

# **KE2-EM-Plus EdgeManager Plus Installation Guide**

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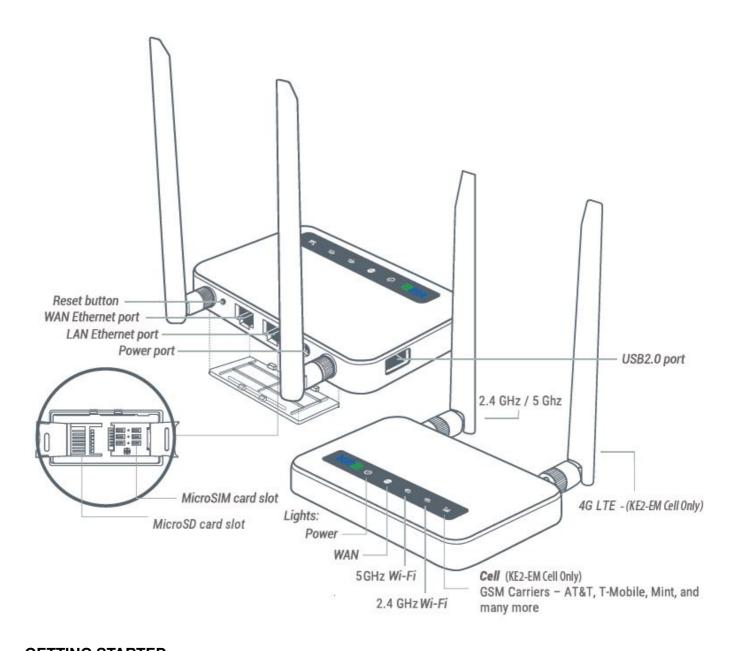
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**KE2-EM-Plus EdgeManager Plus** 

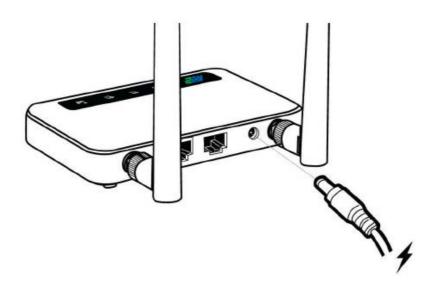


# Overview



# **GETTING STARTED**

# **Power On**



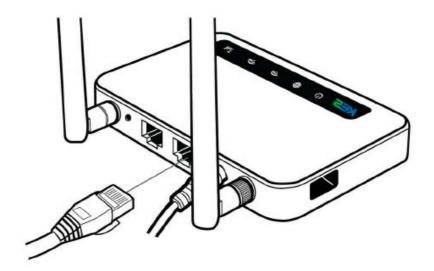
Note: A MicroSD card is pre-installed in the KE2-EM Plus. DO NOT remove or replace the MicroSD card.

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!

# Connecting to the KE2-EM Plus



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

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)

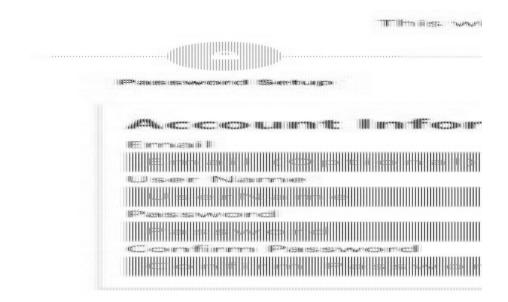
Method 2: Connect via LANConnect your device to the LAN port of the KE2-EM Plus via Ethernet cable.

# 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**

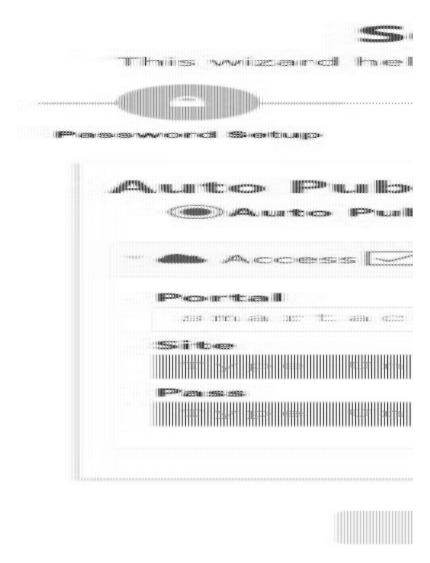
# **Password Setup**





- 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 the first installation.
- 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 the first installation. Please record both User Name and Password for future reference. You will need both to log in 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 the 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.

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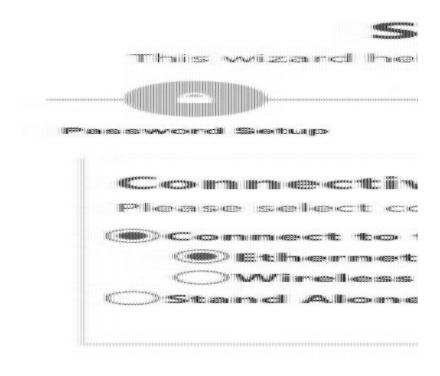
**Auto Publish ALL devices :** This option allows you to automatically publish any KE2 Therm devices communicating with the KE2- EM Plus to the Portal specified below.

- **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.



- 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. Youwill 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.

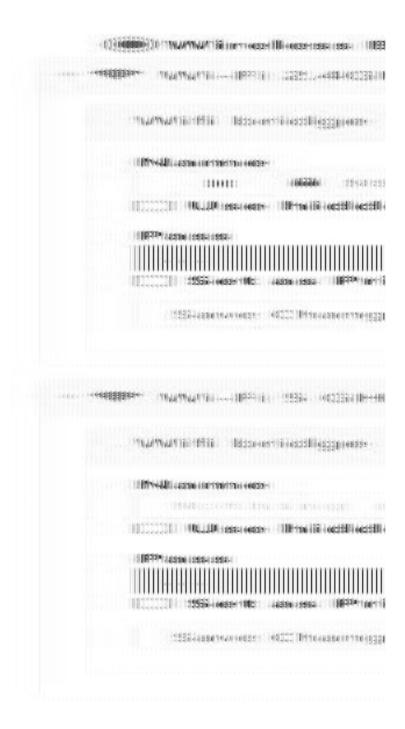
# Connectivity



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

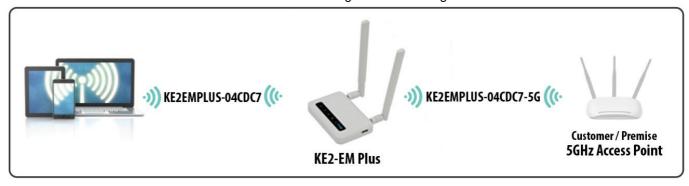
- Ethernet Connection WAN Port Select this option if you are using a Cat5e Ethernet cable to connect the KE2-EM Plus to the Internet. The KE2-EM Plus will automatically request an IP address from the network.
- Stand Alone (No Internet) Select this option if you do not want to connect the KE2- EM Plus 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 preexisting 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.



**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.

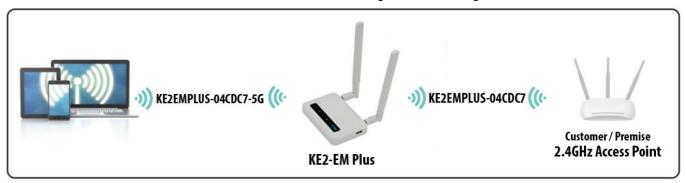
- Name Select this dropdown to display Wi- Fi networks within range. If a network does not appear, it may be on the other frequency (2.4GHz or 5GHz).
- Use hidden SSID Use this option to specify the SSID of a hidden Wi-Fi network.
- Pass This is the password field for the Wi-Fi network found previously. 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.

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:

The 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!!!

# **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.



# **Setup Edge Manager**

This wizard helps automatically configure the EM for this installation



You have successfully completed

KE2 EZ-Install !!

EM will reboot with stored settings. Please reconnect after reboot and click on

Go to Dashboard

# **WIRELESS SENSOR SETUP**

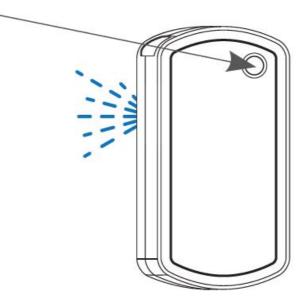
To ensure the sensors have the strongest wireless connection possible, please follow the steps in: Video 125 – Best Practices for Deploying a Wireless Monitoring Solution or <a href="https://bit.ly/2Prb10c">https://bit.ly/2Prb10c</a>



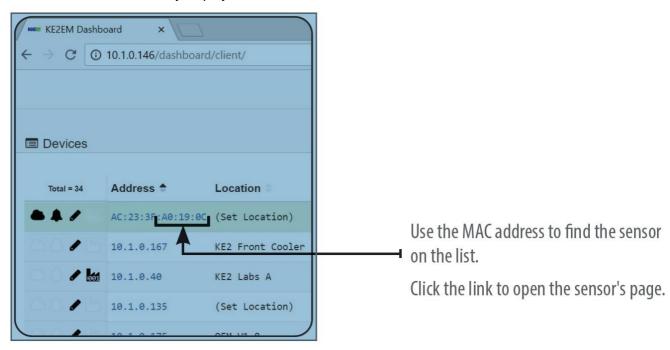
# Power On

Press the button until the blue blinking light comes on.

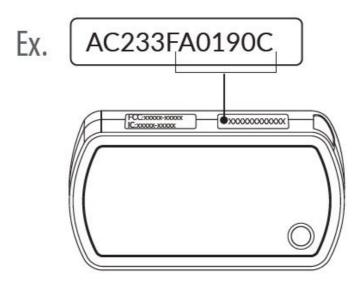
# Press button until blue blinking light comes on.



• Sensors should automatically display on the Dashboard.



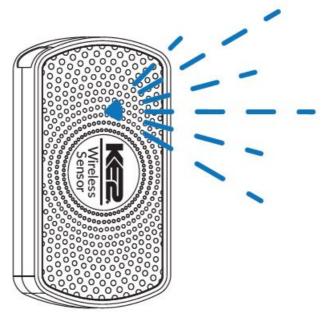
• The last 6 digits of the MAC address are unique f or each sensor.



• 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.



• Place the sensor where you think you want it.



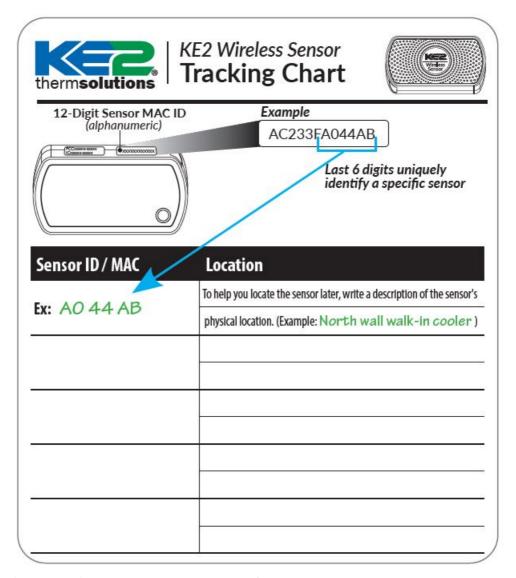
• If the timer reads 1 second or less, the location ● is ideal. Below 10 seconds is good. If 20 seconds or more, consider moving or changing the orientation of the sensor.



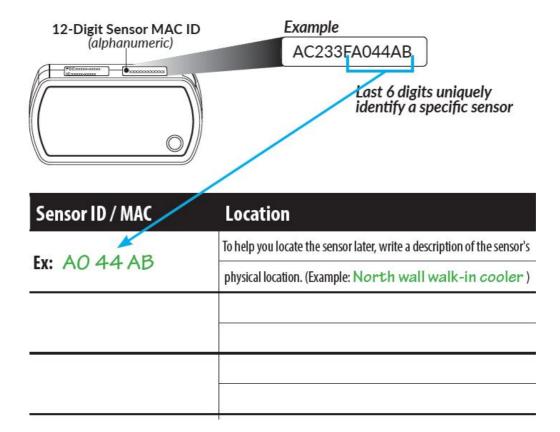
• Once the location is validated, apply Velcro or adhesive strip, and place sensor.



• Record on the tracking chart.



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



Sensor ID / MAC	Location
_	
2	

Once your Tracking Chart is filled in, we suggest taking a picture of the list, to serve as a backup copy.

# **MODBUS SETUP**

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 V 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.





- The controller will return to the Adr screen when the setting is saved.
- The setting change can be verified by pressing again.

- To exitt, press several times.
- KE2 Temp + Valve

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

• Press and hold to access the Advanced menu.



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.

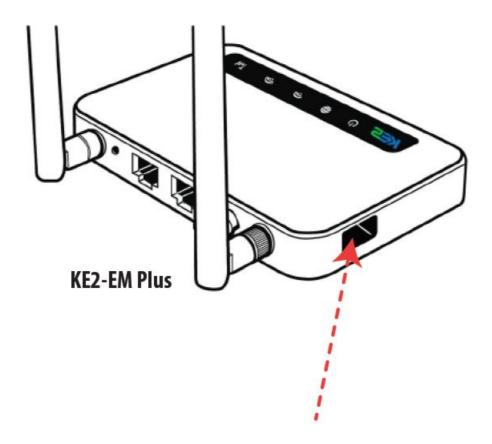


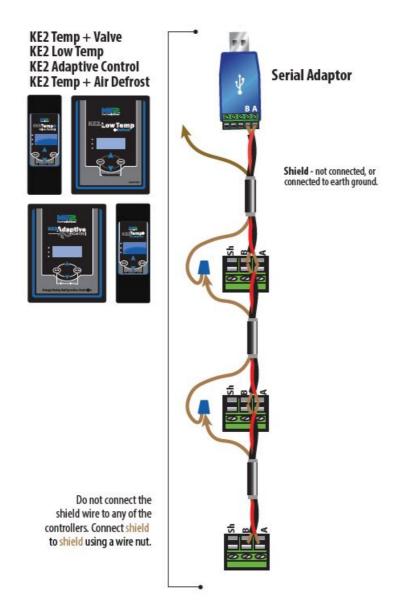
 $\circ\,$  The controller will return to the Adr screen when the setting is saved.



- $\circ\,$  The setting change can be verified by pressing again.
- To exit, press several times.

# **MODBUS WIRING**





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.

# **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 <a href="https://ke2therm.com/literature/literature-ke2-edge-managers/">https://ke2therm.com/literature-literature-ke2-edge-managers/</a> 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

# **Documents / Resources**



KE2 KE2-EM-Plus EdgeManager Plus [pdf] Installation Guide KE2-EM Plus, EdgeManager Plus, KE2-EM Plus EdgeManager Plus



**KE2 KE2-EM Plus EdgeManager Plus** [pdf] User Guide KE2-EM Plus EdgeManager Plus

# References

- <u>ke2therm.com</u>
- 6 Video 125 Best Practices for Deploying a Wireless Monitoring Solution (FAQ Walk-in Freezer, Cooler)
  - YouTube
- <u>ke2therm.com</u>
- Citerature KE2 Edge Managers
- ► KE2Therm YouTube

Manuals+,