



Axon

Installation Guide

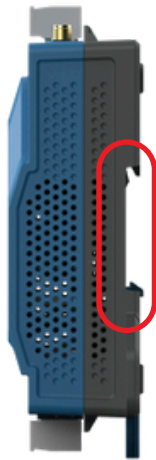
Optergy Axon is a powerful, IoT platform that is purpose built for reliability and performance in both the Building Automation and Industrial IoT markets. Axon delivers real-time visualization, monitoring, control, and reporting through the Optergy Insights platform pre-installed at the edge. Getting a BMS or EMS into your building has never been this easy.

Axon Installation

Mount the Axon in one of two ways:

METHOD
1

Mount the controller to a
DIN rail.



METHOD
2

Use the 2 screw holes to
fasten with self tapping
screws.



Power

Axon power can be supplied by:

- 24 VAC ½ wave
- 12-24VDC Power Supply



Axon Installation

DISK-1 is installed by default with a 500GB M.2 SSD, in addition to this the Axon also has 4 optional items that may be installed/replaced as required.

To access these option slots first disconnect power and then remove the 4 rear panel screws.



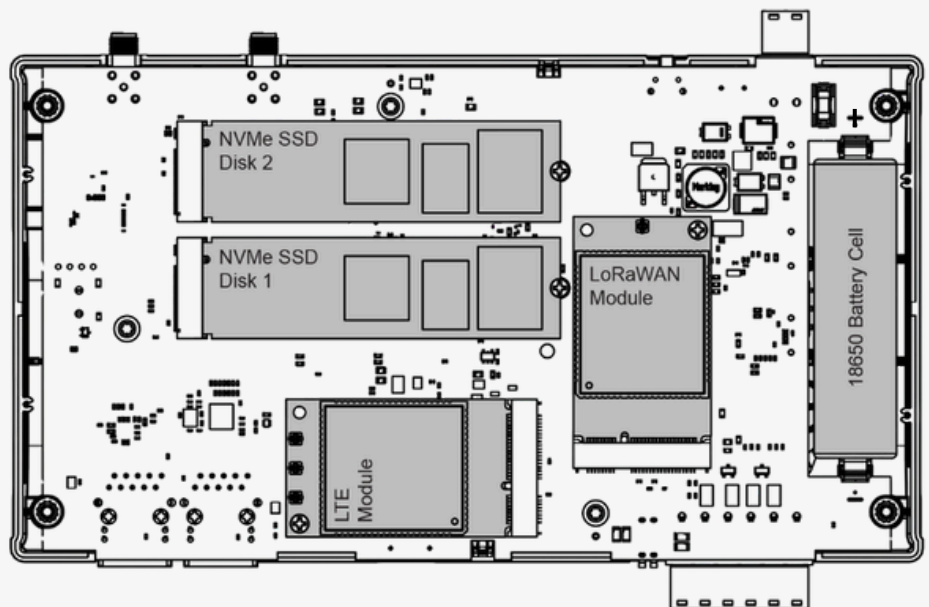
1. **DISK-1** - Axon's are pre-installed with a 500GB M.2 SSD, this can be replaced with a different M.2 SSD for larger capacity or SSD failures.

2. **DISK-2** - This 2nd M.2 slot can be used as backup storage.

3. **LTE Module** - LTE Module is currently in testing and will be available in the future.

4. **Battery Module** - This device accepts a flat top 18650 Lithium Ion Battery for safe shutdown procedures.

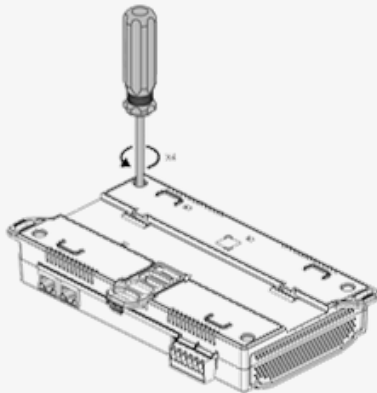
5. **Lora Module** - Lora Module socket is currently in testing and will be available in the future.



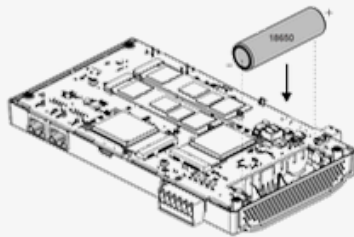
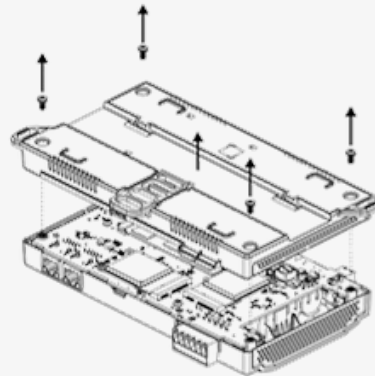
Battery Replacement process

Special care should be taken when inserting or replacing the 18650 Lithium-ion flattop battery, note the following instructions

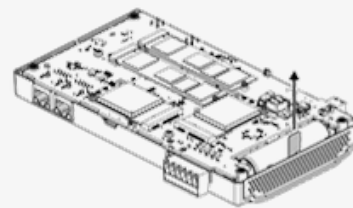
First remove external power from the device and then use a phillips head screwdriver to remove each screw.



There are 4 screws in total to remove, you can then remove the backplate exposing internal components.



Carefully insert only a Flattop 18650 Lithium Ion Battery and ensure you carefully follow the prescribed labels for positive and negative orientation.



To remove a battery pull the plastic tab, do not utilize any tools as this may damage components or cause a safety risk.

DISPOSE OF USED BATTERIES RESPONSIBLY!

Used 18650 lithium-ion batteries must be disposed of responsibly to prevent environmental harm, fire risk, and injury. Do not place lithium-ion batteries in household rubbish or general recycling bins. Store used batteries in a cool, dry place away from metal objects and physical damage until they can be taken to an authorised battery collection or recycling point.

Because regulations differ between countries and regions, always follow all applicable local laws and guidelines for battery disposal, recycling, and transportation. If unsure, contact your local waste authority or a certified recycling facility for correct handling procedures.

TCP/IP Communication

Both ETH1 and ETH2 can be used for connection to the user interface via HTTPS web browser.

Default configuration of ETH1 is Static IP address of 192.168.1.10

Default configuration of ETH2 is DHCP

Once connected the exact functionality of these ports can be configured.

To Reset the Axon, hold down the recovery button for 10 seconds or until you will see the status light begin to flash yellow.

Once the lights flash yellow release the Recovery button and the Axon will reboot and enter Recovery Mode.

To access Recovery Mode connect to ETH1 and go to IP Address 192.168.1.11



Recovery Mode

Once you enter **<http://192.168.1.11/index.html>** you can use the following credentials to access Recovery mode.

User: **recovery**

Pass: **OptergyRecovery123!**

From Recovery mode you can complete the following actions:

1. See information related to disk consumption, partitions, MACs and Serial Number.
2. Access **Standard** Recovery Options
 - a. Reset Proton Setup Wizard (allow creation of new Admin user)
 - b. Reset Proton Network Configuration (ETH1 = 192.168.1.10, ETH2=DHCP)
 - c. Remove Proton Log Files (freeing up disk space)
 - d. Remove Old Proton Backups (freeing up disk space)
 - e. Reboot the Device

From this portal there are also **Advanced** Recovery Options that Optergy Support can utilize, they may request you initiate access to this portal to proceed with any of these options.

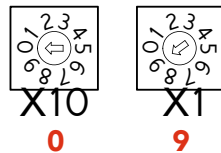
MS/TP Communication Wiring

The P442 is a 2 wire + shield MS/TP device. MS/TP controllers are always wired onto the Data 1 port.

Shield must be carried through and single point to earth ground.

Use low capacitance cable in accordance with BACnet specification.

Default IP address is 192.168.1.MAC, The MAC can be set with rotary dials from 0-99 (TCP/IP address). Example MAC set to: **MS/TP MAC**



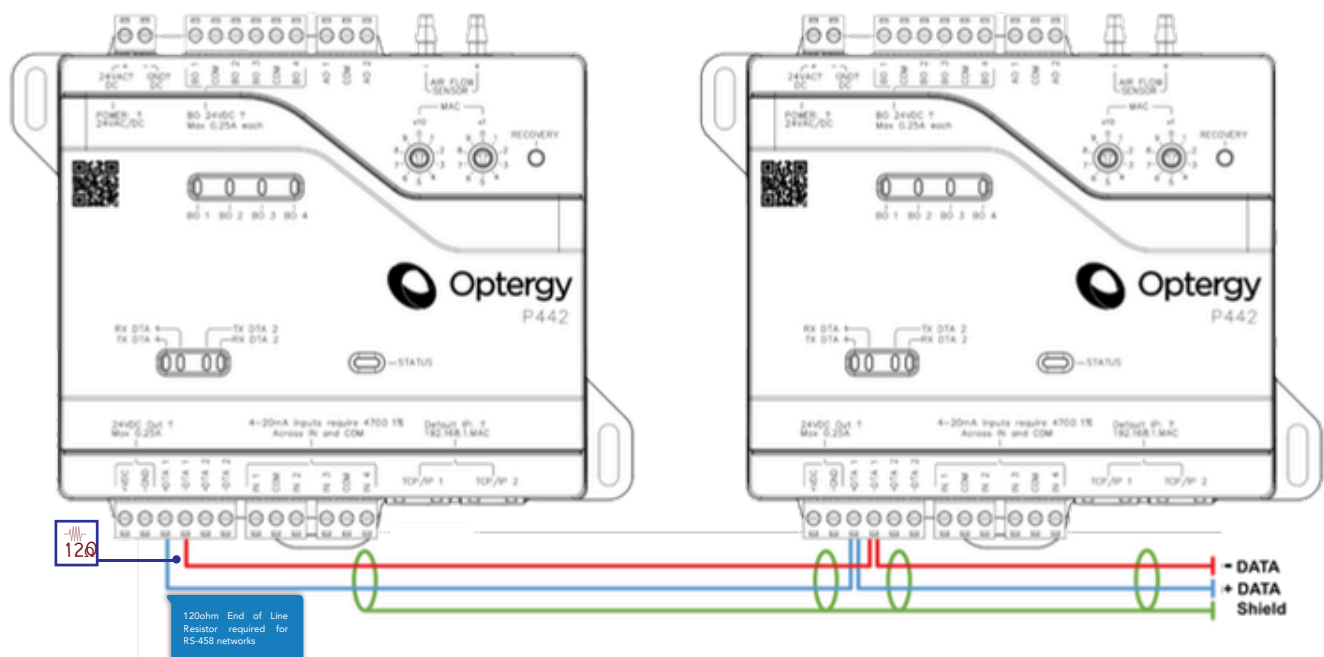
ResultMS/TPMACADDRESS = 9

Defaultdevice instance is

442+MAC (864009)

BACnet MS/TP controllers

Use Data 1 Port



FCC Warning

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Status LED

The P442 has a status LED that indicates:

- Green Blink** = Initialization
- Green Solid** = Normal Operation
- Red Blink** = Runtime Error
- Red Solid** = Start-up Error
- Blue Blink** = Firmware Update
- Yellow Blink** = Recovery Mode Initialization
- Yellow Solid** = Recovery Mode

