



## COPELAND E2 Controller User Guide

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COPELAND E2 Controller



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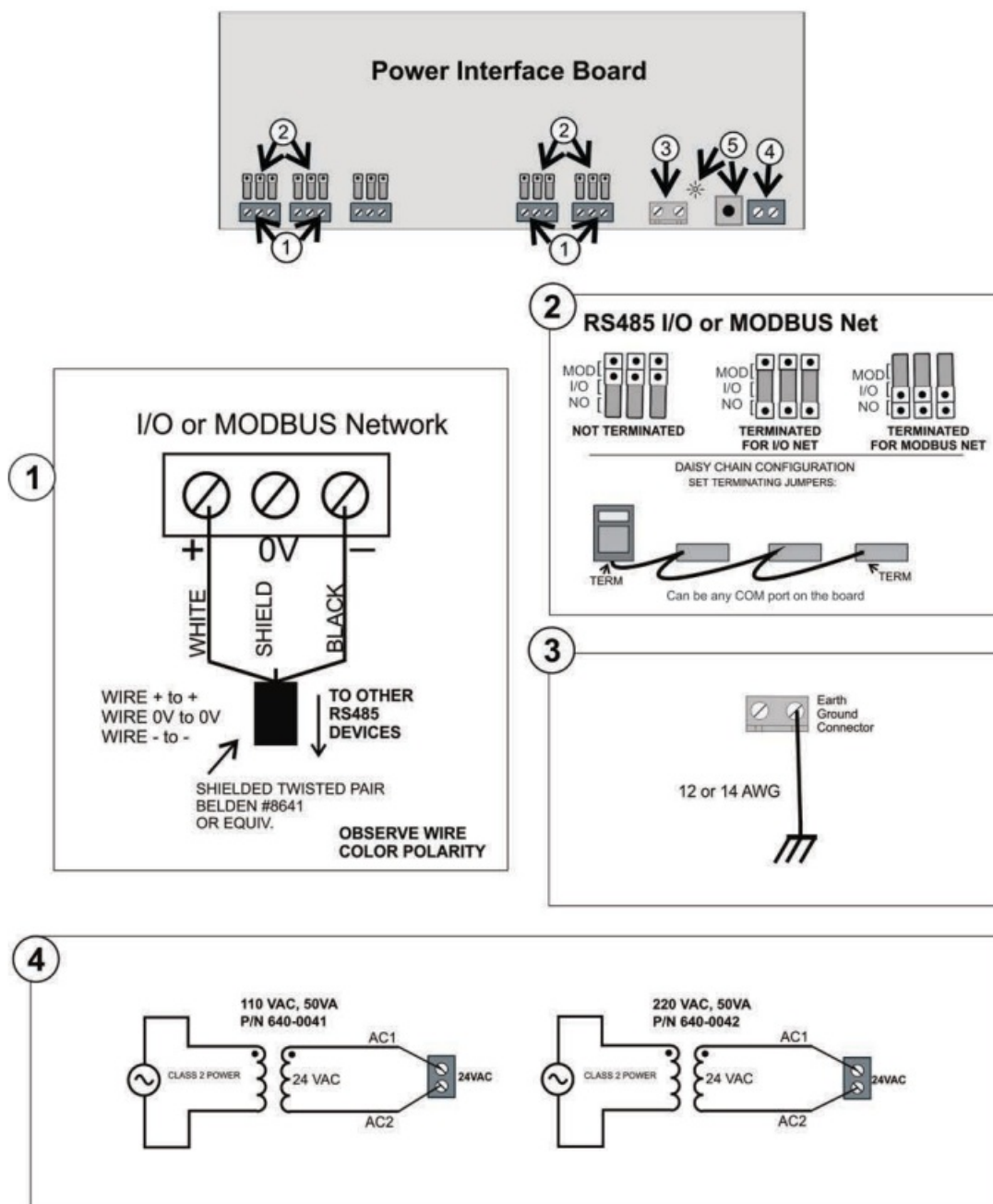
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## Installing the E2 Controller

Mount the E2 Controller in a location suitable for Type 1 (NEMA1) equipment.



1. Connect the I/O or MODBUS Network to one or all of the E2 RS485 I/O or MODBUS Network ports. (A maximum of 31 devices can be wired to each I/O or MODBUS Network port.)
2. If the E2 is the beginning of all RS-485 I/O or MODBUS Networks, set all three jumpers to the UP position. For MODBUS, set the jumpers in the top-most position (MOD). For I/O Net, set the jumpers in the middle position (I/O). For no termination, set the jumpers to the DOWN position (NO).
3. Connect earth ground to one of the two ground terminals provided. Use 12 AWG (preferred) or 14 AWG wire and keep as short as possible (less than 12 inches preferred).
4. Connect 24VAC Class 2 to the power terminals.
5. Flip the power switch to the ON position. When 24VAC has been applied to the board, the green LED will illuminate.

## E2 INSTALLATION GUIDE



## Specifications

Dimensions	Standard Mount: 9.06" W x 12.06" H x 3.75" D
	Recessed Mount: 9.06" W x 10.56" H x 2.0" D Base: 1 0.56" W x 10.56" H x 3.75" D
Operating Temperature	-40°F to 149°F (-40°C to 65°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Operating Humidity	5% – 95% RH non-condensing at 90°F
Storage Humidity	5% – 100% RH
Power	24 VAC ±20%, 50/60 Hz, Class 2
VA Load	50

The E2 online help is the primary source front panel/ interface users will have to consult when seeking instruction on properties, screens, menus, and troubleshooting of hardware/software problems. The online help topics are designed to minimize the time the user would otherwise have to spend searching through the manual to find information. Press the  +  keys to open the General Help menu.

## Logging Into the E2 Controller

When the E2 is powered up for the first time, the user is automatically prompted to enter setup information on a number of screens.



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User Login



Username: 
Password:




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This product and system, including protocols,
user interface and algorithms, is protected
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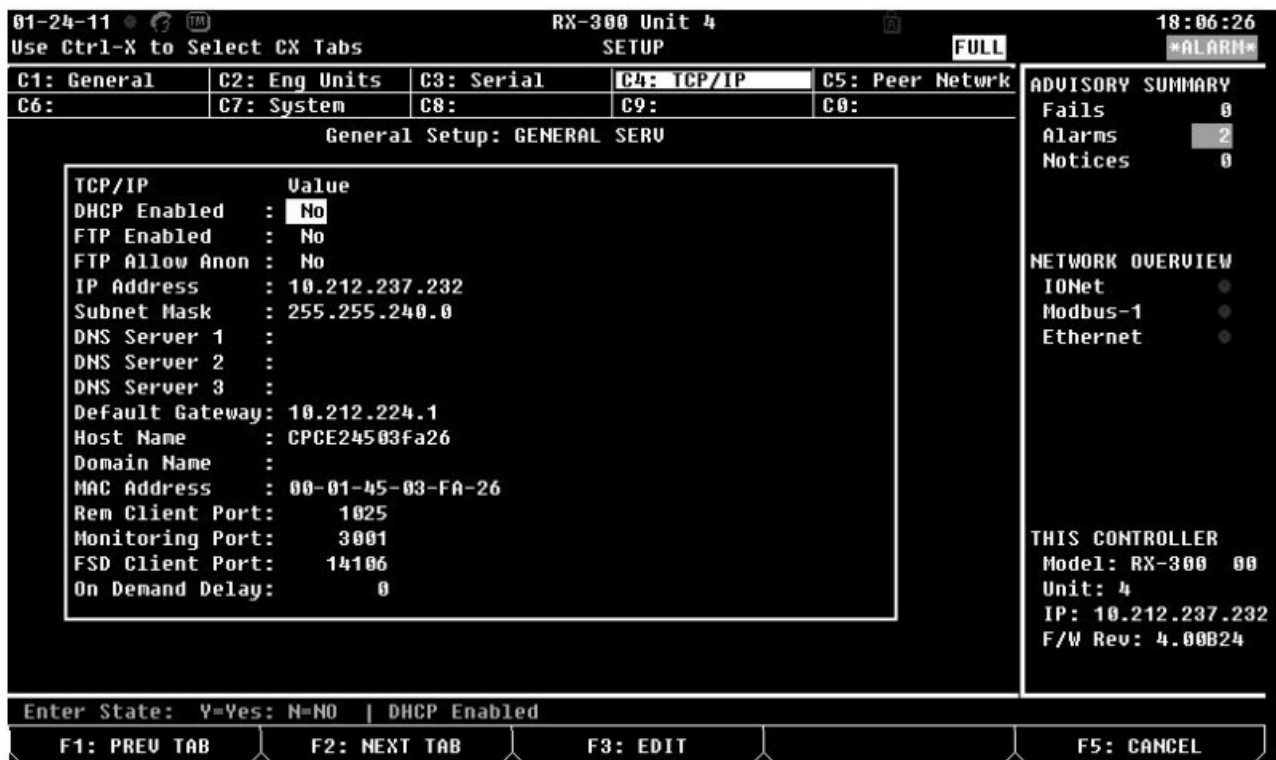
1. Enter "USER" in the Username field.

2. Press 
3. Enter "PASS" in the Password field.
4. Press 

Logging into and out of the E2 Controller can be done at any time by pressing the  key on the E2 keypad. If you are currently logged out, pressing  will bring up the User Login dialog box. If you are already logged in, pressing  will immediately log you out and return you to the E2 home screen.




## TCP/IP Setup

The TCP/IP screen is where you enter the information necessary to allow Ethernet connection to this controller. If this site uses Ethernet box-to-box, you will need to enter a TCP/IP address and a group name to allow all E2s on site to communicate as a group. See the E2 User Manual P/N 026-1614, E2 Ethernet Peer Communications section for more information.



The screenshot shows the RX-300 Unit 4 SETUP screen. At the top, it displays '01-24-11', 'RX-300 Unit 4', and '18:06:26'. Below this is a tabbed interface with tabs for C1: General, C2: Eng Units, C3: Serial, C4: TCP/IP (selected), C5: Peer Network, C6: (empty), C7: System, C8: (empty), C9: (empty), and C0: (empty). The main area is titled 'General Setup: GENERAL SERV' and contains a list of TCP/IP settings with their values: DHCP Enabled: No, FTP Enabled: No, FTP Allow Anon: No, IP Address: 10.212.237.232, Subnet Mask: 255.255.240.0, DNS Server 1: (empty), DNS Server 2: (empty), DNS Server 3: (empty), Default Gateway: 10.212.224.1, Host Name: CPCE24503fa26, Domain Name: (empty), MAC Address: 00-01-45-03-FA-26, Rem Client Port: 1025, Monitoring Port: 3001, FSD Client Port: 14106, and On Demand Delay: 0. On the right side, there is an 'ADVISORY SUMMARY' section showing 'Fails: 0', 'Alarms: 2', and 'Notices: 0'. Below that is a 'NETWORK OVERVIEW' section showing 'IONet', 'Modbus-1', and 'Ethernet' with status indicators. At the bottom right, there is a 'THIS CONTROLLER' section showing 'Model: RX-300 00', 'Unit: 4', 'IP: 10.212.237.232', and 'F/W Rev: 4.00B24'. At the bottom of the screen, there is a status bar with 'Enter State: Y=Yes: N=NO | DHCP Enabled' and four function keys: F1: PREV TAB, F2: NEXT TAB, F3: EDIT, and F5: CANCEL.

From the Main Menu:

1. Press  (System Configuration).
2. Press  (Remote Communications).
3. Press  (TCP/IP Setup) to advance to the TCP/ IP Setup screen.

E2 units may be configured to communicate across an Ethernet computer network using TCP/IP protocol. To enable Ethernet communication, you will need to enter IP address information for the E2 in the Serial IP screen.

**IP Address** – The IP Address field sets the network address for this E2. Other network devices (such as PCs

running Ultra Site) will communicate with this E2 by sending information to this specified address. Contact your network administrator to determine what IP address to enter.

The IP Address always consists of four numbers from zero to 255, each of which is separated by a period. Enter the address in this format.

**Subnet Mask** – Contact your network administrator to get the correct subnet mask value, and enter it in this field.

The default value, **255.255.255.0** is the subnet mask commonly used for small networks.

**Primary DNS** – Contact your network administrator to see if a Primary DNS value is required for this E2. If so, enter the Primary DNS address supplied by your administrator in this field. If not, leave this field set to 0.0.0.0. A Secondary DNS can also be entered if the information is available.

**Primary Gateway** – Contact your network administrator to see if a Primary Gateway value is required for this E2. If so, enter the Primary Gateway address supplied by your administrator in this field. If not, leave this field set to **0.0.0.0**. A Secondary Gateway can also be entered if the information is available.

**DHCP Enabled** – Dynamic Host Communication Protocol (DHCP) is a protocol that assigns a dynamic IP address to devices on a network. With dynamic addressing, a device could have a different IP address every time it connects to the network. When set to Yes, DHCP Enabled keeps track of IP addresses and enables a new IP device to be added to a network without having to manually assign it a unique IP address. DHCP supports a mix of static and dynamic IP addresses.

## Security

At Copeland, we prioritize the security and safety of our customers and their systems. Over time, Copeland has conducted a variety of security assessments and penetration tests against this control system. Any critical issues that were discovered during these testing procedures are addressed in updates and releases of the product. As threats and vulnerabilities continue to evolve and be discovered we will continue to assess, test and update these control systems during their active life cycle to help provide peace of mind to our customers. Copeland recommends adhering to all instructions and specifications included with the device and following all security industry best practices, including but not limited to:

- Never expose the control system to the broader internet
- Eliminate or restrict access to administrative and generalized protocols like SSH, FTP
- Restrict inbound/outbound communications to and from the device
- Ensure default accounts are updated, and strong passwords are used
- Configure and enable TLS for web-based traffic
- Apply patches and updates in a timely manner

## CUSTOMER SUPPORT

Visit our website at [copeland.com/en-us/products/controls-monitoring-systems](https://www.copeland.com/en-us/products/controls-monitoring-systems) for the latest technical documentation and updates.

For Technical Support call [833-409-7505](tel:833-409-7505) or email [ColdChain.TechnicalServices@Copeland.com](mailto:ColdChain.TechnicalServices@Copeland.com)

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For a copy of the full E2 User Manual (P/N 026-1614), visit <https://www.copeland.com/en->

[us/products/controls-monitoring-systems/facility-controls-electronics/facility-and-system-controls/e2-facility-management-system](https://www.copeland-us.com/products/controls-monitoring-systems/facility-controls-electronics/facility-and-system-controls/e2-facility-management-system) to download or contact Copeland

Customer Service at [770-425-2724](tel:770-425-2724).

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## Documents / Resources

	<p><a href="#">COPELAND E2 Controller</a> [pdf] User Guide E2, E2 Controller, Controller</p>
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## References

- [C Copeland | Copeland US](#)
- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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