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# PW6K1ICE Introduction

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1.1 Overview

The PW6K1ICE intelligent controller provides decision making, event reporting, and database storage for the Honeywell hardware platform. Two reader interfaces configured as paired or alternate readers provide control for one door.

Host communication is via the on-board 10-BaseT/100Base-TX Ethernet port.

One physical barrier can be controlled with the PW6K1ICE, using single or paired readers.

A total of 16 PW6K1R1E downstream boards can be connected to PW6K1ICE.

The first reader port can accommodate a read head that utilizes Wiegand, magnetic stripe, or 2-wire RS-485 electrical signaling standards, one or two wire LED controls, and buzzer control (one wire LED mode only). This port can also utilize multiple RS-485 multi-dropped devices.

The second reader port can accommodate a read head that utilizes Wiegand or magnetic stripe signaling, one or two wire LED controls, and buzzer control (one wire LED mode only).

Two form-C relay outputs may be used for strike control or alarm signaling. The relay contacts are rated at 2A @ 30VDC, dry contact configuration.

Two inputs are provided for monitoring the door contact, exit push button or alarm contact.

The PW6K1ICE requires 12VDC for power or Power over Ethernet (PoE).

The PW6K1ICE may be mounted in a 3-gang switch box; a mounting plate is supplied with the unit. Refer to “Additional Mounting Information” on page 18 for UL enclosure requirements.

The PW6K1ICE may be mounted in an enclosure.

The encryption between PW6101 and its down-stream I/O board PW6K1R1E is built-in and automatic.

Terminology: “PW6K1ICE” is the product number. “PW6K101” is the product name. Both refer to the same controller board.
1.2 General UL-Compliance

A UL-compliant installation requires the following:

- The PW6K1ICE panel must be installed within the protected area.
- The PW6K1ICE is installed for indoor use only.
- The PW6K1ICE must be installed with the provided tamper switch, mounted to the enclosure cover.
- The fail secure locking mechanism shall only be installed where is is allowed by the local authority having jurisdiction (AHJ), and it shall not impair the operation of panic hardware and emergency egress.

Note: The PW6K1ICE panel is not UL Listed for burglary installations.

1.3 Door Control

One physical barrier can be controlled using single or paired readers.

Two reader ports: Mag, Wiegand, or RS-485 (RS-485 on one reader port capable of supporting two readers.)

Two supervised inputs, two relays. Diagnostic LEDs.

Dedicated tamper input.

1.4 Access Control

- 15,000 Cardholders, 10,000 Transaction buffer.
- 32 Access Levels per cardholder.
- 19 digit (64-bit) UserId and 15 digit PIN numbers maximum.
- Activation/Deactivation Dates.
- If/Then Macro capability.

1.5 Card Formats

- 8 active card formats per EP1501. PIV-II, CAC, TWIC card compatible.
- Anti-passback support.
- Nested area, hard, soft, or timed forgiveness.
1.6 Card Readers

The Pro-Watch PW6K1ICE controller and PW6K1R1E input/output board have been tested for use with the following Listed (ALVY) card readers:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HID</td>
<td>ProxPro</td>
<td>HU/5355AGN00</td>
</tr>
<tr>
<td></td>
<td>ProxPro II</td>
<td>HU/5455BGN00</td>
</tr>
<tr>
<td></td>
<td>ProxPro K</td>
<td>HU/5355AGK00</td>
</tr>
<tr>
<td></td>
<td>MiniProx</td>
<td>HU/5365EGP00</td>
</tr>
<tr>
<td></td>
<td>ThinLine II</td>
<td>HU5395CB100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HU/5395CG100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HU/5395CK100</td>
</tr>
<tr>
<td>Honeywell</td>
<td>OM40</td>
<td>OM40BHONC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OM40GHONC</td>
</tr>
<tr>
<td></td>
<td>OM41</td>
<td>OM41BHONC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OM41GHONC</td>
</tr>
<tr>
<td></td>
<td>OM55</td>
<td>OM55BHONB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OM55GHONB</td>
</tr>
<tr>
<td></td>
<td>OP-10</td>
<td>OP10GENR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OP10HONR</td>
</tr>
<tr>
<td></td>
<td>OP-30</td>
<td>OP30GENR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OP30HONR</td>
</tr>
<tr>
<td></td>
<td>OP-40</td>
<td>OP40GENR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OP40HONR</td>
</tr>
</tbody>
</table>
1.7 Alarm Management

- Normally open/Normally closed, unsupervised, supervised.
- Standard or custom end-of-line resistances.

1.8 Warranty

Honeywell Security Access warrants that the product is free from defects in material and workmanship under normal use and service with proper maintenance for one year from the date of factory shipment.

Honeywell Security Access assumes no responsibility for products damaged by improper handling or installation. This warranty is limited to the repair or replacement of the defective unit.

There are no expressed warranties other than set forth herein. Honeywell Security Access does not make, nor intends, nor does it authorize any agent or representative to make any other warranties, or implied warranties, and expressly excludes and disclaims all implied warranties of merchantability or fitness for a particular purpose.

Returned units are repaired or replaced from a stock of reconditioned units. Returns must be accompanied by a Returned Merchandise Authorization number (RMA) obtained from customer service, and prepaid postage and insurance.

1.9 Liability

The Interface should only be used to control exits from areas where an alternative method for exit is available.

This product is not intended for, nor is rated for operation in life-critical control applications.

Honeywell Security Access is not liable under any circumstances for loss or damage caused by or partially caused by the misapplication or malfunction of the product.

Honeywell Security Access's liability does not extend beyond the purchase price of the product.

1.10 FCC Compliance

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.
PW6K1ICE Wiring and Setup

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2.1 PW6K1ICE Hardware

Figure 2-1: PW6K1ICE Control Board

Figure 2-2: PW6K1ICE Control Board Solder Side

SOLDER SIDE
## 2.2 Terminal Connections

### Table 2-1: PW6K1ICE Terminal Connections

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB1-1</td>
<td>IN1</td>
<td>Input 1</td>
</tr>
<tr>
<td>TB1-2</td>
<td>IN1</td>
<td></td>
</tr>
<tr>
<td>TB1-3</td>
<td>IN2</td>
<td>Input 2</td>
</tr>
<tr>
<td>TB1-4</td>
<td>IN2</td>
<td></td>
</tr>
<tr>
<td>TB2-1</td>
<td>VO</td>
<td>Reader 1 Power Output - 12VDC</td>
</tr>
<tr>
<td>TB2-2</td>
<td>LED</td>
<td>Reader 1 LED Output</td>
</tr>
<tr>
<td>TB2-3</td>
<td>BZR</td>
<td>Reader 1 Buzzer Output</td>
</tr>
<tr>
<td>TB2-4</td>
<td>CLK</td>
<td>Reader 1 CLK/Data 1/TR+</td>
</tr>
<tr>
<td>TB2-5</td>
<td>DAT</td>
<td>Reader 1 DAT/Data 0/TR-</td>
</tr>
<tr>
<td>TB2-6</td>
<td>GND</td>
<td>Reader 1 Ground</td>
</tr>
<tr>
<td>TB3-1</td>
<td>LED</td>
<td>Reader 2 LED Output</td>
</tr>
<tr>
<td>TB3-2</td>
<td>BZR</td>
<td>Reader 2 Buzzer Output</td>
</tr>
<tr>
<td>TB3-3</td>
<td>CLK</td>
<td>Reader 2 CLK/Data 1 Input</td>
</tr>
<tr>
<td>TB3-4</td>
<td>DAT</td>
<td>Reader 2 DAT/Data 0 Input</td>
</tr>
<tr>
<td>TB4-1</td>
<td>VO</td>
<td>Auxiliary Power Output - 12VDC</td>
</tr>
<tr>
<td>TB4-2</td>
<td>GND</td>
<td>Auxiliary Power Output Ground</td>
</tr>
<tr>
<td>TB4-3</td>
<td>VIN</td>
<td>Input Power - 12VDC (from local power supply)</td>
</tr>
<tr>
<td>TB4-4</td>
<td>GND</td>
<td>Input Power Ground</td>
</tr>
<tr>
<td>TB5-1</td>
<td>NO</td>
<td>Relay K1 - Normally Open Contact</td>
</tr>
<tr>
<td>TB5-2</td>
<td>1-C</td>
<td>Relay K1 - Common Contact</td>
</tr>
<tr>
<td>TB5-3</td>
<td>NC</td>
<td>Relay K1 - Normally Closed Contact</td>
</tr>
<tr>
<td>TB5-4</td>
<td>NO</td>
<td>Relay K2 - Normally Open Contact</td>
</tr>
<tr>
<td>TB5-5</td>
<td>2-C</td>
<td>Relay K2 - Common Contact</td>
</tr>
<tr>
<td>TB5-6</td>
<td>NC</td>
<td>Relay K2 - Normally Closed Contact</td>
</tr>
</tbody>
</table>
2.3 Jumper Configuration

Figure 2-3: J3 Jumper Location

![Jumper Location Diagram]

Table 2-2: Jumper Settings

<table>
<thead>
<tr>
<th>Jumper</th>
<th>Set at</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1</td>
<td>N/A</td>
<td>Factory Use Only</td>
</tr>
<tr>
<td>J2</td>
<td>N/A</td>
<td>Factory Use Only (A, B, and C pads)</td>
</tr>
<tr>
<td>J3</td>
<td>PoE</td>
<td>PW6K1ICE powered from the Ethernet connection</td>
</tr>
<tr>
<td></td>
<td>12V</td>
<td>PW6K1ICE powered from an external 12VDC power source connected to TB4-3 (VIN), TB4-4 (GND)</td>
</tr>
<tr>
<td>J4</td>
<td>N/A</td>
<td>Factory Use Only</td>
</tr>
<tr>
<td>J5</td>
<td>N/A</td>
<td>Factory Use Only</td>
</tr>
<tr>
<td>J6</td>
<td>N/A</td>
<td>10Base-T/100Base-Tx Ethernet Connection (Port 0)</td>
</tr>
<tr>
<td>J7</td>
<td>N/A</td>
<td>Cabinet Tamper: normally open switch</td>
</tr>
</tbody>
</table>
2.4 DIP Switch Configuration

The four switches on S1 DIP switch configure the operating mode of the PW6K1ICE processor. DIP switches are read on power-up except where noted. Pressing switch S2 causes the PW6K1ICE to reset.

Table 2-3: DIP Switch Settings

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>X</td>
<td>OFF</td>
<td>Normal operating mode.</td>
</tr>
<tr>
<td>ON</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>After initialization, enable default User Name (admin) and Password (password). The switch is read on the fly, no need to re-boot.</td>
</tr>
<tr>
<td>OFF</td>
<td>ON</td>
<td>X</td>
<td>OFF</td>
<td>Use factory default communication parameters.</td>
</tr>
<tr>
<td>ON</td>
<td>ON</td>
<td>X</td>
<td>OFF</td>
<td>Use OEM default communication parameters. Contact system manufacture for details. See Bulk Erase below.</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>ON</td>
<td>X</td>
<td>Disable TLS (Transport Layer Security) secure link. Switch is read only during the login. Ask your network administrator about this setting.</td>
</tr>
</tbody>
</table>

All other switch settings are unassigned and are reserved for future use.

2.5 Factory Default Communication Parameters

Table 2-4: Factory Default Communication Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network static IP address</td>
<td>192.168.0.251</td>
</tr>
<tr>
<td>Communication address</td>
<td>0</td>
</tr>
<tr>
<td>Host port</td>
<td>IP server, no encryption, port 3001</td>
</tr>
</tbody>
</table>

2.6 Bulk Erase Configuration Memory

Use the bulk erase function to erase all configuration and cardholder databases.

When power is applied with S1 switches set to 1 and 2 ON and 3 and 4 OFF, there is a 10-second window when memory is erased if switch 1 or 2 is changed to the OFF position. The LEDs flash the following pattern when in the reset window: LED 1 and 2 and LED 3 and 4 flash alternately at 0.5 second rate.
When erasing memory, LED 2 flashes at a 2 second rate; **DO NOT CYCLE POWER.** It takes less than 60 seconds to erase the memory. LEDs 1 and 4 flash for 10 seconds after the memory has been erased. Then the PW6K1ICE reboots.

### 2.7 Input Power

The PW6K1ICE is powered by one of two ways (jumper selected, J3):

- The Ethernet connection using PoE, fully compliant to IEEE 802.3af, or
- Local 12VDC power supply, TB4-3 (VIN), TB4-4 (GND).

If the PW6K1ICE panel is powered by the local 12VDC, it must be powered by a UL 294/UL 609 Listed power supply with appropriate ratings (12VDC, 90 OmA) that is capable of providing adequate standby power.

If the PW6K1ICE is powered by Power-Over_Ethernet (POE), it must be powered by a Listed (ALVY) Altronix, Model NetWay1 POE Injector. NetWay1 must be powered by a UL 294/UL 609 Listed power supply with appropriate ratings (24Vac/dc, 1.2A) that is capable of providing adequate standby power.

### 2.8 Communication Wiring

The PW6K1ICE controller communicates to the host via the on-board 10-BaseT/100Base-TX Ethernet interface (port 0).

### 2.9 Reader Wiring

The first reader port supports Wiegand, magnetic stripe, or 2-wire RS-485 electrical interfaces.

The second reader port supports Wiegand or magnetic stripe electrical interfaces.

Power to the first reader is 12VDC and is current limited to 150mA. The second reader may be powered from the auxiliary power output on TB4-1 and TB4-2. Readers that require different voltage or have high current requirements should be powered separately. Refer to the manufacture specifications for cabling requirements.

In the 2-wire LED mode, the Buzzer output is used to drive the second LED. Reader port configuration is set via the host software.

The first reader port can support multiple multi-dropped RS-485 devices. If this configuration is used, the second reader port will not support a third reader.
2.10 **Input Circuit Wiring**

Typically, these inputs are used to monitor door position, request to exit, or alarm contacts. Input circuits can be configured as unsupervised or supervised. When unsupervised, reporting consists of only the open or closed states.

When configured as supervised, the input circuit will report not only open and closed, but also open circuit, shorted, grounded, and foreign voltage.

**Note:** Grounded and foreign voltage states are not a requirement of UL 294 and therefore not verified by UL.

A supervised input circuit requires two resistors be added to the circuit to facilitate proper reporting. The standard supervised circuit requires 1K Ohm, 1% resistors and should be located as close to the sensor as possible. Custom end of line (EOL) resistances may be configured via the host software.

The input circuit wiring configurations shown are supported but may not be typical:
2.11 Relay Circuit Wiring

Two relays are provided for controlling door lock mechanisms or alarm signaling. The relay contacts are rated at 2A @ 30VDC, dry contact configuration. Each relay has a Common pole (C), a Normally Open pole (NO) and a Normally Closed pole (NC). When you are controlling the delivery of power to the door strike, the Normally Open and Common poles are used.

When the power to unlock the door is removed temporarily, as with a mag lock, the Normally Closed and Common poles are used. Check with local building codes for proper egress door installation.

**Note:** Door lock mechanisms can generate feedback to the relay circuit and that can cause damage and premature failure of the relay. For this reason, it is recommended that either a diode or MOV (metal oxide varistor) be used to protect the relay. The wire should be of sufficient gauge to avoid voltage loss.
2.12 Memory Backup Battery

The SRAM is backed up by a rechargeable battery when input power is removed. This battery should retain the data for about 2 weeks. If data in the SRAM is determined to be corrupt after power up, all data, including flash memory, is considered invalid and are erased. All configuration data must be re-downloaded.

Note: The initial charge of the battery may take up to 24 hours to be fully charged.

2.13 Status LEDs

Power-up: All LEDs OFF.

Initialization: LEDs 1, 2, 3, 4, 5, 6, and 7 are sequenced during initialization. LEDs 1, 3, and 4 are turned ON for approximately 4 seconds after the hardware initialization has completed; then the application code is 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. When LEDs 1, 2, 3 and 4 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 the Bulk Erase Configuration Memory procedure described in Bulk Erase Configuration Memory, page 11. If clearing the memory does not correct the initialization problem, contact technical support.
**Running:** After initialization is complete, the meaning of the various ways in which the LEDs flash is described in Table 2-5. At power up, LEDs 2 through 7 are first turned ON, then OFF, in sequence.

<table>
<thead>
<tr>
<th>LED</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Off-Line / On-Line and Battery Status</td>
</tr>
<tr>
<td></td>
<td>Off-Line = 20% ON, On-Line = 80% ON</td>
</tr>
<tr>
<td></td>
<td>Double Flash if Battery is Low</td>
</tr>
<tr>
<td>2</td>
<td>Host Communication Activity</td>
</tr>
<tr>
<td>3</td>
<td>Readers (Combined) Reader 1: Clock/Data or D1/D0 Mode = Flashes when Data is Received, Either Input. RS-485 Mode = Flashes when Transmitting Data</td>
</tr>
<tr>
<td>4</td>
<td>Input IN1 Status: OFF = Inactive, ON = Active, Flash = Trouble</td>
</tr>
<tr>
<td>5</td>
<td>Input IN2 Status: OFF = Inactive, ON = Active, Flash = Trouble</td>
</tr>
<tr>
<td>6</td>
<td>Cabinet Tamper</td>
</tr>
<tr>
<td>7</td>
<td>Not used</td>
</tr>
<tr>
<td>YEL</td>
<td>Ethernet Speed: OFF = 10Mb/S, ON = 100Mb/S</td>
</tr>
<tr>
<td>GRN</td>
<td>OFF = No Link, ON = Good Link, Flashing = Ethernet Activity</td>
</tr>
</tbody>
</table>

**2.14 Specifications**

The interface is for use in low voltage, class 2 circuits only.

The installation of this device must comply with all local fire and electrical codes.

**Power Input**

- PoE Power Input 12.95W, compliant to IEEE 802.3af
- 12VDC 10%, 200mA minimum, 900mA maximum

**Notes:**

- A +12V power input must be powered by a UL 294/UL 609 Listed power supply with appropriate ratings (12Vdc, 900mA) and the capability to provide adequate standby power.
- If the PW6K1ICE is powered by Power-Over-Ethernet (POE), it must be powered by a Listed (ALVY) Altronix, Model NetWay1 POE Injector. NetWay1 must be powered by a UL 294/UL 609 Listed power supply with appropriate ratings (24Vac/dc, 1.2A) that is capable of providing adequate standby power.

**Power Output**

- 12VDC @ 650mA (nominal voltage)
- 10.7-13.0VDC AUX output
- 10.3-12.6VDC reader output (refer to the PW6K1R1E Input/Output Module Installation and Configuration Guide, 800-07986)

**SRAM Backup Battery**

- Rechargeable battery

**Host Communication**

- Ethernet: 10BaseT/100Base-TX
## PW6K1ICE Wiring and Setup

### Specifications

<table>
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<tr>
<th>Inputs</th>
<th>2 supervised, Programmable End of Line resistors, 1k/2k - ohm 1% 1/4W watt standard, and dedicated tamper input</th>
</tr>
</thead>
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<tr>
<td>Relays</td>
<td>2 outputs, Form-C contacts: 2A @ 30VDC</td>
</tr>
</tbody>
</table>

### Reader Interface

<table>
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<tr>
<th>Reader Power:</th>
<th>12VDC 10% or local power supply (12VDC) (PTC limited 150mA max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reader Data Inputs</td>
<td>Two TTL reader ports or one 2-wire RS-485 reader port capable of supporting two readers</td>
</tr>
</tbody>
</table>
| RS-485 Mode | 9600 bps  
- Asynchronous  
- Half-duplex  
- 1 start bit  
- 8 data bits  
- 1 stop bit  
- Maximum cable length: 4000’ (1,200m) |
| LED Output | TTL compatible  
- High > 3V  
- Low < 0.5V  
- 5mA source/sink maximum |
| Buzzer Output | Open collector  
- 5VDC open circuit maximum  
- 10mA sink maximum |

### Cable requirements

<table>
<thead>
<tr>
<th>Power</th>
<th>1 twisted pair, 18 AWG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>CAT-5 (minimum)</td>
</tr>
</tbody>
</table>
| RS-485 | 24AWG, 4,000ft (1,200m) maximum  
Twisted pair(s) with an overall shield |
| Alarm Input | 1 twisted pair per input  
30-ohm maximum loop resistance |
| Reader data (TTL) | 18AWG  
6 conductors  
500-foot (150 m) maximum |
| Reader data (RS-485) | 24AWG  
120-ohm impedance  
Twisted pair with shield  
4000-foot (1,219 m) maximum |

### Environmental

| Temperature | 0 to 70°C, operating  
-55 to +85°C, storage |
2.15 Additional Mounting Information

Sources for the optional items are shown below:

- 3-gang stainless steel blank cover: Leviton part number 84033-40. Available from Graybar, part number 88158404.
Figure 2-7: Stainless Steel Blank Cover
Figure 2-8: Mounting Plate Dimensions
## 3 PW6K1ICE System Configuration via Web Interface

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3.1 Overview

PW6K1ICE comes with Access Control Device Server Manager (ACDSM); i.e., a built-in web server through which the users can configure their network and other system settings.

Note: The default factory-set TCP/IP address for the built-in system configuration web server is 192.168.0.251

3.1.1 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=ON.

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 PW6K1ICE controller at address 192.168.0.251.

5. Power up the PW6K1ICE controller.
3.2 Login

1. Launch your web browser. Type the IP address in the browser’s URL field and press Enter.

2. Click the “Click Here to Login” link to display the User Name and Password fields.

*Figure 3-1: Configuration Manager Login Screen*

If DIP Switch #1 is ON, then set

- Default Username to “admin”
- Default Password to “password”.

This switch is read on the fly. There is no need to reboot the controller.

- If the security certificate of your server is not valid continue with the next step “Security Certificate” on page 24.
- If the security certificate of your server is valid, jump to “Web Server Configuration” on page 27.
3.2.1 Security Certificate

If there is a problem with your security certificate, the system will display the following message:

*Figure 3-2: Security Certificate Warning Screen*

![Security Certificate Warning Screen](image)

If the security certificate of your server is not valid, the system will display the following warning message:

*Figure 3-3: Security Certificate Invalid Message*

![Security Certificate Invalid Message](image)
1. To download a valid security certificate, click the **About Certificate Errors** link and display the certificate properties screen:

   *Figure 3-4: Security Certificate Information Screen*

   ![Security Certificate Information Screen](image1)

2. Click **Install Certificate** to launch the **Certificate Import Wizard**:

   *Figure 3-5: Security Certificate Import Wizard*

   ![Certificate Import Wizard](image2)
3. Click **Next** to display the **Certificate Store** screen:

*Figure 3-6: Certificate Store Screen*

4. Select “**Automatically Select the certificate store based on the type of certificate**” option button and click **Next** to display the completion screen:

*Figure 3-7: Security Certificate Import Completion Screen*

5. Click **Finish** to display the Login Enabled confirmation message:

*Figure 3-8: Login Enabled Confirmation Screen*
6. Click **OK** to log in to the configuration screen and resume the configuration process.

### 3.3 Web Server Configuration

Complete the login by entering your **User Name** and **Password**.

#### 3.3.1 Home Screen

The system will display the **Home screen** which has all the available configuration links on the left navigation bar:

*Figure 3-9: Configuration Manager Screen*
3.3.2 Network Settings Screen

1. Click the Network link on the navigation bar to display the Network Settings screen where you can configure the IP address and hostname information:

   Figure 3-10: Network Settings Screen

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

3. Enter the appropriate IP address for the DNS Server field.

4. Click Accept to save the settings.
3.3.3 Host Communication Screen

1. Click the Host Comm link on the navigation bar to display the Host Communication Settings screen where you can configure the communication port information:

   Figure 3-11: Host Communication Screen

   ![Host Communication Screen]

2. From the Communication Address drop-down list, select one of the eight (0 to 7) available communication addresses for the PW6K1ICE board.

3. For the Primary Host Port, make the following selections:
   a. Connection Type. Select IP Server.
   b. Data Security. Select one of the following values from the drop-down list: None, Password/AES.
   c. Port Number. Enter the port number through which the host computer can communicate with the PW6K1ICE board.
   d. 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 PW6K1ICE.
      - If you select the Authorized IP Address Required option, also enter in the Authorized IP Addresses fields all the IP addresses that would be allowed to communicate with the PW6K1ICE.
4. For the **Alternate Host Port**, make the following selections:
   a. **Connection Type**. Select one of the following values from the drop-down list: *IP Server, IP Client*.
   b. **Data Security**. Select one of the following values from the drop-down list: *None, Password/AES*.
   c. Select a **Baud Rate** from the drop-down list.
   d. Select a **Flow Control** from the drop-down list.

5. Click **Accept** to save the settings.

### 3.3.4 Device Info Screen

1. Click the **Device Info** link on the navigation bar to display the read-only **Device Information** screen where you can view all the device information:

   ![Device Information Screen](image-url)
3.3.5 Users Screen

1. Click the **Users** link on the navigation bar to display the **Users** screen where you can configure all the user-related settings:

![Users Configuration Screen](image)

**Password Strength Criteria**

The password strength in the IP Web server can be set to Low, Medium, or High.

**Low Password Strength** – minimum of 6 characters

**Medium Password Strength** – minimum of 6 characters and passes two of the password strength tests.

**High Password Strength** – minimum of 8 characters, passes three of the password strength tests, and password not based on user name

The following strong password requirements are based on Microsoft guidelines for creating strong passwords.

**Password Strength Tests** – contains characters from any of the following categories:

- Uppercase alphabet characters (A–Z)
- Lowercase alphabet characters (a–z)
- Arabic numerals (0–9)
- Symbol characters (` ! $ ? ^ * ( ) _ - + = { } : ; @ ' ~ # | < , > . /)

**Example:**

If the password strength is set to “Medium”, the password **Gertrude** is valid because it has more than 6 characters and is a combination of upper and lower case.
If the password strength is set to “High”, the password **Gertrude8** is valid as long as the user name is not Gertrude.

2. Click **New User** to add a user.
3. Click **Edit** to edit an existing user.
4. Click **Delete** to delete an existing user.
5. Click **Save** to save the changes.

### 3.3.6 Auto Save Screen

1. Click the **Auto-Save** link on the navigation bar to display the **Auto Save** screen:

   Figure 3-14: Auto-Save Configuration Screen

2. Select one of the following option buttons in case you lose changes made prior to reset:
   - Restore from the last saved settings
   - Clear all settings and force a full download
3. Select **Enable** for **Auto Save** and select a **Delay Before Save time** value from the drop-down list.
4. Click **Save Settings**.

### 3.3.7 Restore Default Screen

1. Click the **Restore Default** link on the navigation bar to display the **Restore Default** screen where you can restore the default configuration values for the PW6K1ICE settings:
2. Click **Restore Default** to reload the default factory settings for all the configuration variables.

3. Click **Restore Current** to reload the current operational settings for all the configuration variables.

### 3.3.8 Load Certificate Screen

1. Click the **Load Certificate** link on the navigation bar to display the **Load Certificate** screen:

   ![Figure 3-16: Load Certificate Screen](image)

   2. Locate the **Certificate File** and **Private Key File** by clicking the respective **Browse** buttons.

   3. Click **Load Certificate Files**.
3.4 Initializing the System and Performing a System Download

Note: Pro-Watch software has been evaluated by UL for programming use only.

After creating the PW6KICE (EP1501) panel, initialize the system and perform a system download.

1. Right click on the panel and select **Download**:

2. Clear the **Download System** check box (see Figure 3-17 on page 35) and select the **Initialize** check box.

3. Click **Download** (see Figure 3-17 on page 35).
4. Right click on the panel again and select Download. This time keep Download System checked and click Download.

The panel will be initialized and Pro-Watch will trigger a system download.

After you add a PW6K1R1E downstream board to the PW6KICE, you must set the panel's MAC address and IP address (see Figure 3-18).

Note: MAC address octets must be separated by a colon.
3.5 Logout

Click Log Out to complete the web server configuration process and log out.