

# Pro-Watch 5000

Remote Enclosure

PW5K1ENC3/PW5K1ENC3E

---

## Installation Guide

---

---

**Copyright© 20 Honeywell. All rights reserved.**

All product and brand names are the service marks, trademarks, registered trademarks, or registered service marks of their respective owners. Printed in the United States of America. Honeywell reserves the right to change any information in this document at any time without prior notice.

Pro-Watch® is a trademark of Honeywell International, Inc.

### **Ordering Information**

Please contact your local Honeywell representative or visit us on the web at [www.honeywellintegrated.com](http://www.honeywellintegrated.com) for information about ordering.

### **Feedback**

Honeywell appreciates your comments about this manual. Please visit us on the web at [www.honeywellintegrated.com](http://www.honeywellintegrated.com) to post your comments.



---

# CONTENTS

## Front Matter

Warnings and Cautions.....	v
Disclaimer.....	vi
Compliance.....	vii
Unpacking Procedure.....	vii
Shipping Instructions.....	viii
Limited Warranty.....	viii
Confidentiality.....	ix

## Installing the PW-5000 Remote Enclosure

Description.....	1
Dimensions.....	1
Conduit Knockouts.....	2
Power Supply.....	2
LED Diagnostics.....	2
Backup Power Supply.....	3
Cables Supplied.....	3
Maintenance.....	3
Operating Parameters.....	3
PW-5000 Remote Enclosure.....	4
Installation Instructions.....	5
Installation Diagram 1.....	6
Installation Diagram 2.....	6
Cable Specifications.....	7
Cable Part Numbers.....	8

---

---

# Front Matter

## Warnings and Cautions



**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.

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



**Warning: Fire Safety and Liability Notice**

Never connect card readers to any critical entry, exit door, barrier, elevator or gate without providing **an alternative exit** in accordance with all 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, THEY ARE NOT VALID.**

Honeywell never recommends using the PW-5000 Series or related products as a primary warning or monitoring system. Primary warning or monitoring systems should always meet 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 installer liable for damages to the end user if a problem occurs.



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



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



**Caution:**

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



**Caution:**

Electrostatic discharge 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 when wired using metal conduit for the cabling external to the enclosure. 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 that will require correction at the user's expense.



**Note:** This document and the data in it shall not be duplicated, used or disclosed to others for procurement or manufacturing, except as authorized by and with the written permission of Honeywell, Inc. The information contained in this document or in the product itself is considered the exclusive property and trade secrets of Honeywell, Inc. Copyright laws of the United States protect all information in this document or in the software product itself.



**Note:** Any use of this product is subject to the terms and acceptance of the Honeywell Inc. Software Agreement. Please request a copy from Honeywell, Inc. and review the agreement carefully.



**Note:** The installation and wiring of the PW5K1ENC3 and PW5K1ENC3E enclosures must comply with NFPA 70 requirements.

## Disclaimer

### Product Liability; Mutual Indemnification

In the event that 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.

Customer shall hold harmless and indemnify Honeywell from and against all claims, demands, losses and liability arising out of damage to property or injury to persons occasioned by or in connection with the acts or omissions of Customer and its agents and employees, and from and against all claims, demands, losses and liability for costs of fees, including reasonable attorneys' fees, in connection therewith.

## Compliance

To obtain applicable EU compliance Declaration of Conformities for this product, please refer to our website, <http://www.security.honeywell.com/hsce/international/index.html>. 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  
Scotland  
United Kingdom  
Tel: +44(0) 1698 738200  
Email: UK64Sales@Honeywell.com

## 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.

The following steps are used 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 packing materials. They may be used again for reshipment of the equipment, if needed.
2. Inspect the contents for shortage. If items are missing, contact the orderentry department at 1-800-227-1667 Option-2.
3. Visually check the contents. If damage is discovered, perform 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.

## Shipping Instructions

### To ship equipment back to Honeywell, Inc.:

1. Contact the customer service department at 1-800-227-1667 Option-2 before returning equipment. When you call, please have available:
  - A description of the problem or 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.
2. From the customer service department, obtain the **Return Authorization Number (RMA)**.
3. 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**.
4. Carefully pack the equipment for shipment. Use the original packing material whenever possible.

## 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 in order 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 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.

## **Confidentiality**

All software, drawings, diagrams, specifications, catalogs, literature, manuals and other materials furnished by Honeywell relating to the design, use and service of the Products shall remain confidential and shall constitute proprietary rights of Honeywell, and Customer agrees to treat such information as confidential. Customer shall acquire no rights in the design of the Products or the related materials except to use such information solely for the purpose of and only during the time it sells the Products. Customer shall not copy the design of any Products or use or cause to 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.



---

# Installing the PW-5000 Remote Enclosure

## Description

The PW-5000 Remote Enclosure allows for a variety of system configurations. It can be used in combination with the PW5K2ENC1, for example, to place modules closer to the doors they control. Or it can be used alone to house modules for a smaller system.

This enclosure can mount two full size PW-5000/PW-6000 panels (PW5K1IC, PW5K1IN, PW5K1OUT, PW5K1R2, PW6K1IC, PW6K1IN, PW6K1OUT, and PW6K1R2 OR one full size panel, one PW5K1R1 single reader panel and one PW5K1MX8 multiplexer panel.

The 2-amp power supply provides power for the modules. The battery is a 4.0-amp hour battery capable of providing 2.5 to 4 hours backup, depending on configuration.

## Dimensions

Height	14" (0.356 m)
Width	16" (0.406 m)
Depth	4" (0.102 m)

Metal thickness: .05" [0.00127 m]

Color: Autumn White

Installation holes: Three hangers in a triangular pattern are provided for mounting the cabinet. The top two are located .29" from the top and spaced 13.75" apart. The lower hanger is located .930" from the bottom and 7.85" from each edge. See Enclosure Drawing.

## Conduit Knockouts

	½" (0.00127 m)	2" (0.0508 m)
Top Side	3	1
Bottom Side	3	1
Right Side	3	1
Left Side	3	0
Rear Side	4	0

## Power Supply (NA Version)

**DO NOT USE POWER SUPPLY TO POWER LOCKS.**

- 12 VDC 2-amp continuous power limited output with backup battery charging and battery supervision
- A 16.5 VAC 40 VA wall transformer is provided.
- Requires 115 VAC/60Hz.
- Maximum battery charge current 0.3A.
- AC on LED.
- AC Fail supervision.
- Low Battery Supervision (form “C” contacts).
- Short circuit and thermal overload protection.



**Note:** All power connections should be made with 18 gauge or larger wiring.

## Power Supply (European Version)

**DO NOT USE POWER SUPPLY TO POWER LOCKS.**

- 12 VDC 2-A continuous power limited output with backup battery charging and battery supervision.
- Requires 230VAC/50 ~60Hz input 24 VDC 2.5A output CE certified AC-DC power supply.
- The recommends Honeywell part number is PSX220LPS.
- Maximum battery charge current 0.3A.
- AC on LED.
- AC Fail supervision.
- Low Battery Supervision (form “C” contacts).
- Short circuit and thermal overload protection.



**Note:** All power connections should be made with 18 gauge or larger wiring.

## LED Diagnostics

*Table 1 LED Diagnostics*

<b>AC LED</b>	<b>DC LED</b>	<b>Description</b>
ON	ON	Normal operating conditions
OFF	ON	Loss of AC, standby battery supplying power
ON	OFF	No DC output
OFF	OFF	Loss of AC, discharged or no standby battery, no DC output

## Backup Power Supply

- Automatic Switchover to standby battery when AC fails (zero voltage drop)
- 4.0 amp hour sealed rechargeable battery (BAT-3)
- Backup time: 1 hr at maximum 2 amp current draw (longer for configurations with lower current draw)

## Cables Supplied

- Power On Light assembly.
- Tamper Switch assembly - Use of Tamper Switch is required by UL294

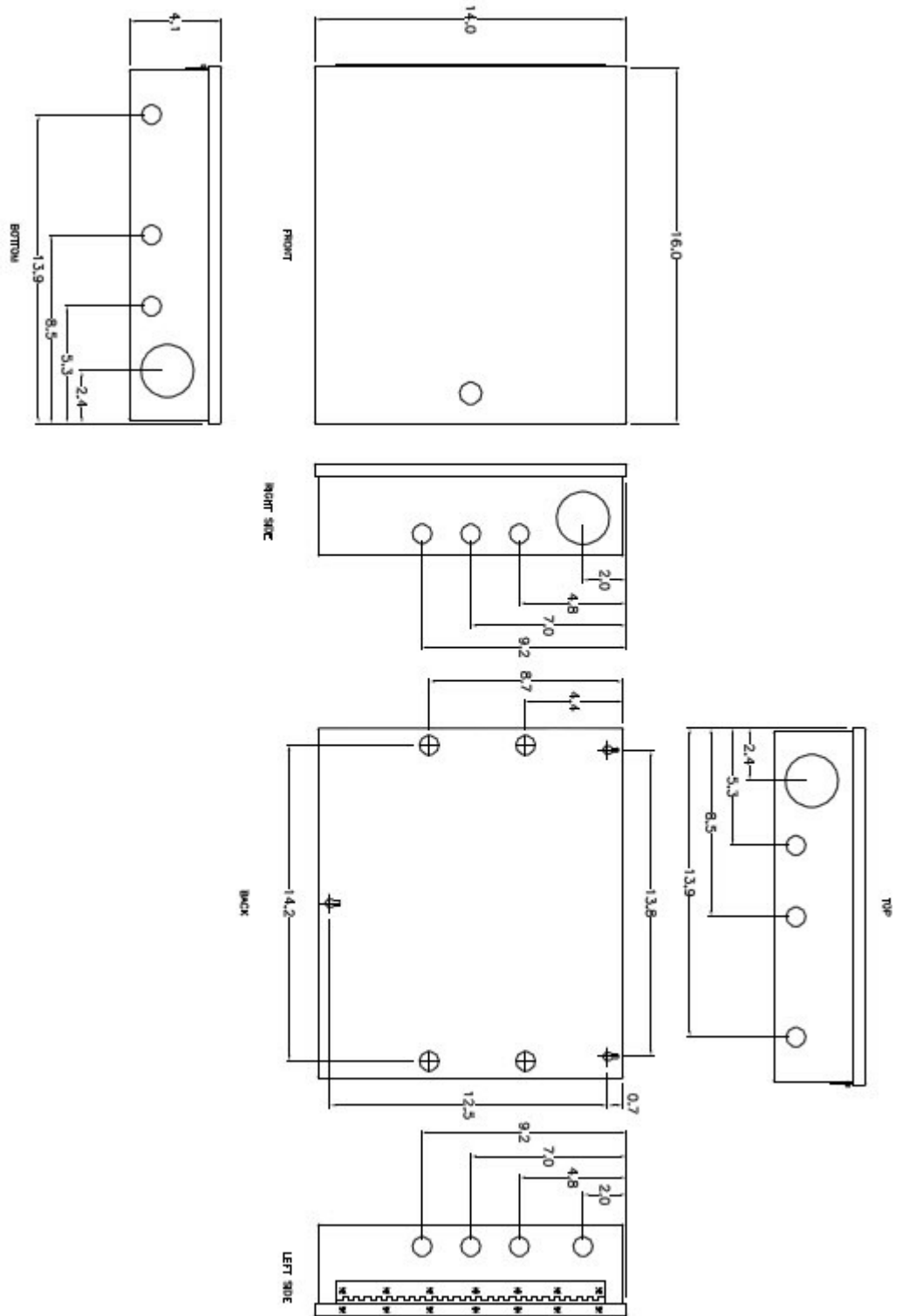
## Maintenance

- Replace the 12V 4 amp hour battery every 2 to 2.5 years.
- Oil the hinges on the door every 12 months.

## Operating Parameters

- Temperature: 35° F to 110° F (2° C to 43° C)
- Operating Humidity: up to 85% non-condensing

# PW-5000 Remote Enclosure



---

---

## Installation Instructions

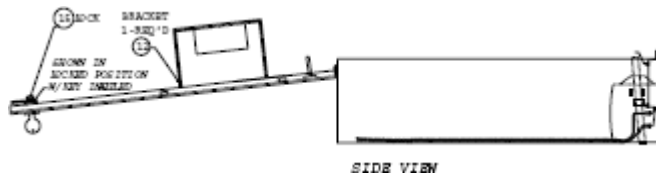
1. Remove the 16.5 V 20 VA wall transformer from the enclosure.
2. Measure and install the top two mounting screws with heads smaller than .4" [0.01016 m] using proper techniques for the material being used to hold the PW5K1ENC3 and PW5K1ENC3E. Space the screws 13.75" (0.349 m) apart. Leave the screws exposed approximately 1/2" [1.27 mm].
3. Open the door of the enclosure and place the hanging slots over the mounting screws. Push the enclosure over the mounting screws and allow the screws to slide into the slots. Finish tightening the mounting screws to securely hold the enclosure. Screw in the lower hanger to secure the enclosure against the wall.
4. Run all appropriate wiring to the case through **metal conduit**. Mark each wire as to the panel, location and input type. All cable shields should tie to the copper grounding stud found on the bottom left of the enclosure.
5. Install the required panels onto the proper standoffs using the supplied screws. **When using two full size panels, make sure the unused standoffs have nylon screws in them to prevent short circuits on the panels.** This enclosure can mount two full size PW-5000 panels **OR** one full size panel, one PW5K1R1 single reader panel and one PW5K1MX8 multiplexer panel.
6. Wire the readers, input and output connections (see wiring guide at end of manual).
7. **Check all connections prior to powering up the enclosure and panels.**
8. Wire the power supply through the wall transformer provided. Connect to the AC terminals. Check the voltage at DC+ and DC-. The voltage should be approximately 13.8 VDC.
9. Disconnect the power.
10. Connect the DC power to the panels in parallel. Insure that the connection has the correct polarity. Follow the wiring diagram supplied with the panels.
11. Wire the AC FAIL and LOW BATT normally closed to appropriate inputs on the panels. See individual panel wiring diagrams supplied with the panels.
12. Connect the green and yellow Tamper Switch wires to the appropriate inputs on the panels. See individual panel wiring diagrams supplied with the panels.
13. Connect Communications wiring per the wiring diagram supplied with the panels.



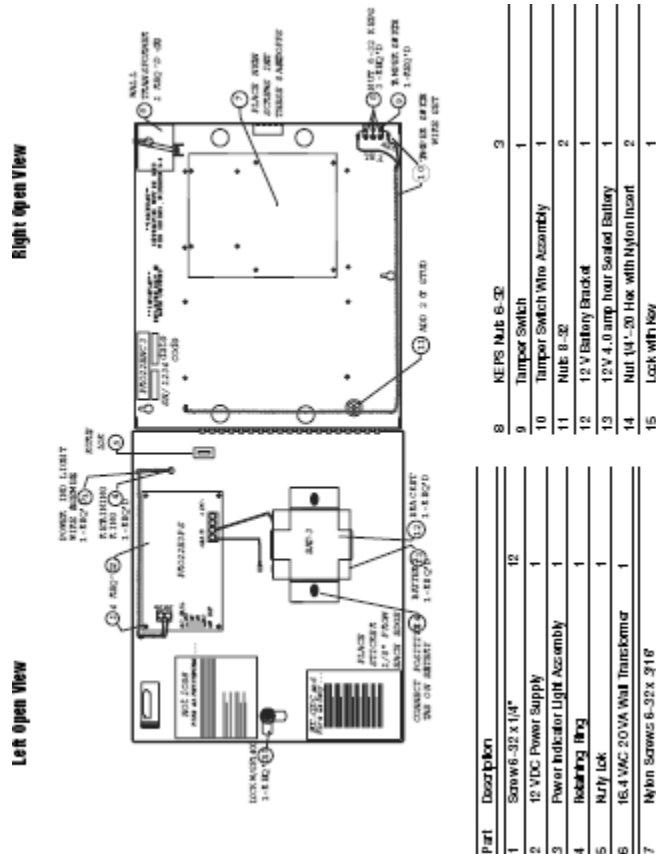
**Installing the PW-5000 Remote Enclosure**  
*Installation Instructions*

14. Attach the red battery charging connection to the positive terminal of the battery. The negative connection is connected at the factory.
15. Check all connections prior to powering up the enclosure and panels.

**Installation Diagram 1**



**Installation Diagram 2**



## Cable Specifications

Table 2 Cable Specifications

Application	NCI Part No.	AWG	Description	Max. Dist.	Imp.	Cap.
N-485 connections	NC2442-TN	N/A	Belden 9842 or equivalent	4000' (1200 m)	120 $\wedge$	12.8pf/ft
CR-1, TR-1, CI-1, KR-1 Wiegand card readers	NC1861-BL	18	6 conductor shielded	500' (152m)		
NR-1 magstripe reader	NC1861-BL	18	6 conductor shielded	500' (152m)		
PR-1-280 Cotag reader: 280 read head to SZC	NC1861-BL	18	6 conductor shielded	300' (91 m)		
SZC to N-1000-II	NC1861-BL	18	6 conductor shielded	500' (152 m)		
PR-2 Hughes reader: scanner to reader	NC1861-BL	18	6 conductor shielded	30' (9 m)		
reader to N-1000-II	NC1861-BL	18	6 conductor shielded	500' (152 m)		
PR-3, PR-5 Indala readers: A-3/A-5 read head to RE-2	NC18121-YL	18	12 conductor shielded	75' (23 m)		
RE-2 to N-1000-II	NC1861-BL	18	6 conductor shielded	500' (152 m)		
PR-20, PR-5-22 Indala readers: A-20/A-22 read head to RE-2	NC18121-YL	18	12 conductor shielded	75' (23 m)		
RE-2 to N-1000-II	NC1861-BL	18	6 conductor shielded	500' (152 m)		
PR-10, PR-12 Indala readers	NC1861-BL	18	6 conductor shielded	500' (152 m)		
HG-3 hand geometry reader	NC1861-BL	18	6 conductor shielded	500' (152 m)		
5 conductor keypad	NC1861-BL	18	6 conductor shielded	500' (152 m)		
Alarm input points	NC 2221-BR	22		2000' (610 m)		
Relay outputs	NC 1821-OR	18	twisted pair, shielded	2000' (610 m)		

**Note:** For Plenum rated cable, just add a “P” to the Pro-Watch part number prefix— for example, NC1861-BL becomes PNC1861-BL.

## Cable Part Numbers

Table 3 Cable Part Numbers

Part Number	Description	Application	Length
NC1841-GY	18 AWG/4 conductor	reader cable	1,000' (305 m)
NC1861-BL-500	18 AWG/6 conductor	reader cable	500' (152 m)
NC1861-BL	18 AWG/6 conductor	reader cable	1,000' (305 m)
NC1821-YL-500	18 AWG/12 conductor	keypad cable	500' (152 m)
NC18121-YL	18 AWG/12 conductor	keypad cable	1,000' (305 m)
NCNET-1	50 $\wedge$	network cable	1,000' (305 m)
NC2221-BR	22 AWG/2 conductor	alarm cable	1,000' (305 m)
NC1821-OR	18 AWG/2 conductor	power/door cable	1,000' (305 m)
NCC59206-BK	RG-59	video cable	1,000' (305 m)
NCP1841-GY	18 AWG/4 conductor Plenum	reader cable	1,000' (305 m)
NCP1861-BL-500	18 AWG/6 conductor Plenum	reader cable	500' (152 m)
NCP1861-BL	18 AWG/6 conductor Plenum	reader cable	1,000' (305 m)
NCP18121-YL	18 AWG/12 conductor Plenum	keypad cable	1,000' (305 m)
NCP18121-YL-500	18 AWG/12 conductor Plenum	keypad cable	500' (152 m)
NCPNET-1	50 $\wedge$ Plenum	network cable	1,000' (305 m)
NCP2221-BR	22 AWG/2 conductor Plenum	alarm point cable	1,000' (305 m)
NCP1821-OR	8 AWG/2 conductor Plenum	power/door cable	1,000' (305 m)
NC2442-TN	24 AWG/120 $\wedge$ 12.8pf RS-485 wire	communication cable	1,000' (305 m)
NC2442-TN	24 AWG/120 $\wedge$ 12.8pf Plenum	communication cable	1,000' (305 m)

# Honeywell

---

**Honeywell Integrated Security**

135 W. Forest Hill Avenue  
Oak Creek, WI 53154  
United States

800-323-4576

414-766-1798 Fax

[www.honeywellintegrated.com](http://www.honeywellintegrated.com)

Specifications subject to change  
without notice.

© 2021 Honeywell International Inc.  
Document 800-06955V1, Revision C

**THE  
FUTURE  
IS  
WHAT  
WE  
MAKE IT**