

P864 Startup Instructions



A quick guide to set up your hardware and software.



1 Unbox hardware

- The P864 default configuration has BACnet IP enabled and MS/TP. Routing is disabled. This means it will scan on IP and/or MSTP.
- Remove the real time clock battery isolator tape.

2 Set the BACnet MS/TP MAC address

- The MAC address is configured using the 2 rotary switches underneath P864 top cover.
- To release the hinged cover press round plastic buttons inward and hinge the cover open.
- To set the MAC address, rotate the switches to the desired locations.
e.g. to set **MAC address 25**, move the X10 rotary switch to position **2** and the X1 rotary switch to position **5**.
- MAC address range is 0-99, note: 0-0 is 99.

OR Set the BACnet IP & TCP/IP Address

- The IP address is configured using the 2 rotary switches underneath the P864 top cover.
- To set the IP address, rotate the switches to the desired locations
e.g. to set IP address to **192.168.1.20**, move the X10 rotary switch to position **2** and the X1 rotary switch to position **0**.
- Switch positions allow for settings 1-100, note: 0-0 is 100.



3 Connect Power

Warning: Internally this device uses a 24 VAC half-wave rectifier and can only share the same AC power supply as other half-wave rectified devices.

P864 Power can be supplied by:

- 24 VAC ½ wave (grounded secondary) 24 W max. Refer to Figure 1.
- 24 VDC Power Supply 24 W max. Refer to Figure 2.
- PoE+ (Power over Ethernet). Refer to Figure 3.
 - o 802.3 at, Type 2, Mode A or B.
 - o Not compatible with 802.3 af
 - o P864 PoE+ on TCP/IP 2
 - o PoE+ can be loaded up to 24 W max.

P864 has an onboard 24VDC power supply:

- Stay within power budget (24 W).

Figure 1

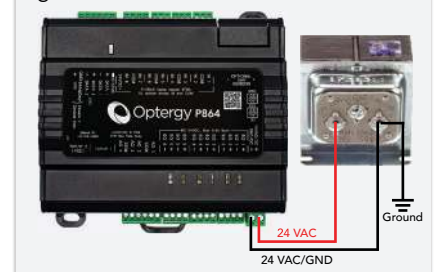


Figure 3

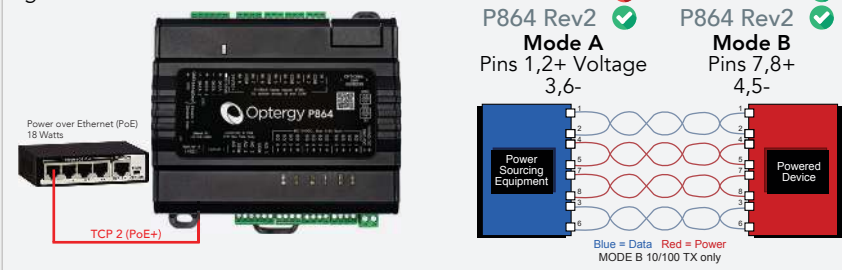
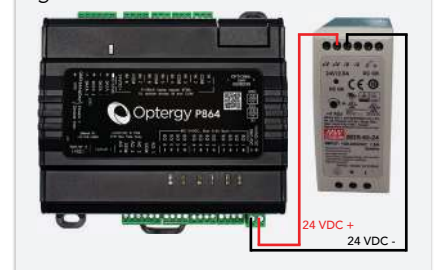


Figure 2

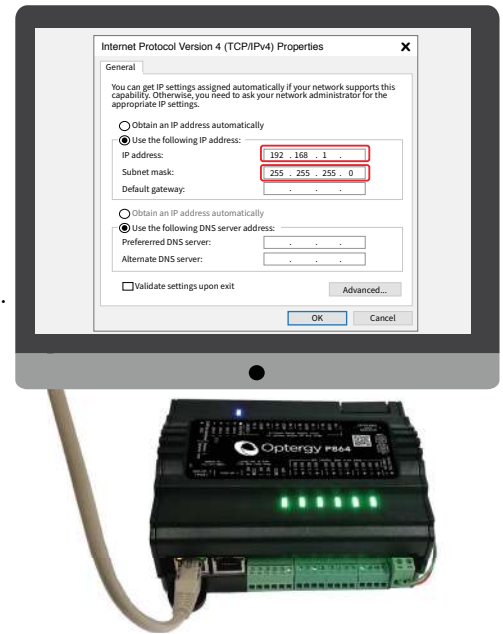
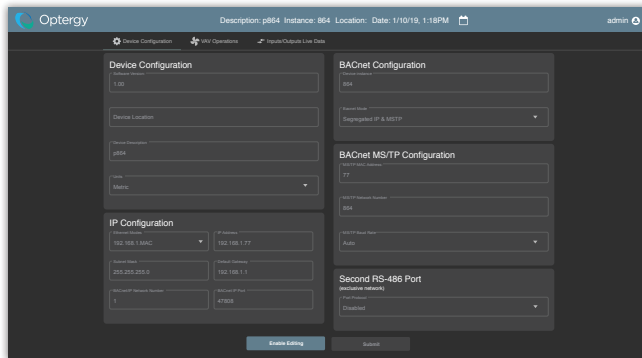


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Communication (TCP/IP)

To access the user interface for configuration purposes follow these steps:

1. Plug local PC into TCP/IP port 1 or 2.
2. Set local PC to the same IP range as the P864.
3. Open web browser on local PC and navigate to the P864 using its IP address (192.168.1.MAC).
4. When prompted by the login screen, login with username - "admin", password - "admin".
5. The user will be prompted to enter a strong password.



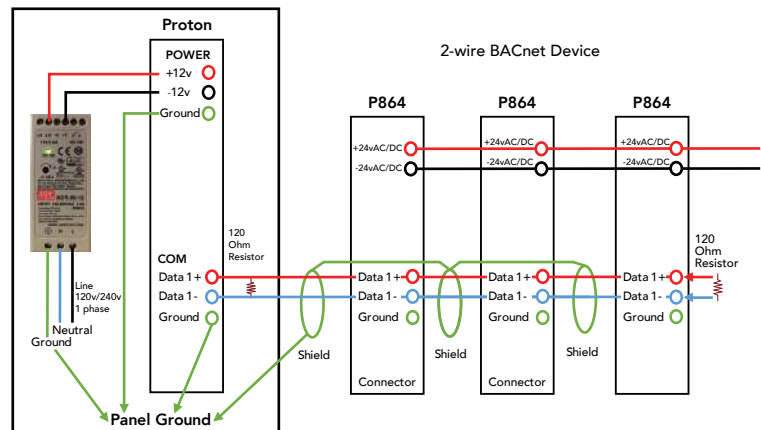
Note: The P864 uses SSL (HTTPS) self signed certificate for encryption. This means the browser will display a security alert, this is normal, click through to proceed. See the installation guide for more details on this topic.

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BACnet MS/TP Termination

The P864 is a 2 wire BACnet device and if using as MSTP device should be wired as per the following diagram. Use high quality, 2 conductor + shield, low capacitance communication cable.

The MAC address switches will preset the IP address as well as the MS/TP address, changes can be made using the web user interface for more specific baud rates.



- The default MAC address is set by MAC address switches. e.g. MAC: X10 = 7 X1 = 7 is **MAC Address 77**.
- The default baud rate is **76.8 Kbps** (P864 supports 9.6k, 19.2k, 38.4k, 76.8k and 115.2k).
- The default device instance is: **864 + MAC or 864077 in this example**.

The device can be scanned by any BACnet client, when using Optergy, the user can scan and re-instance multiple devices using the Optergy server (Proton or OE) Building Management > BACnet devices.

Installation Environment

The P864 is suitable for use from -20°C to 60°C (-4°F to 140°F). If the device needs to operate outside these parameters, the P864 must be installed in a ventilated panel, inside and out of direct sunlight (for hot environments) or in a heated panel (for cold environments).