

PW7K1ICE Intelligent Controller

LP1501 Installation and Configuration Guide

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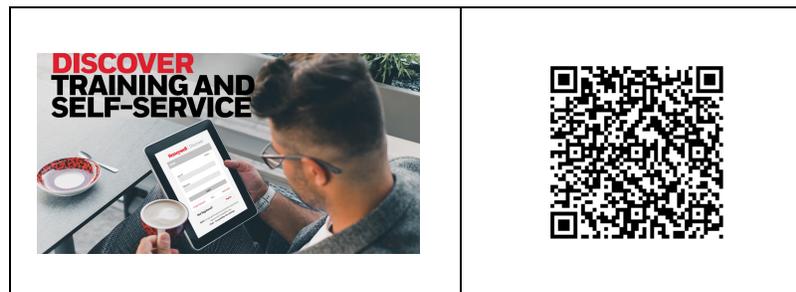
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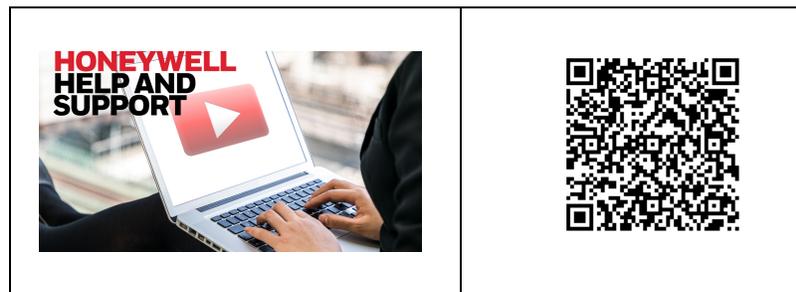


TABLE OF CONTENTS

Chapter 1 PW7K1ICE Introduction 7

1.1 Overview	8
1.2 General UL-Compliance	9
1.3 CE + WEEE Marking	10
1.4 Door Control	11
1.5 Access Control	12
1.6 Card Formats:	13
1.7 Card Readers	14
1.8 Alarm Management	15
1.9 Warranty	16
1.10 Liability	17
1.11 FCC Compliance	18

Chapter 2 PW7K1ICE Wiring and Setup 13

2.1 PW7K1ICE Hardware	14
2.2 LP1501 Wiring and Setup Terminal Connections	15
2.3 Jumper Configuration	16
2.4 DIP Switch Configuration	17
2.5 Factory Default Communication Parameters	17
2.6 Bulk Erase Configuration Memory	18
2.7 Bulk Erase Steps	18
2.8 Input Power	18
2.9 Communication Wiring	19
2.10 Reader Wiring	19
2.11 Input Circuit Wiring	22
2.12 Relay Circuit Wiring	22
2.13 Memory Backup Battery	23
2.14 Status LEDs	24
2.15 IT Security	25
2.16 Specifications	25
2.17 Additional Mounting Information	27

Chapter 3 PW7K1ICE System Configuration via Web Interface 31

3.1 Overview	32
Connecting to ACDSM for the First Time	32
3.2 Login	33
Security Certificate	34
3.3 Web Server Configuration	37
Home Screen	37
Network Settings Screen	38
Host Communication Screen	39

Device Info Screen	40
Users Screen	41
Auto Save Screen	42
Restore Default Screen	42
Load Certificate Screen	43
3.4 Initializing the System and Performing a System Download	44
3.5 Logout	46

PW7K1ICE Introduction



1

In this chapter...

1.1 Overview	6
1.2 General UL-Compliance	7
1.3 CE + WEEE Marking	8
1.5 Access Control	10
1.6 Card Formats:	11
1.8 Alarm Management	13
1.9 Warranty	14
1.10 Liability	15
1.11 FCC Compliance	16

1.1 Overview

The PW7K1ICE 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.



Note: For UL compliance, the Power Sourcing Equipments (PSE), including PoE, or POE+ enable network switch and /or POE, or POE+ power injectors must be listed UL. Listed under UL-294 and or UL-294 B.

One (1) physical barrier can be controlled with the PW7K1ICE, using single or paired (entry/exit) readers.

A total of 16 1R1E or 1R1E downstream boards can be connected to PW7K1ICE, depends on software compatibility with those boards. A maximum of 17 total readers is possible.

The first reader port can accommodate that utilize Wiegand, magnetic stripe, or 2-wire RS-485 electrical signaling (such as an OSDP reader 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 readers 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 and may be supervised or unsupervised.

The PW7K1ICE requires Power over Ethernet (PoE, or PoE+) or 12VDC for power.

The PW7K1ICE may be mounted in a 3-gang switch box; a mounting plate is supplied with the unit.

The PW7K1ICE may be mounted in an enclosure.

The encryption between PW6101 and its down-stream I/O board 1R1E is built-in and automatic.



Terminology: “PW7K1ICE” is the product number. “PW6K101” is the product name. Both refer to the same controller board.

Terminology: “1R1E” will be used to refer to both “1R1E and 1R1E”.

1.2 General UL/ULC-Compliance

A UL-compliant installation requires the following:

- The PW7K1ICE panel must be installed within the protected area.
- The PW7K1ICE is installed for indoor use only.
- The PW7K1ICE must be installed with the provided tamper switch, mounted to the enclosure cover.
- The fail secure locking mechanism shall only be installed where is allowed by the local authority having jurisdiction (AHJ), and it shall not impair the operation of panic hardware and emergency egress.
- Shielded cable shall be employed for all Input/Output wiring.



Note: The PW7K1ICE panel is not UL Listed for burglary installations.



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.

1.3 CE + 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

Stick the CE label from accessories onto the enclosure

1.4 Door Control

One (1) 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.

1.5 Access Control

- 240,000 Cardholders, 50,000 Transaction buffer (software configurable).
- 12 to 32 Access Levels per cardholder (software configurable).
- Card Number: 19 digit (64-bit) User Id with 15 digit PIN numbers MAX.
- Activation/Deactivation Dates.
- Macro capability using IF/(and)/THEN logic.
- Anti Passback support
- with Nested Area, and Hard, Soft, or Timed Forgiveness.

1.6 Card Formats:

- 8 active card formats per PW7K1ICE. PIV-II, CAC, TWIC card compatible.

1.7 Card Readers

The Pro-Watch PW7K1ICE controller and 1R1E input/output board have been tested for use with the following Listed (ALVY) card readers:

Manufacturer	Model	Part Number	
HID	ProxPro	HU/5355AGN00	
	ProxPro II	HU/5455BGN00	
	ProxPro K	HU/5355AGK00	
	MiniProx	HU/5365EGP00	
	ThinLine II		HU/5395CB100
			HU/5395CG100
			HU/5395CK100
Honeywell	OM40	OM40BHONC	
		OM40GHONC	
	OM41	OM41BHONC	
		OM41GHONC	
	OM55	OM55BHONB	
		OM55GHONB	
	OP-10	OP10GENR	
		OP10HONR	
	OP-30	OP30GENR	
		OP30HONR	
	OP-40	OP40GENR	
		OP40HONR	

1.8 Alarm Management

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

1.9 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.

1.10 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.

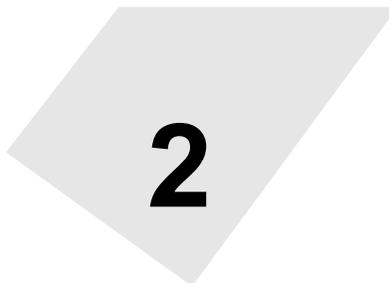
Honeywell Security Access is not liable under any circumstances for loss or damage caused by or partially caused by the misapplication or malfunction of the product.

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

1.11 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.

PW7K1ICE Wiring and Setup



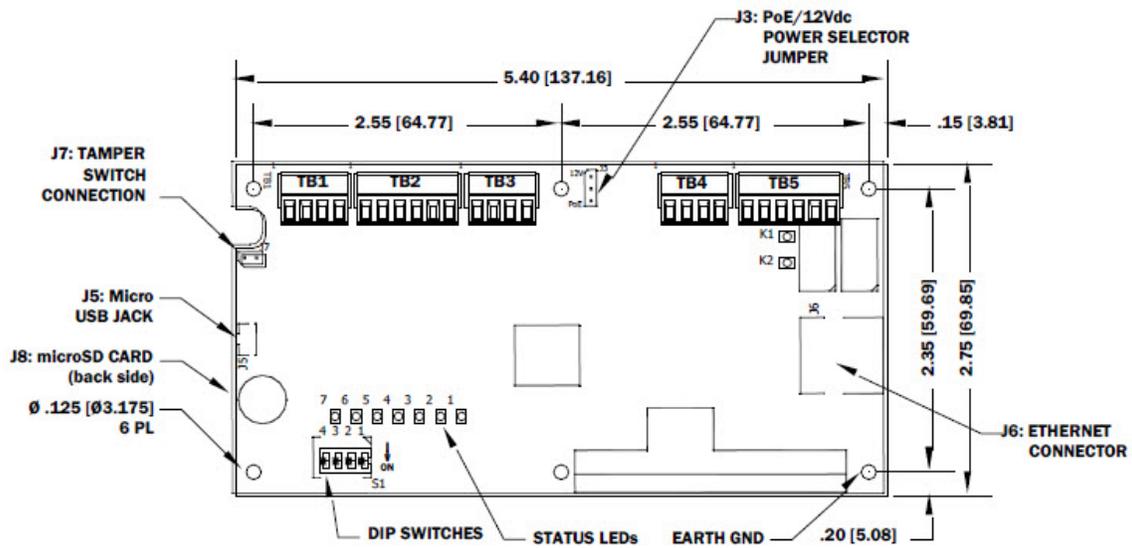
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In this chapter...

2.1	PW7K1ICE Hardware	18
2.2	LP1501 Wiring and Setup Terminal Connections	19
2.3	Jumper Configuration	20
2.4	DIP Switch Configuration	21
2.5	Factory Default Communication Parameters	21
2.6	Factory Default Details	22
2.8	Input Power	22
2.9	Communication Wiring	23
2.10	Reader Wiring	23
2.11	Input Circuit Wiring	26
2.12	Relay Circuit Wiring	26
2.13	Memory Backup Battery	27
2.14	Status LEDs	28
2.16	Specifications	29
2.17	Additional Mounting Information	32

2.1 PW7K1ICE Hardware

Figure 2-1: PW7K1ICE Control Board



2.2 LP1501 Wiring and Setup Terminal Connections

Table 2-1: PW7K1ICE Terminal Connections

Terminal	Acronym	Description
TB1-1	IN1	Input 1
TB1-2	IN1	
TB1-3	IN2	Input 2
TB1-4	IN2	
TB2-1	VO	Reader 1 Power Output - 12VDC
TB2-2	LED	Reader 1 LED Output
TB2-3	BZR	Reader 1 Buzzer Output
TB2-4	CLK	Reader 1 CLK/Data 1/TR + (B) See Note 1
TB2-5	DAT	Reader 1 DAT/Data 0/TR - (A) See Note 1
TB2-6	GND	Reader 1 Ground
TB3-1	LED	Reader 2 LED Output
TB3-2	BZR	Reader 2 Buzzer Output
TB3-3	CLK	Reader 2 CLK/Data 1 Input
TB3-4	DAT	Reader 2 DAT/Data 0 Input
TB4-1	VO	Auxiliary Power Output - 12VDC
TB4-2	GND	Auxiliary Power Output Ground
TB4-3	VIN	Input Power - 12VDC (from local power supply)
TB4-4	GND	Input Power Ground
TB5-1	NO	Relay K1 - Normally Open Contact
TB5-2	1-C	Relay K1 - Common Contact
TB5-3	NC	Relay K1 - Normally Closed Contact
TB5-4	NO	Relay K2 - Normally Open Contact
TB5-5	2-C	Relay K2 - Common Contact
TB5-6	NC	Relay K2 - Normally Closed Contact
Note: Terms A & B are from the RS-485 standard		

2.3 Jumper Configuration

Figure 2-2: J3 Jumper Location

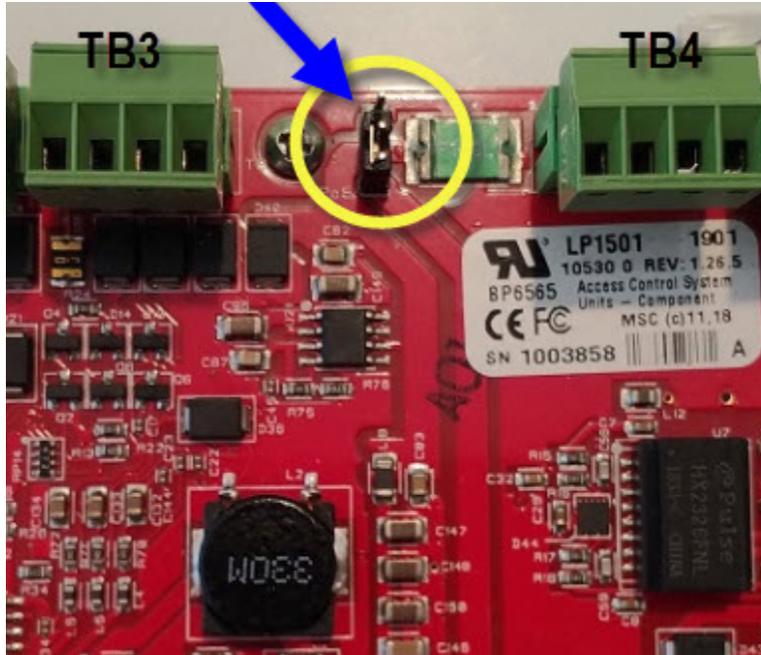


Table 2-2: Jumper Settings

Jumper	Set at	Description
J1	N/A	Factory Use Only
J3	PoE	PW7K1ICE powered from the Ethernet connection
	12V	PW7K1ICE powered from an external 12VDC power source connected to TB4-3 (VIN), TB4-4 (GND)
J4	N/A	Factory Use Only
J5	N/A	Micro USB Port(2.0)
J6	N/A	10 Base-T/100Base-Tx Ethernet Connection (Port 0)
J7		Cabinet Tamper: normally open switch
J8	N/A	Micro SD Card

2.4 DIP Switch Configuration

The four switches on S1 DIP switch configure the operating mode of the LP1501 processor. DIP switches are read on power up except where noted.

Table 2-3: DIP Switch Settings

1	2	3	4	Description
OFF	OFF	X	OFF	Normal operating mode.
ON	X	X	X	After initialization, enable default User Name (admin) and Password (password). The switch is read on the fly, no need to re-boot. See IT security section for additional information.
OFF	ON	X	OFF	Use factory default communication parameters.
ON	ON	X	OFF	Use OEM default communication parameters. Contact system manufacture for details. See Bulk Erase below.
ON	ON	OFF	OFF	Bulk Erase prompt mode at power up. See Bulk Erase below.
X	X	X	ON	Makes the LP1501 report and function like an PW6K1ICE (EP1501). To be used in situations where the host software has not been updated to support the LP series product line

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

Parameter	Default Value
Network static IP address	192.168.0.251
Communication address	0
Host port	IP server, no encryption, port 3001
Interface 1 (NIC1)	
Subnet Mask	255.255.0.0
Default Gateway	192.168.0.1
DNS Server	192.168.0.1

Table 2-4: Factory Default Communication Parameters

Parameter	Default Value
Primary Host Port	IP server, Data Security: TLS if Available, port 3001, communication address:
Alternate Host Port	Disabled

2.6 Factory Default Details

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

- Erase all configuration and cardholder database (sanitize/default board)
- Update OEM default parameters after OEM code has been changed
- Recover from database corruption causing LP1501 board to continuously reboot



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

2.7 Factory Default Steps

Do not remove power during steps 2-8

1. Set S1 DIP switches to: 1 & 2 "ON", and 3 & 4 "OFF".
2. Apply power to the LP1501 board. LED 1 will be on for about 15 seconds while LP1501 boots up.
3. After the LP1501 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 pattern starts, change switches 1 or 2 to "OFF". If these switches are not changed, the LP1501 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 takes up to 60 seconds, usually a lot less
7. When complete, only LEDs 1 & 4 will flash for about 3 seconds
8. The LP1501 board will complete its initialization in 2 seconds after LEDs 1 & 4 stop flashing



Note: 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. The PW7K1ICE then reboots.

2.8 Input Power

The PW7K1ICE(LP1501) is powered by one of two ways (jumper selected, J3):

- Power is supplied via the Ethernet connection using PoE or PoE+.
- Or Local 12VDC power supply, TB4-3 (VIN), TB4-4 (GND).

2.9 Communication Wiring

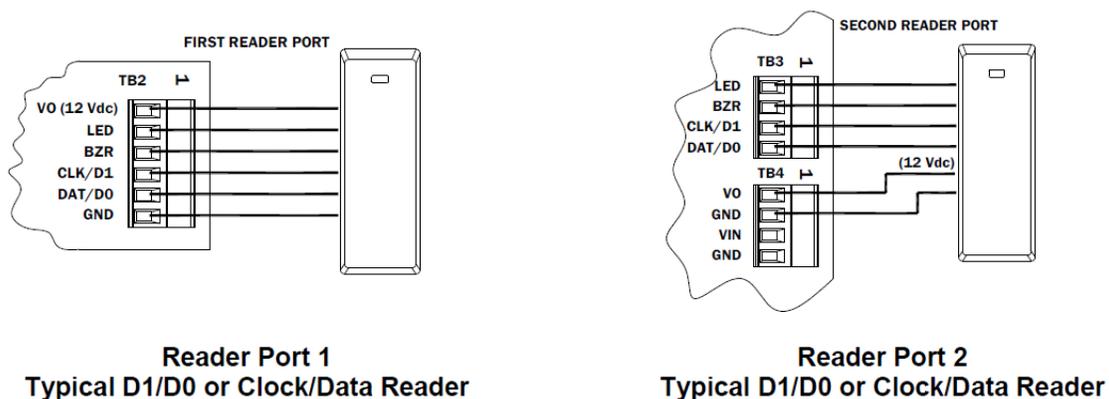
The PW7K1ICE (LP1501) controller communicates to the host via the on-board 10-BaseT/100Base-TX Ethernet interface (port 0).

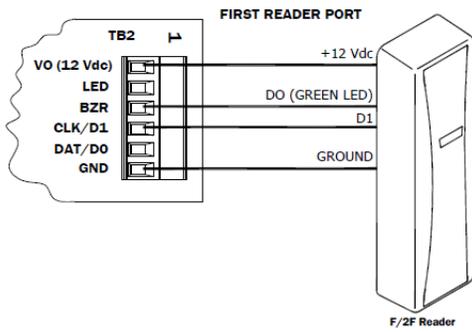
2.10 Reader Wiring

Reader port 1 supports TTL (D1/D0, Clock/Data), F/2F, or 2-wire RS-485 device(s). Reader port 2 supports TTL (D1/D0, Clock/Data), or F/2F. Power to reader port 1 is 12 VDC at 300 mA maximum. The reader connected to reader port 2 may be powered from the 12 VDC auxiliary power supply output; TB4-1 and TB4- 2. Readers that require different voltage or have high current requirements should be powered separately. Refer to the reader 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.

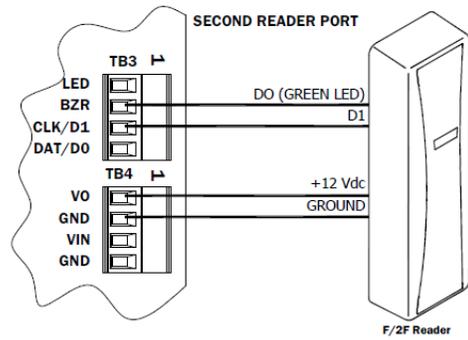
Reader port 1 can support up to eight 2-wire RS-485 remote serial I/O devices using MSP1 protocol or up to two OSDP devices. If two OSDP devices are used, reader port 2 will not support a third reader. If only one OSDP device is configured, then reader port 2 is available for a second reader. The maximum cable length is 2000 ft. (610 m). Do not terminate any RS-485 devices connected to reader port 1.

Figure 2-3: Reader Wiring Diagram



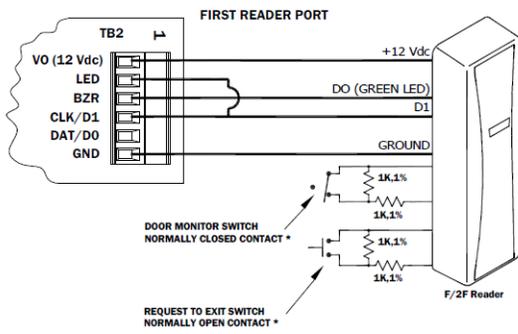


Reader Port 1
 Typical Unsupervised F/2F Reader

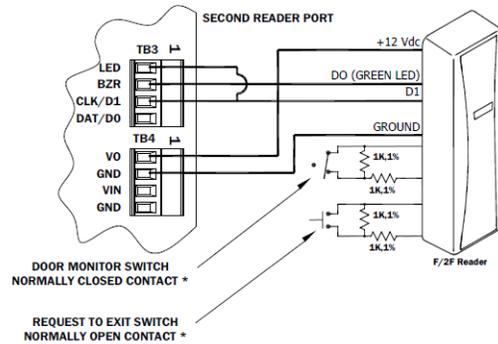


Reader Port 2
 Typical Unsupervised F/2F Reader

- Inputs on supervised F/2F readers may be unsupervised or supervised shown)



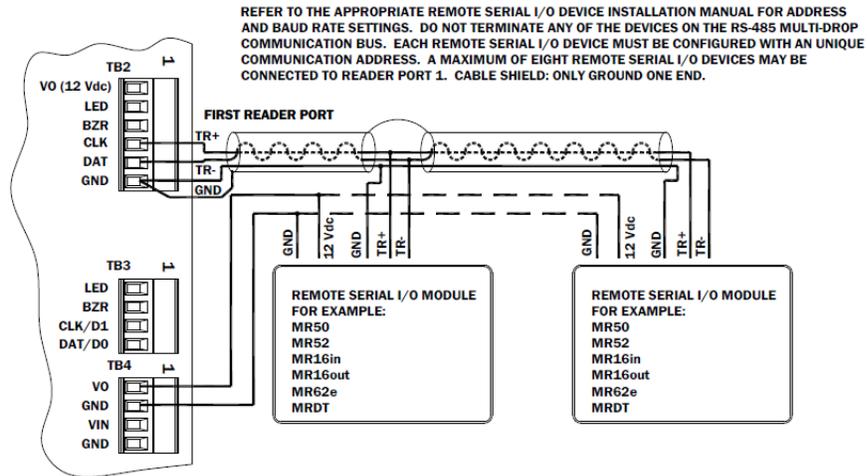
Reader Port 1
 Typical Supervised F/2F Reader



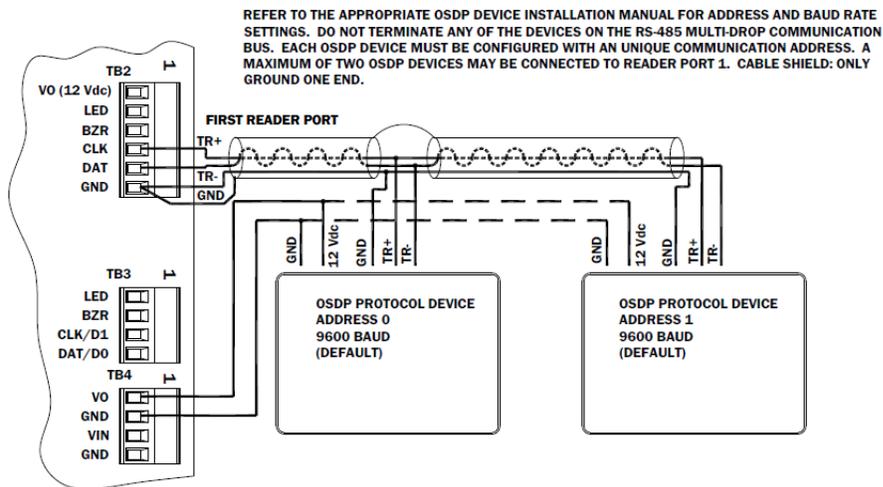
Reader Port 2
 Typical Supervised F/2F Reader



Caution: Jumper D1 and LED on supervised F/2F readers.



Reader Port 1 - Remote Serial I/O Devices using MSP1 Protocol (2-Wire RS485)



Reader Port 1 - OSDP Protocol Devices (2-Wire RS-485)

2.11 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.

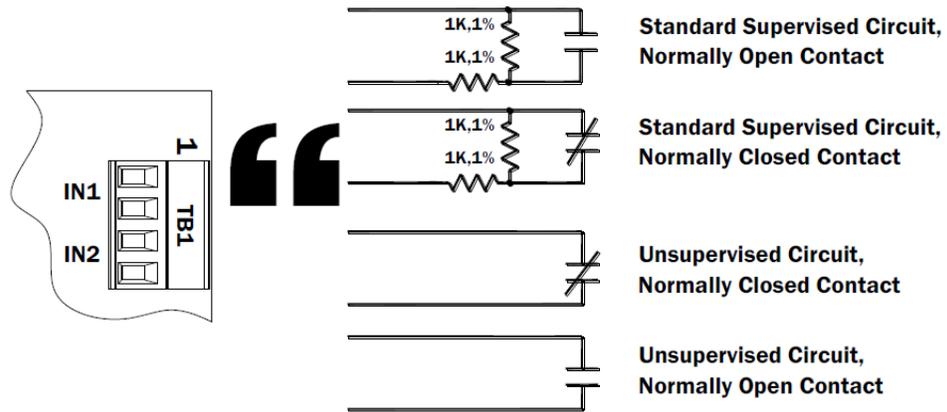
A supervised input circuit requires two resistors be added to the circuit to facilitate proper reporting. The standard supervised circuit requires 1K Ohm, 1% resistors and should be located as close to the sensor as possible. Custom end of line (EOL) resistances may be configured via the host software.



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

The input circuit wiring configurations shown are supported but may not be typical:

Figure 2-4: Input Circuit Wiring



2.12 Relay Circuit Wiring

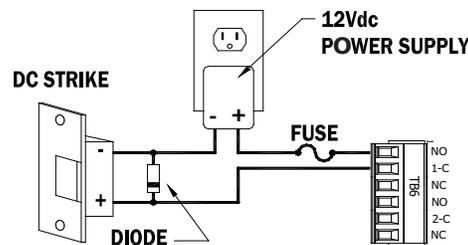
Two Form-C contact relays are provided for controlling door lock mechanisms or alarm signaling devices. The relay contacts are rated at 2 A @ 30 VDC, dry contact configuration. Each relay has a Common pole (C), a Normally Open pole (NO) and a

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

Door lock mechanisms can generate EMF feedback to the relay circuit that can cause damage and premature failure of the relay plus affect the operation of the LP1501. For this reason, it is recommended that either a diode or MOV (metal oxide varistor) be used to protect the relay. Wire should be of sufficient gauge to avoid voltage loss.

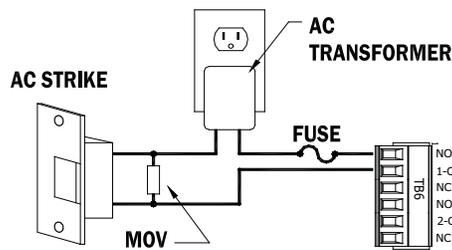
Caution: From the Auxiliary output, the LP1501 can provide 12 VDC power for external devices provided that the maximum current is not exceeded. See the specifications section for details. If a local power supply is used, it must be UL Listed Class 2 rated

Figure 2-5: Relay Circuit Wiring Diagram



Diode Selection:

- Diode current rating: 1x strike count
- Diode breakdown voltage: 4x strike voltage
- For 12VDC or 24VDC strike, diode 1N4002 (100V/1A) typical



MOV Selection:

- Clamp voltage: 1.5x VAC RMS
- For 24VAC strike, Panasonic ERZ-C07DK470 typical

2.13 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 48 hours to be fully charged.

2.14 Status LEDs

Power-up: All LEDs OFF.

Initialization: After power is applied, LED 1 is ON for about 15 seconds, then LED's 2 through 7 are flashed once at the beginning of initialization. LEDs 5, 6 and 7 are turned ON for approximately 1 second 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 1 second without a card database. Each 10,000 cards will add about 2 seconds to the application initialization. When LED's 1 through 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 [Factory Default Details, page 22](#), see section 4. 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 2-5: LED Descriptions

LED	DESCRIPTION
1	Off-Line / On-Line and Battery Status
	Off-Line = 20% ON, On-Line = 80% ON
	Double Flash if Battery is Low
2	Host Communication Activity
3	Readers (Combined) Reader 1: Clock/Data or D1/D0 Mode = Flashes when Data is Received, Either Input. RS-485 Mode = Flashes when Transmitting Data F/2F Mode = Flashes when Data/Acknowledgment is Received
4	Input IN1 Status: OFF = Inactive, ON = Active, Flash = Trouble (Fault) See Note 1
5	Input IN2 Status: OFF = Inactive, ON = Active, Flash = Trouble (Fault) See Note 1
6	Cabinet Tamper
7	Reserved for Fault Use
D9	Relay K1: ON = Energized
D10	Relay K2: ON = Energized
YEL	Ethernet Speed: OFF = 10 Mb/S, ON = 100 Mb/S
GRN	OFF = No Link, ON = Good Link, Flashing = Ethernet Activity



Note: If this input is defined, every three seconds the LED is pulsed to its opposite state for 0.1 seconds, otherwise, the LED is off.

2.15 IT Security

When installing the LP1501, it is important to ensure that it is done in a secure manner.

Upon installation, the user accounts to the web configuration page should be created with secure passwords, and that all DIP switches are in the off position for the normal operating mode. The LP1501 is shipped from the factory with a default login account, which is enabled when DIP 1 is moved from OFF to ON. The default login user name and password will be available for five minutes once enabled. Therefore, it is important that at least one user account is defined, and the DIP switches are set to OFF before the LP1501 is commissioned. It is also highly recommended not to configure the LP1501 with an IP address that is accessible from the public Internet.

To further enhance network security, options are available to disable SNMP, Zeroconf discovery, as well as the web configuration module itself. Additionally, data encryption can also be enabled over the host communication port.

2.16 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	<ul style="list-style-type: none"> PoE Power Input 12.95W, compliant to IEEE 802.3af - OR - PoE+ (25 W), compliant to IEEE 802.3at or 12 VDC+_10%, 1.8 A maximum
Power Output	<ul style="list-style-type: none"> 12VDC @ 625mA including reader and AUX output
Power Output	<ul style="list-style-type: none"> PoE+ or external 12 VDC: 12 VDC @ 1.25 A including reader and Auxiliary Power output
• Micro USB Port	<ul style="list-style-type: none"> • 5 VDC maximum (deduct 270 mA from reader and Auxiliary Power output)

- **Note:** For UL installations, PoE powered devices shall not be used. Power for these devices must be provided by an UL 294-listed source (12VDC). This conflicts with the information in PWLP1501_INSTALL.PDF which states the PoE is acceptable to meet UL-294B.
- PoE power is to be supplied by a Listed ITE or Access Control System Unit (ALVY), power limited, PoE+ injector or PoE+ Ethernet switch providing 42.5 – 57 VDC, 25.5W for maximum output.

SRAM Backup Battery	• Rechargeable battery
Micro SD Card	• Format micro SD or SDHC;2-8 GB
Host Communication	• Ethernet: 10BaseT/100Base-TX and Micro USB port (2.0) with optional adapter: pluggable model USB2-OTGE100
Inputs	• 2 supervised, Programmable End of Line resistors, 1k/2k - ohm 1% 1/4W watt standard, and dedicated tamper input
Relays	• 2 outputs, Form-C contacts: 2A @ 30VDC

Reader Interface

Reader Power:	• PoE: 12 VDC 10% or local power supply (12VDC) (PTC limited 300mA max)
Reader Data Inputs	• Two TTL reader ports or one 2-wire RS-485 reader port capable of supporting two readers compatible or F/2F
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 • 12VDC open circuit maximum • 40mA sink maximum

Cable requirements

Power	<ul style="list-style-type: none"> • 1 twisted pair, 18 AWG when using local 12 VDC power supply
Ethernet	<ul style="list-style-type: none"> • CAT-5 (minimum)
RS-485	<ul style="list-style-type: none"> • 24AWG, 4,000ft (1,200m) maximum • Twisted pair(s) with an overall shield
Alarm Input	<ul style="list-style-type: none"> • 1 twisted pair per input • 30-ohm maximum loop resistance
Reader data (TTL)	<ul style="list-style-type: none"> • 18AWG • 6 conductors • 500-foot (152 m) maximum
<ul style="list-style-type: none"> • Reader data (F/2F): 	<ul style="list-style-type: none"> • 4-conductor, 18 AWG, 500 ft. (152 m) maximum
<ul style="list-style-type: none"> • Reader data (RS-485) 	<ul style="list-style-type: none"> • 24AWG • 120-ohm impedance • Twisted pair with shield • 2000-foot (610 m) maximum
<ul style="list-style-type: none"> • Output 	<ul style="list-style-type: none"> • As required for the load

Environmental

Temperature	<ul style="list-style-type: none"> • 0 to 70°C, operating • -55 to +85°C, storage
Humidity	<ul style="list-style-type: none"> • 5 to 95% RHNC

Mechanical

Dimensions	<ul style="list-style-type: none"> • 5.5" (140mm)W x 2.75" (70mm)L x 0.96" (24mm)H without bracket • 5.5" (140mm)W x 3.63" (92mm)L x 1.33" (34mm)H with bracket
Weight	<ul style="list-style-type: none"> • 3.6 oz. (103g) without bracket • 4.3 oz. (125.28g) with bracket

2.17 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.
- Magnetic switch set: G.R.I. part number: 505.

Figure 2-6: Stainless Steel Blank Cover

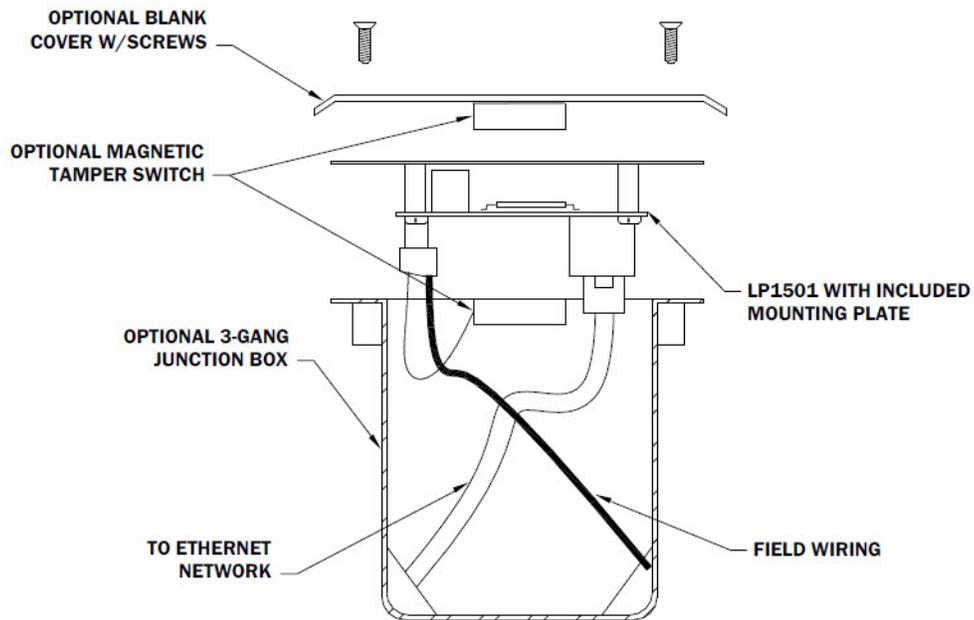
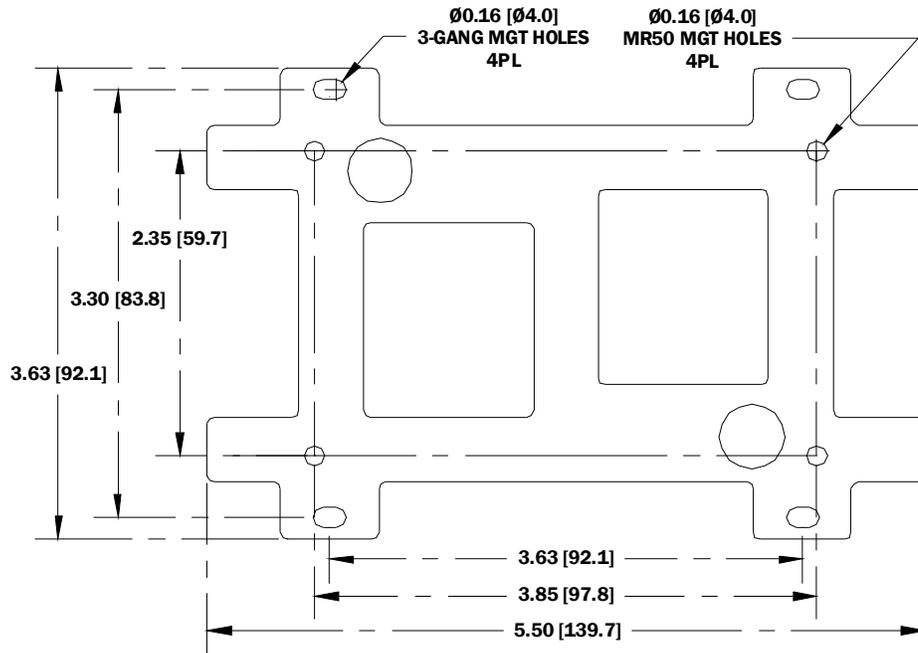


Figure 2-7: Mounting Plate Dimensions



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PW7K1ICE System Configuration via Web Interface **3**

In this chapter...

3.1	Overview	36
3.1.1	Connecting to ACDSM for the First Time	36
3.2	Login	37
3.2.1	Security Certificate	38
3.3	Web Server Configuration	41
3.3.1	Home Screen	41
3.3.3	Host Communication Screen	43
3.3.4	Device Info Screen	44
3.3.5	Users Screen	45
3.3.6	Auto Save Screen	46
3.3.7	Restore Default Screen	46
3.3.8	Load Certificate Screen	47
3.4	Initializing the System and Performing a System Download	48

3.1 Overview

PW7K1ICE 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=OFF**.
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 PW7K1ICE controller at address **192.168.0.251**.
5. Power up the PW7K1ICE 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



LP1501 Configuration Manager

Login

Enter your user name and password.

Username:

Password: 

If **DIP Switch #1** is **ON**, then set

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

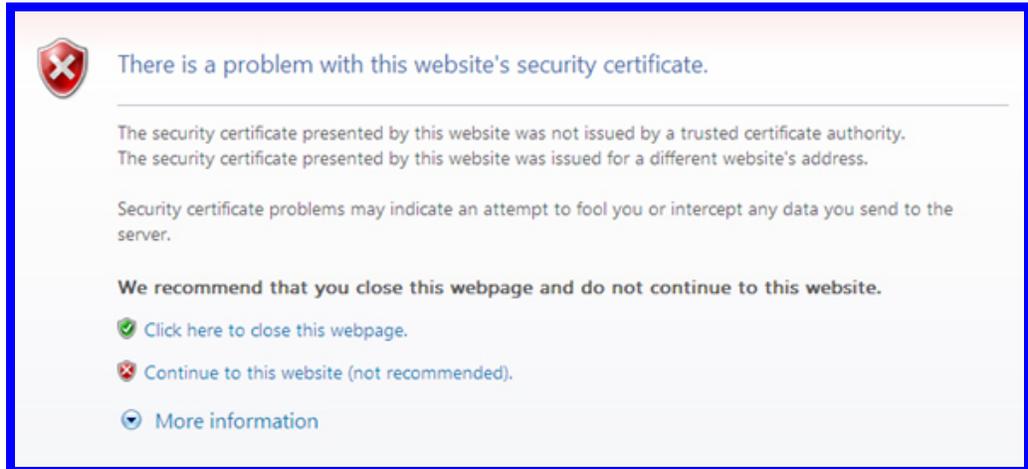
This switch is read on the fly. There is no need to reboot the controller.

- If the security certificate of your server is not valid continue with the next step “**Security Certificate**” on page 38.
- If the security certificate of your server is valid, jump to “**Web Server Configuration**” on page 41.

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



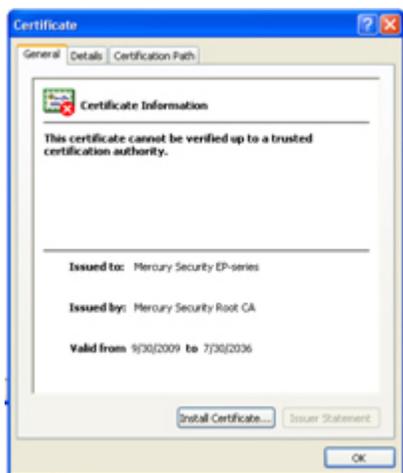
If the security certificate of your server is not valid, the system will display the following warning message:

Figure 3-3: Security Certificate Invalid Message



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



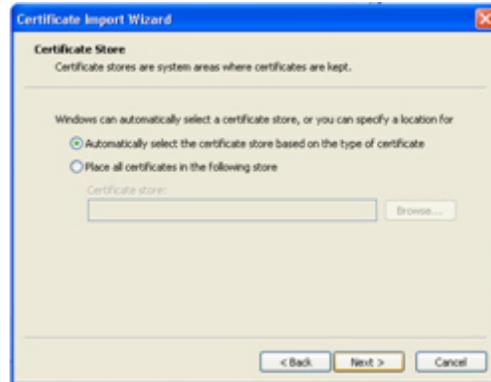
2. Click **Install Certificate** to launch the **Certificate Import Wizard**:

Figure 3-5: Security Certificate Import Wizard



3. Click **Next** to display the **Certificate Store** screen:

Figure 3-6: Certificate Store Screen



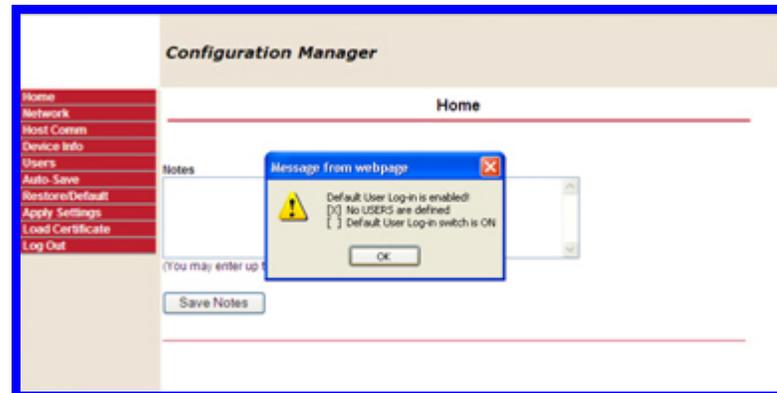
4. Select “Automatically Select the certificate store based on the type of certificate” option button and click **Next** to display the completion screen:

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.

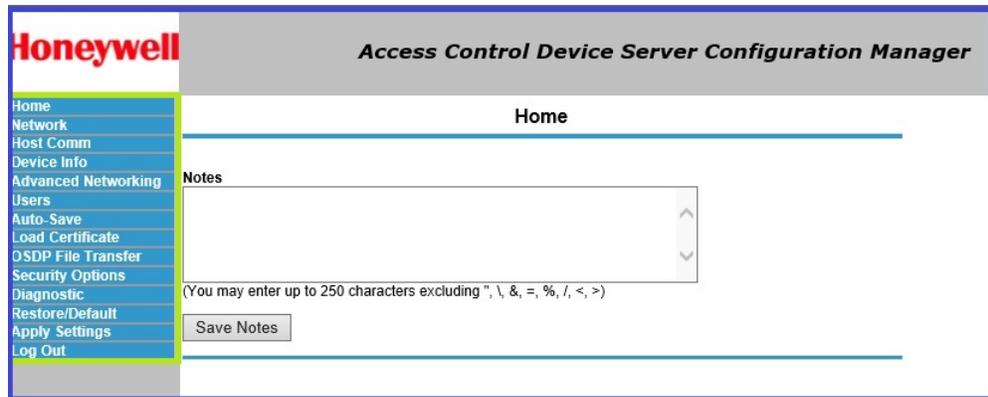
3.3 Web Server Configuration

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

The screenshot shows the 'Network Settings' page in the Honeywell Access Control Device Server Configuration Manager. On the left is a navigation menu with options: Home, Network (highlighted), Host Comm, Device Info, Advanced Networking, Users, Auto-Save, Load Certificate, OSDP File Transfer, Security Options, Diagnostic, Restore/Default, Apply Settings, and Log Out. The main content area is titled 'Network Settings' and includes the following sections:

- Host name of this device:** A text input field containing 'MAC000FE5090098'. Below it, a note states '(only 0-9, a-z, A-Z, ,(period), -(hyphen) are allowed)'. A horizontal line is drawn below this section.
- Interface 1 (NIC1)**
 - Use DHCP method to obtain IP address automatically
 - Use Static IP configuration:
 - IP Address:
 - Subnet Mask:
 - Default Gateway:

- + Interface 2 (NIC2)**
- DNS Settings**

(only 0-9, a-z, A-Z, ,(period), -(hyphen) are allowed)

DNS Server Primary cannot be left blank.
DNS Server Alternate can be left blank by typing "0.0.0.0"

- Obtain DNS server address automatically
- Use the following DNS server address:
 - DNS Suffix Primary:
 - DNS Suffix Alternate:
 - DNS Server Primary:
 - DNS Server Alternate:

* Select **APPLY SETTINGS** to apply changes. *

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

The screenshot shows the Honeywell Access Control Device Server Configuration Manager interface. The left navigation bar includes links for Home, Network, Host Comm (highlighted), Device Info, Advanced Networking, Users, Auto-Save, Load Certificate, OSDP File Transfer, Security Options, Diagnostic, Restore/Default, Apply Settings, and Log Out. The main content area is titled 'Host Communication' and contains the following configuration options:

- Communication Address:** A drop-down menu showing '0' and a checkbox for 'Use IPv6 Only'.
- Primary Host Port:**
 - Connection Type:** A drop-down menu showing 'IP Server'.
 - Data Security:** A drop-down menu showing 'None'.
 - Interface:** A drop-down menu showing 'NIC1'.
 - Port Number:** A text input field containing '3001'.
 - Authorization:** Radio buttons for 'Allow All' (selected) and 'Authorized IP Address Required'.
 - Authorized IP Address:** Two empty text input fields.
 - Enable Peer Certificate
- Alternate Host Port:**
 - Connection Type:** A drop-down menu showing 'Disabled'.
 - Data Security:** A drop-down menu showing 'None'.

An 'Accept' button is located at the bottom of the configuration area. A note at the bottom states: '* Select **APPLY SETTINGS** to save changes.'

2. From the **Communication Address** drop-down list, select one of the eight (0 to 7) available communication addresses for the PW7K1ICE 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 PW7K1ICE 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 PW7K1ICE.
 - 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 PW7K1ICE.

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:

Figure 3-12: Device Information Screen

Device Info	
Product ID-Version: 3-9	CPU: ARMv7 Processor rev 1 (v7l)
Hardware ID-Revision: 128-0	Memory: SRAM 1 MB, SDRAM 127 MB Flash 3616 MB, 0x7,
Serial Number: 1003858	I2C Bus Devices: RTC is present EEPROM 256 Bytes
Firmware Revision: 1.29.1 (633)	Serial Ports: N/A
OEM Code: 8192	
Ethernet: 10/100 Mbps	Battery: OK
MAC Address: 00:0f:e5:09:00:98	Dip Switch: 1 2 3 4 ON OFF OFF OFF
Operating Mode: Normal	IPv6 Addresses: NIC1 fe80::20fe5ff:fe09:98 NIC2 Device Not Connected
IPv4 Addresses: NIC1 192.168.119.18 NIC2 Device Not Connected	OpenSSL: OpenSSL 1.0.2j-fips 26 Sep 2016
Powerup Diagnostics: 8 (...P....)	FIPS Mode: Enabled
DHCP Host Name: MAC000FE5090098	POE+: No
Time: - Local Time: 10-21-2020 Wednesday 14:38:38 - GMT Time: 10-21-2020 Wednesday 18:38:38 (+18000)	Connected Client: 192.168.119.10
Uptime: 18:38:36 up 5:58, load average: 1.23, 1.43, 1.51	

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:

Figure 3-13: Users Configuration Screen



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

Honeywell Access Control Device Server Configuration Manager

Auto-Save

If the STARTUP routine detects that host configuration changes made prior to reset have been lost, then:

Restore from the last saved settings

Clear all settings. Force a full download

Auto Save

Enable Disable

Delay before save:

30 seconds

Enable network diagnostic log Card Database Size: 8MB

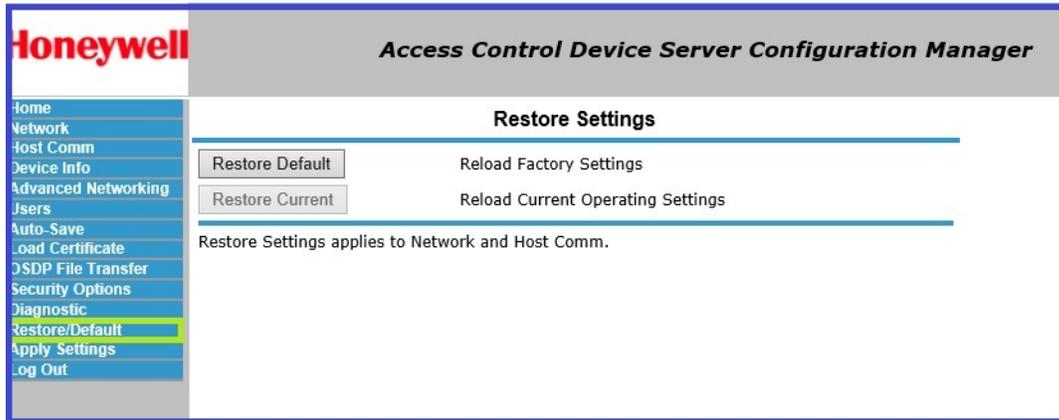
Save

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 PW7K1ICE settings:

Figure 3-15: Restore Default Screen



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

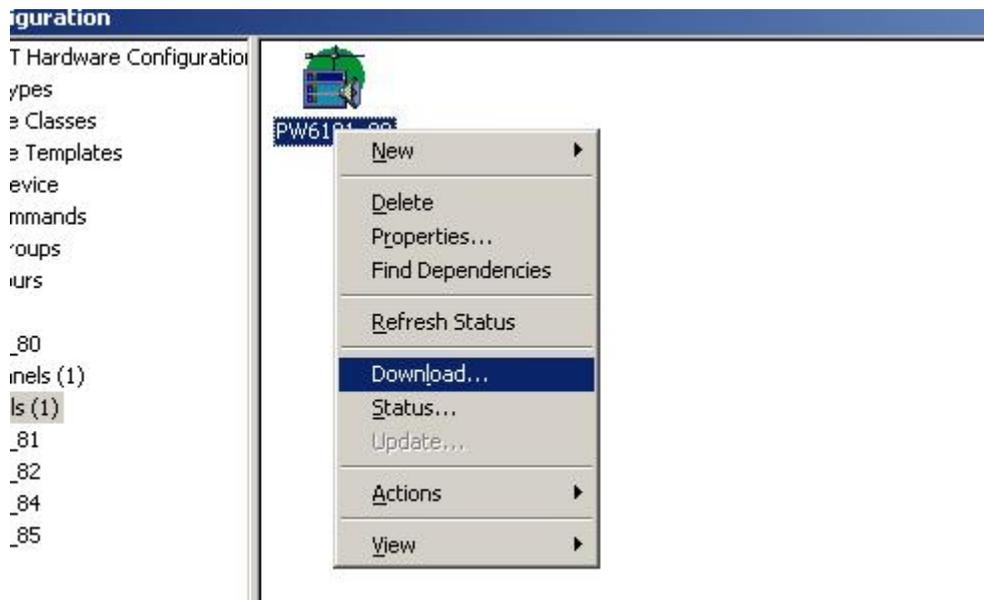


2. Locate the **Certificate File** and **Private Key File** by clicking the respective **Browse** buttons.
3. Click **Load Certificate Files**.

3.4 Initializing the System and Performing a System Download

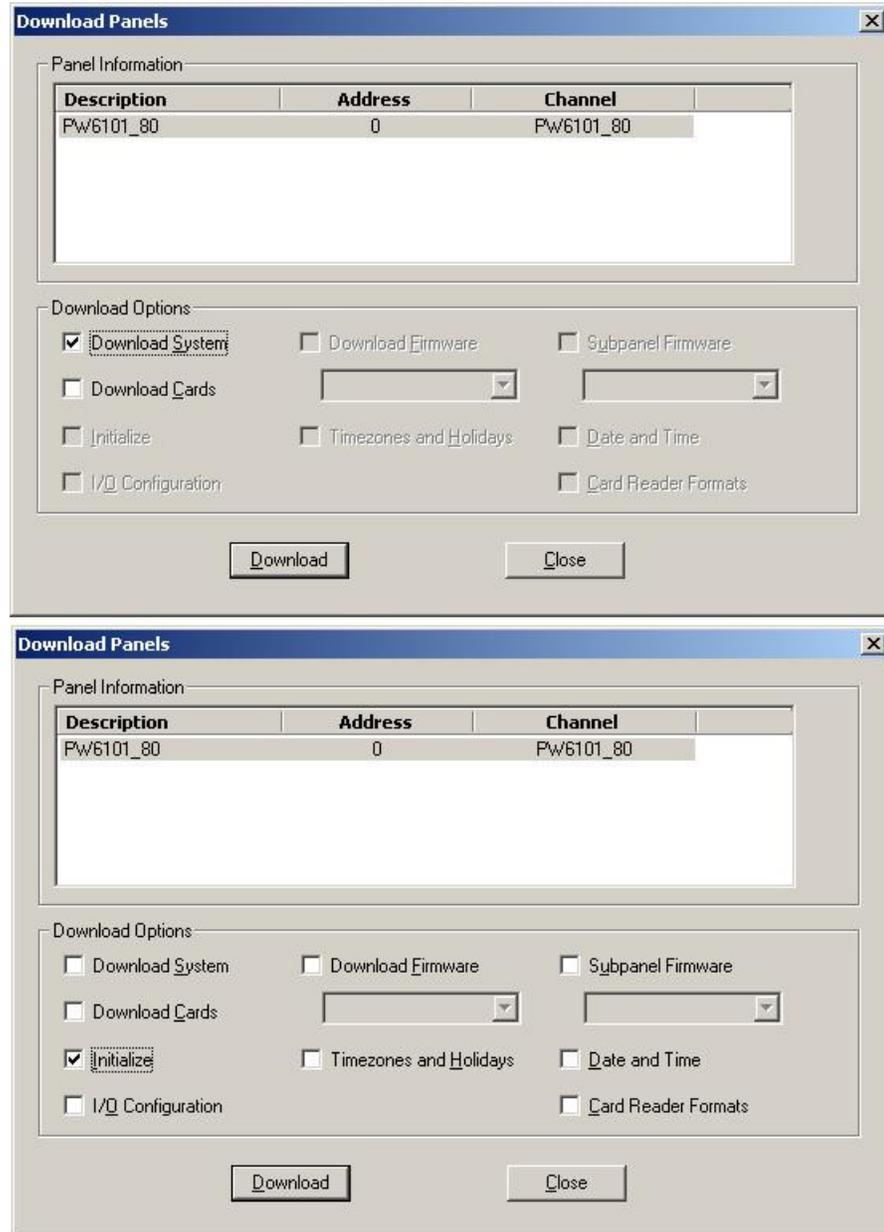
After creating the PW6KICE (EP1501) panel, initialize the system and perform a system download.

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



2. Clear the **Download System** check box (see [Figure 3-17](#) on page 49) and select the **Initialize** check box.
3. Click **Download** (see [Figure 3-17](#) on page 49).

Figure 3-17: Panel Download



4. Right click on the panel again and select **Download**. This time keep **Download System** checked and click **Download**.

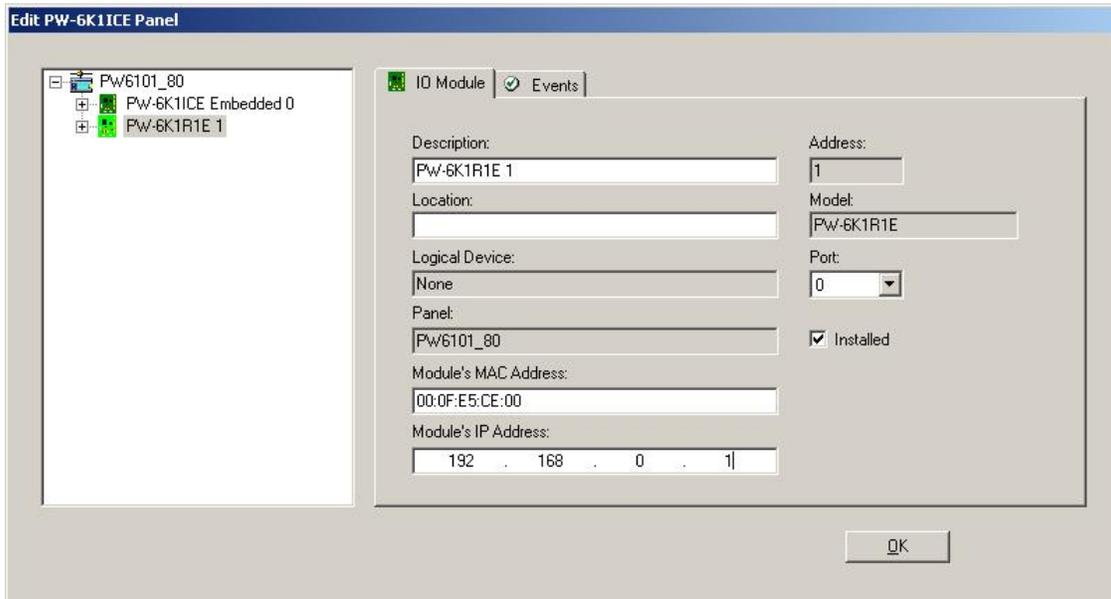
The panel will be initialized and Pro-Watch will trigger a system download.

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.

Figure 3-18: Setting MAC address and IP address



3.5 Logout

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

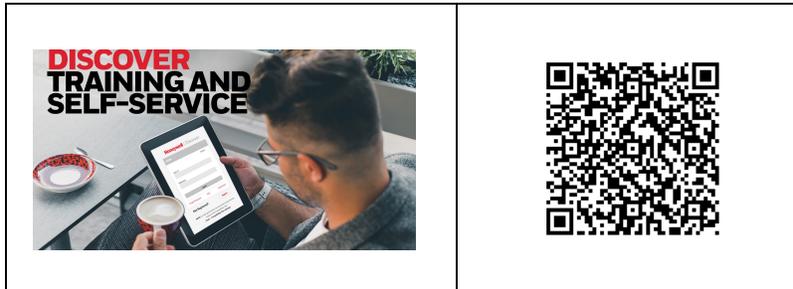


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Discover | Customer Portal

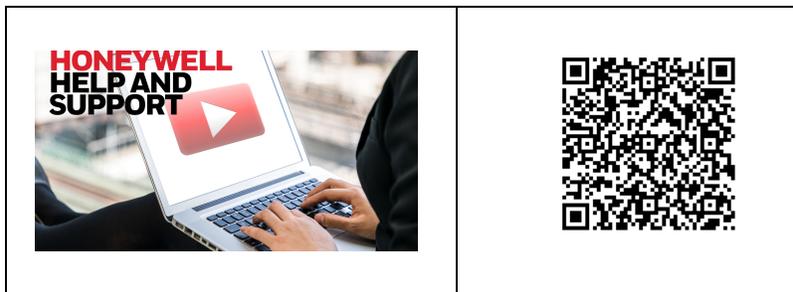
Self-Service Product Support and Learning Management System

<https://honeywelldiscovertraining.com/login/discover/default.asp>



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