Simplex

True*Alert* Addressable Notification Reference

UL, ULC, CSFM Listed; FM Approved;
MEA (NYC) Acceptance*

TrueAlert Addressable Operation Reference &
4009 Series TrueAlert Addressable Controller

Use for installed system expansion applications:

- Refer to page 7 for appliance compatibility details
- For new addressable notification fire alarm control panel applications, refer to data sheet S4100-0100

TrueAlert Addressable Operation Features

Each individually addressed notification appliance receives power and control over a single wire pair providing:

- Supervised wiring connections to each appliance that support using "T-tapped" wiring for Class B circuits (Class A circuits require in/out wiring)
- Horns sounding with selectable high or low output, as Temporal 3 or March Time pattern (60 or 120 bpm), or Steady On, controlled separately from visible appliances on the same two-wire circuit
- Visible appliances operating synchronized at 1 Hz
- Control over power limited, isolated output Signaling Line Circuits (SLCs) with up to 63 addressable appliances per SLC, and up to 189 appliances per control source (refer to page 7 for detailed SLC ratings)
- Control sources selectable to provide individual appliance magnetic test mode and appliance LED polling indicator
- 4100ES, 4100U and 4010ES systems also provide additional control capabilities using Virtual NAC (VNAC) appliance groupings across SLCs and across control sources

Class B, "T-tapped" wiring advantages:

- Less wiring distance is required since traditional end-of-line Class B wiring supervision is not needed
- With less wiring distance required, voltage drops can be reduced, allowing more appliances per wire run

UL listed to Standard 864*

4100ES TrueAlert Power Supplies (TPS)

For mounting in 4100ES/4100U control panels:
- Three, 3 A, SLCs (Special Application rating)

TrueAlert Addressable Controllers

Remote mounted control panel that provides:
- Three, 2.5 A, SLCs (Special Application rating)
- An 8 A power supply/battery charger for internal batteries up to 12.7 Ah or up to 18 Ah in external cabinet

Multiple communications formats are available:

- **Remote Unit Interface (RUI) communications** from Simplex® 4100ES/4010ES/4100U/4120/4100/4020 fire alarm control panels (4100U/4120/4100/4020 requires rev. 9 software or higher) assigns an address point with custom label to each appliance for individual trouble reporting
- **IDNet** communications from Simplex 4010 fire alarm control panels provide individual or multiple channel control using a single IDNet address
- **Wired control** from conventional NACs connects with multiple options
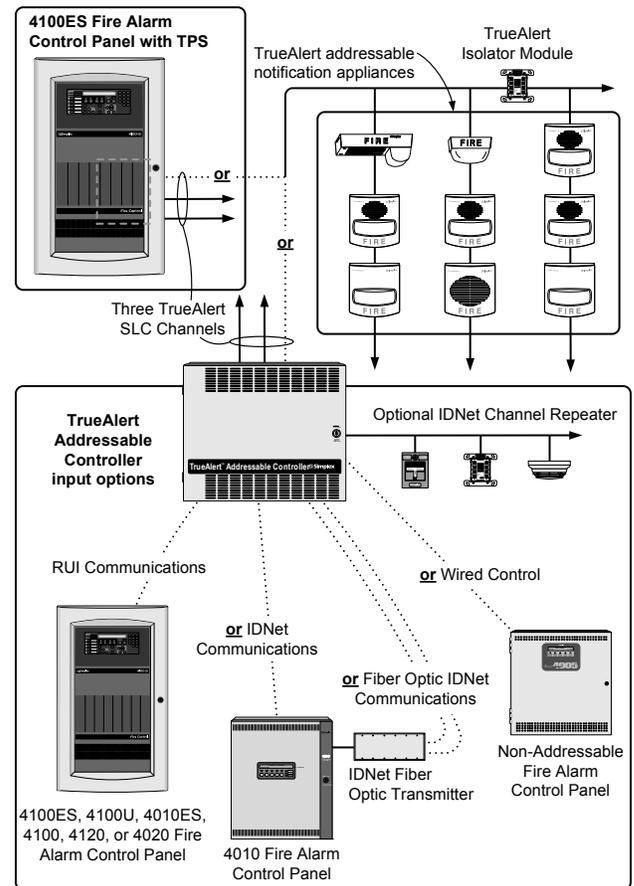
TrueAlert Addressable Operation Reference Diagram

TrueAlert Addressable Controllers *(Contd.)*

Extensive internal diagnostics include:

- LED status indicators that identify channel and trouble
- Support for host fire alarm control panel WALKTEST system test with IDNet or RUI communications**
- Status monitoring of battery, input power, and earth faults

Optional internal modules:

- Class A Three Channel Adapter Module
- IDNet Communications: Repeater or Fiber Optic Receiver/Repeater; models for Class A or Class B

External accessories:

- IDNet communication fiber optic transmitters
- Remote TrueAlert communications isolator 4905-9929, refer to data sheet S4905-0001 for details
- External battery cabinet for 18 Ah batteries

* **NOTE:** Model 4009-9501 (240 VAC input) is not included in these listings. Refer to page 2 for specific applicable listings by model. 4009-9401 (120 VAC input) 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 7310-0026:214 for allowable values and/or conditions concerning material presented in this document. 4009-9401 is accepted for use – City of New York Department of Buildings – MEA35-93E. 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..

Introduction

TrueAlert addressable notification appliances are individually addressed and receive power, supervision, and control from a TrueAlert Signaling Line Circuit (SLC). For wired control systems, strobe flashes and horn outputs are synchronized per controller. For RUI and IDNet communications control, controllers on the same host control panel are synchronized. (Combination speaker/strobe TrueAlert appliances receive audible control from separate audio circuit wiring.)

TrueAlert addressable operation allows strobes to be wired onto the same two-wire SLC circuit as horns but with separately controlled operation. Typical applications are audible notification appliances activated as "on-until-silenced" and visible notification appliances activated as "on-until-reset."

TrueAlert Addressable Controller diagnostics can be implemented from the control panel including: Silent or Active individual appliance magnet test, appliance LED polling indication, or all appliance LEDs on.

RUI Communications Control

When used with fire alarm control panels that support RUI communications, the TrueAlert Addressable Controller can be connected to an RUI addressable communications channel along with other RUI addressable devices. The host panel can control multiple TrueAlert Addressable Controllers (maximum recommended is 20 per RUI connection), (note: 4010ES system is limited to 20 internal and external card addresses per panel). Refer to the diagram on page 3 for additional information.

RUI Communications Control *(Continued)*

Address points and custom labels are assigned to each TrueAlert appliance allowing troubles to be reported individually. Additionally, individual device types are assigned and audible appliance coding types are selectable for high or low output (~5 dBA difference) and with operation as Temporal pattern, March Time pattern **(60 or 120 bpm)**, or Steady On (continuous).

4100ES and 4010ES VNAC Details

Virtual NAC (VNACs) Operation Groupings provide control of TrueAlert appliances similar to conventional NAC operation but VNACs include appliances across SLCs and across SLC sources within a 4100ES (or 4100U) or 4010ES controlled system. VNACs require point allocation, can be declared "public" for use in a Network fire alarm system, and can be manually controlled. (NOTE: The terms Virtual NAC, VNAC, and TrueAlert Zone refer to the same feature and are interchangeable.)

Custom VNACs. For programming convenience, there are default VNAC groups according to device type. Up to 56 custom VNACs (8 VNACs are system reserved) can be created per 4100ES TPS or per TrueAlert Addressable Controller connected to a 4100ES or 4010ES control panel. Appliances are able to be in up to three custom VNACs. (NOTE: Appliances assigned to multiple VNACs will remain ON if any of the VNACs are ON.)

4100ES, 4100U, and 4010ES Fire Alarm Control Panels can be programmed for up to 247 total custom VNACs for increased selective signaling operation.

TrueAlert Addressable Controller Product Selection

Standard Models

Model	Listings	Input Voltage	Description
4009-9401*	UL, FM, CSFM, MEA (NYC)	120 VAC input	TrueAlert Addressable Controller with 3, Class B TrueAlert SLC channels and 8 A power supply
4009-9402CA	ULC (includes low battery cutout feature)		
4009-9501	**Not agency listed**	240 VAC input	

Optional Modules (for on-site installation)

Model	Description		Comments
4009-9812	Three channel Class A adapter		Select if required
4009-9809	IDNet Repeater, output is Class A or Class B		Select **either** an IDNet Repeater **or** a Fiber Optic Receiver as required
4009-9810	Class B	Fiber Optic Receiver with IDNet Repeater	
4009-9811	Class A (Class X input)		
4009-9805	Red Appliqué for door		Select if required, 16-1/8" W x 5-1/2" H (410 mm x 140 mm)
2975-9801	Beige trim	Semi-Flush Trim Kit	1-7/16" wide (78 mm), use if required for semi-flush installations
2975-9802	Red trim		

External Accessories (select per system requirements)

Model	Description		Comments
4090-9105	Class B	IDNet Fiber Optic Transmitter	Mounts in six-gang electrical box, refer to page 6 for mounting details
4090-9107	Class A (Class X output)		
4905-9929	Remote TrueAlert Communications Isolator		Refer to data sheet S4905-0001 for details
4009-9801	External battery cabinet for 18 Ah batteries, beige		16-1/4" W x 13-1/2" H x 5-3/4" D (413 mm x 343 mm x 146 mm)

Battery Selection (select battery size per system requirements; two batteries are required for 24 VDC operation)

Model	Description	Model	Description
2081-9272	6.2 Ah Battery, 12 VDC	2081-9288	12.7 Ah Battery, 12 VDC
2081-9274	10 Ah Battery, 12 VDC	2081-9275	18 Ah Battery, 12 VDC; requires external battery cabinet

* 4009-9401 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

4100ES/4100U VNAC Wiring Reference

NOTE: Refer to NFPA 72, the National Fire Alarm Code, for requirements concerning fault tolerance between Notification Zones. Use of Isolator Modules and/or fire rated risers may be required depending on system design.

VNAC Zone 1

Wiring reference detail

4905-9929 Isolator Modules:
1. Locate as required, each takes one address and counts as <u>4</u> TrueAlert unit loads.
2. Isolator Modules are automatically assigned to the Isolator default VNAC.
3. Up to 12 total can be connected per Class B SLC (up to 6 on the same branch), and up to 6 total per Class A SLC.

TrueAlert SLC Source

Internally mounted 4100ES TrueAlert Addressable Power Supply (TPS)

Branch 1

Branch 2

Terminal cabinet (as required)

— Channel 1
— Channel 2
— Channel 3

4100ES (shown) or 4100U Fire Alarm Control Panel

or RUI controlled TrueAlert Addressable Controller

Locate branch circuit terminations within 10 ft (3 m) of TrueAlert Addressable SLC source

Branch 3

TrueAlert wiring (twisted pair, 18 to 12 AWG)

VNAC Zone 2

VNAC Zone 1

VNAC Zone 2

VNAC Details:
1. VNACs can contain appliances across multiple SLCs and across multiple TrueAlert control sources if controlled by the same 4100ES/4100U panel.
2. Each appliance can be in up to 3 custom VNACs in addition to the default VNACs.
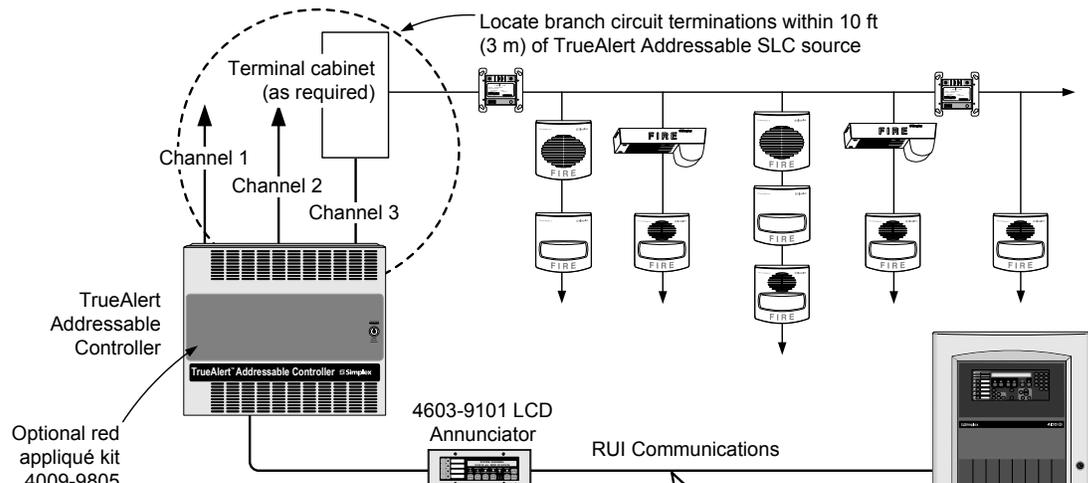3. Appliances are assigned to default VNACs according to device type. Up to 255 VNACs (247 custom and 8 system reserved) can be created per 4100ES/4100U panel with selectable circuit and point types.
4. Up to 64 VNACs (56 custom and 8 system reserved) are available per TrueAlert Addressable control source.

RUI Communications Wiring Reference

Locate branch circuit terminations within 10 ft (3 m) of TrueAlert Addressable SLC source

Terminal cabinet (as required)

Channel 1
Channel 2
Channel 3

TrueAlert Addressable Controller

Optional red appliqué kit 4009-9805

4603-9101 LCD Annunciator

RUI Communications

4100ES (shown) or 4100U, 4010ES, 4100, 4120, or 4020 Fire Alarm Control Panel

RUI Communications Rules Summary:
1. Recommended limit of 20 TrueAlert Addressable Controllers. (4010ES has a maximum internal and external limit of 20 card addresses.)
2. Can be wired with other RUI devices (LCD Annunciator shown for reference).
3. Wiring distance is up to 2500 ft (762 m) continuous wiring, and up to 10,000 ft (3048 m) when "T" tapped (Class B only).
4. Minimum wiring is unshielded twisted pair (some applications may require shielded twisted pair, consult your Simplex product supplier for details)
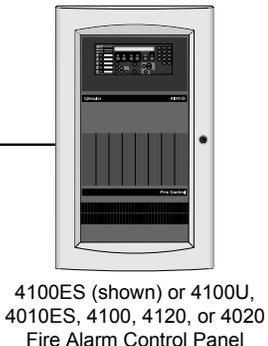
IDNet Communications Input
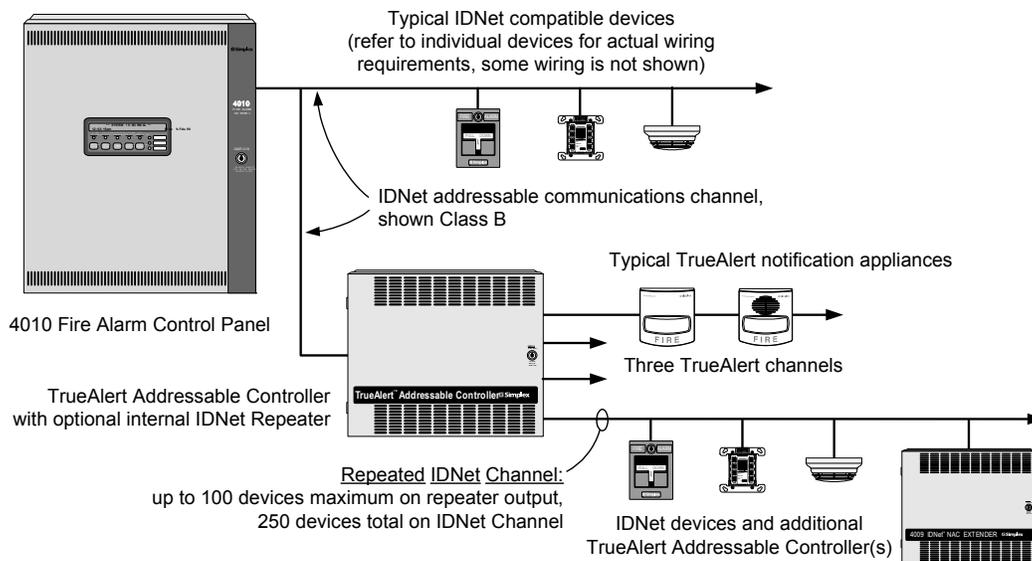
IDNet Addressable Communications Compatible.
For use with the Simplex 4010 Fire Alarm Control Panel, up to five TrueAlert Addressable Controllers can be controlled on a single IDNet communications channel with each requiring only one point address. Each TrueAlert Addressable Controller SLC channel can be individually controlled by using 4010 custom control. Each TrueAlert SLC channel can provide horn control selected as Temporal pattern, March Time pattern **(60 or 120 bpm)**, or Steady On.

Manual Control. Individual TrueAlert SLC channels can be manually controlled from the 4010 for service operations or for manual override.
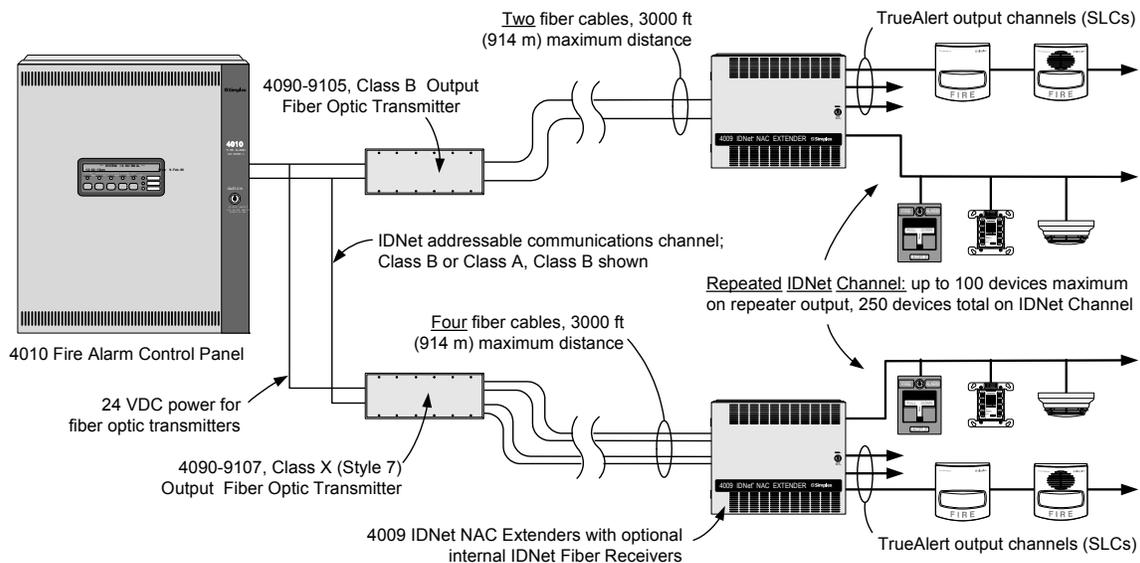
Trouble Communications. The 4010 receives TrueAlert Addressable Controller troubles to include: device supervision (reported as a channel trouble), power trouble, battery status, and earth detect.

Optional IDNet Repeater Modules. IDNet communications can be repeated with the optional IDNet Repeater Module or with the optional Fiber Optic Receiver Module. Up to 100 of the IDNet channel points can be repeated once (see illustrations below). Repeated IDNet communications also support the "device level" earth fault location utility of the host panel.

TrueAlert Addressable Controller with Wired IDNet Input Control

Typical IDNet compatible devices
(refer to individual devices for actual wiring requirements, some wiring is not shown)

IDNet addressable communications channel, shown Class B

4010 Fire Alarm Control Panel

Typical TrueAlert notification appliances

TrueAlert Addressable Controller with optional internal IDNet Repeater

Three TrueAlert channels

Repeated IDNet Channel:
up to 100 devices maximum on repeater output,
250 devices total on IDNet Channel

IDNet devices and additional
TrueAlert Addressable Controller(s)

TrueAlert Addressable Controller with Fiber Optic IDNet Input Control

Two fiber cables, 3000 ft (914 m) maximum distance

TrueAlert output channels (SLCs)

4090-9105, Class B Output Fiber Optic Transmitter

IDNet addressable communications channel; Class B or Class A, Class B shown

4010 Fire Alarm Control Panel

Four fiber cables, 3000 ft (914 m) maximum distance

Repeated IDNet Channel: up to 100 devices maximum on repeater output, 250 devices total on IDNet Channel

24 VDC power for fiber optic transmitters

4090-9107, Class X (Style 7) Output Fiber Optic Transmitter

4009 IDNet NAC Extenders with optional internal IDNet Fiber Receivers

TrueAlert output channels (SLCs)

Wired NAC Input Connection Information

Wired Conventional NAC Input Compatible. For applications where existing (or new) conventional Notification Appliance Circuits (NACs) are available, the TrueAlert Addressable Controller can be controlled directly from the NACs. (Refer to diagram below.)

Flexible Connection Choices. Two NACs, from either the same, or from different host fire alarm control panels, can be connected to control the TrueAlert output channels. Multiple control selections provide flexible operation. (Refer to table below.)

NAC input to SLC output control is selectable per the following table (configure NAC input as Steady On, uncoded):

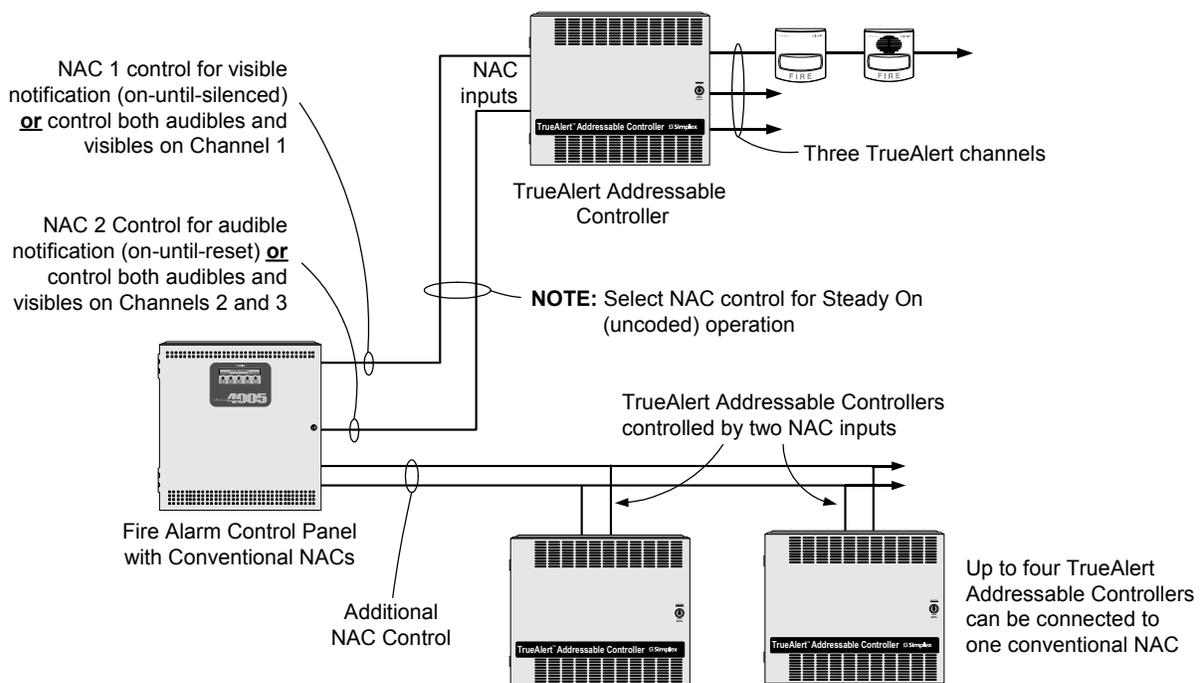| Input NAC	Output SLC Control Options	
	A	**B**
NAC 1	Controls visibles	Controls audibles and visibles on Channel 1
NAC 2	Controls audibles	Controls audibles and visibles on Channels 2 and 3

Strobe Output. TrueAlert Addressable Strobes are operated with synchronized flashes.

Horn Output. TrueAlert Addressable Horn operation is selectable per TrueAlert Addressable Controller as either: Temporal pattern, March Time pattern at either 60 or 120 bpm or Steady On.

Door Mounted Reference Label

A detailed programming and diagnostic label is located inside the front door providing a quick reference for both installation and checkout.

Service Diagnostic Features

Power-up Self-Diagnostics. Upon power-up, the TrueAlert Addressable Controller tests each module and performs earth fault diagnostics. Trouble conditions are communicated to the host control panel and are also displayed on internal LEDs.
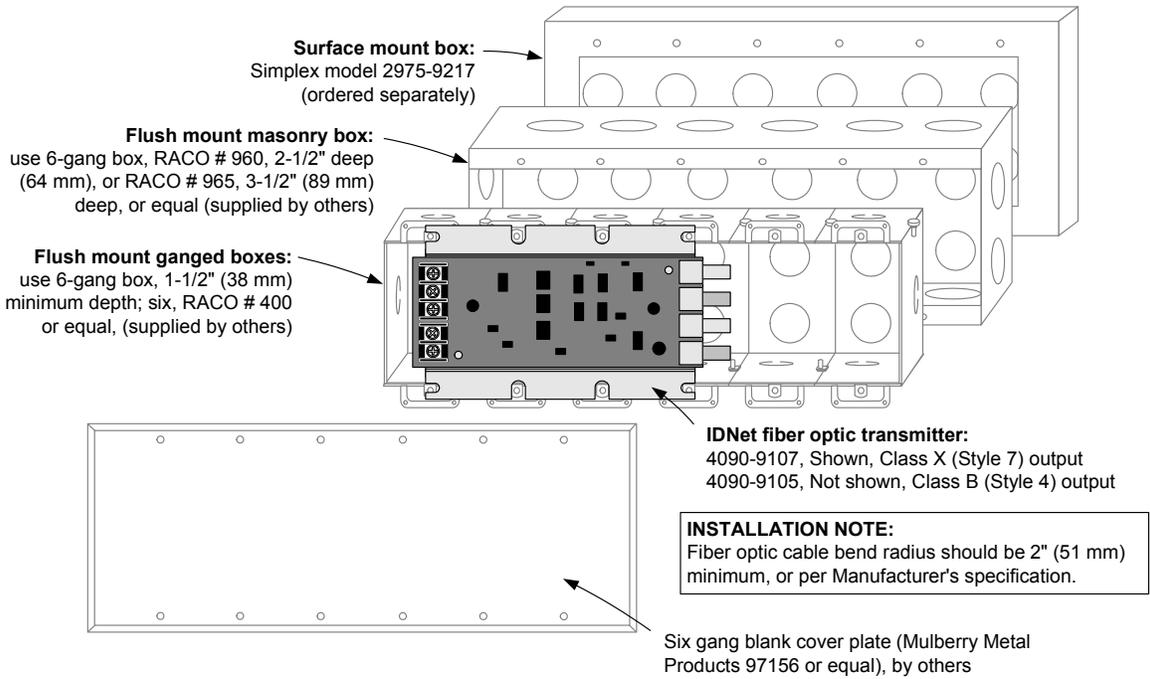
System troubles via RUI or IDNet communications are reported with detailed information concerning which TrueAlert Addressable Controller is involved and the nature of the trouble. Messages include power and battery status, earth fault, channel troubles, address problems, and other information.

System Troubles via Wired Control. When controlled with conventional NAC inputs, common troubles are signaled by providing an open circuit that disconnects the NAC wiring from its end-of-line resistor but still allows a reversed polarity alarm to be received.
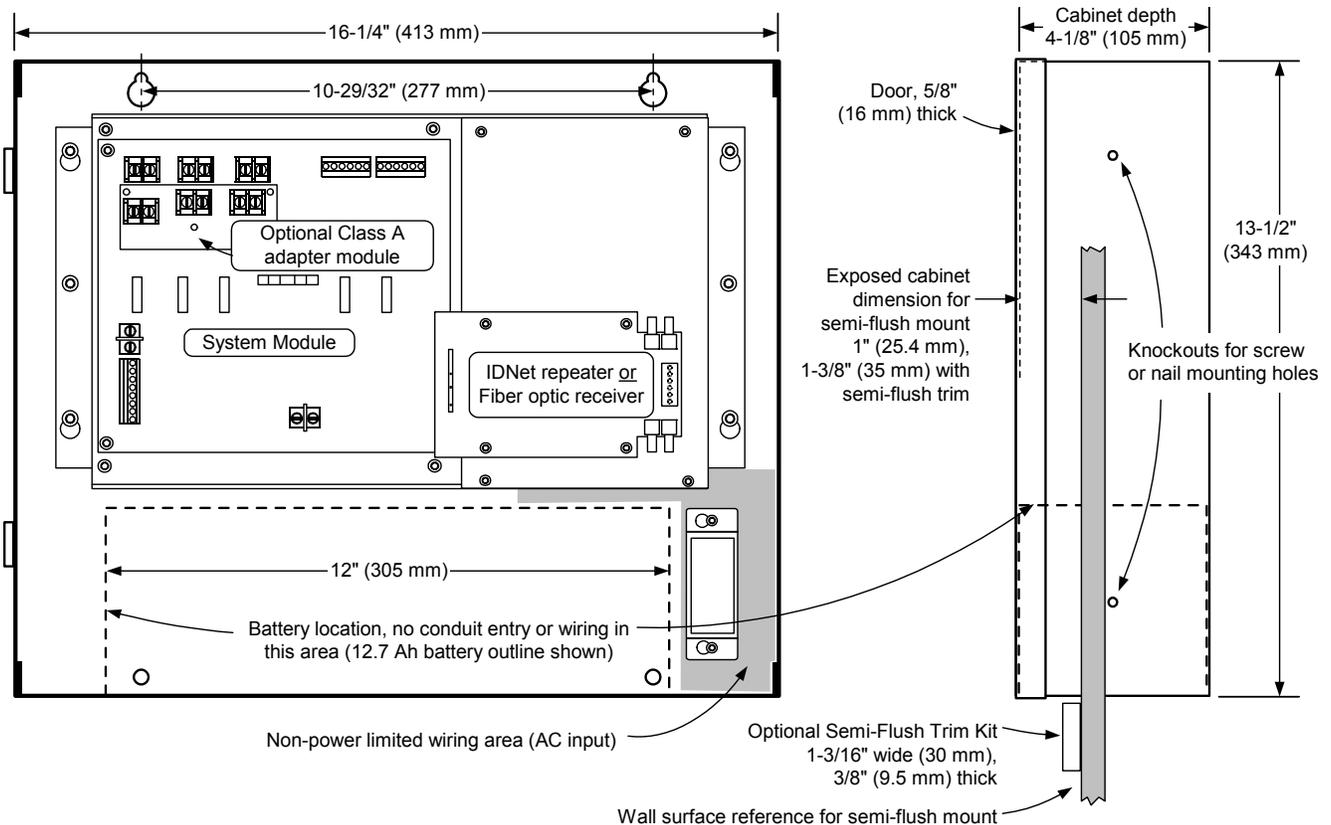
LED Status Indicators are provided for the following:

- **Five yellow status LEDs** provide 22 separate indications listed in priority of urgency. As a trouble is eliminated, any remaining trouble(s) will then be indicated until the TrueAlert Addressable Controller is returned to normal operation
- **Three separate yellow LEDs** indicate which of the three TrueAlert channels are involved for channel specific troubles
- **AC power status** is indicated by a green LED that is on when AC is normal. During low AC (brownout) conditions or with no AC, the LED is off. Additional power and battery status is indicated by the general status LEDs

TrueAlert Addressable Controller with Wired Control

NAC 1 control for visible notification (on-until-silenced) **or** control both audibles and visibles on Channel 1

NAC 2 Control for audible notification (on-until-reset) **or** control both audibles and visibles on Channels 2 and 3

NAC inputs

TrueAlert Addressable Controller

Three TrueAlert channels

NOTE: Select NAC control for Steady On (uncoded) operation

Fire Alarm Control Panel with Conventional NACs

Additional NAC Control

TrueAlert Addressable Controllers controlled by two NAC inputs

Up to four TrueAlert Addressable Controllers can be connected to one conventional NAC

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4090-9105/9107 IDNet Fiber Optic Transmitter Mounting Information

Surface mount box:
Simplex model 2975-9217
(ordered separately)

Flush mount masonry box:
use 6-gang box, RACO # 960, 2-1/2" deep
(64 mm), or RACO # 965, 3-1/2" (89 mm)
deep, or equal (supplied by others)

Flush mount ganged boxes:
use 6-gang box, 1-1/2" (38 mm)
minimum depth; six, RACO # 400
or equal, (supplied by others)

IDNet fiber optic transmitter:
4090-9107, Shown, Class X (Style 7) output
4090-9105, Not shown, Class B (Style 4) output

INSTALLATION NOTE:
Fiber optic cable bend radius should be 2" (51 mm)
minimum, or per Manufacturer's specification.

Six gang blank cover plate (Mulberry Metal
Products 97156 or equal), by others

TrueAlert Addressable Controller Mounting and Module Placement Reference

16-1/4" (413 mm)

10-29/32" (277 mm)

Optional Class A
adapter module

System Module

IDNet repeater or
Fiber optic receiver

12" (305 mm)

Battery location, no conduit entry or wiring in
this area (12.7 Ah battery outline shown)

Non-power limited wiring area (AC input)

Cabinet depth
4-1/8" (105 mm)

Door, 5/8"
(16 mm) thick

13-1/2"
(343 mm)

Exposed cabinet
dimension for
semi-flush mount
1" (25.4 mm),
1-3/8" (35 mm) with
semi-flush trim

Knockouts for screw
or nail mounting holes

Optional Semi-Flush Trim Kit
1-3/16" wide (30 mm),
3/8" (9.5 mm) thick

Wall surface reference for semi-flush mount

NOTE: Recommended conduit entrance varies with module selection. For models 4009-9401 and 4009-9402CA, refer to
Installation Instructions 574-762, specific option module installation instructions, and to Field Wiring Diagram 842-158
before locating conduit entrance. [NOTE: For model 4009-9501, refer to Installation Instructions 579-321 and Field
Wiring Diagram 842-244.]

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TrueAlert Addressable Controller and 4100ES TPS Reference Specifications

NOTE: Refer to data sheet S4100-0065 for additional 4100ES TrueAlert Addressable Power Supply (TPS) specification details.

Input Voltage	120 VAC Input (4009-9401/9402CA)	3 A @ 102-132 VAC, 60 Hz	
	240 VAC Input (4009-9501)	1.5 A, selectable for 220/240 VAC, +10% - 15% per selection, 50/60 Hz	
Wired Control Input, requirements per circuit		3 mA @ 24 VDC; input voltage range = 16 to 33 VDC, filtered; control from conventional reverse polarity NAC	

Output Ratings

TrueAlert Channel Output Voltage (SLC)		19 to 31 VRMS, Special Application control	
Compatible Special Application Appliances		Simplex TrueAlert and TrueAlert ES addressable notification appliances (with limitations); contact your Simplex product representative for compatible appliances	

	Category	**Details**	**TrueAlert ES Appliance Control Limitation**
Appliance Control Characteristics	Available Strobe Intensity	15, 30, 75, and 110 cd	Not compatible with TrueAlert ES intensities of 135 and 185 cd
	Available Horn Control	Continuous, Temporal Code 3, and March Time of 60 or 120 bpm	Not compatible with TrueAlert ES horn tones of Temporal Code 4 or 20 bpm
	Appliance Voltage Minimum	17 VRMS	Not compatible with TrueAlert ES 23 VRMS appliance voltage minimum

SLC Ratings and Loading	TrueAlert Addressable Controller <u>or</u> 4100ES TPS	Up to 63 total addressable appliances	
		Up to 75 unit loads (appliances are 1 unit load)	
		Up to 32 fixed candela (legacy) strobes can be synchronized per SLC	
	TrueAlert Addressable Controllers	Up to 39 multi-candela strobes can be synchronized per SLC; <u>total</u> <u>current</u> <u>per</u> <u>controller</u> = <u>8 A</u>	
	4100ES TPS	Up to 46 multi-candela strobes can be synchronized per SLC; <u>total</u> <u>current</u> <u>per</u> <u>TPS</u> = <u>9 A</u>	

Auxiliary Output	500 mA @ 24 VDC nominal (requires 734-035 wiring harness)
TrueAlert SLC Wiring	UTP, unshielded twisted pair, 18 to 12 AWG
TrueAlert Strobe Wiring Distance	Maximum wiring distance between TrueAlert strobes is limited to 30 Ω wire resistance
Wiring Connections	Terminal blocks for 18 to 12 AWG

Optional Modules

IDNet Repeater Module (4009-9809)	Input Power	70 mA @ 24 VDC, system supplied	
	IDNet Input, One Address	Maximum distance from IDNet source is 2500 ft (762 m)	
	IDNet Output Specifications	Repeated IDNet output for up to 100 devices (total IDNet devices not to exceed 250 per channel)	
		Refer to specific panels details for additional IDNet communications specifications	
Fiber Optic Receiver Modules	Input Current	4009-9810	Class B, 65 mA @ 24 VDC, system supplied
		4009-9811	Class X (Style 7), 80 mA @ 24 VDC, system supplied (NOTE: Fiber optic input is Class X, repeated IDNet output is Class A)
	IDNet Output Specifications		Same as those for Repeater Module (see above)
	Fiber Optic Transmission		Distance = 3000 ft (914 m) maximum
General	Operating Temperature		32° to 120° F (0° to 49° C)
	Operating Humidity Range		10% to 90% RH from 32° to 104° F (0° to 40° C)

Fiber Optic Transmitter Specifications

Input Voltage		18.9-32 VDC from compatible listed fire alarm supply
Input Current	4090-9105	Class B, 30 mA @ 24 VDC
	4090-9107	Class X (Style 7), 35 mA @ 24 VDC
Fiber Optic Connections and Cable Requirements (Type ST Connectors)	4090-9105	Class B input, two fiber cables required
	4090-9107	Class X (Style 7) input, four fiber cables required
Module Size (with mounting bracket)		6-13/16" W x 3-3/4" H x 1-1/8" D (173 mm x 95 mm x 29 mm)
On-board Status Indicators	Green LED	Flashing = transmit
	Red LED	Flashing = receive
	4090-9107	Separate Red LED = Class X (Style 7) receive
Communications		Simplex IDNet format
Fiber Optic Transmission Distance		3000 ft (914 m) maximum
Wiring Connections		Terminal blocks for 18 to 12 AWG
Operating Humidity		Up to 90% RH, non-condensing @ 100° F (38° C)
Operating Temperature		32° to 120° F (0° to 49° C)

TrueAlert Addressable Controller Current Reference

Panel Module Selection (shaded model numbers are optional modules)

Model	Description		Supervisory Current	Actual Supervisory	Alarm Current	Actual Alarm	
4009-9401	120 VAC input	Basic Panel	88 mA	88 mA	195 mA	195 mA	
4009-9402CA							
4009-9501	240 VAC input						
4009-9812	Class A Adapter		7 mA	+	7 mA	+	
4009-9809*	IDNet Repeater		70 mA	+	70 mA	+	
4009-9810*†	Fiber Optic Receiver, Class B		65 mA		65 mA		
4009-9811*†	Fiber Optic Receiver, Class X		80 mA		80 mA		
IDNet Devices, 0.7 mA each, maximum of 100 (see Procedure Note 5)			total devices x 0.7 mA each	+	total devices x 0.7 mA each	**(A1)**	+
TrueAlert Appliances/Devices, Supervisory Current, 0.2 mA per unit load, add devices from all 3 SLCs (see Procedure Note 7)			total loads x 0.2 mA each	+			
TrueAlert Isolators; each requires 1 address and four (4) unit loads			total Isolators x 10 mA	+	total Isolators x 10 mA	+	
Auxiliary Power Output, calculate per total device requirements (see Procedure Note 5)			500 mA maximum	+	500 mA maximum	**(A2)**	+
Total Supervisory Current =			**(A)**				
Total TrueAlert Addressable Controller Panel Alarm Current =						**(B1)**	

* Only one of these three modules can be chosen for a single TrueAlert Addressable Controller.

† **NOTE:** IDNet Fiber Optic Transmitter current is supplied from the host fire alarm control panel.

TrueAlert Channel Notification Appliance Current Loads

	Channel Number	NAC Alarm Current
TrueAlert Channel (SLC) 2.5 A maximum per channel (see Procedure Note 5)	Channel 1	
	Channel 2	+
	Channel 3	+
Total TrueAlert Channel Loads Alarm Current =	**(C)**	
Total TrueAlert Addressable Controller Panel Alarm Current (enter B1 from above) =	**(B2)**	**+**
Total Alarm Current =	**(D)**	

Procedure:

1. Calculate total panel supervisory current **(A)**.
2. Calculate total panel alarm current **(B1)** [convert mA to A, example: 350 mA = 0.35 A]. Copy **(B1)** into block **(B2)**.
3. Calculate total NAC loads alarm current from notification appliance ratings **(C)**.
4. Add **(C)** + **(B2)** to determine total alarm current **(D)**.
5. Total of IDNet Device Current **(A1)** + Auxiliary Power Output Current **(A2)** + SLC Loads Alarm Current **(C)** is 8 A maximum.
6. Refer to Simplex battery selection document 900-012 for recommended battery size for specific standby requirements (i.e., 24 hours supervisory, 5 minutes of alarm). Internal cabinet space is provided for batteries up to 12.7 Ah.
7. Most TrueAlert appliances/devices are one unit load, Isolators are 4 unit loads. Refer to Field Wiring Diagram 842-158.