



ELEMENTAL MACHINES EB1 Element-B Concoa Altos 2 Manifold System Monitor Installation Guide

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Applicable Concoa Altos 2 Manifold System Monitor Models

- Altos 2

Package Contents

- Element-B
- Connection Cable

Safety Information

Review and abide by the safety information found in the Element-B and Concoa Altos 2 Manifold System Monitor user manuals. Tidy connection cable to prevent tripping hazards.

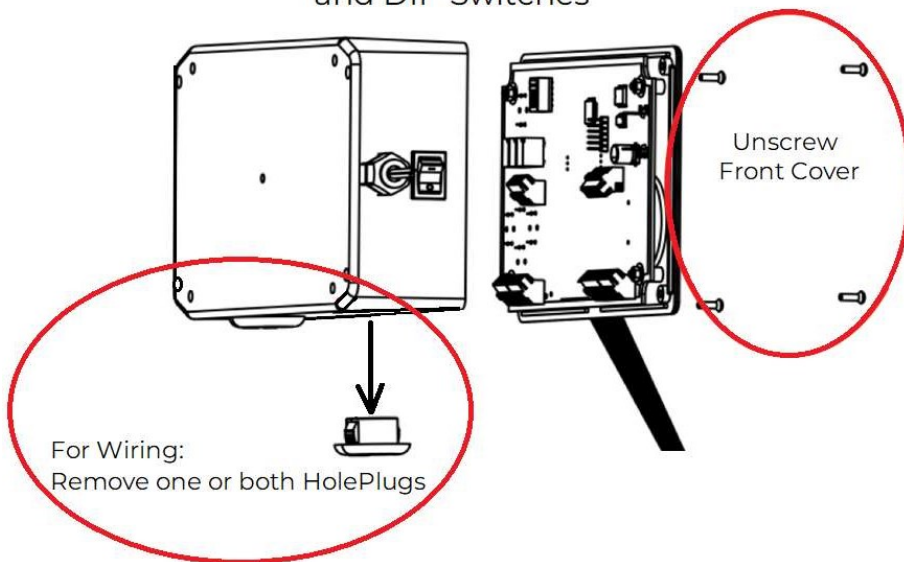
Installation Instructions

Receiving the Shipment

1. If this is your first time setting up the Elemental Machines system, you will receive an email for your dashboard account verification. Save this email for when the devices arrive.
 2. When devices are shipped, they will be added to your Elemental Insights Dashboard™ with default names. When you first log in you will see all your devices with a 'disconnected' status.
 3. When devices arrive, carefully remove the contents from the packaging. If any of the contents look damaged, please send a picture to help@elementalmachines.com.
 4. If you have ordered multiple Element-B's, ensure the Element-B being used is configured as Normally Closed (NC). This can be verified by checking the device label, the dashboard under 'Machine Model', or the packing list sent with your shipment.
 - a. Element-B's can either be configured as Normally Closed (NC) or Normally Open (NO) by our team here at Elemental Machines. Different assets require different configurations. If you have ordered Element-B's for multiple assets, you may have a mix and need to be aware of attaching the correctly configured device to the correct asset.
 5. Ensure there is an Elemental Machines Gateway set up in the vicinity of the Element-B.
 - a. Depending on your location and application, your Gateway type may vary. If you have a tablet Gateway, brief setup instructions are given in Appendix 1: Gateway Setup below. If you have a Gateway Model GW2 or GW3, please follow the setup instructions in your Gateway, GW2 or GW3 User Manual
 - b. **Note:** 'Vicinity' is within wireless connection range. This is usually up to 30 meters but can depend on the lab's layout.
- Attaching** Connection Cable to Concoa Altos 2 Manifold System Monitor
6. Power off the Concoa Altos 2 Manifold System Monitor. Unscrew the front cover, as shown in Figure 1 below.
 7. Route the Element-B cable through the conduit at the bottom of the Altos 2, as shown in Figure 1.

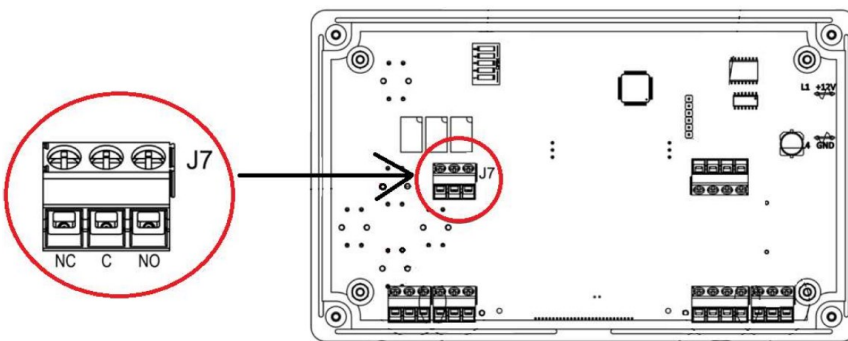
Figure 1 Remove the front cover by removing the four screws (circled). Route the cable through the conduit on the bottom of the manifold (circled).

Circuit Board Terminal Blocks and DIP Switches



8. Locate terminal block J7 – Master Relay Output (circled in Figure 2 below) on the front cover.

Figure 2 Terminal block J7 circled



9. Slightly loosen the screws for the 'NC' and 'C' slots on the J7 terminal block.
10. Insert the wires from the Element-B cable into the 'NC' and 'C' slots. Tighten the screws to ensure that the wires are secure.
11. Replace the front cover on the manifold. Attaching Connection Cable to Element
12. Per your discretion, write the name and/or location of the equipment being monitored on the Element-B. This can be particularly helpful if multiple devices are being installed. Use of a Sharpie is recommended.
13. Plug the thermocouple end (Figure 3) of the connection cable into the Element-B.
 - a. Note Ensure the (-) and (+) prongs of the thermocouple end are properly matched.

Figure 3 Thermocouple end of Element-B connection cable



14. Pull the battery tab on the Element-B.

Positioning the Element-B

15. Determine where the Element-B should be placed so that it is not blocked, which allows a better wireless connection, and so that the connection cable is tidy.
16. Securely position the Element-B in the chosen location. The Element-B has magnets which make it easily mountable to magnetic surfaces.
 - a. **Note:** If applicable, an adhesive metal mounting plate available from EM may be used. Programming Alerts
17. Power on the Concoa Altos 2 Manifold System Monitor. Program alerts on the Concoa Altos 2 Manifold System Monitor. Refer to the Concoa Altos 2 Manifold System Monitor user manual for which alarm conditions it can detect and how to set up alerts.
18. Set up alert rules on the Elemental Insights Dashboard™ for the Element-B. Guidance on how to do so is available in the Support section of the dashboard.

NOTE: Alerts must be programmed on both the Concoa Altos 2 Manifold System Monitor and the Elemental Insights Dashboard™ to receive threshold alerts through the Elemental Machines platform.

Appendix 1: Gateway Setup

Elemental Machines provides multiple styles of Gateways. If you have a Tablet Gateway (Model GW1), please follow the setup instructions below. For Gateway-2, please follow the setup instructions in 771-00021 Gateway (Model GW2) User Manual. For Gateway-3, please follow the setup instructions in 771-00034 Gateway (Model GW3) User Manual.

Figure 4 Tablet Gateway (Model GW1)

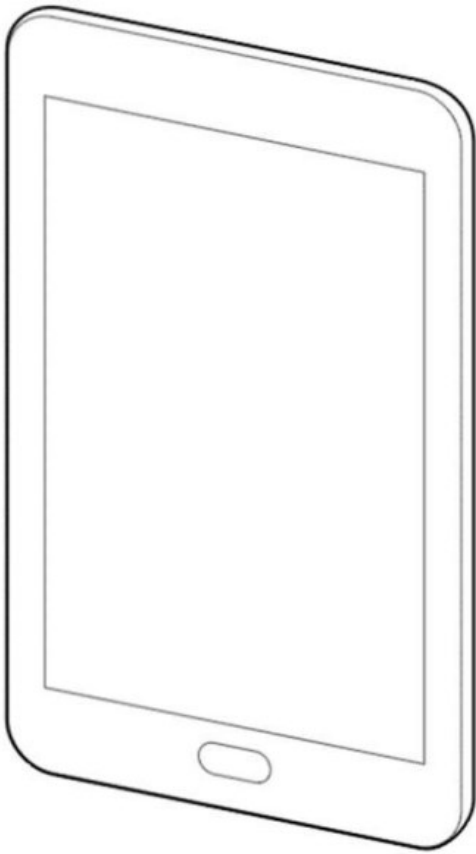
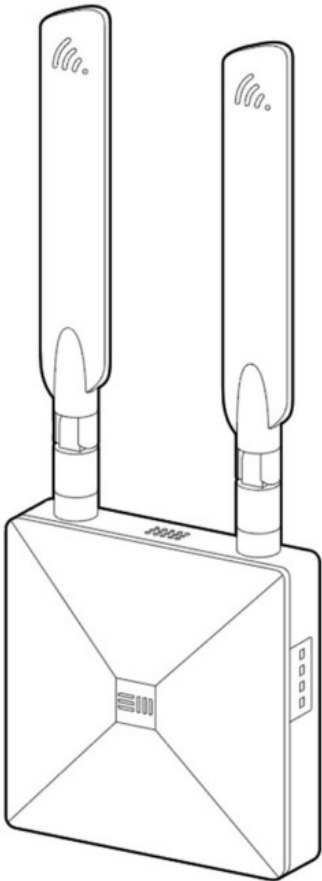


Figure 5 Gateway-2 (Model GW2)

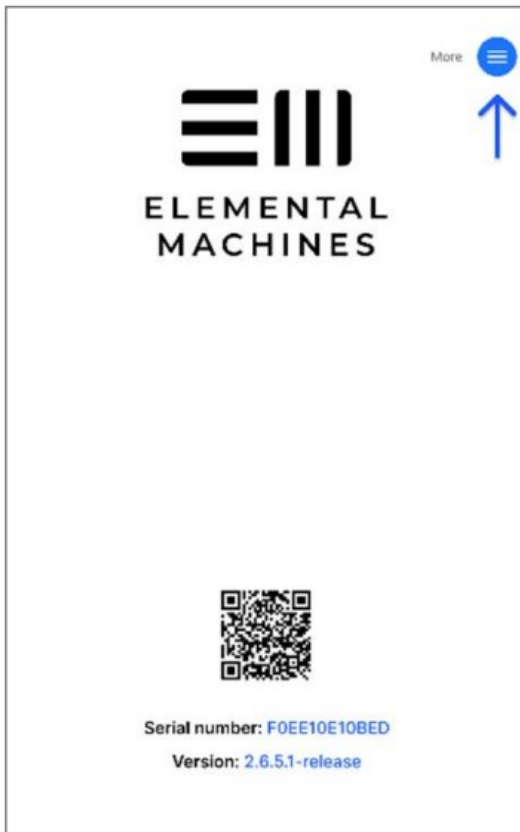


Tablet Gateway (Model GW1) Software Setup

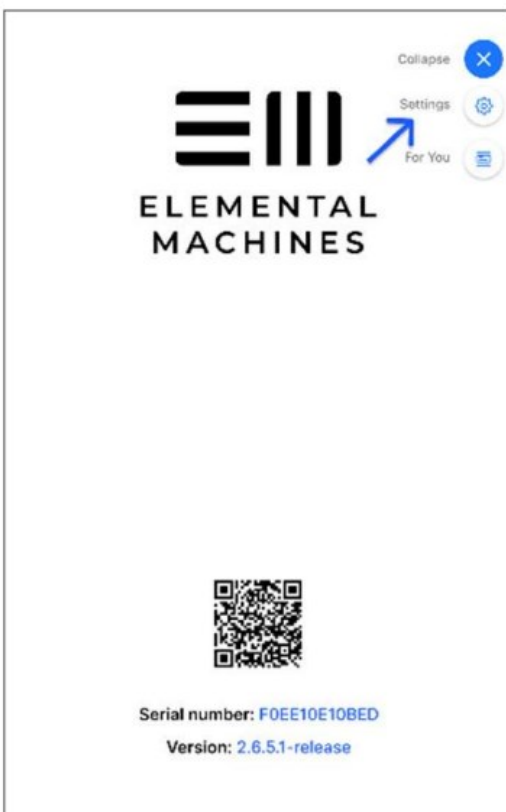
To power on the Gateway, press and hold the upper right-hand button on the device:

1. Wait for the main screen to come up

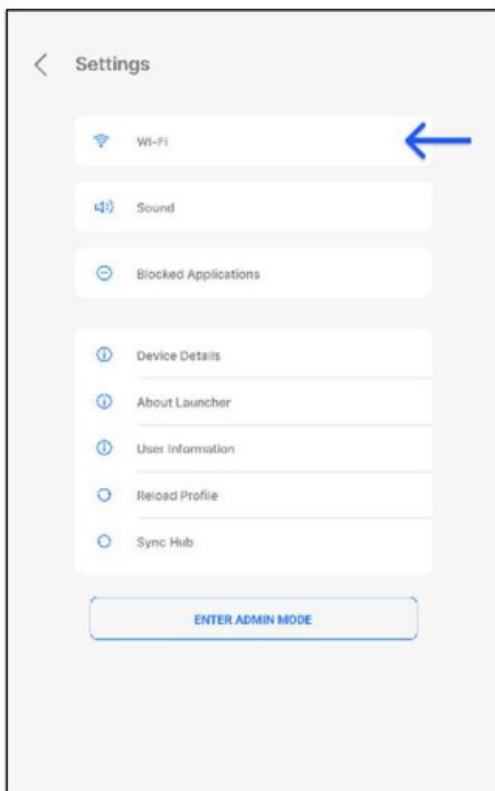
2. Press the 'home' button when you see the Elemental Machines Logo
3. Click on the blue circle in the upper right corner (if the circle is not visible, press the hardware home button on the bottom of the tablet to make it appear, or swipe up if you do not have a hardware button):



4. Click on the settings icon:



5. Select WiFi from the list:



Positioning the Tablet Gateway

Tablet Gateways collect data from the Elements, collating it and transmitting it across the internet to Elemental Machines' Cloud. The tablet Gateways' default is to transmit by Wi-Fi; for added reliability they fall back to Cellular connection when Wi-Fi connection drops out. There is a danger of data delay or even loss if all connection is lost, so tablet Gateways should be positioned where they are getting good Wi-Fi and Cellular connection.

The strength of the Wi-Fi and Cellular connection are displayed by the Wi-Fi icon using Cellular bar icons. These icons are displayed on the tablet Gateway to the left of the battery percentage.

- 4 or more bars for both Wi-Fi and cell indicate good connectivity
- 2 bars for both Wi-Fi and cell runs an increased risk of some data delay or loss
- <2 bars for cell or Wi-Fi carry a danger of significant data delay or loss

772-00008 rev 01 Element-B, EB1 EB2 Concoa Altos 2 Manifold System Monitor Installation Guide

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Documents / Resources



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EB1, EB2, EB1 Element-B Concoa Altos 2 Manifold System Monitor, Element-B Concoa Altos 2 Manifold System Monitor, Concoa Altos 2 Manifold System Monitor, Altos 2 Manifold System Monitor, Manifold System Monitor, System Monitor, Monitor