



kumo cloud®

TECHNICIAN MANUAL FOR INSTALLER

2.10

NOTE

- This manual reflects the installation of the Wi-Fi Interface (PAC-WHS01WF-E), Wireless Interface 1 (PAC-USWHS002-WF-1), and Wireless Interface 2 (PAC-USWHS002-WF-2) for the 2.12 and 2.14 kumo cloud app release updates.
- This manual has not been updated yet to show the additions of the 2.12 and 2.14 updates, but the manual will be updated in the near future.

Note: The changes in 2.12 and 2.14 were minor and did not change the overall way the equipment is installed.

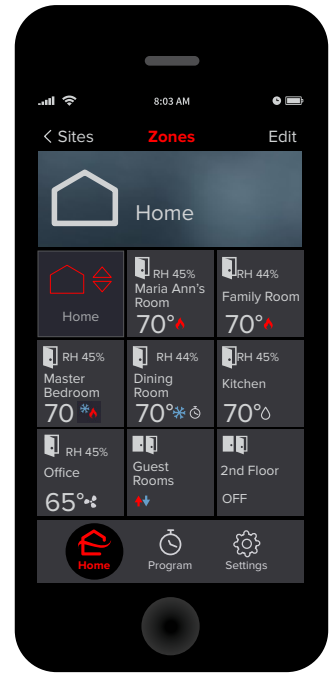
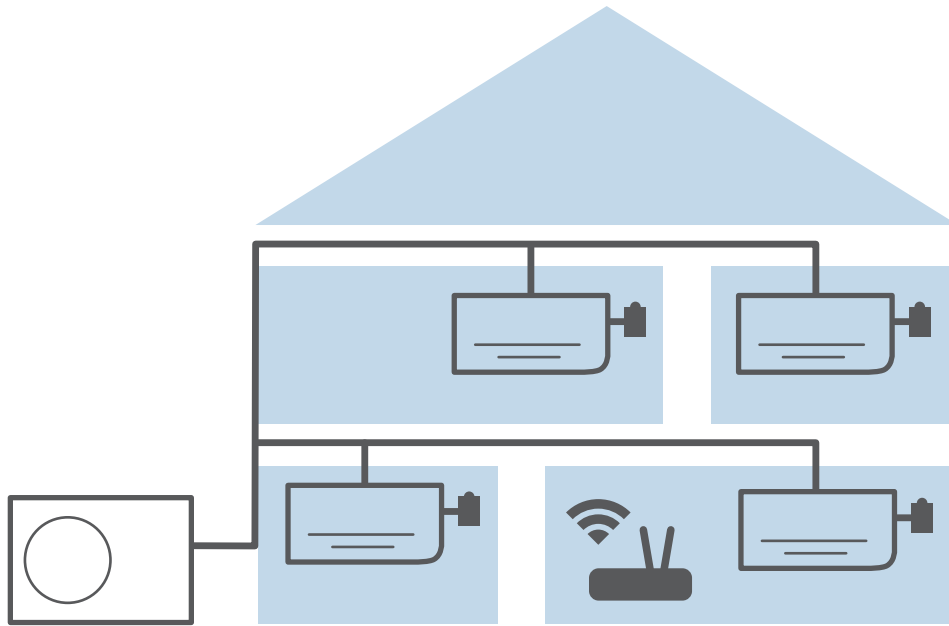
ATTENTION

- The Wireless Interface 1 and 2 **must** connect to a 2.4 GHz Wi-Fi® network.
- The Wireless Interface 1 and 2 will **not** work on a 5 GHz Wi-Fi network.
 - The Wireless Interface 1 and 2 can only connect to Wi-Fi channels 1-11.
- For the best performance connect the Wireless Interface 1 and 2 to a 2.4 GHz only SSID, but there are some multi-band Wi-Fi networks that can correctly manage a 2.4 GHz only device.
 - Please verify if your multi-band Wi-Fi router can manage 2.4 GHz only devices.

Note: The set up of the Wireless Interface to the kumo cloud app requires a Wi-Fi network with a live internet connection.

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kumo cloud[®]

The kumo cloud[®] app works with the Mitsubishi Electric Wireless Interface to enable remote control of Mitsubishi Electric Cooling & Heating equipment from a smartphone or a tablet. The app can be used as the only controller or with compatible controllers. When a Wireless Interface 2 (WI 2) is used to connect the equipment to Wi-Fi[®], an MHK1 or MHK2 controller can also be connected in series. For information regarding the MHK2 remote controller, see the MHK2 Installation and Operation manuals at:

<http://mylinkdrive.com/USA/Controls>

Quick Setup

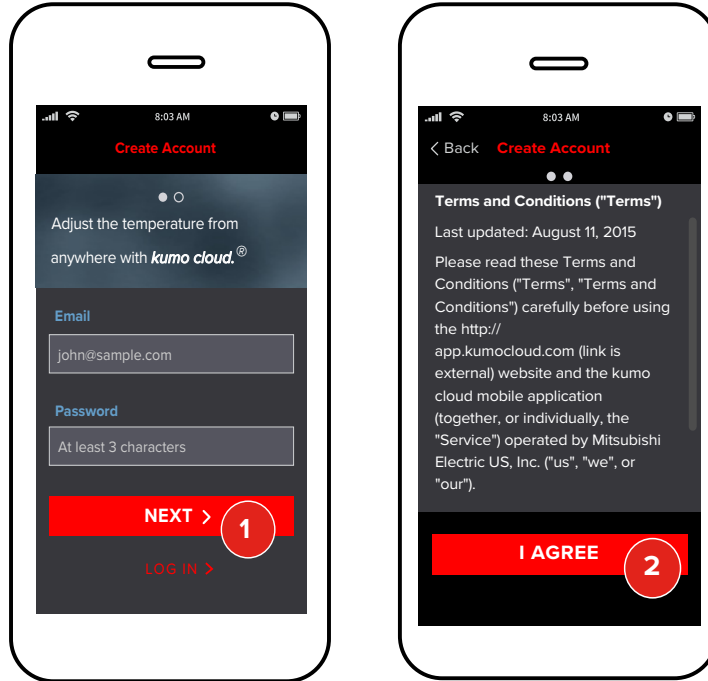
1. Install outdoor and indoor units. Connect a PAC-USWHS002-WF-1 or PAC-USWHS002-WF-2 (WI 2) Wireless Interface to the CN105 connector for each indoor unit. Only a professional should complete installation to prevent electric shock or personal injury. See the **Install** section. For more information regarding the WI 2, see the WI 2 Installation manual at: <https://qrco.de/WI2InstallManual>
2. The home wireless network should already be set up. Note the network name and password.
Network name: _____
Password: _____
3. Use the kumo cloud app to **Connect a New Site**. See the **Connect a New Site** section.
4. Add each indoor unit and adjust settings if needed. See the **Add Indoor Units** section.
5. Use the app to send an email to Transfer Ownership to the owner. See the **Transfer to the Owner** section. For daily use, including changing the temperature, see the kumo cloud Owner Manual at: <https://qrco.de/kumocloudOwnerManual>

Get Started

Download the App

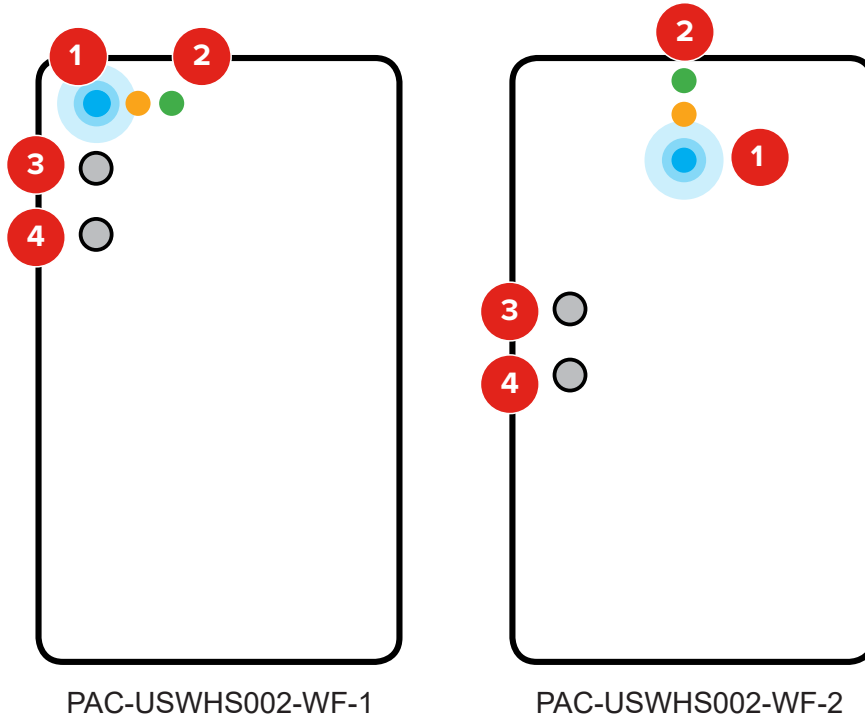
Visit kumocloud.com. Locate the link to download the app from the App StoreSM or Google PlayTM. The app is available for iPhone[®] 7 and newer running iOS 10.0 and above, and AndroidTM smartphones running Android 5 and newer.

Create an Account



1. The **Create Account** screen displays when the app is launched for the first time. Type an email address, enter a password and tap **Next**.
2. Review the **Terms and Conditions** and tap **I Agree**. You will remain logged in to your kumo cloud[®] account, unless you log out by tapping **Settings > My Account > Log out**.

Install



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 - Please verify if your multi-band Wi-Fi router can manage 2.4 GHz only devices.

Note: The set up of the Wireless Interface to the kumo cloud app requires a Wi-Fi network with a live internet connection.

Only a professional should complete installation to prevent electric shock or personal injury. *Outdoor and indoor units* should already be installed. Make sure a *wireless network* is set up with a live internet connection. In a new construction, this may be a temporary network. The homeowner may switch networks later.

Connect a Mitsubishi Electric Wireless Interface to the CN105 connector on each indoor unit. See the Installation/Instruction Manual and Compatibility Chart at:

<https://qrco.de/WI1MLD> or <https://qrco.de/WI2MLD>

If you are installing a WI 2, which is to be connected to an MHK1 or MHK2 controller, connect the controller to the CN105-style port on the WI 2.

Note: If you are connecting an MHK1 or an MHK2, ensure that you configure the WI 2 with the kumo cloud® app as follows before you connect the interface to the controller.

1. Four quick, blue flashes indicate **Bluetooth LE configuration mode**. The interface is ready to connect using the app. Three slow, blue flashes repeat after **Connection is complete**.
2. The green light glows when **power** is connected. No further hands-on work with the interface is needed. It will change to wireless network mode to automatically check for firmware updates during set up.
3. If needed, use the **configuration button** to switch from the wireless network mode back to the Bluetooth LE configuration mode. Push, hold 5 seconds and release.
4. In special cases, technical support may suggest a factory reset. Push and hold the factory reset button until the amber LED turns on (about 5 seconds), then release in order to revert to factory firmware. In order to revert to factory firmware *and* erase all user settings, push and hold the **factory reset** button. Wait until the amber LED turns on and then begins to blink (about 8 seconds), then release the button.

If using first generation Wireless Interfaces (PAC-WHS01WF-E), skip to **First Generation Wireless Interfaces**. Otherwise, continue below.

Connect a New Site

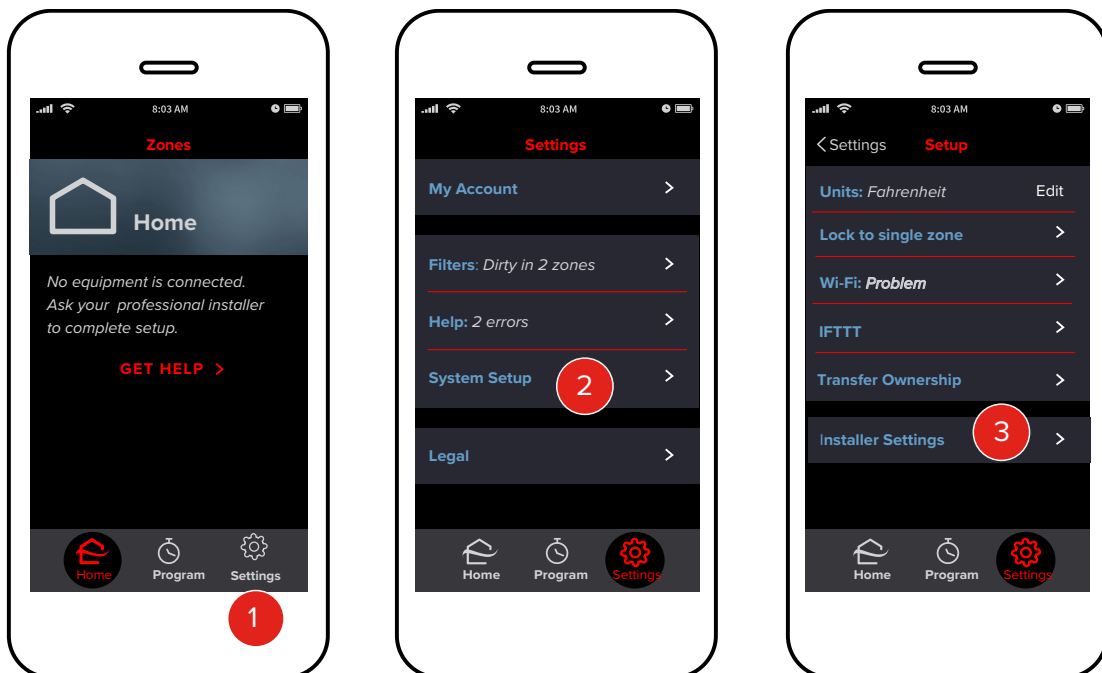
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Note: The set up of the Wireless Interface to the kumo cloud app requires a Wi-Fi network with a live internet connection.

Before connecting a new site, make sure the smartphone or tablet has Wi-Fi and Bluetooth turned on, and a working 2.4 GHz wireless internet connection. Connecting a New Site and Adding Indoor Units must be done on site. Transfer to Owner and setting Advanced Settings may be done remotely.

Find Installer Settings



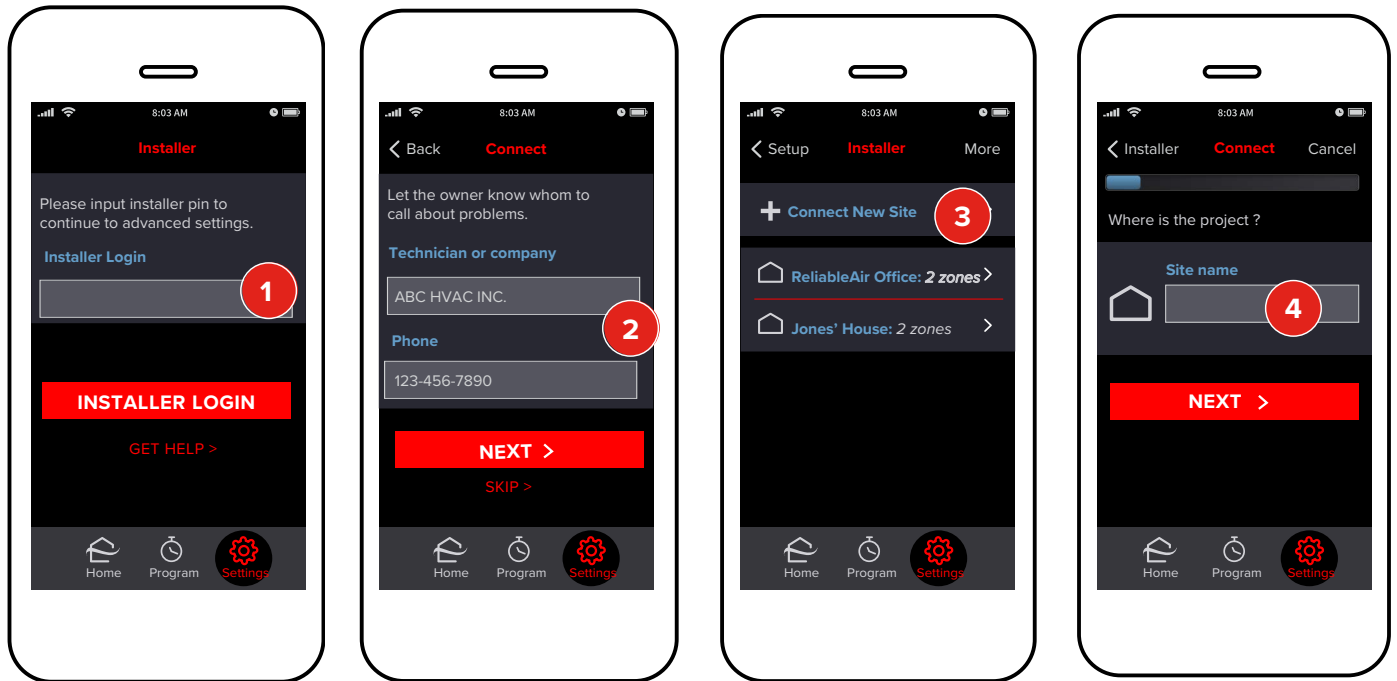
1. Tap **Settings**.
2. Tap **System Setup**.
3. Tap **Installer Settings**.

Specifications are subject to change without notice.

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kumo cloud® assumes the local network is using common WPA2-PSK (AES) security. It will not connect to unsecured networks.

Create a New Site



1. To proceed to advanced settings, enter the installer login 9999 and then tap **Installer Login**.
2. Enter your **Contact Information**. This will make it easy for the owner to contact you if the equipment reports an error. Tap **Skip** if you do not wish to input information. Tap **Next** to proceed. If there are no sites currently connected, proceed to Step 4.
3. Tap **Connect New Site**.
4. Enter a unique **Name** for the job site, such as Jones House or Dr. Smith's Office. Tap **Next**.

Connect the Site to the Wireless Network

kumo cloud[®] assumes the local network is using common WPA2-PSK (AES) security. It does not connect to unsecured networks.



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1. Enter the **Name** and **Password** for the local wireless network. This field is case-sensitive so be sure that all lower case and capital letters are entered accurately. Tap **Next**.

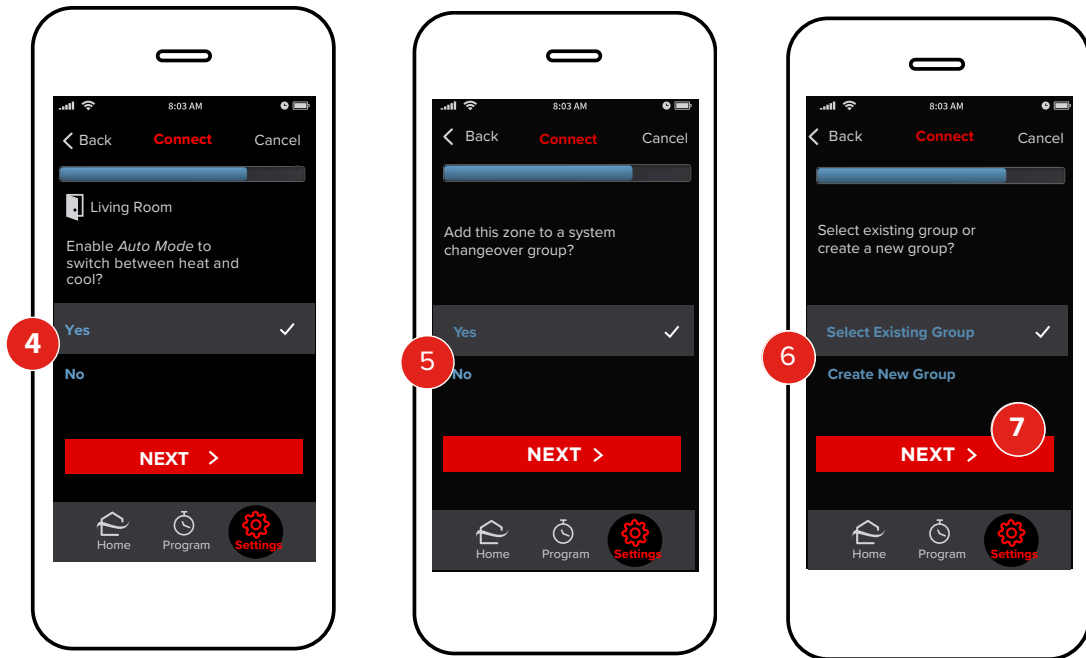
Note: To ensure proper functioning of the kumo station[®] equipment controller and the System Changeover function, you must connect all the Wireless Interfaces in a site to the same wireless network.

Add Indoor Units

The app displays the Bluetooth signal from the Wireless Interfaces plugged into indoor units near the smartphone or tablet. The signal generally reaches beyond the size of most rooms in residential spaces. After units are added, the connection switches to the wireless network.

Add Unit

1. Tap **Connect**. The signal strength shows which Wireless Interface is the closest. Standing a few feet from the unit will show the strongest signal. Alternatively, note the MAC address printed on the back of each Wireless Interface and the planned locations before installing them.
2. Enter a **Name** for the location for that indoor unit, such as Living Room, Master Bedroom, Basement or Attic. Tap **Next**.
3. The app will read capabilities from the indoor unit and may display this screen. Choose **Yes** or **No, Set Airflow** according to the unit model. If this screen doesn't appear, airflow/static pressure doesn't apply, or must be set using dip switches as shown in the indoor unit installation manual. See [Airflow for Static Pressure](#) to set airflow.

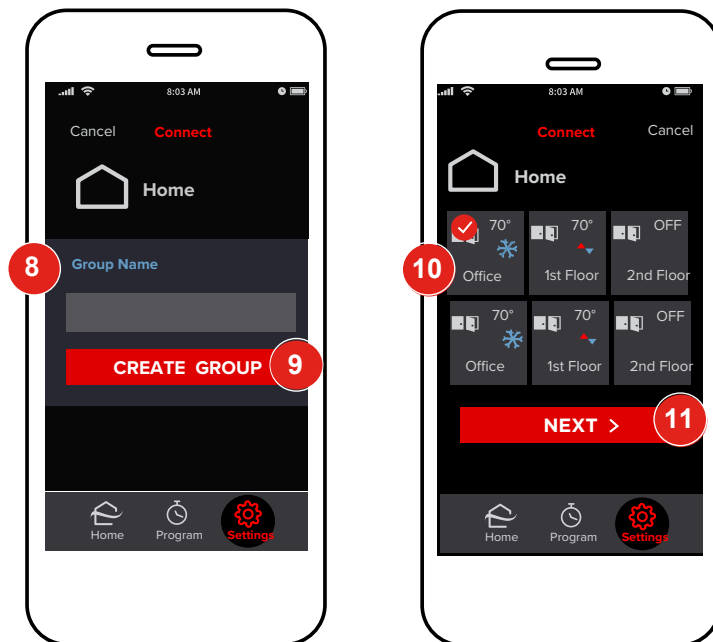


4. Select **Yes** to enable the Auto mode. Enabling **Auto Mode** allows the new unit to regulate its heating and cooling without the direct interaction of the user. The unit will be able to operate automatically within a range of selected temperature values. Tap **Next**.

Enable Changeover Group

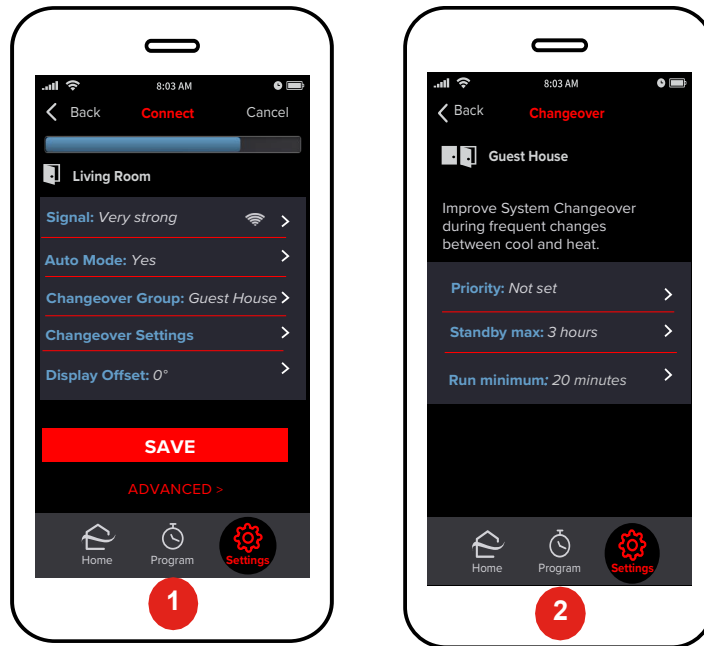
Determine whether this unit should be grouped with other units in the user's home.

5. Select **Yes** to add this zone to a system changeover group. A **Changeover group** can be used to coordinate the heating and cooling demands of indoor units connected to the same outdoor unit. This feature, specific to some MXZ systems, allows kumo cloud[®] to manage the mode of the outdoor unit based on the conditions and priorities of zones within the same **changeover group**. If you tap **No**, the zone will operate independently. Skip to **Finish Setup**. See the [Finish Setup](#) section. Tap **Next**.
6. Choose if you would like to add this site to an existing **Changeover Group** or create a new **Changeover Group** that includes this site.
7. Tap **Next**. If you have chosen to select an existing group, skip to Step 10 below.

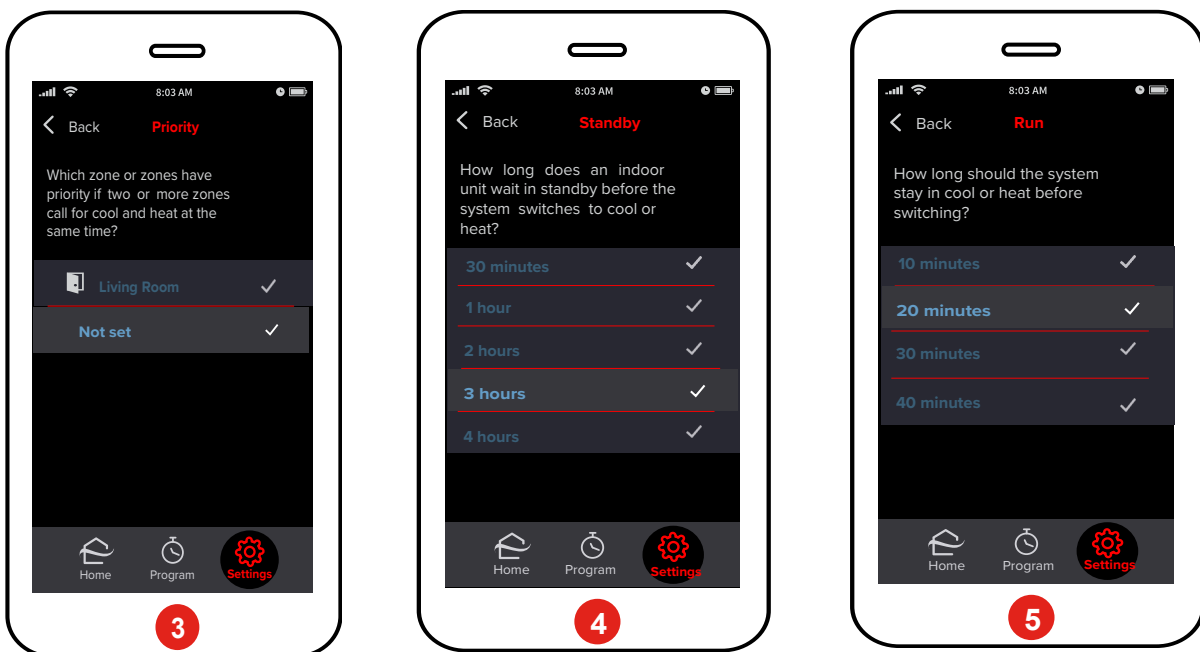


8. Select input field and input desired **Group Name**.
9. Tap **Create Group** to proceed.
10. Here, the recently created/desired **Changeover Group** is displayed as selected. Confirm this selection.
11. Tap **Next** to continue.

Define Changeover Settings



1. When provisioning a zone in the kumo cloud® app, *if* the zone has been added to a system changeover group, the **Connect** screen displays the **Changeover Settings** option. Tap **Changeover Settings**.
2. To set priority zone(s), maximum standby time and minimum run time, tap **Priority**, **Standby max**, and **Run minimum**, respectively.



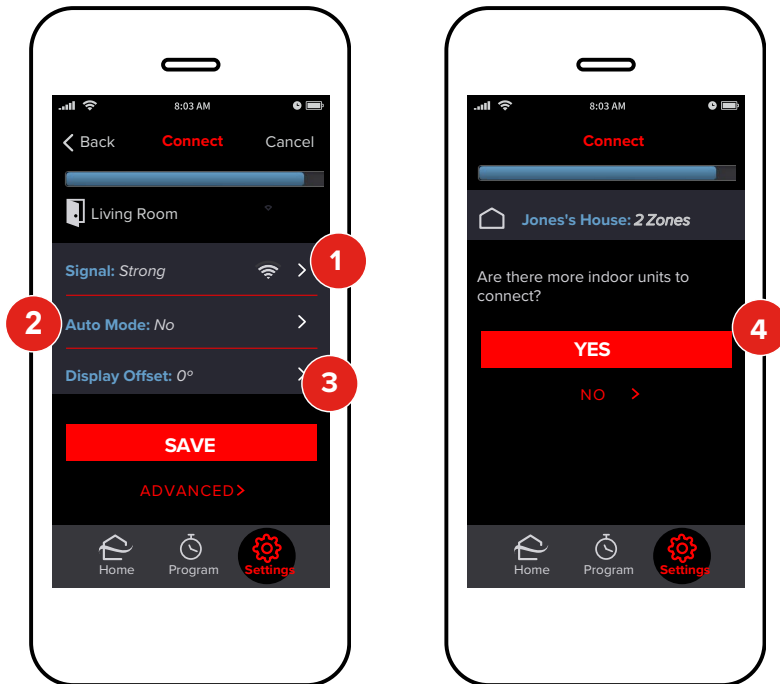
3. On the **Priority** screen, select the required priority zone(s). There is no limit to the number of zones that you can select. If you do not want to select any unit, select **Not set**.
4. On the **Standby** screen, select the required standby time.
5. On the **Run** screen, select the required run time.
To return to the previous screen(s) at any time, tap **Back** in the upper-left corner of the screen. Return to the **Connect** screen after you have defined the Changeover Settings. Proceed to **Finish Setup**. See the [Finish Setup](#) section.

To define Changeover Settings after a zone is provisioned in the kumo cloud app, proceed as follows:

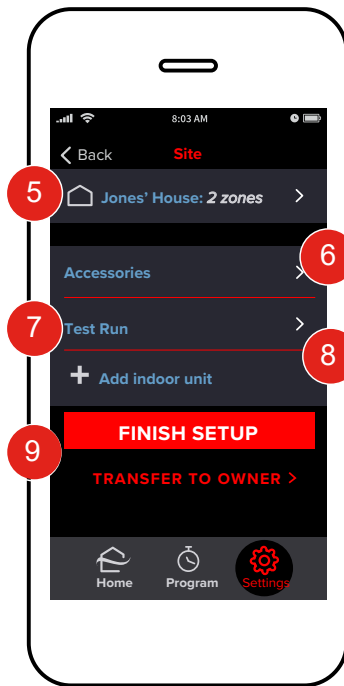
1. In the kumo cloud app, tap **Settings** > **System Setup** > **Installer Settings**.
2. Enter the installer login (9999).
3. Tap the required site and then tap the zone.
4. Select and define the required Changeover Settings as explained above.

Finish Setup

Save Unit Settings



1. The name of the newly added unit is listed here. The signal strength shown is the wireless network connection between the Wireless Interface and the local wireless router. If there is a **Very Weak Signal** or **No Signal**, consider relocating the Wireless Interface, relocating the router, adding a repeater, or use a Mitsubishi Electric IT Extender (PAC-WHS01IE-E). The Wireless Interface signal generally reaches beyond the average size of a home without interference or obstructions.
2. Enabling **Auto Mode** allows the new unit to regulate its heating and cooling without the direct interaction of the user. The unit will be able to operate automatically within a range of selected temperature values.
Note: The dual-setpoint Auto mode scheme that kumo cloud[®] uses is not compatible with the single-setpoint Auto mode available on other controllers.
3. Many applications will not require any additional settings. If desired, tap **Display Offset** or **Advanced** to customize settings further. For more details, see the [Advanced Indoor Unit Settings](#) section. Tap **Save**.
4. If there are more indoor units, tap **Yes**. Repeat the steps beginning in the [Add Unit](#) section on for each unit until they are all added.



Zones

5. These are the **Zones** that are now included in this site. This will include the **Zones** that have recently been created. Tap this option in order to inspect these **Zones**.

Accessories

6. Tap **Accessories** in order to add devices to the site including Wireless Temperature and Humidity Sensor (Wireless Sensor), backup heater, humidifiers, dehumidifiers, ventilation units, etc. See the **Accessories** section for more information.

Test Run

7. Tap **Test Run** to perform a test run operation to ensure that the site and its units are running correctly. For more information regarding test runs, see the **Test Run** section.

Add Indoor Unit

8. Tap **Add Indoor Unit** to connect more indoor units. See the **Add Indoor Units** section.

Finish Setup


9. Tap **Finish Setup** in order to end the installation. This option allows the installer to retain control of the unit in cases where there is more to setup at a later time. To end setup and transfer control of the system to a homeowner, tap **Transfer to Owner**.

Test Run



Some indoor units support a Test Run operation that can be controlled from kumo cloud®.

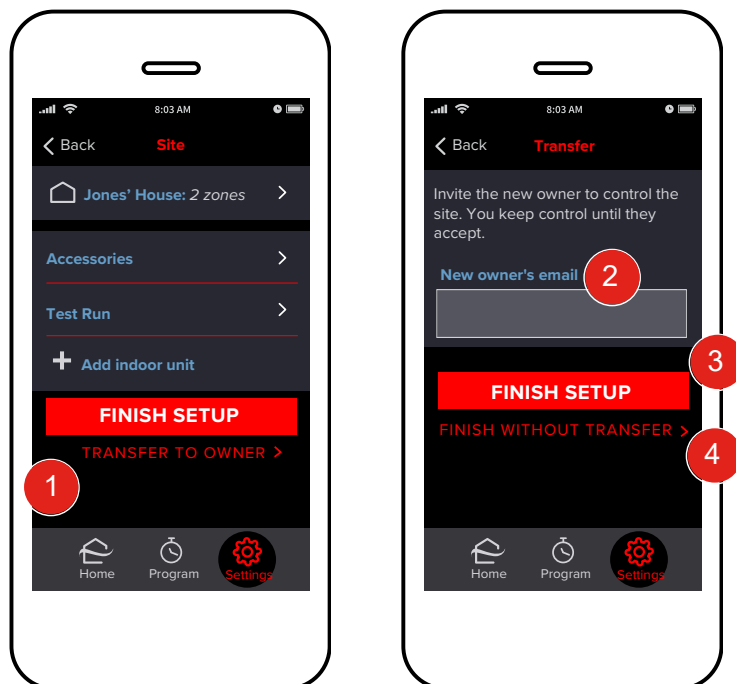
The **Test Run** screen displays zones connected to indoor units that support the test run operation. If no connected indoor unit supports the test run operation, a message that no units support the test run appears.

1. To perform a test run for a zone, tap the zone name.
2. Tap **Run Cooling** or **Run Heat**.
3. When a check mark appears next to the selected zone, it indicates that the corresponding indoor unit has entered test run operation. Based on your **Run Cooling** or **Run Heat** selection, the cooling or heating icon appears next to the selected zone(s). Follow directions in the indoor units' installation manuals. The equipment will continue in test run operation until turned **Off** or up to two hours.
4. Additionally, on the **Zones** screen, the zones in test run display the  (lockout) icon.
5. When you tap the tile displaying the lockout icon, a pop-up window shows the message that the equipment is being test run.
 - To end the test run for the units in test run, tap **End Test Run**.
 - To control the test run, tap **Control Test Run**. The **Test Run** screen appears. You can then select the zones to enable or disable the test run.
 - Tap **Close Window** to close the window.
6. To return to the **Zones** screen when the test run is complete, in the upper-left corner of the **Test Run** screen, tap **Site**.

To perform a test run of an indoor unit after adding the unit:

1. In the kumo cloud app, tap **Settings** > **System Setup** > **Installer Settings**.
2. Enter 9999 for installer login.
3. Tap the required site and then tap **Test Run**. Perform the test run as explained above.

Transfer to the Owner

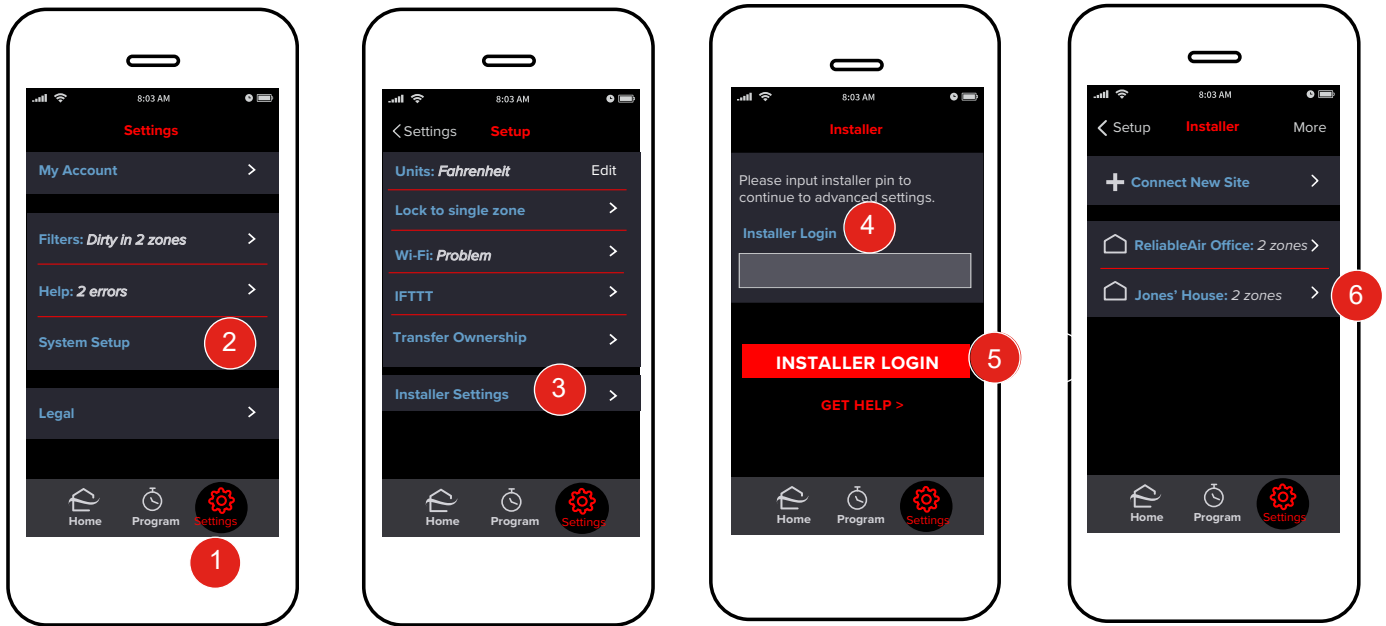


1. Tap **Transfer to Owner** to give the end user control of the system.
2. Enter the **New Owner's email**.
3. Tap **Finish Setup**. An email will be sent to the new owner informing them that system has been set up; however, the site will remain in your account, until the new owner creates an account or logs in using their email address. If needed, tap the name of the job site to resend the email.
Or
4. Tap **Finish without Transfer**.

The system can now be controlled normally using the kumo cloud app.

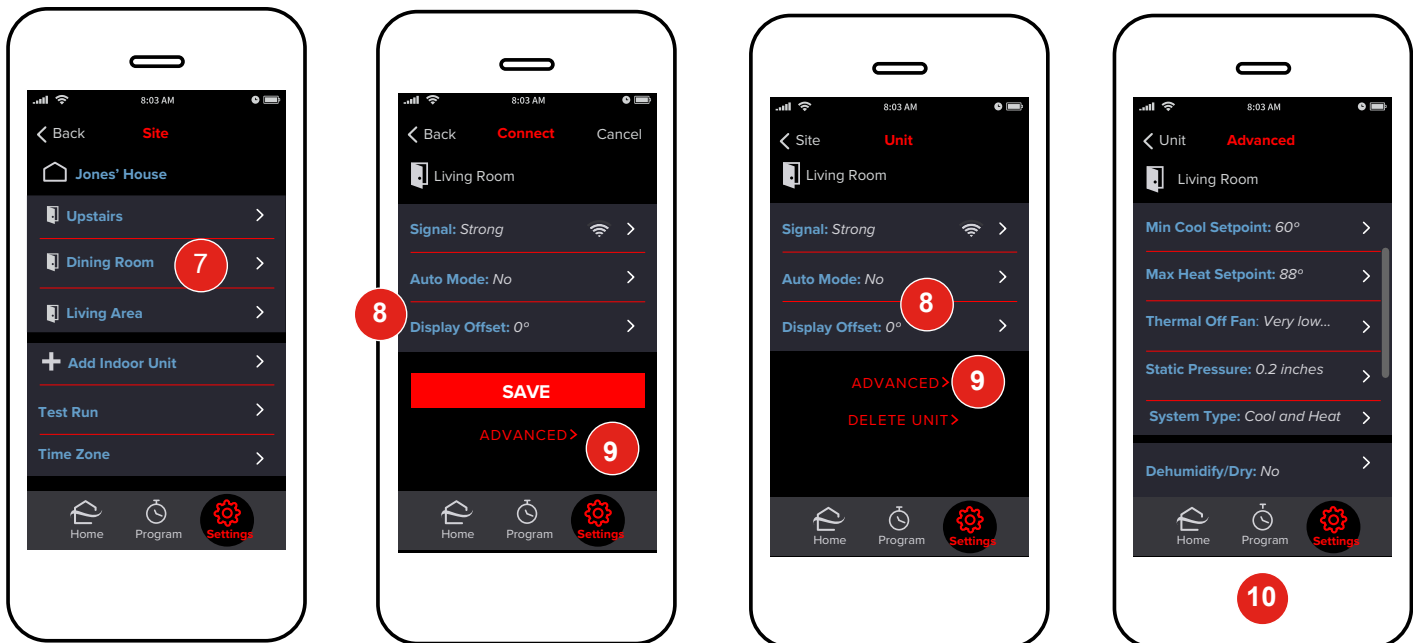
For more information, view the kumo cloud Owner Manual at kumocloud.com under Additional Resources.

More Settings



Indoor unit settings can be set when adding an indoor unit or after all the units have been added.

1. After all the indoor units have been added, to access settings for a particular unit, tap **Settings**.
2. Tap **System Setup**.
3. Tap **Installer Settings**.
4. Enter 9999 for installer login.
5. Tap **Installer Login**.
6. Tap the name of the **Home** or **Job** site.

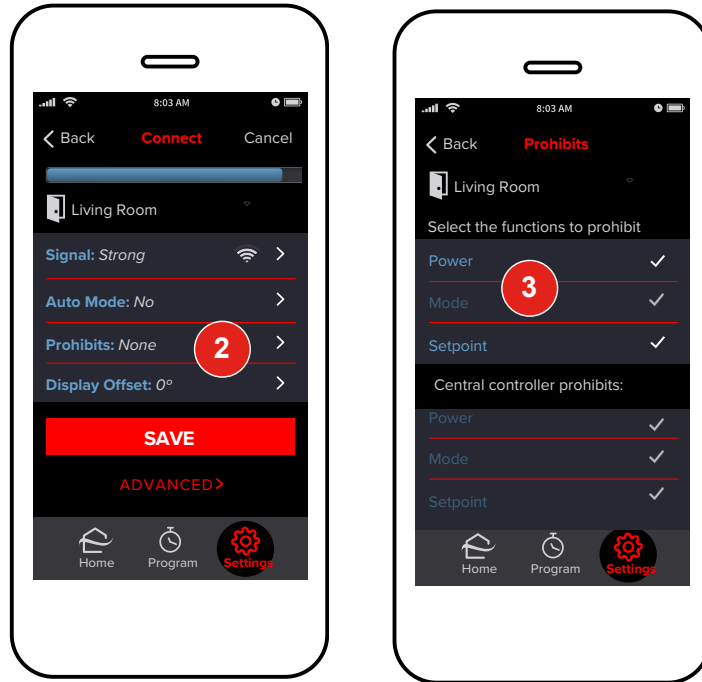


7. Tap the name of the **Zone**.
8. Tap **Auto Mode** or **Display Offset** to adjust the settings.

Advanced Indoor Unit Settings

9. To access additional settings, tap **Advanced**.
10. **Advanced** settings will vary by indoor unit.

Set Prohibits



When a zone is provisioned in kumo cloud[®] using a WI 2, you can prohibit changing of the Power, Mode, and Setpoint settings for that zone.

To set prohibits *when provisioning a zone*:

1. Add the unit as explained in the [Add Indoor Units](#) section.
2. On the **Connect** screen, tap **Prohibits**.
3. Tap the required prohibit(s).

A check mark appears next to the selected prohibits. Any prohibits set through a central controller are also displayed on the **Prohibits** screen, with a check mark next to the active prohibit. You cannot change these prohibits through kumo cloud.

To set prohibits after a zone is provisioned:

1. In the kumo cloud app, tap **Settings > System Setup > Installer Settings**.
2. Enter the installer login (9999).
3. Tap the required site and then tap the zone.
4. Tap **Prohibits** and set them as explained above.

If you set a Power prohibit:

- The user can change the mode but cannot turn the indoor unit off, if the unit is on.
- The user cannot change the mode, if the unit is off.

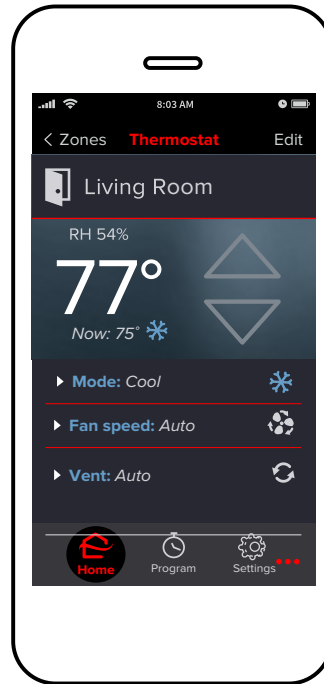
If you set a Mode prohibit:

- The user can turn the indoor unit off, if the unit is on and the Power prohibit is not active.
- The user can turn the unit on, in the last commanded mode, if the unit is off.

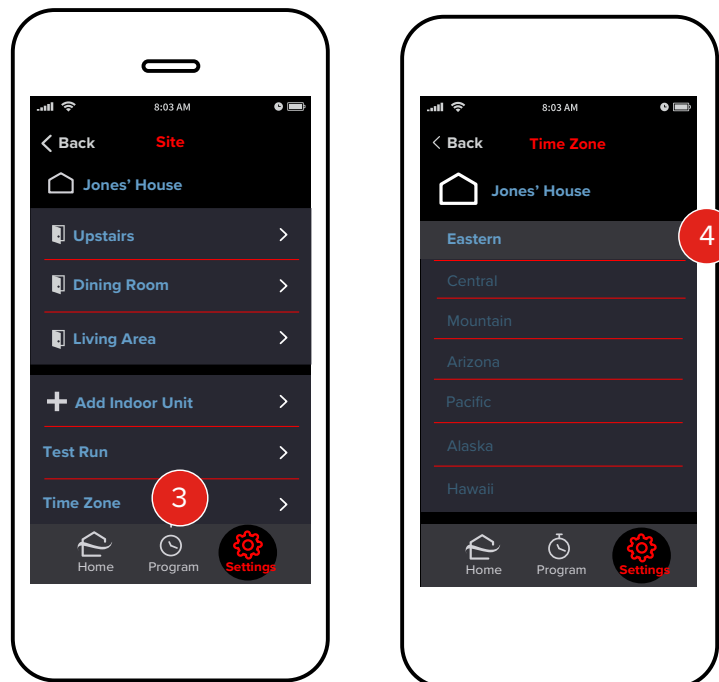
Note: If the unit is turned off when the Mode prohibit is active, the unit must be turned back on through the MHK2 controller, not kumo cloud.

If you set a Setpoint prohibit:

- The option to use the up and down arrows on the thermostat screen to adjust the setpoint becomes unavailable to the user.



Select a Time Zone



You can specify the default time zone that the Wireless Interfaces in a site should use.

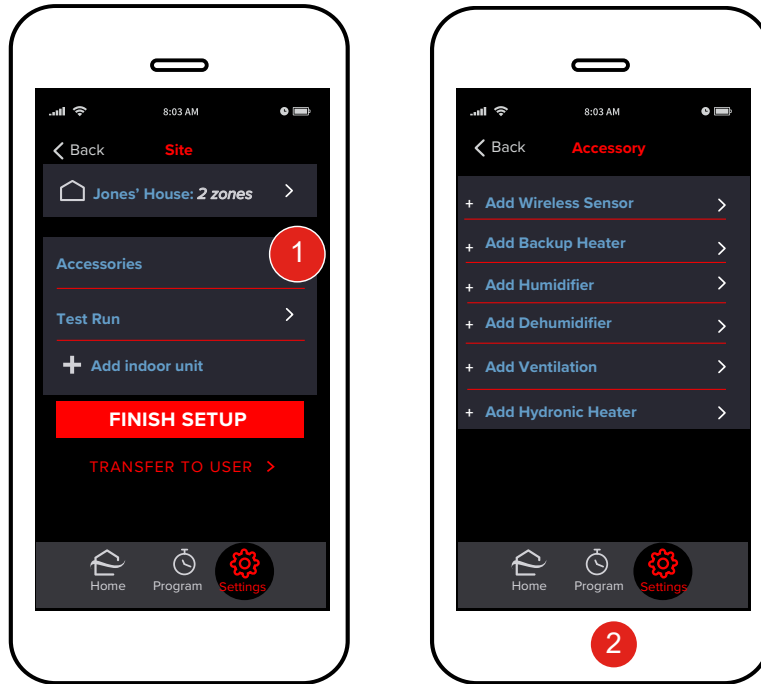
Note: The specified time zone will apply to all Wireless Interfaces in the site; you cannot specify time zones for individual interfaces in the site.

1. In the kumo cloud® app, tap **Settings** > **System Setup**> **Installer Settings**.
2. Enter 9999 for installer login.
3. Tap the required site and then tap **Time Zone**.
4. Tap the required time zone.

If the device on which the kumo cloud app is running detects a local time zone, other than the US time zones, the local time zone is also displayed as an option. Program events will occur at their set times according to the time zone selected.

Accessories

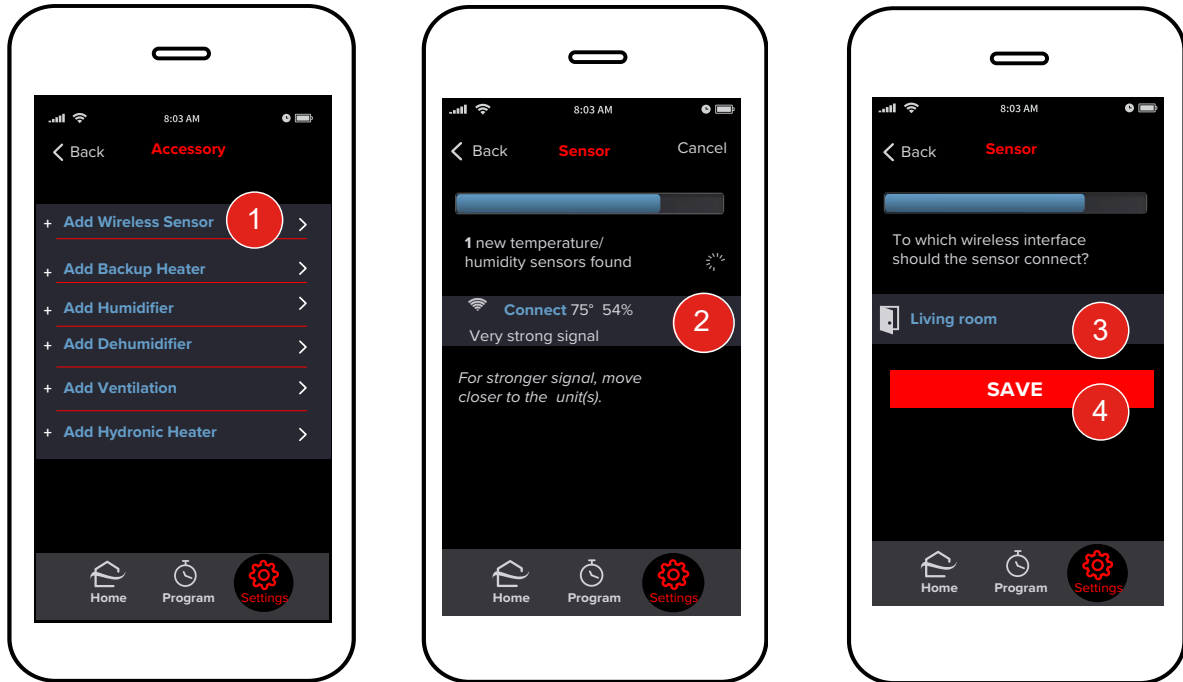
Add Accessories



Accessories such as the Wireless Sensor and kumo station[®] can be configured to work with the Wireless Interface to provide whole home control. To add an accessory to an existing site:

1. Tap **Accessories**.
2. Tap the **Accessory** you would like to connect.

Add Wireless Sensor



The PAC-USWHS003-TH-1 Mitsubishi Electric Wireless Temperature and Humidity Sensor is a wireless sensor that is designed to provide remote sensing capabilities to the Wireless Interface. **This is an optional part.** One Wireless Sensor may be configured for each Wireless Interface.

Note: We recommend that each sensor be commissioned to kumo cloud® BEFORE affixing to a wall or other surface. This will ease set up.

1. Tap **Add Wireless Sensor**.
2. Wait for kumo cloud to locate your **Wireless Temperature and Humidity Sensor** device. View devices located and tap the appropriate sensor to connect. Be sure the smartphone/tablet is within close proximity to the sensor while searching. If the sensor cannot be located, try putting it into discovery mode again and repeating the search. To put the Wireless Sensor into discovery mode, after the battery insulation sleeve has been removed, knock on the sensor case or drop the sensor onto a table surface from about 4" high until you hear the series of beeps or chirps.
3. Choose the **Zone** that the remote sensor should control (i.e. living room, kitchen, etc.).
4. Tap **Save** to continue back to advanced site settings.

To check Sensor battery life or battery replacement, refer to the Owner Manual at kumocloud.com under Additional Resources.

Note: It is recommended that you commission the Wireless Sensor before adhering it to a wall.



1. You may choose to attach the Wireless Sensor to a wall or lay it on a table. Wherever you decide to put it, we recommend that it not be moved to ensure maximum benefit from the device
2. Remove the Wireless Sensor and double-sided adhesive strip from the packaging.

3. To activate the Wireless Sensor, pull the insulator tab completely out and it will put the sensor into discovery mode. See above to commission the sensor.
4. Peel away one side of the adhesive strip and apply it to the backside of the Wireless Sensor, pressing firmly. The backside can be identified by the side with the FCC ID printed on it. The small hole on the front should be facing the room. This hole should remain unimpeded for sensing purposes.
5. Find a location to install your sensor. The device should be placed in an area allowing it to monitor and sense the room. (Recommended placement is within 10 ft of the Wireless Interface or indoor unit, unobstructed.)



The Wireless Sensor will work best when placed in an open area of the room allowing it to sense the greatest area without obstruction.

Do not place the Wireless Sensor in direct sunlight, near vents or window openings, or in enclosed areas such as drawers, cabinets, behind furniture or curtains, drafts, radiators, fireplaces, or on exterior walls.

Peel away the other side of the adhesive strip and press firmly to the wall or surface to mount. Allow to remain undisturbed at least 24 hours to ensure it is bonded securely to surface. Bond should be 100% after 72 hours from application. Do not move it once adhered.

Ensure the surface is clean and dry before adhering. Substrates are best prepared by cleaning with 50:50 mixture of isopropyl alcohol and water.

Rigid surfaces may require 2 or 3 times more pressure to ensure adhesion.

Ideal application temperature range is 70°F to 100°F (21°C to 38°C).

To check sensor battery life or battery replacement, refer to the Owner Manual at kumocloud.com under Additional Resources.

kumo station®

The PAC-WHS01HC-E, Mitsubishi Electric Equipment Controller, kumo station contains relays that allow for controls integration of third-party backup heaters, humidifiers, dehumidifiers, ventilation systems, and hydronic heaters. kumo station may be optionally wired to an indoor unit. If you choose this configuration, set up the indoor unit zone via kumo cloud before adding any kumo station accessories.

Note: Each kumo cloud Site can be associated with up to 1 kumo station. Multiple kumo stations can be supported within an account by adding a separate Site for each kumo station.

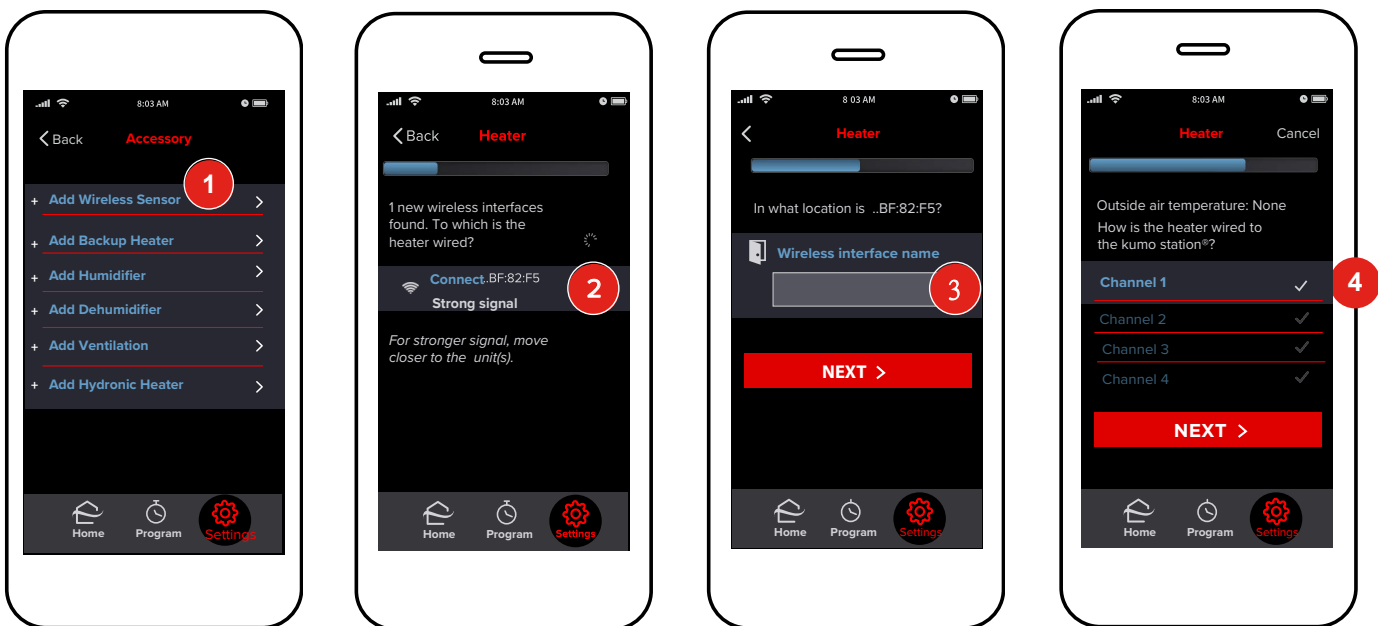
Alternative Setup

Note: If attempting to set up a kumo station that is not directly connected to an indoor unit, follow these steps. Refer to the Equipment Controller Manual (kumo station) for diagrams.

1. Remove kumo station cover.
2. Search for the **SW1** switchboard. This is a very small group of switches in the middle of the device if viewed vertically. This switchboard is labeled from #1-8.
3. Please switch the #5 toggle of **SW1** to the "on" position, then press and hold the button nearest the LEDs on the Wireless Interface for 5 seconds followed by quickly releasing it. Wait for the Wireless Interface's blue LED lights to begin flashing quickly in groups of 4.
4. Once this state is reached, repeat the commissioning process for a kumo station that is not directly connected to an indoor unit in order to connect Accessories (i.e. humidifiers, dehumidifiers etc.)

*Note: For the system to function properly, the kumo station that is not connected to an indoor unit **must** be the final wireless interface to be provisioned.*

Add kumo station Accessory



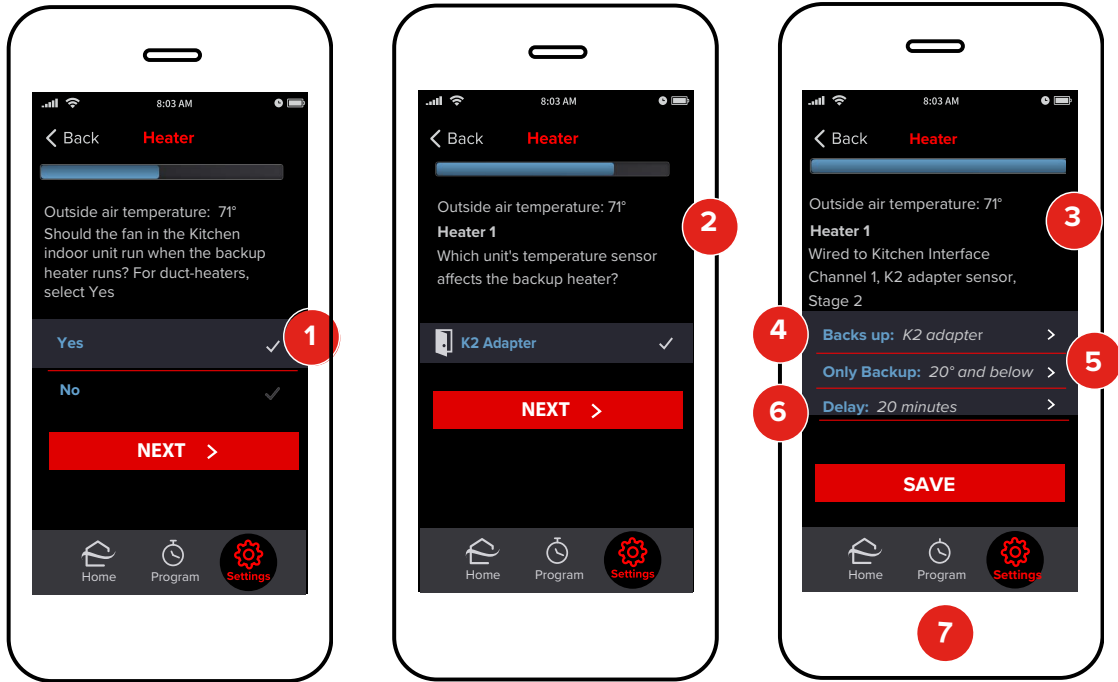
Third-party backup heaters, humidifiers, dehumidifiers, ventilation systems, and hydronic heaters can be managed within kumo cloud by adding them as kumo station accessories. As many as 4 accessories can be added to each kumo station.

To add a kumo station Accessory, first, install kumo station and accessories per PAC-WHS01HC-E Equipment Controller (kumo station) installation manual (included with kumo station).

Then, from your kumo cloud app:

1. Tap **Add** (choose your preferred Accessory type).
2. Wait for the kumo station Accessory to be discovered. **Select** an accessory. If the kumo station accessory is connected to an indoor unit, the zone name will be displayed. If the kumo station accessory is not connected to an indoor unit, select the appropriate Wireless Interface from the list.
3. Provide a name to identify the kumo station accessory and tap **Next**.
4. Select the **Channel** to which the accessory is physically wired within kumo station. Tap **Next**.

Backup Heater - 2nd Stage



Add kumo station[®] accessory.

Note :

- In order to use backup heat with kumo station, the user must purchase an Outdoor Air Temperature Sensor, Honeywell pn C7089U1006.
- In case of multi-position units, for proper functioning of in-duct backup heaters, ensure that the heating offset is disabled. To do this,
 - a. Go to **Settings** > **System Setup** > **Installer Settings**.
 - b. Enter 9999 for installer login.
 - c. Select the required site and then the required zone.
 - d. Tap **Advanced**.
 - e. For **Enable Heating Mode Temperature Offset?**, select **No**.

1. Verify that the **Outside air temperature** value is valid. If not, install and/ or reposition the temperature sensor. Indicate whether the indoor unit fan should be **Interlocked with this heater**. **Note: Only the indoor unit physically attached to the kumo station (if any) can be interlocked with the heater.* Tap **Next**.
2. Select which zone's room temperature affects the backup heater. **Note: It is highly recommended that this zone be configured with a Wireless Sensor.* Tap **Next**.
3. Verify that the **Heater Information** displayed is accurate. Edit information as needed and tap **Save** to proceed.

Backs up

4. The group of indoor unit zones that the backup heater conditions.

Only Backup

5. The temperature below which only the backup heater runs.

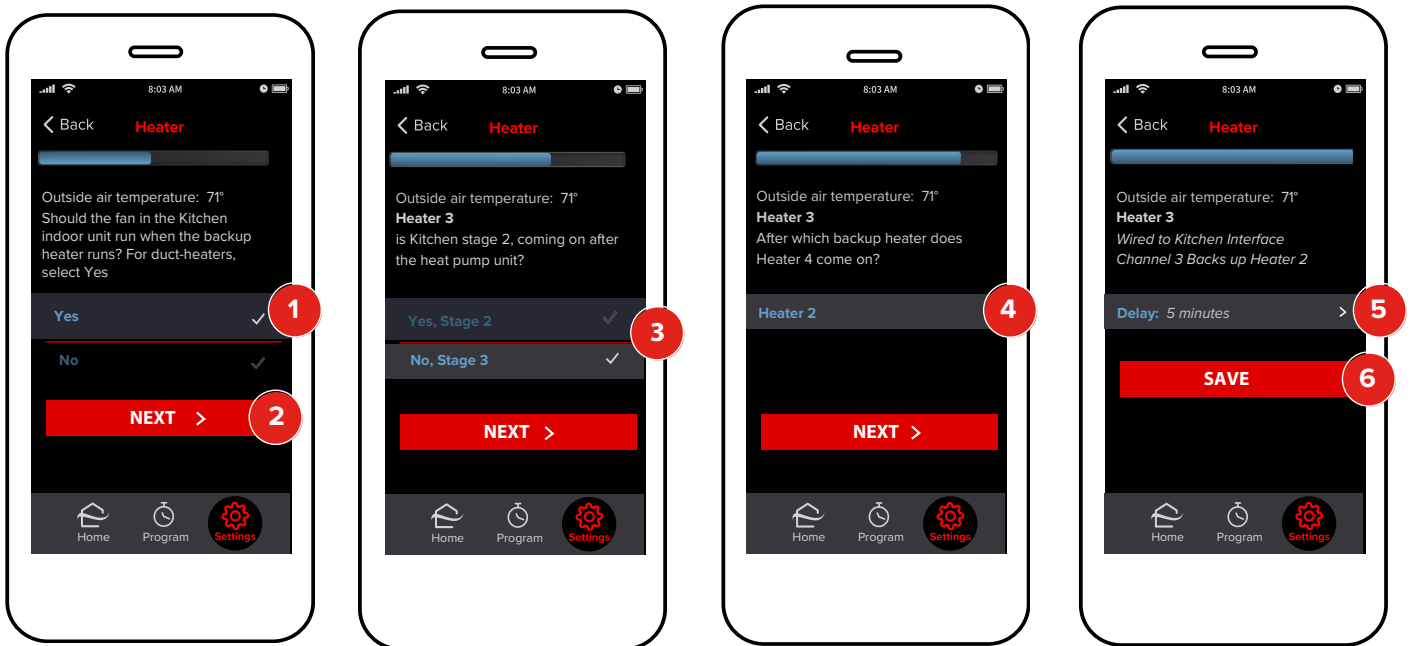
Delay

6. The amount of time to wait for the heat pump to raise the room temperature prior to energizing the heater.

Only heat pump (not shown)

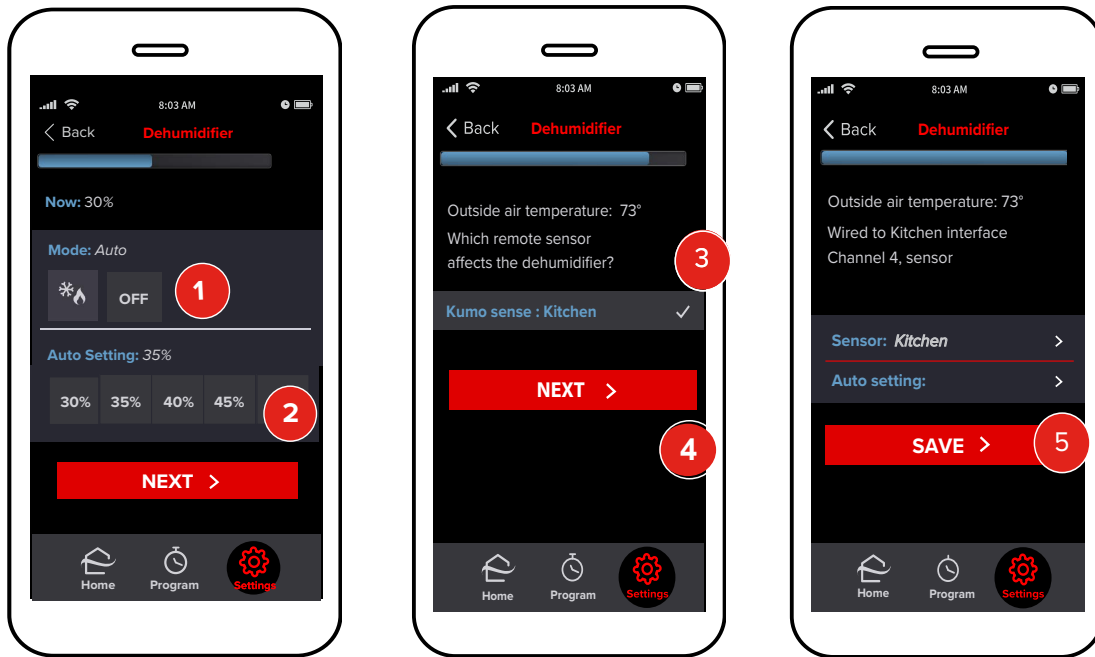
7. The temperature above which only the heat pump runs.

Backup Heater - 3rd Stage




1. First, add Backup Heater – 2nd stage, as per previous instructions. Next, Add kumo station[®] accessory from the **Accessory** screen. Then:
2. Indicate whether the indoor unit fan should be **Interlocked with this heater**. Tap **Next**.
Note: Only the indoor unit physically attached to the kumo station (if any) can be interlocked with the heater.
3. Select **No, Stage 3**. Tap **Next**.
4. Identify the appropriate 2nd stage heater. Tap **Next**.
5. If necessary, adjust the **Delay**, or the amount of time to wait for the **Heat pump** and 2nd stage heater to raise the room temperature prior to energizing the heater.
6. Verify settings and tap **Save**.

Dehumidifier

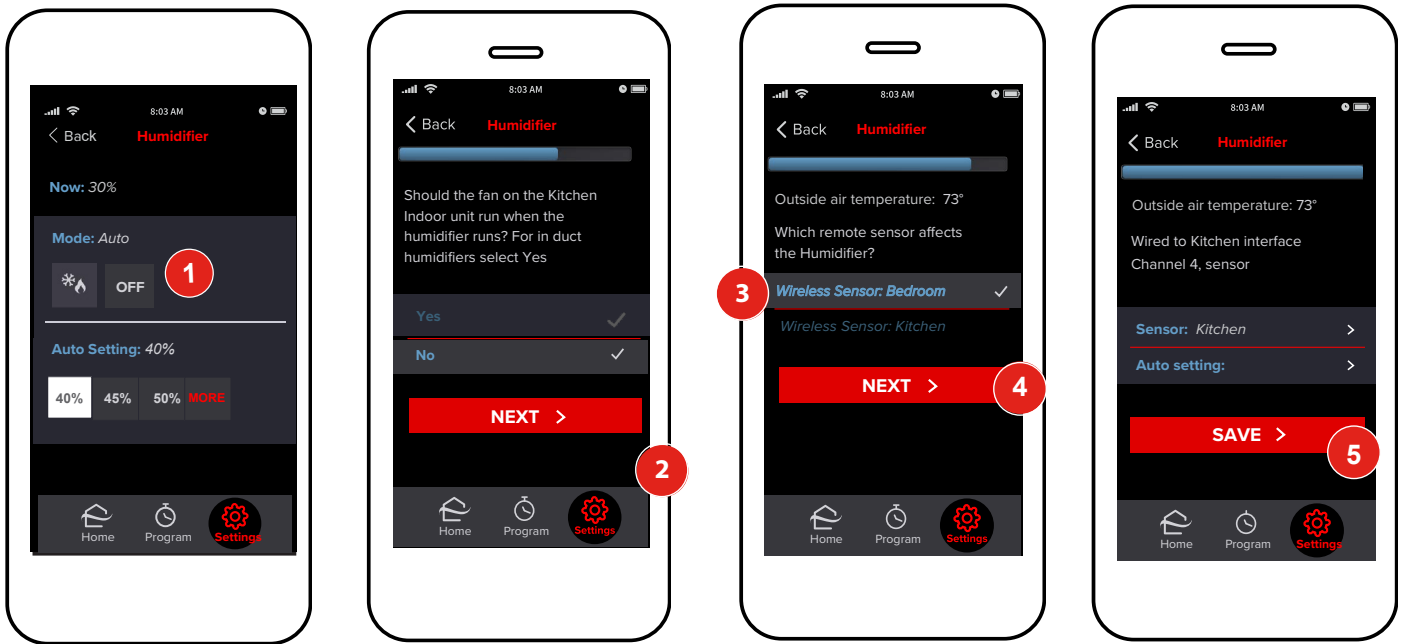


- Note:**
- The system must be configured with a Wireless Temperature and Humidity Sensor and it must be installed in order to use a humidifier or dehumidifier. See the [Add Wireless Sensor](#) section.
 - If an MHK2 controller is present and configured to relay its own room temperature and humidity reading, kumo cloud uses humidity readings from the MHK2 instead of the Wireless Sensor to control a dehumidifier, display humidity readings in the app, etc.

Add kumo station Accessory. Then,

1. Select the **Mode** for the dehumidifier.
OFF - Disable the dehumidifier.
 - Auto : Runs the dehumidifier as needed to meet the target relative humidity percentage.
2. Set the target relative humidity percentage for **Auto mode**. See the [Save Unit Settings](#) section. Tap **Next**.
3. Select the zone that will provide the humidity reading. **Note: This zone must have been previously configured with a Wireless Sensor. Zones with connected MHK2 controllers also appear as options in the list of zones that provide humidity readings e.g.MHK2: Living Room and Wireless Sensor: Bedroom.*
4. Tap **Next**.
5. Verify settings and tap **Save**.

Humidifier



Note:


- The system must be configured and installed with a Wireless Temperature and Humidity Sensor. See the [Add Wireless Sensor](#) section.
- If an MHK2 controller is present and configured to relay its own room temperature and humidity reading, kumo cloud® uses humidity readings from the MHK2 instead of the wireless sensor to control a humidifier, display humidity readings in the app, etc.

Add kumo station Accessory. Then,

1. Select the mode for the humidifier:
OFF - Disable the dehumidifier.



- **Auto**-Runs the humidifier as needed to meet the target relative humidity percentage.

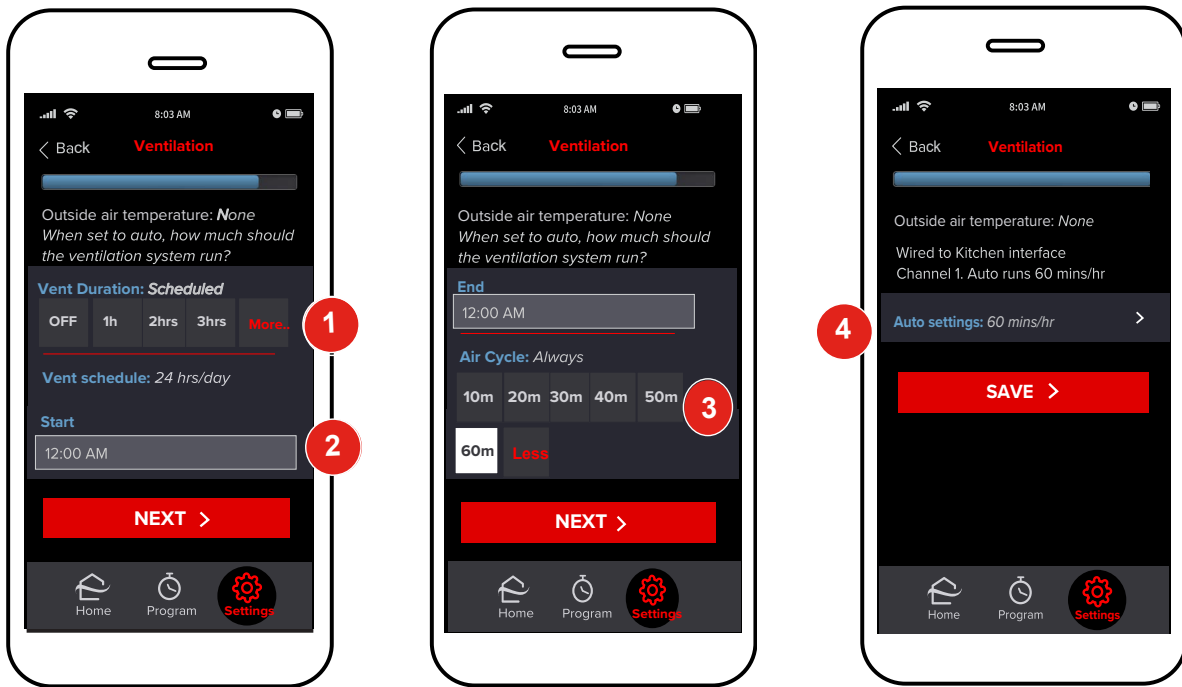
When the **Mode** is set to , set the target relative humidity percentage. See the [Save Unit Settings](#) section.

2. Indicate whether the **Indoor unit fan should be interlocked** with this humidifier.

Note: Only the indoor unit physically attached to the kumo station (if any) can be interlocked with the humidifier.

3. Select the **Zone** that will provide the humidity reading. **Note: This zone must have been **previously configured** with a Wireless Sensor. Zones with connected MHK2 controllers appear as options in the list of zones that provide humidity readings e.g. MHK2: Living Room and Wireless Sensor: Bedroom.*
4. Tap **Next**.
5. Verify settings and tap **Save**.

Ventilation

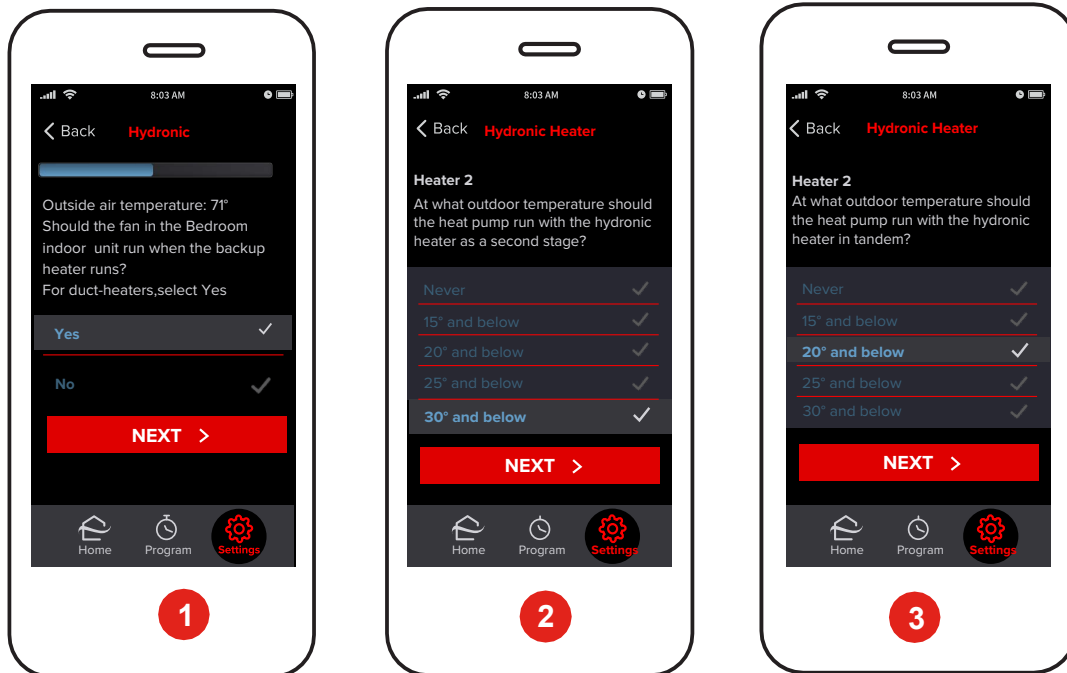


Note: The system must be configured and installed with a Wireless Temperature and Humidity Sensor (see the [Add Wireless Sensor](#) section for more information).

Add kumo station® Accessory. Then,

1. Select the **Vent Duration** to run the ventilation system. Any duration other than **OFF** will require a scheduled start time (below).
2. **Vent Schedule - Start:** The duration you selected above is the number of hours your system will run. Indicate the **start** and **end** times in the appropriate fields. Set these times to be the same if you would like ventilation to run 24/7. (i.e. 12:00 PM Start and 12:00 PM End).
OFF: Disable the ventilation system.
3. Select the **Air Cycle** to identify how many minutes out of each hour the ventilation system should be active. Tap **Next**.
4. Verify settings and tap **Save**.

Hydronic Heater



Warning: Homeowners should not rely upon the hydronic heater as a backup heater as the hydronic heater may not operate when the heat pump is locked out due to low ambient conditions.

Add kumo station® Accessory. See the [Add kumo station Accessory](#) section.

Note:

- The hydronic heater cannot be used with another in-duct accessory.
- In case of multi-position units, for proper functioning of in-duct backup heaters, ensure that the heating offset is disabled. To do this,
 - a. Go to **Settings > System Setup > Installer Settings**.
 - b. Enter 9999 for installer login.
 - c. Select the required site and then the required zone.
 - d. Tap **Advanced**.
 - e. For **Enable Heating Mode Temperature Offset?**, select **No**.

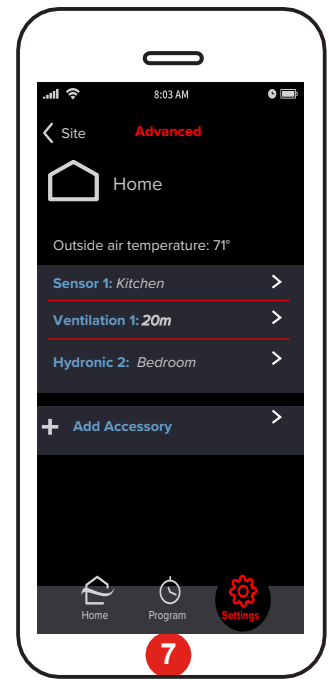
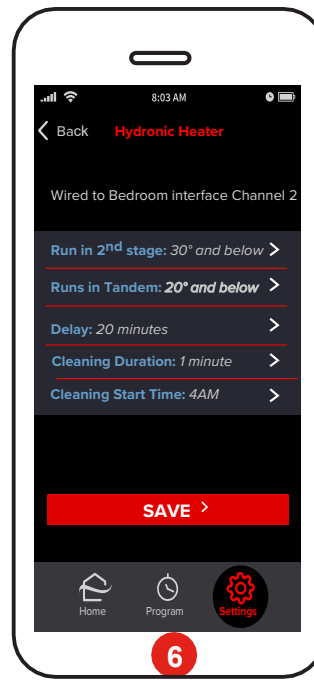
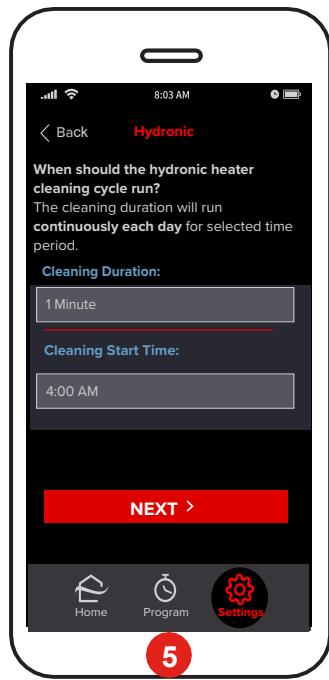
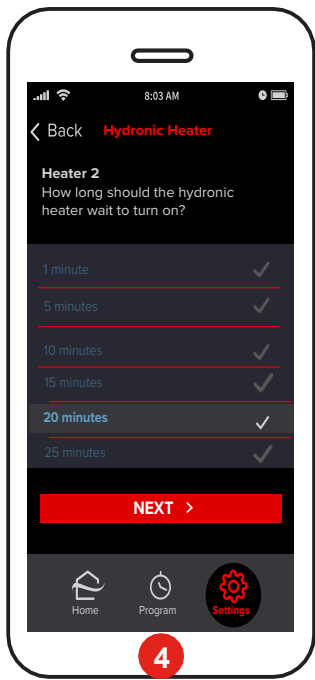
1. Verify that the outside air temperature value is valid. If not, install and/or reposition the temperature sensor. Select **Yes** to confirm that the indoor unit fan should be interlocked with the hydronic heater.

Note: Only the indoor unit physically attached to the kumo station (if any) can be interlocked with the heater.

Tap **NEXT**.

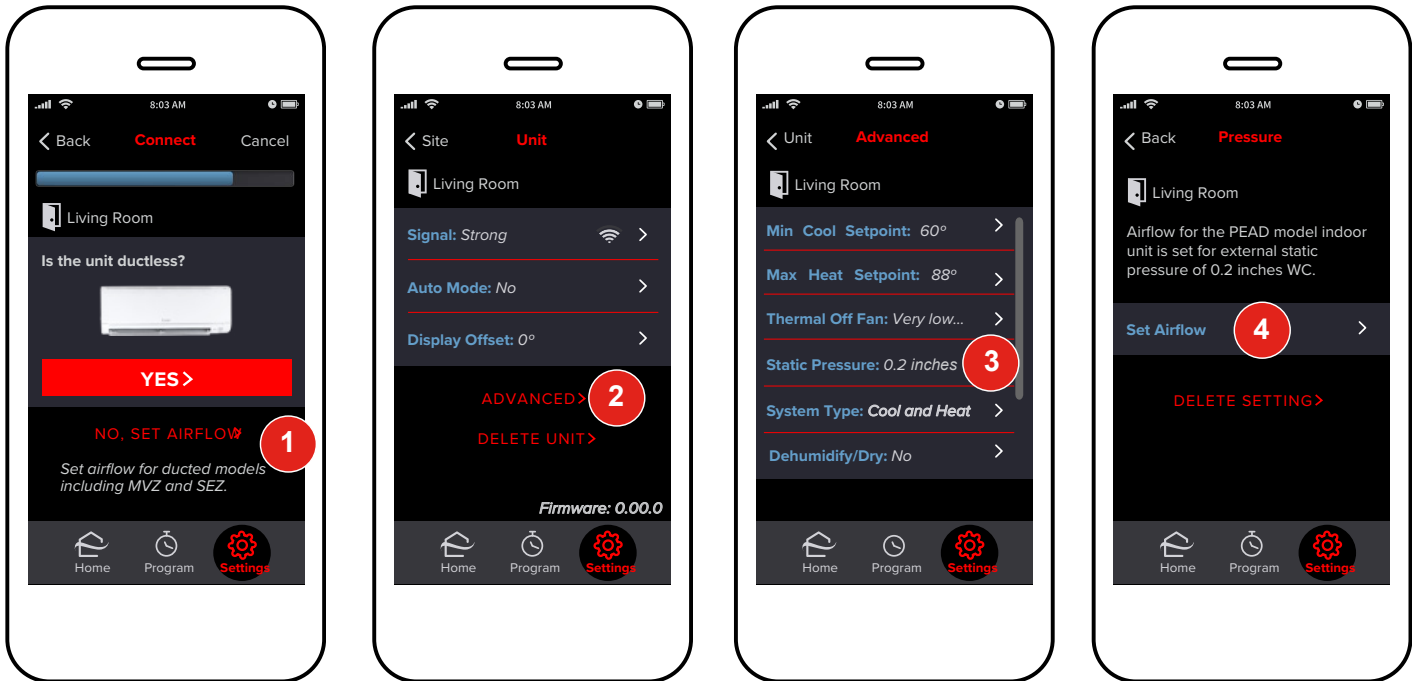
The **Thermal Off** screen, with **Stop in Heat** automatically selected, is displayed.(Not shown).

2. Move through to the next screen and select the outdoor temperature at which the heat pump should run with the hydronic heater as a second stage heater. Tap **Next**.
3. Select the outdoor temperature at which the heat pump should run in tandem with the hydronic heater. Tap **Next**.



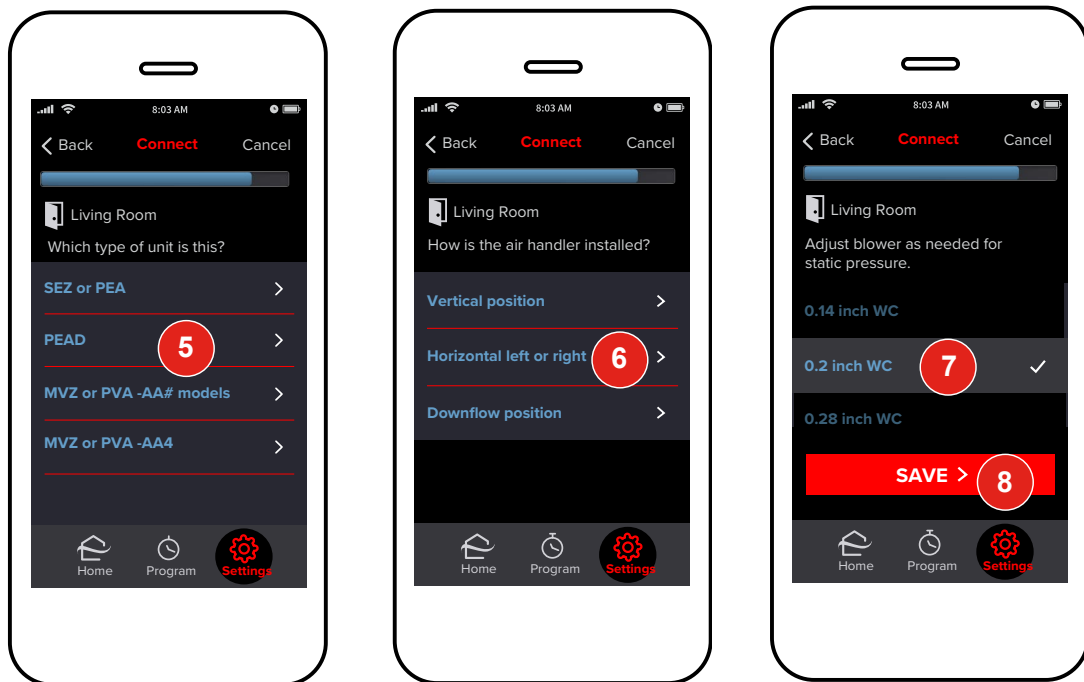
4. Select the time delay after which the hydronic heater should turn on. Tap **Next**.
 5. To specify the duration of the cleaning cycle, tap the **Cleaning Duration** box and select the required duration.
- Note: The cleaning duration may be required to meet local building codes.*
6. Tap **Cleaning Start Time** and then select a start time for the cleaning cycle. The kumo cloud app then displays the hydronic heater settings that are selected. Verify the settings and tap **Save**.
 7. The hydronic heater is connected to the zone.

Airflow for Static Pressure



Airflow can be set when Adding an Indoor Unit or after all the units have been added. Airflow can be set for SEZ, PEA, PEAD, MVZ, SVZ, and PVA units using kumo cloud®. For other ducted models, see the install manual and set the dip switches before adding the units in kumo cloud.

- To Add Indoor Units, see the [Add Indoor Units](#) section. Then, tap **No, Set Airflow**.
Or
- Access the indoor unit settings as shown in the [Access Unit Settings](#) section, then tap **Advanced**.
- Tap **Static Pressure**.
- Tap **Set Airflow**.



- Tap the **Unit Model Type**. For MVZ, SVZ or PVA units, note the model number; newer models handle backup heat differently than model numbers ending in AA4.
- For MVZ, SVZ, or PVA units, select the **Position**.
- Tap the appropriate **Pressure Setting**. For MVZ or PVA - AA# models, follow the prompts to set backup heat options (not shown).
- If setting airflow while Adding an Indoor Unit, tap **Save** to move on to complete the Add Unit. See the [Add Unit](#) section.

First Generation Wireless Interfaces

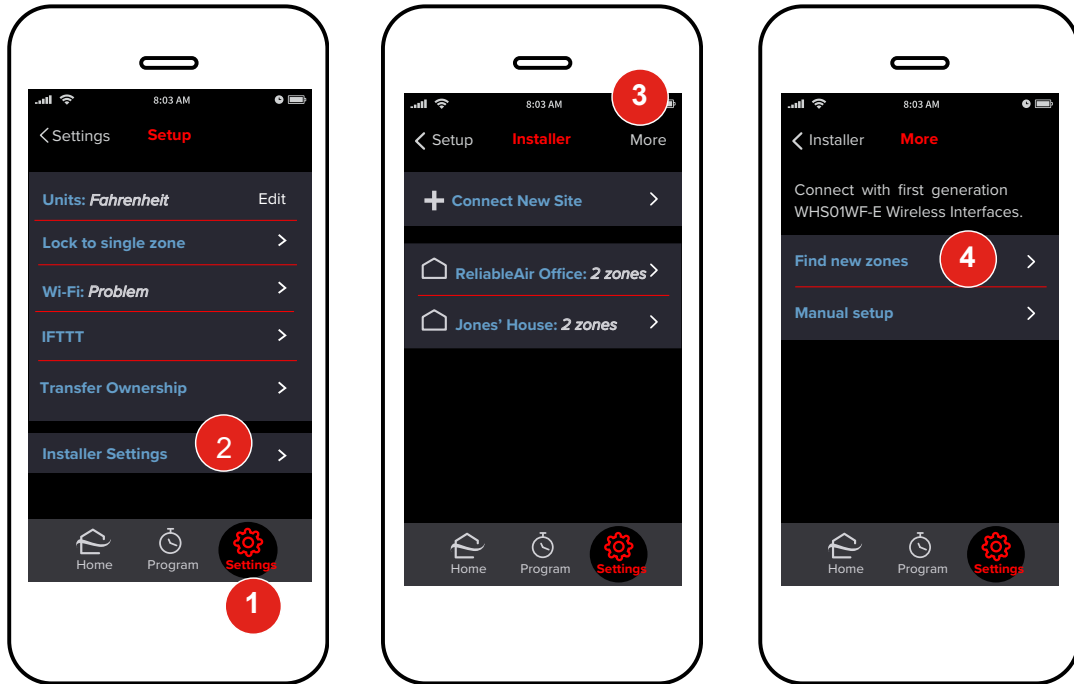
The kumo cloud® 2.9.1 app can be used with first-generation Wireless Interfaces (PAC-WHS01WF-E), sold in 2016 and earlier. Some features are unavailable with this older Interface. Old Interfaces and new Wireless Interfaces (PAC-USWHS002-WF-1 and PAC-USWHS002-WF-2) cannot be used together in the same kumo cloud account.

Install

Only a professional installer should complete installation to prevent electric shock or personal injury. Consider installing and connecting one zone at a time, so each zone can be identified before more are added. See the Installation/Instruction Manual and the Compatibility Charts at: <http://mylinkdrive.com/USA/Controls>

Note: kumo cloud requires access to a wireless network with a live internet connection for set up.

Add Unit

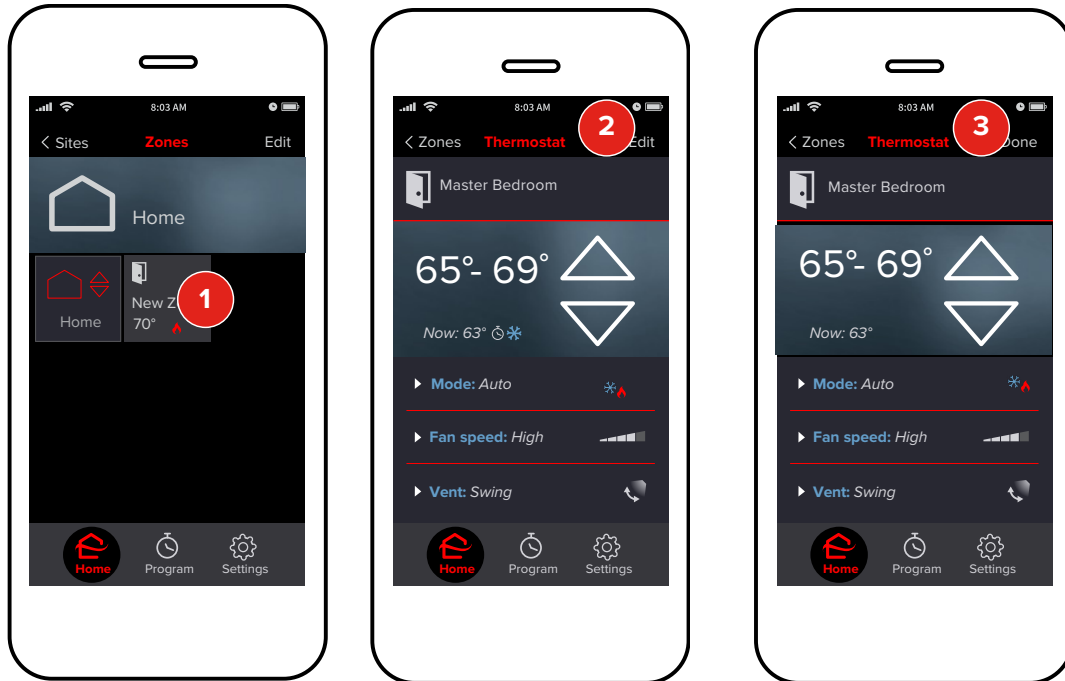


The smartphone/tablet and the adapter should be connected to the same wireless network.

1. Tap **Settings**.
2. Tap **Installer Settings**.
3. Tap **More**.
4. Tap **Find New Zones**.

If no zones are found, see the [Manual Setup](#) section.

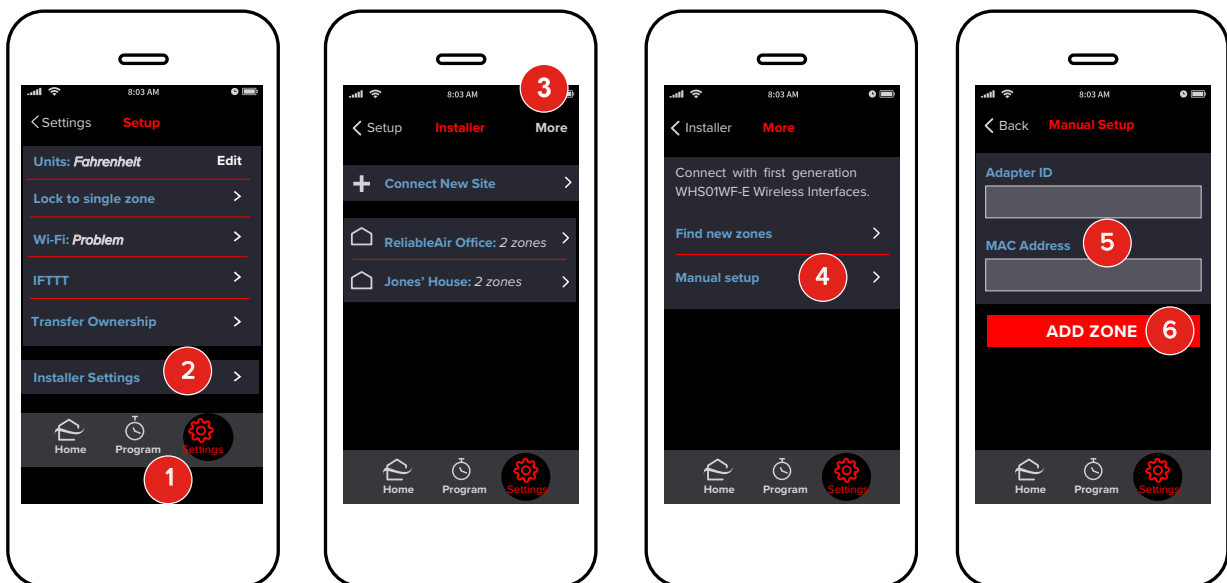
Name a Zone



1. Tap the **New Zone** tile to access the zone.
2. Tap **Edit**. Enter a name for the zone.
3. Tap **Done**.

Repeat the steps to *Add Unit* and *Name a Zone* until all indoor units have a Wireless Interface and each zone has a unique name.

Manual Setup



If no zones appear automatically, check that the Wireless Interface and the smartphone/tablet are connected to the same network. If there are still problems, or if joining the same network is not possible, zones can be added manually.

1. Tap **Settings**.
2. Tap **Installer Settings**.
3. Tap **More**.
4. Tap **Manual Setup**.
5. Enter the **Adapter ID** and **MAC Address** found on the back of the Wireless Interface.

Note: This field is case-sensitive so make sure all lower-case and capital letters are entered accurately.

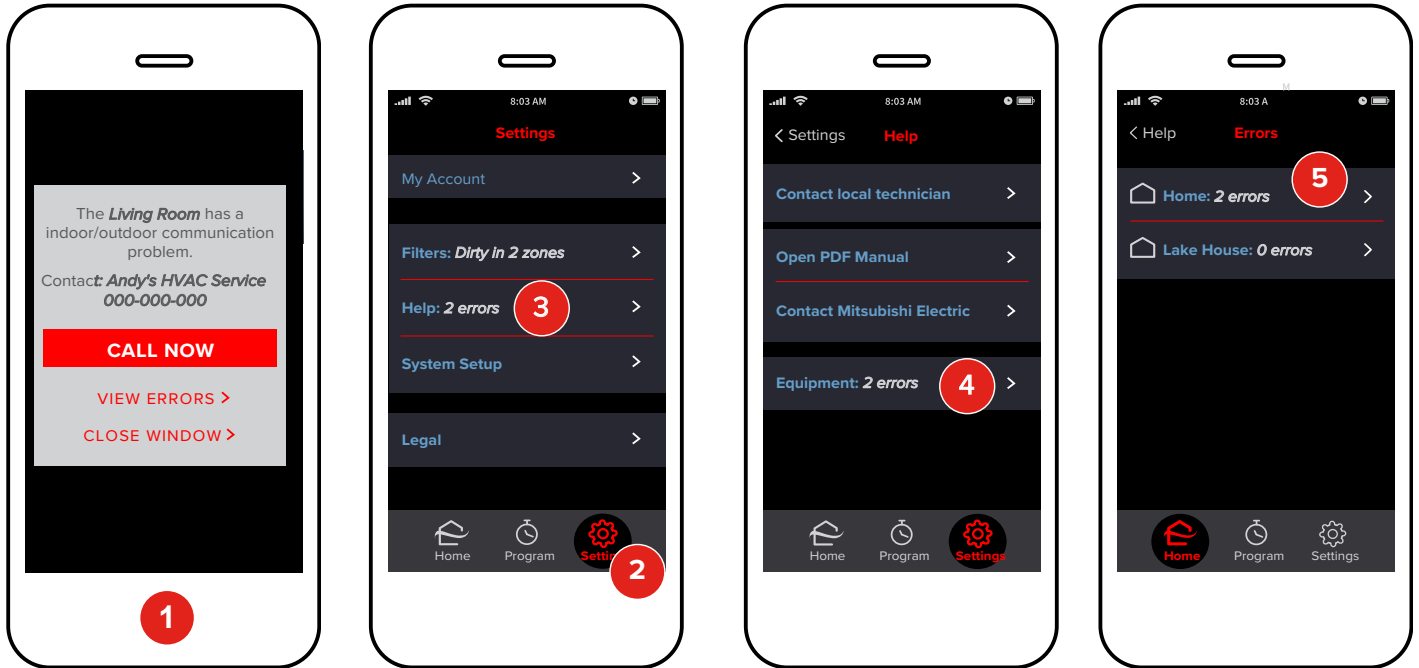
6. Tap **Add Zone**.

Maintenance

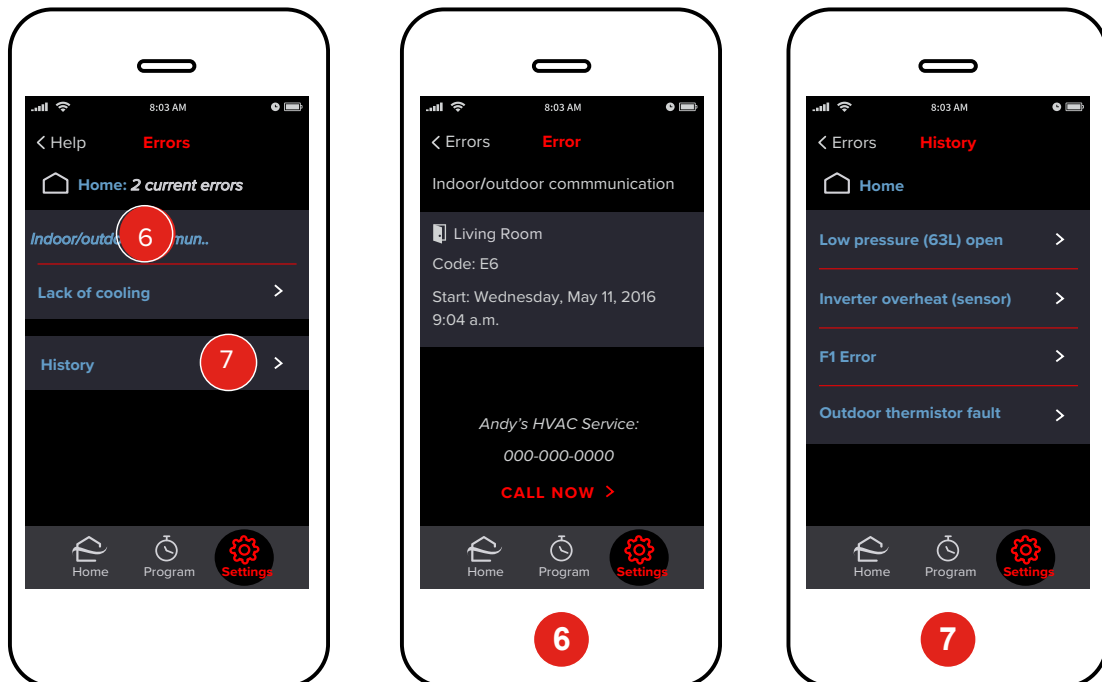
A homeowner can loan the service technician her smartphone/tablet or can use the app to temporarily transfer ownership to the service technician's account via email. Be sure to transfer ownership back to the homeowner once work is complete. See the kumo cloud® Owner Manual at:

<https://qrco.de/kumocloudOwnerManual>

Faults/Error Codes



1. When an error occurs, kumo cloud® displays an alert with the installer's contact information. (See the [Create a New Site](#) section to enter contact info).
2. To view errors, tap **Settings**.
3. Then tap **Help**.
4. Tap **Equipment**.
5. If there is more than one job site in the account, choose **the one with the error**. If not, skip this step.



6. Tap the **Error Description** to view details including the zone name, numeric code and time.
7. Tap **History** to view the most recent 10 errors at the site. If the equipment had errors before kumo cloud was setup, those errors will not display in **History**.

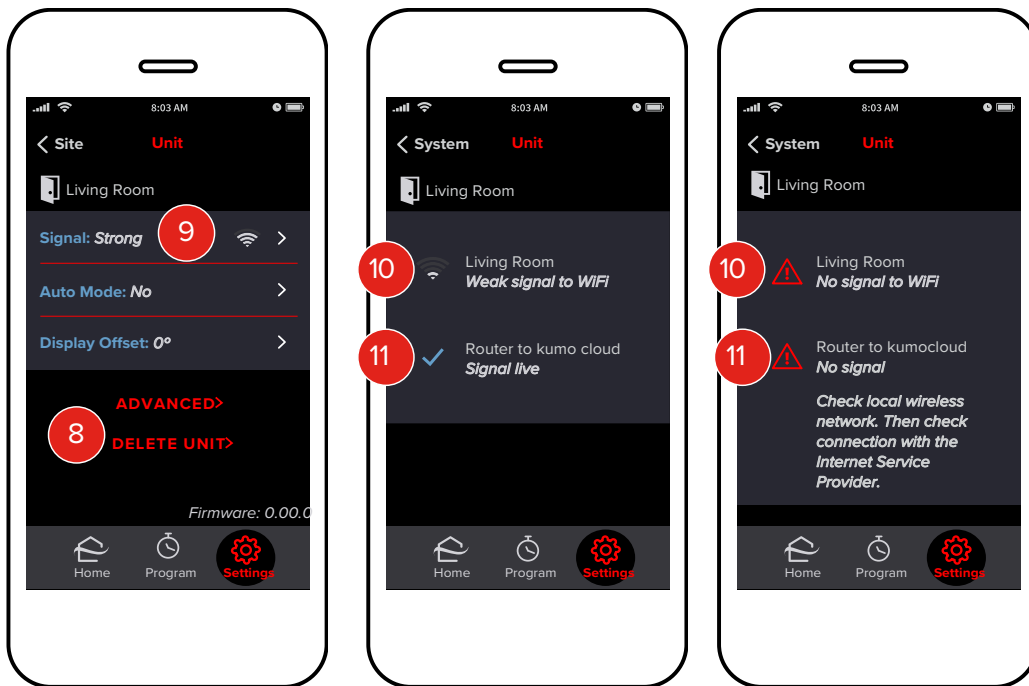
Access Unit Settings



1. Tap **Settings**.
2. Tap **System Setup**.
3. Tap **Installer Settings**.
4. Tap the name of the **Job Site**.
5. Tap the name of the required zone.
6. Tap the name of the **Zone**.

Add Unit

7. To add a unit to an existing site, tap **Add indoor unit**. Then follow instructions in the [Add Indoor Units](#) section.



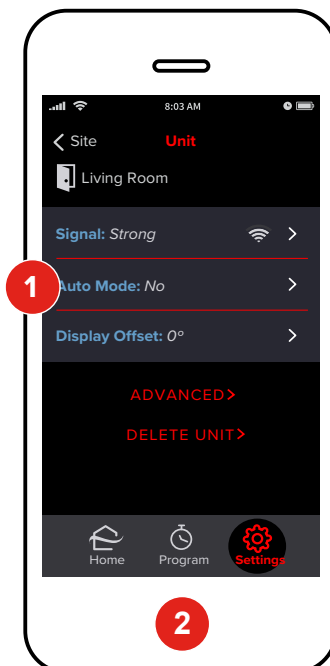
Delete Unit

- To remove a unit, tap **Delete Unit**. The unit with the adapter can now be discovered by any kumo cloud® account. If it's re-added to a different account, the app will require the WPA key from the back of the Wireless Interface.

Check Signal

- Tap **Signal**.
- If there is **No Signal** or a **Very Weak Signal** from the unit to the network, consider relocating the Wireless Interface, relocating the router or adding a repeater to the wireless network.
- If there is **No Signal** from the **Router to kumo cloud**, check the local wireless network for problems including connection with the internet.

Adjust a Setting



Access unit settings following the steps in the [Access Unit Settings](#) section.

- Tap **Auto Mode**, **Display Offset** or **Advanced**.
- Tap the desired setting. The change is applied on the indoor unit in a few seconds.

Firmware

To check the firmware running on the Wireless Interface, follow the steps in the [Access Unit Settings](#) section and note the firmware number. Firmware updates load automatically.

Terms and Definitions

Min Cool Set Point	61°–88° F (Varies by indoor unit)
Max Heat Set Point	61°–88° F (Varies by indoor unit)
Thermal Off Fan	Set the fan operation for Thermal Off, when the set temp has been met: Extra Low in Heat, Stop in Heat, Stop in Cool and Heat, Stop in Cool, or Selectable in Cool and Heat
Humidifier	When do the unit fan and humidifier run?
Electric Heater Kit	How should the Electric Heater Kit operate? Comfort Mode, Economy Mode, or Basic/Single-stage Mode
Heater in Defrost	Should the backup heater run while the indoor unit is in defrost or error?
Static Pressure	See the Airflow for Static Pressure section
System Type	Cool only, or Cool and Heat
Dehumidify/Dry	Enable Dehumidify/Dry mode?
Optimal Start	Enable Optimal Start to start heating or cooling early to reach a programmed setting?
Restart After Outage	Automatically restart unit after a power outage?
Ventilation Air	Intake outdoor air through LOSSNAY?
Power Voltage	230V or 208V
Auto Energy-save	Enable auto energy-savings operation?
Filter Alerts	How often should filter alerts display?
Auto Fan	Auto fan speed setting: Quiet, Standard or High Ceiling
Filter Type	100 hours or 2500 hours
PLA Air Outlets	How many air outlets are being used?
Frost Temperature	Indoor Unit Frost Prevention Temperature: 36 or 37° F
Defrost Control	Standard or High Humidity
PLA Airflow Oscillate	Enable Airflow Oscillate mode so that each vane on a PLA unit moves independently?
Heating Offset	Enable Heating Mode Temperature Offset?
Refresh Settings	If Installer Settings have been changed via another controller, the new settings won't show in kumo cloud until refreshed. Turns the unit off temporarily.
Settings by Number	Add a setting using the number code provided in an app note or another manual.

FAQs

Can I use both the remote control and the app?

Yes! Whichever control was adjusted last takes effect.

Can I control the same indoor unit from multiple smartphones or tablets?

Yes! Use the same email and password to log in from each device.

If service from the internet service provider (ISP) goes out will kumo cloud still work?

Yes! As long as the local wireless network is functioning, you can change the temperature using a smartphone/tablet from inside the house. *Note: Remote operations will not work.* If you adjust the program or rename a zone, those changes won't appear on any other mobile devices until the connection is restored.

If power goes out will kumo cloud come back up?

Yes! As soon as power returns to the equipment and the local network, the app can be used to control the units. Programmed events will be interrupted after a power outage until internet service returns as well.

Does kumo cloud work with the RedLINK™ Internet Gateway or the MHK1 controller?

No. kumo cloud® does not require a gateway. The Wireless Interface plugs into the same CN105 that MHK1 uses.

How many units or zones can be added to a kumo cloud account?

There is no limit to the number of zones.

Does Auto mode use a single or dual setpoint?

kumo cloud Auto mode uses a dual setpoint.

kumo cloud on Google Home

App for Google home?

You can find the kumo cloud app for Google Home by going to the Google Home app and adding a device. Look for kumo cloud. Google will manage your Google Home experience with kumo cloud; however, below are answers to some frequently asked questions that may be helpful.

How do I set the mode and temperature range?

Mode and temperature ranges depend upon the specific unit being controlled, meaning that if you attempt to command a cool-only unit into heat mode, Google will respond "That mode is unavailable."

Similarly, if you attempt to command a setpoint outside the capabilities of a unit, you will be met with "The thermostat cannot be set to that temperature."

Mode:

- Off (turns the unit off)
- On (returns the unit to its previous mode, prior to the Off command)
- Heat
- Cool
- Heat-Cool (also referred to as Auto)

What is the standard setpoint range of cool and heat?

In Cool/Heat, most units have a standard range of 61°-88° F (roughly 16°-31° C) and that full range is accessible. Google will query the adapter for supported temperature ranges and user-configured minimums and maximums, and will abide by those.

What is the standard setpoint range of the Auto mode?

In Auto, the setpoint range is slightly more constricted because Google will assign 2 setpoints on either side of your requested target value. So, if you request the maximum setpoint available, Google will try to use a range of a few degrees above and below your target, and since the one above the maximum is out of bounds for the unit, the command will fail. Under most circumstances, auto is constricted to 4° F (roughly 2° C) below the maximum and above the minimum, to ensure the returned range fits within the capabilities of the unit.

Will I be able to create names for rooms?

Inside the Google Home app, a user can create rooms with preset or entirely custom names (numbers, punctuation, and even emojis are supported), and can then assign devices as members of these rooms. They

can also nickname their devices with the same freedom of input.

- Emojis will be read by their designated text name.
- Numbers will be read as expected.
- Punctuation will be ignored entirely.

By default, the device nicknames are established as whatever the units are labeled inside the kumo cloud app (which supports numbers and punctuation, but no emojis). Name refers to either the nickname of the device, or the room that it belongs to. For example, if you have a unit named “Floor Unit 1” and it belongs to the room “Kitchen” you can either command the “Kitchen” or the “Floor Unit 1” to change mode, and it will have the same effect either way. In the event that a command is directed at a room name for a room that contains multiple devices, the command will be sent to all devices in that room.


kumo cloud skill with Amazon Alexa

How do I enable the Mitsubishi Electric US kumo cloud skill on my computer, smartphone, or tablet?

Before you enable the Mitsubishi Electric US kumo cloud skill:

- Your Alexa device should be powered on, connected to Wi-Fi®, and provisioned in the Alexa portal (alexa.amazon.com).
- The kumo cloud app should already have Zones setup.

To enable the Mitsubishi Electric US kumo cloud skill:

1. On your computer, in any browser, go to the Alexa portal at alexa.amazon.com and sign in to your account. On your smartphone or tablet, you can sign in to the Amazon Alex app.
2. In the left pane of the Alexa portal, click **Skills**. On your smartphone or tablet, tap  to view the **Skills** icon.
3. In the **Search all skills** box, type Mitsubishi Electric US kumo cloud and select the kumo cloud skill from the drop-down list.
4. From the list of results displayed, click or tap **Mitsubishi Electric US kumo cloud**. The **Enable** button and the **Account linking required** message are displayed on the Mitsubishi Electric US kumo cloud skill page.
5. Click or tap the **Enable** button. The kumo cloud sign in page is displayed.
6. Under **Sign in with your kumo cloud app**, enter the **Email ID** and **Password** that you use to sign in to your kumo cloud app.
7. Click or tap **Submit**.
A message indicating that the linking was successful is displayed.


*Tip: You can also reset your kumo cloud password using the **Forgot Password** link. If you do reset your password, remember to sign in to your kumo cloud app account using the new password.*

8. Close the displayed page. The **Discover Devices** pop-up window is displayed. If the pop-up window does not display, go to **Smart Home > Devices**.
9. Click or tap the **Discover Devices** button. A pop-up window with a progress bar and the message “Alexa is looking for devices” is displayed. The process may take up to 20 seconds. Once the process is complete, the **Devices** page and the Zones from your kumo cloud app account—with the same names as in the kumo cloud app, for example, Kitchen, Den, Downstairs, Upstairs, etc.—are displayed.
10. You can now control your Mitsubishi Electric equipment using voice commands via Alexa. To confirm that the setup was successful, give the Alexa device a voice command, for example, “Alexa, set the kitchen to 70 degrees.” Alexa should respond that the kitchen unit was set to 70 degrees.

For more information about using the kumo cloud skill with Amazon Alexa, in your Alexa account go to **Skills > Your Skills > Mitsubishi Electric US kumo cloud**.

How do I change temperature units using Amazon Alexa?

In the US, Fahrenheit is the default temperature unit. To change Fahrenheit to Celsius:

1. On your computer, using any browser, go to the Alexa portal at alexa.amazon.com and sign in to your account. On your smartphone or tablet, sign in to the Amazon Alexa app.
2. In the left pane of the Alexa portal, click **Settings**. On your smartphone or tablet, tap  to view the **Settings** option.
3. On the **Devices** page or screen, click or tap your Alexa device.
4. Go to **Measurement Units**.
5. The **Temperature Units** switch is turned **Off** by default. Turn the switch **On**.
6. Ask Alexa, "Alexa, what's the kitchen set to?" Alexa should respond with the kitchen temperature in Celsius.


What Modes does the Mitsubishi Electric US kumo cloud skill support ?

The Mitsubishi Electric US kumo cloud Skill supports the following modes:

- Heat
- Cool
- Auto (or Heat-Cool)
- Off

How do I control my HVAC units using the Mitsubishi Electric US kumo cloud skill after I have relabeled the Zone name(s) in my kumo cloud mobile app?

If you relabeled the Zone name(s) in your kumo cloud mobile app, you have to rediscover your devices via your Alexa account or app as follows:

1. On your computer, using any browser, go to the Alexa portal at alexa.amazon.com and sign in to your account. On your smartphone or tablet, sign in to the Amazon Alexa app.
2. In the left pane of the Alexa portal, go to **Smart Home > Devices**. On your smartphone or tablet, tap  to go to Smart Home Devices.
3. Click or tap the **Discover** button.
A pop-up window with a progress bar and the message "Alexa is looking for devices" is displayed. The process may take up to 20 seconds. Once the process is complete, the **Devices** page or screen and the relabeled Zones from your kumo cloud app account—with the same names as in the kumo cloud app, for example, Kitchen, Den, Downstairs, Upstairs, etc.—are displayed.
4. You can now control your Mitsubishi Electric equipment using voice commands via Alexa. To confirm that the setup was successful, give the Alexa device a voice command, for example, "Alexa, set the kitchen to 70 degrees." Alexa should respond that the kitchen unit was set to 70 degrees.

What Alexa Devices are currently supported?

The following devices are currently supported:

- Echo
- Echo Dot
- Echo Show
- Alexa App on your smartphone or tablet

This product is designed and intended for use in the residential,
environment.

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Please be sure to put the contact address/telephone number on
this manual before handing it to the customer.

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