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PRO4200

Intelligent Controller

(PRO42IC)

Installation and Configuration Guide

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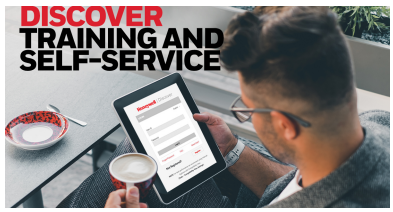

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1 Notices

1.1 Warnings and Cautions

Note: See the Remote Enclosure Installation Manuals PRO32ENC1, PRO32ENC2, PRO32ENC3 or PRO32ENC5 for installation instructions.

Before Installation

Warning: Before installation, **TURN OFF** the external circuit breaker which supplies power to the system.

Before connecting the device to the power supply, verify that the output voltage is within specifications of the power supply (see 'Technical Specification' on page 20).

Do not apply power to the system until **after** the installation has been completed. Personal injury or death can occur, and the equipment can be damaged beyond repair, if this precaution is not observed.

Fire Safety and Liability Notice

Warning: Never connect card readers to any critical entry, exit door, barrier, elevator or gate without providing **an alternative exit** in accordance with all the fire and life safety codes pertinent to the installation.

These fire and safety codes vary from city to city and you must get approval from local fire officials whenever using an electronic product to control a door or other barrier. Use of egress buttons, for example, may be illegal in some cities. In most applications, single action exit without prior knowledge of what to do is a life safety requirement. Always make certain that any required approvals are obtained in writing. DO NOT ACCEPT VERBAL APPROVALS SINCE THEY ARE NOT VALID.

Honeywell never recommends using the PRO4200 or related products for use as a primary warning or monitoring system. Primary warning or monitoring systems should always meet the local fire and safety code requirements. The installer must also test the system on a regular basis by instructing the end user in appropriate daily testing procedures. Failure to test a system regularly could make the installer liable for damages to the end user if a problem occurs.

Earth Grounding

Warning: **EARTH** ground all enclosures for proper installation.

Use Suppressors

Warning: Use suppressors on all door strikes. Use S-4 suppressors for installation. Honeywell recommends only DC strikes.

UL/ULC Warnings

Warning: Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70):

- All interconnecting devices must be UL Listed.
- Not Evaluated by UL for fire, life safety, or burglary applications.
- Do Not Connect To A Receptacle Controlled By A Switch.
- All interconnecting wire must be UL/ULC Listed, rated and suitable for the use.
- The battery leads and primary AC main power wiring is non-power limited. This wiring must be separated from all other wiring by at least.25" and cannot be installed in the same conduit as any other power limited wiring.
- Replacement 3 volt lithium coin cell must be one of the following:
  - Rayovac: BR2325 or BR2335-B
- The system must be configured to activate an alarm or trouble signal. Failure to do so will not allow the access function to operate in the event of a tamper.
- Shielded cable shall be employed for all Input/Output wiring.

Note: The following applies to installations that require UL or ULC compliance:

- Only UL/ULC Listed readers with standard Wiegand data output communication format (protocol) have been evaluated for use with this system.
- This product is intended to be installed indoors, within the protected premises.
- Access Control System, Model PRO4200, and Controller, Model PRO42IC meet the requirements for CAN/ULC-S319-05 Equipment Class 1.
- This product's compliance to ULC-S319, Electronic Access Control Systems, will be considered invalidated through the use of any add-on, expansion, memory or other module manufactured or supplied by the manufacturer or manufacturer's representative, unless specifically evaluated by ULC.
- All unused conduit holes must be properly plated or incorporate a Listed plug to fill any voids.

Note: Total current draw for all included assemblies shall not exceed 4A, including input rating and output load current.

- Suitable for S319, Class I
- Suitable for the following UL293/UL294 Performance Levels:
- Endurance: IV
- Standby: I
- Line Security: I
- Attack: I

- Suitable panic or exit hardware shall be employed for fail secure applications. For UL293 applications, the Sys Fault contacts of the power supply and the door held, door forced shall be monitored by suitable audible device.

1.2 Damage During Shipment

Caution: IF ANY DAMAGE TO THE SHIPMENT IS NOTICED, A CLAIM MUST BE FILED WITH THE COMMERCIAL CARRIER RESPONSIBLE FOR THE DAMAGE.

1.3 Electro Static Discharge

Caution: Electro-static discharge (ESD) can damage CMOS integrated circuits and modules.

To prevent damage always follow these procedures:

- Use static shield packaging and containers to transport all electronic components, including completed reader assemblies.
- Handle all ESD sensitive components at an approved static-controlled workstation. These workstations consist of a desk mat, floor mat and an ESD wrist strap. Workstations are available from various vendors.

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

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1.4 Disclaimer – Product Liability; Mutual Indemnification

If a Customer receives a claim that a Product or any component thereof has caused personal injury or damage to the property of others, Customer shall immediately notify Honeywell in writing of all such claims. Honeywell shall defend or settle such claims and shall indemnify and hold Customer harmless for any costs or damages including reasonable attorneys' fees which Customer may be required to pay as a

result of the defective Product or the negligence of Honeywell, its agents, or its employees.

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1.5 CE and WEEE Marking

Description of the used symbol.

CE -Standard -Logo. This product complies with the harmonized Regulation of the EU

WEEE symbol.It indicates this product is to be recycling and not been thrown in the dustbin

1.6 Unpacking Procedure

Caution: If any damage to the shipment is noticed before unpacking, a claim must be filed with the commercial carrier.

All containers should be opened and unpacked carefully in order to prevent damage to the contents.

Follow these steps to unpack equipment in preparation for installation:

1. Open the container and remove the unit(s) and all packing material. Retain the container and all the packing materials. They may be used again for reshipment of the equipment, if needed.
2. Inspect the contents to see if anything is missing. If you notice any missing items, contact the order entry department at 1-800-323-4576 and follow the prompts.
3. Visually check the contents. If you see any damage, do the following:
    a. If shipping has caused damage to the unit, a claim must be filed with the commercial carrier.
    b. If any other defect is apparent, call for a return authorization.

1.7 Shipping Instructions

To ship equipment back to Honeywell, contact the customer service department at 1-800-323-4576 before returning the equipment. When you call, please have available:

- A description of the problem or the reason you are returning the equipment.

- Your original purchase order number, invoice number and if the unit is still under warranty.
- A new purchase order number if the unit is not under warranty

From the customer service department, obtain the **Return Authorization Number (RMA)**.

Show the RMA number on all packages shipped. Packages, which are not marked with an RMA number will be refused at the factory and returned to you **COD.**

Carefully pack the equipment for shipment. Use the original packing material whenever possible

1.8 Limited Warranty

All Products sold or licensed by Honeywell include a **warranty registration card** which must be completed and returned to Honeywell by or on behalf of the end user for Honeywell to provide warranty service, repair, credit or exchange. All warranty work shall be handled through Customer which shall notify Honeywell and apply for a Return Merchandise Authorization (RMA) number prior to returning any Product for service, repair, credit or exchange. Honeywell warrants that its Products shall be free from defects in materials and workmanship for a period of two years from the date of shipment of the Product to Customer. The warranty on Terminals, Printers, Communications Products and Upgrade kits is 90 days from the date of shipment. Satisfaction of this warranty shall be limited to repair or replacement of Products which are defective or defective under normal use. Honeywell's warranty shall not extend to any Product which, upon examination, is determined to be defective as a result of misuse, improper storage, incorrect installation, operation or maintenance, alteration, modification, accident or unusual deterioration of the Product due to physical environments in excess of the limits set forth in Product manuals. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THIS PROVISION. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. NO REPRESENTATION OR WARRANTY OF THE DISTRIBUTOR SHALL EXTEND THE LIABILITY OR RESPONSIBILITY OF THE MANUFACTURER BEYOND THE TERMS OF THIS PROVISION. IN NO EVENT SHALL HONEYWELL BE LIABLE FOR ANY RE-PROCUREMENT COSTS, LOSS OF PROFITS, LOSS OF USE, INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES TO ANY PERSON RESULTING FROM THE USE OF HONEYWELL'S PRODUCTS.

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be used any Product design or related materials for its own benefit or for the benefit of any other party. The covenants contained in this section shall remain effective throughout the term of this Agreement and thereafter unless specifically waived by Honeywell in writing.

1.10 Compliance

To obtain applicable EU compliance Declaration of Conformities for this product, please refer to our website, https://www.security.honeywell.com/All-Categories/access-control-systems/control-panels-hardware.

For any additional information regarding the compliance of this product to any EU-specific requirements, please contact:

Honeywell Security & Communications

Honeywell Security - Quality Assurance Dept., Newhouse Industrial Estate

Motherwell

Lanarkshire ML1 5SB

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2 Product Overview

The Intelligent Controller is the heart of the PRO4200 and provides the real time processing for the connected I/O interfaces.

The PRO4200 is designed to operate without the need for a PC. It can be connected to a WIN-PAK host computer using the TCP/IP network connection. The PRO4200 holds the database for the subsystem configuration and card holders, and the event log buffer, which is in battery-backed memory.

2.1 PRO4200 and PRO3200

- The PRO4200 controller configuration and operation is similar to the PRO3200 controller and has additional the R2 functions on board; both use the WIN-PAK front end.

Note: The PRO4200 controller is compatible with the following Honeywell modules: PRO42R1, PRO42IN,PRO42R2,PRO42OUT, PRO32R2, PRO32IN, and PRO32OUT.

2.2 Port Settings

- **Port 0** provides the host-embedded Ethernet interface.
- **Ports 1** for RS-485 2-wire downstream support for connecting 32 I/O devices.

Note: That the I/O communications must be mapped differently in WIN-PAK, according to the following table:.

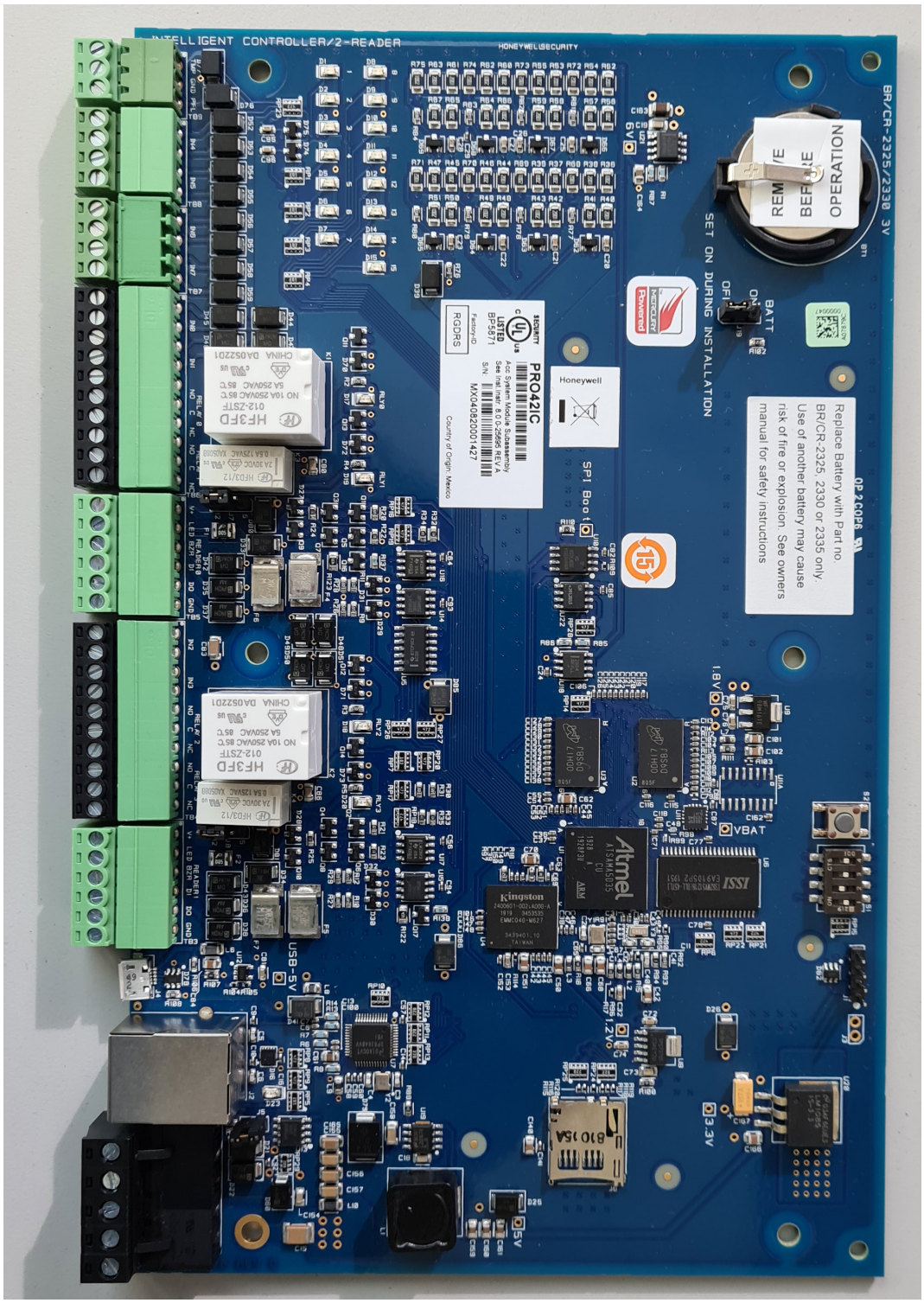
PRO4200	WIN-PAK Port
1	6

2.3 Other

- An on-board real time clock maintains the date and time, taking into account leap year and accounting for global time zones and daylight savings time changes.
- The database for the system configuration and card holders are stored in FLASH memory.
- The event log buffer is stored in battery-backed memory.
- Configuration data and event/status reports are communicated to the host via on-board 10-BaseT/100Base-TX Ethernet port.
- Transactions are stored in 1 MB of battery-backed SRAM. The maximum number of transactions stored while the host is offline is 100k Card and 100k Events to be configured.

- Cards are stored in Flash memory and read into DRAM when the board is powered up. The amount of storage available for cards and biometric records is 15 MB. The maximum number of cards depends on the card record database configuration, but the number is approximately 100,000. This maximum is dependent on how the card is configured with more space per card used with longer card number, more clearance codes, and so on.

Figure 1: PRO4200 Connections, LEDs, and DIP Switches



3 Setting Up the PRO4200 Hardware

The PRO4200 processor is configured with 4 jumpers and a set of 4 DIP switches. These jumpers/switches set up the port interface, end of line termination, and operating mode configuration. Refer to the tables below to set the jumpers as required.

3.1 Setting the Jumpers

Table 1 PRO4200 Jumper Settings

Jumpers	Set At	Description
J5	OFF	RS-485 EOL Terminator is without termination
	ON	RS-485 EOL Terminator is terminated
J7	Reader Power Select	
	Reader 0	5V-12V, 2-3 12V (default), 1-2 5V
J8	Reader 1	5V-12V, 2-3 12V (default), 1-2 5V
J19	Battery OFF= Battery OFF	ON = Battery ON

3.2 Setting the DIP Switches

Dual In-line Package (DIP) switches are read when the system powers up, except where noted otherwise. The following table shows the setting options.

Table 2 PRO4200 DIP Switch Settings

S1	S2	S3	S4	Selection
OFF	OFF	OFF	OFF	Normal Operating Mode.
ON	OFF	OFF	OFF	When DIP switch 1 is ON, Port 0 communicates with the web browser. Port 1 is used for 485 communications. After the panel initialization, enable the default user name (admin) and password (password). The user name and password are read dynamically; you do not need to reboot the panel.
OFF	ON	OFF	OFF	Use the factory default communication parameters.
ON	ON	OFF	OFF	Unless the network administrator reserves an IP address for the panel (based on the controller board's Media Access Control (MAC) address), the PRO4200 uses Dynamic Host Configuration Protocol (DHCP) to obtain an IP address from the network DHCP server. When power is applied with the switches in this position, there is a ten second window (when LEDs 1and 2 flash alternately with LEDs 3 and 4), during which memory is cleared if switch 1 or switch 2 is changed to OFF. When switch 1 or 2 is changed to OFF, only LED 2 flashes and memory begins to be cleared. This period of clearing lasts several minutes. When the memory has been cleared, the LED pattern changes to the flashing of LEDs 1 and 4. The panel then reboots by itself. All data in memory is erased except the serial number, MAC address, hardware revision, and OEM code.
OFF	OFF	OFF	ON	DIP4 = ON -> Legacy Mode, PRO42IC works as PRO32IC. DIP4 = OFF -> Native Mode, PRO4200 Supported Functions and Capabilities, Readers and IN/OUTPUTs on PRO42IC can be used

The PRO4200 DIP switches need to be set twice:

1. Configure the **S4-S3-S2-S1** DIP switches to **off-off-on-off** to set the default TCP/IP address to 192.168.0.251.
2. Apply power to the panel to set the IP address.
3. Change the **S4-S3-S2-S1** combination to **off-off-off-on**.(DIP switch 1 is "read on the fly"). This sets the login to the default user ID ("admin") and password ("password") for Ethernet communications.
4. Create users. See User Configuration for instructions.
5. Set the **S4-S3-S2-S1** combination to **off-off-off-off**.
6. Configure the host port for TCP/IP and/or Serial communications. See Host Communication for instructions. This will enable both TCP/IP and serial hardware networking when you log in again.

3.3 Factory Default Communication Parameters: Interface 1 (NIC1)

Network: static IP address	192.168.0.251
Subnet Mask: Default Gateway	255.255.0.0
Default Gateway	192.168.0.1
DNS Server	192.168.0.1
Primary Host port: IP server, Data Security: TLS if Available, port 3001, communication address	0
Alternate Host Port	Disable

3.4 Bulk Erase Configuration Memory

The bulk erase function can be used for the following purpose:

- Erase all configuration and cardholder database (sanitize boars, less third party applications)
- Update the OEM default parameters after OEM code is changed.

Note: If clearing the memory does not correct the initializing problem, contact technical support.

3.5 Bulk Erase

Note: Do not remove power during steps 1-8.

1. Set S1 DIP switches to 1 & 2 “ON” and, 3 & 4 OFF”.
2. Apply power to the PRO42IC board. LED 1 ON for about 15 seconds while PW7K1IC boots up.
3. After the PRO42IC boots up, watch for LEDs 1& 2 and 3 & 4 to alternately flash at a 0.5 second rate.
4. Within 10 seconds after the above patterns starts, change switches 1 or 2 to “OFF”. if these switches are not changed, then PRO42IC board will power up using the OEM default communication parameters.
5. LED 2 will flash indicating that the configuration memory is being erased.
6. Full memory erase will take up to 60 seconds, usually a lot less.
7. Once complete. only LED’s 1&4 will flash for 3 seconds.
8. The PRO42IC board will complete its initialization in 2 seconds after LEDs 1 & 4 stop flashing.

Technical Specification

Caution: PRO4200 is manufactured for use in low-voltage, Class 2 power-limited circuits only.

Table 3 PRO4200 Technical Specifications

Category	Description
Primary Power	12 VDC ± 10%, 500 mA maximum (reader ports not included)
Reader Ports	600 mA maximum for 12V readers (add 600 mA to primary power current) 300 mA for 5V readers.
Memory and Clock Backup	Type BR2325, or CR2330.
Ports	Host Communication: Ethernet: 10-BaseT/100Base-TX Serial I/O Device: One each: 2-wire RS-485, 2,400 to 115,200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit Reader Interface: Data Inputs: 2-wire RS-485 RS-485 Mode: 9,600 to 115,200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit. Maximum cable length: 2000 ft. (609.6 m)
Inputs	8 unsupervised/supervised, standard EOL: 1k/1k ohm, 1%, ¼ watt 2 non-supervised, dedicated for cabinet tamper and power fault monitoring.
Cable requirements	**Power:**1 twisted pair, 18 AWG. RS-485: I/O Device Port: 1 twisted pair, shielded, 120 ohm impedance, 24 AWG, 4,000 ft. (1,219 m) max. Reader Port: 1 twisted pair, shielded, 120 ohm impedance, 24 AWG, 2,000 ft. (610 m) max. Alarm Input: 1 twisted pair, 30 ohms maximum **Ethernet:**Cat 5. **Input:1** twisted pair, 30 ohms maximum.
Environmental	**Temperature:**0 to 49°C, operating -55 to +85°C, storage **Humidity:**0 to 85% RHNC

Category	Description
Mechanical	**Dimensions:**5.5 in. (137.7mm) W x 9 in. (228.6.4mm) L x .75 in. (19.05mm) H **Weight:**7.1 oz. (201 gm) nominal

Note: POLARITY for 12 VDC power is important. Make sure the +12 VDC is connected to the terminal labeled +12V and the return is connected to the terminal labeled GND.

3.6 Status LEDs

Power-up: All LED's OFF

3.7 Initialization

1. Initialization: After power is applied or reset switch pushed, LED 1 is ON for about 15 seconds, then LED's 2, 3, 4, 5, 6, R1, R2, IN0, IN1, IN2, IN3, IN4, IN5, IN6, and IN7 are flashed once at the beginning of initialization.
2. LEDs 3 and 4 is turned ON for approximately 1 second after the hardware initialization has completed, then the application code is initialized.
3. The amount of time the application takes to initialize depends on the size of the database, about 1 second without a card database.
4. When LED's 1, 2, 3 and 4 flash at the same time, data is being read from or written to flash memory.

Note: Do not cycle power when in this state.

5. If the sequence stops or repeats, perform the bulk erase procedure, see Bulk Erase.

3.8 LED Activity when Supplying Power to the PRO4200 Interface

Table 4 PRO4200 Status LED Combinations During Run Time

LED	Description
D1	Off-Line / On-Line and Battery Status
	Off-Line = 20% On, ON-Line = 80% On
	Double Flash means the Battery is Low
D2	Host Communication Activity (Ethernet port)
D3	Internal SIO Communication Activity
D4	External SIO Communication Activity
D5	Unassigned

LED	Description
D6	Reader 0: Clock/Data or D1/Do mode: Flashes when Data is Received, Either Input F/2F Mode: Flashes when Transmitting Data/Acknowledgment is Received Rs-485 Mode (OSDP): Flashes when Transmitting Data
D7	Reader 1: Clock/Data or D1/D0 Mode: Flashes when Data is Revived, Either Input F?2F Mode: when Data/Acknowledgment is Received RS-485 Mode (OSDP): Flashes when Transmitting Data
D8	Input IN0 Status: OFF = Inactive, ON = Active, Flash = Fault*
D9	Input IN1 Status: OFF = Inactive, ON = Active, Flash = Fault*
D10	Input IN2 Status: OFF = Inactive, ON = Active, Flash = Fault*
D11	Input IN3 Status: OFF = Inactive, ON = Active, Flash = Fault*
D12	Input IN4 Status: OFF = Inactive, ON = Active, Flash = Fault*
D13	Input IN5 Status: OFF = Inactive, ON = Active, Flash = Fault*
D14	Input IN6 Status: OFF = Inactive, ON = Active, Flash = Fault*
D15	Input IN7 Status: OFF = Inactive, ON = Active, Flash = Fault*
D17	RelayK0:ON = Energized, Door Relay
D18	Relay K1: ON = Energized, Door Relay
D19	Relay K2: ON = Energized
D20	Relay K3: ON = Energized
D23	Flashes with Ethernet Traffic

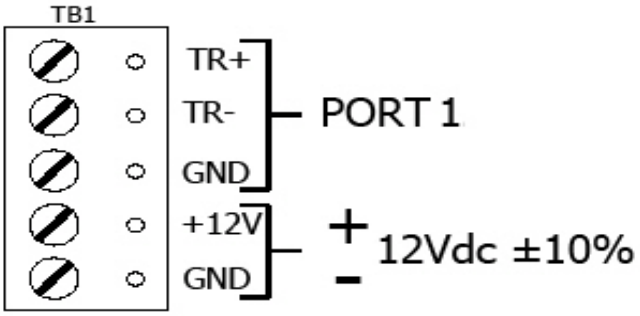
3.9 Supplying Power to the PRO4200 Interface

The processor accepts 12 VDC for power. Locate power source as close to the unit as possible and connect it with minimum of 18AWG wires.

Caution: Observe POLARITY on 12 VDC.

Caution: ATTENTION: Observez la polarité du 12 VCC

Figure 2: PRO4200 Power Terminals

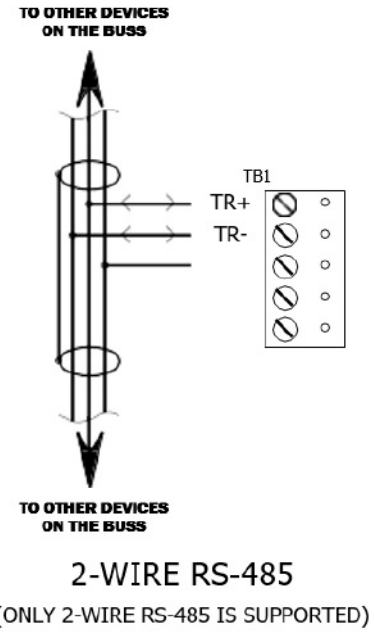


3.10 Communications Wiring

The PRO4200 processor communicates to the host via on-board Ethernet 10Base-T/100Base-TX port.

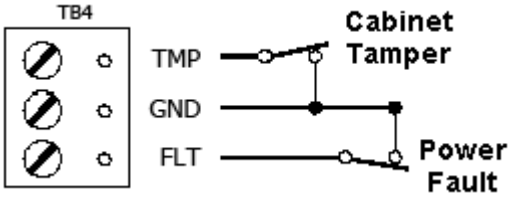
The serial I/O device communication port (TB1) is a 2-wire RS-485 interface which can be used to connect additional I/O panels. The interface allows multi-drop communication on a single bus of up to 4,000 feet (1,219 m). Use 1-twisted pair with drain wire and shield, 120-ohm impedance, 24 AWG, 4,000 ft. (1,219 m) maximum for communication.

Figure 3: PRO4200 Port Wiring



3.11 Cabinet Tamper and Power Failure Input Wiring

Figure 4: PRO4200 TMP and FLT Terminals



Inputs TMP and FLT are used for monitoring cabinet tamper and power failure with normally closed contacts. These two inputs are for contact closure monitoring only; do not use end-of-line (EOL) resistor(s). If these inputs are not used, install a short piece of wire at the input to indicate a safe condition.

3.12 Memory and Real Time Clock Backup Battery

The event log buffer and the real time clock are backed up by BR2325. This BR2325, BR2330, or CR2330 battery should be replaced annually. A replacement battery may be obtained However, the replacement battery must be UL recognized.

Warning: Battery may explode if mistreated. DO NOT RECHARGE, DISASSEMBLE or DISPOSE OF IN FIRE!

4 System Configuration via Web Interface

The PRO4200 comes with **Access Control Device Server Manager (ACDSM)**. The ACDSM is a built-in web server, through which you can configure network and other system settings.

Notes:

- If you are using Internet Explorer Enhanced Security Configuration, you cannot access the ACDSM web server. All pages will display "Bad Request!" You must uninstall the Enhanced Security option before you can access the ACDSM.
- The default factory-set TCP/IP address for the built-in system configuration web server is **192.168.0.251**

4.1 Connecting to ACDSM for the First Time

1. Use the factory default controller IP address **192.168.0.251**.
2. Set the DIP switches to **S4=OFF**, **S3=OFF**, **S2=ON**, **S1=OFF**.

Note: S1 must be set to OFF for the factory default. After the panel powers up, change S1 to ON to enable the use of the default user name and password.

3. Connect the computer to host the web server via Ethernet **Port 0**. Connection should be via crossover Ethernet cable or by the regular Ethernet cables connected via the hub.
4. Set the host computer to the static IP address **192.168.0.250** to be able to connect to the factory-default PRO4200 controller at address **192.168.0.251**.
5. Power up the PRO4200 controller.

4.2 Login Page

1. Click the "**Click Here to Login**" link to display the **User Name** and **Password** fields.

Figure 5: PRO4200 Web Server Login Screen

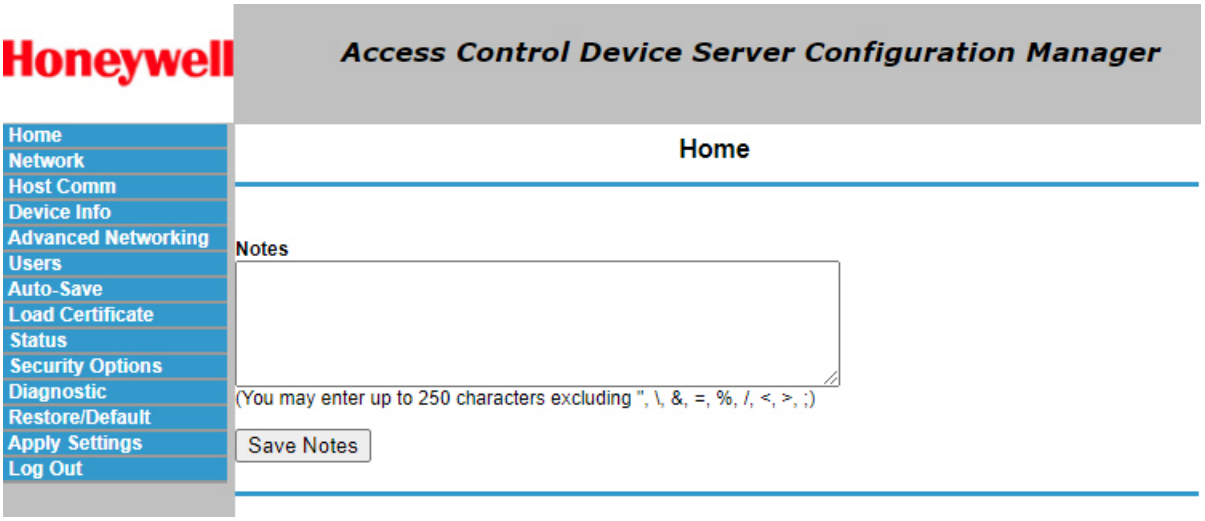
2. Enter your **User Name** and **Password**.

Note: Default User ID is **admin** and the default Password is **password**.

4.3 Home Page

The first screen after the login is the home page which displays all the available configuration links on the left navigation bar:

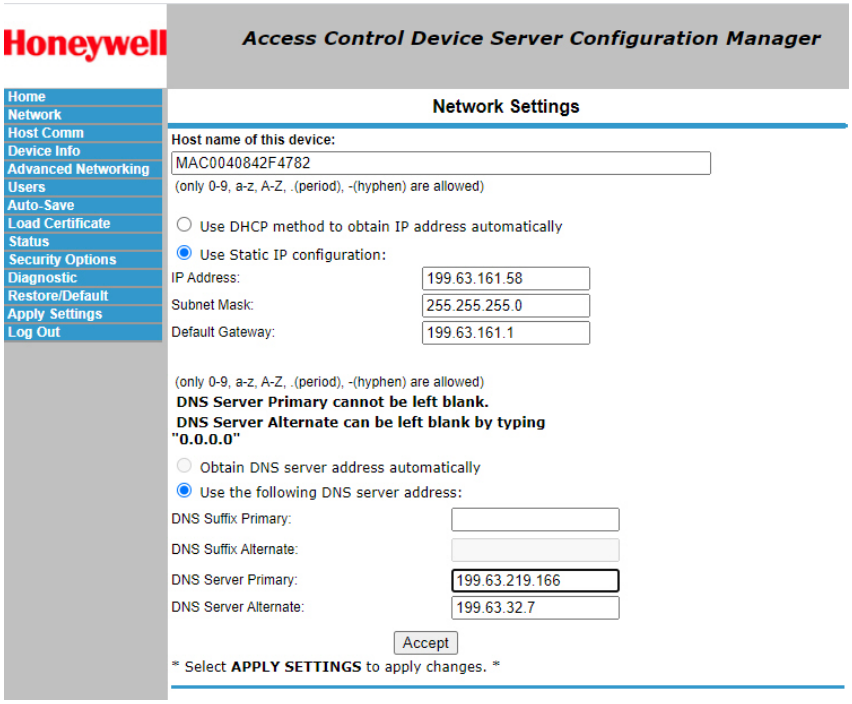
Figure 6: PRO4200 Web Server Home Page



4.4 WIN-PAK Network Settings

Click the **Network** link on the navigation bar to display the Network Settings screen where you can select the appropriate option button for dynamic or static IP address configuration:

Figure 7: PRO4200 Web Server Network Settings Screen



Notes:

- The Host Name of This Device field contains the Media Access Control (MAC) address of the PRO4200 controller board.
- The users can select the **Dynamic IP** option button and reserve an IP address for the MAC address, or they can select the other option button and assign a **Static IP** address as well.

Dynamic IP Configuration Method

1. Click the **Dynamic IP** option button to select the Dynamic Host Configuration Protocol (DHCP) method to obtain IP address automatically.
2. Click **OK**.

Note: The WIN-PAK communicates with the PRO4200 panel using an IP address. If you must use the Dynamic IP option because of your network policies or configuration, you must reserve an IP address at the DHCP server for the MAC (Media Access Control) address in the PRO4200 panel. The MAC address is a unique identifier attached to network adapters. Each time the PRO4200 panel requests an IP address, the DHCP server will assign the address that was reserved for it.

Static IP Configuration Method

1. Click the **Static IP** option button to assign a static IP address, and enter the following information in the appropriate fields:
   - IP Address
   - Subnet Mask
   - Default Gateway
2. Click **OK**.

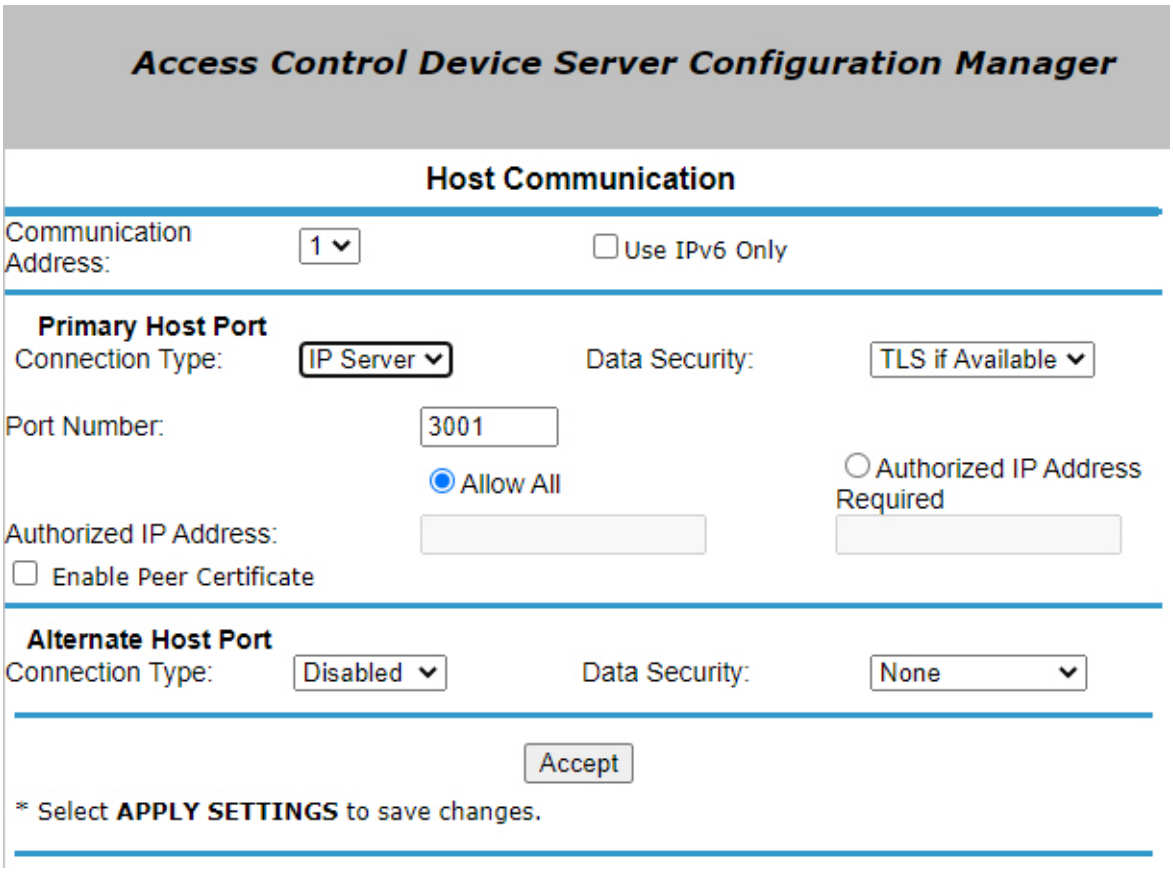
4.5 Host Communication

Click the **Host Communication** link on the navigation bar to display the Host Communication Configuration screen where you can select the appropriate settings for the Primary Host Port and Alternate Host Port:

Note: Some of the fields change dynamically depending on the Connection Type selected.

IP Server Connection Type

Figure 8: PRO4200 Host Port Configuration Screen with IP Server Connection



1. From PRO4200 Communication Address drop-down list, select one of the eight (0 to 7) available **communication addresses** for the PRO4200 board.

Note: In the previous panels, this selection was made manually by setting the DIP switches.

2. For the **Primary Host Port**, make the following selections:

- **Connection Type**. Select **IP Server** (the standard connection type), so that the WIN-PAK Host will poll the PRO4200 panel. The panel does not currently support the **IP Client** option, which would cause the PRO4200 panel to poll the WIN-PAK Host and the Host to reply to the panel.
- **Data Security**. Select one of the following:
- None
- **Password/AES** from the drop-down list. If you select **Password/AES**, communications between the WIN-PAK Host and the PRO4200 panel are encrypted. Note that encryption must be enabled in WIN-PAK for the appropriate WIN-PAK channel. See Chapter 7, "Hardware Configuration," in the WIN-PAK Guide for channel encryption instructions.
- **Port Number**. Enter the port number through which the host computer can communicate with the PRO4200 board.
- Select either **Allow All** or the **Authorized IP Address Required** option button.

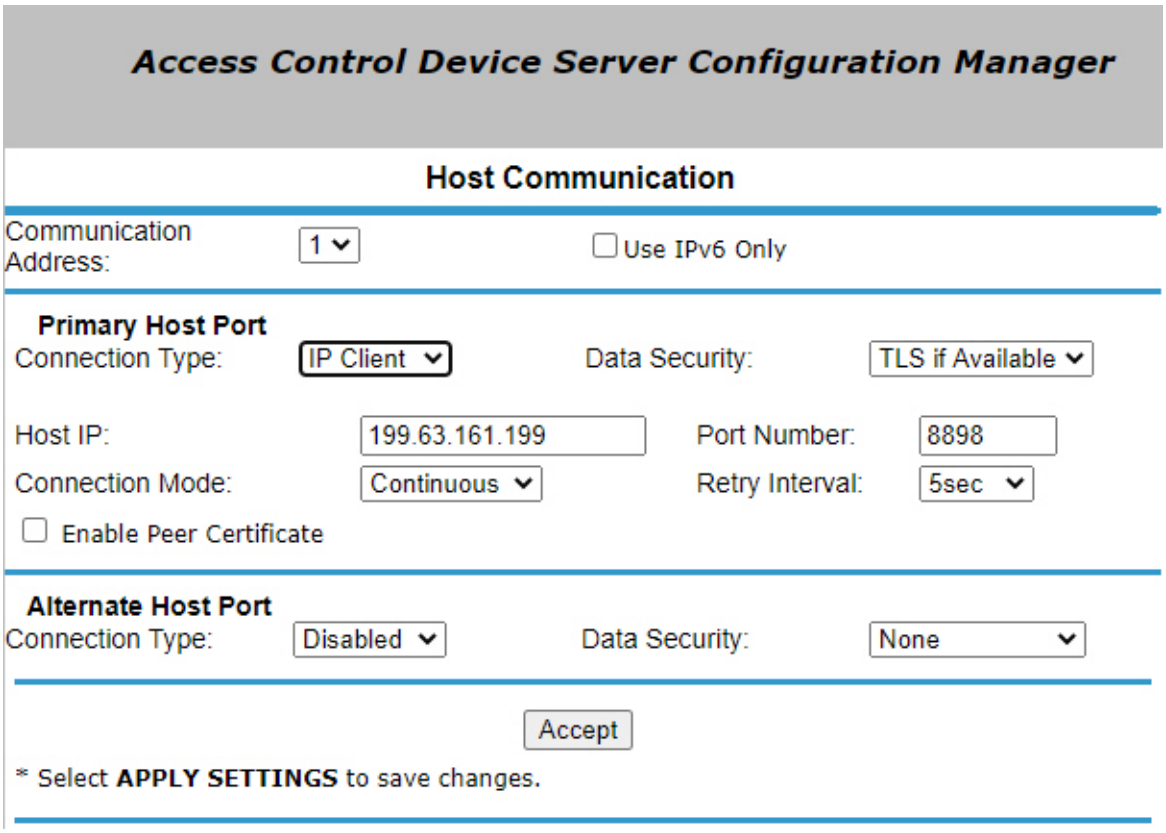
3. **Allow All,** as the label suggests, allows all IP addresses to communicate with the PRO4200. Select this option for web page browser access.

4. For the **Primary Host Port**, make the following selections:

- **Connection Type**. Select **IP Server** (the standard connection type), so that the WIN-PAK Host will poll the PRO4200 panel. The panel does not currently support the **IP Client** option, which would cause the PRO4200 panel to poll the WIN-PAK Host and the Host to reply to the panel.
- **Data Security**. Select one of the following:
    - None
    - **Password/AES** from the drop-down list. If you select **Password/AES**, communications between the WIN-PAK Host and the PRO4200 panel are encrypted. Note that encryption must be enabled in WIN-PAK for the appropriate WIN-PAK channel. See Chapter 7, "Hardware Configuration," in the WIN-PAK Guide for channel encryption instructions.
- **Port Number**. Enter the port number through which the host computer can communicate with the PRO4200 board.
- Select either **Allow All** or the **Authorized IP Address Required** option button.

Allow All, as the label suggests, allows all IP addresses to communicate with the PRO4200. Select this option for web page browser access.IP Client Connection Type

Figure 9: PRO4200 Host Comm Configuration Screen with IP Client Connection



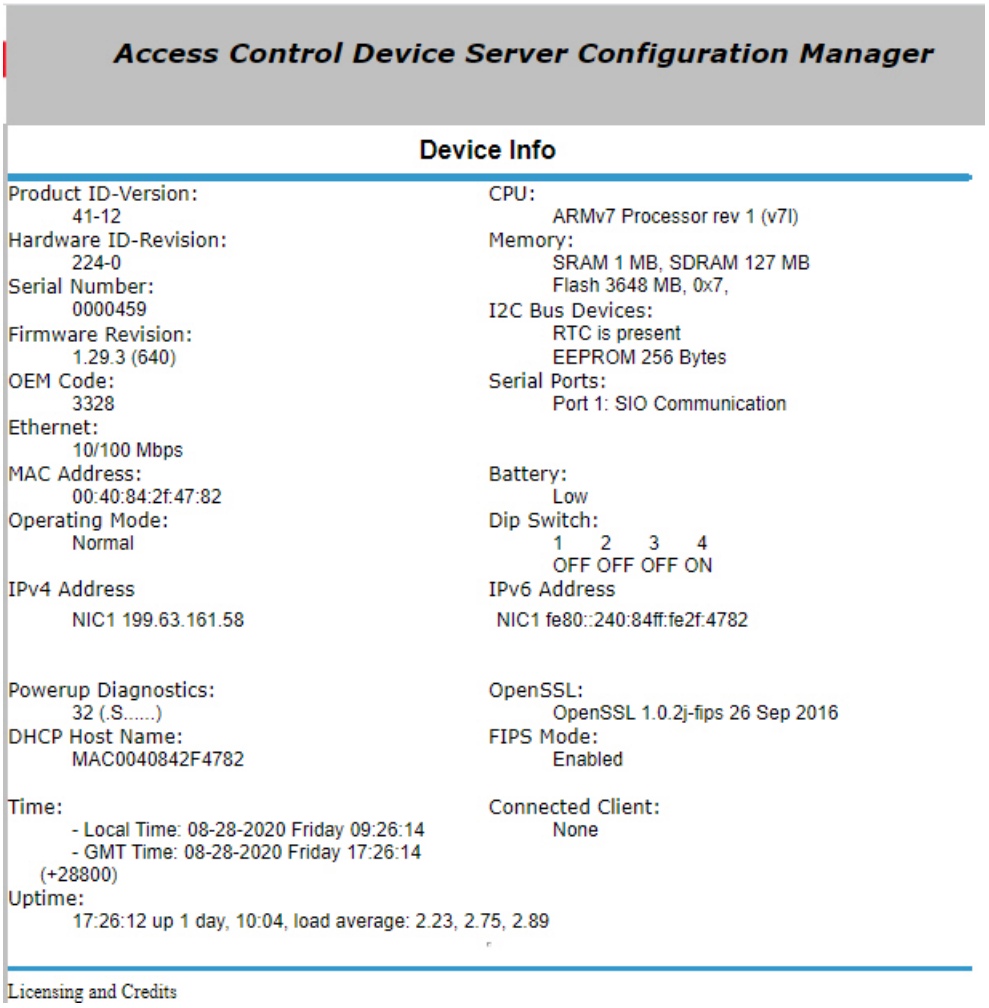
5. Click **Accept**.

Note: PRO4200 Host Communication supports only IP server and client.

4.6 Device Information

- Click the Device Info link on the navigation bar to display the read-only Access Control Device Hardware Information screen:

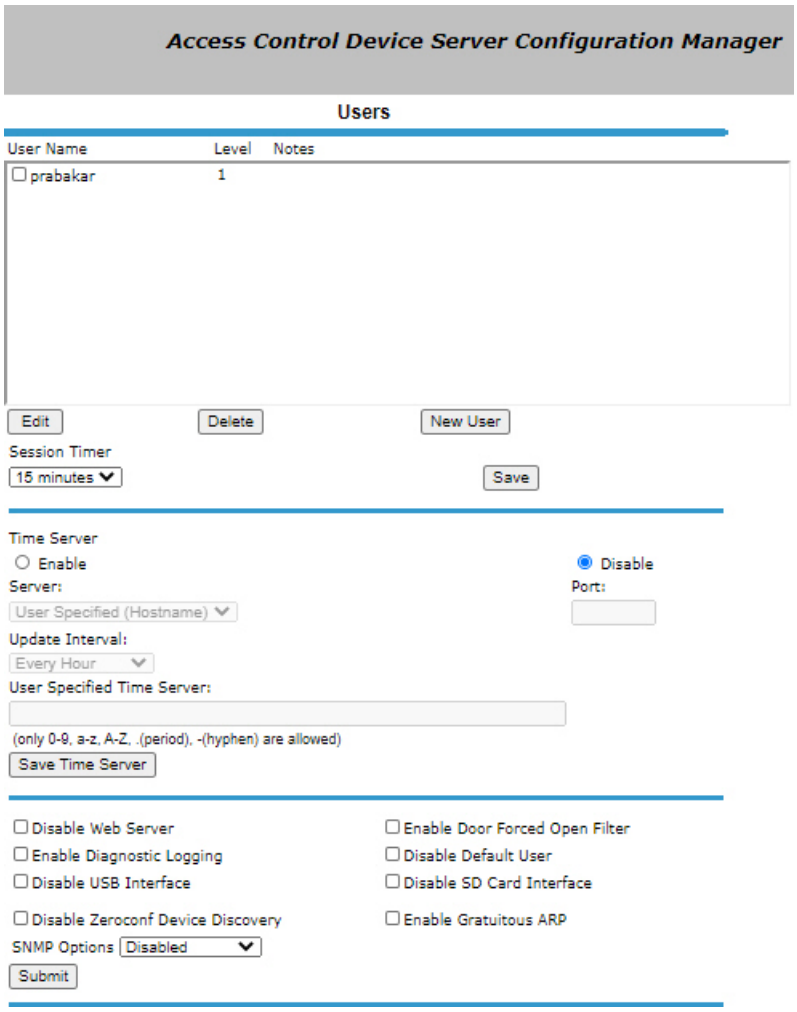
Figure 10: PRO4200 Web Server Device HW Info Screen



4.7 User Configuration

- Click the **Users** link on the navigation bar to display the User screen where you can add, edit, and delete user records:

Figure 11: PRO4200 Web Server User Info Screen



Adding a User

Follow these steps:

1. Click **New Account** to display the new user account screen.
2. Enter the following:
    - User name – a unique character string that identifies the user.

- Level – level of privileges the user will have. Level 1 grants the user read/write privileges to all panel features; level 2 grants the user read-only privileges to the Notes, Network, Host Port, and Device Info features; level 3 grants the user read-only privileges to just the Notes and Device Info features.

3. Specify the maximum period of time a session will remain open without user activity. If the period expires without user activity, the user is logged out. After specifying the time period, click **Save Session Timer** to save the setting.
4. Configure the auto-save timer. This feature, if enabled, automatically saves the hardware configuration in non-volatile Random Access Memory (RAM) at the specified time interval. If you select Enable Auto-Save, then select a time interval from the drop-down list, and click **Save Auto-Save Timer** to save the setting.

Editing a User

To edit a user record, click to select the user from the Username column and then click **Edit**. Use the information provided in the previous section, "Adding a User," to edit the record.

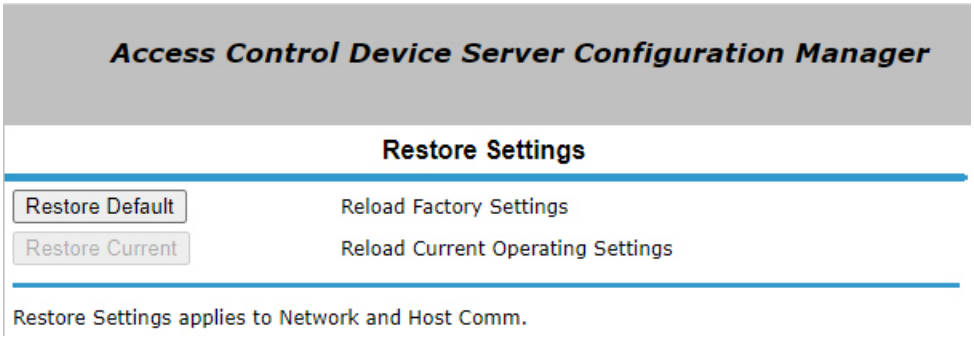
Deleting a User

To delete a user record, click to select the user from the Username column and then click **Delete**.

4.8 Restore Default Screen

- Click the **Restore Default** link on the navigation bar to restore the default configuration values for the PRO4200:

Figure 12: PRO4200 Web Server Restore Default Screen

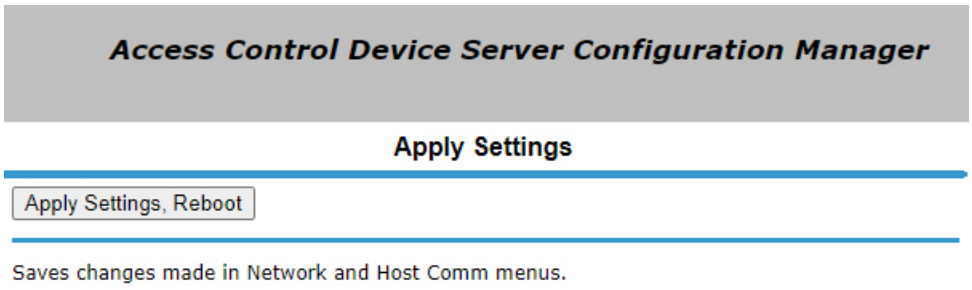


1. Click **Restore Default** to reload the default factory settings for all the configuration variables.
2. Click **Restore Current** to reload the current operational settings for all the configuration variables.

4.9 Apply Setting Screen

- Click the Apply Setting link on the navigation bar to apply the selected configuration values.

Figure 13: PRO4200 Web Server Apply Setting Screen



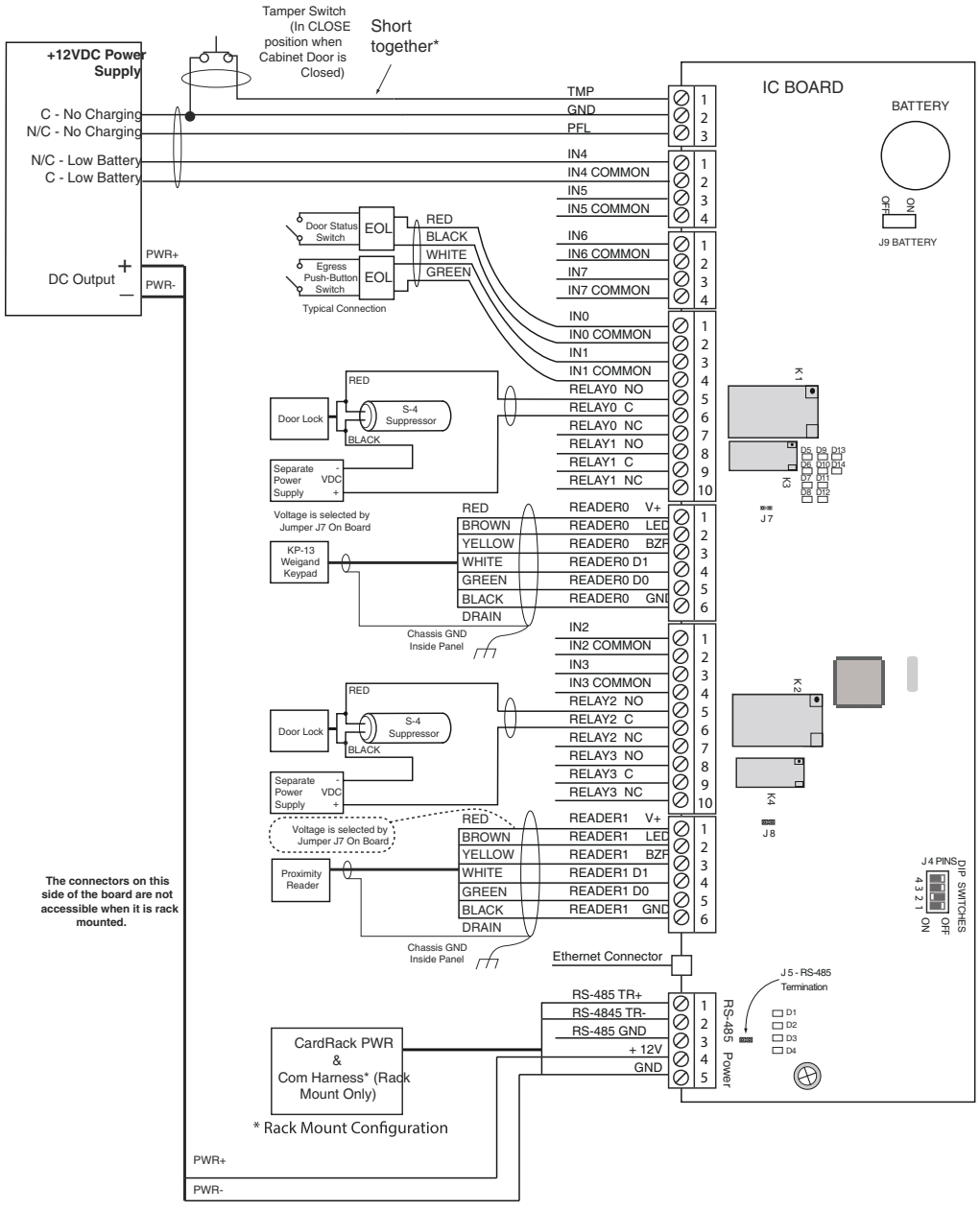
Click **Apply, Reboot** to apply all the configured values and reboot the PRO4200.

4.10 Log Out

Click the **Log Out** link on the navigation bar to log out of the web server.

5 Reader Module

Figure 14: PRO4200 Intelligent Controller Module Wiring: Connectors TB1,TB3-9.



Note: See Status LEDs (see page 20) for descriptions of LEDs D1-D20.

Note: For RS-485 Communication Connections, twist the blue pair together and use as the common; use the orange pair as your data pair, observing polarity. Connect the external drain shield to the appropriate earth ground on one end.

Note: Reader, Input, and Output addresses on the PRO4200 panel are labeled starting with address 0. This translates to address 1 in the WIN-PAK per the example below:

PRO4200 Device	PRO4200 Address	WIN-PAK Address
Reader\ Input\ Output	0	1
Reader\ Input\ Output	1	2

Note: The SIO board port for a PRO42IC in WIN-PAK is port 6 and is set as the default.

5.1 Reader Wiring

The following Honeywell reader module numbers have been approved by UL for use with the PRO42IC: OM40BHONA, OM55BHONA, OP10HONE, OP30HONE, OP40HONE, OP90HONE, OT30HONA, OT31HONA, OT35HONA, and OT36HONA.

Each reader port supports a reader with TTL interface. Power to the reader is selectable as 5VDC or 12VDC (pass-through). This selection is done by setting the jumpers J2 for reader 0 and J3 for reader 1. Set jumper at position “5” for 5VDC or “12” for pass-through 12VDC. The factory defaults set J2 and J3 to “5”.

For wiring to a reader port:

Table 5 Settings for Wiring to a Reader Port

Terminal	Typical Wire Color	Wiegand Reader	Clock/Data Reader
1	Red	Power (5 or 12 Vdc)	Power (5 or 12 Vdc)
2	Brown	LED control	LED control
3	Yellow	Beeper Control	Beeper Control
4	White	Data 1 Signal	Clock Signal
5	Green	Data 0 Signal	Data Signal
6	Black	Common	Common

The LED control terminal in each reader port can be configured via host software to support one-wire single or bi-colored reader LED. An example of the most common configuration is shown below. If Beeper Control is not used, its terminal can be programmed to be the second wire for the two-wire bi-colored reader LED.

Table 6 Settings for Configuring an LED Control Terminal

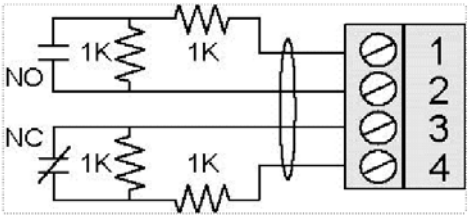
LED Output->	High	Tri-Stated	Low
Single Color LED	LED On	LED Off	LED Off
Bi-Color LED	Green LED On	Both LEDs Off	Red LED On

To fully utilize each reader port, a 6-conductor cable (18AWG) is required. Reader port configuration is set via host software.

5.2 Input Wiring

Inputs 0 to 7 may be configured to use normally open or normally closed contacts and non-supervised or supervised (with standard ±1% tolerance 1K ohm). Four of these inputs have default functional definitions, but all eight can be configured to monitor general-purpose sensors.

Figure 15: PRO4200 Input wiring



By default, Input 0 is defined as the Door Status Input corresponding to reader 0 and Input 1 is defined as the REX input corresponding to reader 0. Also by default, Input 2 is defined as the Door Status Input corresponding to reader 1 and Input 3 is defined as the REX input corresponding to reader 1.

Inputs 4, 5, 6 and 7 are general purpose inputs that can be used to monitor sensors or as control inputs. Inputs 6 and 7 are not accessible when the board is rack mounted.

Inputs TMP and PFL are typically used for monitoring cabinet tamper and power failure respectively. These two inputs are not supervised and are not accessible when the board is rack-mounted. These inputs were primarily provided for the case when this board is mounted remotely and cannot take advantage of the tamper and power fail detect inputs on the controller board. If these inputs are not used, install a short piece of wire at the input to indicate safe condition.

Input configuration including debounce and hold time is set via host software.

5.3 Control Output Wiring

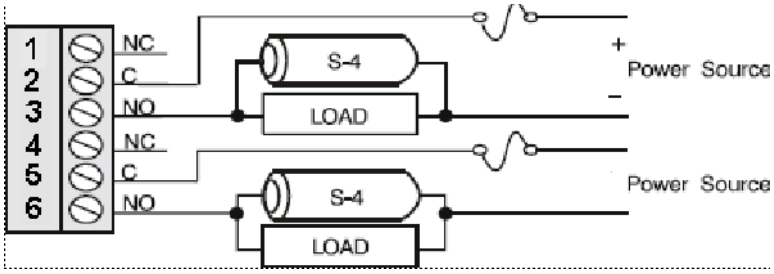
Four form-C relay contacts are provided for controlling door strike or other devices. Each may be assigned to door-related functions or general-purpose output. They are configurable as standard (energize to activate) or fail-safe (de-energize to activate) via host software.

The energized or ON time of each relay can be configured using Pulse control for single or repeating pulses via host software. The energized or ON time for a single pulse can be extended up to 24 hours. For repeating pulses, the on/off time can be defined in 0.1 second increments and be repeated up to 255 times.

Relays 0 and 2 are rated for and normally used to control the door locks associated with readers 0 and 1 respectively. While Relays 0 and 2 are sized to handle the typical loads generated by electrical locks, load switching can cause abnormal contact wear and premature contact failure. Switching of inductive loads (i.e., strike) also causes EMI (electromagnetic interference) which may interfere with normal operation of other equipment. To minimize premature contact failure and to increase system

reliability, a contact protection circuit is highly recommended. The following two circuits are suggested. Locate the protection circuit as close to the load as possible (within 12 inches [30cm]); the effectiveness of the circuit decreases as the distance from the load increases.

Figure 16: PRO4200 Output Wiring



Relays 1 and 3 are dry-circuit level signal relays typically used to indicate the status of the door lock.

Use sufficiently large gauge of wires for the load current to avoid voltage loss.

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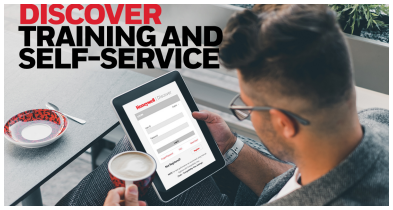

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