Honeywell

PRO-2200
Ethernet Board
Installation Manual

Part Number: PRO22EN

TD1145 rev0601

Contents

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 these WARNINGS are 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.

Engineering Systems never recommends using the PRO-2200 or related products for use 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. Engineering Systems recommends only DC strikes.

CAUTION

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

CAUTION

Electro-static 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.

NOTICE

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

NOTICE

NOTICE

Any use of this product is subject to the terms and acceptance of the Engineering Systems Software Agreement. Please request a copy from Engineering Systems, and review the agreement carefully.

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 property of others, Customer shall immediately notify Engineering Systems in writing of all such claims. Engineering Systems 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 Engineering Systems, its agents, or its employees. Customer shall hold harmless and indemnify Engineering Systems 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.

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 items, contact the order entry department at 800-323-4576.
3. Visually check contents. If damage is discovered, perform the following:

If shipping caused damage to the unit, a claim must be filed with the commercial carrier.

If any other defect is apparent, call 800-323-4576 for a return authorization.

Shipping Instructions

To ship equipment back to Engineering Systems:

1. Contact the customer service department at 800-323-4576 before returning equipment. When calling, please have available:

   A description of the problem or reason for returning the equipment.

   Original purchase order number, invoice number and if the unit is under warranty.

   A new purchase order number if the unit is not under warranty

2. Obtain the Return Authorization Number (RMA) from the customer service department at 800-323-4576.
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 COD.
4. Carefully pack the equipment for shipment. Use the original packing material whenever possible.

Limited Warranty

All Products sold or licensed by Engineering Systems include a warranty registration card which must be completed and returned to Engineering Systems by or on behalf of the end user in order for Engineering Systems to provide warranty service, repair, credit or exchange. All warranty work shall be handled through Customer which shall notify Engineering systems and apply for a Return Merchandise Authorization (RMA) number prior to returning any Product for service, repair, credit or exchange. Engineering systems warrants that its Products shall be free from defects in materials and workmanship for a period of two years from 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. Engineering Systems 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 ENGINEERING SYSTEMS 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 ENGINEERING SYSTEMS PRODUCTS.

Confidentiality

All software, drawings, diagrams, specifications, catalogs, literature, manuals and other materials furnished by Engineering Systems relating to the design, use and service of the Products shall remain confidential and shall constitute proprietary rights of Engineering Systems 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 of the 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 Engineering Systems in writing.

PROGRAMMING ETHERNET DEVICES

This covers all of the steps needed to get the PRO22EN Ethernet Daughter board on-line and working. Programming of these units will be outlined within this Installation Guide.

PRO22EN Programming

The PRO22EN will be programmed from a Command Prompt using the ARP command. ARP (Address Resolution Protocol), a TCP/IP protocol used to convert an IP address into a physical address (called a DLC address), such as an Ethernet Address. A host wishing to obtain a physical address broadcasts an ARP request onto the TCP/IP network. The host on the network that has the IP address in the request then replies with its physical hardware address (MAC address).

EQUIPMENT NEEDED

1. PRO22IC (Intelligent Controller)
2. PRO22EN (Ethernet Card and Mounting Kit)
3. A Networked Computer.
4. A Network Crossover cable to connect directly to the PRO-2200 or a Network Connection that is on the same network segment as the PRO-2200.

Special Note: *When programming the Ethernet card verify that you're not initially going through a gateway or a router. When programming is complete the unit can be installed on a different network segment.*

HARDWARE SETUP

1. Prior to mounting the PRO22EN onto the PRO22IC verify the MAC address on the back of the PRO22EN (Ethernet Card). This address will be needed during programming of the card with the correct IP Address, Subnet Mask, and Gateway.

   Example: MAC Address 00-20-4A-54-49-B7

   MAC Address_____

   Static IP Address_____

   (Check with MIS\IT Department)

   Subnet Mask _____

   (Check with MIS\IT Department)

   Default Gateway_____

   (Check with MIS\IT Department)

2. Set the dipswitches on the PRO22IC (S1) to:

   Baud Rate is 38, 400 bps

   Flow Control is ON

   Panel Address is 1

   S1

   8 OFF (PASSWORD OFF)

   7 ON (BAUD RATE)

   6 ON (BAUD RATE)

   5 ON (FLOW CONTROL)

   4 OFF (PANEL ADDRESS)

   3 OFF (PANEL ADDRESS)

   2 OFF (PANEL ADDRESS)

   1 ON (PANEL ADDRESS)

3. Set the jumpers on the PRO22IC

   Jumper

   J14 OFF (NETWORK ENABLED)

   J12 ON (PORT 2 EOL ACTIVE)

   J13 ON (PORT 3 EOL ACTIVE)

   J4 2 AND 3 ON

   J5 2 AND 3 ON

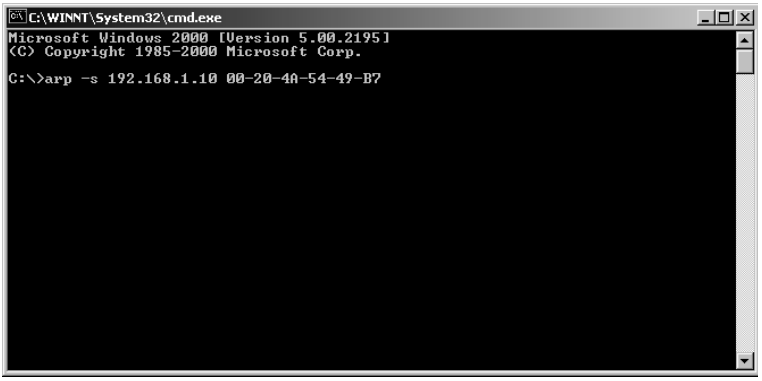
   J6 2 AND 3 ON

   J9 ON

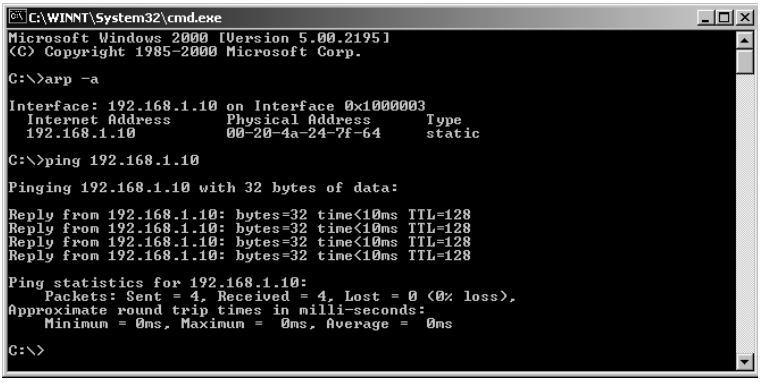
4. Mount the PRO22EN to the PRO22IC (Mounting instructions on Page 15)
5. Finish Installation of PRO-2200. Refer to Installation manuals
6. Connect the Networked Computer to the Ethernet Card using CAT5 cable.

PROGRAMMING THE ETHERNET CARD

1. Go to a MS-DOS prompt.
2. Type arp -s XXX.XXX.XXX.XXX ??.??.??.??.?? <Enter>
   XXX.XXX.XXX.XXX = TCP\IP Address for the Ethernet Card
   ??-??-??-??-??-?? = MAC Address of the Ethernet Card.
   After pressing Enter the result will show nothing.

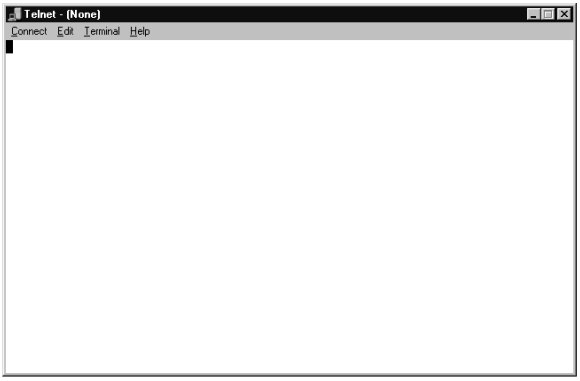


3. Type arp -a <Enter>. Verify the IP Address has been assigned to the Ethernet Card.

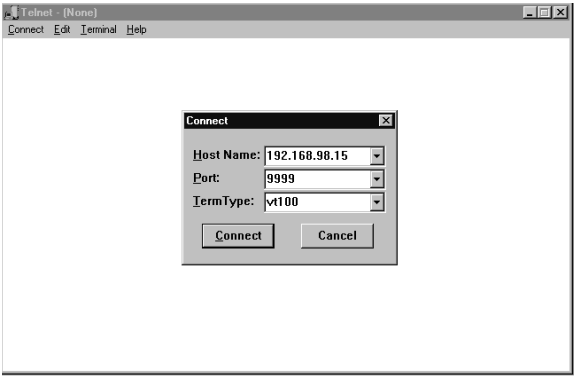


4. Type Telnet XXX.XXX.XXX.XXX 1 <Enter>
   (IP Address and the number 1)

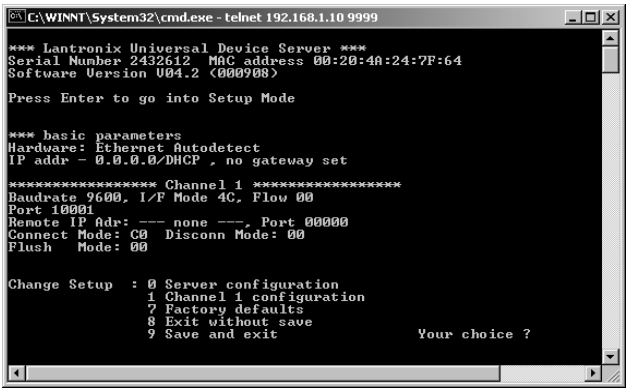
   Note: *The 1 is port "1".*



5. The Telnet window may or may not connect to Host Name: XXX.XXX.XXX.XXX.
   Click OK
6. Select Connect and Remote System
7. Verify the Host Name is the correct IP Address and type: 9999 in Port. Click Connect

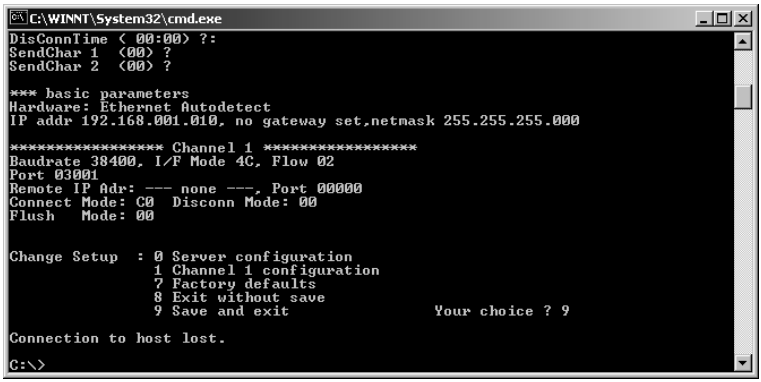


8. Press <Enter> for Setup Mode
9. The following screen should appear.



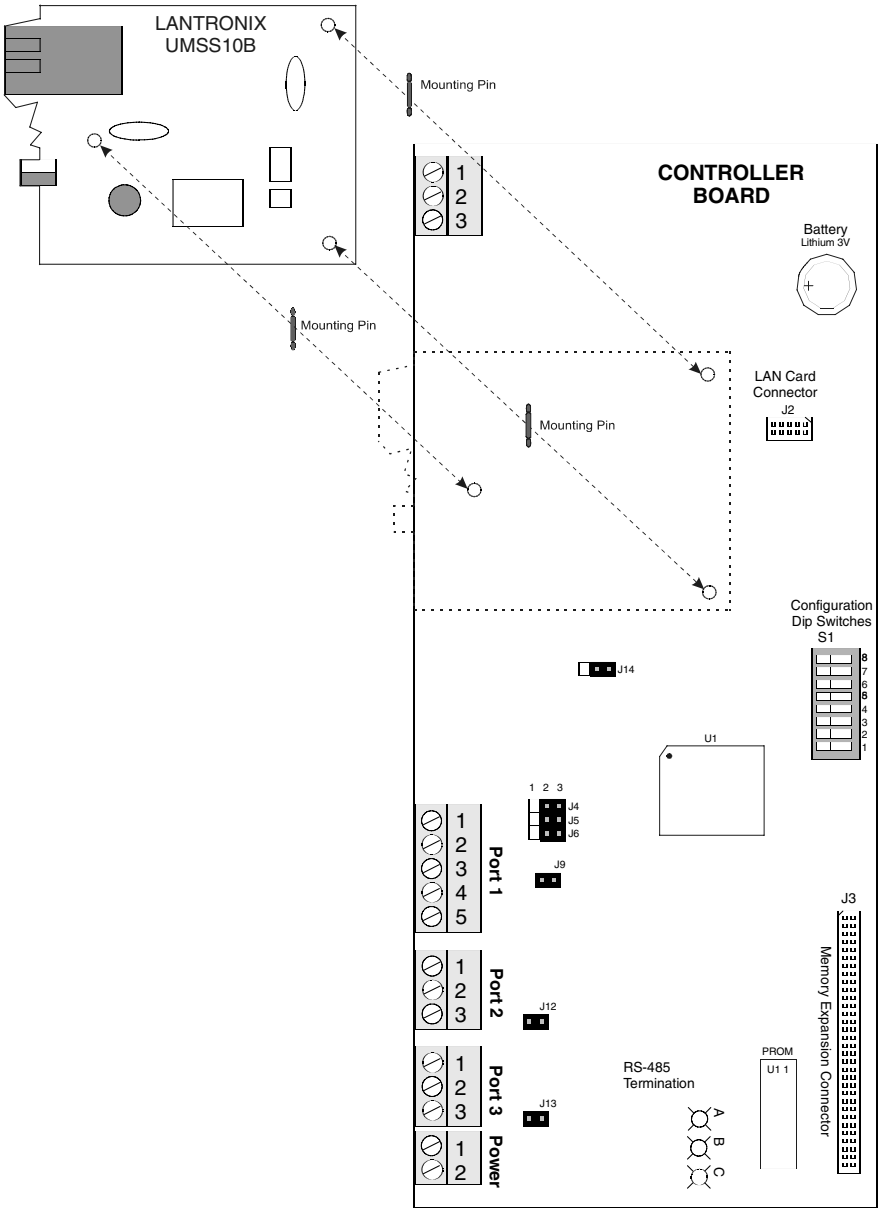
10. Your Choice? Enter 0 for server configuration.
11. IP Address: (000) XXX.XXX.XXX.XXX <Enter>
12. Set Gateway IP Address
    Type Y, if a gateway is needed. XXX.XXX.XXX.XXX (Gateway Address) Type N, if a gateway is not needed This number may or may not be needed. Check with the MIS department to verify if the Ethernet Card will need a gateway programmed.
13. Netmask: Number of Bits for Host Part (0=default to Class C) (00) Type 8, 16, or 24 depending on the subnet mask class being used.
    Class A: 24 = subnet of 255.0.0.0
    Class B: 16 = subnet of 255.255.0.0
    Class C: 8 = subnet of 255.255.255.0
14. Change Telnet Config Password (N) <Enter>
    No password needed.
15. Main Menu Screen Appears.
    Your Choice?
    Type "1" <Enter> for Channel 1 configuration
16. Baud Rate=38400 <Enter>
17. I/F Mode is not needed just hit <Enter>
18. Flow=02 <Enter> (Flow Control Enabled)

19. Port Number=3001 <Enter> (Winpak Pro uses port 3001)
20. Select Enter through the rest of the menus
21. When the Main Menu Appears Verify that Channel 1 is
    Baudrate =38400, I/F Mode 4C, Flow 02 Port 03001
    Remote IP Adr: --- none ---, Port 00000
    Connect Mode: C0 Disconn Mode: 00
    Flush Mode: 00



22. Type 9 <Enter> to Save and Exit.

PRO22EN Mounting Diagram



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