

## Introduction

The 4009-9201 (120VAC) or 4009-9301 (220/240VAC) IDNet Notification Appliance Circuit (NAC) Extender is a self-contained adjunct panel for use with Simplex<sup>®</sup> Fire Alarm Control Panels (FACPs). The base version of the 4009 IDNet NAC Extender (4009 IDNet) is a single-board system consisting of four NACs, a power supply and charger, an IDNet slave interface, and two conventional NAC inputs for hardwired control (not applicable to the 4009 IDNet when used as an IDNet device). Option cards are available to provide the following additional capabilities:

- 4009-9808 Class A Adapter Option Card -- allows fault tolerance in the case of open circuit wiring faults on the NACs.
- 4009-9807 NAC Option Card -- adds four conventional Notification Appliance Circuits.
- 4009-9809 IDNet Repeater Option Card -- regenerates the IDNet signal and provides a power and distance boost for the IDNet channel. When IDNet Repeater Option Card is used, the fiber option is not available to the 4009 IDNet.
- 4009-9810 (Class B)/4009-9811 (Class A) Fiber Optic Receiver -- receives IDNet communication over a fiber optic channel and regenerates the IDNet signal. The fiber option is used with the 4090-9105 (Class B)/4090-9107 (Class A) Fiber Optic Transmitter to form an IDNet fiber link.

Certain Notification Appliances are UL rated 'Special Applications' compatible with the 4009 IDNet; this rating enables advanced operation capabilities and higher power capacity. Some Special Applications compatible appliances are identified in this document. See 842-068, '4009 IDNet Field Wiring Diagram', for the complete list of compatible appliances and accessories.

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## Cautions and Warnings

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**READ AND SAVE THESE INSTRUCTIONS.** Follow the instructions in this installation manual. These instructions must be followed to avoid damage to this product and associated equipment. Product operation and reliability depend upon proper installation.



**DO NOT INSTALL ANY SIMPLEX® PRODUCT THAT APPEARS DAMAGED.** Upon unpacking your Simplex product, inspect the contents of the carton for shipping damage. If damage is apparent, immediately file a claim with the carrier and notify an authorized Simplex product supplier.



**ELECTRICAL HAZARD** - Disconnect electrical field power when making any internal adjustments or repairs. All repairs should be performed by a representative or authorized agent of your local Simplex product supplier.



**STATIC HAZARD** - Static electricity can damage components. Handle as follows:

- Ground yourself before opening or installing components.
- Prior to installation, keep uninstalled components wrapped in anti-static material at all times.



**EYE SAFETY HAZARD** - Under certain fiber optic application conditions, the optical output of this device may exceed eye safety limits. Do not use magnification (such as a microscope or other focusing equipment) when viewing the output of this device.

**FCC RULES AND REGULATIONS – PART 15** - This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**SYSTEM REACCEPTANCE TEST AFTER SOFTWARE CHANGES** - To ensure proper system operation, this product must be tested in accordance with NFPA 72 after any programming operation or change in site-specific software. Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.

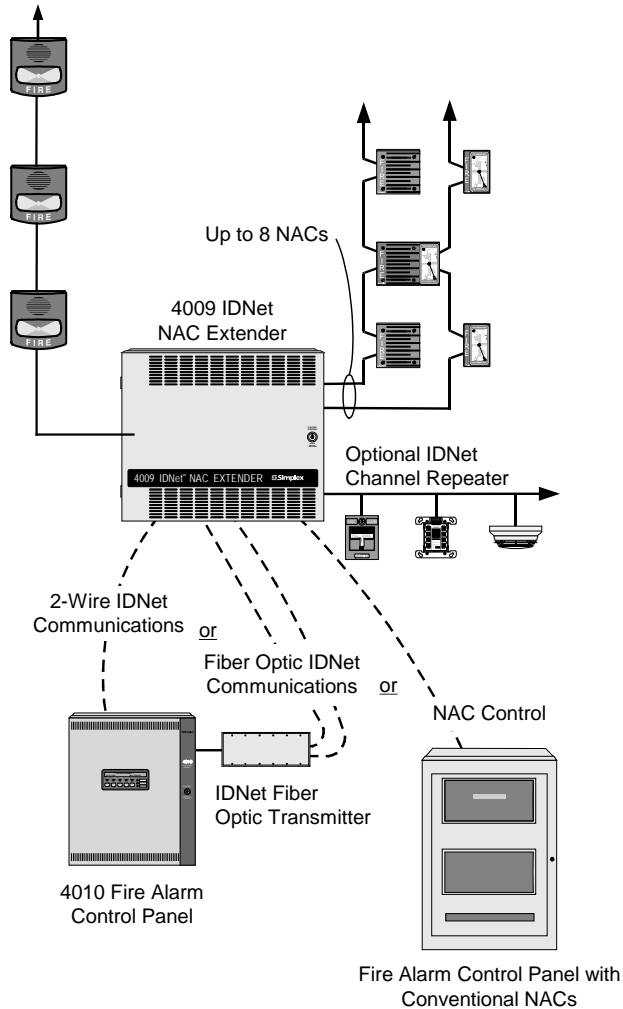
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# Overview

## Introduction

The 4009 IDNet provides Fire Alarm Control Panels (FACPs) with NAC capacity, flexible operation modes, and a power-limited design.

The standard version includes four, Class B (Style Y) NACs, each rated as either special applications or REGULATED 24 DC per Field Wiring Drawing 842-068. The NACs are compatible with standard 24 VDC notification appliances, and can be configured to provide synchronization for Simplex visible notification strobe flashes. NACs are also capable of controlling TrueAlert non-addressable notification appliances operating with SmartSync two-wire control mode.



**Figure 1. 4009 IDNet NAC Extender Connection Reference Drawing**

Input control from the host panel can be from either:

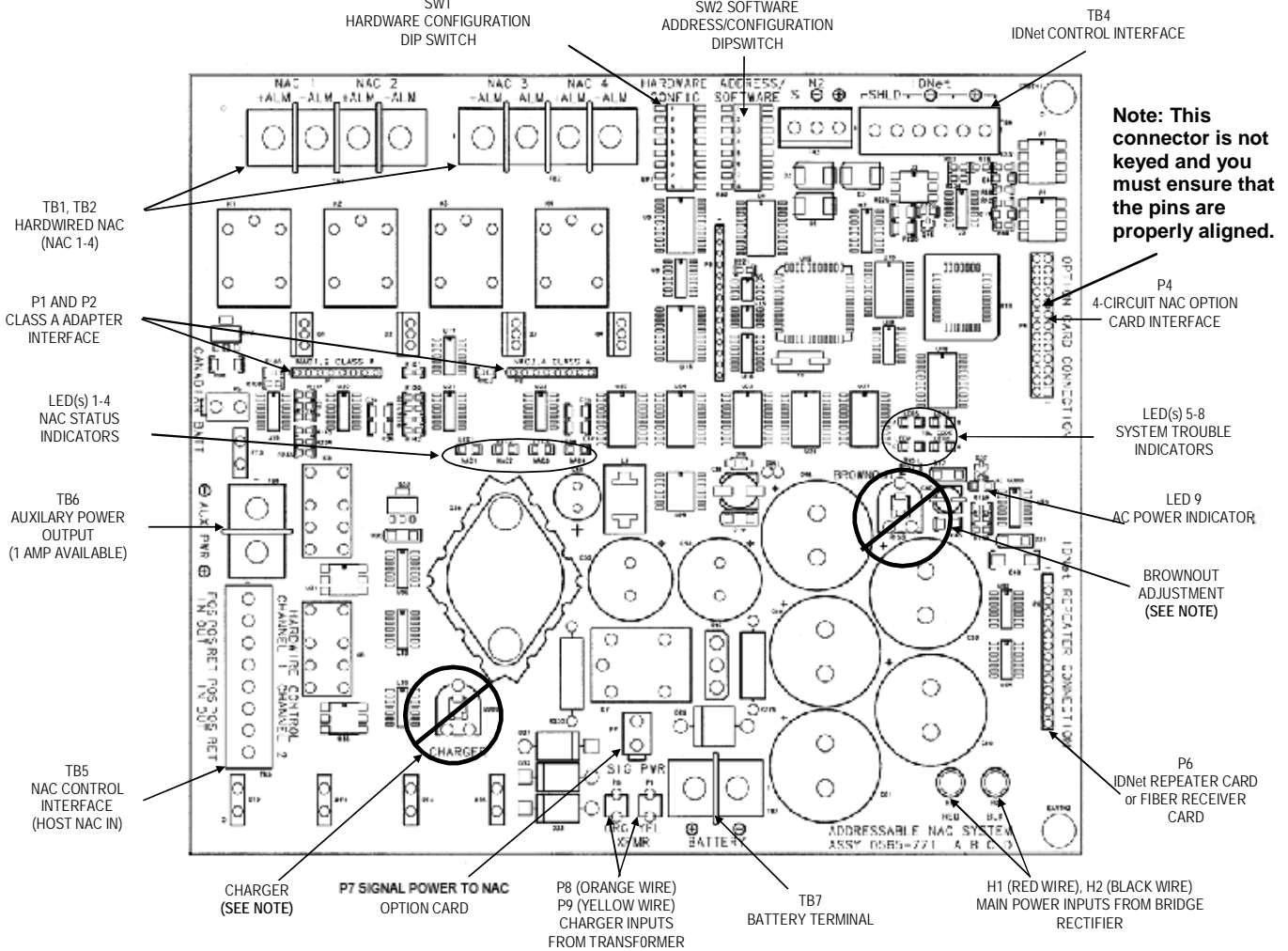
- IDNet addressable communications from a Simplex model 4010, 4100U, 4100ES or 4010ES Fire Alarm Control Panel. IDNet communications provide status monitoring and individual NAC control using a single address per 4009 IDNet NAC Extender, and support for IDNet “Device Level” Earth fault location.
- Hardwired from one or two conventional 24 VDC NACs, providing multiple output control options.

# Overview, Continued

## 4009 IDNet System Board

Figure 2 identifies the major components of the 4009 IDNet system board. Be aware that the brownout and charger are factory adjustments.

**Note:** Do not make field adjustments to the brownout and charger components.



**Figure 2. 4009 IDNet System Board**

## NAC (Notification Appliance Circuit) Outputs

The 4009 IDNet system board provides 4 hardwired, Class B, reverse polarity Notification Appliance Circuits. Each circuit has one polarity for supervision state and the opposite polarity for alarm state. Field wiring terminations are provided for 12 AWG - 18 AWG wire. Refer to the 842-068 Field Wiring Diagram for complete wiring, compatible appliances, current, and line distance information.

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## Overview, Continued

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### NAC (Notification Appliance Circuit) Outputs

The notification circuits use a 10k end-of-line resistor for supervision. The circuit is monitored for short and open circuit line faults when in the standby (not energized) condition. In the event of a short circuit, the 4009 IDNet will not activate the NAC while the short circuit fault is present. During coded signal operation, the 4009 IDNet checks for a short during each “off”, and holds the circuit off if a short is detected. Short and open circuit faults are reported to the host panel via the command channel (either IDNet or hardwired, depending on configuration) and can be identified by a blinking trouble LED on the 4009 IDNet during supervisory state.

The NACs are configurable as “Class A” circuits with the addition of an option card that plugs onto the base board. The option card also provides the additional field wiring terminations needed for Class A. The 4009 IDNet monitors for insertion of the Class A Option Card.

In addition, when configured as an IDNet peripheral, each circuit can be independently controlled and each has the ability, under software control, to disconnect its supervision, allowing Earth fault isolation (this operation is also performed automatically as part of the power-up sequence). The 4009-9808 (version 0566-812) Class A Option Card is compatible with two-wire SmartSync appliances.

**Note:** The older version of the 4009-9808 with the PC assembly 0565-789, is not compatible with the two-wire SmartSync.

Certain Notification Appliances are UL rated ‘Special Applications’ compatible with the 4009 IDNet. This rating enables advanced operation capabilities and higher power capacity. Some Special Applications compatible appliances are identified in this document. See 842-068 ‘4009 IDNet Field Wiring Diagram’ for the complete list of compatible appliances and accessories.

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### Battery Charger

The battery charger charges lead acid batteries up to 18AH. Batteries are supervised for low/missing battery and depleted battery. The battery charger output remains disabled until a battery is sensed.

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### Battery Cutout Module (Canadian Version only)

The Canadian version of the 4009 IDNet NAC Extender includes a low battery cutout module and harness. The factory installed battery cutout module replaces the standard (US version) battery harness. The module disconnects the batteries if the terminal voltage drops below 19.3VDC during battery standby operation. Connection to the batteries is restored on resumption of AC power.

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### DIP Switch SW1 – Hardware Configuration

The hardware configuration switch is located at the top edge of the system board (see Figure 2). It has two functions:

- Switches 1 through 7 identify the optional equipment installed on the 4009 IDNet. A trouble condition is reported to the FACP if hardware is configured, but not present or hardware is present but not configured.
  - Switch 8 indicates whether the unit is communicating with the host panel via IDNet (4010 only) or over a hardwired interface.
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### DIP Switch SW2 – IDNet Address/Hardwired Configuration

The Software Address/Configuration Switch (SW2) is an 8-position DIP switch located at the top edge of the system board. It has two functions:

- When the 4009 IDNet is operating as an addressable IDNet peripheral, this switch sets the IDNet address to which the 4009 IDNet responds. Each 4009 IDNet has a unique address (1 through 250).

When operating as a 4009 non-addressable NAC Extender (conventional or “hardwired” 4009 mode), this switch (SW2) configures the operation of the output NACs, based on the state of the two NAC control inputs.

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# 4009 IDNet NAC Extender

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## NAC Status Indicators (LEDs 1-4)

Each output NAC has a yellow LED (see Figure 2 for location of LEDs) to indicate a trouble condition or the active state of that NAC. The condition/state for the NACs are as follows:

- IN ALARM = NAC (1-4) LED “ON”
- IN SUPERVISORY = LED “OFF” (OK)
- SLOW FLASH (1 flash per second) = SHORT
- FAST FLASH (2 flashes per second) = OPEN

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## System Trouble Indicators (LEDs 5-8)

The system trouble indicators consist of a bank of four yellow LEDs (see Figure 2 for location of LEDs) that are used to signify various trouble conditions within the 4009 IDNet system. Only one trouble at a time is indicated, highest trouble state indicated first. When that trouble clears, additional troubles, if present, will be indicated. Table 1 lists system troubles from highest trouble state (invalid configuration) to lowest trouble state (Normal).

**Table 1. System Trouble LED Indicators**

LED 5	LED 6	LED 7	LED 8	TROUBLE DESCRIPTION
OFF	OFF	OFF	ON	Invalid Configuration
ON	ON	ON	OFF	Diagnostic Test Fail
OFF	ON	ON	OFF	Software Failure
OFF	ON	OFF	OFF	Running on Depleted Battery
ON	OFF	OFF	OFF	Low/Missing Battery
ON	OFF	ON	OFF	Earth Ground Fault
ON	OFF	OFF	ON	NAC Trouble
OFF	OFF	ON	OFF	AC Power Loss
OFF	OFF	OFF	OFF	Normal

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## AC Power Indicator (LED 9)

This green LED indicates that AC power is present and is being used as the 4009 IDNet power source. The 4009 IDNet is switched to batteries whenever the green LED is “OFF”.

**CAUTION: The green AC LED indicates “Good AC Power”. In the event of a brownout condition, the unit will switch to battery power but lethal voltages may still exist. DISCONNECT POWER BEFORE SERVICING.**

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# Identifying Optional Equipment

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## Overview

The 4009 IDNet supports the optional add-on cards described in this section. Optional hardware **must be** identified with DIP Switch SW1-1 through SW1-7, as described in this section. Option modules for the 4009 IDNet include the following:

- **Class A Adapter Option Card (0566-813).** The Class A Adapter Option Cards (see Figure 2) plug into connectors P1 and P2 located on the 4009 IDNet system Board (see Figure 2). One Class A Adapter Option Card provides Class A functionality on two NACs. Refer to the *4009-9808 NAC Class A Adapter Option Card Installation Instructions 574-326* for detailed information on installing this option card.

**Note:** The older version of the 4009-9808 with the PC assembly 0565-789, is not compatible with the two-wire SmartSync.

- **NAC Option Card (565-828).** The 4-circuit NAC Card is an option card for the 4009 IDNet. Refer to the *4009-9807 NAC Option Card Installation Instructions 574-325* for detailed information on installing this option card. The NAC option card provides four additional hardwired NACs to the 4009 IDNet base configuration of four NACs. Each of the four NACs on the NAC option card is functionally equivalent to the NACs on the 4009 system board, except that the option NACs are rated at 1.5 amps. The NAC option card plugs into connector P4 (see Figure 2) on the 4009 system board. The NACs are configurable as “Class A” circuits with the addition of Class A Adapter Option Cards that connect to the two Class A adapter connector interfaces located on the NAC Option Card. The NAC Option Card signal power for the four NACs is received from 4009 IDNet system board connector P7 (see Figure 2) using wiring harness 733-972.

**Note:** Installing the NAC Option Card incorrectly will cause serious damage to the panel.

- **IDNet Repeater Option Card (565-773).** The IDNet Repeater Card is an option card for the 4009 IDNet. The IDNet Repeater Option Card takes the IDNet signal that the 4009 IDNet receiver has received, and retransmits it on its output side at host panel IDNet levels. The IDNet Repeater Option Card is used in IDNet mode only (SW1/Position 8 OFF). Refer to the *4009 IDNet Repeater Option Card Installation Instructions 574-327* for detailed information on installing this option card. The IDNet Repeater Option Card connects via a 14-pin header to 4009 IDNet system board connector P6 (see Figure 2).
- **Fiber Receiver Card (565-903 Class B or 565-902 Class A) and Fiber Transmitter Card (565-901 Class B or 565-900 Class A).** The IDNet Fiber Transmitter and 4009 IDNet Fiber Receiver work together to form a fiber optic link from an IDNet run to a remote 4009 Addressable NAC. Refer to the *4009 Fiber Optic Link Option Installation Instructions 574-182* for detailed information on installing this option card. The primary intent of the fiber optic link is to allow remote buildings (within 3,000 ft.) to be connected to the IDNet channel, but to minimize susceptibility to electrical transients. The fiber optic link is made up of these two boards and the optical fibers. The 4009 IDNet Fiber Receiver Card receives power from, and communicates with the 4009 IDNet through 14-pin connector P6 (on the 4009 IDNet system board). The fiber receiver regenerates the IDNet channel for connection to other IDNet peripherals at the remote site. The IDNet Fiber Transmitter is located on the FACP end of the fiber optic link and receives power (24VDC) from the host panel.

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## Setting Switches SW1-1 through SW1-7

The 8-position Hardware Configuration DIP Switch (SW1) is used to configure what hardware is present and supervised by the 4009 IDNet. The hardware configuration switch is located at the top edge of the system board (see Figure 2). The “ON” position of the switch indicates which associated hardware is installed on the 4009 IDNet. A trouble condition is reported to the FACP if hardware is configured, but not present or hardware is present but not configured.

Set switches 1-1 through 1-7, as shown in Table 2, to identify the optional equipment installed on the 4009 IDNet.

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## Identifying Optional Equipment, *Continued*

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Setting Switches  
SW1-1 through  
SW1-7

**Table 2. Hardware Configuration Switch SW1**

<b>Switch</b>	<b>Configured Hardware "ON" = Present</b>
SW1-1*	Set to ON if Class A Adapter for NAC 1 & 2. Set to Off if no option card is present.
SW1-2*	Set to ON if Class A Adapter for NAC 3 & 4. Set to Off if no option card is present.
SW1-3*	Set to ON if Class A Adapter for NAC 5 & 6. Set to Off if no option card is present.
SW1-4*	Set to ON if Class A Adapter for NAC 7 & 8. Set to Off if no option card is present.
SW1-5	Set to ON if IDNet Repeater/Fiber card is used. Set to Off if no option card is present.
SW1-6	Wheelock A/Vs ON ALL QuickAlert NACs
SW1-7	Set to ON if a NAC Option Card is used. Set to Off if no option card is present.
SW1-8	Set to ON if 4009 IDNet is hardwired to host panel. Set to OFF if 4009 IDNet connects to 4010 via IDNet channel.

\* Not applicable for two-wire SmartSync Notification Appliances

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# Configuring and Wiring IDNet Operation

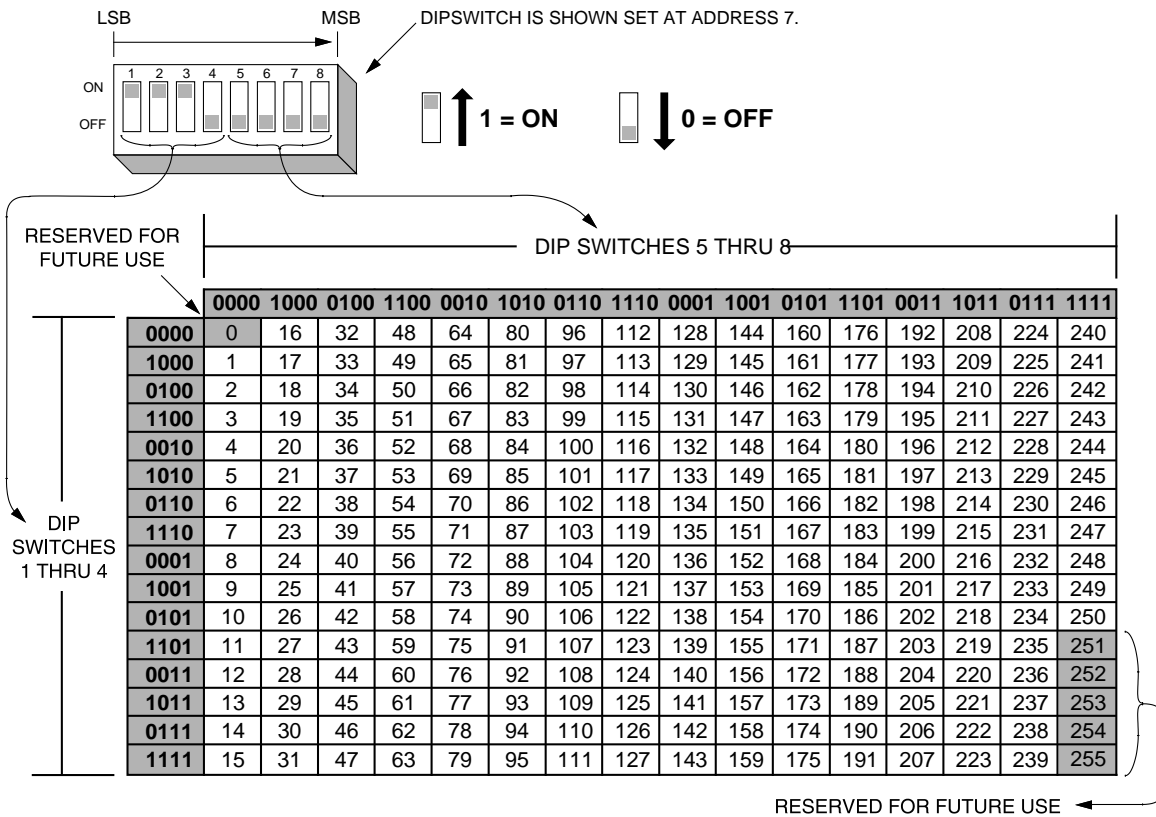
**Overview** This section describes the configuration and wiring process required to setup the 4009 IDNet for IDNet communications.

**Set Switch SW1-8 to OFF** Dip Switch SW1/Position 8 controls how the 4009 IDNet receives its commands. This switch must be set to the OFF position for IDNet communications.

**Set IDNet Address Using Switch SW2** The Software Address/Configuration Switch (SW2) is an 8-position DIP switch, located at the top edge of the system board. When the 4009 IDNet is operating as an addressable IDNet peripheral, this switch sets the IDNet address to which the 4009 IDNet responds.

Each 4009 IDNet must have a unique address (1 through 250). This address is assigned by the Panel Programmer and must be set on the hardware also. When setting the address, DIP switch position 1 is the least significant bit (LSB) and position 8 is the most significant bit (MSB). Set the 4009's IDNet address using the following figure as reference. Use a small screwdriver or pen to set the switches.

**Note:** DIP switch in "1" position is "ON" while DIP switch in "0" position is "OFF".



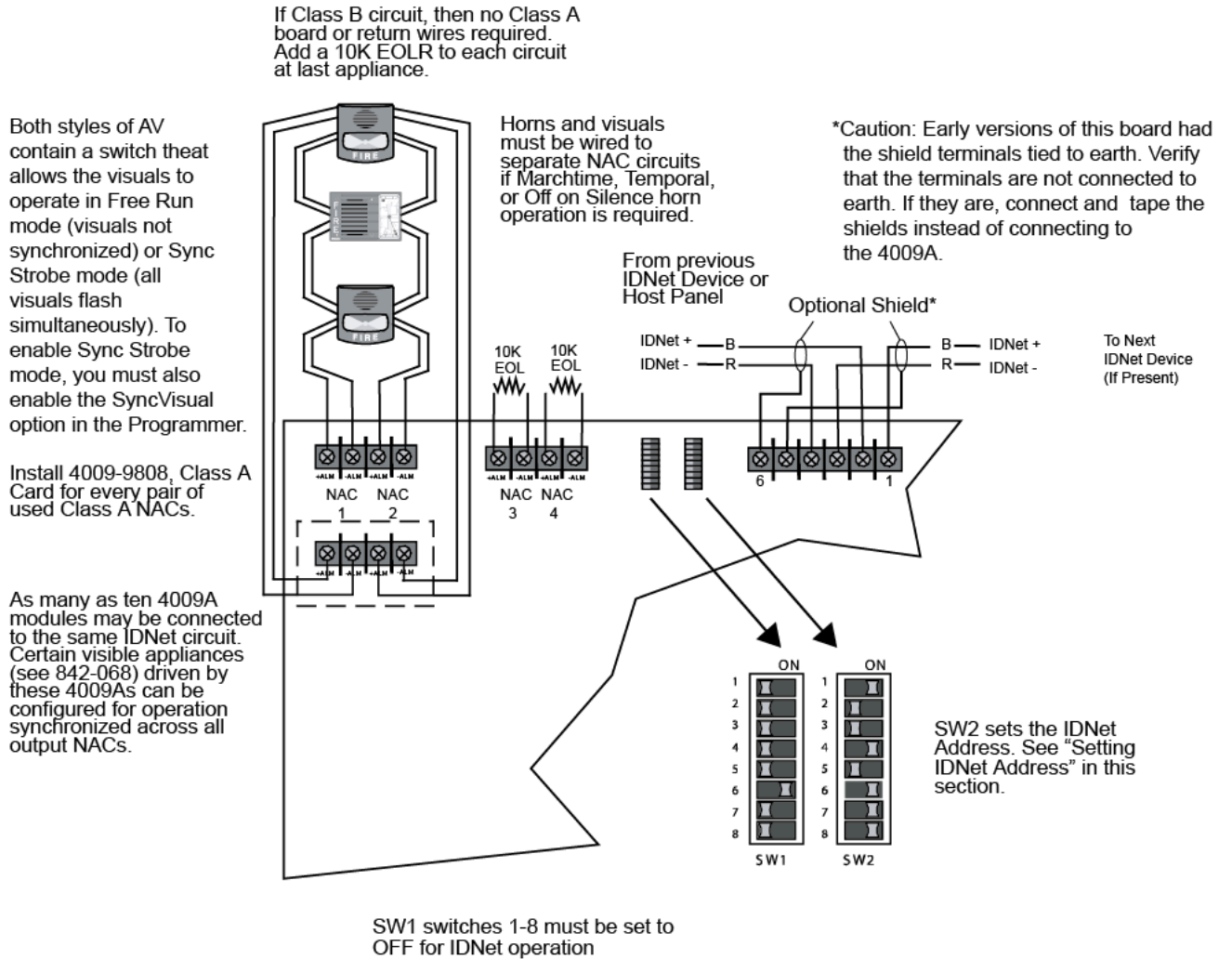
**Figure 3. 4009 IDNet (IDNet Addressable Mode) Address Chart**

# Configuring and Wiring IDNet Operation, *Continued*

## Class A and B Wiring – TrueAlert Non-Addressable and Rectangular A/Vs

This section describes wiring Class A or Class B circuits for the following TrueAlert Non-Addressable A/Vs and older style, rectangular A/Vs.

- **TrueAlert Non-Addressable A/Vs** with the following PIDs: 4903-9425, -9426, -9427, -9431, -9432, -9433. See 574-721 for device wiring/configuration.
- **Older Style, Rectangular A/Vs** with PIDs ranging from 4903-9252 through 4903-9258. Remove jumpers for 4-wire operation. See 579-237 for device wiring/configuration.



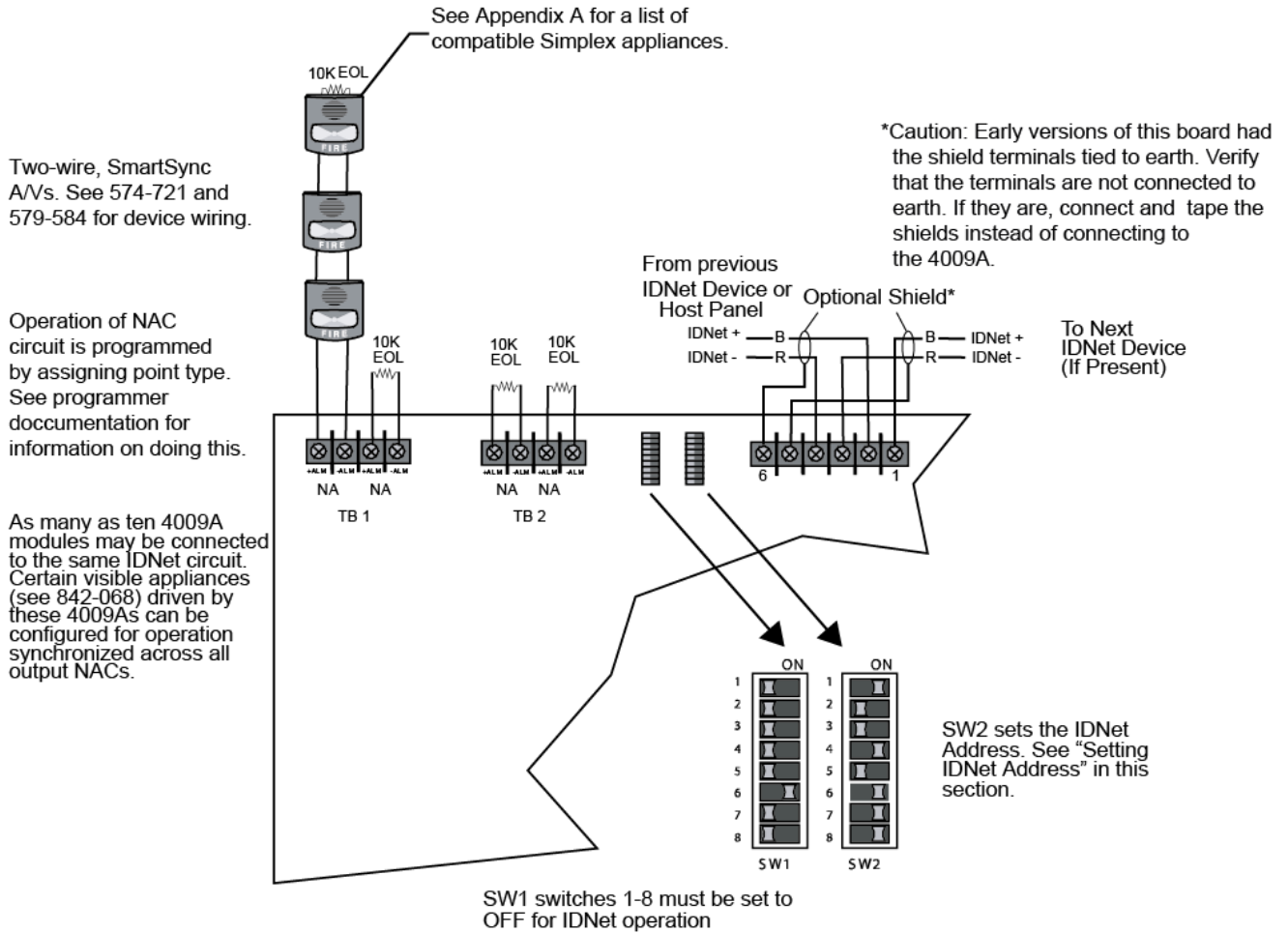
**Figure 4. Class A and B Wiring – TrueAlert Non-Addressable and Rectangular A/Vs**

**Note:** For information on wiring TrueAlert Non-Addressable A/Vs with SmartSync, see the next section.

# Configuring and Wiring IDNet Operation, *Continued*

## Class B Wiring: TrueAlert Non-Addressable A/Vs with SmartSync

This section describes Class B wiring for the following TrueAlert Non-Addressable A/Vs with SmartSync. See the next section for information on Class A wiring with these appliances.



**Figure 5. Class B Wiring – TrueAlert Non-Addressable A/Vs with SmartSync**

# Configuring and Wiring IDNet Operation, *Continued*

## Class A and Class B Wiring – Wheelock Horn, Strobe, and Horn Strobe appliances employing Wheelock Sync Protocol

This section describes Class A and Class B wiring for Wheelock A/Vs employing the Wheelock Horn/Strobe Sync Protocol.

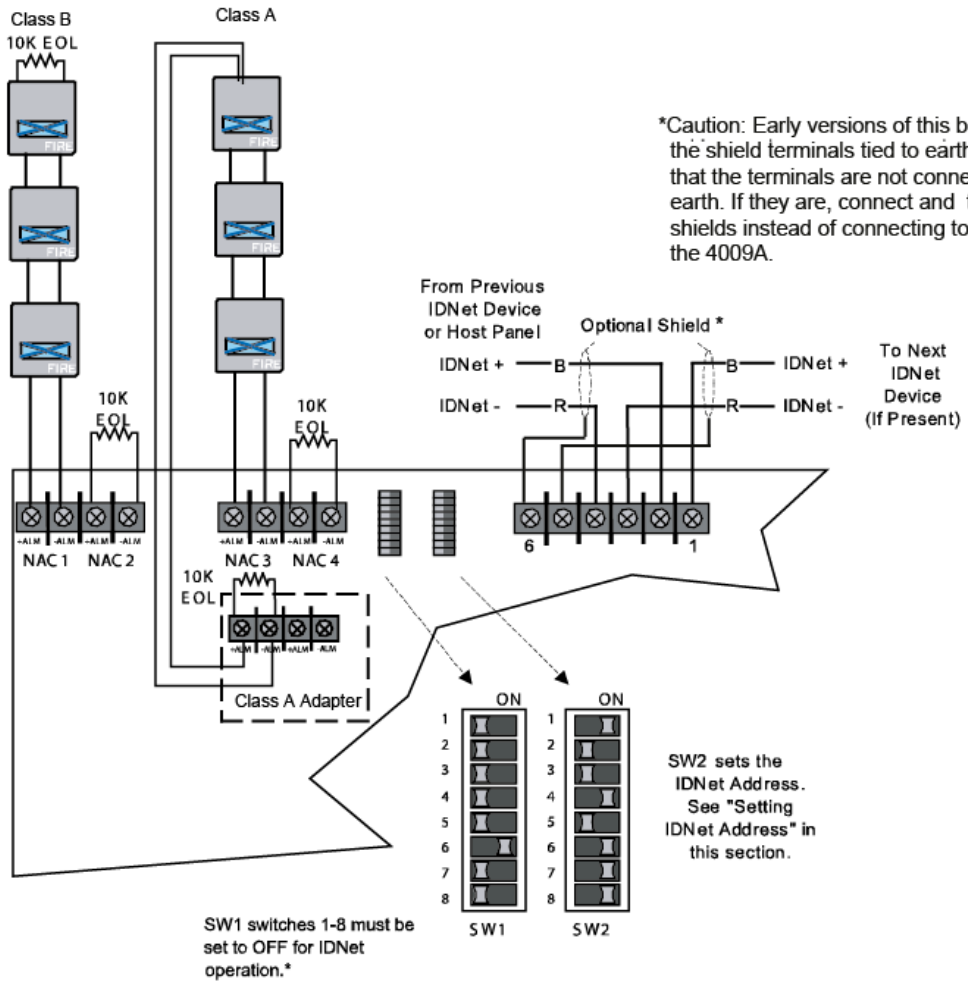
See Appendix B for a list of compatible Wheelock Sync Protocol Appliances.

Two-wire, Wheelock Sync A/Vs.

Operation of NAC circuit is programmed by assigning point type. See programmer documentation for information on doing this.

\*Caution: Early versions of this board had the shield terminals tied to earth. Verify that the terminals are not connected to earth. If they are, connect and tape the shields instead of connecting to the 4009A.

As many as ten 4009A modules may be connected to the same IDNet circuit. Certain visible appliances (see 842-068) driven by these 4009As can be configured for operation synchronized across all output NACs.



\*SW 1-6 should be on in IDNet mode only if Wheelock Horn Strobe devices are substituted for TrueAlert Non-Addressable devices on NACs programmed as SQUALERT.

Figure 6. Class A and Class B Wiring – Wheelock Horn, Strobe, and Horn Strobe Appliances Employing Wheelock Sync Protocol

# Configuring and Wiring IDNet Operation, *Continued*

## Class A Wiring TrueAlert Non- Addressable A/Vs with SmartSync

The Class A wiring for SmartSync appliances requires the 0566-812 version 4009-9808. The older version 0565-789 does not support SmartSynch Class A operation. Refer to the installation instruction 574-326 Rev. C (or later version) for details on how to set up the Class A adapter.

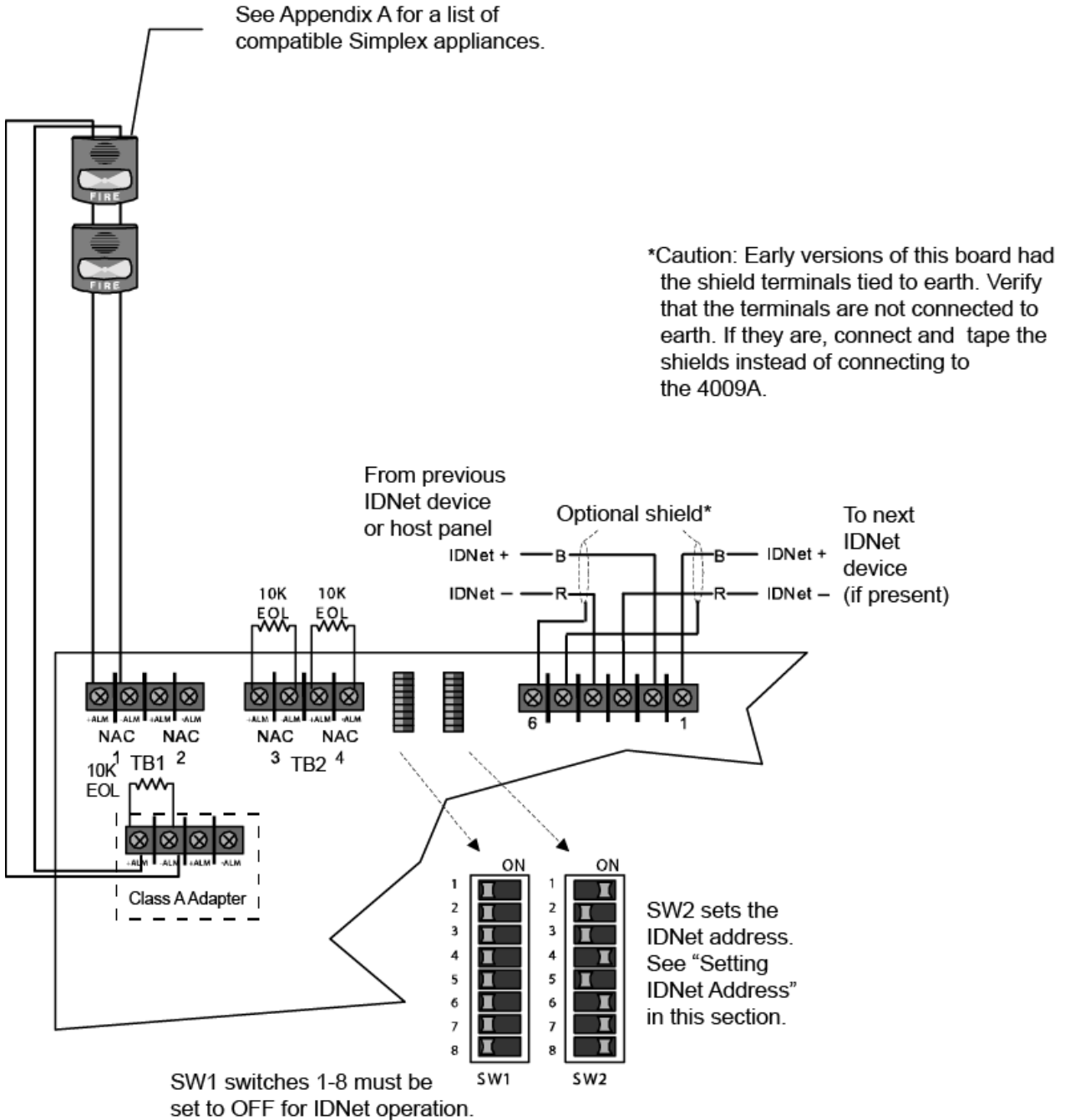


Figure 7. Class A Wiring – TrueAlert Non-Addressable A/Vs with Smart Sync

# Hardwired Operation – Conventional A/Vs

## Overview

This section describes:

- Configuring the switches on the 4009 IDNet to define the operation of the 4009’s NACs.
- Wiring conventional 4-wire NAC appliances to the NAC outputs of the 4009 IDNet. For information on hardwired operation with SmartSync appliances, see “Hardwired Operation – SmartSync Appliances,” later in this document.
- Hardwiring the 4009 IDNet to the host panel. The term “hardwiring” refers to the dedicated wiring connecting a set of NAC outputs on the host panel with the input terminals of the 4009 IDNet.

## Set Switch 1

Set Switch 1 (SW1) as follows:

- Switches 1 through 7 on Switch 1 (SW1) are used to identify the optional hardware installed on the 4009 IDNet. Refer back to “Identifying Optional Equipment,” earlier in this document for specific information on setting these switches.
- Switch 8 on SW1 determines whether the 4009 is communicating with the host via IDNet or over a hardwired connection. **This switch must be set to the ON position.**

## Set Switch 2 for Conventional, Hardwired A/V Operation

When operating as a 4009 Non-Addressable NAC Extender (4009 is hardwired to host panel), Switch SW2 configures the operation of the 4009’s output NACS based on the state of its two NAC control inputs. The following table summarizes the available choices.

**Table 3. SW2 Settings**

Switch #	Mode of Operation				
1 - 3	Switches 1, 2, and 3 control which 4009 NAC outputs turn on and off when a specific input from the host panel turns on or off. Several different options are available as shown below. Example. Setting 1, 2, and 3 to the OFF position causes NACs 1 and 2 (plus 5 and 6 if the option card is installed) to turn ON when hardwired Input 1 turns on and OFF when it turns off. If however, Input 2 activates, NACs 3 and 4 (plus 7 and 8 if the option card is installed) track the state of input 2.				
	Switch 1	Switch 2	Switch 3	When this Input from Host Panel Turns ON	Power is Applied to these 4009 NAC Circuits
	OFF	OFF	OFF	1	1 & 2 (5 & 6)
	OFF	OFF	OFF	2	3 & 4 (7 & 8)
	ON	OFF	OFF	1	1 - 4
	ON	OFF	OFF	2	5 - 8
	OFF	ON	OFF	1	1 - 8
OFF	ON	OFF	2	None	
4	Set this switch to the ON position when using the switch on the A/Vs to synchronize the visuals. Set this switch to OFF when using a Sync Cube on the host input to synchronize visuals. If neither method of synchronizing visuals is used (i.e., the visuals are operating in free run mode), set this switch to the OFF position.				
5	If switch 6 or 7 is set to OFF, this switch identifies the locally generated code pattern: ON = 60BPM Marchtime OFF = Temporal.				
6	When hardwired, <b>Input 2</b> activates, the setting of this switch determines the source of the coding pattern used by the 4009’s NACs. If this switch is set to ON, the 4009 NACs controlled by Input 2 track the coding pattern used by the host panel. If this switch is set to OFF, the 4009 NACs controlled by Input 2 use the 4009’s locally generated coding pattern, which is determined by the setting of Switch 5.				
7	When hardwired, <b>Input 1</b> activates, the setting of this switch determines the source of the coding pattern used by the 4009’s NACs. If this switch is set to ON, the 4009 NACs controlled by Input 1 track the coding pattern used by the host panel. If this switch is set to OFF, the 4009 NACs controlled by Input 1 use the 4009’s locally generated coding pattern, which is determined by the setting of Switch 5.				
8	Set to <b>OFF</b> for hardwired operation with Conventional, 4-wire A/Vs. Set to <b>On</b> for hardwired operation with SmartSync appliances, and refer to “Hardwired Operation – SmartSync Appliances,” later in this document.				

## Hardwired Operation – Conventional A/Vs, *Continued*

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### **Example: Wiring Class A or B NAC Operation – Single Host Input**

With this type of application, a single hardwired input from one of the host panel's NAC outputs controls the 4009 IDNet's output appliances. Important points to note for this application include:

- Only a single 4009 IDNet can be used. Daisy-chaining additional 4009s is NOT allowed.
- Single input control prevents individual control of the audibles and visuals. Audibles and visuals both track the host input, turning on when the input is on and off when it is off. In the example outlined below, Input 1 is Off on Reset, so both horns and visuals operate until a reset is performed.
- Although audibles cannot turn on and off separately from the visuals, it is possible to configure 60BPM marchtime or temporal audible signaling without affecting the operation of the visuals.

The following example illustrates the steps required to implement this type of signaling:

- Configure the host NAC connected to 4009 Input 1 as Off on Reset and use an ON Steady signaling pattern.
- Jumper Channel 1 to Channel 2, as shown in Figure 8. This causes both audibles and visuals to track the state of Input 1.
- Wire Visual side of A/V to 4009 NAC1 and Audible side to 4009 NAC3.
- If synchronized visuals are required, set the switch on the back of the A/V to the synchronized setting and set Switch 2-4 on the 4009 to the ON position.
- Set switches 1, 2, and 3 on SW2 to the OFF position. This configures the 4009 so that 4009 NACs 1 & 2 (Visuals) are associated with host Input 1 and 4009 NACs 3 & 4 (Audibles) are associated with host Input 2.
- Set Switch 7 on SW2 to the ON position. This causes the 4009 NACs associated with Input 1 (i.e., NACs 1 & 2/Visuals) to track the state of the host Input.
- Set Switch 6 on SW2 to the OFF position. This causes the 4009 NACs associated with Input 2 (i.e., NACs 3 & 4/Audibles) to use the 4009's locally generated coding pattern. To set the locally generated coding pattern, set Switch 5 on SW2 to the appropriate setting (ON = 60BPM Marchtime; OFF = Temporal).

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# Hardwired Operation – Conventional A/Vs, Continued

## Example: Wiring Class A or B NAC Operation – Single Host Input

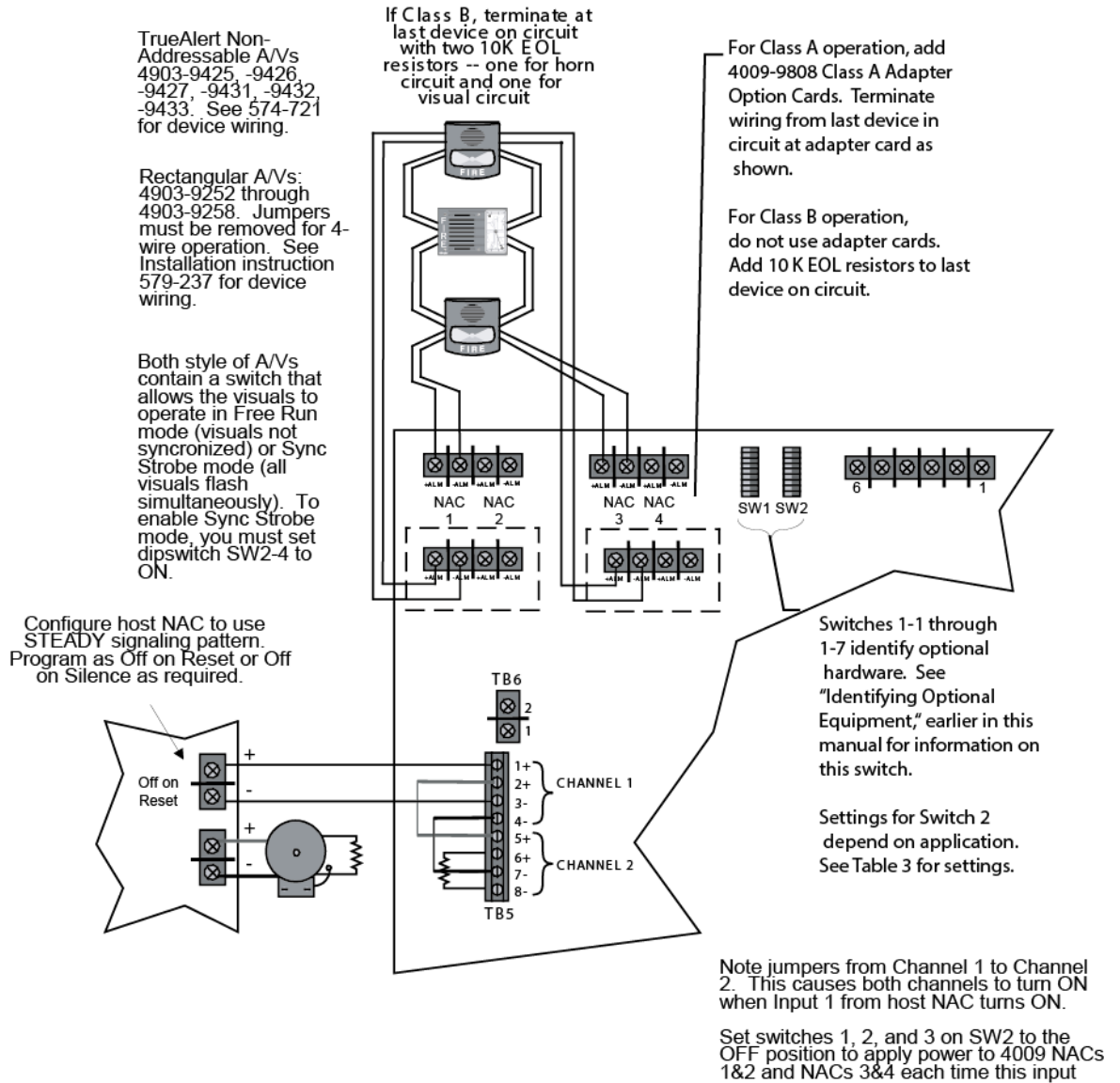


Figure 8. Class A or B NAC Operation – Single Host Input, Wiring Example



## Hardwired Operation – Conventional A/Vs, *Continued*

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### **Example: Wiring Class A or B NAC Operation – Dual Host Input**

This section provides an example of hardwiring a 4009 IDNet to a host panel using two NAC inputs from the host panel. Two NAC inputs from the host allow the host panel to separately control the 4009's A/Vs, turning off the audibles on signal silence and turning off the visuals when a system reset occurs.

- Wire the visual side of the A/Vs to NAC1. Wire the audible side to NAC3. See Figure 9.
- Configure host NAC connected to Input 1 as Off on Reset. Configure the host NAC connected to Input 2 as Off on Silence
- Set switches 1, 2, and 3 on SW2 to the OFF position. This configures the 4009 so that 4009 NACs 1 & 2 (Visuals) are associated with host Input 1 and 4009 NACs 3 & 4 (Audibles) are associated with host Input 2.
- Set Switch 7 on SW2 to the ON position. This causes the 4009 NACs associated with Input 1 (i.e., NACs 1 & 2/Visuals) to track the state of the host Input.
- Set Switch 6 on SW2 to the OFF position. This causes the 4009 NACs associated with Input 2 (i.e., NACs 3 & 4/Audibles) to use the 4009's locally generated signaling pattern. To set the locally generated signaling pattern, set Switch 5 on SW2 to the appropriate setting (ON = 60BPM Marchtime; OFF = Temporal).

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# Hardwired Operation – Conventional A/Vs, *Continued*

## Example: Wiring Class A or B NAC Operation – Dual Host Input

TrueAlert Non-Addressable A/Vs  
4093-9425, -9426, -9427, -9431, -9432  
-9433. See 574-721 for device wiring

Rectangular A/Vs:  
4093-9252 through 4903-9258. Jumpers  
must be recovered from 4-wire operation. See  
installation instructions 579-237 for device  
wiring.

### Synchronizing Visuals:

- Single 4009. Both style of A/Vs contain a switch that allows the visuals to operate in Free Run mode (visuals not synchronized) or Sync Strobe mode (all visuals flash simultaneously). To enable Sync Strobe mode for a single 4009, you must set dipswitch SW2-4 to ON.

- Multiple 4009s. Wire a 4905-9922 SyncCube to the visual input from the host panel, as shown below. On the 4009, set dipswitch SW2-4 to the OFF position.

If Class B, two 10 K  
EOL resistors  
-- one for horn circuit  
and one for visual circuit

Separating the audible and visual  
circuits as shown allows audibles to  
turn off on silence and visuals to  
turn off on reset.

NOTE: Program 4100U/4100ES &  
40[10/08/06] panel NACs for  
Sync Strobe mode, or use  
4905-9914/9922 Sync Cube if  
some other Host FACP is  
used.

If only a single 4009 IDNet is  
connected to the host, no  
Sync Cube is required. Set  
Switch 2-4 ON; otherwise set  
SW2-4 OFF.

Up to 3 additional 4009 IDNets can  
be daisychained in this fashion.  
The last unit must use EOL  
resistors across terminals 2/4 and  
6/8 as shown in the figure

10K EOL Resistor, or as  
required by the host panel

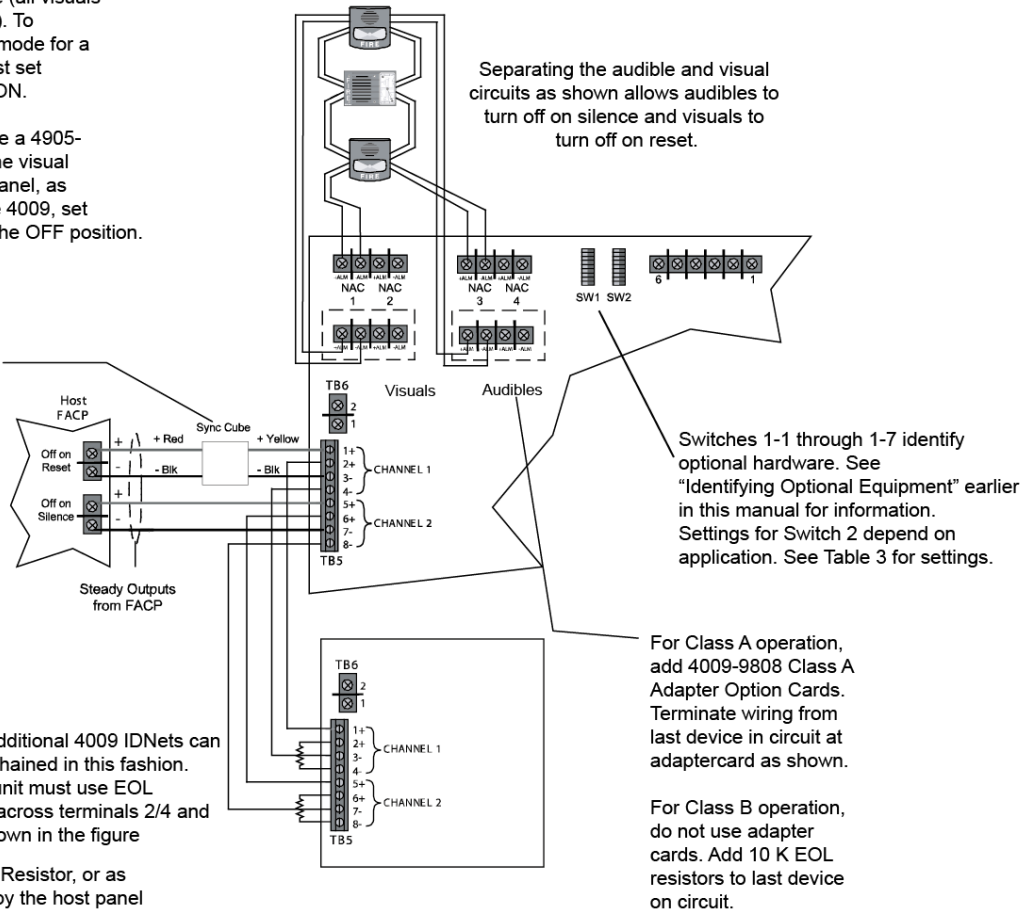


Figure 9. Class A or B NAC Operation – Dual Host Input, Wiring Example

# Hardwired Operation – SmartSync Appliances

## Overview

This section describes:

- Configuring the switches on the 4009 IDNet to define the operation of the 4009’s NACs when using hardwired SmartSync appliances.
- Wiring two-wire SmartSync appliances to the NAC outputs of the 4009 IDNet.
- Hardwiring the 4009 IDNet to the host panel. The term “hardwiring” refers to the dedicated wiring connecting a set of NAC outputs on the host panel with the input terminals of the 4009 IDNet.

## Set Switch 1

Set Switch 1 (SW1) as follows:

- Switches 1 through 7 on Switch 1 (SW1) are used to identify the optional hardware installed on the 4009 IDNet. Refer back to “Identifying Optional Equipment,” earlier in this document for information on setting these switches.
- Switch 8 on SW1 determines whether the 4009 is communicating with the host via IDNet or over a hardwired connection. **This switch must be set to the ON position.**

## Set Switch 2 for SmartSync Operation

Switch SW2 configures the operation of the 4009’s output NACS based on the state of its two NAC control inputs. The following are valid settings for SmartSync Appliances.

**Table 4. SW2 Settings**

Switch #	Mode of Operation				
1 - 3	Switches 1, 2, and 3 control which 4009 NAC outputs turn on and off when a specific input from the host panel turns on and off. Valid options for use with SmartSync appliances are shown below.				
	Switch 1	Switch 2	Switch 3	When this Input from Host Panel Turns ON	Power is Applied to these 4009 NAC Circuits
	ON	OFF	OFF	1	1 - 4
	OFF	ON	OFF	1	1 - 8
4	Set this switch to the ON position when using SmartSync appliances, unless a Sync Cube is being used on the host input for the visual appliances. If a Sync Cube is used, this switch must be OFF.				
5	Identifies the locally generated code pattern: ON = 60BPM Marchtime OFF = Temporal. This switch is used in conjunction with Switches 6 and 7.				
6 and 7	<p>For two-wire, SmartSync operation, switches are always set the same (i.e., both OFF or both ON) as follows:</p> <ul style="list-style-type: none"> <li>• Switches 6 and 7 ON. This setting specifies that the 4009 audibles will generate a <b>steady</b> tone pattern.</li> <li>• Switches 6 and 7 OFF. This setting specifies that the 4009 audibles will use the 4009’s locally generated coding pattern, which is determined by the setting of Switch 5.</li> </ul> <p>Important Note: The host panel inputs to the 4009 IDNet MUST be a steady tone pattern. No coding (60BPM marchtime or temporal) from the host panel is allowed.</p>				
8	Set to <b>ON</b> for hardwired operation with two-wire SmartSync A/Vs. Set to <b>OFF</b> for hardwired operation with conventional, 4-wire A/Vs and refer to “Hardwired Operation — Conventional A/Vs” earlier in this document.				



# Hardwired Operation – SmartSync Appliances, *Continued*

## Example: Class B Wiring – Dual NAC Host Input

Dual NAC input allows the 4009 IDNet’s horns and strobes to operate independently of one another (i.e., horns turn off on silence and visuals turn off on system reset). Signaling can be 60BPM Marchtime, Temporal, or Steady. For the application shown below, only a single 4009 IDNet is allowed; daisy-chaining additional 4009s is not allowed. See the next section for information on connecting multiple 4009 IDNet to the host panel.

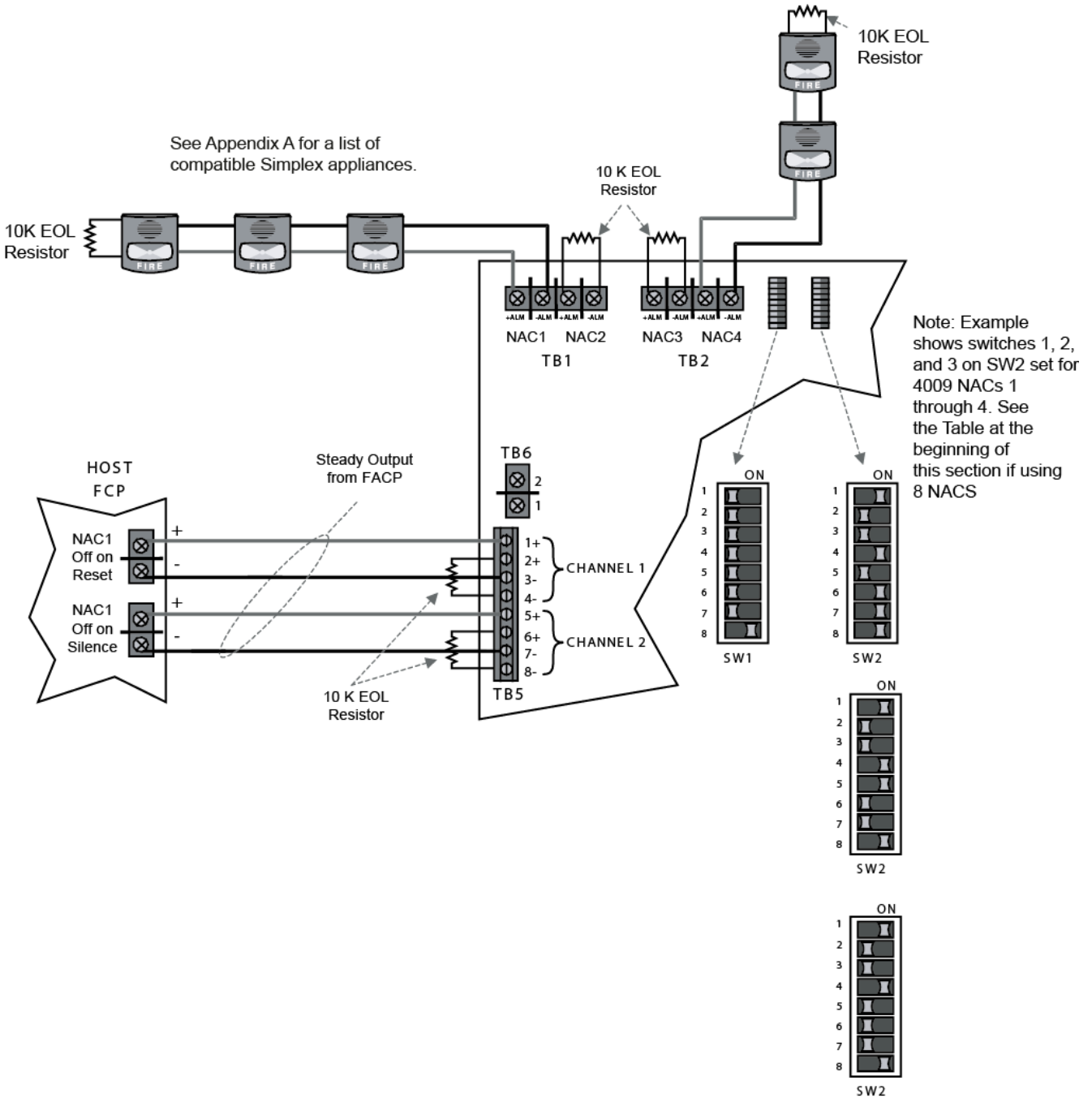


Figure 11. Dual NAC Host Input – Class B Wiring Example



# Hardwired Operation – SmartSync Appliances, *Continued*

## Example: Class A Wiring – Dual NAC Input from Host Panel to Multiple 4009s

This wiring provides an example of a hardwired 4009 IDNet that uses Class A.

- Signaling can be 60BPM Marchtime, Temporal, or Steady.
- Horns and strobes operate independently of one another (i.e., horns turn off on silence and visuals turn off on system reset).

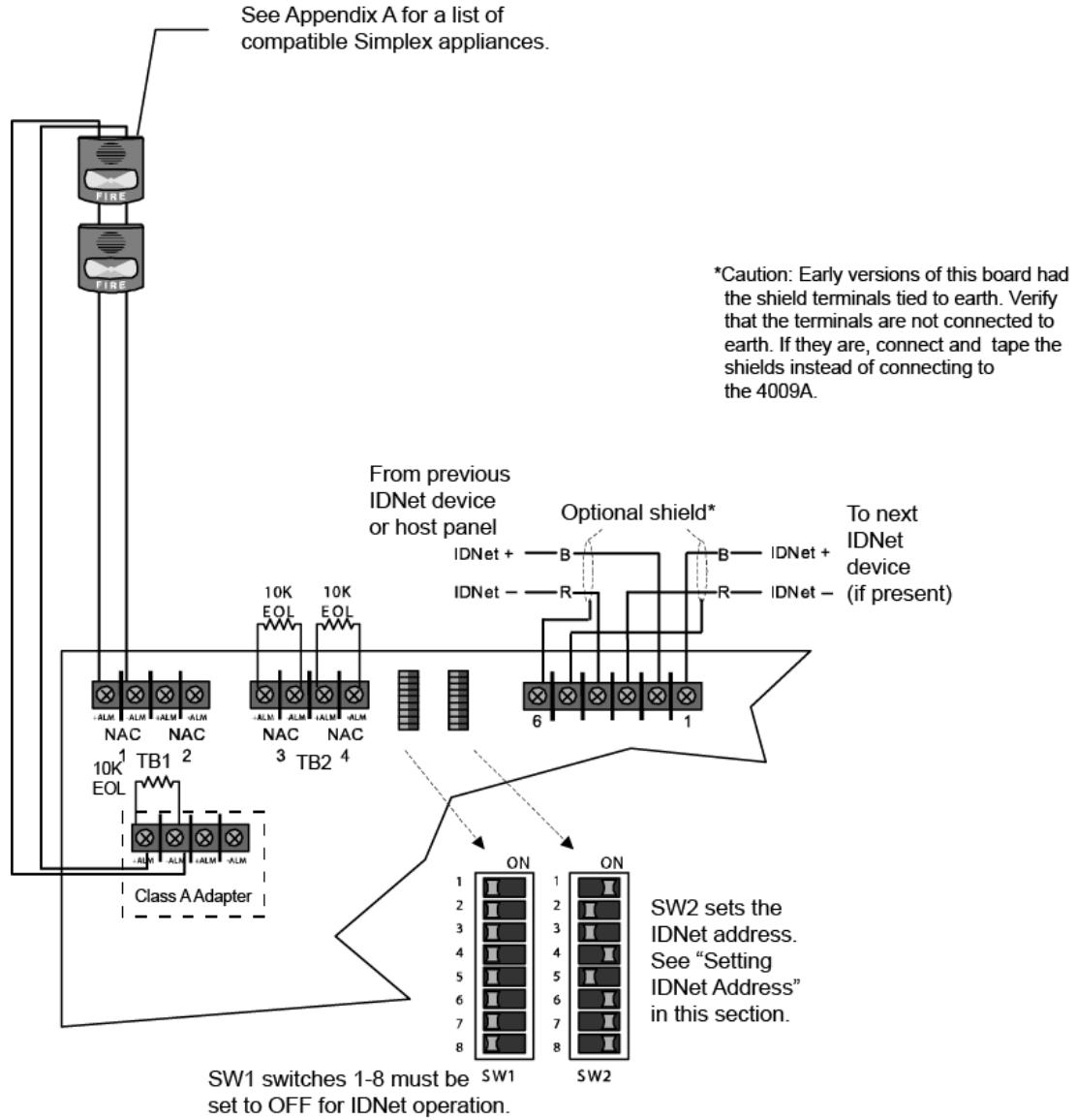


Figure 13. Dual NAC Input from Host Panel to Multiple 4009s – Class A Wiring Example

# System Installation

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## General Information

**IMPORTANT: Notify the appropriate personnel (building occupants, fire department, monitoring facility, etc.) of the installation.**

The following paragraphs contain material that is applicable to all 4009 IDNet systems. Be sure that you are thoroughly familiar with this material before installing your 4009 IDNet.

To help you with installation of this and other Simplex Fire Alarm equipment, the following publication is available for general reference: **How to Wire a Building for a Fire Alarm System (FA2-91-001 or 575-892).**

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## Tools and Equipment Required

The following tools and equipment are required to install the 4009 IDNet:

- 1/4-inch flat-tip screwdriver, 8-inches long
  - 1/8-inch flat-tip screwdriver, 4-inches long
  - Volt-Ohmmeter
  - Diagonal cutting pliers
  - Wire strippers
  - Listed end-of-line resistors (ordered separately)  
10K resistor (733-894)
  - Field Wiring Diagram 842-068
- 

## General Notes

- All wiring must be installed in accordance with local codes.
  - A minimum of 6 inches of free conductor is required at each electrical box to facilitate terminations.
  - A 12-inch service loop of cable is required for all continuous pulls through an electrical box.
  - All system wiring subject to physical damage must be mechanically protected based on the environment to which the cable is subjected.
  - A neatly wired system helps ensure an accurate inspection of all connections and simplify troubleshooting.
-



## System Installation, *Continued*

### Mounting the 4009 IDNet

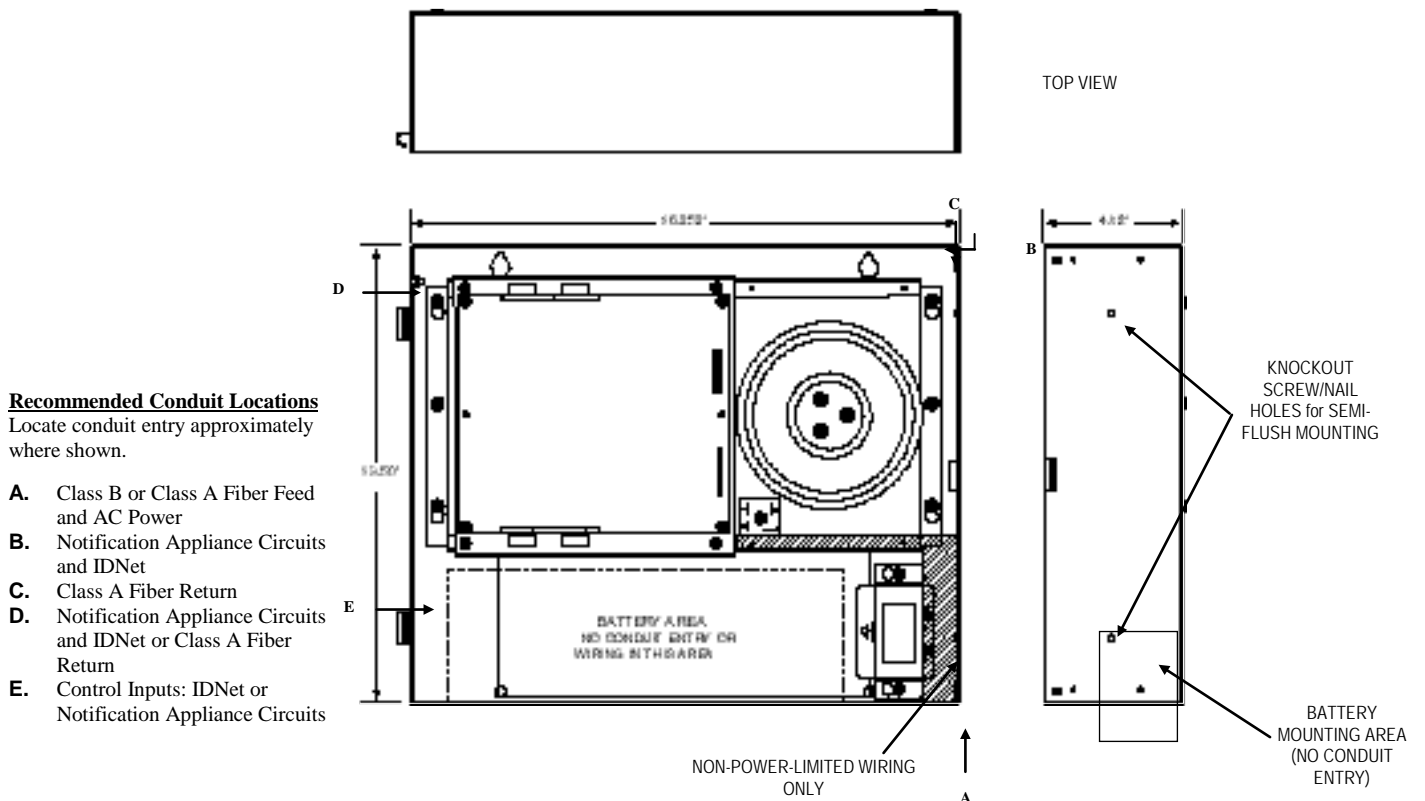
**Note:** The following pages provide a detailed description of the installation. If you experience problems that cannot be resolved, call your local Simplex Branch Office.

Use the following procedure when mounting a 4009 IDNet.

**CAUTION:** Read all instructions carefully before cutting conduit/service entrances and installing back box. Failure to comply with all installation requirements may result in a violation of UL or FCC regulations.

1. Carefully open the shipping container.
2. Remove the 4009 IDNet from the shipping container and lay the unit on a flat surface.
3. Unlock and open the panel door. Remove the electronic card cage assembly and store it in a safe dry area. Disconnect the AC wiring harness from the card cage before removing it from the box.
4. Determine the amount and proper location of conduit/service entrances (see Figure 14). Make all appropriate entrances into the back box. Power-Limited and Non-Power Limited wiring must enter through separate conduit/service entrances. AC power entrance into the back box is recommended at the bottom right side of the back box.

Maximum intrusion into back box for conduit is 1/2 -inch.



**Figure 14. Mounting the 4009 IDNet**

*Continued on next page*

## System Installation, *Continued*

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### Mounting the 4009 IDNet

5. Mount back box to wall. Back box must be level and plumb. For surface mounting use the teardrop and clearance holes located in the rear of the box and screw to wall.
  6. Wire Non-Power-Limited wiring in the shaded areas only (see Figure 14), this includes AC input and battery connections. All other wiring is Power-Limited. Maintain at least ¼-inch spacing between all Power-Limited and Non-Power-Limited wiring.
  7. Connect the AC wiring harness and install the electronic card cage assembly to the 4009 IDNet cabinet.
- 

### Wiring the 4009 IDNet

When wiring the 4009 IDNet, refer to the 842-068 Field Wiring Diagram and the following system wiring requirements.

- All wiring, except incoming power and ground connecting wires, must be free from grounds or shorts and have a resistance of one megohm, or higher, to EARTH.
- All wires are to be copper conductors only, except fiber cables. All equipment must be installed in accordance with the manufacturer's recommendations and the specifications and standards of the Authority Having Jurisdiction (AHJ). The installation of all wiring, cable, and equipment must be in accordance with NFPA 70.
- If shielded wire is used, the metallic continuity of the shield must be maintained and insulated throughout the entire length of the cable. The entire length of the cable must have a resistance of one megohm to Earth.
- Splicing is permitted in accordance with NFPA 70. All wiring must be terminated with UL listed devices (e.g., wire nuts, pressure connectors). Wiring terminated with only electrical tape is not permitted. All splicing (free ends of conductors) must be covered with insulation equivalent to that of the conductors.
- An appropriate system ground must be provided for Earth detection and lightning protection devices. This connection shall be made to an approved dedicated Earth connection per NFPA 70.
- When running wires to the 4009 IDNet, identify the wires appropriately: Only system wiring can be run in the same conduit which includes dedicated NAC wiring, IDNet wiring, 24V AUX wiring, and the four NAC circuits (an additional four NAC circuits are available as a field-installed option).

**Input power and external battery power are Non-Power-limited and cannot be run with Power-Limited system wiring.**

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## System Installation, *Continued*

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### System Power Requirements

#### **Model 4009-9201 NAC (120VAC System)**

AC Input - 120VAC, 3 amperes, 60Hz

Battery Input - 24VDC, 8 amperes

Power Output - 24VDC, 8 amperes

**Exception:** Notification circuit current de-rated to 6 Amps if any circuit used for REGULATED 24 VDC NACs. See 842-068 for more details.

#### **Model 4009-9301 NAC (220/240 System)**

AC Input - 220/240VAC, 1.5 amperes, 50/60Hz

Battery Input - 24VDC, 8 amperes

Power Output - 24VDC, 8 amperes

**Exception:** Notification circuit current de-rated to 6 Amps if any circuit used for REGULATED 24 VDC NACs. See 842-068 for more details.

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### Mounting and Wiring Peripheral Devices

Refer to the 842-068 Field Wiring Diagram for detailed information, and the procedure listed below when installing the 4009 IDNet peripheral devices.

1. Determine the mounting locations of the peripheral devices and install system wires from the mounting location of each peripheral device to the 4009 system board. All wiring to be minimum 18 AWG, supervised, and Power-Limited.
  2. Install all peripheral devices and connect them to appropriate wires. (Refer to the installation instructions packed with the devices.)
  3. For 2-wire Class B/Style Y and 4-wire Class A/Style Z devices, a 10K, 1/2 W End-of-Line Resistor (EOLR: P/N 733-894, PID# 4081-9008) is required. Refer to Field Wiring Diagram 842-068.
-

# Appendix A – Simplex Appliances Compatible with the 4009 IDNet NAC Extender

SmartSync Compatible Appliances		
Instructions	PID	Description
579-869	4901-9856	Wall mount Non-Addressable Multi-Tone Horn, Red
	4901-9857	Wall mount Non-Addressable Multi-Tone Horn, White
579-870	4901-9858	Mini-Horn, Red
	4901-9859	Mini-Horn, White
579-868	4902-9210	Non-Addressable Wall Mount Chime, Red
	4902-9211	Non-Addressable Wall Mount Chime, White
574-721	4903-9417	A/V 15 Candela Wall Mounted SmartSync Horn, Red
	4903-9418	A/V 75 Candela Wall Mounted SmartSync Horn, Red
	4903-9419	A/V 115 Candela Wall Mounted SmartSync Horn, Red
	4903-9428	A/V 15 Candela Wall Mounted SmartSync Horn, White
	4903-9429	A/V 75 Candela Wall Mounted SmartSync Horn, White
	4903-9430	A/V 115 Candela Wall Mounted SmartSync Horn, White
579-548	4906-9101	V/O Strobe Wall Mount, Red
	4906-9102	V/O Strobe Ceiling Mount, Red
	4906-9103	V/O Strobe Wall Mount, White
	4906-9104	V/O Strobe Ceiling Mount, White
	4906-9127	A/V SmartSync Horn, Wall Mount, Red
	4906-9128	A/V SmartSync Horn, Ceiling Mount, Red
	4906-9129	A/V SmartSync Horn, Wall Mount, White
	4906-9130	A/V SmartSync Horn, Ceiling Mount, White
	4906-9151	S/V Wall Mounted 25V or 70V Red
	4906-9153	S/V Wall Mounted 25V or 70V White
	4906-9154	S/V Ceiling Mounted 25V or 70V White Non-ULC
	4906-9157	S/V Ceiling Mounted 25V or 70V White ULC Only
	579-857	4906-9105
4906-9106		V/O Weatherproof, White
4906-9131		A/V SmartSync Horn Weatherproof, Red
4906-9132		A/V SmartSync Horn Weatherproof, White
579-908	4906-9133	Non-Addressable SmartSync Wall Mount Chime/Strobe, Red
	4906-9134	Non-Addressable SmartSync Wall Mount Chime/Strobe, White
	4906-9135	Non-Addressable SmartSync Ceiling Mount Chime/Strobe, Red
	4906-9136	Non-Addressable SmartSync Ceiling Mount Chime/Strobe, White
579-907	4906-9137	Non-Addressable SmartSync Wall Mount Multitone Horn /Strobe, Red
	4906-9138	Non-Addressable SmartSync Wall Mount Multitone Horn /Strobe, White
579-1057	49CMT-WRF <sup>1</sup> 49CMT-WRF-BA <sup>1</sup> 49CMT-WWF <sup>1</sup> 49CMT-WWF-BA <sup>1</sup> 49CMT-APPLW <sup>1</sup>	Multi-Tone Horn
579-1058	49CMTV-WRF <sup>1</sup> 49CMTV-WRF-BA <sup>1</sup> 49CMTV-WWF <sup>1</sup> 49CMTV-WWF-BA <sup>1</sup> 49CMTV-APPLW <sup>1</sup>	Multi-Tone Horn with Multi-Candela

<sup>1</sup> A maximum of thirteen 49CMT/CMTV appliances per circuit. See document 0842-068 for SmartSync NAC restrictions for 49CMT/49CMTV appliances.

Non-SmartSync Appliances		
Instructions	PID	Description
579-237	4903-9252	A/V 15 Candela, Polarity reversing Horn, Horizontal orientation, Red
	4903-9253	A/V 30 Candela, Polarity reversing Horn, Horizontal orientation, Red
	4903-9254	A/V 110 Candela, Polarity reversing Horn, Horizontal orientation, Red
	4903-9255	A/V 15 Candela, Polarity reversing Horn, Vertical Orientation, Red
	4903-9256	A/V 110 Candela, Polarity reversing Horn, Vertical Orientation, Red
	4903-9257	A/V 15 Candela, Polarity reversing Horn, Horizontal Orientation White
	4903-9258	A/V 30 Candela, Polarity reversing Horn, Horizontal Orientation White

574-917	4903-9425	4 Wire A/V 15 Candela, Polarity reversing Horn, Red
	4903-9426	4 Wire A/V 75 Candela, Polarity reversing Horn, Red
	4903-9427	4 Wire A/V 115 Candela, Polarity reversing Horn, Red
	4903-9431	4 Wire A/V 15 Candela, Polarity reversing Horn, White
	4903-9432	4 Wire A/V 75 Candela, Polarity reversing Horn, White
	4903-9433	4 Wire A/V 115 Candela, Polarity reversing Horn, White
	4098-9772	Sensor Base with 520 Hz Sounder
	4098-9773	CO Sensor Base with 520 Hz Sounder
	4090-9005	SRP
	4090-9006	SRP with enclosure

## Appendix B – Cooper Wheelock Appliances Compatible with 4009 IDNet NAC Extender Wheelock Protocol for Special Applications

<b>Synchronizing Horn Strobes</b>	
AS-241575W	AS Series Horn Strobe. 24V, 15/75 Cd, Wall Mount
AS-24MCW	AS Series Horn Strobe. 24V, Multi-Cd, Wall Mount
AS-24MCC	AS Series Horn Strobe. 24V, Multi-Cd, Ceiling Mount
AS-24MCWH	AS Series Horn Strobe. 24V, Multi-High-Cd, Wall Mount
AS-24MCCH	AS Series Horn Strobe. 24V, Multi-High-Cd, Ceiling Mount
ASWP-2475W, ASWP-2475C	AS Series WP Horn Strobe. 24V, 30 Cd, Wall or Ceiling Mount
ASWP-24MCWH	AS Series WP Horn Strobe. 24V, Multi-High-Cd, Wall Mount
ASWP-24MCCH	AS Series WP Horn Strobe. 24V, Multi-High-Cd, Ceiling Mount
ASA-24MCW, ASB-24MCW	AS Series Horn Strobe. 24V, Multi-Cd, Wall Mount. Amber/Blue
ASA-24MCC, ASB-24MCC	AS Series Horn Strobe. 24V, Multi-Cd, Ceiling Mount. Amber/Blue
HSR	HN STR, Red, 2-wire, Wall Mount, 12/24V, 3dB, 8Cd, 5 Mount
HSW	HN STR, White, 2-wire, Wall Mount, 12/24V, 3dB, 8Cd, 5 Mount
HSRS	HN STR, Silver red, 2-wire, Wall Mount, 12/24V, 3dB, 8Cd, 5Mount
HSWS	HN STR, Silver white, 2-wire, Wall Mount, 12/24V, 3dB, 8Cd, 5 Mount
HSRC	HN STR, Red, 2-wire, Ceiling Mount, 12/24V, 3dB, 8Cd, 5 Mount
HSWC	HN STR, White, 2-wire, Ceiling Mount, 12/24V, 3dB, 8Cd, 5 Mount
HSRCS	HN STR, Silver red, 2-wire, Ceiling Mount, 12/24V, 3dB, 8Cd, 5Mount
HSWCS	HN STR, Silver white, 2-wire, Ceiling Mount, 12/24V, 3dB, 8Cd, 5 Mount
HS4-241575W	HS4 Series Horn Strobe. 24V, 15/75 Cd, Wall Mount
HS4-24MCW	HS4 Series Horn Strobe. 24V, Multi-Cd, Wall Mount
HS4-24MCWH	HS4 Series Horn Strobe. 24V, Multi-High-Cd, Wall Mount
HS4-24MCC	HS4 Series Horn Strobe. 24V, Multi-Cd, Ceiling Mount
NS-241575W	NS Series Horn Strobe. 24V, 15/75 Cd, Wall Mount
NS24MCW	NS Series Horn Strobe. 24V, Multi-Cd, Wall Mount
NS-24MCC	NS Series Horn Strobe. 24V, Multi-Cd, Ceiling Mount
NS-24MCCH	NS Series Horn Strobe. 24V, Multi-High-Cd, Ceiling Mount
ZNS-MCW	ZNS Series Horn Strobe. 24V, Multi-Cd, Wall Mount
ZNS-MCWH	ZNS Series Horn Strobe. 24V, Multi-High-Cd, Wall Mount
ZNS-24MCC	ZNS Series Horn Strobe. 24V, Multi-Cd, Ceiling Mount
ZNS-24MCCH	ZNS Series Horn Strobe. 24V, Multi-High-Cd, Ceiling Mount

**Appendix B – Cooper Wheelock Appliances Compatible with 4009 IDNet NAC Extender Wheelock Protocol for Special Applications,**  
*Continued*

<b>Synchronizing Strobes</b>	
RSS-241575W	RSS Series Strobe. 24V, 15/75 Cd, Wall Mount
RSSP-241575W	RSSP Series Strobe. 12V or 24V, 15/75 Cd, Wall Mount
RSS-24MCW, RSSP-24MCW	RSS/RSSP Series Strobe. 24V, Multi-Cd, Wall Mount
RSS-24MCWH, RSSP-24MCWH	RSS/RSSP Series Strobe. 24V, Multi-High-Cd, Wall Mount
RSS-24MCC, RSSP-24MCCR	RSS Series Strobe. 24V, Multi-Cd, Ceiling Mount (R=Round)
RSS-24MCCH, RSSP-24MCCHR	RSS Series Strobe. 24V, Multi-High-Cd, Ceiling Mount (R=Round)
RSSR-2415W, RSSR-2415C	RSS Series Strobe. 24V, 15 Cd, Red, Wall or Ceiling Mount
RSSR-2475W, RSSR-2475C	RSS Series Strobe. 24V, 75 Cd, Red, Wall or Ceiling Mount
RSSR-24110C	RSS Series Strobe. 24V, 110 Cd, Red, Ceiling Mount
RSSA-24110W, RSSB-24110W, RSSG-24110W, RSSR-24110W	RSS Series Strobe. 24V, 110 Cd, Wall Mount . Amber/Blue/Green/Red.
RSSA-24MCC, RSSB-24MCC, RSSG-24MCC, RSSR-24MCC	RSS Series Strobe. 24V, Multi-Cd, Ceiling Mount . Amber/Blue/Green/Red.
RSSA-24MCCH, RSSB-24MCCH, RSSG-24MCCH, RSSR-24MCCH	RSS Series Strobe. 24V, Multi-High-Cd, Ceiling Mount . Amber/Blue/Green/Red.
RSSPA-24MCC	RSSP Series Strobe. 24V, Multi-Cd, Ceiling Mount . Amber
RSSWPA-2475W	RSS Series WP Strobe. 24V, Wall Mount . Amber
RSSWPA-24MCCH, RSSWPB-24MCCH, RSSWPG-24MCCH, RSSWPR-24MCCH	RSS Series WP Strobe. 24V, Multi-High-Cd, Ceiling Mount . Amber/Blue/Green/Red
RSSWP-2475W, RSSWP-2475C	RSS Series WP Strobe. 24V, 30 Cd, Wall or Ceiling Mount
RSSWP-24MCWH	RSS Series WP Strobe. 24V, Multi-High-Cd, Wall Mount
RSSWP-24MCCH	RSS Series WP Strobe. 24V, Multi-High-Cd, Ceiling Mount
STR	STR, Red, 2-wire, Wall Mount, 12/24V, 8Cd, 5 Mount
STW	STR, White, 2-Wire, Wall Mount, 12/24V, 8Cd, 5 Mount
STRS	STR, Silver red, 2-wire, Wall Mount, 12/24V, 8Cd, 5 Mount
STWS	STR, Silver white, 2-wire, Wall Mount, 12/24V, 8Cd, 5 Mount
STRC	STR, Red, 2-wire, Ceiling Mount, 12/24V, 8Cd, 5 Mount
STWC	STR, White, 2-Wire, Ceiling Mount, 12/24V, 8Cd, 5 Mount
STRCS	STR, Silver red, 2-wire, Ceiling Mount, 12/24V, 8Cd, 5 Mount
STWCS	STR, Silver white, 2-wire, Ceiling Mount, 12/24V, 8Cd, 5 Mount
ZRS-MCW	ZRS Series Strobe. 24V, Multi-Cd, Wall Mount
ZRS-MCWH	ZRS Series Strobe. 24V, Multi-High-Cd, Wall Mount
ZRS-24MCC	ZRS Series Strobe. 24V, Multi-Cd, Ceiling Mount
ZRS-24MCCH	ZRS Series Strobe. 24V, Multi-High-Cd, Ceiling Mount

**Appendix B – Cooper Wheelock Appliances Compatible with 4009 IDNet NAC Extender Wheelock Protocol for Special Applications,**  
*Continued*

<b>Appliances With Synchronizing Strobes  (Only Strobe portion compatible with 4009A Wheelock Protocol for Special Applications)</b>	
AMT-241575W, AMT-241575W-NYC	AMT Series Multi-Tone Horn Strobe. 24V, 15/75 Cd, Wall Mount
AMT-24MCW	AMT Series Multi-Tone Horn Strobe. 24V, Multi-Cd, Wall Mount
MT-241575W	MT Series MT Horn Strobe. 24V, 15/75 Cd, Wall Mount
MT-24MCW	MT Series Multi-Tone Horn Strobe. 24V, Multi-Cd, Wall Mount
MTWP-2475W, MTWP-2475C	MTWP Series MT Horn Strobe. 24V, 30 Cd, Wall or Ceiling Mount
MTWP-24MCWH	MTWP Series MT Horn Strobe. 24V, Multi-High-Cd, Wall Mount
MTWP-24MCCH	MTWP Series MT Horn Strobe. 24V, Multi-High-Cd, Ceiling Mount
MTWPA-2475W, MTWPB-2475W, MTWPG-2475W, MTWPR-2474W	MTWP Series Multi-Tone Horn Strobe. 24V, Wall Mount. Amber/Blue/Green/Red
MTA-24MCCH, MTB-24MCCH, MTG-24MCCH, MTR-24MCCH	MT Series Multi-Tone Horn Strobe. 24V, Multi-High-Cd, Wall Mount. Amber/Blue/Green/Red
MTWPA-24MCCH, MTWPB-24MCCH, MTWPG-24MCCH, MTWPR-24MCCH	MTWP Series Multi-Tone Horn Strobe. 24V, Multi-High-Cd, Wall Mount. Amber/Blue/Green/Red
ET70WP-2475W, ET70WP-2475C	ET70WP Series Speaker Strobe. 24V, 30 Cd, Wall or Ceiling Mount
ET70WP-24185W	ET70WP Series Speaker Strobe. 24V, 185 Cd, Wall Mount
ET70WP-24177C	ET70WP Series Speaker Strobe. 24V, 177 Cd, Ceiling Mount
ET70WPA-2475	ET70WP Series Speaker Strobe. 24V, Wall or Ceiling Mt. Amber
CH70-24175W	CH70 Series Chime Strobe. 24V, 15/75 Cd, Wall Mount
CH70-24MCW	CH70 Series Chime Strobe. 24V, Multi-Cd, Wall Mount
CH90-24MCC	CH90 Series Chime Strobe. 24V, Multi-Cd, Ceiling Mount
CH70-24MCWH	CH70 Series Chime Strobe. 24V, Multi-High-Cd, Wall Mount
CH90-24MCCH	CH90 Series Chime Strobe. 24V, Multi-High-Cd, Ceiling Mount
E50-241575W	E50 Series Speaker Strobe. 24V, 15/75 Cd, Wall Mount
E50-24MCW	E50 Series Speaker Strobe. 24V, Multi-Cd, Wall Mount
E50-24MCWH	E50 Series Speaker Strobe. 24V, Multi-High-Cd, Wall Mount
E50A-24MCC, E50B-24MCC	E50 Series Speaker Strobe. 24V, Multi-Cd, Ceiling Mt. Amber/Blue
E60-24MCW	E60 Series Speaker Strobe. 24V, Multi-Cd, Wall Mount
E60-24MCWH	E60 Series Speaker Strobe. 24V, Multi-High-Cd, Wall Mount
E60-24MCC	E60 Series Speaker Strobe. 24V, Multi-Cd, Ceiling Mount
E60-24MCCH	E60 Series Speaker Strobe. 24V, Multi-High-Cd, Ceiling Mount
E70-241575W	E70 Series Speaker Strobe. 24V, 15/75 Cd, Wall Mount
E70-24MCW	E70 Series Speaker Strobe. 24V, Multi-Cd, Wall Mount
E70-24MCWH	E70 Series Speaker Strobe. 24V, Multi-High-Cd, Wall Mount
E70-24MCC, E90-24MCC	E70/E90 Series Speaker Strobe. 24V, Multi-Cd, Ceiling Mount
E90-24MCCH	E90 Series Speaker Strobe. 24V, Multi-High-Cd, Ceiling Mount
E60A-24MCC, E70A-24MCC, E70B-24MCC, E90A-24MCC, E90B-24MCC	E60,E70/E90 Series Speaker Strobe. 24V, Multi-Cd, Ceiling Mount. Amber/Blue
ET70-241575W, ET90-241575W	ET70/ET90 Series Speaker Strobe. 24V, 15/75 Cd, Wall Mount
ET70-24MCW	ET70 Series Speaker Strobe. 24V, Multi-Cd, Wall Mount
ET70-24MCWH	ET70 Series Speaker Strobe. 24V, Multi-High-Cd, Wall Mount
ET70-24MCC, ET90-24MCC	ET70/ET90 Series Speaker Strobe. 24V, Multi-Cd, Ceiling Mount
ET70WPG-2475, ET70WPB-2475W, ET70WPG-2475W, ET70WPR-2475W	ET70WP Series Speaker Strobe. 24V, Wall or Ceiling Mt. Green, Blue, Red



**Appendix B – Cooper Wheelock Appliances Compatible with 4009 IDNet NAC Extender Wheelock Protocol for Special Applications,**  
*Continued*

<b>Appliances With Synchronizing Strobes (Only Strobe portion compatible with 4009A Wheelock Protocol for Special Applications), <i>continued</i></b>	
ET90-24MCCH	ET90 Series Speaker Strobe. 24V, Multi-High-Cd,Ceiling Mount
ET80-241575W	ET80 Series Speaker Strobe. 24V, 15/75 Cd,Wall Mount
ET80-24MCW	ET80 Series Speaker Strobe. 24V, Multi-Cd,Wall Mount
ET80-24MCWH	ET80 Series Speaker Strobe. 24V, Multi-High-Cd,Wall Mount
S8-24MCC	S8 Series Speaker Strobe. 24V, Multi-Cd,Ceiling Mount
S8-24MCCH	S8 Series Speaker Strobe. 24V, Multi-High-Cd,Ceiling Mount
SA-S70-24MCW	SA-S70 Series Amp-Speaker Strobe. 24V, Multi-Cd,Wall Mount
SA-S90-24MCC	SA-S90 Series Amp-Speaker Strobe. 24V, Multi-Cd,Ceiling Mount

<b>Synchronizing Horns</b>	
AH-24	AH Series Horn. 24V
AH-24WP	AH Series Weatherproof Horn. 12V or 24V
HNR	Horn, Red, 2-wire, Wall Mount, 12/24V, 3dB, 5 Mount
HNW	Horn, White, 2-wire, Wall Mount, 12/24V, 3dB, 5 Mount
HNRS	Horn, Silver red, 2-wire, Wall Mount, 12/24V, 3dB, 5 Mount
HNWS	Horn, Silver white, 2-wire, Wall Mount, 12/24V, 3dB, 5 Mount
HNRC	Horn, Red, 2-wire, Ceiling Mount, 12/24V, 3dB, 5 Mount
HNWC	Horn, White, 2-wire, Ceiling Mount, 12/24V, 3dB, 5 Mount
HNRCs	Horn, Silver red, 2-wire, Ceiling Mount, 12/24V, 3dB, 5 Mount
HNWCS	Horn, Silver white, 2-wire, Ceiling Mount, 12/24V, 3dB, 5 Mount
HS-24	HS Series Horn. 24V
MIZ-24S	MIZ Series Horn. 24V
NH-12/24, NH-12/24R	NH Series Horn. 12/24V (R=Round)
ZNH	ZNH Series Horn. 12/24V

<b>Coded Audible Appliances</b>	
AMT-12/24, AMT-12/24-NYC	AMT Series Multi-tone horn. 12/24V, Wall or Ceiling Mount
CH70, CH90	CH70/CH90 Series chime. 24V, Wall or Ceiling Mount
CSX10-24-DC, CSXG10-24-DC	CSX SeriesBell. 24V, Wall Mount
MT-12/24, MT4-12/24	MT Series Multi-Tone Horn. 12/24V, Wall or Ceiling Mount

<b>Non-Synchronizing Appliances</b>	
MB-G6-24, MB-G10-24	MB SeriesBell. 24V, Wall Mount

