



ELEMENTAL MACHINES EB1 Element-B for Incubators Installation Guide

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**MACHINES EB1 Element-B for Incubators
Installation Guide**



**Element-B Installation Guide
Models: EB1, EB2
For Sanyo/PHCBI MCO-18AC Series Incubators**

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Applicable Sanyo/PHCBI Incubator Models

- ✓ MCO-18AC
- ✓ MCO-18AC(UV)

Note: The MCO-18AIC models are not covered by these instructions.

Package Contents

- ✓ Element-B
- ✓ Connection Cable

Safety Information



Review and abide by the safety information found in the Element-B and Sanyo/PHCBI MCO-18AC Series Incubator 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 Sanyo/PHCBI MCO-18AC Series Incubator
6. Locate the Remote Alarm panel on the back of the incubator as shown in Figure 1.

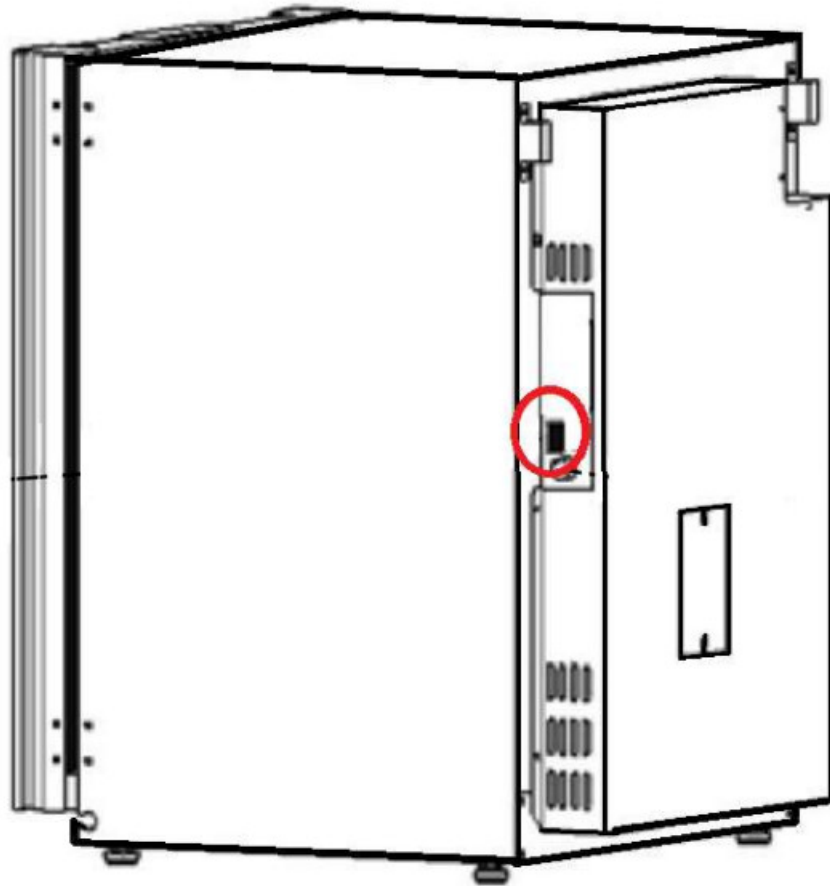


Figure 1 Remote Contact panel on the back right side of a Sanyo/PHCBI MCO-18AC incubator

7. Power off the incubator.
8. Slightly loosen the NC and COM screws from the panel as shown in Figure 2 below.

Remote Alarm MAX DC30V 2A

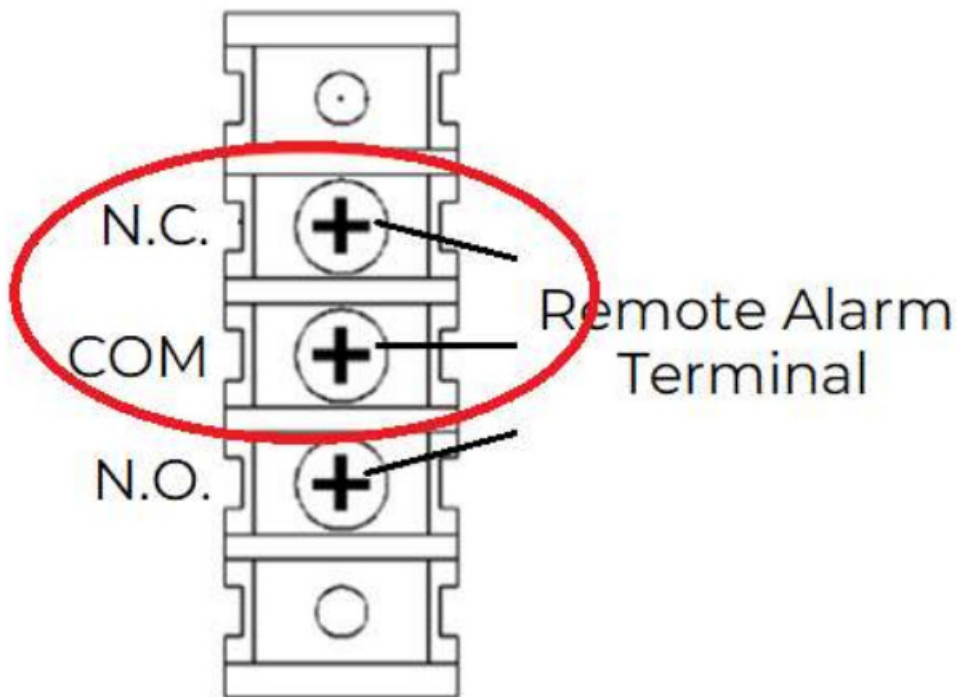


Figure 2 Loosen the NC and COM screws

9. Insert the wires from the cable into the two slots (either wire can go into either slot) and tighten the screws.

Attaching Connection Cable to Element

10. 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.
11. 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

12. Pull the battery tab on the Element-B. Positioning the Element-B
13. 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.

14. 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

15. Power on the incubator.

16. Program alerts on the incubator. Refer to the Sanyo/PHCBI MCO-18AC Series Incubator user manual for which alarm conditions the incubator can detect and how to set up alerts.

17. 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 Sanyo/PHCBI MCO-18AC Series Incubator 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)

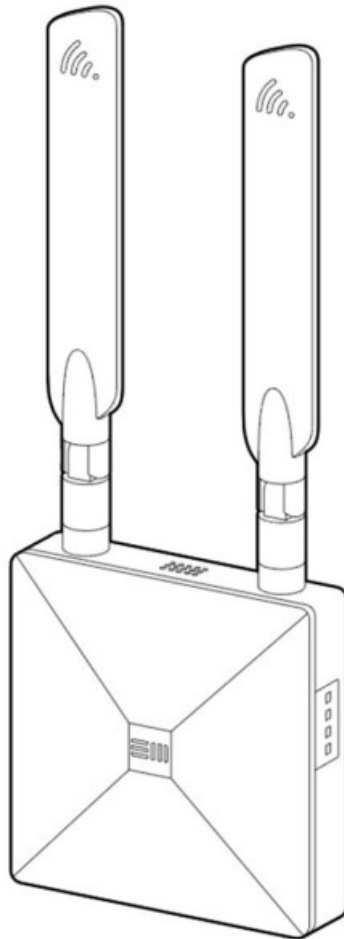
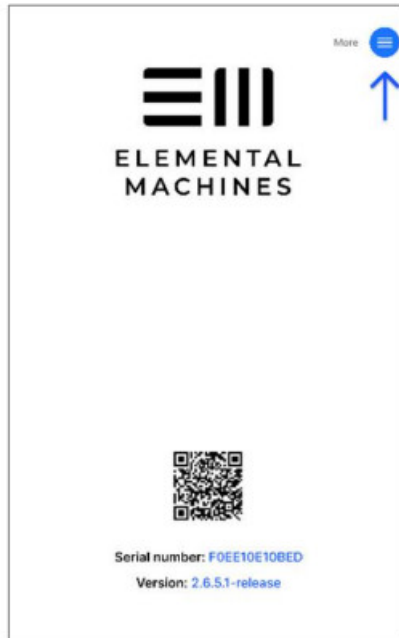


Figure 5 Gateway-2 (Model GW2)

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):



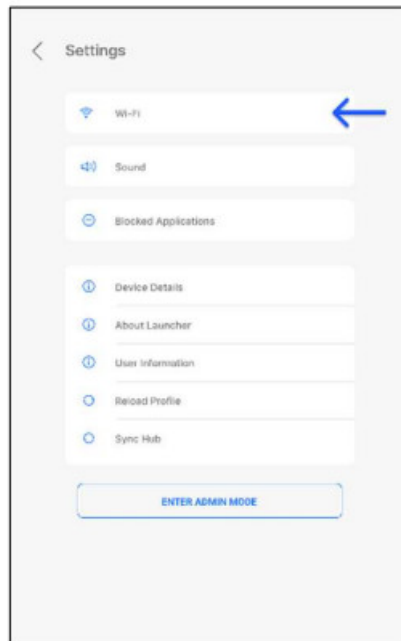
<http://www.elementalmachines.com>

4. Click on the settings icon:



<http://www.elementalmachines.com>

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



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Documents / Resources

