



# **NetAXS-123**

## **Access Control Unit Installation Guide**

Release 5.0

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# Installing the NetAXS-123 Panels



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## In this chapter ...

Introduction	2
Panel Components and Descriptions	3
Installation	11
System Configuration	53
Hardware Specifications	69
Maintenance	73
Troubleshooting	74
Technical Support	75

## 1.0 Introduction

This document describes how to install the NetAXS-123 Standard Enclosure access control unit and the NetAXS-123 Compact Enclosure access control unit.

### 1.1 Access Control Overview

An access control system protects and preserves an enterprise's resources by providing authentication, authorization, and administration services. Authentication is a process that verifies a user's identity. If the user is verified, the system then either grants or denies access to specific areas and resources. Administration includes the creation and modification of user accounts and access privileges.

An access control system consists of hardware and software, usually configured in a network environment over a standard network protocol. Access control units, readers, door strikes, and video and other devices, for example, are configured to control and monitor the access to a company site.

### 1.2 NetAXS-123 Overview

A NetAXS-123 access control is a full-featured one-door web-based access control system that supports up to three doors when supplemented with an add-on input/output board. The NetAXS-123 panel includes a built-in web server, built-in Ethernet and USB support, and Power over Ethernet (PoE) capability. You can manage the access control system using either the built-in web browser or WIN-PAK. For supported configurations, see "[System Configuration](#)" on page 53 to view illustrations of the supported NetAXS-123 system configurations.



**Notes:**

- The NetAXS-123 web server/browser is intended for monitoring and programming use only.
- WIN-PAK software is intended for monitoring and programming use only, and has not been evaluated by UL.
- NetAXS-123 system is ULC-Listed for Class I installations.

### 1.3 Compliance Note

This Class B digital apparatus complies with Canadian ICES-003.

## 2.0 Panel Components and Descriptions



**Note:** This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The NetAXS-123 panel consists of a web-browser-enabled controller, a one- or two-door add-on board that supports additional inputs and outputs, a power-over-Ethernet (PoE) power supply, and a battery (NetAXS-123 Standard only).

The following figures show the NetAXS-123 panel wiring and components.

Figure 1: NetAXS-123 Compact Enclosure Wiring and Components

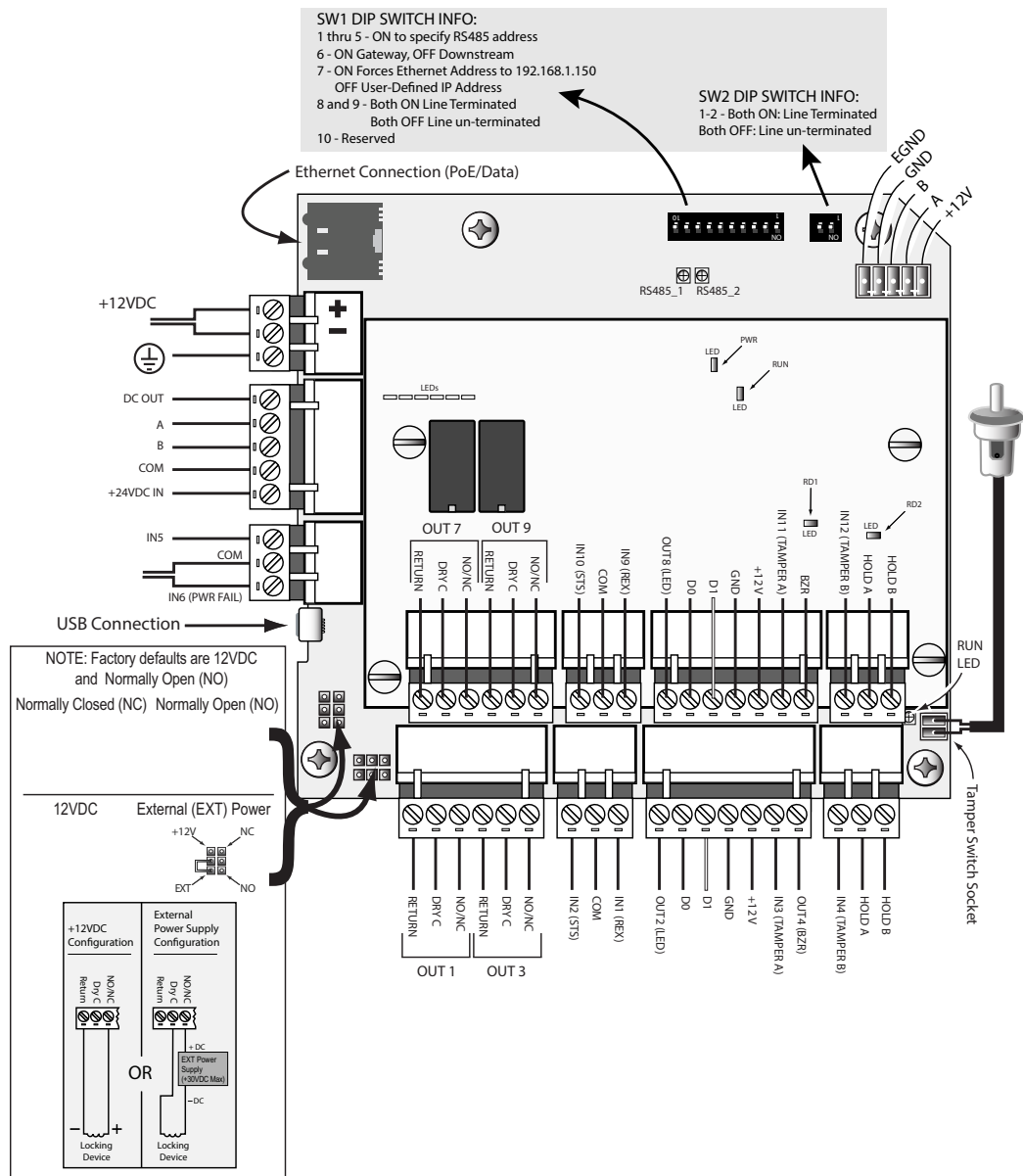
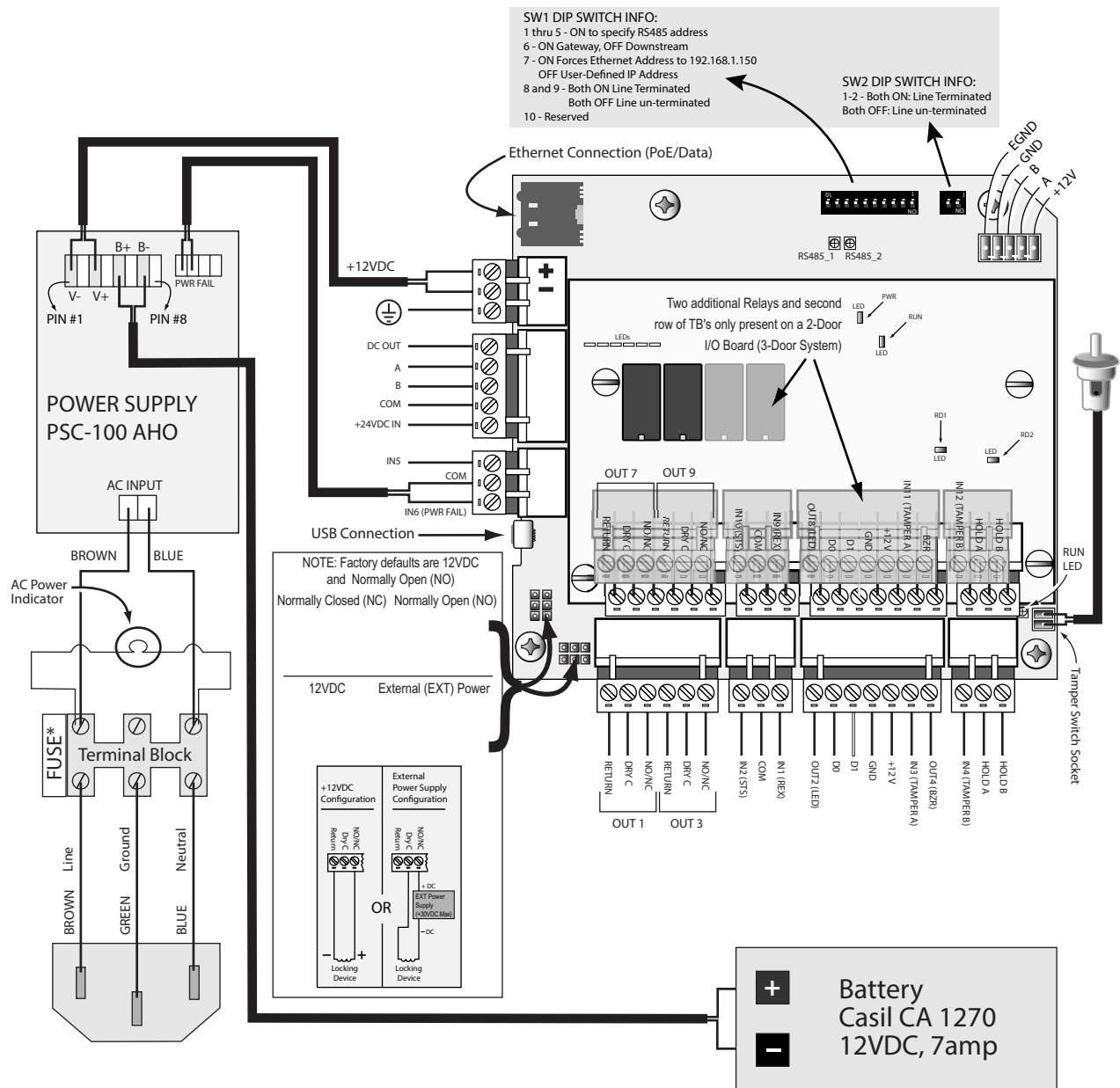
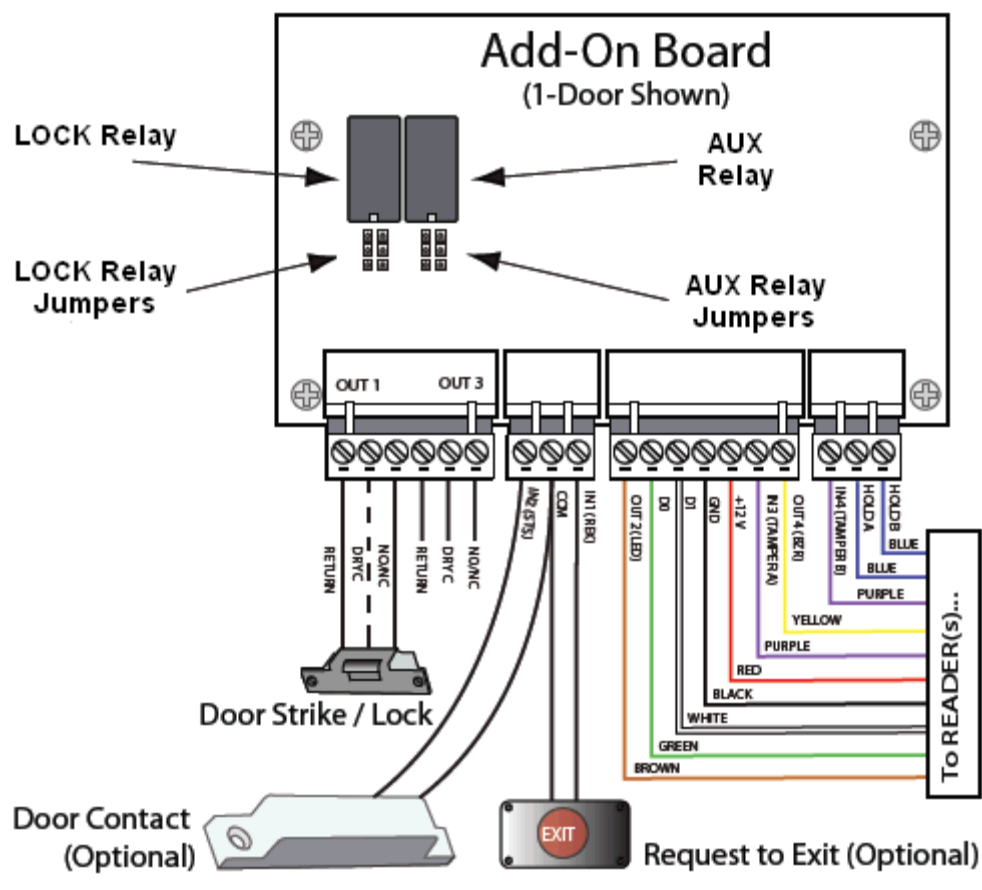


Figure 2: NetAXS-123 Standard Enclosure Panel Wiring and Components



**Note:** Maintain at least a .25-inch distance between the non-power limited wiring (115 VAC/60 Hz input wiring, power line filter wiring, and battery backup/charger wiring) and all other wiring, which is power-limited Class 2 wiring.

Figure 3: NetAXS-123 Add-On Board Wiring and Components



## 2.1 Supervised Input Wiring

The supervised inputs are located on the following terminal blocks:

**Table 1:** Supervised Input Terminal Blocks

Board Configuration	Terminal Block
1-Door (Controller Board)	C-TB2 C-TB10
1-Door (Add-On Board)	IO-TB2
2-Door (Add-On Board)	IO-TB2 (as 1-door Add-On Board) IO-TB6

Tampers can also be supervised. They are located on the following terminal blocks:

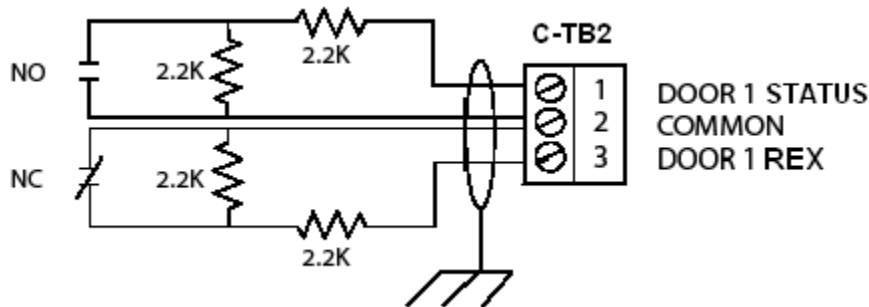
**Table 2:** Supervised Tamper Terminal Blocks

Board Configuration	Terminal Block
1-Door (Controller Board)	C-TB3/TMPR A C-TB4/TMPR B
1-Door (Add-On Board)	IO-TB3/TMPR A IO-TB4/TMPR B
2-Door (Add-On Board)	IO-TB3/TMPR A IO-TB4/TMPR B IO-TB7/TMPR A IO-TB8/TMPR B

Door Status (STS) and Request to Exit (REX) for all three doors may be configured for Normally Open or Normally Closed contacts as supervised or non-supervised. Inputs 5 (generic) and 6 (power) are on C-TB10. All seven inputs on the Controller Board and four inputs on the Add-On Board have default functions, but they can be configured for general purpose inputs.

The following figure shows the typical wiring for a supervised input.

*Figure 4: Typical Supervised Input Wiring Diagram*



The figure above shows standard 2.2K ohm resistors. The NetAXS-123 panel accepts 1K, 2.2K, 4.7K, or 10K ohm values. Note that both resistors must have the same value.

In addition, the Reader tampers can be supervised and capable of being used as additional inputs if the default functionality is not needed.

The wire used for the inputs should be shielded and cannot exceed 30 ohms over the entire length of the cable. Remember that the distance from the panel to the door must be doubled to determine the total resistance.



**Caution:** The cable shield should be grounded only at the panel earth ground. Grounding at both ends can cause ground loops which can be disruptive.





**Caution:** The system has not been verified for compliance with UL1076 Burglar Alarm units and systems.

## 2.2 NetAXS-123 Access Control Unit

The NetAXS-123 panel is a one-door access control unit that you can supplement with an add-on board that supports second and third doors. The following table shows the NetAXS-123 input/output options:

**Table 3:** *NetAXS-123 Input/Output Options*

Board	Readers	Inputs/Outputs
Controller	1 door/2 readers	1 lock output 1 aux output 1 status input 1 Request to Exit 2 reader tamper/AUX inputs
Add-On (1 Door)	1 door/2 readers	1 lock output 1 aux output 1 status input 1 Request to Exit 2 reader tamper/AUX inputs
Add-On (2 Door)	2 doors/4 readers	2 lock outputs 2 aux outputs 2 status inputs 2 Request to Exits 4 readers tamper/AUX inputs

You can use the NetAXS-123 panel as a standalone panel with independent card and transaction storage or, with a host software upgrade, as a fully monitored online access control device.

Panel inputs are capable of four state supervision: Normal, Alarm, Short and Cut. One input is used for request to exit on each door and one input is used for door status on each door. Supervised inputs for External Power Fail and Reader Tamperers are supplied as well, and they can be used as additional inputs when not required for their default purpose.

### 2.2.1 NetAXS-123 Add-On Board

The NetAXS-123 Add-On Board enables you to expand from one door to either two or three doors. The board easily connects to the NetAXS-123 controller board (see the *NetAXS-123 Add-On Board Installation Guide* (800-05787)).

## 2.2.2 Supported Readers



**Notes:**

- Fail secure locking mechanisms shall only be installed where allowed by the local authority having jurisdiction (AHJ), and they shall not impair the operation of panic hardware and/or emergency egress.
- If fire resistance is required, then portal locking devices must be further investigated to ULC-S533 and CAN/ULC-4-S104.
- As indicated in Table 4 below, UI has evaluated only two readers that may be used in a ULC configuration: Honeywell OM40 (OM40BHONC) and Honeywell OP-30 (OP30HONR).

The following UL 294 Listed (ALVY) card readers have been evaluated for use with the NetAXS-123 system:

*Table 4 Supported NetAXS-123 Readers Evaluated by Underwriters Laboratories (UL)*

Brand	Model	Part Number	Communication	Compatible Installation	
				UL 294	ULC-S319
Honeywell	OM40	*OM40BHONC	Wiegand	•	• (see footnote)
		OM40GHONC	Wiegand	•	
	OM41	OM41BHONC	Wiegand	•	
		OM41GHONC	Wiegand	•	
	OM55	OM55BHONB	RS485	•	
		OM55GHONB	RS485	•	
	OP-10	OP10GENR	Wiegand	•	
		OP10HONR	Wiegand	•	
	OP-30	OP30GENR	Wiegand	•	
		*OP30HONR	Wiegand	•	• (see footnote)
	OP-40	OP40GENR	Wiegand	•	
		OP40HONR	Wiegand	•	

*Table 4 Supported NetAXS-123 Readers Evaluated by Underwriters Laboratories (UL) (continued)*

HID	ProxPro	HU/5355AGN00	Wiegand	•	
	ProxPro II	HU/5455BGN00	Wiegand	•	
	ProxPro K	HU/5355AGK00	Wiegand	•	
	MiniProx	HU/5365EGP00	Wiegand	•	
	ThinLine II	HU/5395CB100	Wiegand	•	
		HU/5395CG100	Wiegand	•	
		HU/5395CK100	Wiegand	•	

\* If you are using either the Honeywell OM40 (OM40BHONC) or the Honeywell OP-30 (OP30HONR) reader in a ULC configuration, the reader must be installed with a Listed (CVXY) Rutherford Controls International (BP9630) Model 411405 door strike.

The following readers are supported by NetAXS-123, but they have not been evaluated by UL:

*Table 5: Supported NetAXS-123 Readers Not Evaluated by Underwriters Laboratories (UL)*

Brand	Model	Part Number	Communication
Honeywell	OP-45	OP45GENR OP45HONR	Wiegand
	OM70	OM70BHONB OM70GHONB	Wiegand
HID	ProxPoint Plus	6005B	Wiegand
	EntryProx	4045CGNU0	Wiegand
	MaxiProx	HU/5375AGN00	Wiegand



**Note:** For NetAXS-123 reader specifications, see [Hardware Specifications](#), page 69.

### 2.2.3 Real-Time Clock Protection

The panel RTC is backed up using a super capacitor. The super capacitor will power the real-time clock for 24 hours in the absence of primary power or backup battery.

## 2.3 Power Supply

The NetAXS-123 Compact Enclosure is powered by Power Over Ethernet (PoE) injector. This POE injector can supply a total system current of 900mA @12VDC. However the NetAXS-123 controller

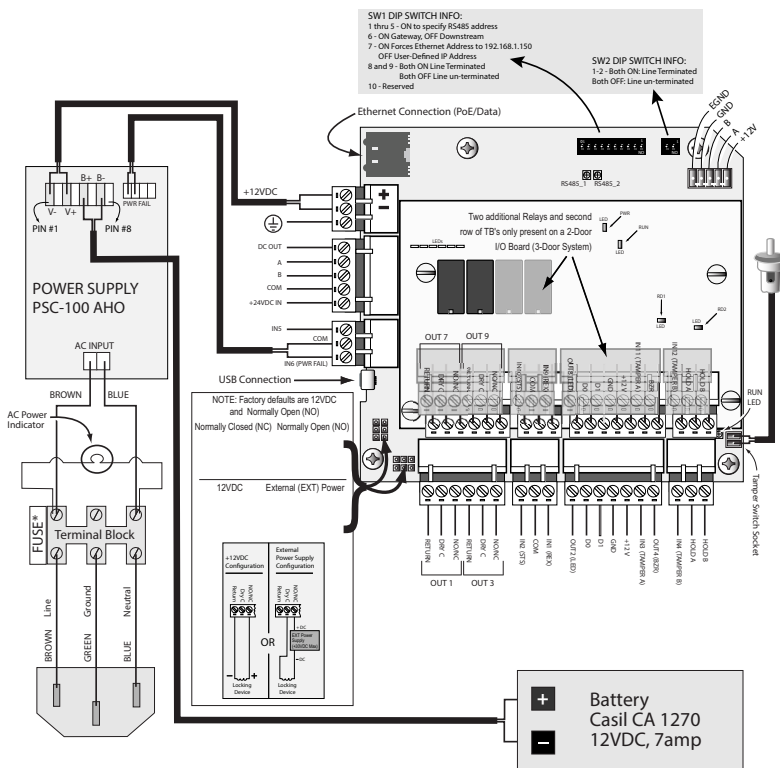
board can consume 450mA of current. This leaves 450mA of total current for the 12VDC external power. See [Hardware Specifications](#), page 69, for further details on current limits using PoE.

The Standard Enclosure uses a 12VDC 4A power supply with an international input of 100VAC to 240VAC. The supply also charges and monitors the condition of the battery. Wire the unswitched electrical power to the supply per the National Electrical Code as well as any local electrical codes, including the safety ground wire.

An input power indicator is supplied, and it is illuminated when input voltage is present. If the indicator is off, the input voltage is off, or too low to operate the system.



**Caution:** Disconnect the battery and AC power before servicing the fuse. For continued protection against the risk of electric shock and fire hazard, replace the input fuse with a GMA type fuse with the rating of 1A, 250V. The fuse is located in the lower-left corner in the cabinet, as shown below.



## 2.4 Battery

For the NetAXS-123 Standard Enclosure panel, one CASIL CA1270, 12 VDC, 7A-hour sealed lead-acid battery (Honeywell order number 3-000066). The battery provides standby backup power, depending upon system configuration and activity. When AC is lost, the power supply automatically switches to the backup battery for continuous 12VDC power. Replace the battery every 2 to 2.5 years, or more often if the system has a high rate of backup use.

## 2.5 Suppressors

Two suppressors (HAS number S-4) are required for each door lock. One suppressor is installed on the panel control board, and the second must be installed at the door lock.

## 3.0 Installation

### 3.1 Installing the Compact Enclosure Panel

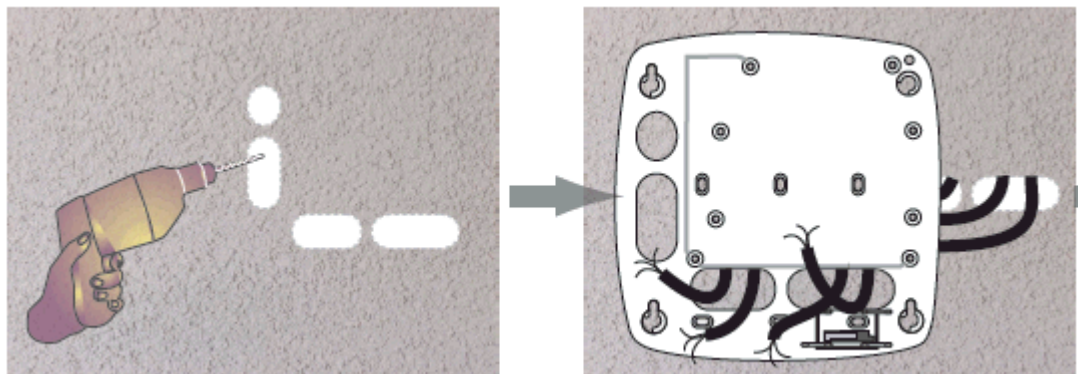


Perform the following steps to install the NetAXS-123 Compact panel:

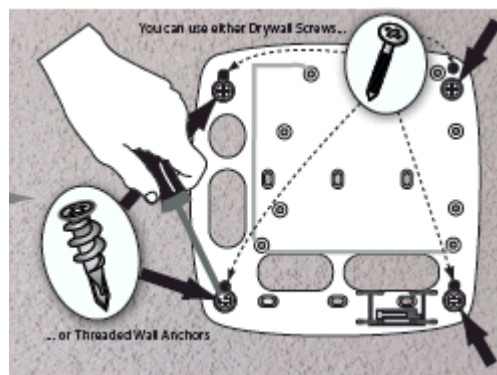
**Warning:** Use a static strap whenever touching the panel to ensure protection from Electrostatic Discharge (ESD).

#### 3.1.1 Installing on a Wall

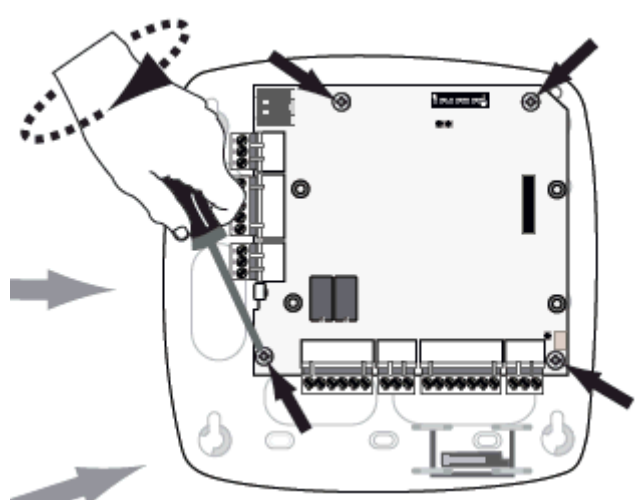
1. Review the panel layout, cable runs, and power needs.
2. Mount the enclosure's back at the proper location on the wall:
  - a. Drill the screw holes in the wall, using the panel's back as a template, and then pull the power and all I/O wires to the enclosure and through the knockout holes, and properly mark each wire for its use.



- b. Screw the back of the panel to the wall, using either drywall screws or threaded wall anchors.



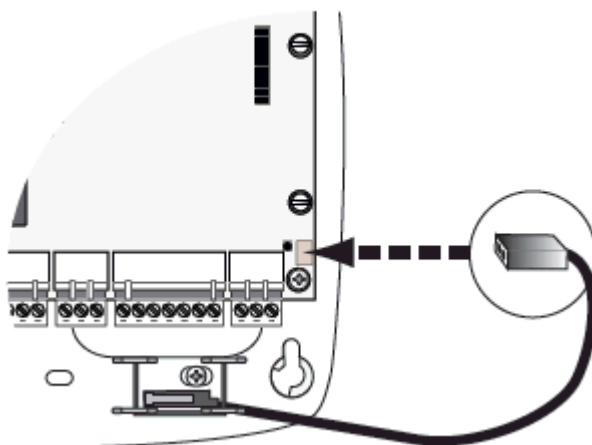
3. Mount the board onto the back of the panel.



4. Choose the tamper type (standard or off-the-wall tamper) and wire the tamper.

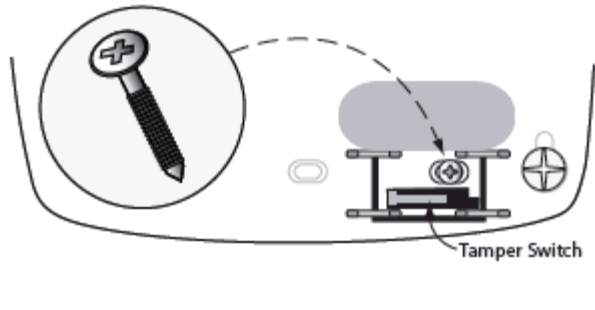
- Wiring a standard tamper:

TYPE 1: Standard Tamper

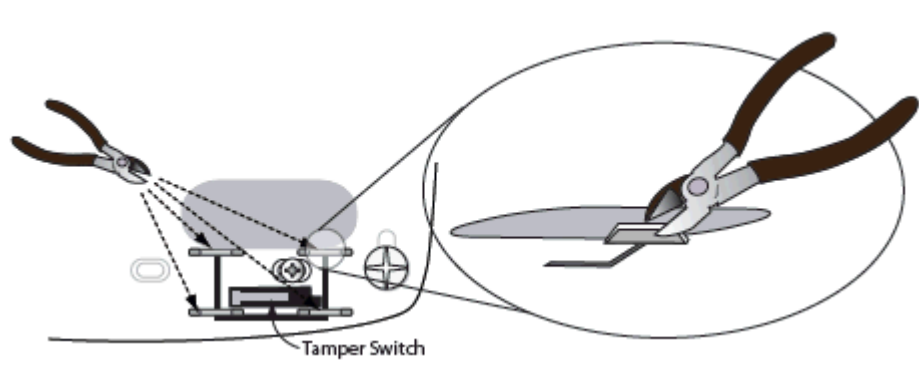


- Wiring an off-the-wall tamper:

TYPE 2: "Off-the-Wall" Tamper

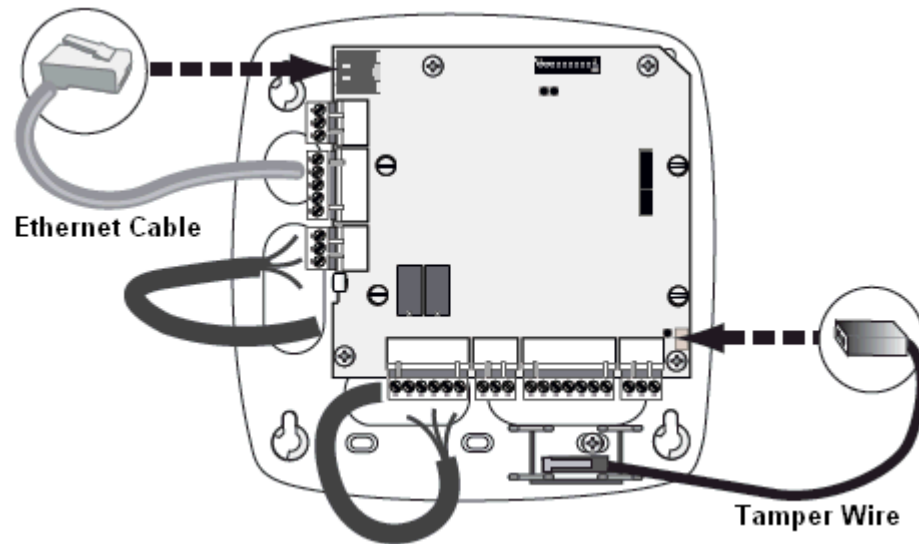


5. Set the tamper, using pliers at the four locations indicated below.



**Warning:** Do **not** apply power at this time.

6. Connect the Ethernet cable and the Tamper wire, as shown below.



7. Set DIP switch settings for the panel address, communication termination and biasing. See [DIP Switch Settings](#), page 37.
8. Check all wiring at this time.



**Caution:** Improper wiring can cause damage to the NetAXS-123 at power up and result in a loss of warranty.

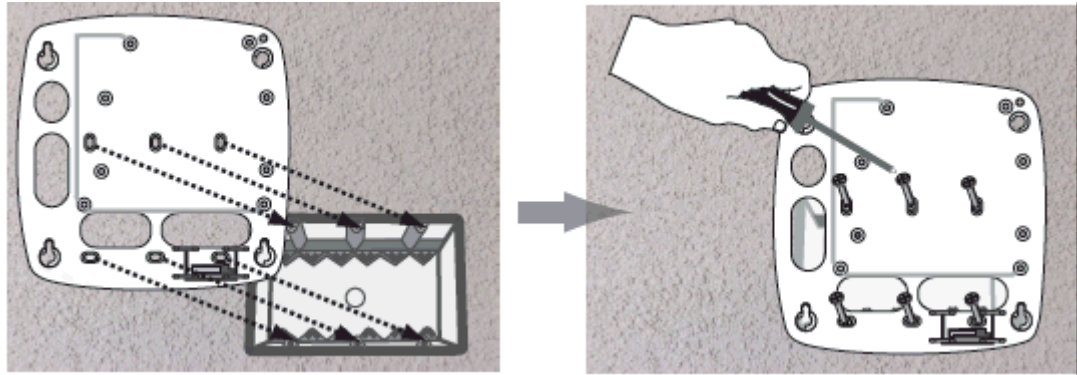
9. Apply power to the panel.
10. Check for the Run LED for a successful power-up. If the LED is blinking green, the panel is powered up successfully.
11. Close the cover.



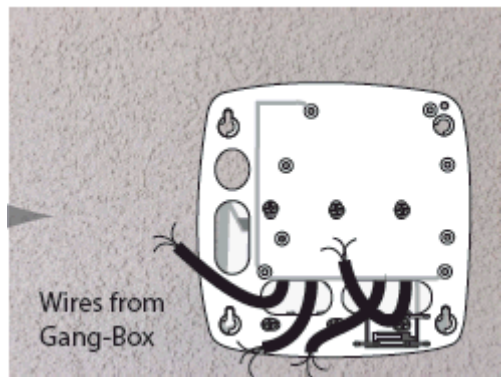


### 3.1.2 Installing over a Gang Box

1. Review the panel layout, cable runs, and power needs.
2. Mount the back of the panel on the gang box.



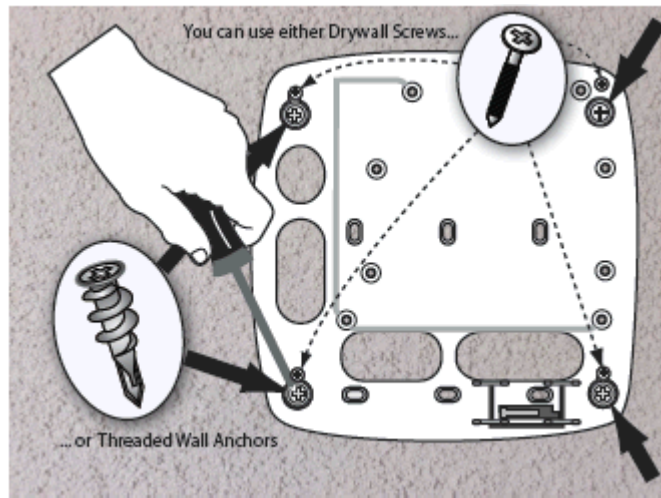
3. Pull the wires from the gang box through the knockout holes in the base of the enclosure.



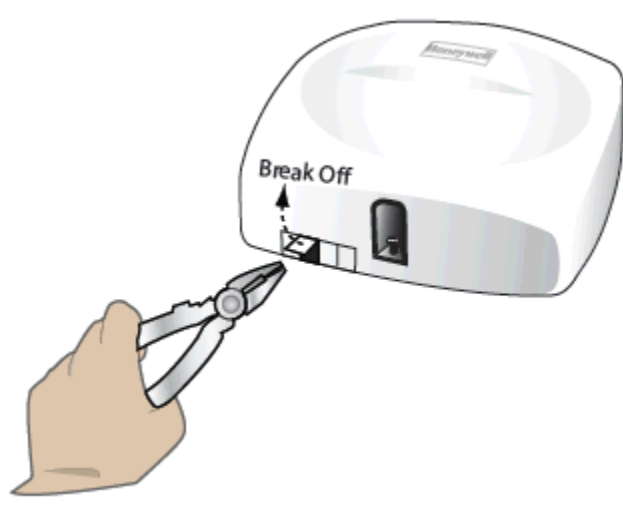
4. Perform steps 3 through 10 in the preceding section ( [Installing on a Wall](#), page 11) to complete the installation of the panel over a gang box.

### 3.1.3 Installing on a Flat Surface

1. Review the panel layout, cable runs, and power needs.
2. Mount the back of the enclosure on the surface, either with drywall screws or threaded wall anchors.



3. Break off the appropriate plastic wiring tabs, using pliers.



4. Perform steps 3 through 10 in [Installing on a Wall](#), page 11 to complete the installation of the panel over a horizontal surface.

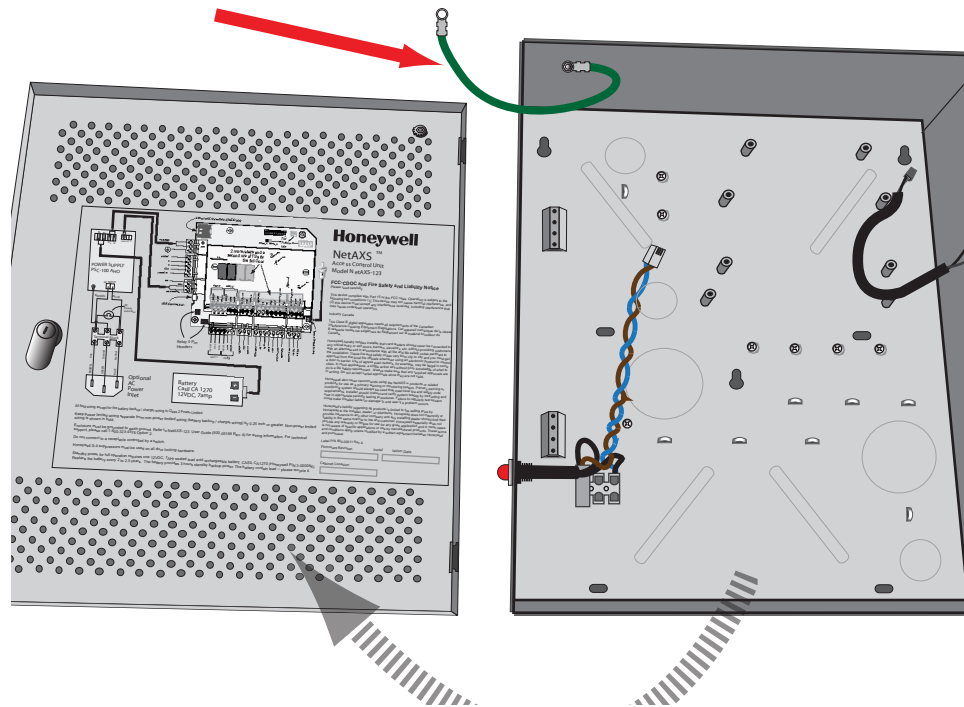
## 3.2 Installing the Standard Enclosure Panel



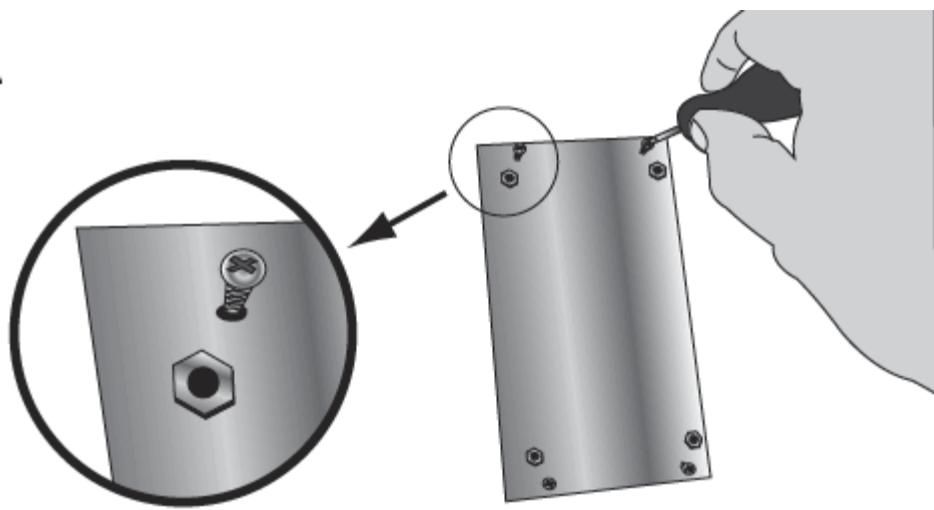
Perform the following steps to install the NetAXS-123 Standard Enclosure panel:

**Warning:** Use a static strap whenever touching the panel to ensure protection from Electrostatic Discharge (ESD).

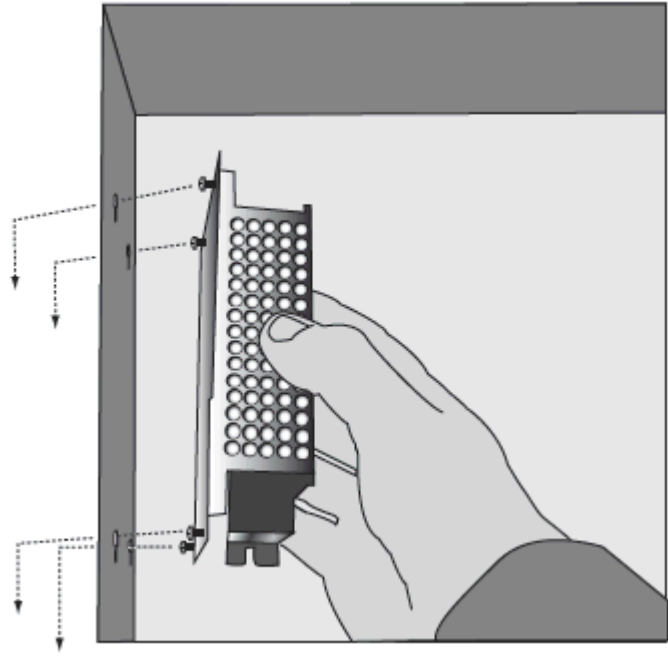
1. (Optional) Remove the green ground wire and the door.



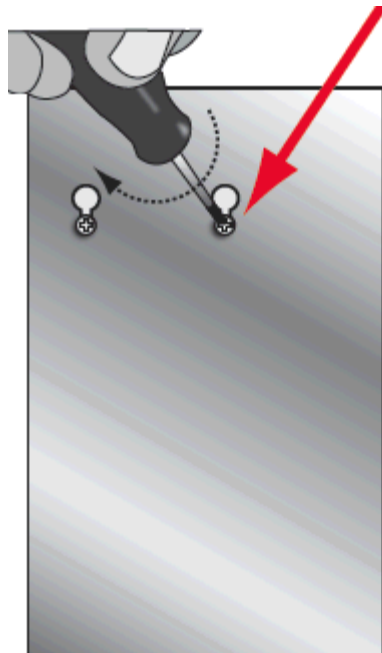
2. Partially install the four power supply screws.



3. Install the power supply.
  - a. Fit the power supply screws through the key holes in the left side of the cabinet, and seat the power supply by pulling down.



- b. From the outside of the cabinet, tighten the screws to lock the power supply in place.



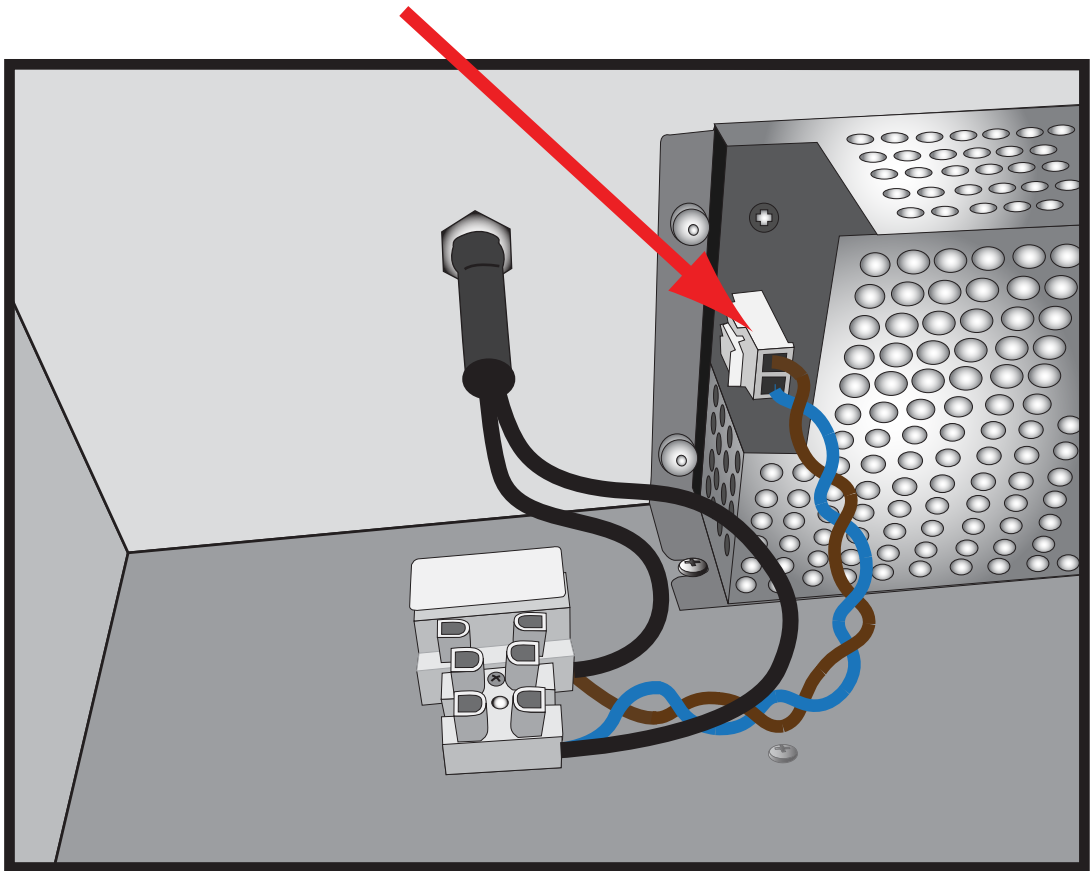
- c. Inside the cabinet, screw in the two self-tapping screws (supplied in the product box) at the top and bottom of the power supply.



**Warning:** These screws **must** be installed to ground the power supply to the enclosure.



- d. Plug the connector that is attached to the blue and brown wires into the power supply.

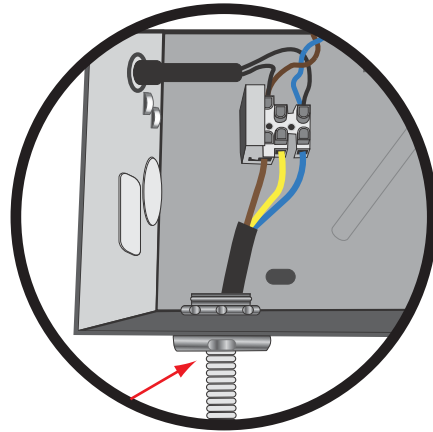


4. Select one of the following three possible entry points for the power cable:



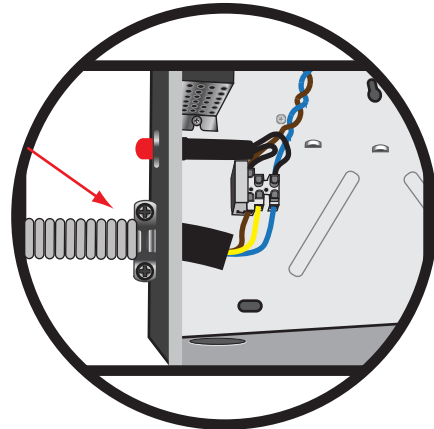
**Warning:** Do not apply power at this time. Be sure the power cable is disconnected from the external power source before following this step.

- Through the bottom conduit knockout, which directly connects AC power to the terminal block.



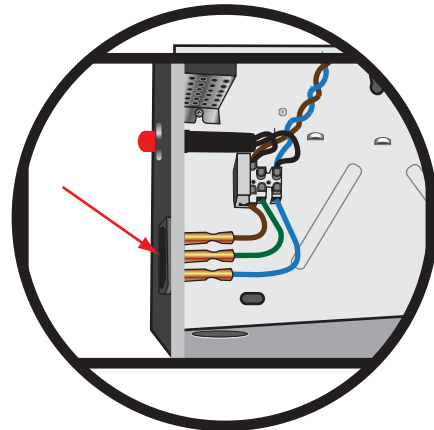
OR

- Through the side conduit knockout, which also directly connects AC power to the terminal block.

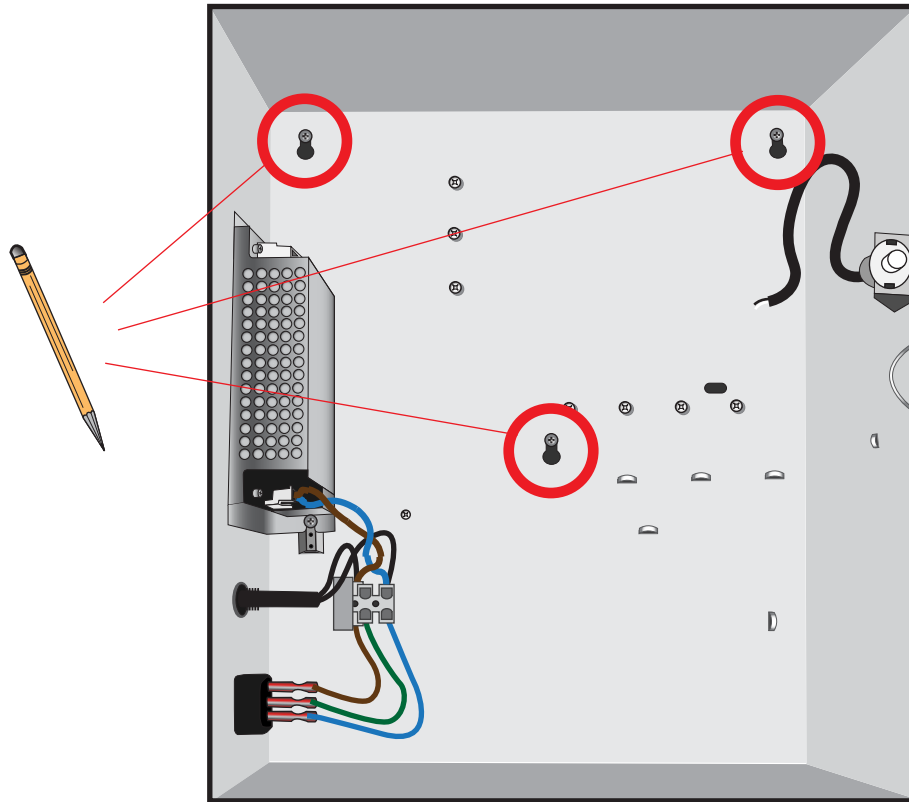


OR

- Through the optional AC input receptacle. **Note:** the brown and blue wires must be twisted together from the point of entry at the AC input receptacle to the Terminal Block.



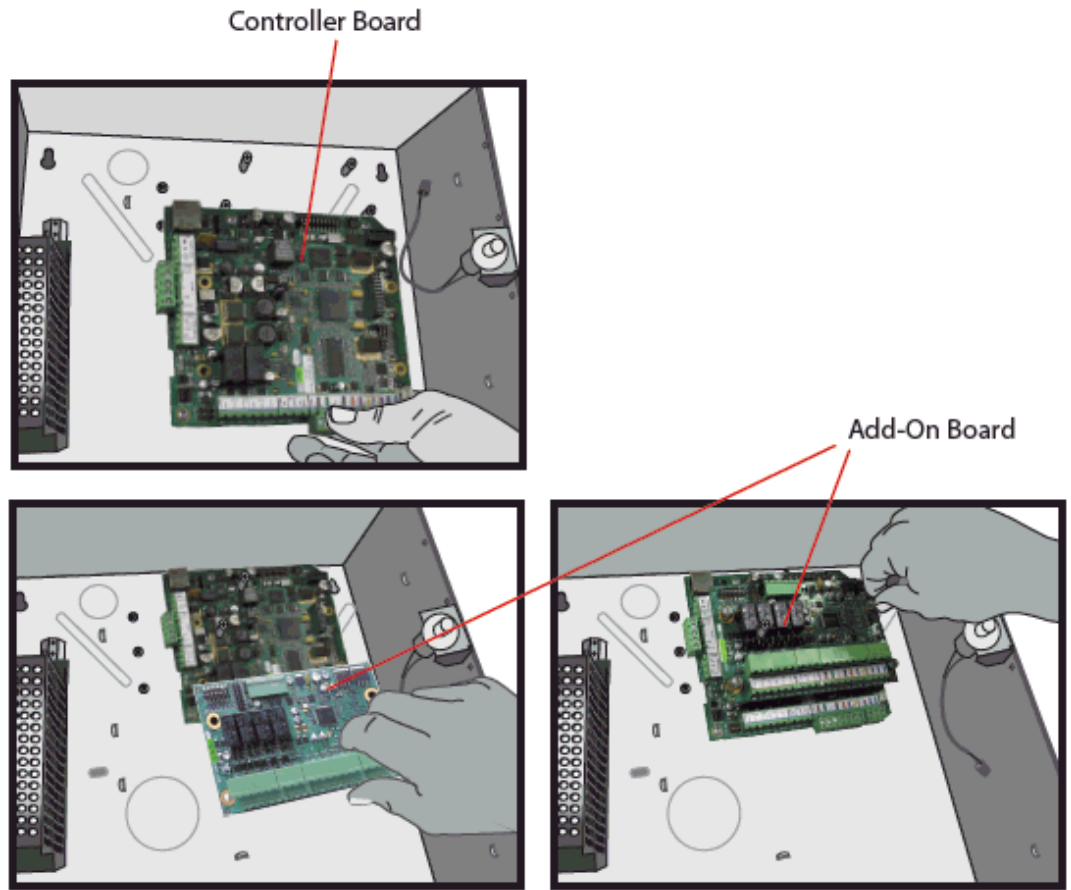
5. Use a pencil to mark the location of the holes on the wall.



6. Screw the NetAXS-123 Controller Board with the four captive screws



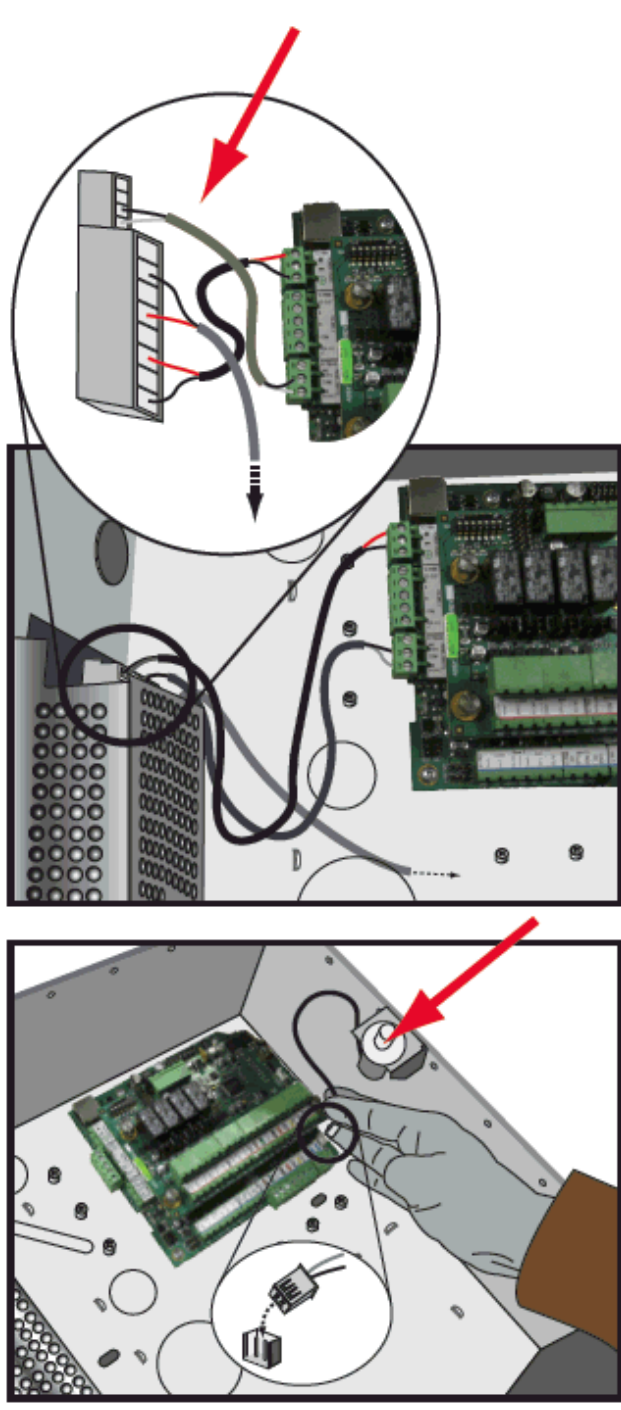
7. Hold the Add-On Board over the Controller Board and seat the board-to-board connector into the Controller Board. Secure the Add-On Board onto the Controller Board with the four captive finger screws. For more explanation of the Add-On Board installation, see the next section, [Installing the Add-On Board](#).



8. Connect the wiring harness, as shown.



**Warning:** DO NOT CONNECT the AC power or the battery wires yet!



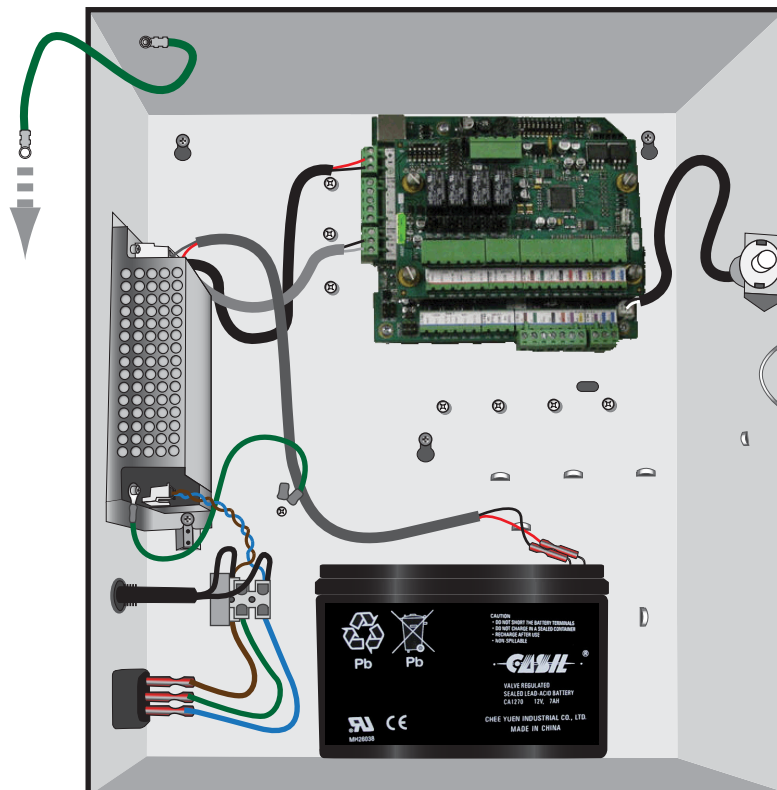
9. Power up the NetAXS-123 Controller Board and configure the system. Refer to the *NetAXS-123 Startup Guide* (800-05780) for instructions.

10. Connect the battery.



11. Attach the door to the cabinet.

12. Re-connect the green ground wire to the cabinet door.

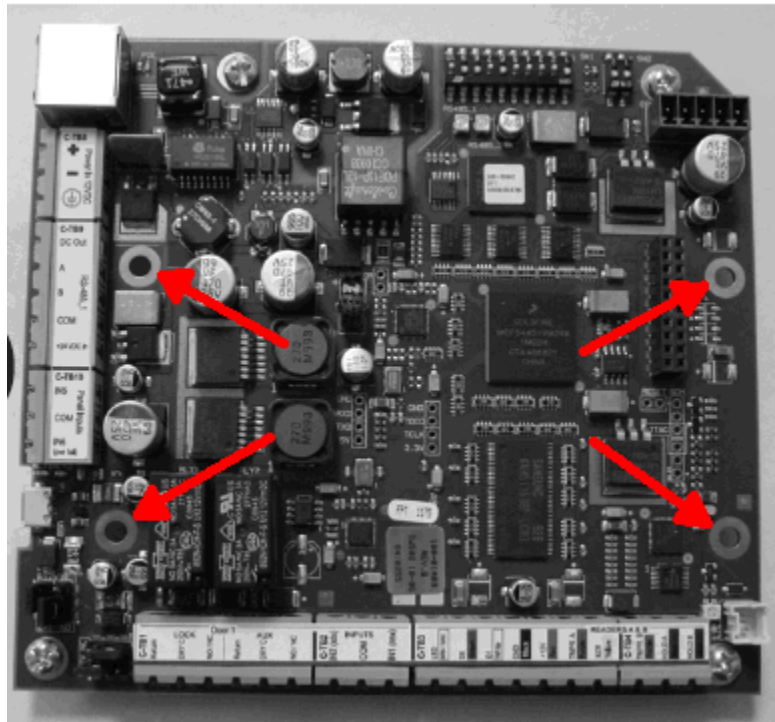


### 3.3 Installing the Add-On Board



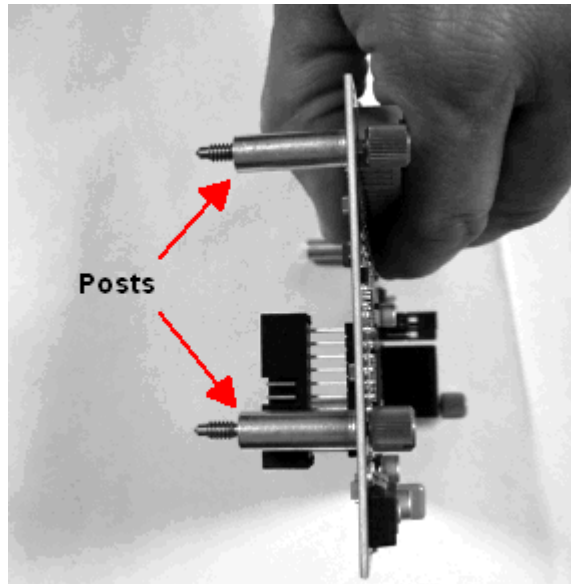
**Warning:** To prevent damage to the NXC1 Controller Board, **remove power** from the NetAXS-123 panel before installing or removing a NetAXS-123 Add-On Board.

1. On the NetAXS-123 Controller Board, locate the four posts called out in the image shown below:

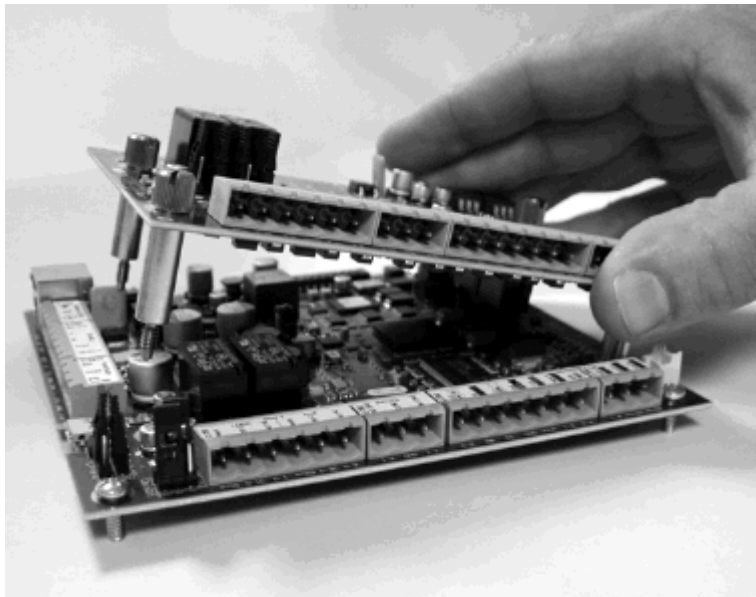


NetAXS-123 Controller Board

2. Pick up the Add-On Board and notice the four posts on the bottom.

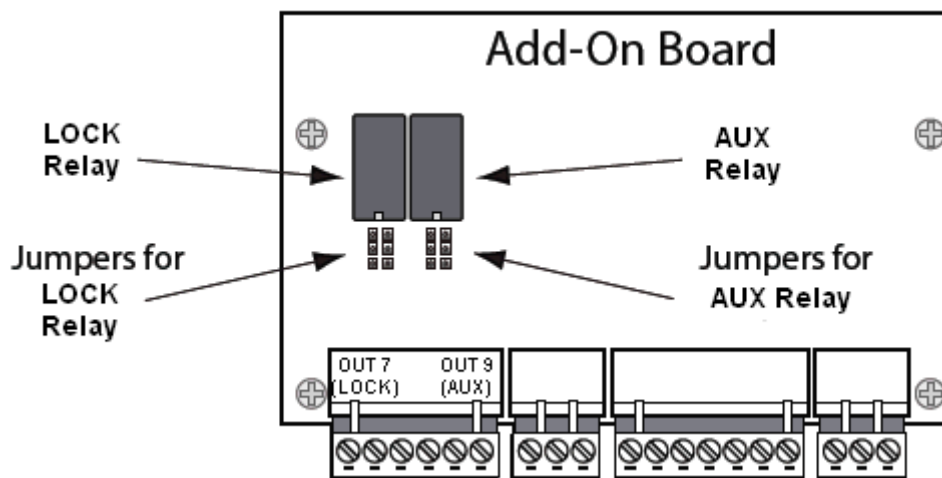


3. Seat the Add-On Board posts into the four posts on the NetAXS-123 Controller Board, aligning the terminal-block edge of the Add-On Board with the terminal-block edge of the Controller Board.



4. With your fingers, tighten the posts' screws.

5. Set the relay jumpers.
  - a. Use the following figure to locate the jumpers.



- b. See [Add-On Board DIP Switch and Jumper Settings](#), page 41, to set the power source (12VDC power or external power) and the relay contact position (Normally Open or Normally Closed).
6. Wire the door strikes. See [Wiring Door Strikes](#), page 34, for instructions.

### 3.4 Wiring the Readers

Each reader port supports one or two readers (entry and exit readers) with Wiegand output format. The maximum power draw is 500 mA for readers and AUX Power combined.

To fully utilize each reader port, a shielded 7-conductor cable (18-22 AWG) is required. If you don't need the HOLD LINE feature, you can use the standard 6-conductor cable (HAS part number NC186-BL).



**Note:** If you are using additional HOLD lines for readers, you will need an 8-conductor cable.

The cable shield should be grounded at the panel only. Grounding at both ends can cause ground loops which can be disruptive. The maximum recommended length of wiring is 500 feet per reader.

Figure 5 shows a single reader on the controller reader port, with the readers wired to terminal block C-TB3 on the Controller Board, and if using Add-On board then use IO-TB3 and IO-TB7. The wires are color-coded to their labeled terminals. Figure 6 shows a multiplexed reader pair attached to the reader port.

Figure 5: Wiring of Single Reader to the Controller Board

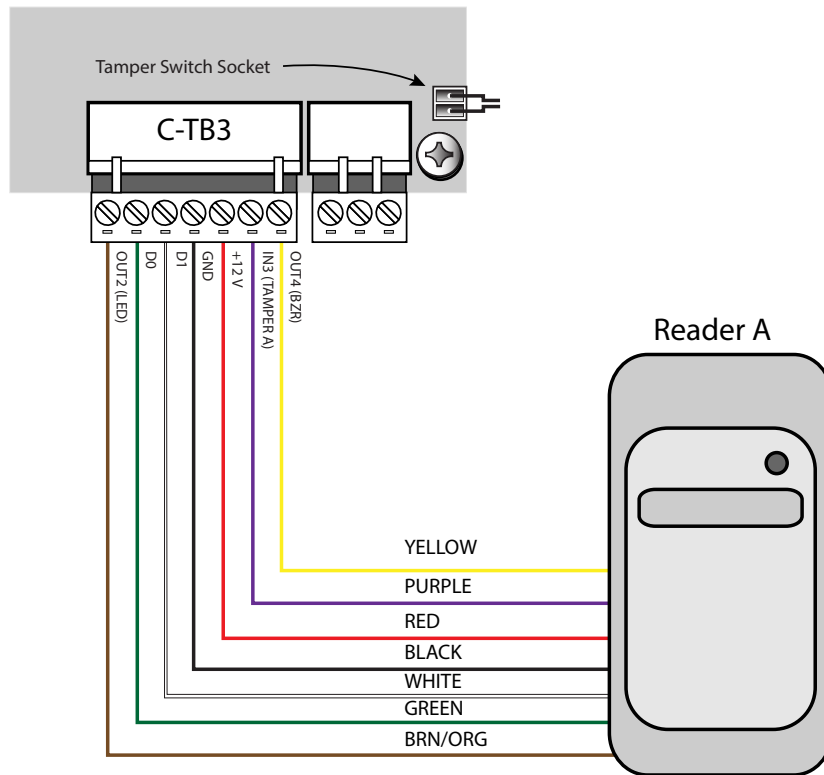
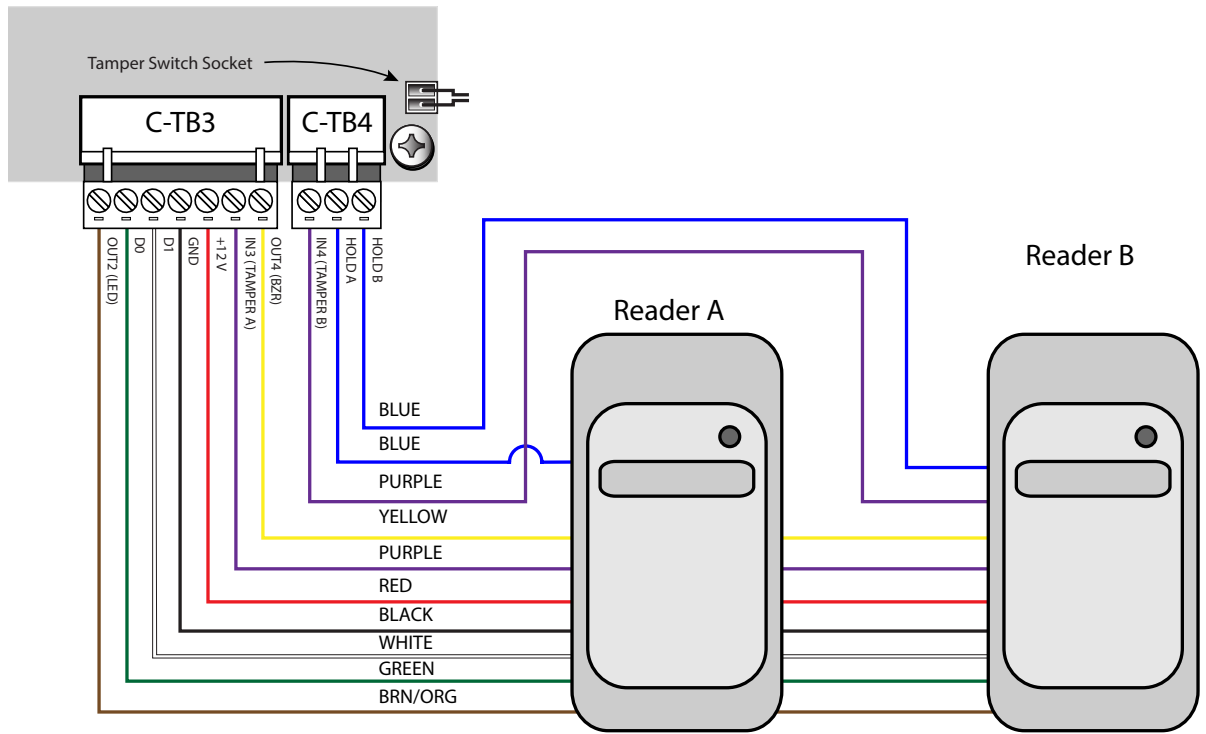




Figure 6: Wiring of Multiple Readers to the Controller Board



**Note:** Reader A and Reader B share LED, DO, D1, GND, and +12V connections. Each reader has its own Tamper and Hold.

The following three tables list the factory controller board I/O default settings for door-1, door-2, and door-3 configurations. These are the mappings for readers, inputs, and outputs. Reader A and Reader B share many common connections.



Table 6 shows the input/output factory default wiring for a one-door configuration on the Controller Board.

**Table 6: Factory Default Configuration Settings for Door 1**

Type	Purpose	Web Default Name	Terminal Block Label	Reader A	Reader B	Other
Input	Egress/ Request to Exit (REX)	Input 1: Door 1 Egress	C-TB2 IN1 (REX)	Input 1 <sup>a</sup>	Input 1 <sup>a</sup>	
	Door Status	Input 2: Door 1 Status	C-TB2 IN2 (STS)	Input 2 <sup>a</sup>	Input 2 <sup>a</sup>	
	Reader Tamper	Input 3: Door TMPR-A	C-TB3 TMPR A	Input 3		
	Reader Tamper	Input 4: Door TMPR-B	C-TB4 TMPR B		Input 4	
	General	Input 5: GENERAL PURPOSE	C-TB10 IN5			Input 5
	Power/ General	Input 6: POWER	C-TB10 IN6 (PWR FAIL)			Input 6
	Panel Tamper	PANEL TAMPER	ALTER_T MPR			Input 20
Output	Lock Relay	Output #1	C-TB1 LOCK	Output 1 <sup>a</sup>	Output 1 <sup>a</sup>	
	Reader LED	Output #2	C-TB3 LED	Output 2 <sup>a</sup>	Output 2 <sup>a</sup>	
	AUX Relay	Output #3	C-TB1 AUX			Output 3
	Reader Buzzer	Future Feature	C-TB3 BZR	Output 4 <sup>a</sup>	Output 4 <sup>a</sup>	

<sup>a</sup> Readers A and B share the same connection.

**Notes:**



- The Controller Board includes Inputs 7 and 8 but they are reserved for system use.
- The Controller Board also includes Output 5 and Output 6, both of which are reserved by the system to control the boards' RUN LEDs and thus are unavailable for user control.
- Reader LED, while it is an output, should never be used to control anything other than its associated reader's LED.

Table 7 lists the factory I/O board default settings for a door 3. These mappings should be used for the readers, inputs, and outputs when either a 1- or 2-door Add-On Board is attached to the board-to-board connector on the Controller Board.

**Table 7: Factory Default Configuration Settings for Door 2**

Type	Purpose	Web Default Name	Terminal Block Label	Reader A	Reader B	Other
Input	Egress/ Request to Exit (REX)	Input 9: Door 2 Egress	IO-TB2 IN9 (REX)	Input 9 <sup>a</sup>	Input 9 <sup>a</sup>	
	Door Status	Input 10: Door 2 Status	IO-TB2 IN10 (STS)	Input 10 <sup>a</sup>	Input 10 <sup>a</sup>	
	Reader Tamper	Input 11: Door TMPR-A	IO-TB3 TMPR A	Input 11		
	Reader Tamper	Input 12: Door TMPR-B	IO-TB4 TMPR B		Input 12	
Output	Lock Relay	Output #7	IO-TB1 LOCK	Output 7 <sup>a</sup>	Output 7 <sup>a</sup>	
	Reader LED	Output #8	IO-TB3 LED	Output 8 <sup>a</sup>	Output 8 <sup>a</sup>	
	AUX Relay	Output #9	IO-TB1 AUX			Output 9
	Reader Buzzer	Future Feature	IO-TB3 BZR	Output 10 <sup>a</sup>	Output 10 <sup>a</sup>	

<sup>a</sup> Readers A and B share the same connection.

Table 8 lists the factory Add-On Board default settings for a door 3. These mappings should be used for the readers, inputs, and outputs when either a 1- or 2-door Add-On Board is attached to the board-to-board connector on the controller board.

**Table 8:** Factory Default Configuration Settings for Door 3

Type	Purpose	Web Default Name	Terminal Block Label	Reader A	Reader B	Other
Input	Egress/ Request to Exit (REX)	Input 9: Door 2 Egress	IO-TB2 IN9 (REX)	Input 13 <sup>a</sup>	Input 13 <sup>a</sup>	
	Door Status	Input 10: Door 2 Status	IO-TB2 IN10 (STS)	Input 14 <sup>a</sup>	Input 14 <sup>a</sup>	
	Reader Tamper	Input 11: Door TMPR-A	IO-TB3 TMPR A	Input 15		
	Reader Tamper	Input 12: Door TMPR-B	IO-TB4 TMPR B		Input 16	
Output	Lock Relay	Output #11	IO-TB5 LOCK	Output 11 <sup>a</sup>	Output 11 <sup>a</sup>	
	Reader LED	Output #12	IO-TB7 LED	Output 12 <sup>a</sup>	Output 12 <sup>a</sup>	
	AUX Relay	Output #13	IO-TB5 AUX			Output 13
	Reader Buzzer	Future Feature	IO-TB7 BZR	Output 14 <sup>a</sup>	Output 14 <sup>a</sup>	

<sup>a</sup> Readers A and B share the same connection.



**Notes:**

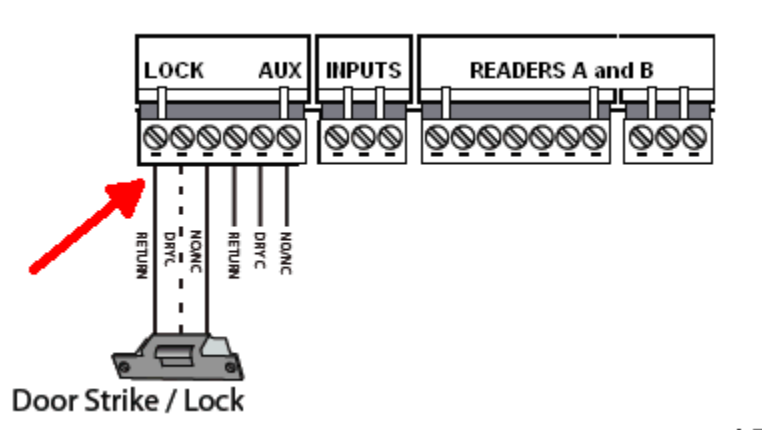
- Reader LEDs, while they are outputs, should never be used to control anything other than their associated reader LEDs.
- Incorrect wiring of the reader to the panel can cause the panel to abnormally stop operating or to operate erratically.

- NetAXS-123 supports a variety of Wiegand reader models. Some readers have only one brown wire for LED control; others have two possible LED control inputs--orange for the green LED and brown for the red LED. RED is the normal state of the Reader LED operation. The LED turns GREEN for two seconds after a valid card read. Although readers operate similarly, LED control can vary, depending on the manufacturer. Therefore, your readers may require some testing to identify the right LED wire when the reader uses Dual LED wires. If you are using Dual Line LED control, it's recommended that you try the ORANGE-colored wire for a GREEN LED.
- The Reader Buzzer feature is not currently supported on the NetAXS-123 panels.

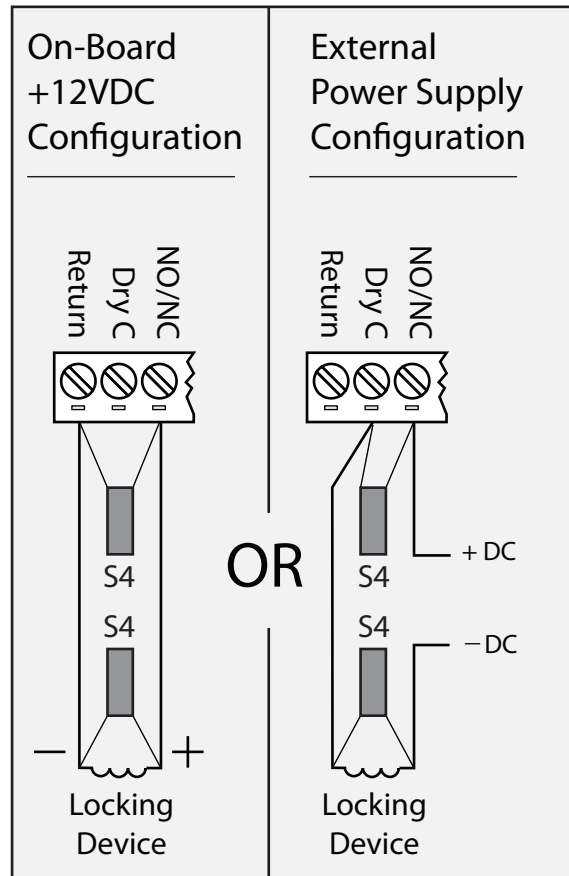
### 3.5 Wiring Door Strikes

Follow these steps to wire the door strikes to the Controller and Add-On Boards:

1. Use the following figure to locate the door strike terminals on the board.



2. Use the following figure to wire the door strike/mag lock according to the power supply used. Be sure to use the S4 suppressor kits as shown below.



**Notes:**

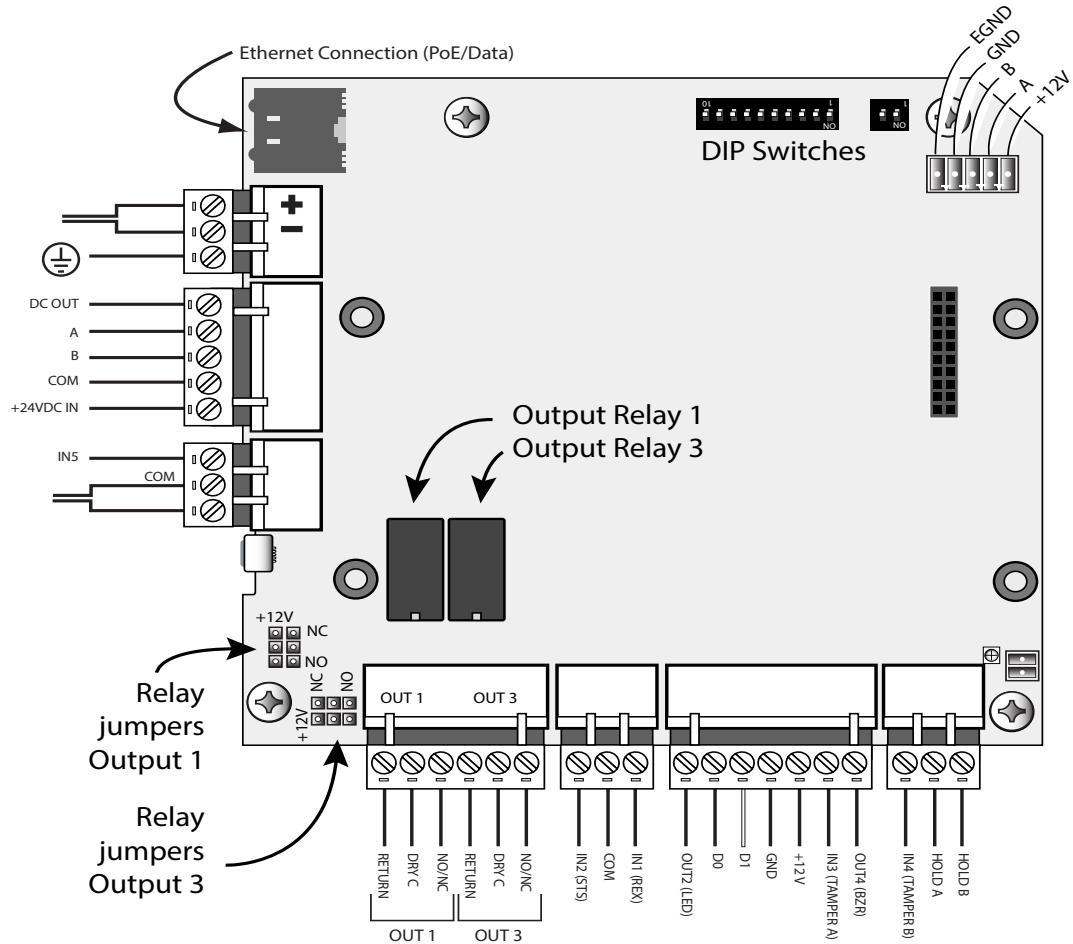
- As shown in the illustration above, the Dry C terminal for the On-Board option should not be connected. Similarly on the External Power Supply side, the Return terminal should not be connected.
- The On-Board option is used when jumpers are set for 12VDC. The External Power Supply options is used when the jumpers are set to External Power (see [Jumper Settings](#), page 40 for details).
- For dry configuration types, the power supply must be voltage compatible, listed to UL 294 or UL 609 for UI installations and CAN/ULC-S318 for ULC installations, and able to supply sufficient backup power.

### 3.6 Setting DIP Switches and Jumpers

#### 3.6.1 Controller Board DIP Switch and Jumper Settings

Figure 7 locates the NetAXS-123 DIP switch panel and the output 1 and output 3 relay jumpers.

Figure 7: Controller Board DIP Switch and Jumper Location



### DIP Switch Settings

Use the following DIP switch configurations to set the panel address.

**Table 9:** NetAXS-123 SW1 DIP Switch Settings

S1	S2	S3	S4	S5	S6	S7 <sup>a</sup>	S8 <sup>b</sup>	S9 <sup>b</sup>	S10	Selection
ON	OFF	OFF	OFF	OFF						Address 1 (default)
OFF	ON	OFF	OFF	OFF						Address 2
ON	ON	OFF	OFF	OFF						Address 3
OFF	OFF	ON	OFF	OFF						Address 4
ON	OFF	ON	OFF	OFF						Address 5
OFF	ON	ON	OFF	OFF						Address 6
ON	ON	ON	OFF	OFF						Address 7
OFF	OFF	OFF	ON	OFF						Address 8
ON	OFF	OFF	ON	OFF						Address 9
OFF	ON	OFF	ON	OFF						Address 10
ON	ON	OFF	ON	OFF						Address 11
OFF	OFF	ON	ON	OFF						Address 12
ON	OFF	ON	ON	OFF						Address 13
OFF	ON	ON	ON	OFF						Address 14
ON	ON	ON	ON	OFF						Address 15
OFF	OFF	OFF	OFF	ON						Address 16
ON	OFF	OFF	OFF	ON						Address 17
OFF	ON	OFF	OFF	ON						Address 18
ON	ON	OFF	OFF	ON						Address 19
OFF	OFF	ON	OFF	ON						Address 20
ON	OFF	ON	OFF	ON						Address 21

**Table 9:** NetAXS-123 SW1 DIP Switch Settings (continued)

S1	S2	S3	S4	S5	S6	S7 <sup>a</sup>	S8 <sup>b</sup>	S9 <sup>b</sup>	S10	Selection
OFF	ON	ON	OFF	ON						Address 22
ON	ON	ON	OFF	ON						Address 23
OFF	OFF	OFF	ON	ON						Address 24
ON	OFF	OFF	ON	ON						Address 25
OFF	ON	OFF	ON	ON						Address 26
ON	ON	OFF	ON	ON						Address 27
OFF	OFF	ON	ON	ON						Address 28
ON	OFF	ON	ON	ON						Address 29
OFF	ON	ON	ON	ON						Address 30
ON	ON	ON	ON	ON						Address 31
					OFF					Downstream Panel
					ON					Gateway Panel (Default)
						OFF				Uses the User Provided Ethernet IP address (Default)
						ON				Uses the Default Ethernet IP Address (192.168.1.150)
							OFF	OFF		RS-485_1 termination (EOL) DISABLED
							ON	ON		RS-485_1 termination (EOL) ENABLED (Default)
									OFF	Future Use (Default)
									ON	Future Use

a. DIP Switch 7 does NOT require a panel reboot to take effect. This does not affect the USB IP address.



- b. Both DIP Switch 8 and DIP Switch 9 need to be either ON or OFF to be properly configured.

If the panel will be configured in EVL Mode, leave S1 through S5 set to factory default.

**Table 10:** NetAXS-123 SW2 DIP Switch Settings

S1 <sup>a</sup>	S2 <sup>a</sup>	Selection
OFF	OFF	RS-485_2 termination (EOL) DISABLED
ON	ON	RS-485_2 termination (EOL) ENABLED (FUTURE) (Default)

- a. Both DIP Switch 1 and DIP Switch 2 need to be either ON or OFF to be properly configured.

**Note:** When you use the DIP switches to reset a panel to the original factory default values, the Event History is lost and any customized databases are removed, so the panel is reset with the original factory default database. This does not affect the Ethernet IP address.

You can also use this ASCII command:

```
_I=pn_R
```

This command resets the panel to the original factory default values, but it only removes the customized databases and restores the original factory default database. The Event History is retained.

**To reset the panel to the factory default values:**

Make a note of the existing settings on SW1 DIP switches.

While the panel is powered up, turn all DIP switches to the OFF position.

Power down, then power the panel back up.

Wait for the panel to come up. The RUN LED should flicker fast.

Set the DIP switches back to their original positions.

Power down, then power the panel back up.

After the the panel comes up, the RUN LED should flash normal.

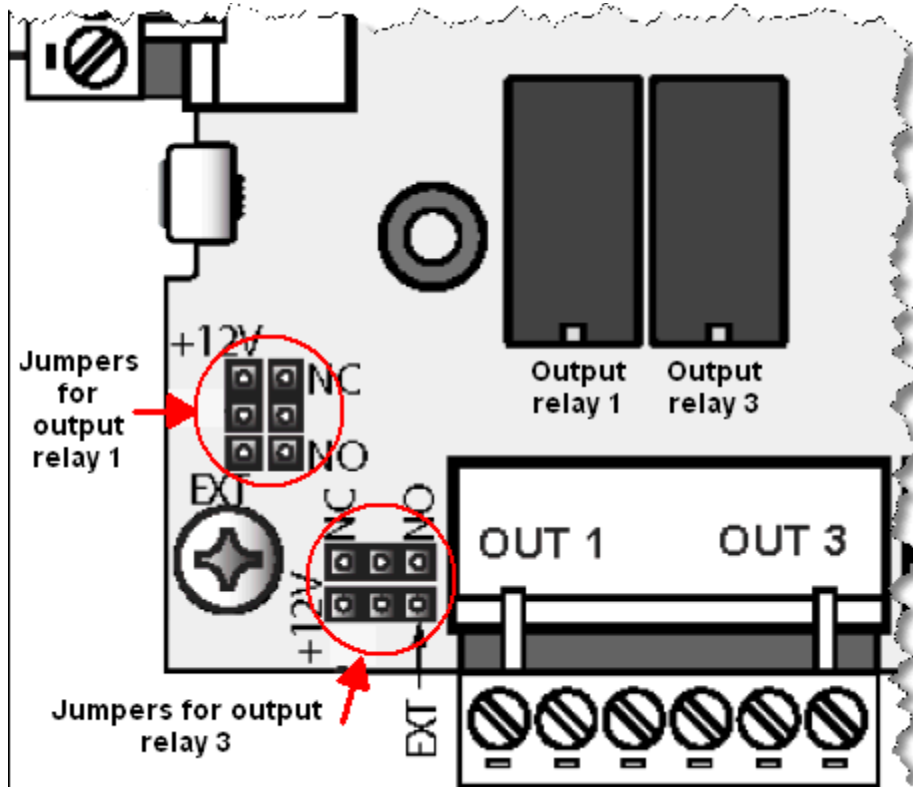
The panel is now reset to the original factory default values.

**Note:** Address 0 is not a valid setting.

### Jumper Settings

The NetAXS-123 Controller Board provides two jumper sets, one each for output relay 1 and output relay 3. Each relay has two 3-pin jumpers associated with it. One jumper selects either external power (EXT) or self-whetted (on-board, +12V) power to be applied to the relay contact load. The other jumper is used to select Normally Open (NO) or Normally Closed (NC) relay contacts. There is a total of four 3-pin jumpers (two per relay) on the Controller Board.

Figure 8: NetAXS-123 Controller Board Jumpers



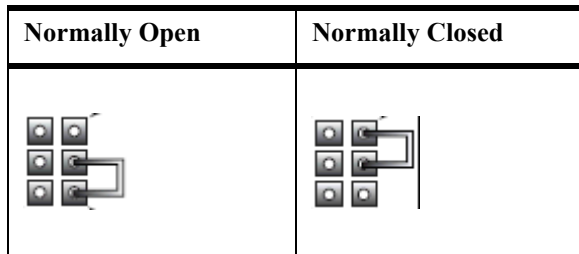
Each relay is associated with two jumpers. As shown below, a relay's left jumper configures the relay's load source (12VDC or External), and the right relay jumper configures the relay contact type (Normally Closed or Normally Open).

- Setting the jumpers to configure the power source:

12VDC	External

**Note:** The power source selected by the jumper settings shown above configure the power source for the relay. It does not configure the power source for the panel.

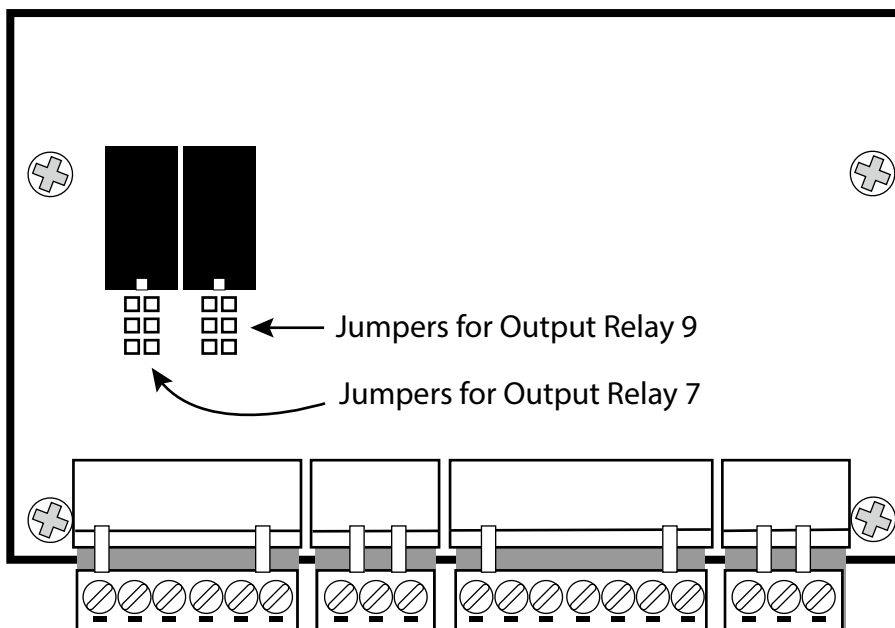
- Setting the jumpers to configure the relay contact type:



### 3.6.2 Add-On Board DIP Switch and Jumper Settings

Figure 8 locates the NetAXS-123 Add-On Board DIP switch panel and the Output 7 and Output 9 relay jumpers.

Figure 9: Add-On Board Jumper Location

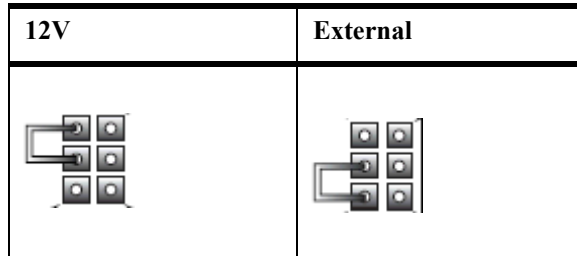


**Note:** The figure above shows a one-door Add-On Board configuration. If you are instead using a two-door Add-On Board, you will see an additional two relays (and their corresponding jumper sets) to the right of the relays shown. The additional relays and jumpers will configure output 11 and output 13, and all of the jumpers are configured in the same manner.

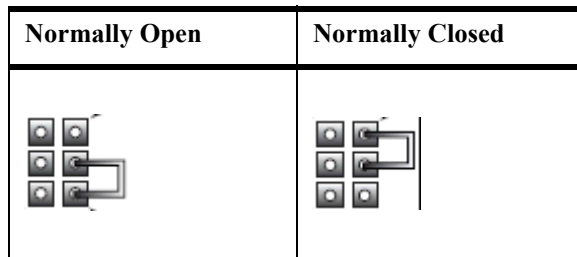
The NetAXS-123 Add-On Board provides two jumper sets, one each for output relay 7 and output relay 9. Each relay has two 3-pin jumpers associated with it. One jumper selects either self-whetted (on-board, +12V) or external power (EXT) to be applied to the relay contact load. The other jumper is

used to select Normally Open (NO) or Normally Closed (NC) relay contacts. There is a total of four 3-pin jumpers (two per relay) on the controller board.

- Setting the jumpers to configure the power source:



- Setting the jumpers to configure the relay position:



## 3.7 Downstream I/O



**Note:** UL has not evaluated the compatibility of downstream I/O devices with the NetAXS-123 panel.

In some applications, the number of system inputs or outputs exceeds the number that is standard on the NetAXS-123 panel. The solution is to add a combination of NX4IN and NX4OUT downstream I/O devices external to the NetAXS-123 enclosure on a dedicated RS-485 Downstream Input/Output (I/O) bus. A maximum of two NX4IN and a maximum of four NX4OUT for a total of six Downstream I/O Devices can be added to the downstream bus.

A NX4IN module has 32 supervised, four-state inputs that are limited to 2.2K ohms resistance. The NX4OUT has two supervised inputs and 16 SPDT relay outputs; each input is limited to 2.2K ohms resistance. Refer to the individual installation manuals for I/O wiring details.

The downstream I/O bus is wired into the NetAXS-123 C-TB5 (RS485-2) terminal block. The C-TB5 connector is labelled “RS485-2” on the board. The downstream bus has a fixed baud rate and communicates to the downstream I/O devices using a polling technique.

Each downstream I/O device needs to have a unique address for proper communication. Each one also has some configuration jumpers that need to be positioned correctly. The following table lists the DIP switch and jumper settings for the NX4IN and NX4OUT downstream devices.

If the NetAXS-123 controller is physically terminating one end of the RS-485 bus line as shown in [Figure 10](#) on page 46, set SW2 positions 1 & 2 to ON.

**Table 11:** Downstream I/O Devices DIP Switch and Jumper Settings

Module	Setting	Value
NX4IN	DIP switches	Address (switches 1-6) - 1 or 2
		Baud rate (switches 7 and 8) - 7 = OFF, 8 = ON
		OP Mode (switches 9 and 10) - 9 = OFF, 10 = OFF
	Jumper settings	JP1 – ON, positions 1 and 2 (if the module is the last module on the downstream bus), OFF positions 2 and 3 (if the module is not the last module on the downstream bus) Note: JP1 settings on NX4IN is opposite of NX4OUT.
		JP2 - any setting
		JP3 - any setting
		JP4 - NORMAL (Positions 1 and 2)
NX4OUT	DIP switches	Address (switches 1-6) - 3 through 6
		Baud rate (switches 7 and 8) - 7 = OFF, 8 = ON
		OP Mode (switches 9 and 10) - 9 = OFF, 10 = OFF
	Jumper settings	JP1 - ON, positions 2 and 3 (if the module is the last module on the downstream bus); OFF, positions 1 and 2 (if the module is not the last module on the downstream bus) Note: JP1 settings on NX4OUT is opposite of NX4IN.
		JP2 - NORMAL, positions 1 and 2

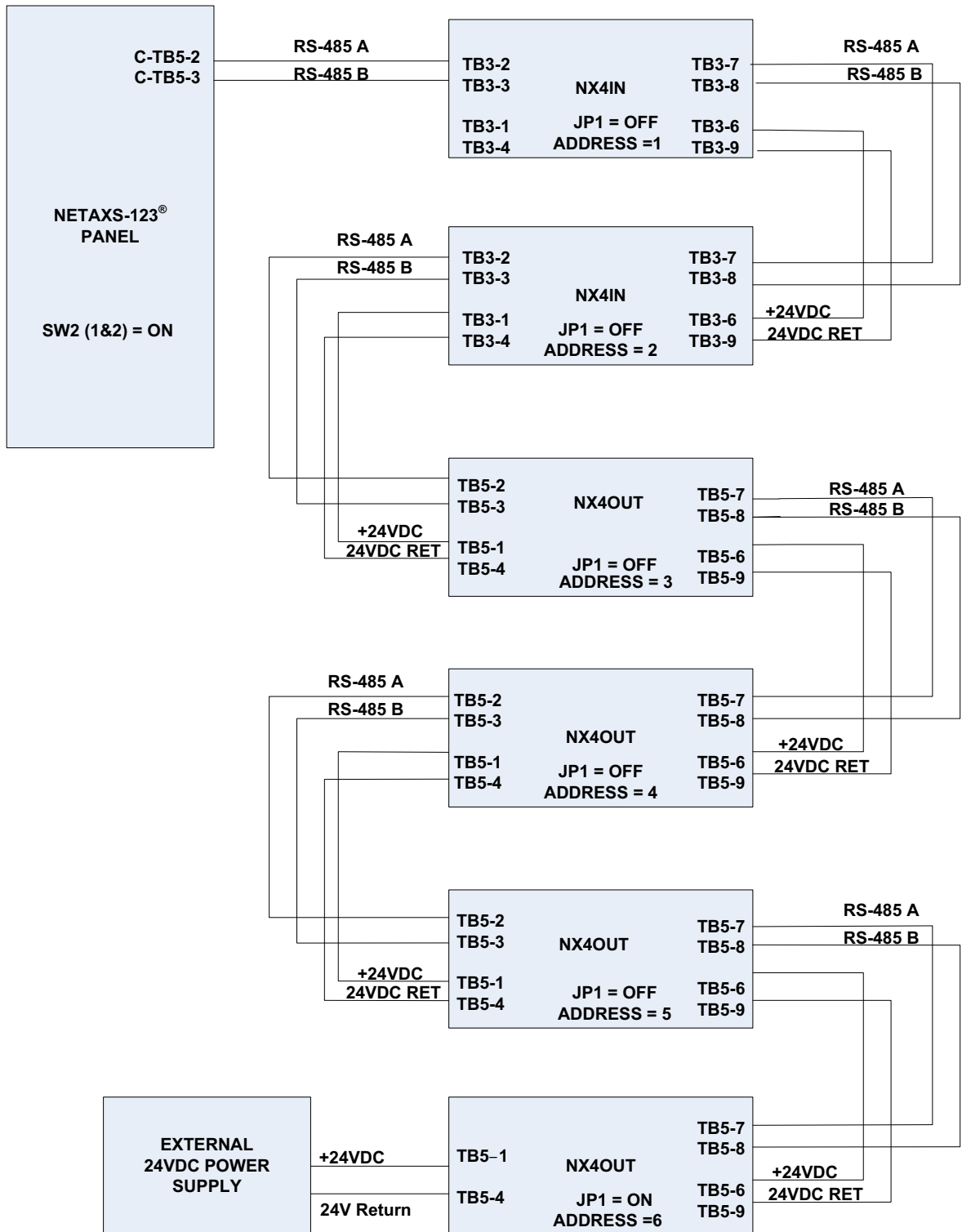


**Note:** If a NX4IN is not required in a system, start addressing the NX4OUT at DIP switch 3. If a NX4IN is configured with an address other than 1 or 2, the NetAXS-123 panel will not communicate with it. Likewise, if a NX4OUT is configured with an address other than 3 through 6, the NetAXS-123 panel will not communicate with it.

The NetAXS-123 board is not intended to provide either module power or module output load power for downstream I/O. A separate 24 VDC supply should be used to provide power to all downstream modules and output loads.

The following figure shows the default downstream I/O system configuration with communication and power wiring.

Figure 10: Default Downstream I/O Configuration with Wiring





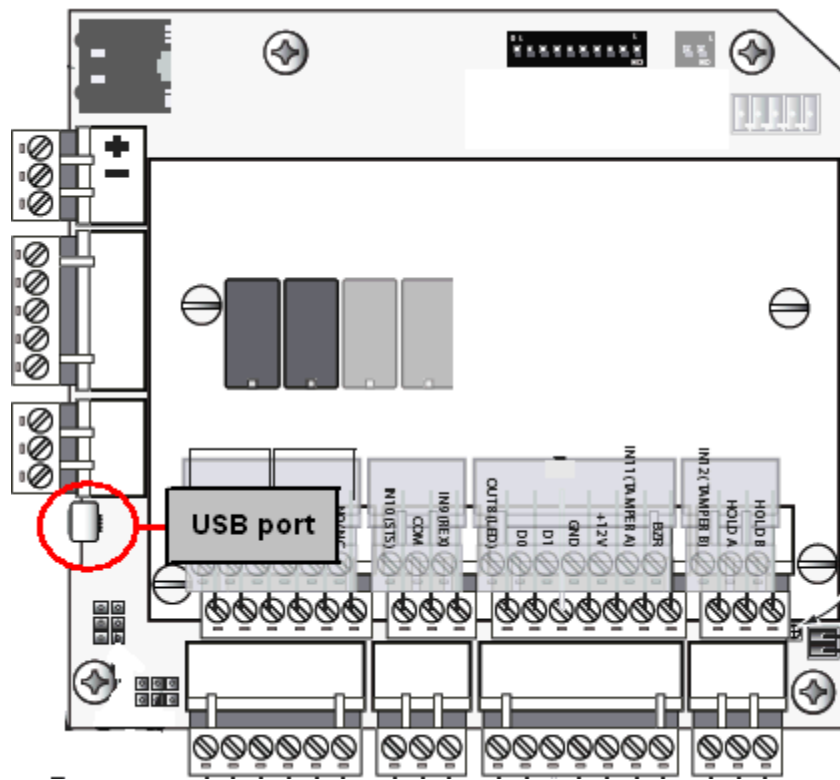
## 3.8 Communications

### 3.8.1 USB Communications

The NetAXS-123 Controller Board provides a version 2.0 USB port that connects to the web browser or to a WIN-PAK host. The following figure identifies the location of the port on the board.



**Note:** USB communication requires the USB A to MicroUSB B cable that is supplied with the panel.



You will need to install a USB driver to support the connection. Follow these steps:



**Warning:** Do NOT connect the USB cable to the panel until AFTER the drivers are installed.

1. Insert the NetAXS-123 Product CD into your Windows-based computer. The NetAXS-123 product menu opens in the web browser.

**Note:** If the product menu does not open automatically in your browser, right click on the **Start** button and select **Explore**. In the folder tree, find and click the CD drive that is reading the NetAXS-123 Product CD.

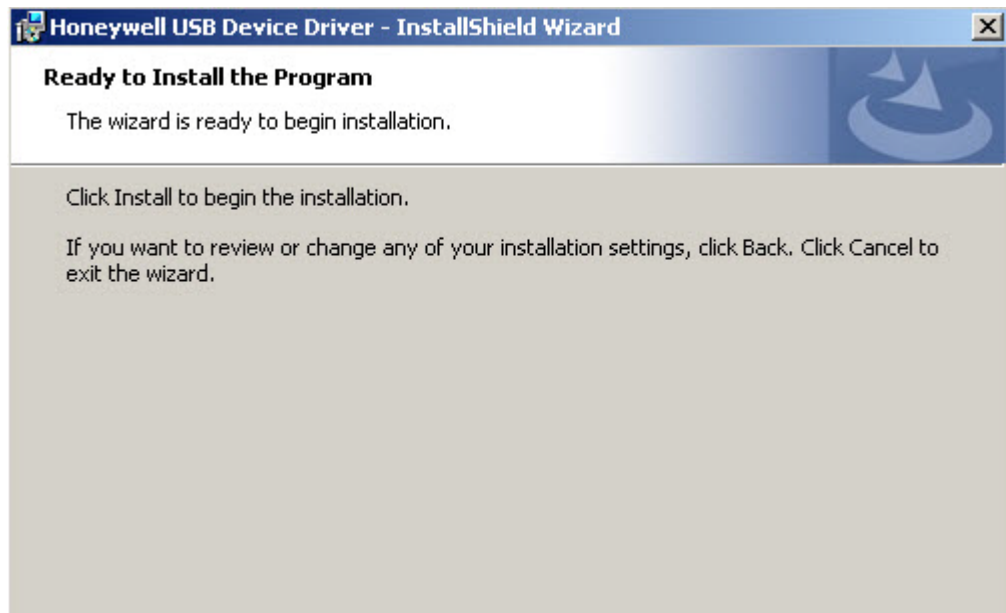
2. Click **Install USB Drivers** on the product menu to start the USB driver installation wizard.



3. Click **Next** to display the Ready to Install the Program screen.

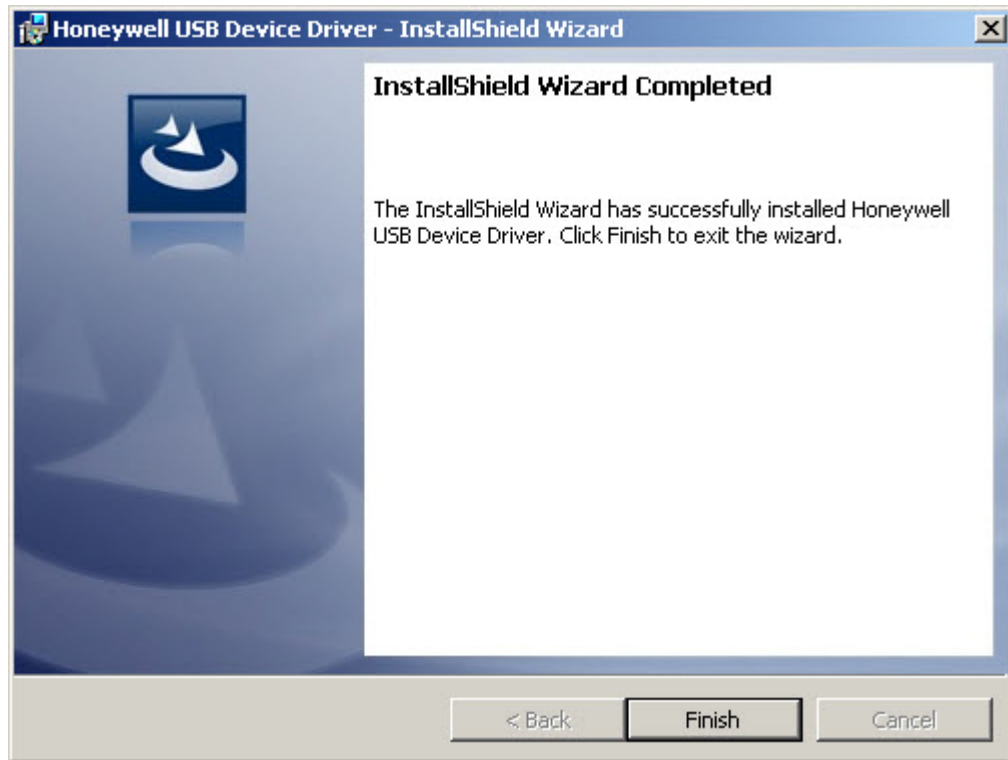


**Note:** If confirmation dialog boxes pop up before or during the installation, click the appropriate boxes to allow or approve the installation.



4. Click **Install** to initiate the installation.

5. When the installation is complete, the closing screen appears:



6. Click **Finish**.
7. Connect the computer to the NetAXS-123 controller with a USB-A to Micro USB-B cable.
8. Turn on the power to the NetAXS-123 controller.

For login information, go to <https://192.168.2.150>.

### 3.8.2 RS-485 Communications

If a NetAXS-123 panel is to be placed onto a preexisting RS-485 dropline loop (NetAXS) it must be setup as the Gateway panel. The interface allows the wiring of a Multidrop communication network of up to 4,000 feet (1200 m) in length. Only one host converter device per dropline is supported.



**Notes:**

- NetAXS-123 must be the Gateway panel on an existing NetAXS loop. The NetAXS-123 panel cannot be placed as a Downstream panel when the Gateway is a NetAXS system.
- RS-485 communication has not been evaluated by UL or ULC.

DIP switch position 6 on the NetAXS-123 panel selects whether the panel is a Gateway or Downstream panel. The switch in the OFF position configures the panel as a Downstream panel; ON configures a Gateway. The panel must be power cycled for a new switch setting to be recognized. DIP switch positions 1-5 are used to select the panel's address on the network. Refer to [Table 9](#) for DIP switch setting information.

DIP switch SW1 positions 8 and 9 are provided for supplying biasing and end-of-line termination for the RS-485 network. The board ships with the switches active. For a Multidrop RS-485 Line, you must turn ON both switch positions 8 and 9 of SW1. (terminated and biased) at the two end-point panels. At all other panels, set DIP switches 8 and 9 in the OFF position. Both switches on a given panel must be set the same. Note that biasing and termination on both ends are present. Use the SW1 positions 8 and 9 ON on both ends of the RS-485 network.

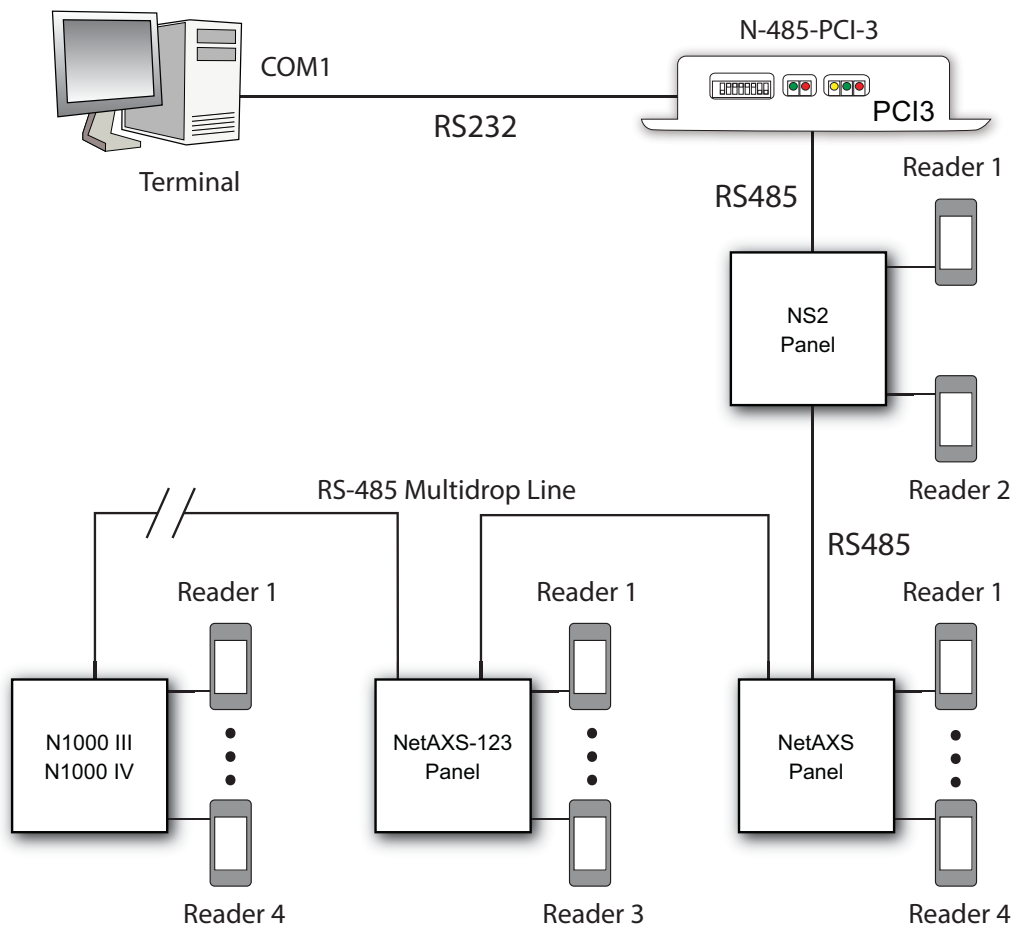


**Note:** For more information on end of line (EOL) termination, contact Honeywell technical support.



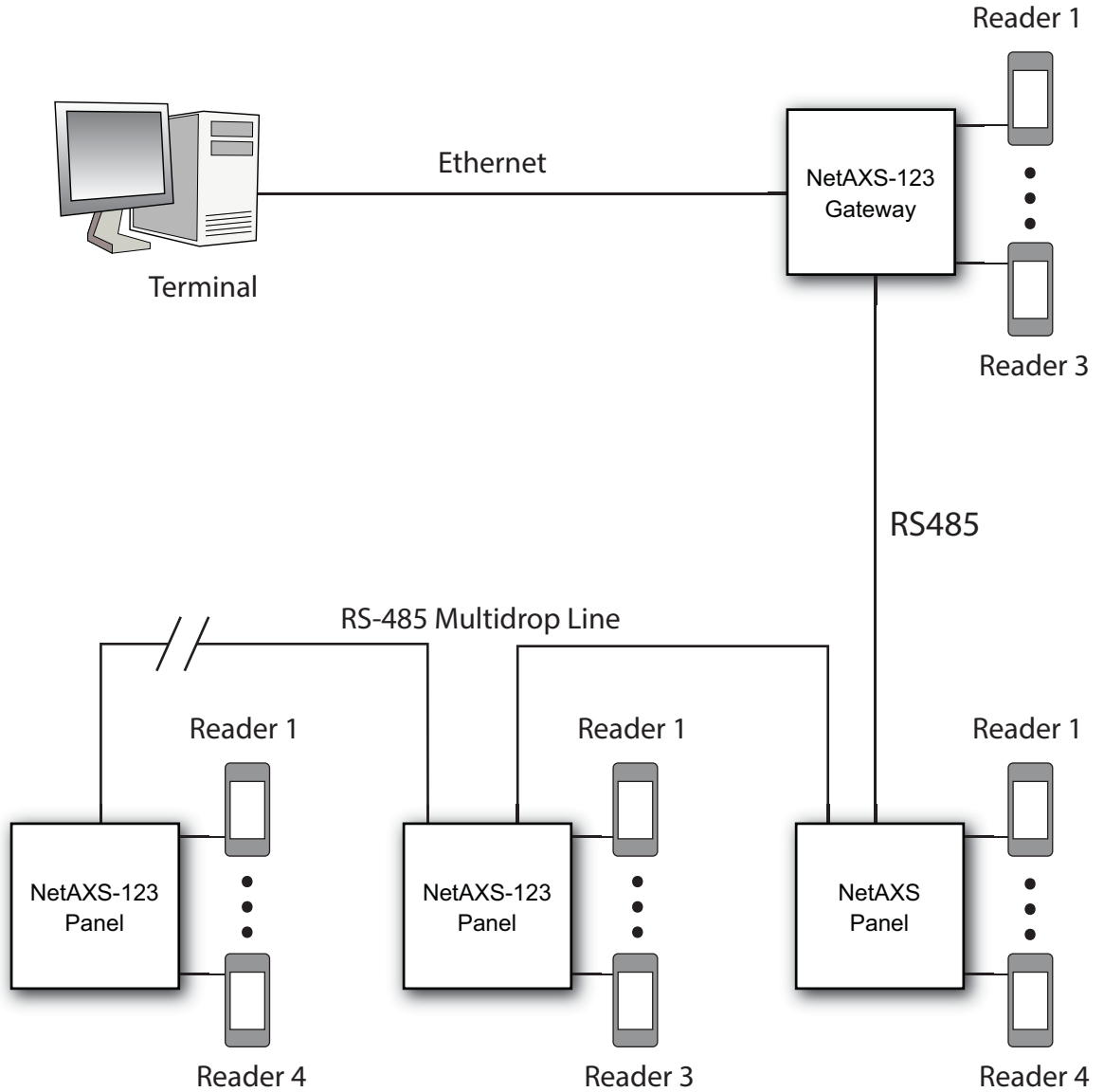
**Note:** If an RS-485 network has a NetAXS-123 Gateway panel, no N1000-II, N1000-III, N1000-IV, or NS2 are allowed on the same network. If they are added to a network with a NetAXS-123 Gateway panel, they will not be able to communicate with the host computer. In order to use these panels, a N-485-PCI-3 is required, as shown in Figure 9.

Figure 11: RS-485 Configuration via N-485-PCI-3



This configuration supports a combined total of 31 N1000 III, N1000 IV, NetAXS, NetAXS-123, and NS2 panels per Multidrop line.

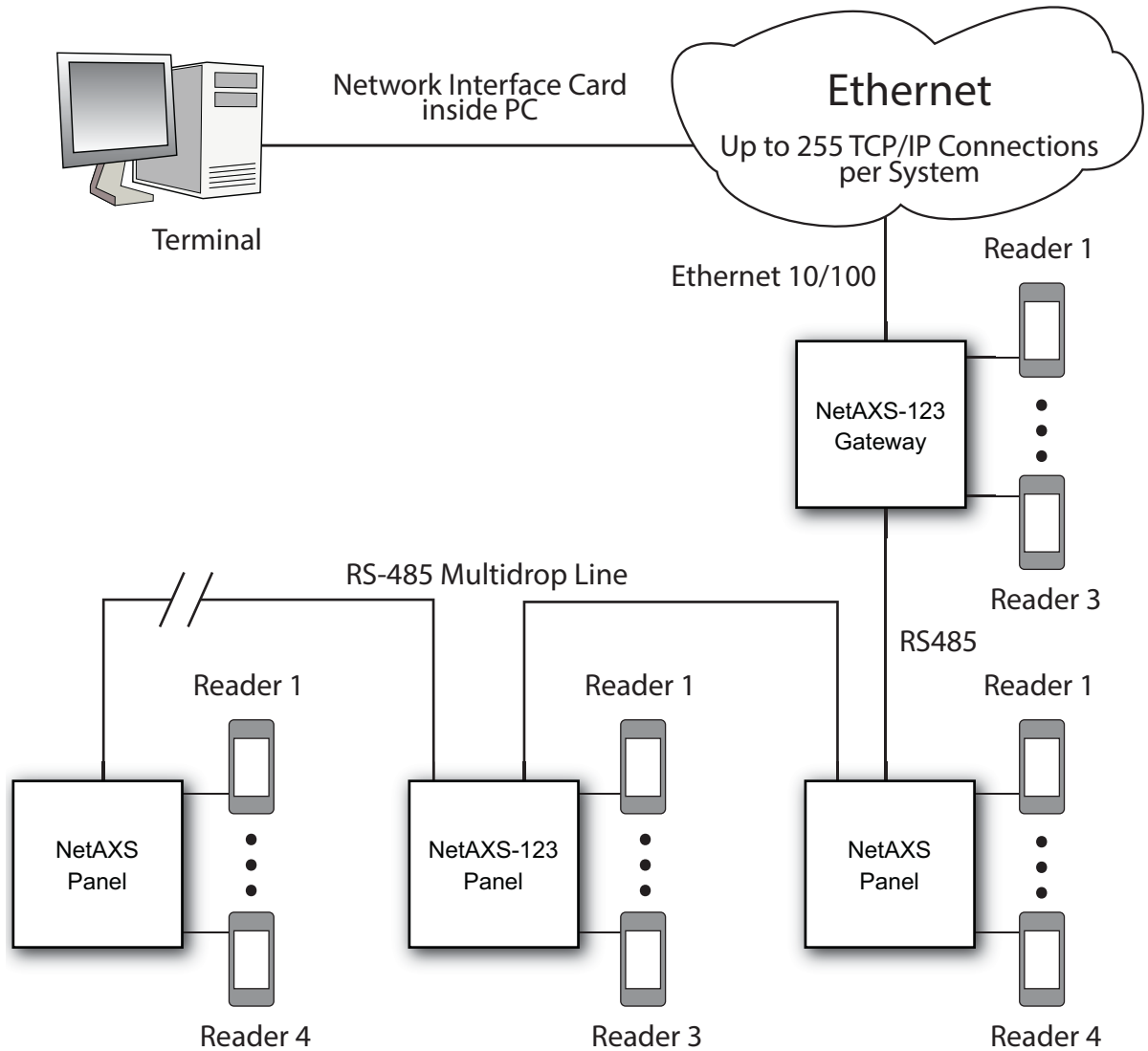
Figure 12: RS-485 Configuration via NetAXS-123 Gateway



This configuration supports a total of 31 NetAXS and NetAXS-123 panels per Multidrop line.

### 3.8.3 Ethernet TCP/IP Communications

Figure 13: Ethernet TCP/IP Configuration



This configuration supports a total of 31 NetAXS and NetAXS-123 panels per Multidrop line.

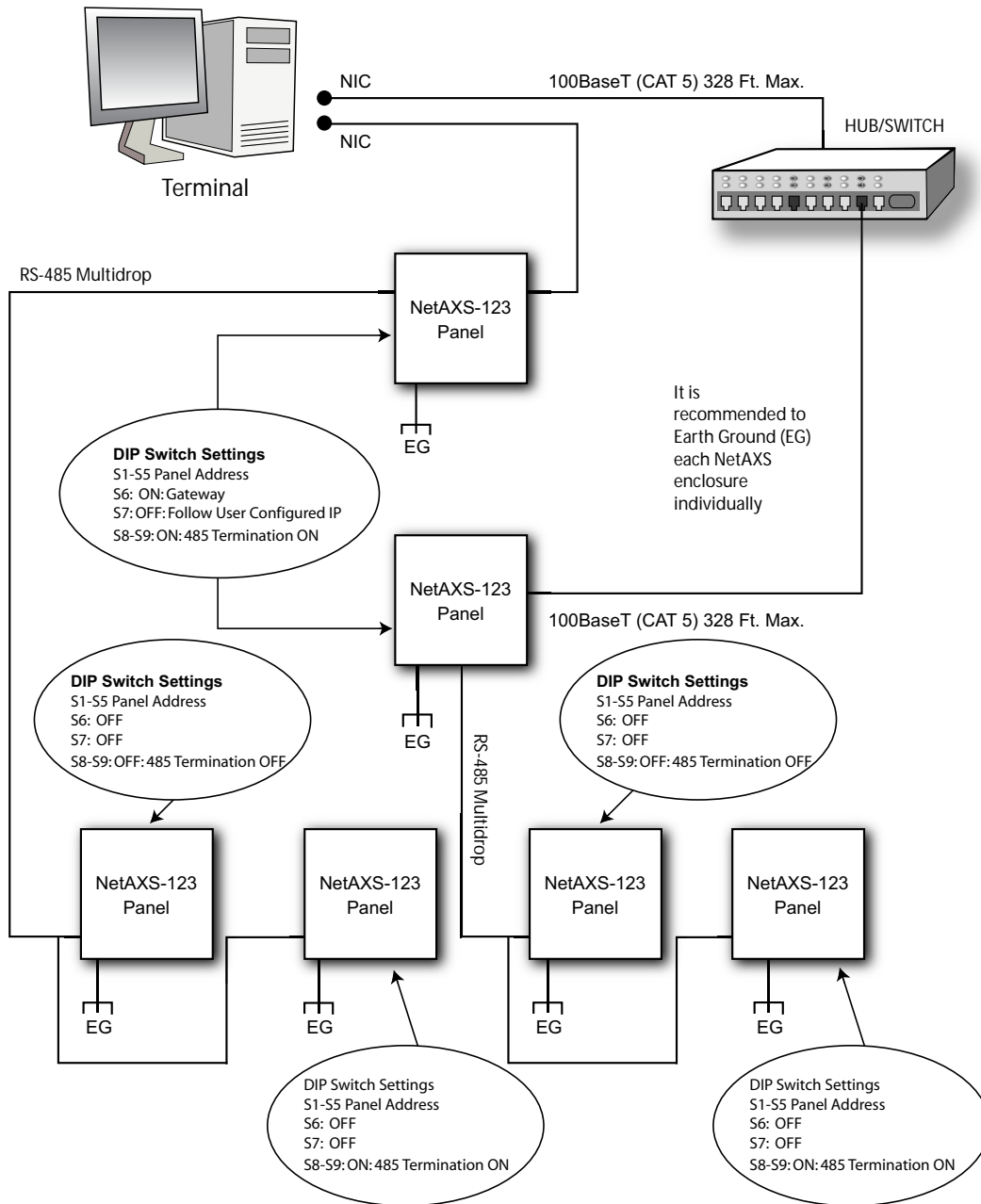
Each NetAXS-123 panel has a port for an Ethernet TCP/IP interface. The Ethernet TCP/IP interface provides 10/100 MB Ethernet support for each panel.

## 4.0 System Configuration

This section provides wiring diagrams for each of the NetAXS-123 system configurations.

### 4.1 Ethernet Connection to NetAXS-123 Gateway Managing RS485 Loop

Figure 14: Ethernet Connection

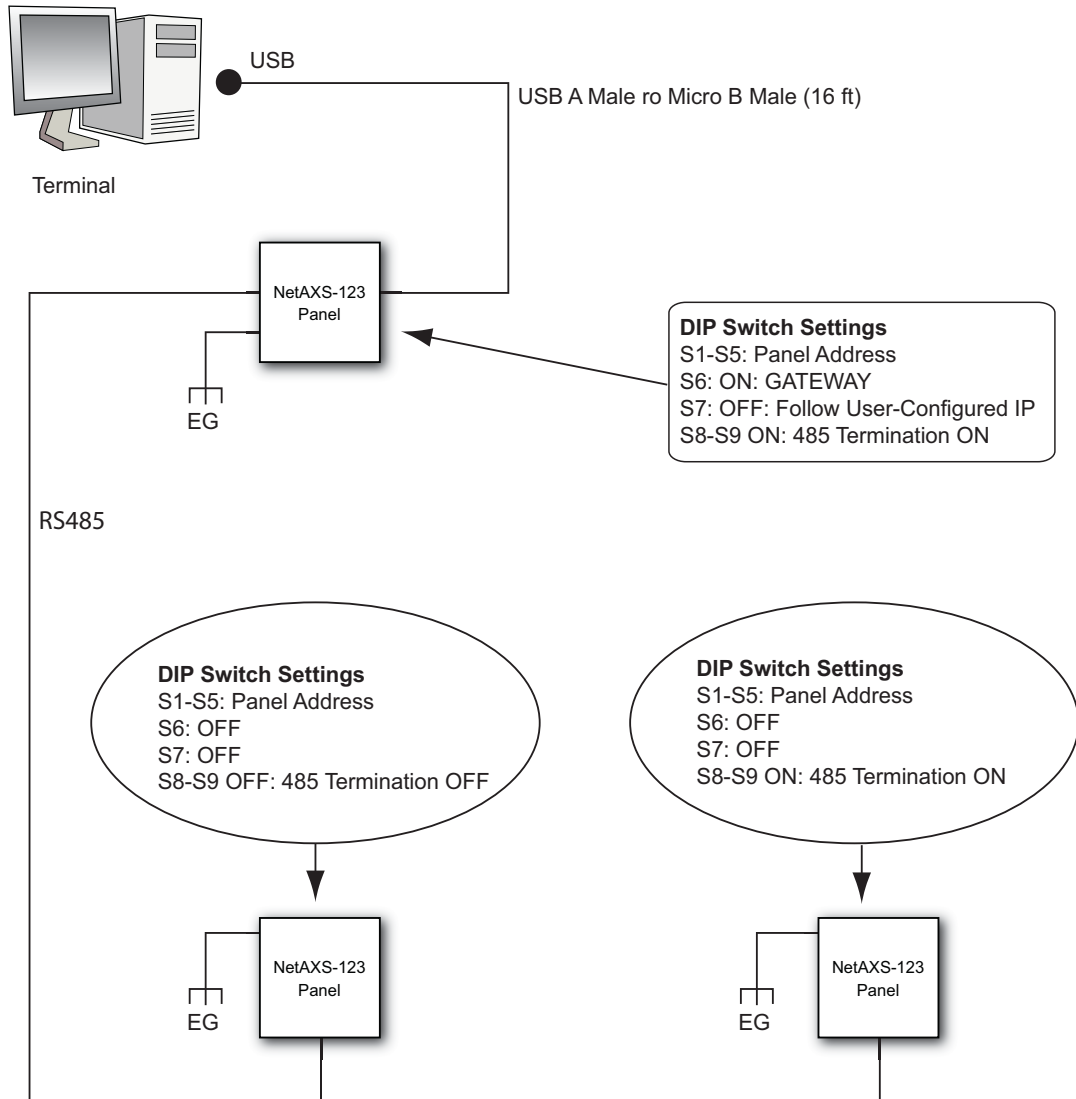


**Note:** You should ground each NetAXS-123 Standard (Metal) Enclosure panel individually with an Earth Ground.

## 4.2 USB Connection

Figure 15: NetAXS-123 USB Connection

**Note:** The USB connection is intended to be used for system maintenance and troubleshooting.



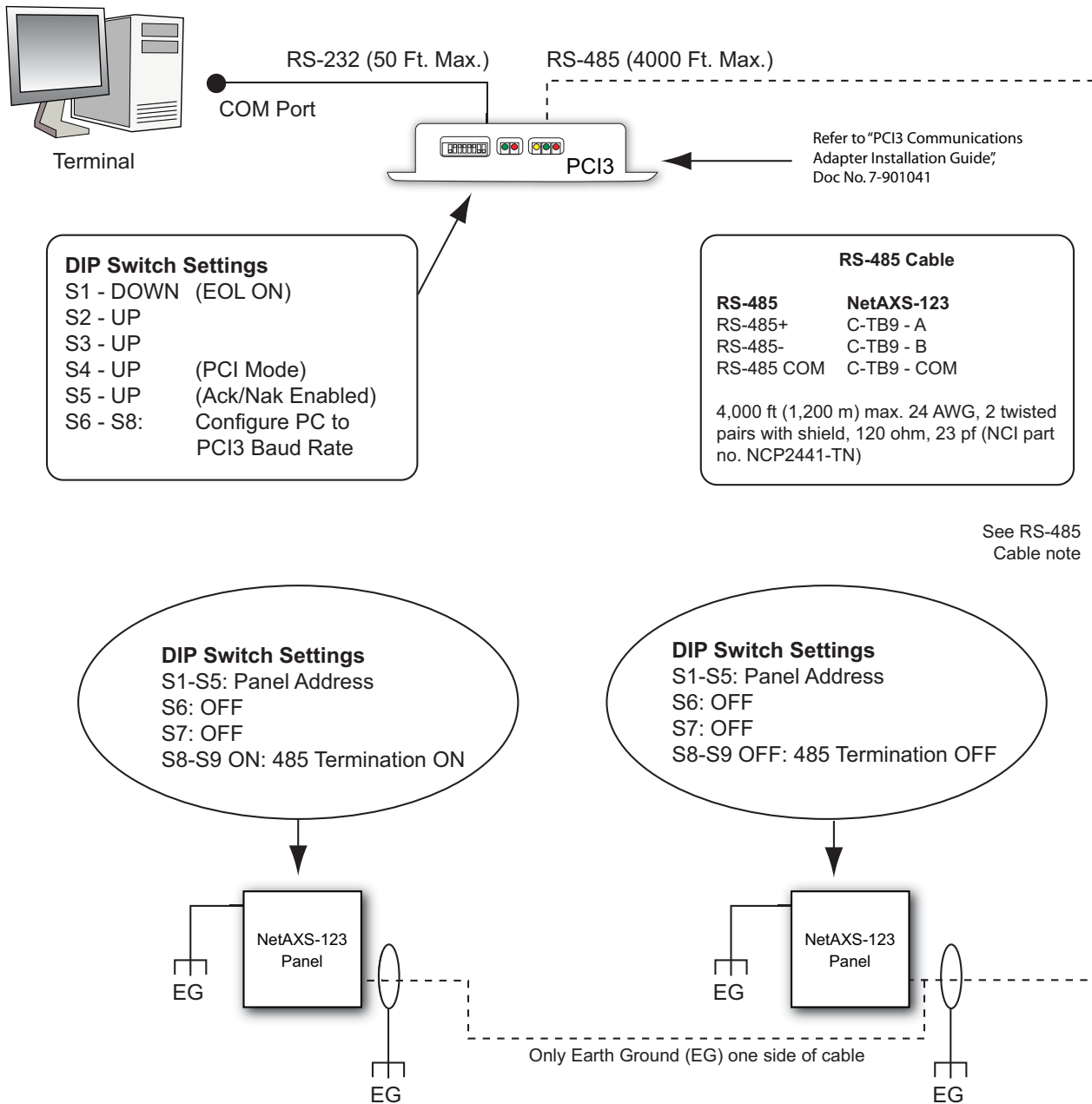
**Note:** You should ground each NetAXS-123 Standard (Metal) Enclosure panel individually with an Earth Ground.



### 4.3 RS-485 Connection via PCI-3

This connection supports thirty-one NetAXS-123 panels for each drop line. Note that PCI-3 units can also be wired in interior, as well as in endpoint, positions. See [Figure 18](#) on page 57 and [Figure 19](#) on page 58.

Figure 16: RS-485 Connection via PCI-3

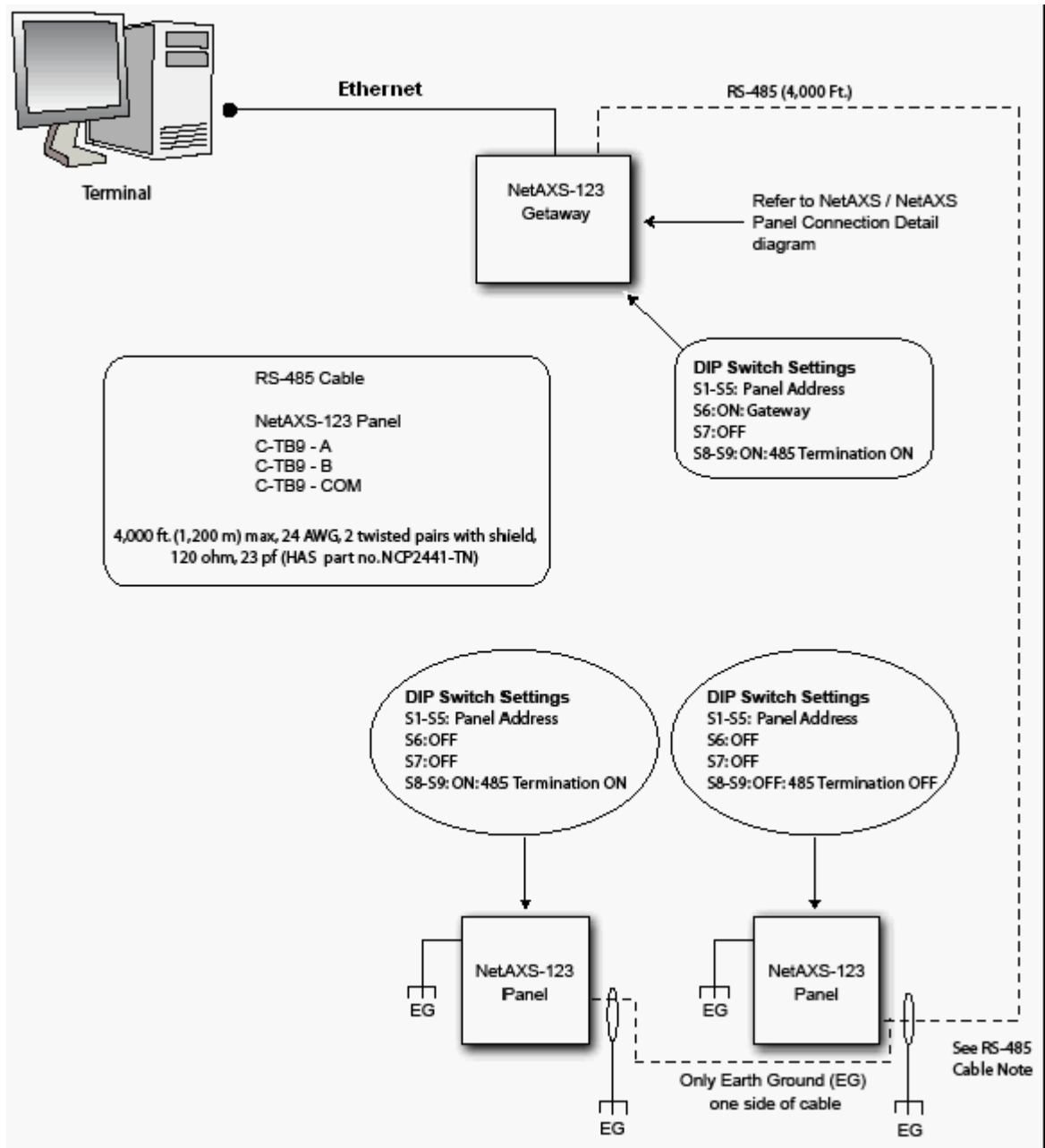


**Note:** If you use the PCI-3 connection, you cannot access the web, since the PCI-3 does not support the NetAXS-123 web interface.

## 4.4 RS-485 Loop Connection via NetAXS-123

This loop connection supports a total of 31 NetAXS-123 panels (including the Gateway) for each drop line.

Figure 17: RS-485 Loop Connection via NetAXS-123

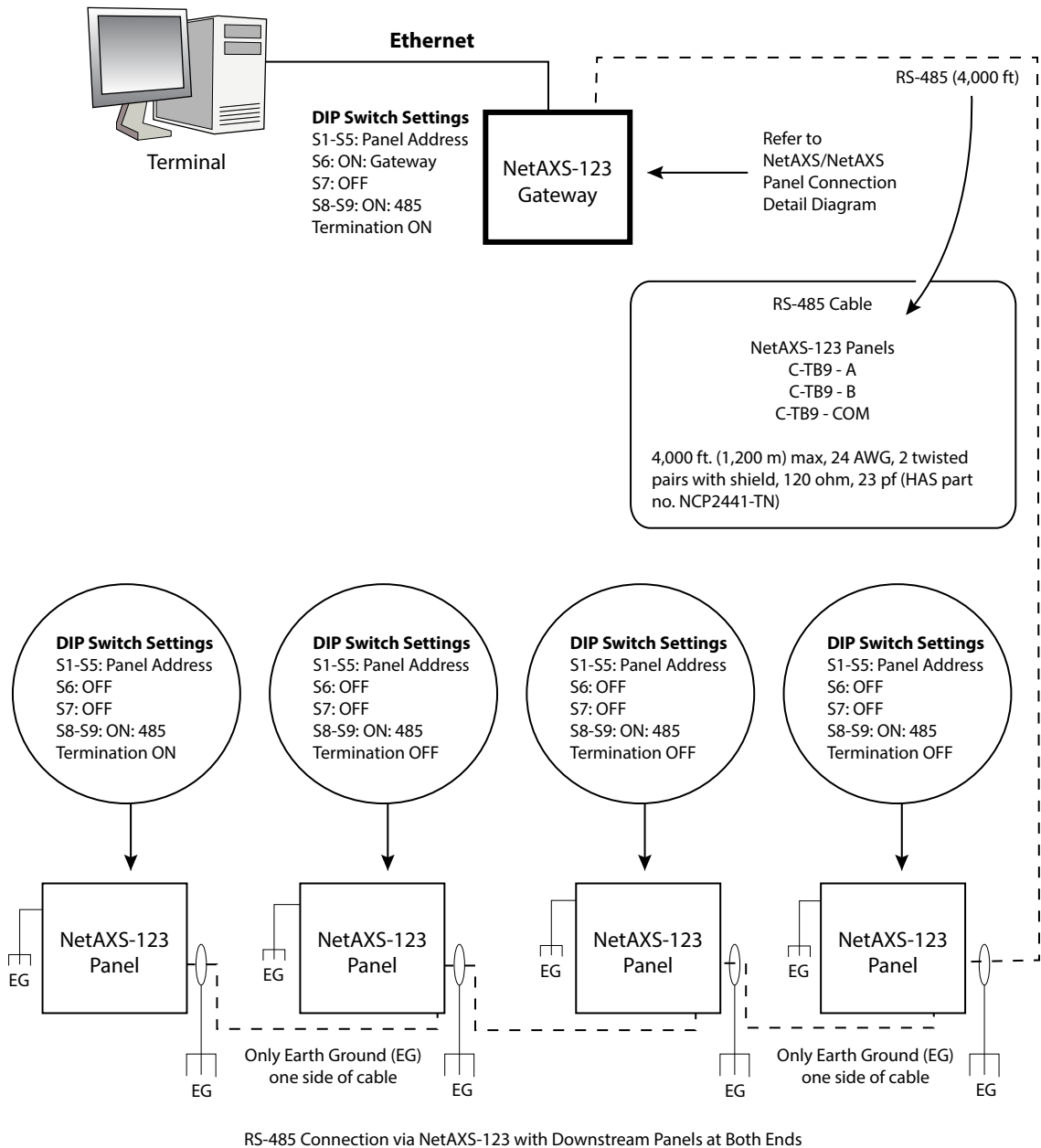


**Note:** You should ground each NetAXS-123 Standard (Metal) Enclosure panel individually with an Earth Ground.

## 4.5 RS-485 Connections with Downstream Panels at Both Ends of the Cable

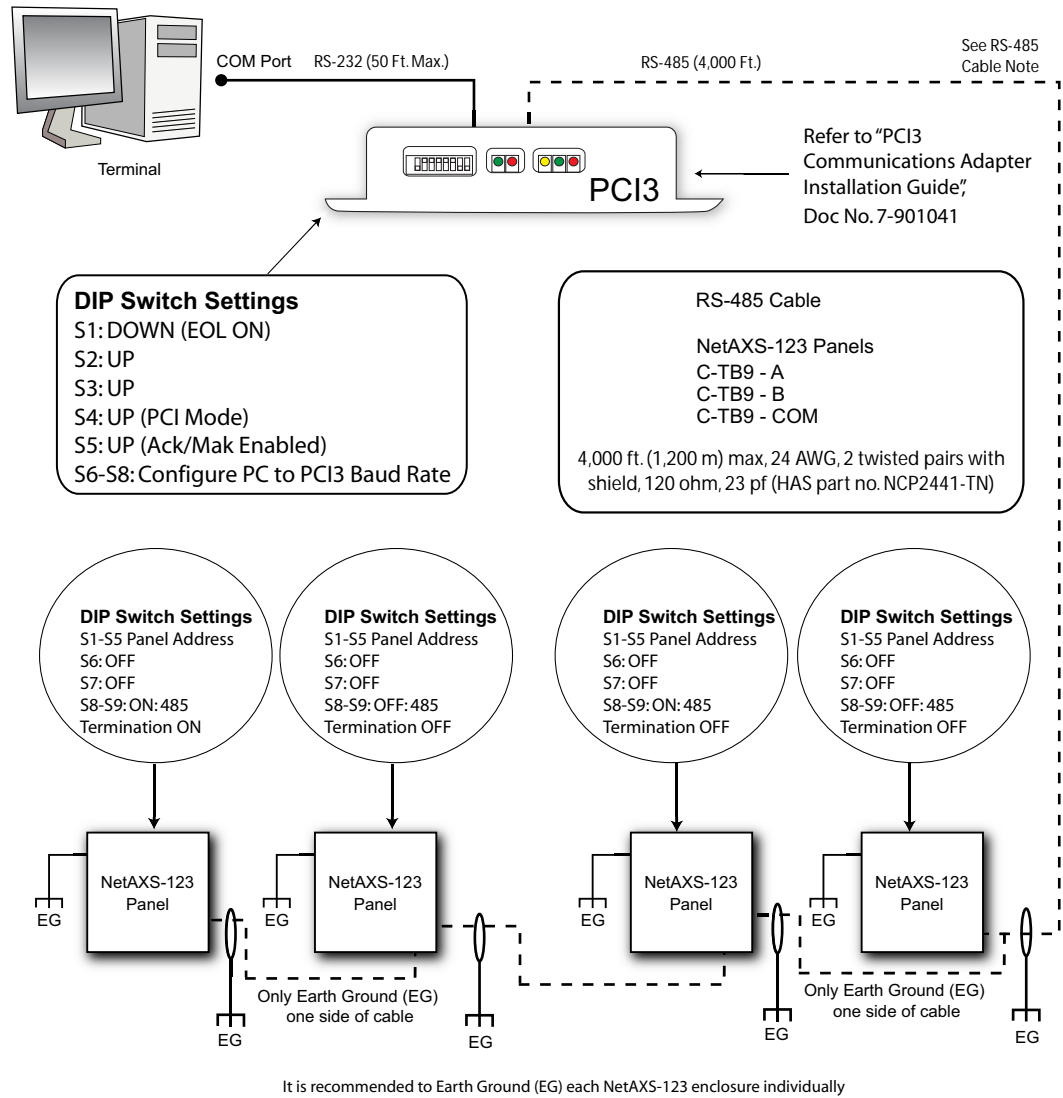
You can connect downstream panels at both ends of an RS-485 cable via either a NetAXS-123 panel or a PCI-3 device.

Figure 18: RS-485 Connection via NetAXS-123 with Downstream Panels at Both Ends



**Note:** You should ground each NetAXS-123 Standard (Metal) Enclosure panel individually with an Earth Ground.

Figure 19: RS-485 Connection via PCI-3 with Downstream Panels at Both Ends

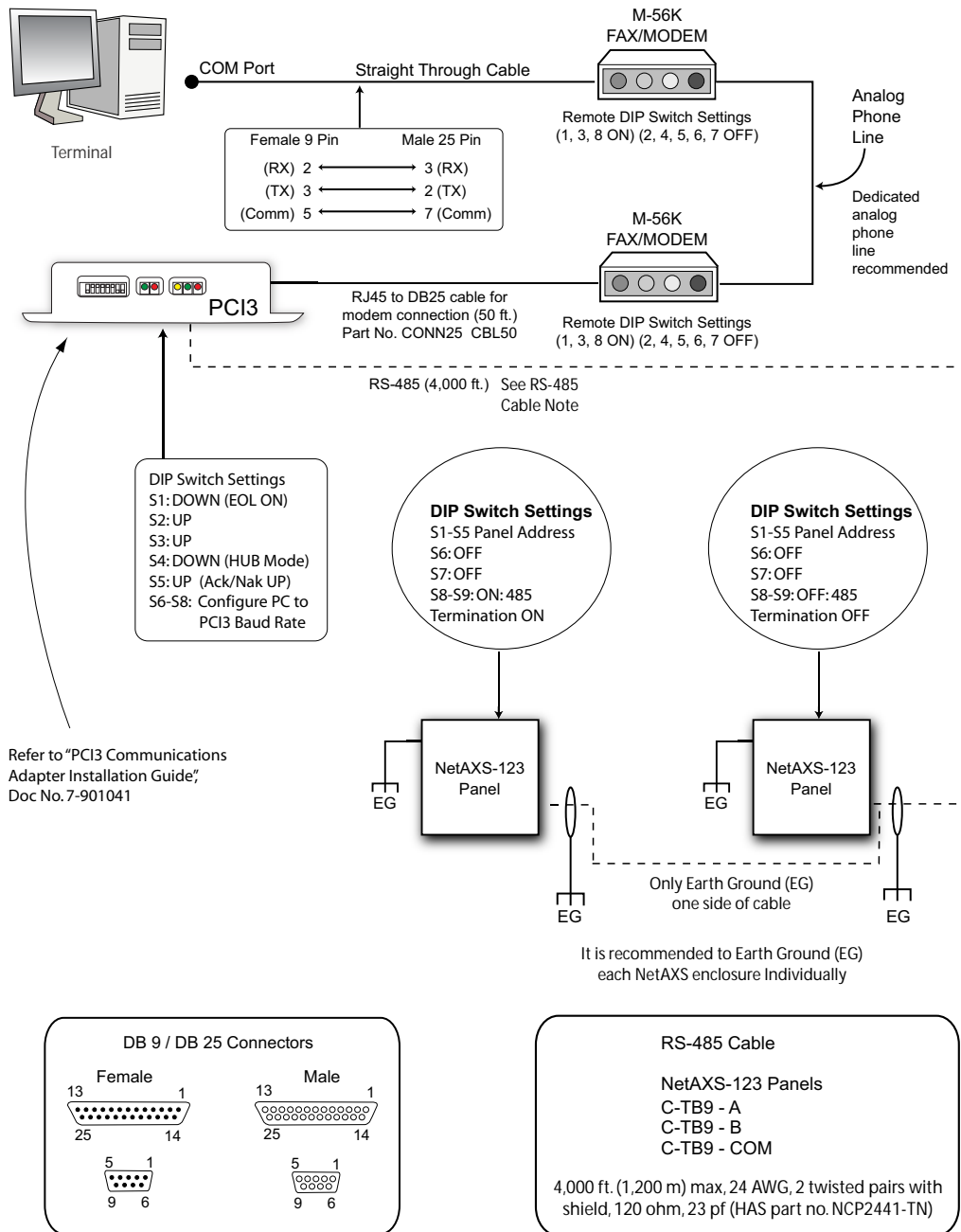


**Note:** You should ground each NetAXS-123 Standard (Metal) Enclosure panel individually with an Earth Ground.

## 4.6 M-56K Dial-up Modem, RS-485 Connection via Hub (PCI-3)

This configuration supports 31 NetAXS-123 panels for each drop line. **Please note** that if you have a Hub (PCI-3) connection, you cannot access the web since the Hub (PCI-3) does not support NetAXS-123 web interface.

Figure 20: M-56K Dial-up Modem, RS-485 Connection via Hub

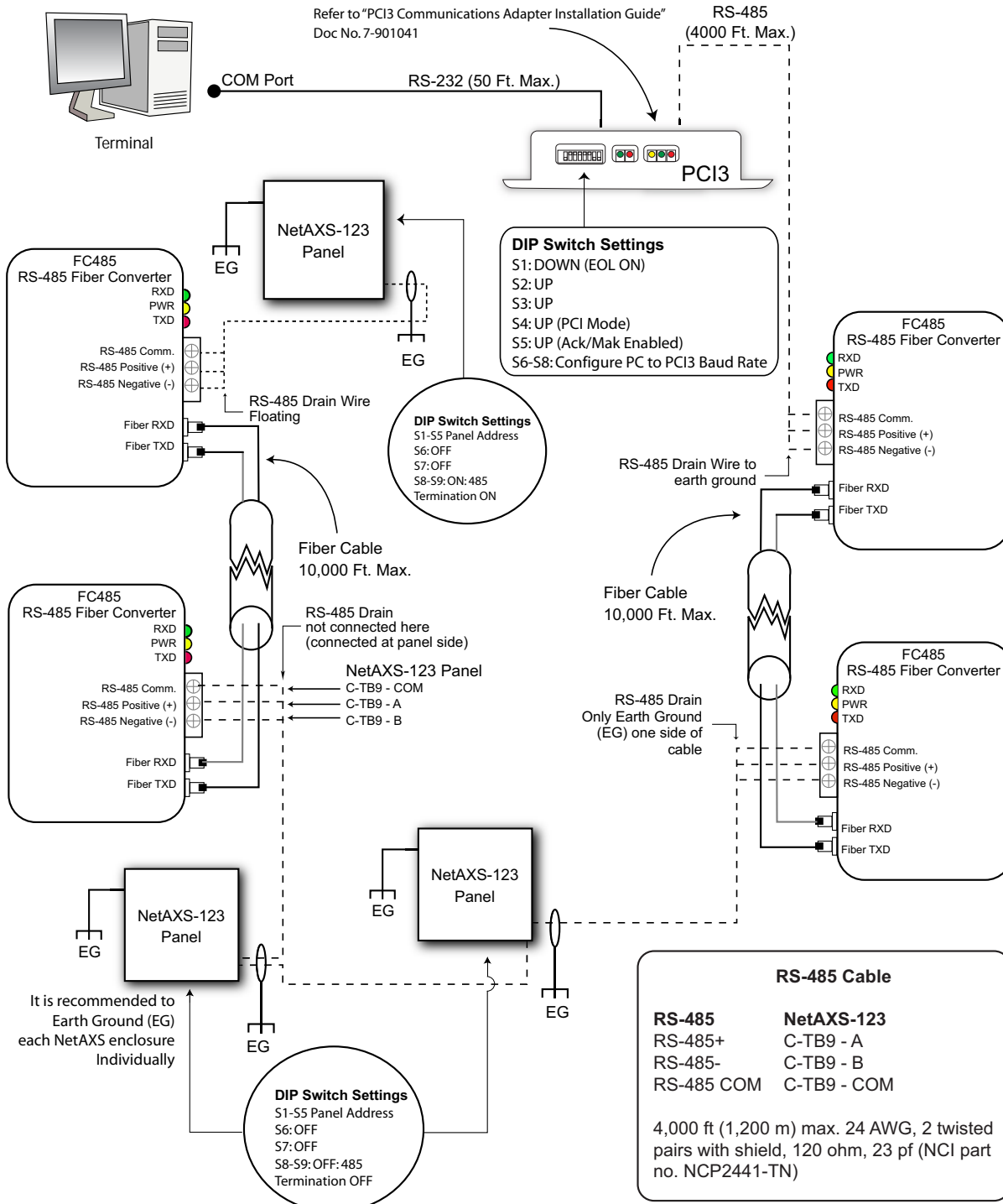


**Note:** You should ground each NetAXS-123 Standard (Metal) Enclosure panel individually with an Earth Ground.

## 4.7 Fiber Converter to RS-485 Connection via PCI-3

This connection supports 31 NetAXS-123 panels for each drop line. Note that the use of fiber cable has not been evaluated by UL.

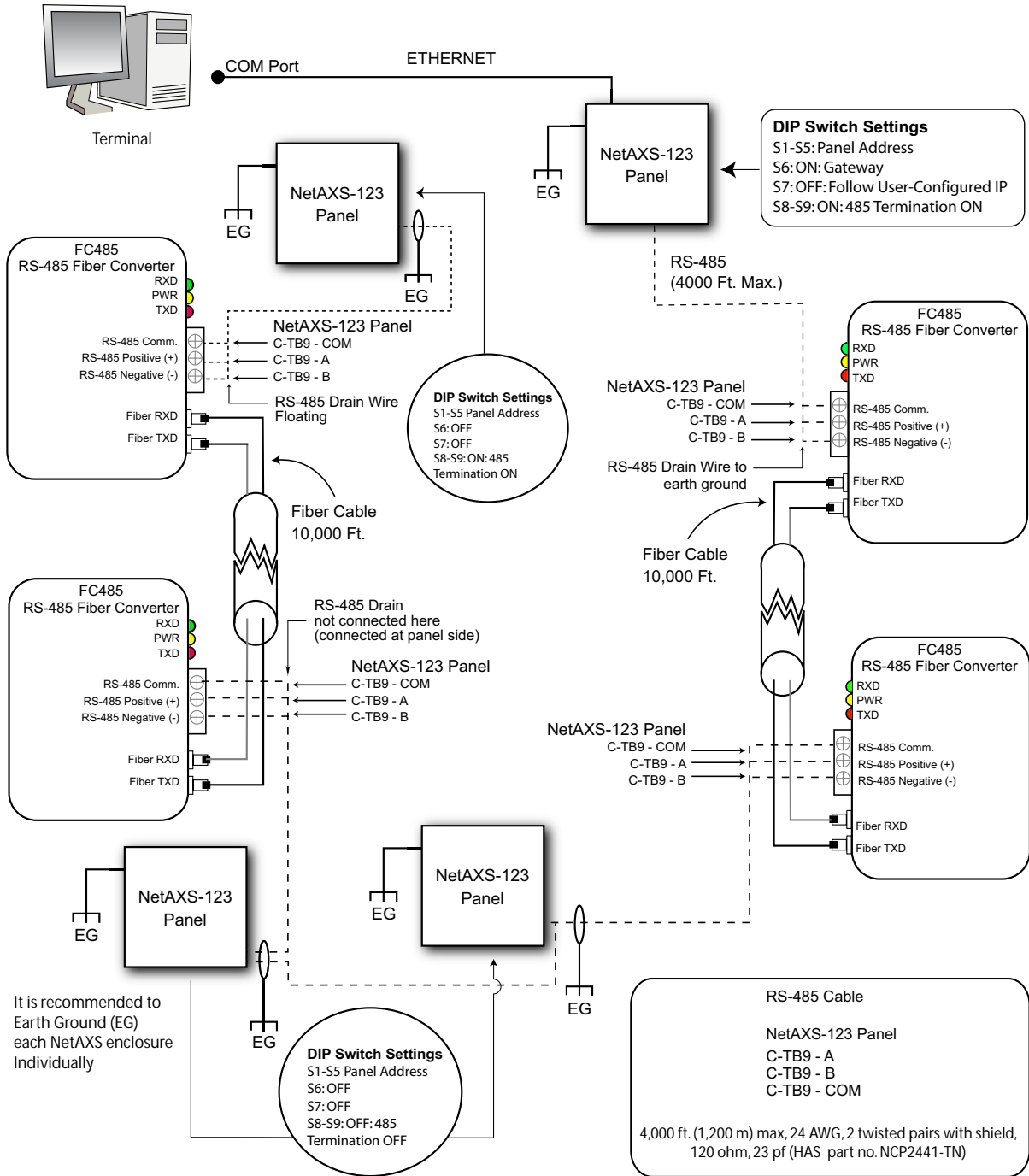
Figure 21: Fiber Converter to RS-485 Connection via PCI-3



## 4.8 Fiber Converter to RS-485 Connection via NetAXS-123

This connection supports 31 NetAXS-123 panels for each drop line.

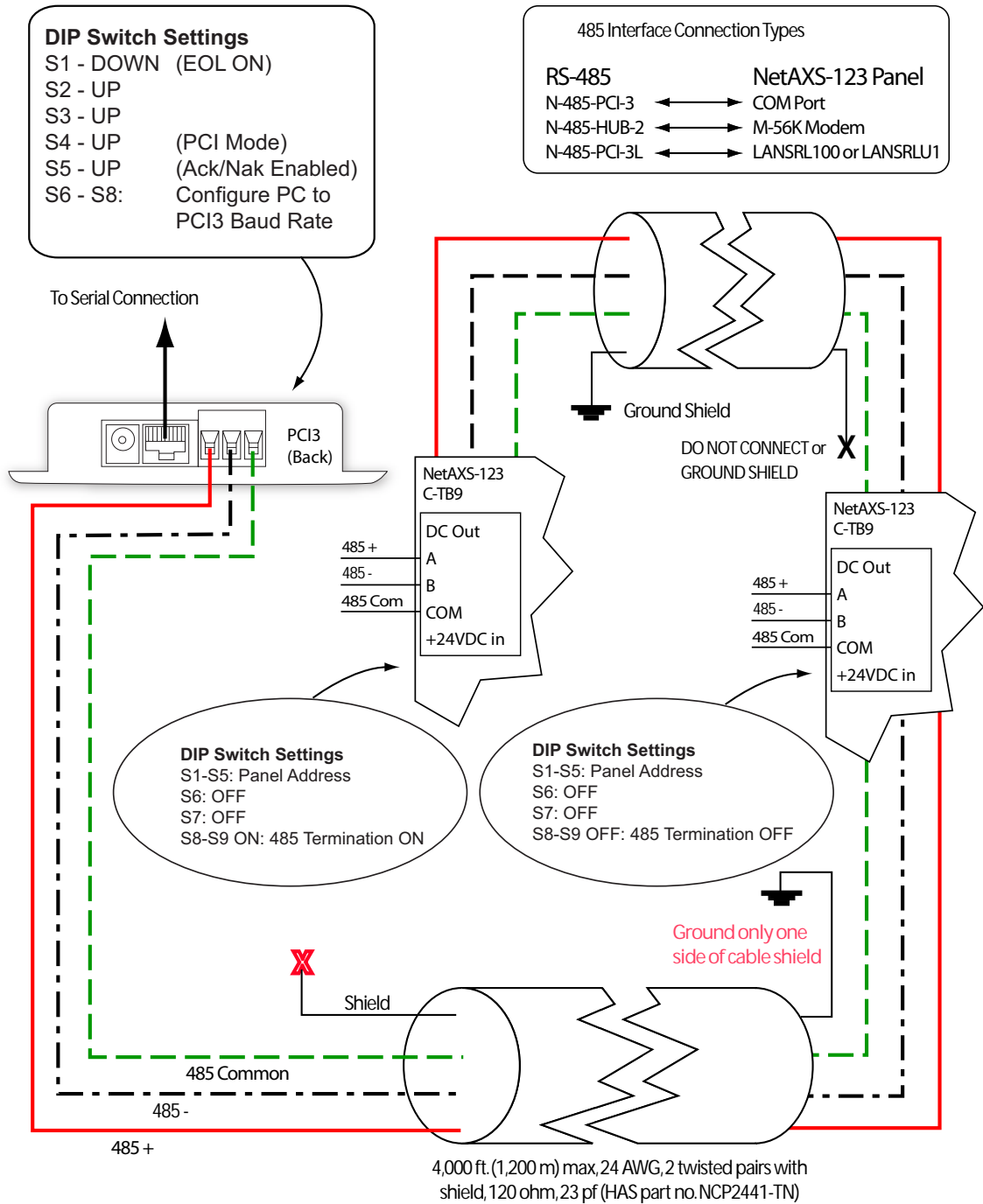
Figure 22: Fiber Converter to RS-485 Connection via NetAXS-123



**Note:** You should ground each NetAXS-123 Standard (Metal) Enclosure panel individually with an Earth Ground.

## 4.9 N-485-PCI-3/NetAXS-123 Access Controller Panel Connection Detail

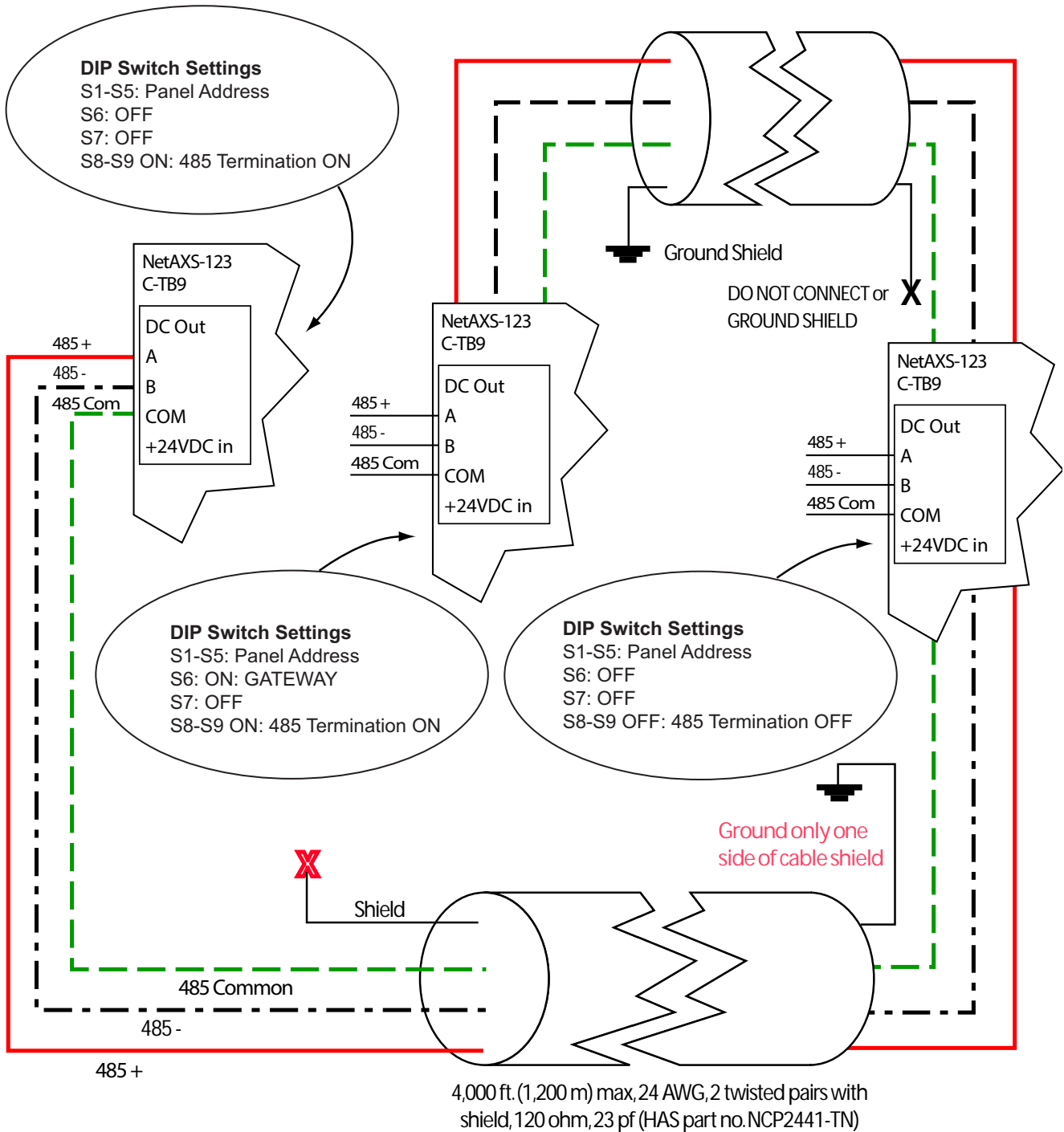
Figure 23: N-485-PCI-3/NetAXS-123 Access Controller Panel Connection Detail





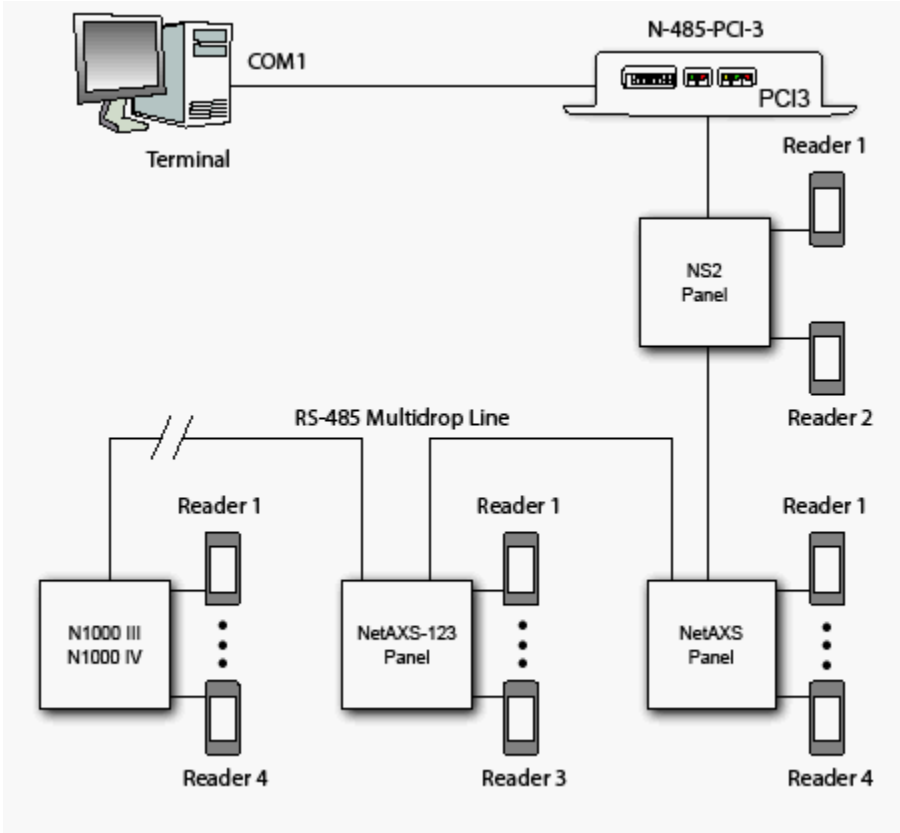
## 4.10 NetAXS-123/NetAXS-123 Access Controller Panel Connection Detail

Figure 24: NetAXS-123/NetAXS-123 Access Controller Panel Connection Detail



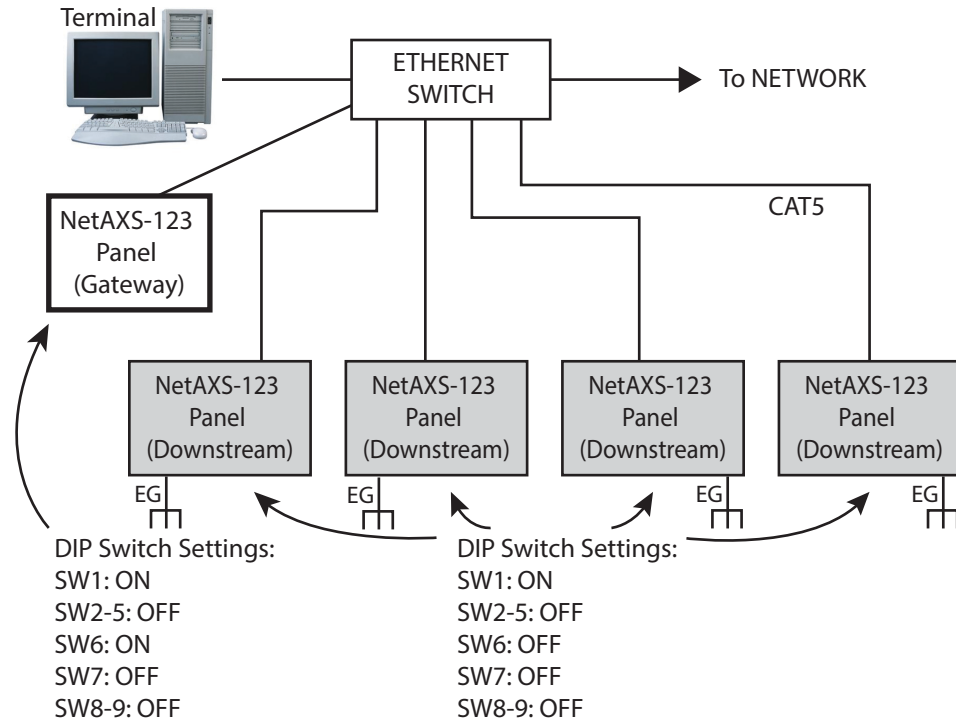
### 4.11 Mixed Loops

This mixed-loop configuration supports a combined total of 31 N1000 III, N1000 IV, NetAXS, NetAXS-123, and NS2 panels per Multidrop line.



## 4.12 Ethernet Virtual Loop with All Panels on Common IP Subnet

Figure 25: Ethernet Virtual Loop (EVL) with All Panels on Common IP Subnet



Ethernet Connection with EVL Loop

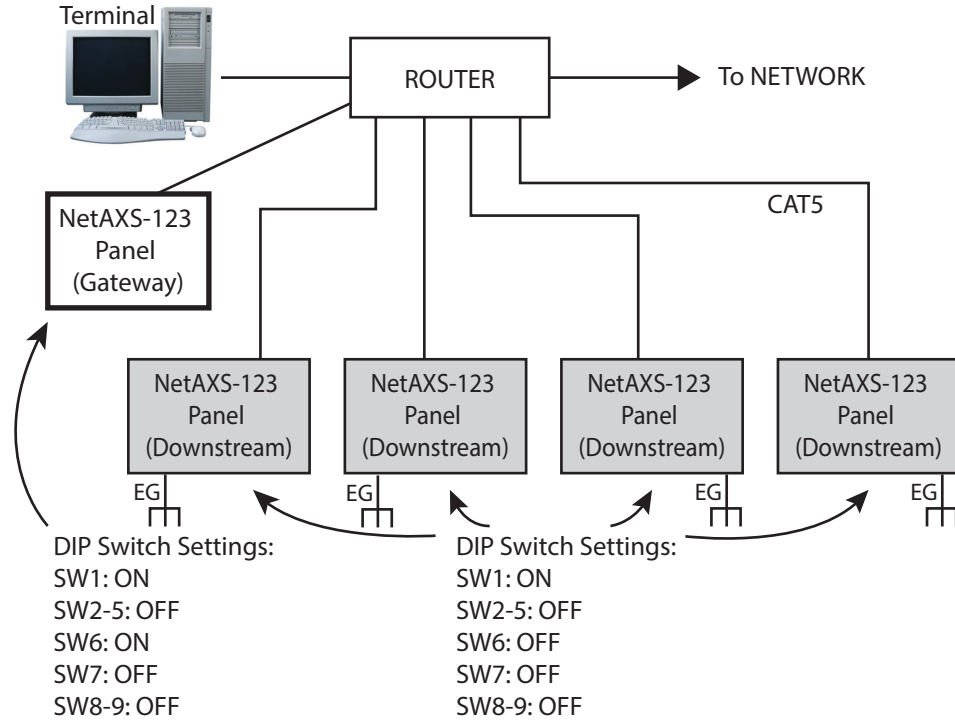


**Notes:**

1. The Network must provide DHCP server (or use dedicated Network configuration with a router, as shown in next section).
2. The Network must provide firewall protection from unauthorized access.

## 4.13 Ethernet Virtual Loop - Network Dedicated to Access Control

Figure 26: Ethernet Virtual Loop - Network Dedicated to Access Control



Ethernet Connection with EVL Loop on Dedicated Network

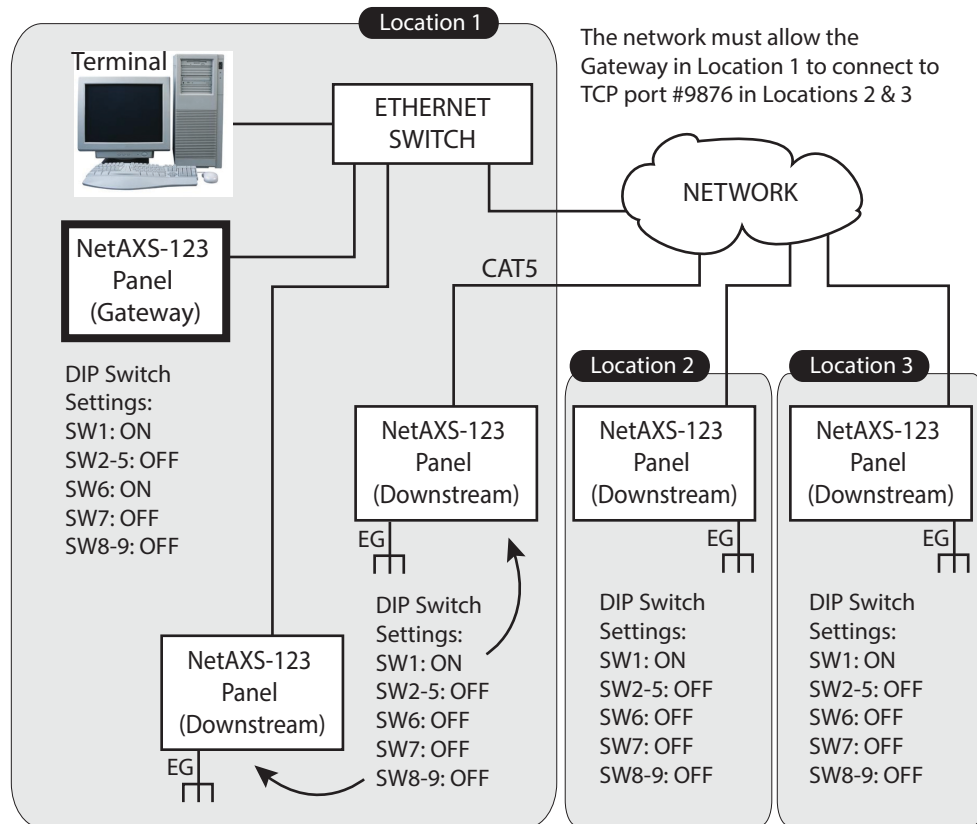


**Note:** Router must provide DHCP service.

## 4.14 Ethernet Connection with Ethernet Virtual Loop - Multiple

## Locations

Figure 27: Ethernet Connection with Ethernet Virtual Loop - Multiple Locations



Ethernet Connection with EVL Loop Multiple Locations



### Notes:

1. Network must provide DHCP server (or use dedicated Network configuration with a router shown in next section).
2. Recommend that Network provide firewall protection from unauthorized access.
3. If the locations are in different Geographic time zones, it is recommended that each time zone be served by its own "Ethernet Virtual Loop". The reason for this is, all controllers on the same Ethernet Virtual loop must be set to the same Geographic time zone.
4. The Network must allow the Gateway in Location 1 to connect to TCP port #9876 in Locations 2 and 3.
5. Controllers that are on a different subnetwork than the Gateway (which is likely the case for loops across multiple locations) will NOT be automatically discovered by the gateway controller. In this case, it is recommended that you request an IP address reservation from your network provider or administrator. This address will be needed when the

user sets up the gateway controller. There is a "Manual Registration" button on the EVL registration screen for this purpose.

## 5.0 Hardware Specifications

The specifications in this section apply to both the Standard Enclosure and Compact Enclosure panels.

### 5.1 Primary input Voltage

- The primary input voltage to the powers supply is 100-240VAC, 50/60Hz.
- The primary input voltage must be conduit connected when installed using 230/240VAC Primary.
- For UL and ULC Installations: the primary input voltage must be conduit connected when installed using 230/240 VAC.

### 5.2 Relay Contacts

Maximum of six Form-C SPDT relays, 3A (at dry contact) or 500mA (at self-whetted) @ 30VDC (PTC limited in the self-whetted mode). The Form-C SPDT relays are configured as Normally Open or Normally Closed outputs only. Normally Open and Normally Closed contacts cannot be used simultaneously.

### 5.3 Reader Interface

- Reader Power: 12VDC nominal with 500mA maximum for each reader port.
- Reader LED Output: Open collector driver capable of sinking up to 8mA.
- Reader Tamper: Supervised or non-supervised input.
- Reader Data Input: TTL compatible inputs.

### 5.4 Maximum Output Loading

Use the following guidelines unless you are using Power Over Ethernet (PoE):

- Maximum current per reader port for any of the three reader outputs is 500mA.
- Maximum current for any of the six relay outputs on the Songchuan 892N-1CH-1F-V is 3A at dry contact, or 500mA at self-whetted.
- Maximum battery charge current for the battery wired in series is 250mA.
- External power on C-TB9 is limited to 500mA @ 12VDC.

### 5.5 PoE Power Limitations

If you are using the NetAXS-123 Standard Enclosure and powering the panel with PoE (Power over Ethernet), you must comply with these specifications for proper operation:

- A NetAXS-123 panel powered by PoE is 802.3af compliant, providing a maximum of 15.4W of input power to the panel. This input power is split between on-board power consumption and external load consumption. A maximum current capacity of 450 mA @ 12VDC is available for all external devices combined.



**Notes:**

- Two readers per door can still be supported as long as the total current is within the external load capacity stated above.
- You can either find the devices' power consumption amounts by referring to the products' documentation or by using a current meter.

**Example:**

Device Element	Current
Door strike or magnetic lock current	250 mA
Reader A maximum current	50 mA
Reader B maximum current	50 mA
Buzzer or sounder current	20 mA
Door position switch	20 mA
Request to exit switch	30 mA
<b>Total current for this example</b>	<b>420 mA</b>

If the total current consumption of your external devices exceeds the 450mA maximum current , then use one of the following system configurations:

- Power the panel with an external 12VDC power supply.
- Power some or all of the external devices with an external power supply to lower the total external current powered by the NetAXS-123 panel below 450mA.
- The maximum power available in the 802.3af standard is 15.4W. This limit is generally at 48VDC, and it is measured at the output of the power injector or PoE switch. Line losses cause a decrease in the power available at the panel when you use longer Ethernet cable lengths. You can minimize these line losses by using either of the following methods:
  - Connecting the NetAXS-123 panel to the power injector or PoE switch with the shortest possible Ethernet cable length.
  - Using a high-power 802.3at power injector or PoE switch with a voltage of 56VDC. This reduces line losses and thus increases available power at the NetAXS-123 panel.





**Note:** The NetAXS-123 panel will not benefit from the increased power capabilities of a high-power 802.3at power injector. Its use only reduces line losses over the Ethernet cable.

## 5.6 Mechanical

- Standard Enclosure dimensions: Height = 14 inches (355.6 mm), Width = 12 inches (304.8 mm), and Depth = 5 inches (127 mm).
- Compact Enclosure dimensions: Height = 7.5 inches (190.5 mm), Width = 7.5 inches (190.5 mm), and Depth = 2.25 inches (57.15 mm).

## 5.7 Environment

- Temperature: 0C to 49C operating, -55C to +85C storage.
- Humidity: 5% to 85% RHNC.

## 5.8 Cable

Use industry-standard cables that meet the following specifications:

*Table 12: Reader Wiring*

Cable Specifications	Description	AWG	Maximum Distance: Feet (Meters)
Readers	6 Conductor, Shielded	18	500 (153)
Alarm Input	Twisted Pair, Shielded	18	2,000 (610)
Relay Outputs	Twisted Pair, Shielded	18	2,000 (610)

## 6.0 Basic Standalone Operation

### 6.1 Card Read / Door Lock Operation

1. Present a card to a reader.
2. The reader sends the card number to a reader input on the panel.
3. The panel searches its database and:
  - If it is a valid card, then energize the door relay associated with the particular reader input. The card is valid when it is in the card database on the panel and the current time and date conforms to the time zone associated with the card.
  - If it is not a valid card, the door relay remains locked.

### 6.2 Door Egress / Door Lock / Door Status Operation

1. Activate the door egress input.
2. The panel energizes the door relay associated with the particular door egress input for a default time of 10 seconds.
3. If the door status goes from close to open to close again during the 10 second door open period, the door relay will be immediately de-energized.

## 7.0 Maintenance

Perform the following maintenance on the NetAXS-123 enclosure:

- Change the backup battery every two to two-and-a-half years.
- Oil the lock once per year.



**Warning:** Be sure to disconnect the AC power before replacing the terminal block fuse.

**Warning:** To reduce the risk of fire, replace the fuse only with a 1A, 250V, slow blow fuse (part number 239001P).

1. Disconnect the AC power.
2. Replace the fuse with a new 1A, 250V, slow blow fuse (part number 239001P).
3. Re-connect the AC power.



**Note:** The power supply contains no serviceable parts. There is no replaceable fuse inside the power supply.

- Use the following procedure to change the 1A, 250V, slow blow fuse (part number 239001P) in the power inlet terminal block.
  1. Disconnect the AC power.
  2. Remove the fuse holder from the power inlet terminal block to identify the location of the power inlet terminal block).
  3. Replace the blown fuse in the lower section of the fuse holder with the new fuse. The upper section of the fuse holder provides a convenient location for a spare fuse.
  4. Slide the fuse holder back into the power inlet terminal block.
  5. Re-connect the AC power.

## 8.0 Troubleshooting

*Table 13 Troubleshooting Problems and Solutions*

Problem	Solution
The panel powers up, but it does not respond to any communication, cards reads, or input activation.	Ensure that the Address DIP switches are set to a value other than zero. Turn off the power (including battery), change the settings, and re-apply the power.
No communications exist with the Ethernet port.	Only a panel set to be a Gateway (DIP switch 6 = ON) will have communications on the Ethernet port. If you need to use that port to access the panel, turn off the power (including the battery), change the switch setting, and reapply the power. Note that if the panel is normally not a Gateway on a Multidrop communication bus, then the Host RS-485 connection (C-TB9) should also be disconnected while DIP switch 6 is ON. After completion of the Ethernet session, turn off the power (including the battery), change the switch setting, re-connect the Host RS-485 terminal block, and re-apply the power.
The panel address is unknown.	Option 1: Set the NetAXS-123 panel's DIP switch 7 to ON. This will default the IP address to 192.168.1.150. Option 2: Connect to the panel through the USB port using the provided USB A to MicroUSB B cable and the USB driver on the product CD. The default USB Ethernet IP address is: 192.168.2.150.
The N1000 and NS2 panels on the Multidrop bus do not report.	N1000 and NS2 panels are not supported downstream from a NetAXS-123 panel. To enable the NetAXS-123 to communicate with the N1000 and NS2 panels, the loop must be configured with an N-485 PCI-3 as the Gateway. However, in this configuration, web functionality is lost. It is recommended that the user swap-out N1000 and NS2 panels with NetAXS-123 panels.



**Note:** The NetAXS-123 EOL network is AC-coupled. There is no resistance difference between the RS-485 positive and negative terminals if the EOL network is on or off (SW1, switches 8 and 9).

## **9.0 Technical Support**

### **9.1 Normal Support Hours**

Monday through Friday, 7:00 a.m. to 7:00 p.m. Central Standard Time (CST), except company holidays: (800) 323-4576.

### **9.2 Web**

For technical assistance please visit <https://www.honeywellaccess.com>



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