12-MAY-15	N/A	UNSUPP
T8-3-43	AV SECOND FLOOR ROOM 25	12-MAY-15	UNSUPP	UNSUPP

TRUEALERT_ES SELF-TEST REPORT COMPLETED

Press RETURN for next Screen OR CTRL-X to abort

Figure 9: All test results report example

TrueAlert ES Appliance Self-Test individual appliance report example

CUSTOM LABEL	
4-1-2	AV
POINT ADDRESS: 4-1-2	Type: AV
CARD: 4 CHANNEL: 1 DEVICE: 2	
EXTENDED POWER SUPPLY	
UNIT NUMBER: 2	RUI NUMBER: LOCAL
PRIMARY STATUS	NORMAL
AUDIBLE GROUP CONFIG:	0 0 0
VISUAL GROUP CONFIG:	0 0 0
STYLE:	INDOOR
OPERATION:	GENERAL EVAC
CANDELA RATING	15 CD
COLOR LENS	YES
TONE TYPE	BROADBAND
CODING TYPE	TEMPORAL
VOLUME	HIGH
LAST TEST TIME:	MON 01-JUN-15 01:00 AM
LAST VISUAL TEST:	NORMAL
LAST AUDIBLE TEST:	NORMAL
LAST TEST VOLUME:	NORMAL
DEVICE TEST TROUBLE:	NORMAL

Figure 10: Individual appliance report example

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