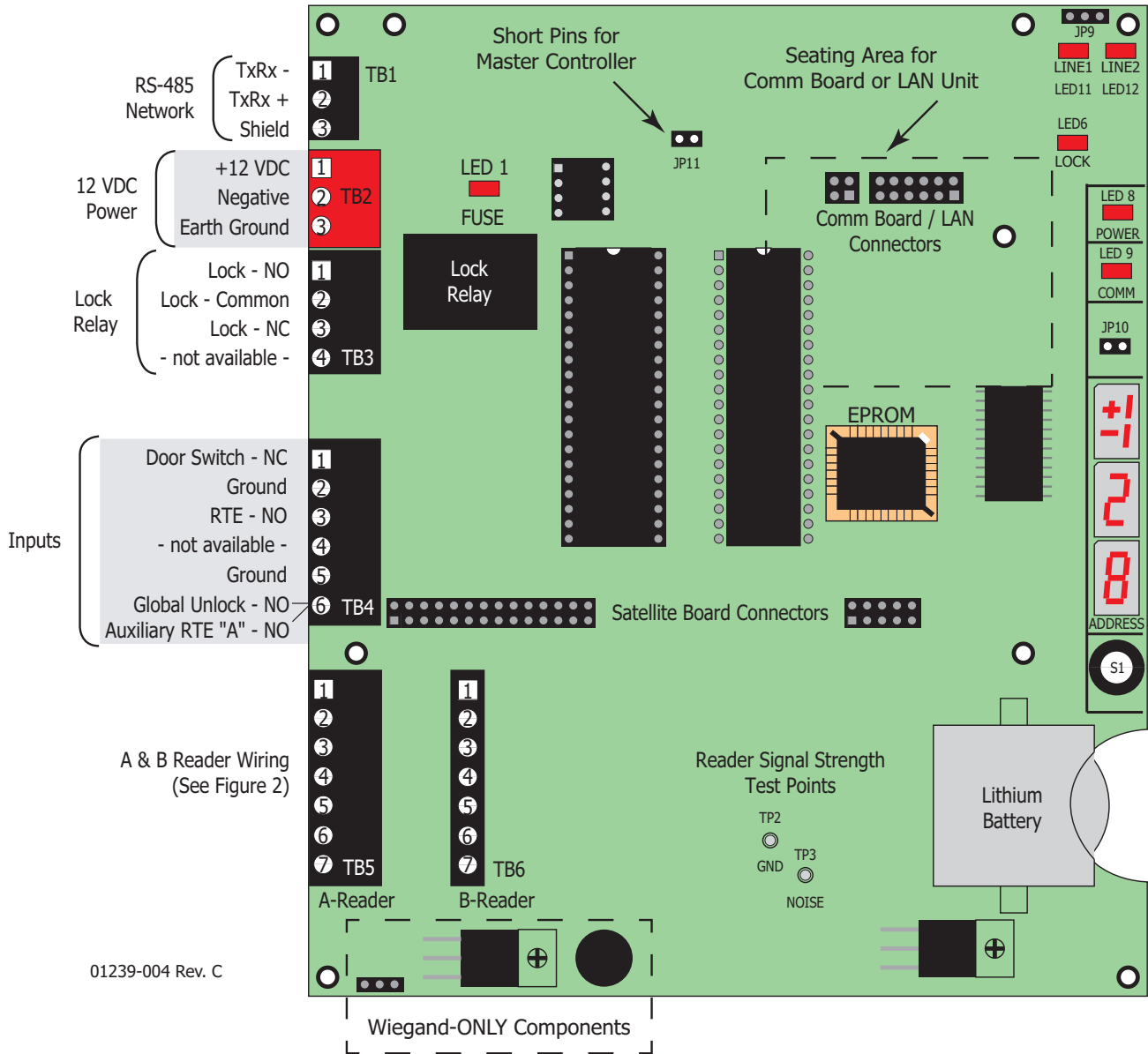


# PXL-380 Access Controller

## Installation Guide

The PXL-380 is a 1-door, 2-reader door controller that can manage access and egress at a single door, or access for two doors using Keri's Proximity Readers and an SB-23 Satellite Board. There are both Keri Proximity and Wiegand versions of this controller. This document contains basic information for the installation of the PXL-380 Access Controller.

### 1.0 PXL-380 Access Controller



# PXL-380 Access Controller

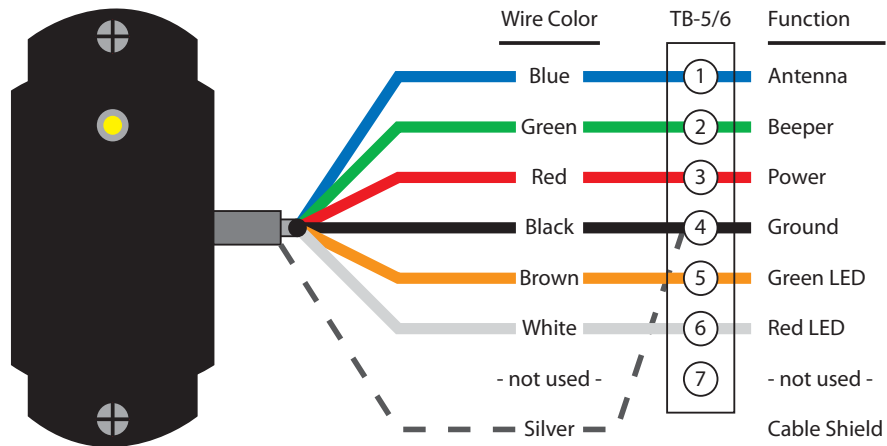
## Installation Guide

**Table 1: Cable Matrix**

	Conductors	Shield	Twisted Pair	Stranded	AWG	Max Length
<b>485 Network</b>	2	Y	Y	Y	24	4,000 ft
<b>Power</b>	2	N	N	Y	18	200 ft
<b>Earth Ground</b>	1	N	N	N	18	as short as possible
<b>Output</b>	2	N	Y	Y	20	100 ft
<b>Input</b>	2	N	N	Y	22	100 ft
<b>Serial Comm</b>	3	Y	N	Y	24	50 ft
<b>Modem</b>	5	Y	N	Y	24	50 ft
<b>Readers</b>	6	Y	Y	Y	24	500 ft

## 2.0 Reader Connections

### 2.1 Keri MS Reader

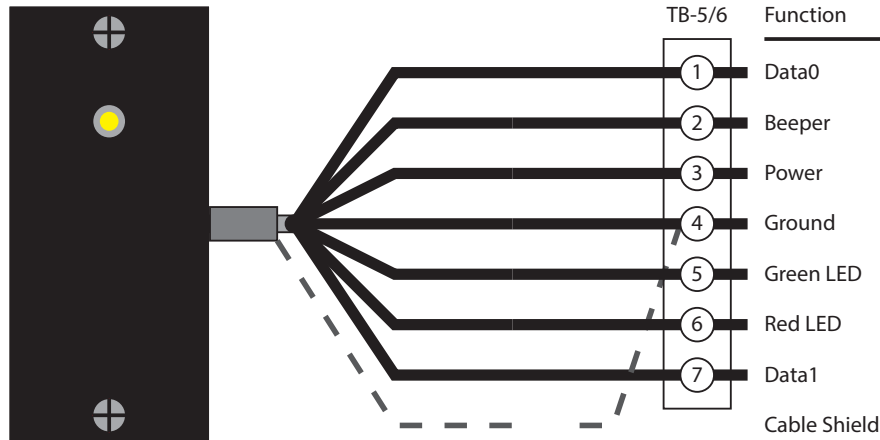


Wiring applies to both TB-5 / A-Reader and TB-6 / B-Reader.

# PXL-380 Access Controller

## Installation Guide

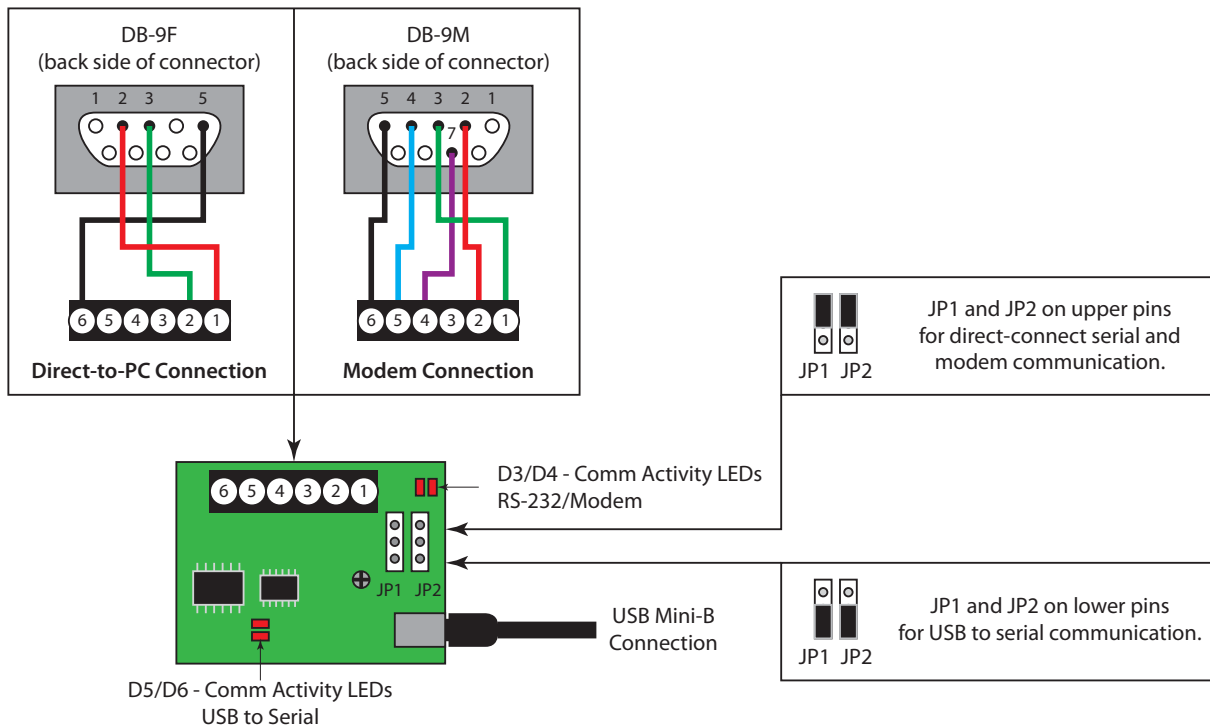
### 2.2 Wiegand Reader



Wiring applies to both TB-5 / A-Reader and TB-6 / B-Reader.  
**Refer to the Wiegand Reader's documentation for wire colors.**

### 3.0 Comm Board

The Comm Board provides the external link from master controller to host PC. Comm Boards are only needed for the master controller for each site. The Comm Board provides communication via either RS-232 serial/direct-connect, modem, or USB. For Ethernet/LAN communications a LAN-520 is still required (replacing the Comm Board). The Comm Board is not provided with the controller, but must be ordered separately.



# PXL-380 Access Controller

## Installation Guide

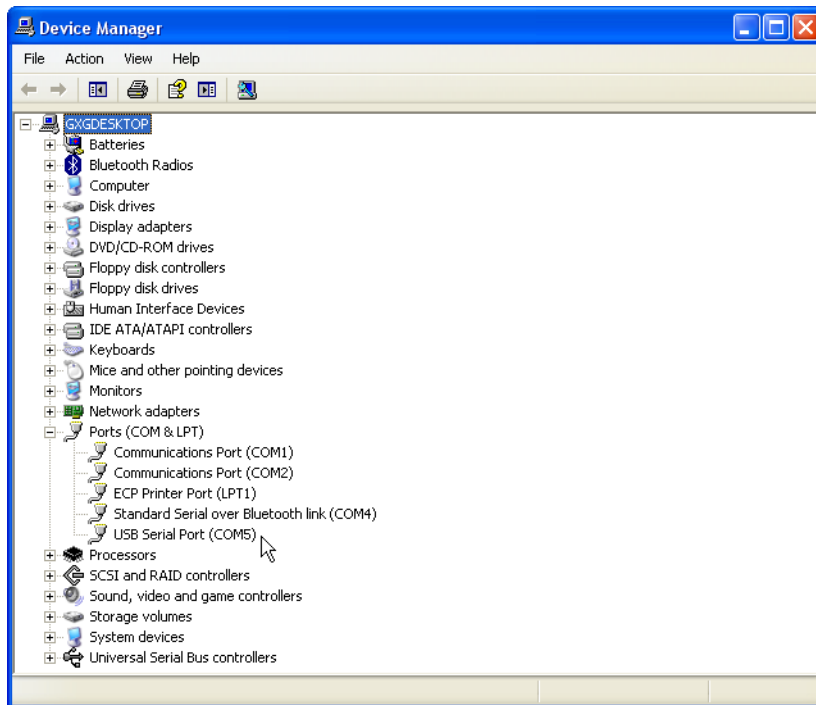
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### 3.1 USB Communication

The Comm Board is capable of USB serial communication with the host PC using a Mini-B cable. The maximum cable length from PC to controller is 16 feet (5 meters). Perform the following to set the Comm Board for USB communication:

*NOTE: Windows XP operating system screen examples are shown.*

1. On the Comm Board, set JP1 and JP2 per the above drawing.
2. Plug the Comm Board onto the controller.
3. Plug the USB cable into the Comm Board.
4. Power up the controller.
5. Plug the USB cable into a port on the PC.
6. Install the USB driver if necessary. This driver will install automatically if there is a connection to the Internet, and is also included on the software DVD (Drivers\FTDI Driver folder).
7. Open the Device Manager window:
  - Start > Run > devmgmt.msc
8. View the list of available COM ports.

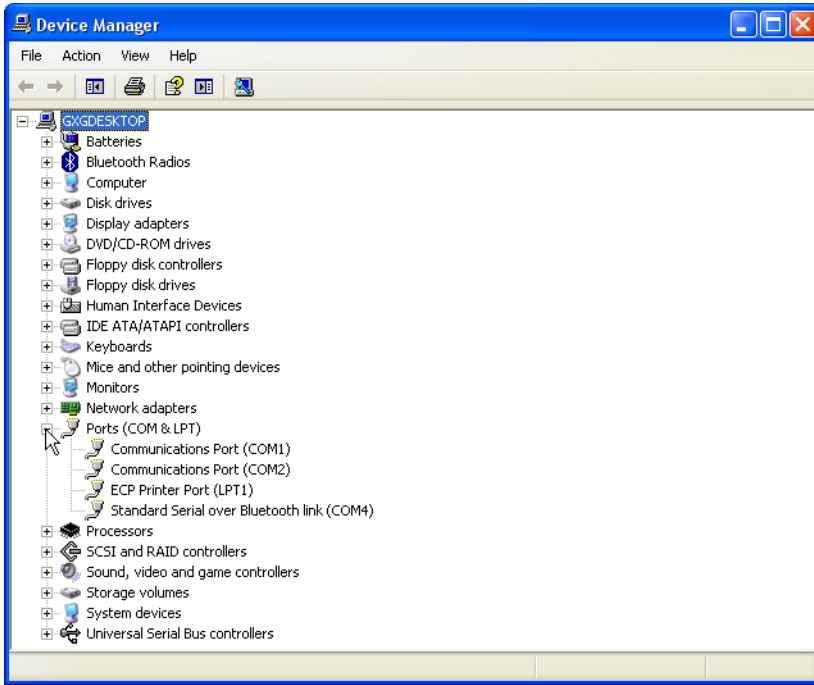


# PXL-380 Access Controller

## Installation Guide

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9. Disconnect the USB cable and note the COM port that disappears. This is the COM port assigned to the Comm Board.



10. Reconnect the USB cable and verify the COM port reappears with the same port assignment.
11. Note this COM port number assigned to the Comm Board for assignment in Doors.NET.

## 4.0 Resetting the Controller's RAM

If you're turning system power on for the first time or have just changed the EPROM/PIC, the PXL-380 controller's RAM must be reset before performing any other action. This clears any spurious information that may be in the RAM in preparation for entering your access control information. Before applying power, insert a jumper across pins 1 and 2 of JP10 on the controller. Hold the S1 Options Button down and turn the controller's power on. The beeper for the reader attached to the controller will beep as power comes on followed by a beep-beep indicating the controller's firmware has reset the controller's RAM. Release S1. Turn system power off and remove the jumper on JP10. When the controller is powered up it is now ready to receive information from *Doors.NET*.

*NOTE: Resetting the system RAM completely erases all information within the PXL-380 controller. Therefore, once a reset has been performed on the controller all the access control information will need to be sent again from the software.*

## 5.0 Controller Addressing

To view the controller's address, click S1. The controller's address will appear on the address display for 2 to 3 seconds.

### 5.1 The Master Controller

Every site must have one Master Controller, through which communication to the host PC is made and to which all slave controllers are connected. The Master Controller must be set as address 1 and it must have the Master Controller jumper JP 11 ON (refer to the drawing on page 1). All slave controllers **must not have a jumper** on JP11 and can have addresses between 2 and 128. A Comm Board is required for the Master Controller to communicate with the host PC. The Comm Board is not provided with PXL controllers, but must be ordered separately. Refer back to Section 3.0 for information on the Comm Board.

# PXL-380 Access Controller

## Installation Guide

### 5.2 Setting the Controller's Address

To set the desired operating address for the controller, verify the jumper to JP10 is NOT installed. Hold the S1 Options Button down and turn the controller's power on. The beeper for the reader attached to the controller will beep as power comes on. Release S1. The address display LEDs then become active and the controller's address can be set. The address range is from 1 to 128 (the Master Controller must be set to address 1).

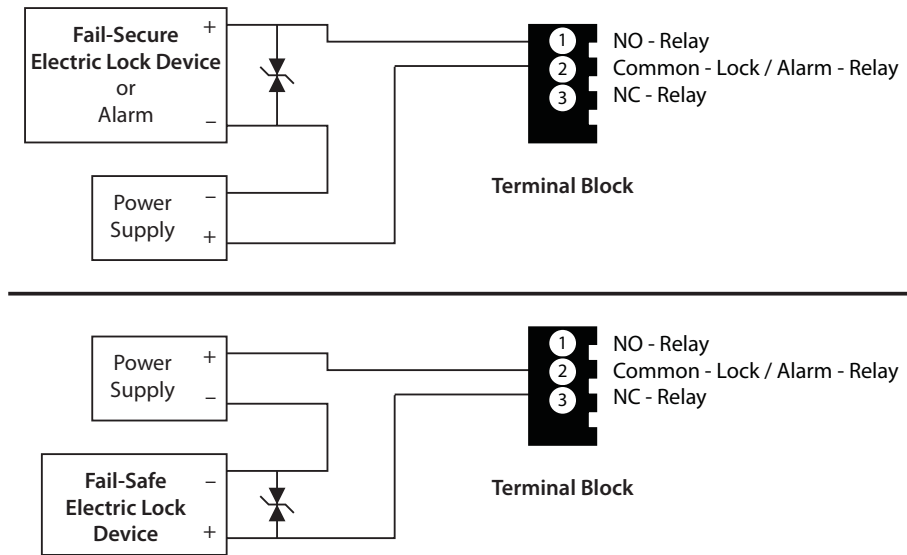
Quickly double clicking S1 toggles between increasing and decreasing the controller address. The top LED character will display either a "+" or a "-" to show which direction is active. A single click of S1 changes the controller address by 1. If you're at address 128, a +1 click will roll the address over to 1; conversely, if you're at address 1 a -1 click will roll the address over to 128. Holding S1 down rapidly scrolls through the addresses.

After the new address has been set, you must wait approximately 30 seconds after releasing the S1 button. There is a timer in the controller's firmware that assumes that after 30 seconds of inactivity (no address clicks), the entered address is the desired address for that controller. When the 30-second timer expires, there will be a beep-beep-beep from the reader indicating the controller has recognized and accepted the new address and the address LEDs will turn off. To ensure the address change will be recognized by *Doors.NET*, power down the controller. Then, after verifying the JP10 jumper is NOT installed, apply power to the controller. The controller is now ready to be used under the new address.

*NOTE: When a controller's address is changed, its RAM is automatically reset, clearing all configuration information that may have been downloaded to the controller. A Total Update must be performed from Doors.NET.*

### 6.0 Transient Protection

A transorb is provided with the controller ship kit. It is used to protect the controller from voltage spikes induced on the relay wiring by absorbing the excess voltage and slowly releasing it back into the circuit. Keri strongly recommends wiring in the transorb provided with the controller ship kit. Refer to the Transorb Wiring Diagram below.



### 6.1 Isolation Relays

For locking devices that may induce heavy voltage spikes – Mag Locks and devices with heavy-duty solenoids such as turnstiles, vehicle gates, and overhead doors – Keri recommends using an isolation relay. Keri has an Isolation Relay Kit (p/n IRP-1). Please refer to the IRP-1 Isolation Relay Installation Guide (p/n 01833-001) for detailed information.

# PXL-380 Access Controller Installation Guide

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## 7.0 Contact Keri Systems

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Web: <a href="http://www.kerisys.com">www.kerisys.com</a>	Web: <a href="http://www.kerisystems.co.uk">www.kerisystems.co.uk</a>
E-mail: <a href="mailto:sales@kerisys.com">sales@kerisys.com</a> <a href="mailto:techsupport@kerisys.com">techsupport@kerisys.com</a>	E-mail: <a href="mailto:sales@kerisystems.co.uk">sales@kerisystems.co.uk</a> <a href="mailto:tech-support@kerisystems.co.uk">tech-support@kerisystems.co.uk</a>

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