



**Wireless Access**

**PANEL CONNECTION INFORMATION**

**NORTHERN COMPUTERS  
PW-5000 PANEL  
USING  
PW5K1R2 DUAL READER  
INTERFACE**

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# Wireless Access

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## **PANEL CONNECTION INFORMATION**

### Wireless Access System (WAS) & Northern Computers PW-5000/ PW5K1R2

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## 1. Block Diagram

This document describes how to connect a Schlage Wireless Access Panel Interface Module (PIM) to a Northern Computers Dual Reader Interface (PW5K1R2). In a typical application, the PIM controls a Schlage Wireless Access Point Module (WAPM) and the PW5K1R2 connects to a Northern Computers Access Control Panel (PW-5000) (Figure 1-1).

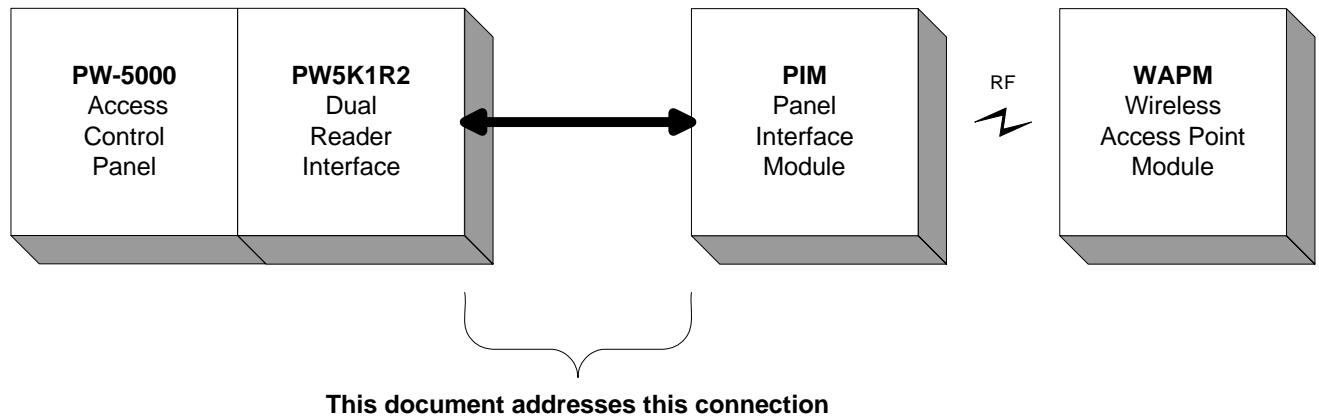


Figure 1-1 – Typical Block Diagram

## 2. Connecting the PIM to the PW5K1R2

Table 2-1 shows the wiring connections required to connect the Schlage Wireless Access PIM to the Northern Computers PW5K1R2 dual reader interface. Figure 2-2 is a schematic of the wiring connections.

PIM Signal	PW5K1R2 Signal	Comment
DOOR A – J3 – STK-NO	RLY 1 NO	door strike relay connection
DOOR A – J3 – STK-COM	RLY 1 C	
DOOR A – J3 - EXIT REQ	INPUTS IN2 – 2*	request to exit connection
DOOR A – J3 - DOOR STAT	INPUTS IN1 – 2*	door position connection
DOOR A – J3 – TROUBLE	no connection	trouble connection
DOOR A – J3 – DATA/D0	READER 1 – DAT D0	card reader connection
DOOR A – J3 – CLK/D1	READER 1 – CLK D1	
DOOR A – J3 – GROUND	READER 1 – GND	
DOOR B – J4 – STK-NO	RLY 4 NO	door strike relay connection
DOOR B – J4 – STK-COM	RLY 4 C	
DOOR B – J4 - EXIT REQ	INPUTS IN6 – 2*	request to exit connection
DOOR B – J4 - DOOR STAT	INPUTS IN5 – 2*	door position connection
DOOR B – J4 – TROUBLE	no connection	trouble connection
DOOR B – J4 – DATA/D0	READER 2 – DAT D0	card reader connection
DOOR B – J4 – CLK/D1	READER 2 – CLK D1	
DOOR B – J4 - GROUND	READER 2 – GND	

\*the 2 denotes the lower voltage terminal (see section 2.1.1)

Table 2-1 – PIM/ PW5K1R2 Wiring Connections

## 2.1 Request to Exit & Door Position Connections

### 2.1.1 Unsupervised Connections

The Request to Exit and Door Position inputs on the PW5K1R2 are supervised inputs that expect a dry contact closure (i.e. mechanical switch) that switches between zero and infinite impedance. The PIM provides an open collector output that switches between signal ground and open collector impedance. In order to sense the proper state of these inputs, a 1 Kohm resistor needs to be placed across the PW5K1R2 inputs that are to be used for Request to Exit & Door Position. Then the PIM signal needs to be connected to the pin that has the lowest voltage of the two input terminals when the resistor is installed. For the PW5K1R2 tried at Schlage Wireless Access this was always the rightmost or lower terminal. That is why it is designated pin 2 in Table 2-1. Figure 2-2 shows how this connection is made.

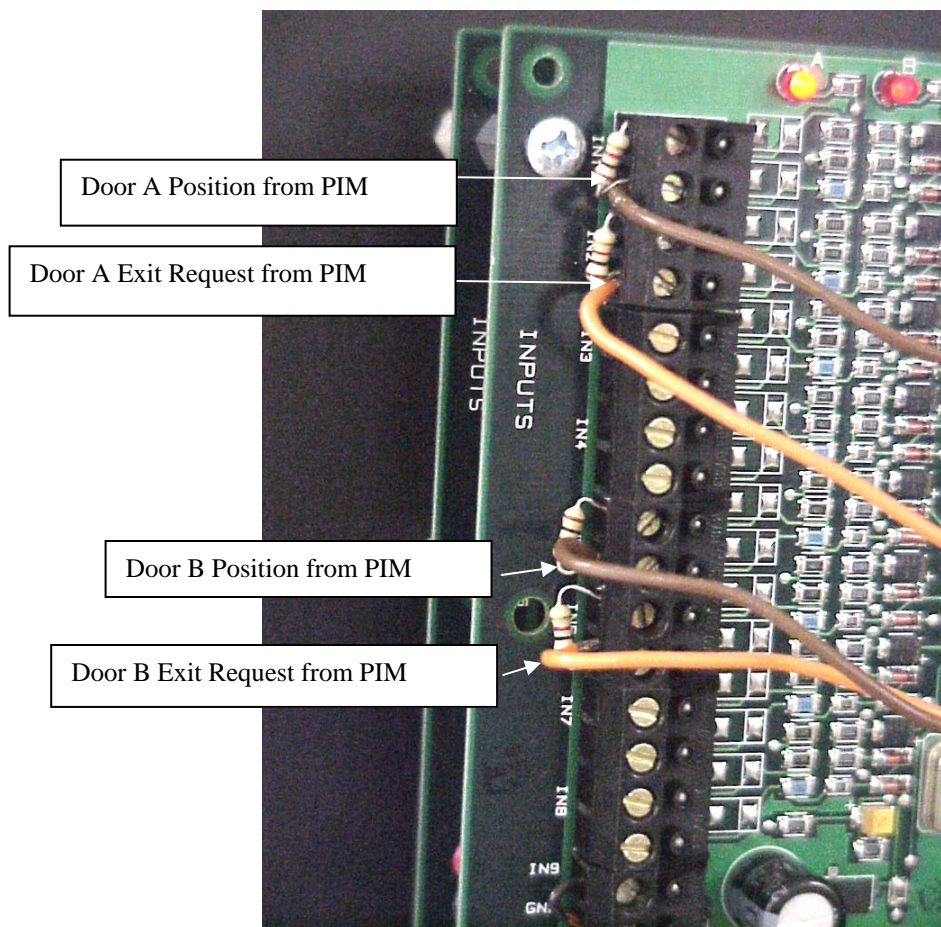


Figure 2-1 – Typical Connection to PW5K1R2

### 2.1.2 Supervised Connections

To have supervised inputs slave relays are required.



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## 2.2 Trouble Connections

### 2.2.1 Unsupervised Connection

To date, the PIM Trouble signals were not connected. These should be connected to a general purpose alarm input. If this general purpose input is supervised the same as the Request to Exit and Door Position inputs, then a similar 1 Kohm shunting resistor will be required (see section 2.1).

### 2.2.2 Supervised Connection

To have a supervised input, a slave relay is required.

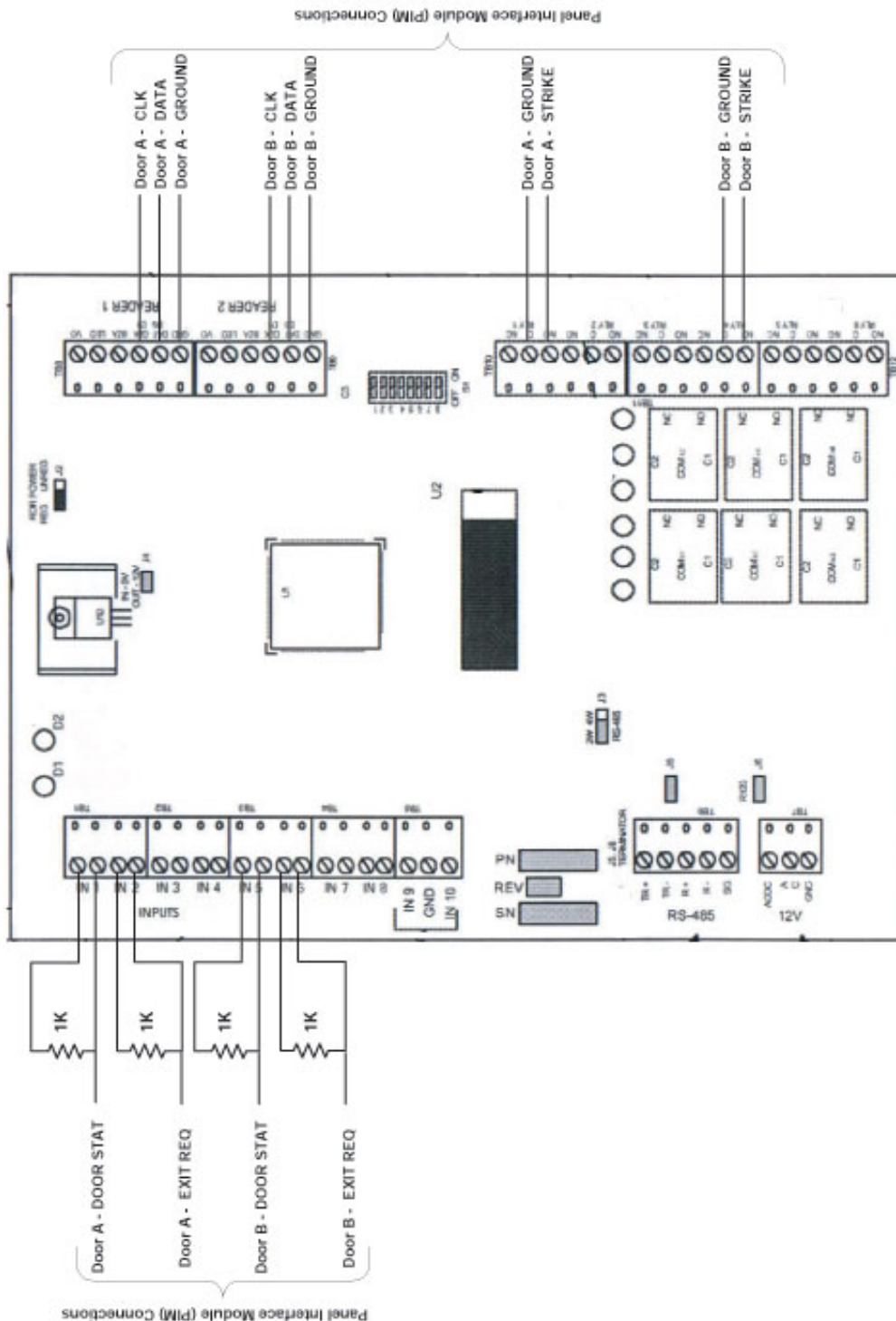


Figure 2-2 – PIM Wiring Connection to Northern Computers PW5K1R2



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## 3. Configuring the WAS for PW-5000/PW5K1R2

Table 3-1 shows how to configure the WAS for the Northern Computers PW-5000 access control panel using a PW5K1R2 dual reader interface module. Figure 3-1 shows how the Schlage Wireless Access Configuration and Demonstration Tool should be set to implement the Northern Computers configuration.

Configurable Item	Setting for Northern	Comments
Card Conversion	None	must be set to None
Mode	Normal	must be set to Normal
on RTE	Hi	must be set to Hi (unsupervised)
on Door Open	Lo	must be set to Lo (unsupervised)
on Trouble	Lo	must be set to Lo (unsupervised)
all other items	optional	setting depends on application

Table 3-1 - WAS Configuration for Northern Computers (PW-5000/PW5K1R2)

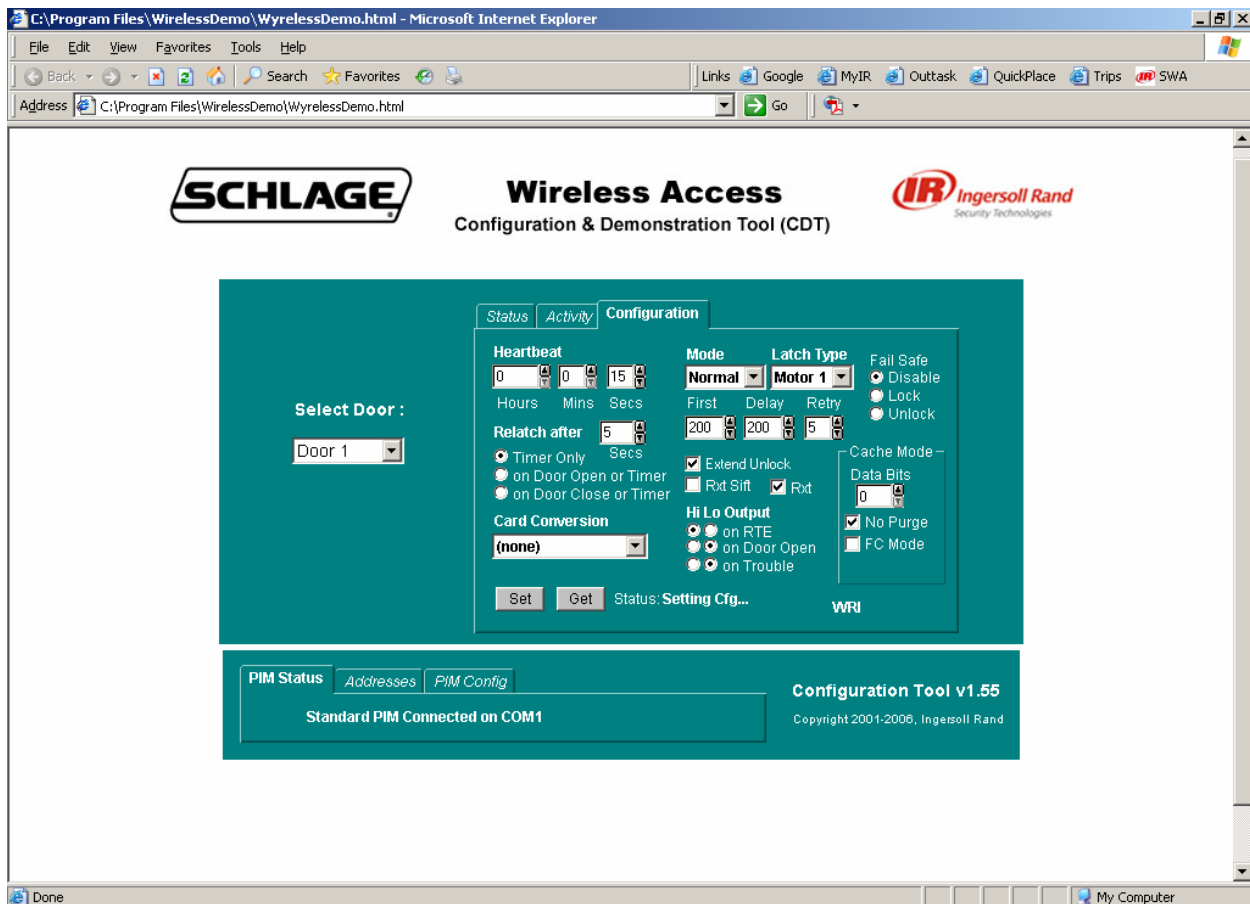


Figure 3-1 - WAS Configuration for Northern Computers (PW-5000/PW5K1R2)

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## 4. Revision History

Version	Date	Changes
X1.0	11/30/01	preliminary release for comments
001	11/30/01	released for publication
initial	06/19/06	re-branded for IR Schlage Wireless Access