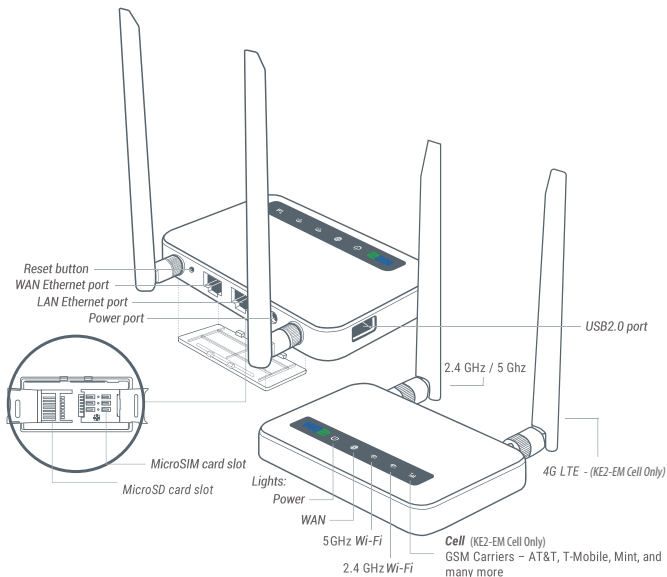


KE2 EdgeManager Plus (KE2-EM Plus)

GETTING STARTED, EZ-INSTALL WIZARD GUIDE, WIRELESS
SETUP & MODBUS SETUP/WIRING

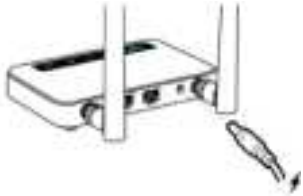


GETTING STARTED

1 Power On

Plug the power cable into the power port of the KE2-EM Plus. Use the **12V/1.5A** power adapter supplied with the KE2-EM Plus in order to ensure proper operation.

Note: If necessary to perform a Factory Reset, hold down the Reset button for 10 seconds, then release. Caution - all User Data will be cleared!



2 Connecting to the KE2-EM Plus

You can connect to the KE2-EM Plus via Wi-Fi or Ethernet Cat5e cable. Choose the most convenient method.

Note: This step only connects your mobile/tablet/laptop/desktop to the local area network (LAN) of the KE2-EM Plus. Internet access is not yet configured. In order to connect to the Internet, please finish the setup procedures below and then follow **EZ-Install Wizard** to setup an Internet connection.

Method 1 - Connect via Wi-Fi

Search for the KE2-EM Plus' Wi-Fi network (SSID) in your device's list of Wi-Fi networks and input the default password – All characters are upper case: **KE2EMPLS#1**

The SSID is printed on the label on the bottom of the KE2-EM Plus in the following formats:

KE2EMPLUS-XXXXX (Ex: KE2EMPLUS-04CDC7)

KE2EMPLUS-XXXXX-5G (Ex: KE2EMPLUS-04CDC7-5G)

Method 2 - Connect via LAN

Connect your device to the LAN port of the KE2-EM Plus via Ethernet cable.

Note: A MicroSD card is pre-installed in the KE2-EM Plus. **DO NOT** remove or replace the MicroSD card.



Note: Your device will not display both KE2-EM Plus Wi-Fi networks unless it supports both 2.4GHz and 5GHz Wi-Fi.

3 Access the KE2-EM Plus Dashboard

Open a web browser (Firefox, Chrome, Edge, Safari) and visit <https://em.ke2.io> or <http://192.168.50.1>. If this is a new install, you will be guided using the **EZ-Install Wizard**.

EZ-INSTALL WIZARD

1 Password Setup

Email – Optional field. Can be used to receive alarm notifications.

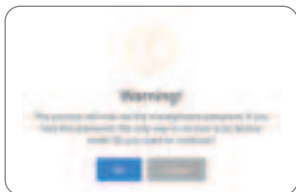
User Name – Management Console User Name. The KE2-EM Plus secures access to the Management Console with these credentials. You are required to create this account on first install.

Password – Management Console Password. The KE2-EM Plus secures access to the Management Console with these credentials. You are required to create this password on first install. Please record both User Name and Password for future reference. You will need both to login to the Management Console. This password requires 8-15 characters, at least one upper and lower case, a number, and a special character (!@#\$()%&*).

Confirm Password – Confirm Password as entered in the prior field. You are required to confirm this password on first install.

The **Next Step** button will be available once all fields are entered properly.

You will be prompted to **CONFIRM** the management account credentials to continue.



EZ-INSTALL WIZARD

2 Publish

Auto Publish ALL devices – This option allows you to automatically publish any KE2 Therm devices communicating with the KE2-EM Plus to the Portal specified below.

Do not Auto Publish devices – If you do not wish your KE2 Therm devices to be automatically published to the Portal, select this option.

Portal – This is the remote portal that your devices will be published to. In most cases, this does not need to be changed.

Site – This is the unique Site name on the Portal where all devices on the KE2-EM Plus will be published. A Site name should be descriptive. *Ex: MyStore-04CD*

Pass – This field contains the Portal password used to publish devices. This password should be 8-15 characters, with upper and lower case, including numerals and special characters (!@#\$()%&*).

The **Next** button will be available once all requirements have been satisfied.

The screenshot shows the 'Setup Edge Manager' interface with the 'Auto Publish Devices to Portal' section active. It includes a progress bar at the top with four steps: 'Connect to Portal', 'Auto Publish', 'Wi-Fi Password', and 'Confirm Password'. The 'Auto Publish' step is highlighted. Below the progress bar, there are two radio buttons: 'Auto Publish ALL devices' (selected) and 'Do not Auto Publish devices'. Underneath, there are input fields for 'Portal', 'Site', and 'Pass', each with a yellow highlight. At the bottom, there are 'Previous' and 'Next' buttons.

3 Wi-Fi Password

Wi-Fi Password – For security purposes, you will be prompted to change the default Wi-Fi Password during installation. A minimum of 8 characters is required, but 14 is recommended. Please record this Wi-Fi password. You will need it to reconnect later.

Confirm Password – Confirm Password as entered in the prior field. You are required to confirm the password before the **Next Step** button will become available.

The screenshot shows the 'Setup Edge Manager' interface with the 'Wi-Fi Password' section active. It includes the same progress bar as the previous screen, with the 'Wi-Fi Password' step highlighted. Below the progress bar, there are input fields for 'Wi-Fi Password' and 'Confirm Password', each with a yellow highlight. At the bottom, there are 'Previous' and 'Next' buttons.

EZ-INSTALL WIZARD

4 Connectivity

This page helps you connect this KE2-EM Plus to the Internet. If you want to publish devices to the Portal for remote access, or receive alarm notifications, the KE2-EM Plus must be connected to the Internet.

Connect to the Internet

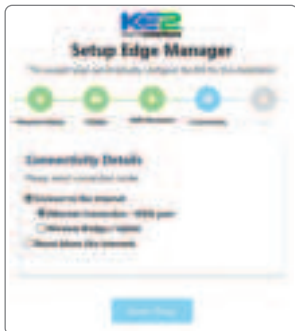
Ethernet Connection – WAN Port – Select this option if you are using a Cat5e Ethernet cable to connect the KE2-EM Plus to the Internet. The KE2-EM Plus will automatically request an IP address from the network.

Stand Alone (No Internet) – Select this option if you do not want to connect the KE2-EM Plus to the Internet.

Wireless Bridge / Uplink – Select this option if you want to wirelessly connect to an available Wi-Fi network within range of the KE2-EM Plus and use it to access the Internet. This mode is a convenient way to connect to another Wi-Fi Access Point, Hotspot, or Guest Network for quick Internet access. Be sure to consider any security implications this may cause. If in doubt, contact your local IT or help desk for direction and support.

Wireless Bridge / Uplink – has additional configuration options:

The KE2-EM Plus has two wireless radios (2.4GHz and 5GHz) to connect to a pre-existing Wi-Fi network for Internet access. This provides the KE2-EM Plus access to the Internet without running Ethernet cables. Choose only **ONE**, 2.4GHz OR 5GHz, for the Wireless Bridge.



EZ-INSTALL WIZARD

4 **Name** – Select this dropdown to display Wi-Fi networks within range. If a network does not appear, it may be on the other frequency (2.4GHz or 5GHz).

Cont'd

Use hidden SSID – Use this option to specify the SSID of a hidden Wi-Fi network.

Pass – This is the password field for the Wi-Fi network found previously. Input the password for the Wi-Fi network.

Set as Priority – This is an advanced option and usually not required. This option allows network traffic to be delivered to the Wi-Fi interface first. Enable this only at the instruction of an IT representative.

Save Changes – to complete the Wireless Bridge / Uplink connection, you must select save changes.

The **Next Step** button can be selected if *Stand Alone (No Internet)* was selected previously.

The image shows a screenshot of a web-based configuration interface for a wireless bridge. It features two identical sections, one above the other. Each section starts with a 'Wireless Bridge' header and a 'Wireless' toggle switch set to 'On'. Below this is a 'Wi-Fi' section with a dropdown menu for selecting a network. The 'Name' field is highlighted in yellow. Underneath is a 'Pass' field, also highlighted in yellow. To the right of the 'Pass' field is a 'Use hidden SSID' checkbox. At the bottom of each section is a 'Set as Priority' checkbox. The interface is clean and modern, with a light blue and white color scheme.

Note: The wireless radio (2.4GHz or 5GHz) selected for the Wireless Bridge will **no longer** be able to be used as an Access Point for the KE2-EM Plus. If you lose access to the KE2-EM Plus and cannot reconnect, perform a Factory Reset and select the other wireless radio for the Wireless Bridge.

EZ-INSTALL WIZARD

4 Wi-Fi Example 1:

User connects their smart device to the **KE2EMPLUS-04CDC7** 2.4GHz Wi-Fi network to access the KE2-EM Plus. The 5GHz radio is used to create the Wireless Bridge to the existing Wi-Fi network.



Wi-Fi Example 2:

User connects their smart device to the **KE2EMPLUS-04CDC7-5G** 5GHz Wi-Fi network to access the KE2-EM Plus. The 2.4GHz radio is used to create the Wireless Bridge to the existing Wi-Fi network.



Wi-Fi Tips:

Use 2.4GHz Wi-Fi Bridge for sites using traditional, slower Internet Access Points.

Use 5GHz Wi-Fi Bridge for sites using newer, faster Internet Access Points.

Note: 2.4GHz wireless transmissions can travel farther than 5GHz transmissions.

DO NOT ATTEMPT to Wi-Fi Bridge both 2.4GHz and 5GHz!!!

5 Finish

Congratulations!! You have successfully completed the **EZ-Install Wizard**. The KE2-EM Plus will need to reboot with the configuration options you have selected. This process will take less than two minutes to complete. To reconnect, simply use the same method you used in **Step 2** of **GETTING STARTED** as described earlier. Don't forget, the Wi-Fi password and management credentials were changed during the **EZ-Install Wizard** setup.



WIRELESS SENSOR SETUP

IMPORTANT

To ensure the sensors have the strongest wireless connection possible, please follow the steps in:

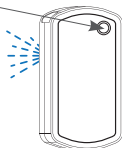
Video 125 – *Best Practices for Deploying a Wireless Monitoring Solution*



or <https://bit.ly/2Prb10c>

1 Power On

Press button until blue blinking light comes on.

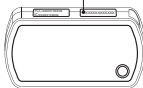


2 Sensors should automatically display on the Dashboard.



3 The last 6 digits of the MAC address are unique for each sensor.

Ex. AC233FA0190C



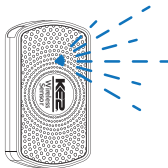
Use the MAC address to find the sensor on the list.

Click the link to open the sensor's page.

4 The timer in the top left shows how often the wireless sensor is checking in with the KE2-EM Plus. This helps determine optimal sensor location.



5 Place the sensor where you think you want it.



WIRELESS SENSOR SETUP

- 6 If the timer reads 1 second or less, the location is ideal. Below 10 seconds is good. If 20 seconds or more, consider moving or changing the orientation of the sensor.



- 7 Once the location is validated, apply Velcro or adhesive strip, and place sensor.



- 8 Record on the tracking chart.

KE2 Wireless Sensor Tracking Chart

12-Digit Sensor MAC ID (alphanumeric) Example: AC233FA044AB

Last 6 digits uniquely identify a specific sensor

Sensor ID / MAC	Location
Ex: AO 44 AB	To help you locate the sensor later, write a description of the sensor's physical location. (Example: North wall walk-in cooler)

- 9 Repeat steps 1 through 8 for each additional sensor. Store tracking chart in a secure location, and take a picture of it for future reference.

MODBUS SETUP

1 KE2 Temp + Air Defrost, KE2 Adaptive Control, & KE2 Low Temp

Change Modbus address on each controller

⚠ Each controller's Modbus address must be unique. Available addresses are 2-247.

■ **KE2 Temp:** Press and hold  to access the setpoints menu.

■ **KE2 Adaptive / Low Temp:** Press and hold  to access the Advanced menu.

■ **tS** is displayed







■ Use the  arrow until you see **Adr** (Address)



■ Press  to display the current address (default = 1)



■ Change the address by pressing  or  Press  momentarily to move to the next digit if necessary. Available addresses are 2 to 247.

■ When address is set to the preferred value (Ex. 24), press and hold  for 3 seconds to save the address.

Example:



■ The controller will return to the **Adr** screen when the setting is saved.



■ The setting change can be verified by pressing  again.

■ To exit, press  several times.

1 KE2 Temp + Valve

Change Modbus address on each controller

⚠ Each controller's Modbus address must be unique. Available addresses are 2-247.

■ Press and hold  to access the Advanced menu.




■ **Ctl** is displayed




■ Use the  arrow until you see **Adr** (Address)



■ Press  to display the current address (default = 1)

■ Change the address by pressing  or  Press  momentarily to move to the next digit if necessary. Available addresses are 2 to 247.

■ When address is set to the preferred value (Ex. 123), press and hold  for 3 seconds to save the address.

Example:



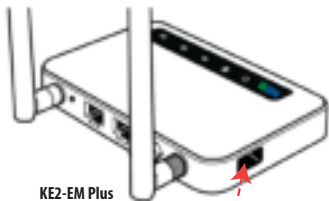
■ The controller will return to the **Adr** screen when the setting is saved.



■ The setting change can be verified by pressing  again.

■ To exit, press  several times.

MODBUS WIRING



KE2-EM Plus

If using the KE2-EM Plus to communicate with the KE2 Temp + Air Defrost, KE2 Temp + Valve, KE2 Low Temp, or KE2 Adaptive, the controllers must be wired to the EM.

- Connection must be daisy chained.
- Maximum 1,000ft total cable length.
- Use only cables that meet RS-485 specifications. Cat5e cable is acceptable in most situations (use one of the twisted pairs). Use 24 AWG or larger.

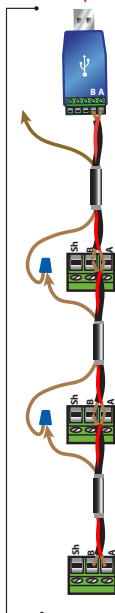
KE2 Temp + Valve
KE2 Low Temp
KE2 Adaptive Control
KE2 Temp + Air Defrost



Serial Adaptor



Shield - not connected, or
connected to earth ground.



Do not connect the
shield wire to any of the
controllers. Connect **shield**
to **shield** using a wire nut.

TECHNICAL SUPPORT

Factory Reset

If you are unable to access the KE2 Dashboard or cannot connect to the Edge Manager (EM), you can press the **RESET** button:

- Press and hold for 3 seconds, then release to Reboot the EM.
- Press and hold for 10 seconds, then release to reset the EM to factory settings.

Technical Support

If you are unable to access the KE2 Dashboard or cannot connect to the Edge Manager (EM), you can press the **RESET** button:

- For more detailed / updated instructions, please visit our website <https://ke2therm.com>
- For additional questions, use one of the following:
 - Send an E-mail to techsupport@ke2therm.com
 - Visit our YouTube channel <https://youtube.com/user/KE2Therm/videos>
 - Call us at 636-266-0140 (8am -5pm CST)

If calling, please make sure you are running the latest version and have access to the EM.



Visit <https://ke2therm.com/literature/literature-ke2-edge-managers/>
or use the QR code to view all KE2-EM literature:

Record Credentials *(optional)*

Record your credentials in the space below and secure in a safe location for future reference:

Management Console

Username:

Password:

KE2 Smart Access

Site:

Password:

Wi-Fi

Password:

KE2-EM Plus

Serial No:

MAC Address:

KE2 Therm Solutions, Inc.
12 Chamber Drive . Washington, Missouri 63090
ph: 636.266.0140 . fx: 888.366.6769
www.ke2therm.com