

smartIAQ Hub-4 Pro — Quick Start Guide

Product: smartIAQ Hub-4 Pro

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Applies to: Firmware 1.1.0 and later

This guide shows installers and field technicians how to mount, wire, and power the Hub-4 Pro and make it visible on the BACnet bus. The procedure takes less than 15 minutes.

Box contents

- smartIAQ Hub-4 Pro device, in its enclosure

Behind the cover is the main PCBA. A smaller daughter card on the PCBA carries the jumpers.

Warning: Do not install or remove a jumper while the Hub-4 Pro is powered on. A jumper change on a powered Hub-4 Pro can cause permanent damage. The Hub-4 Pro reads the jumpers only at power-up, so a change made while it is on does not take effect.

Tools you need

- Screwdriver for the terminal blocks
- USB to RS-485 device, only if you use the Bus Manager utility
- A terminal program such as PuTTY, only if you use the Bus Manager utility

Step 1 — Check the enclosure and the mains supply

The Hub-4 Pro ships in its own enclosure. In most installations it is mounted and wired to 120 VAC before you arrive.

1. Confirm that the enclosure is mounted securely in its final location.
2. Confirm that the Hub-4 Pro is wired to 120 VAC.

If the mains connection is not complete, have a qualified electrician finish it to local electrical code before you continue.

Isolate the Hub-4 Pro from mains power before you open the cover or wire a terminal block.

Step 2 — Wire the BACnet MS/TP bus

Connect the RS-485 port of the Hub-4 Pro to the MS/TP segment:

Hub-4 Pro pin	Bus wire	Notes
A (D+)	A / D+ on bus	Polarity varies by adapter. If discovery fails, swap A and B.

Hub-4 Pro pin	Bus wire	Notes
B (D-)	B / D- on bus	
GND	Signal ground	Required. Do not leave the signal ground floating.

Install 120 Ω termination at each physical end of the MS/TP segment. If the Hub-4 Pro is at one end, enable its onboard **120R** termination jumper. Power off the Hub-4 Pro before you set this jumper.

Step 3 — Wire the device ports

Connect up to 4 devices to Ports 1 to 4. Each port is an independent serial link at 115200 baud. Connect one device to each port.

Step 4 — Apply power

Power on the Hub-4 Pro. Observe the boot sequence:

1. **All 5 LEDs ON** for half a second. This confirms that the power is good.
2. **Self-test LEDs** flash briefly. LED2 ON and LED4 ON mean that the self-tests passed.
3. **LED1 blinks twice**. This confirms BACnet mode. 3 blinks means the Bus Manager console and 4 blinks means a factory test mode.
4. **All 5 LEDs blink 3 times slowly**. This shows that the Hub-4 Pro runs on factory defaults. It stops after commissioning.
5. **LED1 starts a steady 1 Hz blink**. The main loop is running.

The port LEDs (LED2 to LED5) blink during probing and discovery. When the gateway polls a device successfully, that port LED turns solid ON.

See the Troubleshooting Guide for the full LED reference and fault patterns.

Step 5 — Verify BACnet discovery

Do these steps from your BMS workstation or BACnet commissioning client:

1. Open an MS/TP connection at **38400 baud**. This is the gateway default.
2. Set your station address to a value other than **1**. MAC 1 is the gateway default.
3. Send a **Who-Is** broadcast.
4. Confirm that the gateway responds with **I-Am** and that device instance **1000** appears.

If the gateway does not appear, see "Gateway not visible" in the the Troubleshooting Guide.

If MAC 1 or 38400 baud does not suit your segment, write the new values to AV:1 (Gateway MS/TP MAC) and AV:2 (Gateway MS/TP Baud), then power cycle the Hub-4 Pro. Firmware before 1.2.0 has no such points, so those units need the Bus Manager console. See the Installation and Commissioning Guide, section 2.3.

Step 6 — Set the management password (recommended)

The Hub-4 Pro ships with no password and runs without one. A password is not required. Without a password, any BACnet participant on the segment can reboot the gateway or silence its traffic, so set one on a production bus and on any site where the MS/TP segment is not physically secure.

1. Select the Device object (instance 1000).
2. Send WriteProperty to property ID **512** with type CharacterString.
3. Enter your password. Use 1 to 20 printable ASCII characters and do not use a colon.

See the Installation and Commissioning Guide, section 3.3 for the rotation and clearing procedures.

Step 7 — Verify sensor data

Browse the object list of the gateway. For each connected port, expect to see:

- **Analog Input** objects for temperature, humidity, CO2, PM2.5, and other sensors.
- **Binary Input** objects for filter warnings and device online status.
- **Analog Value**, **Binary Value**, and **Multi-State Value** objects for setpoints and commands: fan CFM setpoint, fan mode, ionizer, CO2 and light occupancy setpoints, and HPS presence-sensing controls.

See the BACnet Points List for the complete object catalog with instance numbers and units.

Next steps

- the Installation and Commissioning Guide: all settings, the password, the Bus Manager console, and BMS integration.
- the BACnet Points List: every object, its rules, and its COV increment.
- the Troubleshooting Guide: symptom-based field diagnostics and the LED reference.