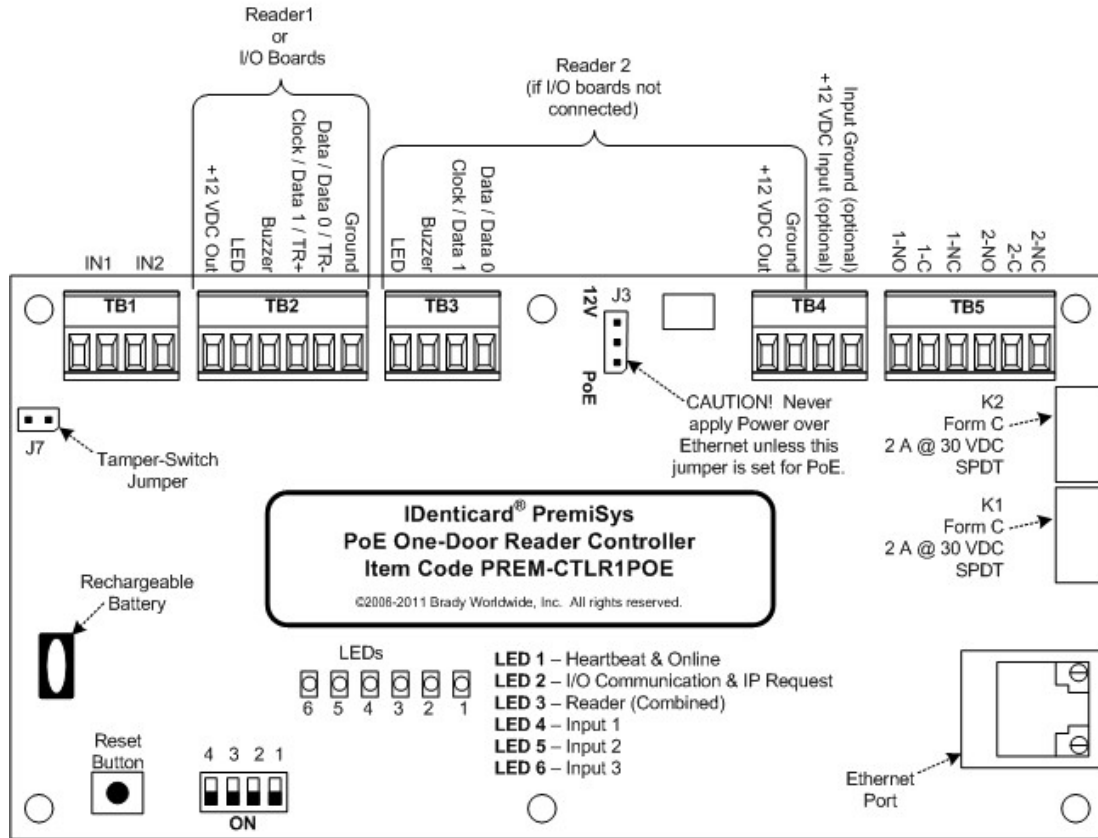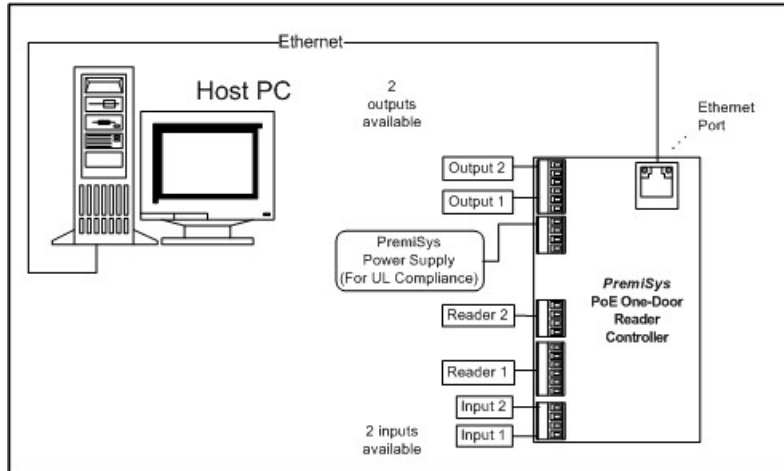## PremiSys PoE One-Door Reader Controller

Important note about I/O boards used with the PoE One-Door Reader Controller:
Connect downstream I/O boards to the RS-485 and ground pins on TB2. When using I/Os, Reader 2 effectively becomes Reader 1 and is the only reader that can be connected to the controller itself. In this case, the power and ground pins on TB2 can be used for the reader. The power and ground pins on TB4 are then available for auxiliary use.

Important note about powering door locks from the PoE One-Door Reader Controller:
Pins 1 and 2 on TB 4 can be used to power a door lock, as long as the strike is rated for 12 volts and the total current required on both ports (for the reader and door lock) does not exceed 650 mA. Cable gauge must be factored in when calculating the current requirements. Wiring a door lock, however, takes away this reader port, so only one reader can be connected (on TB2) when this option is used. Connecting a reader on the Reader 1 block prevents the connection of any downstream RS-485 I/Os.
So you cannot power a lock, connect downstream I/Os AND connect a reader, all on the same PoE One-Door Reader Controller.

Sample General Configuration for a PremiSys PoE One-Door Reader Controller Connected to a Reader and Auxiliary Equipment

PoE One-Door Reader Controller Specifications

Certifications for the PoE One-Door Reader Controller

UL: recognized to UL 294: Access Control System Units - component. [Note: For UL installations, power for PoE devices must be provided by a UL 294 listed source (12 VDC)]
CE: Compliant, FCC Part 15 Class A, NIST Certified Encryption

Dimensions and Weight of the PoE One-Door Reader Controller

	Without Bracket	With Bracket
Controller Width	5.5 inches (140 mm)	5.5 inches (140 mm)
Controller Height	2.75 inches (70 mm)	3.63 inches (92 mm)
Controller Depth	.75 inch (19 mm)	1.25 inch (32 mm)
Controller Weight	3.5 ounces (100 g) (nominal)	4.6 ounces (132 g) (nominal)

Environmental Specifications for the PoE One-Door Reader Controller

Temperature	32°F to 158°F (0°C to 70°C) operating -67°F to 185°F (-55°C to 85°C) storage

Relative Humidity	10% to 95% RH noncondensing

Power Specifications for the PoE One-Door Reader Controller

⚠ CAUTION! The processor in this component is intended for use only in a Class 2, low-voltage circuit!

Input Voltage (two inputs)	PoE Power Input 12.95W, compliant to IEEE 802.3af OR 12 VDC ± 10%, 900 mA maximum
	Note: For UL installations, POE powered devices cannot be used at this time; power for these devices must be provided by a UL 294-listed source (12 VDC)
Relay Ratings (two relays)	2 A at 30 VDC
Relay Contact Type	Form C
Relay Configuration	Single-pole double-throw (SPDT)
Card Reader Power (each of two readers)	12 VDC ± 10%, from PoE, regulated 150 mA maximum each reader OR 12 VDC ± 10%, from 12-VDC power to controller (input voltage passed through), 150 mA maximum each reader
Auxiliary Device Power	12 VDC ± 10%, 650 mA maximum
	Note: This power is available on Pins 1 and 2 on TB4 and may be used to power a door strike, as long as the strike is rated for 12 volts and the total current required on both ports (reader and auxiliary) does not exceed 650 mA. Be certain to accommodate cable gauge when calculating current requirements.

⚠ IMPORTANT! The Altronix® Power Supply Control panel contains 8 individual power outputs. Each output can supply up to 2.5 A @ 12 VDC. However, the total output amperage on all 8 ports cannot exceed 10 A. You must determine the load of each board in the loop to ensure that the current draw does not exceed 2.5 A per output port and that the total current draw on the power supply does not exceed 10 A.

Wiring Requirements for the PoE One-Door Reader Controller

Ethernet Connection to PremiSys Host PC	Category 5 cable
Connection to Relay-Controlled Devices	Use wire and gauge as required by load.
Connection to Input-Point Devices	One twisted pair per input, 30 ohms maximum
Connection to Reader	Six-conductor, 18 AWG. Maximum cable length: 500 feet (150 m), total copper
Connection to I/O Board(s)	RS-485, 24 AWG, twisted pair(s) with overall shield, 4000-foot (1,219 m) maximum, total copper, including drops

Communications Specifications for the PoE One-Door Reader Controller

To PremiSys Host PC	Category 5 cable via network

Access-Control Specifications for the PoE One-Door Reader Controller

Memory	1 MB battery-backed (rechargeable) Static Random Access Memory (SRAM) 16 MB Synchronous Dynamic Random Access Memory (SDRAM) 16 MB Flash-capable memory
Input - Dedicated	Optional magnetic tamper switch for enclosure tamper alarm
Inputs – Assignable	Two supervised input points with end-of-line (EOL) resistors, 1K / 2K ohm 1% ¼ watt standard
Reader LED Output	TTL-compatible; high > 3 V, low < 0.5 V; 5 mA source/sink maximum
Reader Data Inputs	TTL-compatible inputs

Indicators on the PoE One-Door Reader Controller

Visible	6 red, single-color LEDs 1 green and 1 yellow LED for Ethernet connection

PoE One-Door Reader Controller DIP Switches – Chart

See the section "Logging into the Configuration Manager for the First Time" [115] for more information on when and why you change DIP switch settings on a controller.

You can configure the operating mode of the controller by setting the DIP switches before you apply power to the controller. Avoid changing the switch settings while the PremiSys™ IP Controller is powered, except where noted to do so. If you do change a setting while the controller is powered, cycle power off, and then on again for the setting to take effect. However, there is a point in the bulk erasing process when power must never be cycled. See the instructions for bulk erasing for details. [133]

IMPORTANT!: The first time you program this controller or after the controller has been bulk erased, the default communication parameters are in effect. The DIP switches may be set to "OFF, OFF, OFF, OFF" to program the controller. You then contact the controller using the default IP address "192.168.10.20" to program it. See the section titled "Configuring Ethernet Controllers [114]" for complete information on how to program an Ethernet controller for use in your PremiSys system.

	Switches			
Selection	**1**	**2**	**3**	**4**

Initial Configuration Mode - Use this setting after a bulk erase, when a bulk erase is needed. Normal Operating Mode - Use this setting after the controller is programmed and is ready for normal function.	Off	Off	Off	Off
Pre-Bulk-Erase Mode - Use this setting before beginning a bulk erase. See the instructions for bulk erasing for full details. [133]	**<u>On</u>**	**<u>On</u>***	Off	Off

*After you initially program your controller communication settings through the Configuration Manager, you may leave SW1 and SW 2 "Off" unless you need to perform a bulk erase and go through the initial configuration again.

DIP Switch Examples

- SW1 is On - Default username and password <u>CAN</u> log into the Configuration Manager, regardless of the "Disable Web Server" setting.

- SW 1 is On and "Disable Web Server" is enabled - Custom usernames and passwords <u>CANNOT</u> log into the Configuration Manager.

- SW 1 is On and "Disable Web Server" is disabled - Custom usernames and passwords <u>CAN</u> log into the Configuration Manager.

- SW 1 is Off and "Disable Web Server" is disabled - Custom usernames and passwords <u>CAN</u> log into the Configuration Manager, the default username and password <u>CANNOT</u> log into the Configuration Manager.

- SW 1 is Off and "Disable Web Server" is enabled, NO username and passwords work can log into the Configuration Manager. To configure the controller while the Disable Web Server is selected you must move switch 1 to "On."
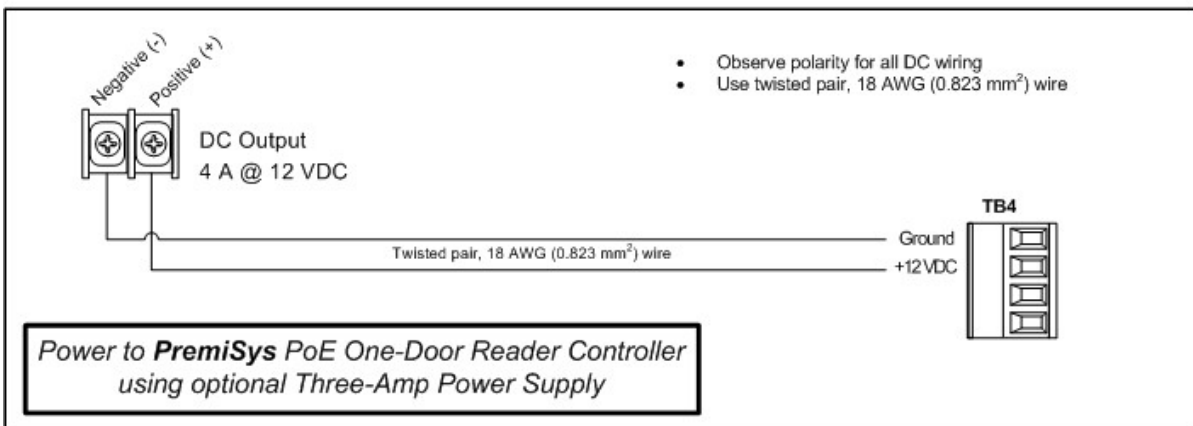
Note: See the PremiSys Online Help for instructions about setting other IP and communication addresses as well as other configurations.

PoE One-Door Reader Controller Jumper Settings

Jumpers	Set At	Selected
J3	PoE	One-Door Reader Controller powered from the Ethernet connection
	12V	One-Door Reader Controller powered from an external 12-VDC power source connected to TB4-3 (VIN) and TB4-4 (GND)
J7	On	Enclosure tamper jumper

Wiring a PoE One-Door Reader Controller to a Power Supply

Positive (+) Negative (-)

NC C NO COM NC C NO COM

- Wire ground to COM
- If unswitched, wire positive to C (shown)
- If switched, wire positive to NC for fail-safe, wire positive to NO for fail-secure
- Use twisted pair, 18 AWG (0.823 mm²) wire

Each of 8 power outputs provides up to 2.5 A @ 12 VDC. Total output amperage on all 8 ports not to exceed 10 A.

Twisted pair, 18 AWG (0.823 mm²) wire

TB4

Ground
+12 VDC

Power to PremiSys PoE One-Door Reader Controller using optional Altronix® Power Supply

Negative (-) Positive (+)

DC Output
10 A @ 12 VDC

- Observe polarity for all DC wiring
- Use twisted pair, 18 AWG (0.823 mm²) wire

Twisted pair, 18 AWG (0.823 mm²) wire

TB4

Ground
+12 VDC

Power to PremiSys PoE One-Door Reader Controller using optional Ten-Amp Power Supply

Negative (-) Positive (+)

DC Output
4 A @ 12 VDC

- Observe polarity for all DC wiring
- Use twisted pair, 18 AWG (0.823 mm²) wire

Twisted pair, 18 AWG (0.823 mm²) wire

TB4

Ground
+12 VDC

Power to PremiSys PoE One-Door Reader Controller using optional Three-Amp Power Supply

CAUTION! The processor in this component is intended for use only in a Class 2, low-voltage circuit!

Input Voltage	12 – 24 VDC ± 10%, 300 mA (reader current not included) 12 VDC @ 250mA (plus reader current) nominal 24 VDC @ 150mA (plus reader current) nominal
Memory Backup	Embedded, rechargeable battery for SRAM backup

IMPORTANT! The Altronix® Power Supply Control panel contains 8 individual power outputs. Each output can supply up to 2.5 A @ 12 VDC. However, the total output amperage on all 8 ports cannot exceed 10 A. You must determine the load of each board in the loop to ensure that the current draw does not exceed 2.5 A per output port and that the total current draw on the power supply does not exceed 10 A.

Verifying Power and Operation:

When a controller is first powered up, the pattern of the LEDs' flashing indicates proper powering and response.

The PremiSys™ PoE One-Door Reader Controller has red LEDs, 1-3, TMP, FLT, R1, R2, IN1 – IN8 and D16 as well as one yellow and one green LED on the Ethernet port. See the schematic of the Two-Reader Controller 64 at the beginning of this section to view the location of the LEDs. See the table at the end of this topic for information indicating the status of the controller based on the LEDs.

As you begin to power up, all LED's are off.

While the controller is initializing, the LEDs have the following meanings:

- LED's 1, 2, 3, TMP, FLT, R1, R2, IN1, IN2, IN3, IN4, IN5, IN6, IN7 and IN8 are sequenced during initialization.
- LED's 1, 3, and TMP are turned ON for approximately 4 seconds after the hardware initialization has completed,
- The application code is then initialized. The amount of time the application takes to initialize depends on the size of the database, about 3 seconds without a card database. Each 10,000 cards will add about 3 seconds to the application initialization.

IMPORTANT! When LED's 1, 2, 3 and TMP flash at the same time, data is being read from or written to flash memory, do not cycle power when in this state.

If the sequence stops or repeats, perform one of the steps below.

- Power-up and tag database as invalid:
  - o Remove input power to the controller

- Power-up without loading database into RAM:
  - o Remove input power to the controller
  - o Set DIP switches to a default mode (in a default mode, the database is not loaded into RAM)
  - o Reapply input power.

- Erase all of the configuration and databases (also erases card database for security reasons.) See "Bulk Erasing Ethernet Controllers 133" for instructions to erase all information on the controller.

If clearing the memory does not correct the initialization problem, contact technical support.

After initialization is complete the PoE One-Door Reader Controller's LEDs have the following meanings while in run mode:

Reader LEDs		**FLASH**	
R1	Clock/Data or D1/D0	Reader 1 receiving data	
	RS-485 Mode	Reader 1 transmitting data	
R2	Clock/Data or D1/D0	Reader 1 receiving data	
	RS-485 Mode	Reader 1 transmitting data	
Ethernet Port LEDs	**OFF**	**ON**	**FLASH**
Red LED (D16)	No data transmitting	Data transmitting	
Yellow LED	10Mb/S Ethernet speed	100Mb/S Ethernet speed	N/A
Green LED	No link	Good link	Ethernet activity
Inputs			
	OFF	**ON**	**FLASH**
IN1	Input 1 inactive	Input 1 active	Trouble on input 1
IN2	Input 2 inactive	Input 2 active	Trouble on input 2
	OFF	**ON**	
K1	Relay 1 de-energized	Relay 1 energized	
K2	Relay 2 de-energized	Relay 2 energized	

Wiring a PoE One-Door Reader Controller for Enclosure Tamper

Wire a magnetic tamper switch to Jumper J7 on the PremiSys™ PoE One-Door Reader Controller , as shown below, to activate an input point if the cover is removed.
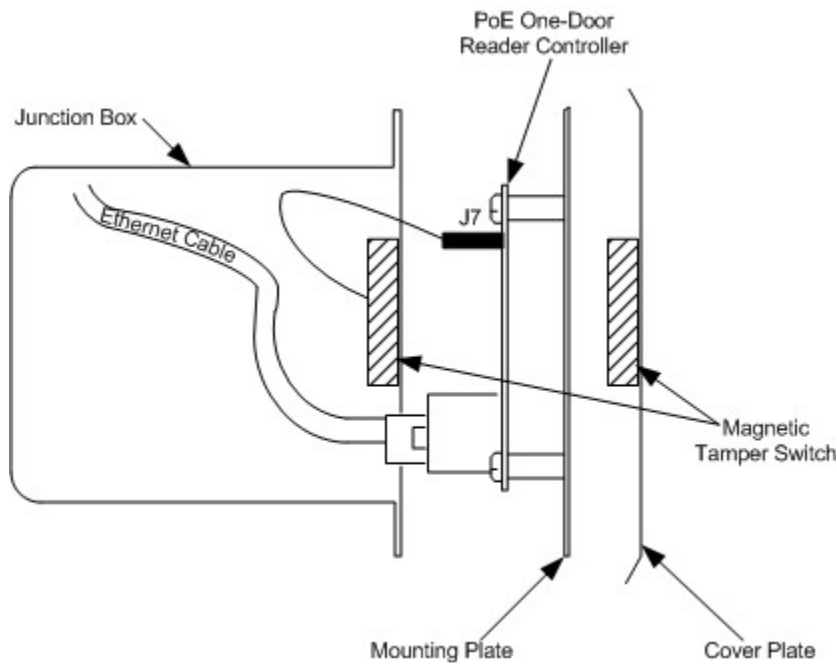
Alarm Inputs	Twisted pair, 30 ohms maximum

Wiring a PoE One-Door Reader Controller to the Host

⚠ **IMPORTANT!** Make sure that all pertinent jumper and DIP switch settings on all controllers in the system are also entered in the relevant controller setup window in the PremiSys™ software. See the PremiSys Online Help for details.

PoE One-Door Reader Controller via Ethernet to Host
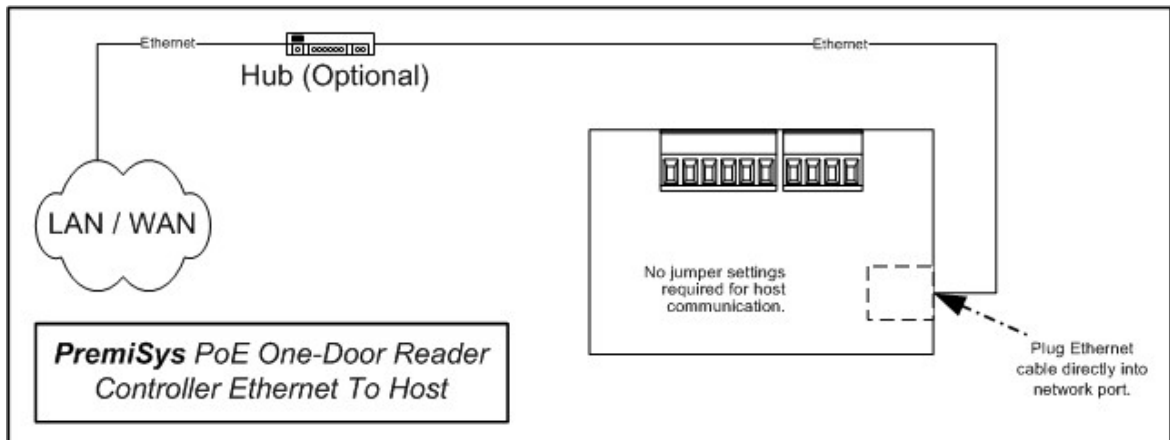
Notes:

- **The number of PoE One-Door Reader Controllers you can connect to an Ethernet network is limited by the number of IP addresses available, capacity of the server, bandwidth of the network and any other factor that affects network capacity.**
- **The Ethernet can be directly plugged into the Primary Port on the PoE One-Door Reader Controller.**
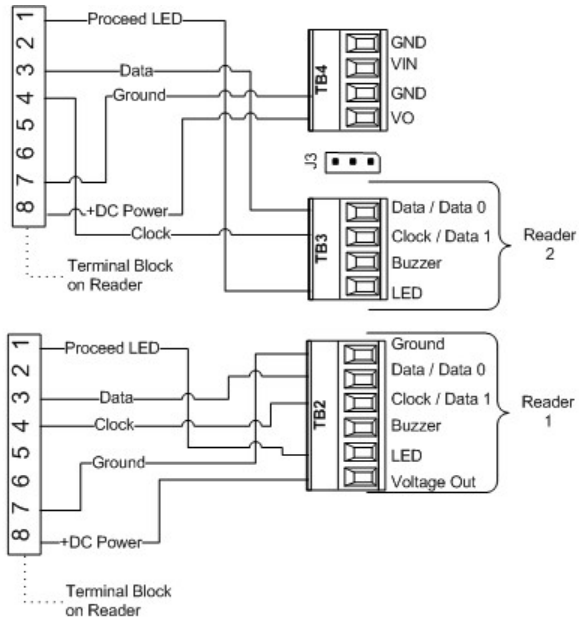- **Each controller connected via the Ethernet must be configured in the software to have its own channel.**

Primary Port – Ethernet to Host	Category 5 cable

Wiring a PoE One-Door Reader Controller to Wiegand and ABA Readers

IDentiSMART MIFARE Serial Number Reader (ABA)

The readers on the PoE One-Door Reader Controller are intended for use as paired or alternate readers to control one door.
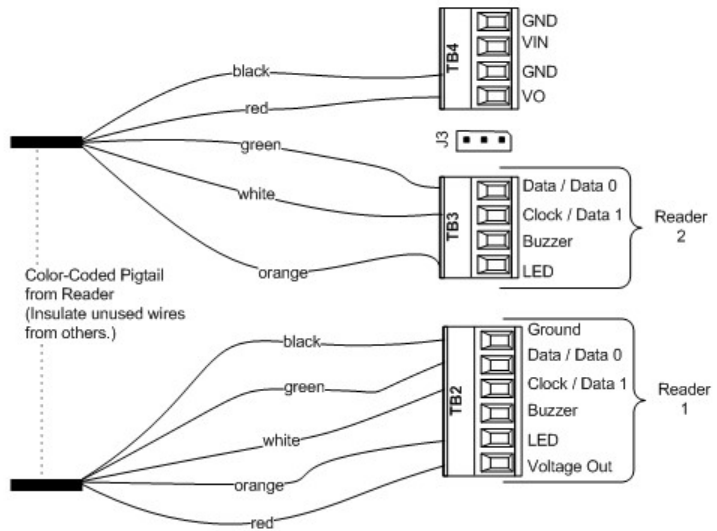
IDentiSMART MIFARE Serial Number Reader (ABA)

1 2 3 4 5 6 7 8

Proceed LED
Data
Ground
+DC Power
Clock

Terminal Block on Reader

TB4
GND
VIN
GND
VO

J3

TB3
Data / Data 0
Clock / Data 1
Buzzer
LED
Reader 2

1 2 3 4 5 6 7 8

Proceed LED
Data
Clock
Ground
+DC Power

Terminal Block on Reader

TB2
Ground
Data / Data 0
Clock / Data 1
Buzzer
LED
Voltage Out
Reader 1

HID ProxPoint Reader (Wiegand)

The readers on the PoE One-Door Reader Controller are intended for use as paired or alternate readers to control one door.

HID ProxPoint Reader (Wiegand)

black
red
green
white
orange

TB4
GND
VIN
GND
VO

J3

TB3
Data / Data 0
Clock / Data 1
Buzzer
LED
Reader 2

Color-Coded Pigtail from Reader (Insulate unused wires from others.)

black
green
white
orange
red

TB2
Ground
Data / Data 0
Clock / Data 1
Buzzer
LED
Voltage Out
Reader 1

Surface-Mount Track 2 Reader (ABA)

The readers on the PoE One-Door Reader Controller are intended for use as paired or alternate readers to control one door.

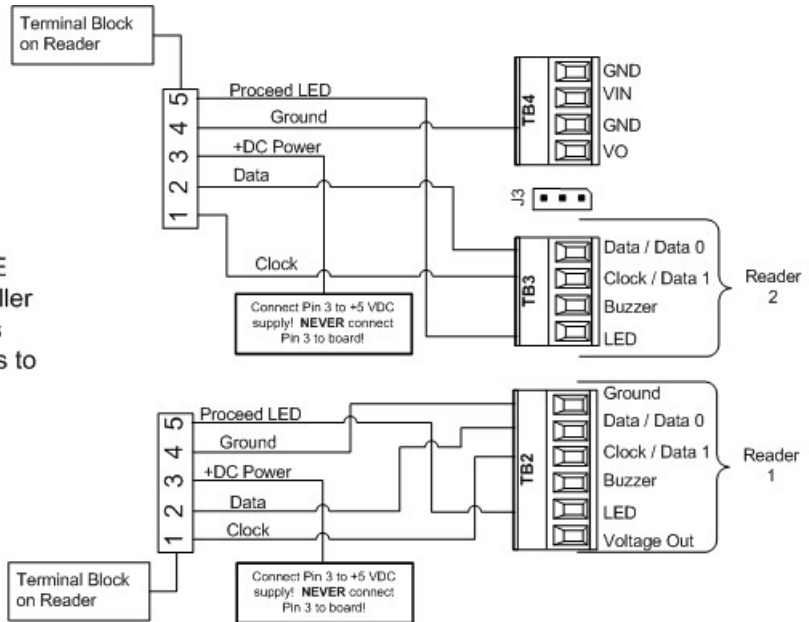**Surface-Mount Track 2 Reader (ABA)**

Terminal Block on Reader

Pin		TB4
5	Proceed LED	GND
4	Ground	VIN
3	+DC Power	GND
2	Data	VO
1	Clock	

J3

Connect Pin 3 to +5 VDC supply! **NEVER** connect Pin 3 to board!

TB3 — Reader 2
- Data / Data 0
- Clock / Data 1
- Buzzer
- LED

Reader 1 — TB2
- Proceed LED — Ground
- Ground — Data / Data 0
- +DC Power — Clock / Data 1
- Data — Buzzer
- Clock — LED
- Voltage Out

Terminal Block on Reader

Connect Pin 3 to +5 VDC supply! **NEVER** connect Pin 3 to board!

Flush-Mount Track 2 Reader (ABA)

The readers on the PoE One-Door Reader Controller are intended for use as paired or alternate readers to control one door.
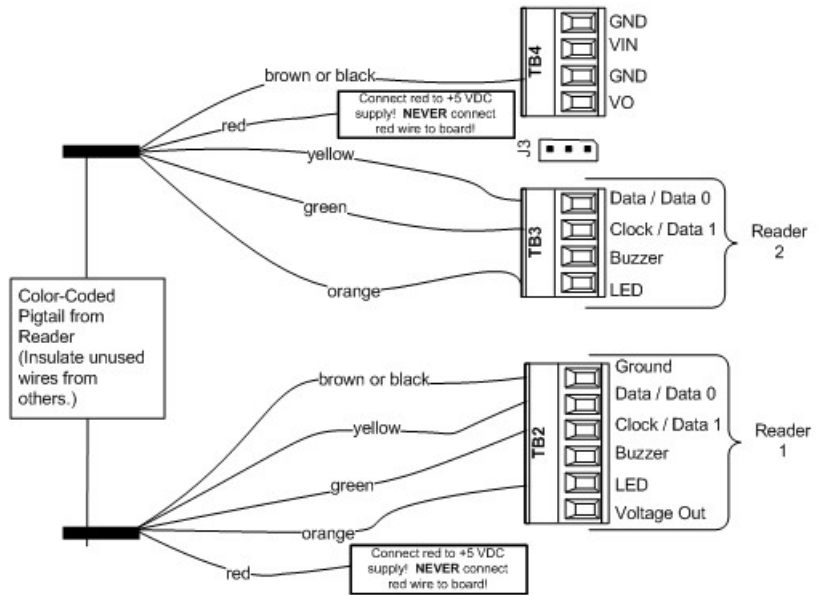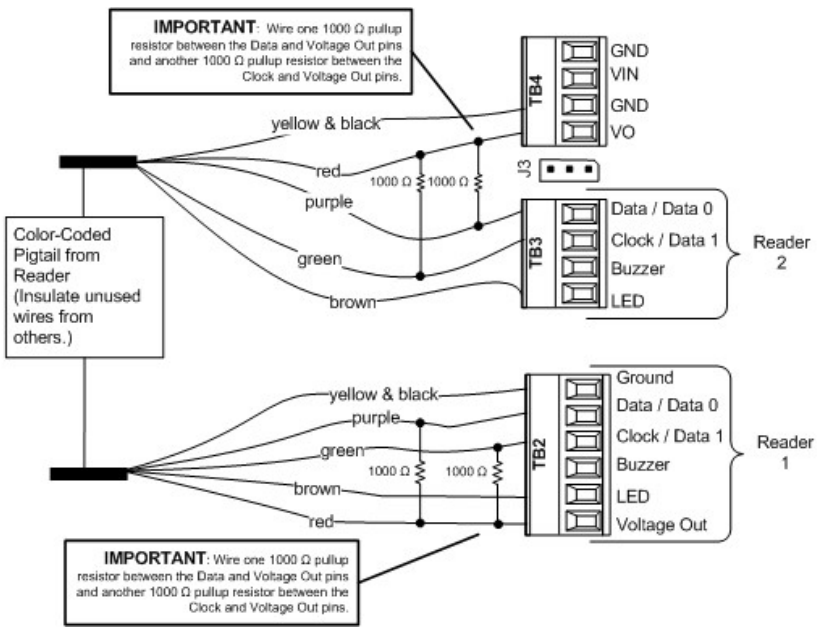
Flush-Mount Track 2 Reader (ABA)

TB4
- GND
- VIN
- GND
- VO

brown or black
red
Connect red to +5 VDC supply! **NEVER** connect red wire to board!
yellow
green
orange

J3

TB3 — Reader 2
- Data / Data 0
- Clock / Data 1
- Buzzer
- LED

Color-Coded Pigtail from Reader (Insulate unused wires from others.)

brown or black
yellow
green
orange
red

Connect red to +5 VDC supply! **NEVER** connect red wire to board!

TB2 — Reader 1
- Ground
- Data / Data 0
- Clock / Data 1
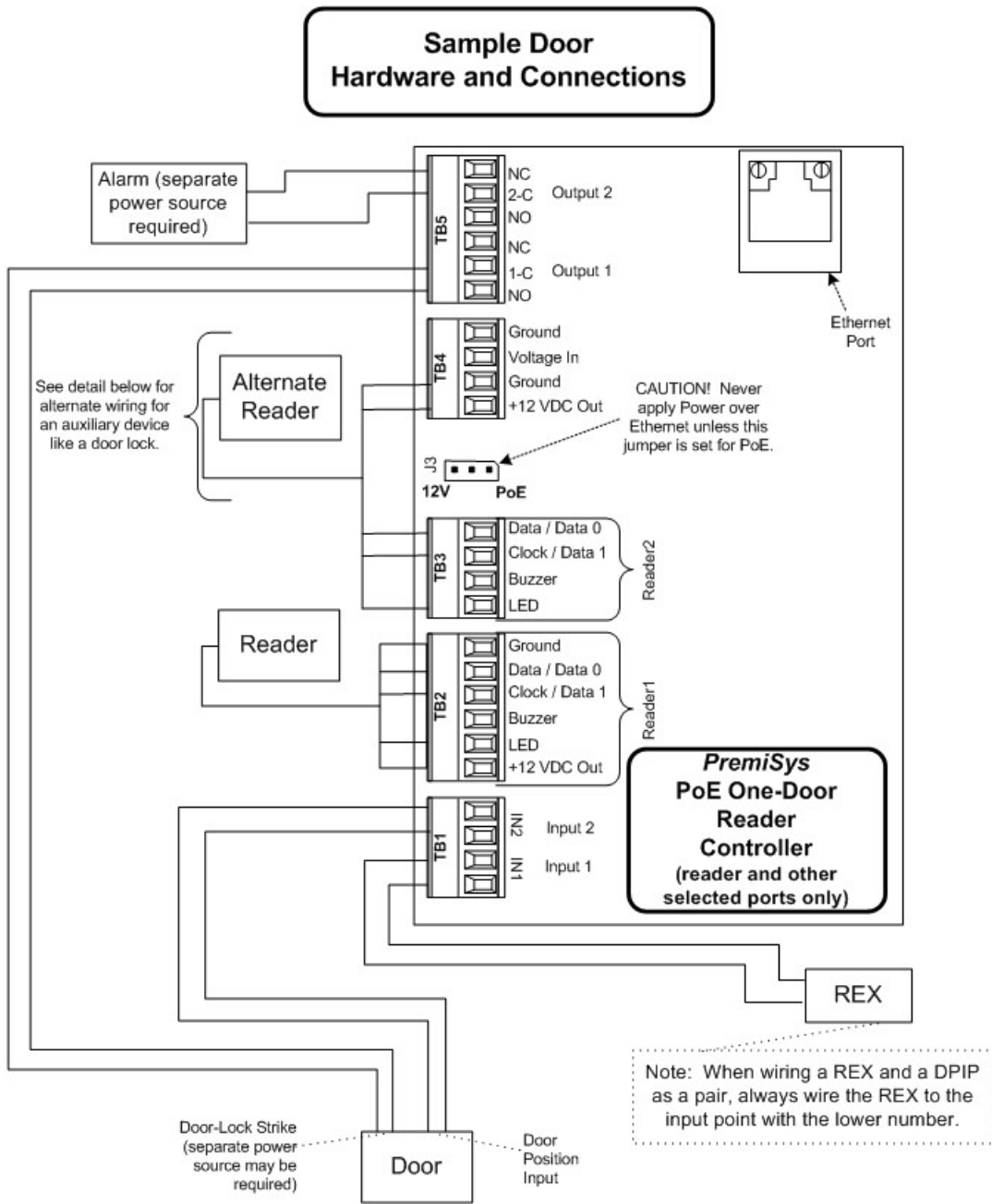- Buzzer
- LED
- Voltage Out

Bar-Code ABA Reader (ABA)

The readers on the PoE One-Door Reader Controller are intended for use as paired or alternate readers to control one door.

Bar-Code ABA Reader (ABA)

IMPORTANT: Wire one 1000 Ω pullup resistor between the Data and Voltage Out pins and another 1000 Ω pullup resistor between the Clock and Voltage Out pins.

Color-Coded Pigtail from Reader (Insulate unused wires from others.)

yellow & black
red
purple
green
brown

TB4
GND
VIN
GND
VO

J3

1000 Ω 1000 Ω

TB3
Data / Data 0
Clock / Data 1
Buzzer
LED

Reader 2

yellow & black
purple
green
brown
red

1000 Ω 1000 Ω

TB2
Ground
Data / Data 0
Clock / Data 1
Buzzer
LED
Voltage Out

Reader 1

IMPORTANT: Wire one 1000 Ω pullup resistor between the Data and Voltage Out pins and another 1000 Ω pullup resistor between the Clock and Voltage Out pins.

Wiring a PoE One-Door Reader Controller to Reader with Door Strike, REX, Alarm DPIP and Alarm Relay

Sample Door Hardware and Connections

Alarm (separate power source required)

TB5 — NC / 2-C / NO — Output 2
NC / 1-C / NO — Output 1

Ethernet Port

See detail below for alternate wiring for an auxiliary device like a door lock.

Alternate Reader

TB4 — Ground / Voltage In / Ground / +12 VDC Out

CAUTION! Never apply Power over Ethernet unless this jumper is set for PoE.

J3 12V PoE

TB3 — Data / Data 0 / Clock / Data 1 / Buzzer / LED — Reader2

Reader

TB2 — Ground / Data / Data 0 / Clock / Data 1 / Buzzer / LED / +12 VDC Out — Reader1

PremiSys PoE One-Door Reader Controller (reader and other selected ports only)

TB1 — IN2 Input 2 / IN1 Input 1

REX

Note: When wiring a REX and a DPIP as a pair, always wire the REX to the input point with the lower number.

Door-Lock Strike (separate power source may be required)

Door

Door Position Input

Auxiliary Device Detail

Connect to door-strike power input, etc. **See Caution alert at right!**

TB4 — Ground / Voltage In / Ground / +12 VDC Out

CAUTION! If wiring for door strike power, verify that strike is rated for 12 VDC, total current draw (reader and strike) does not exceed 650 mA and voltage suppression is used on strike relay circuit. Factor cable gauge into current-requirement calculations.

Wiring a PoE One-Door Reader Controller to Door Strike and Magnetic Lock
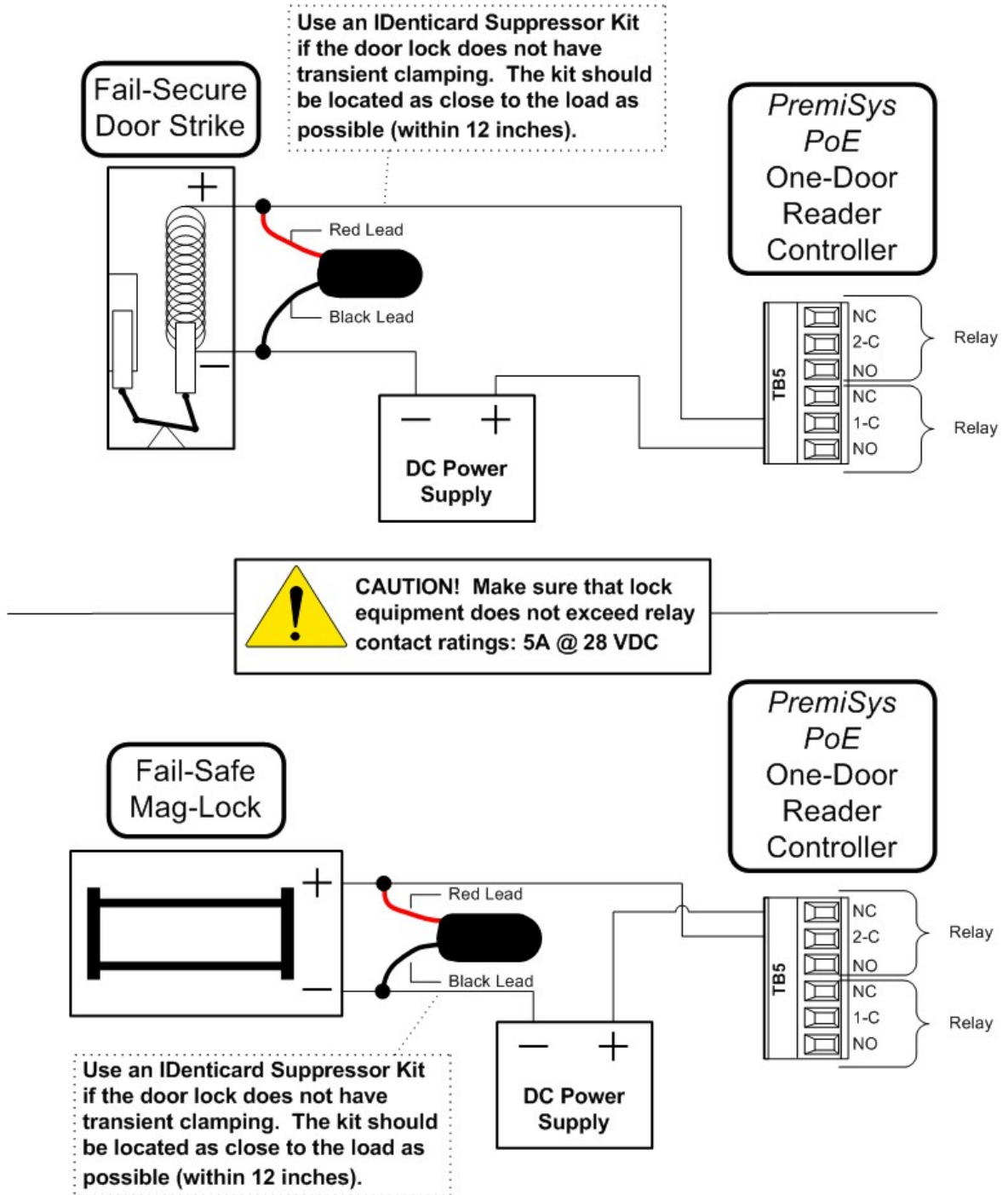
See the previous page for guidelines on powering a door lock from the controller.

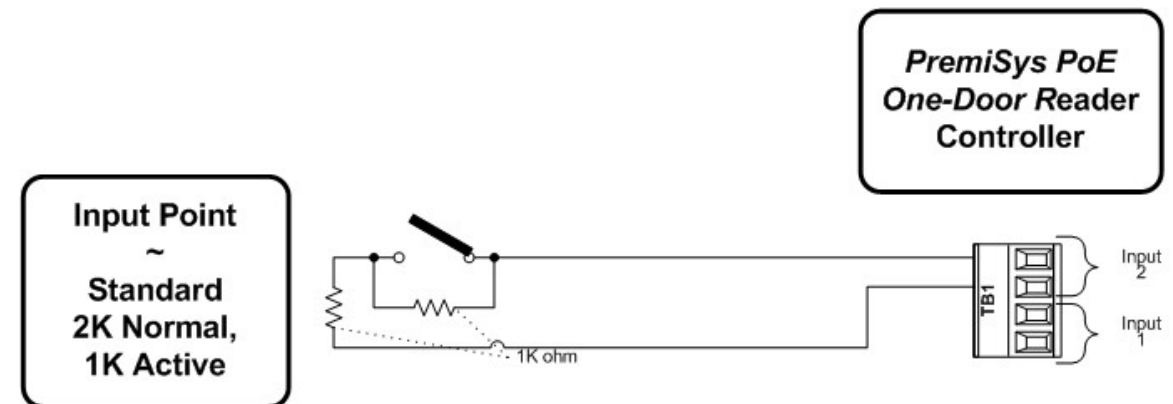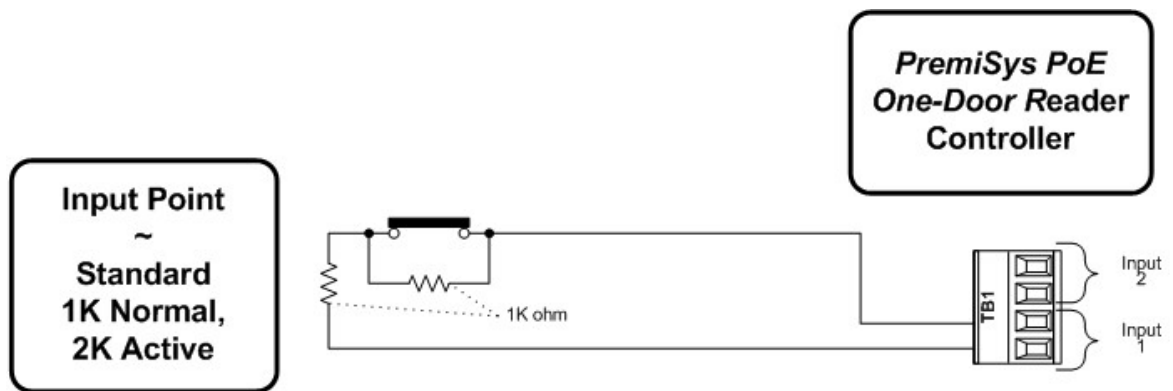**Wiring Supervised Input Points on the PoE One-Door Reader Controller**

Supervised inputs such as these can be used for door-position input points or any other input that requires supervision.

PremiSys™ hardware supports only the standard "1 K normal, 2 K active" and "2 K normal, 1 K active" supervision modes depicted here.

> ⚠️ **IMPORTANT! Inputs on a single board are normally processed in ascending numeric sequence when they change state simultaneously or nearly simultaneously. Consequently, if wiring a REX input point and a door-position input point in a pair on a PoE One-Door Reader Controller, make sure that the door-position input point has a higher input number than the REX point paired with it.**

Input circuits require one twisted pair per input and are rated at 30 ohms maximum.

Wiring Unsupervised Input Points on the PoE One-Door Reader Controller

Unsupervised inputs such as these can be used for REXes, general-purpose input points or any other input that does not require supervision. See the topic "Wiring a Supervised Input Point to the PremiSys Two-Reader Controller 81 " to wire inputs that require supervision.

Input circuits require one twisted pair per input and are rated at 30 ohms maximum.
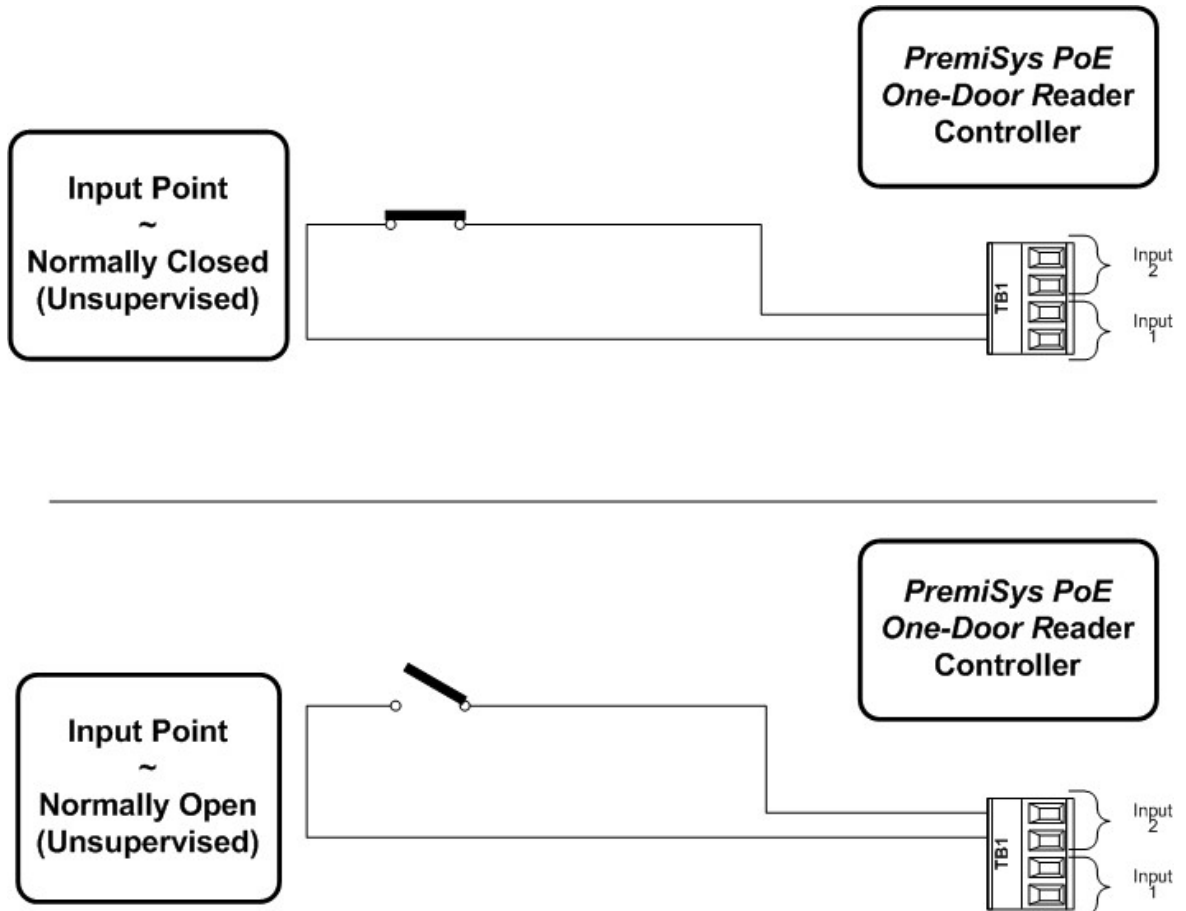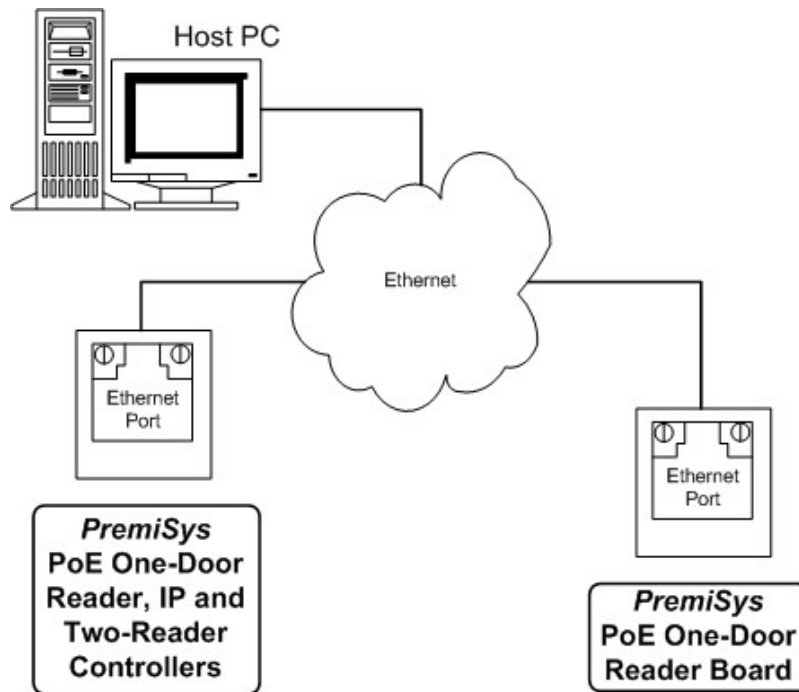

Wiring a PoE One-Door Reader Controller to the PoE One-Door Reader Board

Communication from the PremiSys™ Two-Reader Controller to the PremiSys PoE One-Door Reader Controller is handled via the Ethernet, while power to the board can be handled via the Ethernet or via a separate power supply.

> **IMPORTANT! You can connect up to 16 PoE One-Door Reader Boards to a single PoE One-Door Reader Controller. The total number of possible doors (readers) that can be connected to one PoE One-Door Reader Controller is 17: 16 doors on PoE One-Door Reader Boards, plus one on-board door (reader) on the PoE One-Door Reader Controller.**
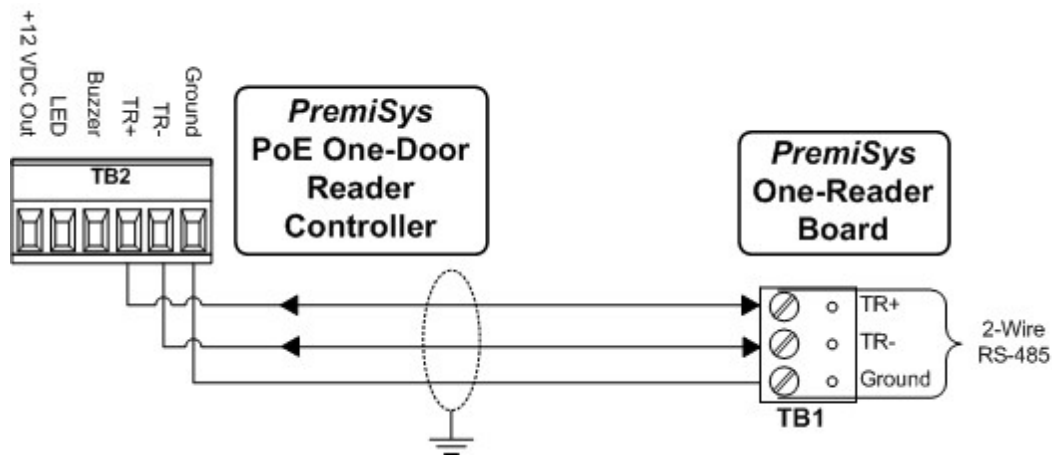
IMPORTANT! You cannot address the PoE One-Door Reader Board using jumpers; you must assign a range of IP addresses to the Ethernet controller. The controller then assigns one of those IP addresses to the PoE One-Door Reader Board. Enter the MAC address of the PoE One-Door Reader Board when you add the board to your Ethernet controller through your PremiSys™ software. The controller links the MAC address to an IP address from the range of reserved IP address.

Wiring a PoE One-Door Reader Controller to the One-Reader Board

IMPORTANT! You can connect up to <u>eight</u> One-Reader Boards (or other downstream RS-485 I/O boards) to a single PoE One-Door Reader Controller. Once that limit is reached, up to eight PoE One-Door Reader Boards can be connected for a maximum total of 16 I/O boards. The maximum number of possible doors (readers) that can be available on one PoE One-Door Reader Controller is 17: 16 doors from all connected I/O boards, plus one on-board door (reader) on the PoE One-Door Reader Controller.
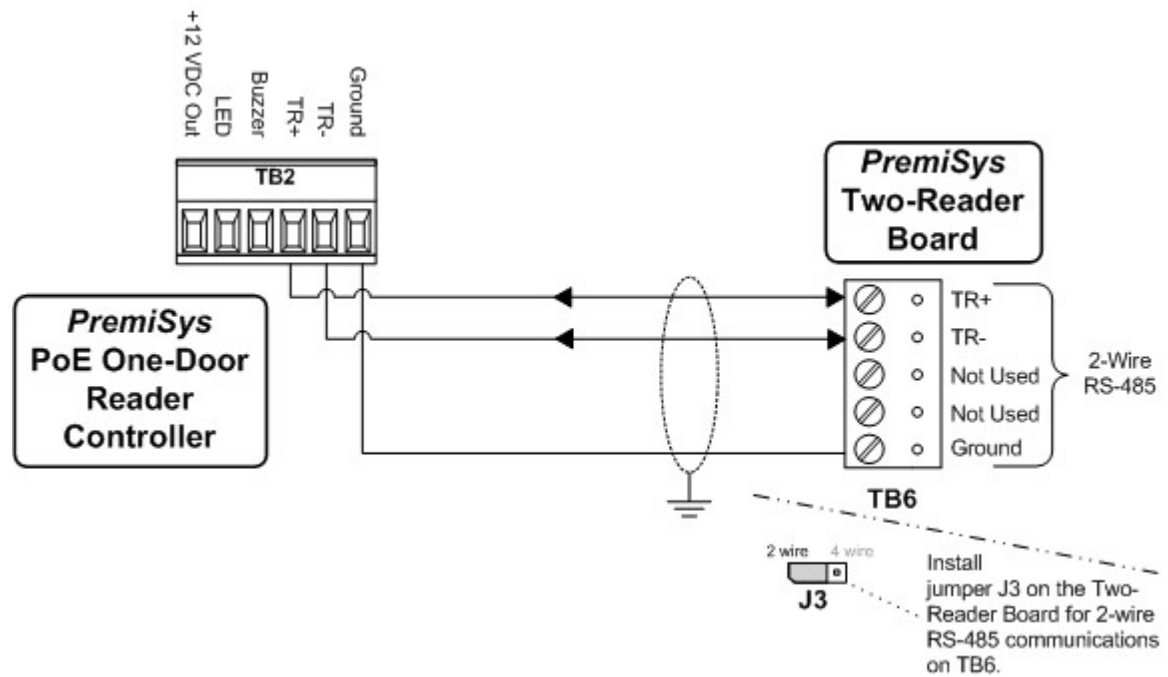
TB2 on the PoE One-Door Reader Controller – RS-485 to TB 1 on the One-Reader board	Two-wire RS-485 Twisted pair(s), 24 AWG (0.2047 mm2), with overall shield Maximum cable length: 4000 feet (1219 meters) of wire, total copper, including drops

Wiring a PoE One-Door Reader Controller to the Two-Reader Board

IMPORTANT! You can connect up to <u>eight</u> Two-Reader Boards (or other downstream RS-485 I/O boards) to a single PoE One-Door Reader Controller. Once that limit is reached, up to eight PoE One-Door Reader Boards can be connected for a maximum total of 16 I/O boards. The maximum number of possible doors (readers) that can be available on one PoE One-Door Reader Controller is 17: 16 doors from all connected I/O boards, plus one on-board door (reader) on the PoE One-Door Reader Controller.
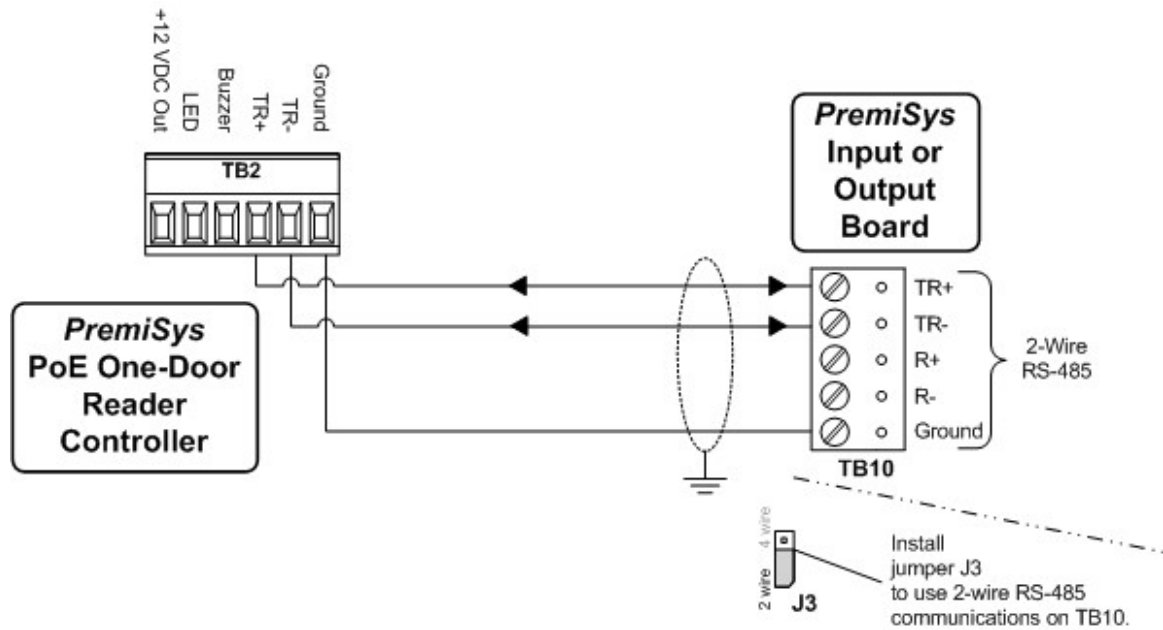
⚠️ **IMPORTANT! Install Jumper J3 exactly as illustrated here! Four-wire RS-485 cannot be used!**

TB2 on the PoE One-Door Reader Controller – RS-485 to TB 6 on the Two-Reader board	Two-wire RS-485
	    Twisted pair(s), 24 AWG (0.2047 mm2), with overall shield
	    Maximum cable length: 4000 feet (1219 meters) of wire, total copper, including drops

Wiring a PoE One-Door Reader Controller to the Input Or Output Boards

⚠️ **IMPORTANT! You can connect up to _eight_ Input or Output Boards (or other downstream RS-485 I/O boards) to a single PoE One-Door Reader Controller. Once that limit is reached, up to eight PoE One-Door Reader Boards can be connected for a maximum total of 16 I/O boards. (The maximum number of possible doors (readers) that can be available on one PoE One-Door Reader Controller is 17: 16 doors from all connected I/O boards, plus one on-board door (reader) on the PoE One-Door Reader Controller.)**

⚠️ **IMPORTANT! Install Jumper J3 exactly as illustrated here! Four-wire RS-485 cannot be used!**

TB 10 - Input or Output Board	
TB10-1	TR+
TB10-2	TR-
TB10-3	Not Used
TB10-4	Not Used
TB10-5	Ground

TB2 on the PoE One-Door Reader Controller – RS-485 to TB 10 on the Input or Output boards	Two-wire RS-485
	    Twisted pairs, 24 AWG (0.2047 mm2), with overall shield
	    Maximum cable length: 4000 feet (1219 meters) of wire, total copper, including drops

PoE One-Door Reader Controller LEDs

After initialization is complete the PremiSys™ PoE One-Door Reader Controller's LEDs have the following meanings while in run mode:

Ethernet	OFF	ON	FLASH

Port LEDs			
Yellow LED	10Mb/S Ethernet speed	100Mb/S Ethernet speed	N/A
Green LED	No link	Good link	Ethernet activity

LED	
1	Heartbeat and online status indicator
2	"On" indicates I/O communication or IP address request
3	"On" indicates reader activity on either reader
4	"On" indicates Input Point 1 in Alarm
5	"On" indicates Input Point 2 in Alarm
6	"On" indicates Input Point 3 in Alarm (tamper-switch jumper)

Configuring PremiSys Ethernet Controllers

Each Ethernet controller (IP, Two-Reader and PoE Controllers) that you install on the site's network must be have a unique IP address on that network. However, all Ethernet controllers come programmed from the factory with the same default address, so you must reprogram each controller with the unique IP address it requires. The IT personnel at the site need to provide the addresses that are available for use. They also need to let you know if there are subnet masks and default gateways to include as part of programming each controller.

This reprogramming is done by connecting each controller to the network one at a time and opening its Configuration Manager through a web browser on a client PC. You use the Configuration Manager built into each controller to assign a new, unique address and optionally set other parameters for the controller.

Your client PC needs to initially communicate with the Configuration Managers on the Ethernet controllers. So, the PC must have an IP address in the same subnet as the controller's default IP address and be compatible with your network's security settings. Use one of the two methods given below to achieve compatible PC-controller IP addresses and initially communicate with your Ethernet controller so that you can configure the controller for use with your PremiSys™ software on the network at the site.

- **On the network** - If your network allows your PC to communicate with the IP address 192.168.10.20, you can go ahead and connect to the controller over the network. This address is the default IP address given to all controllers at the factory.
- **Off the network** - If your network blocks communications with the IP address 192.168.10.20, you must connect to the controller from a PC that is **off** the network and use a Category 5 cable (you may use a standard or crossover cable) plugged