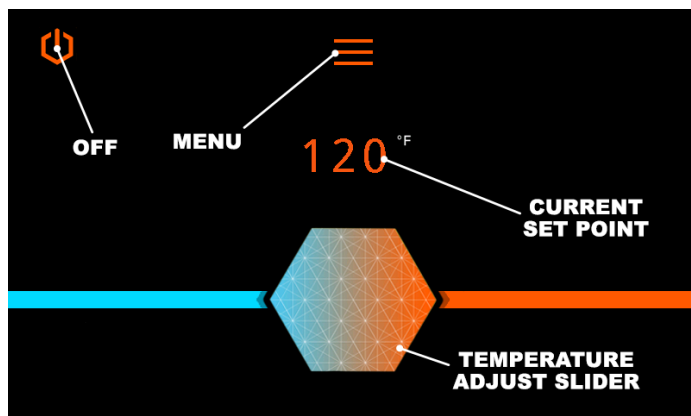
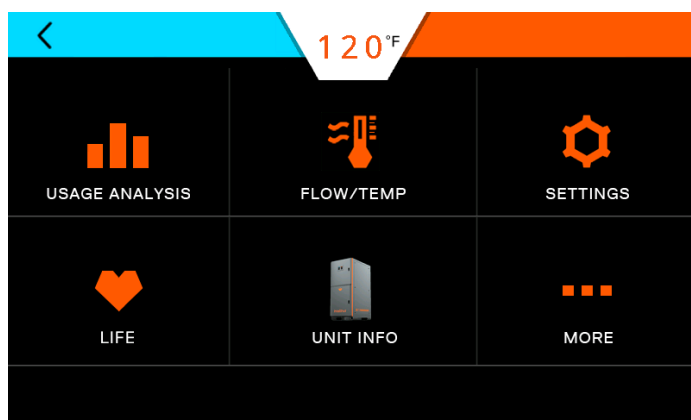


## 12. Operation

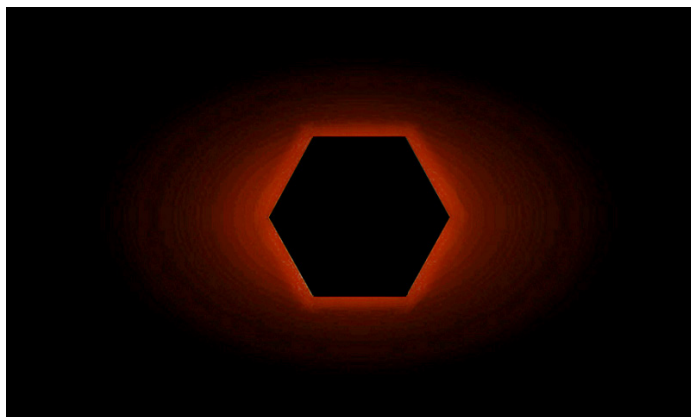
### 12.1 Control Panel



Main Menu Screen



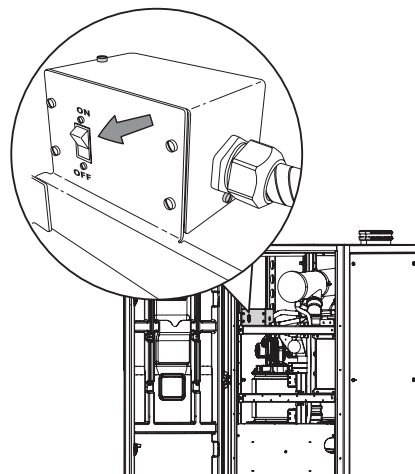
Selecting the Menu button brings up this screen.



A sleep mode screen will appear after a period of inactivity.

### 12.2 Turning Water Heater ON and OFF

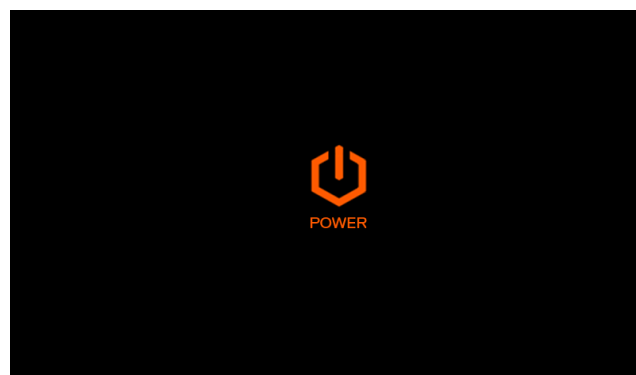
1. When power is applied to the water heater or the electrical switch is turned ON, the Main Menu screen will automatically appear.



2. To turn the water heater OFF, press and hold the Power button in the upper left of the screen.



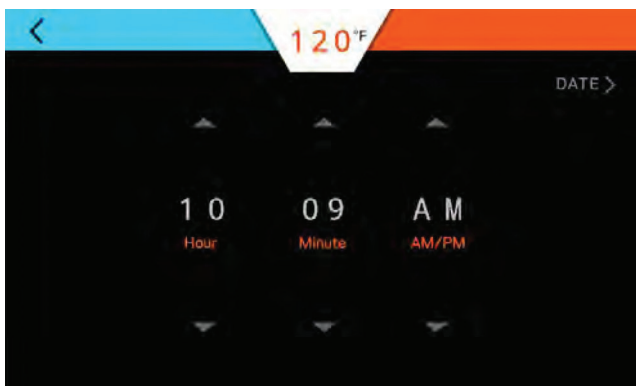
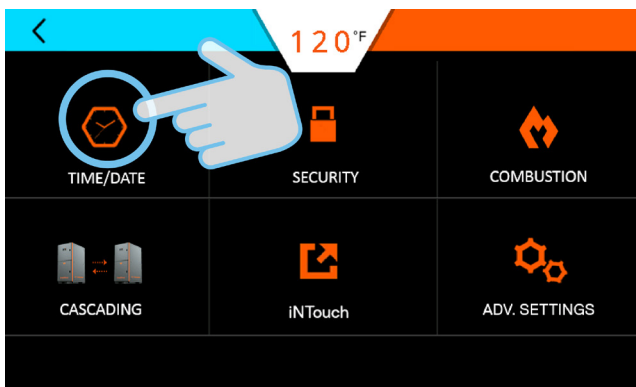
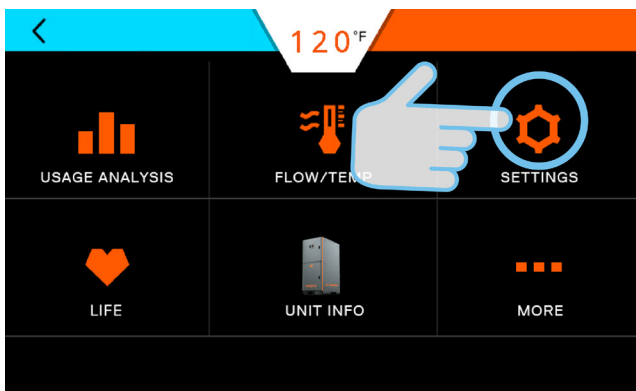
3. Press the Power button to turn the unit ON.



### **! WARNING**

Turning the unit OFF does not disconnect it from the power source. Whenever working around electrical components within the water heater, turn off the power at its source. Touching live electrical components can cause serious injury or death.

## 12.3 Setting the Time



Press the Up/Down arrows to make adjustments. A progress bar will be displayed until the change completed on all the control boards.

Press the Back button to return to the main screen.

## 12.4 Adjusting the Water Temperature

**Note:** The outlet water temperature is factory preset to 120°F, however these commercial water heaters are capable of heating water to 190°F.

### **⚠ DANGER**

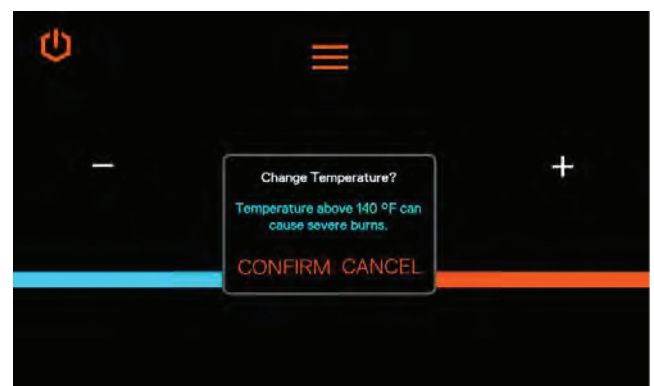
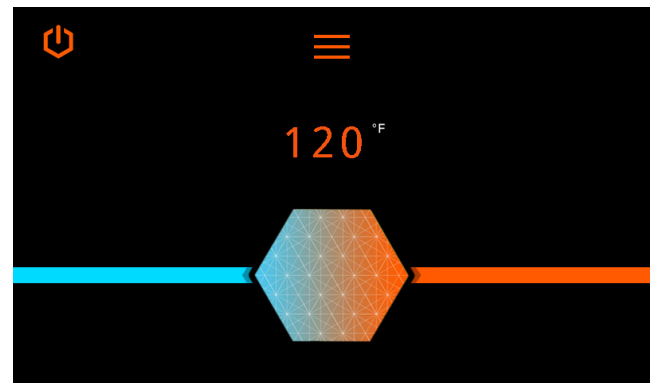


**Hot water temperature over 125°F (52°C) can cause severe burns instantly or death from scalding. Children, the disabled, and the elderly are at the highest risk of being scalded. Do not leave children or the infirm unsupervised. Check temperature of hot water before taking a shower or bath.**

**To control water temperature to a particular faucet, temperature limiting valves can be installed by your service professional.**

**All water faucets must be closed before changing the temperature setting. The unit must not be operating.**

1. Press the +/- sign to increase/decrease the temperature by 1 °F. Press and hold the +/- sign to increase/decrease the temperature by 5 °F.



2. Follow the on screen prompts to complete the temperature change.

12.5 Security

12.5.1 Setting Passcode Protection

It is not necessary to set a passcode for the water heater to function properly. This feature is available to help prevent unauthorized access to the unit.

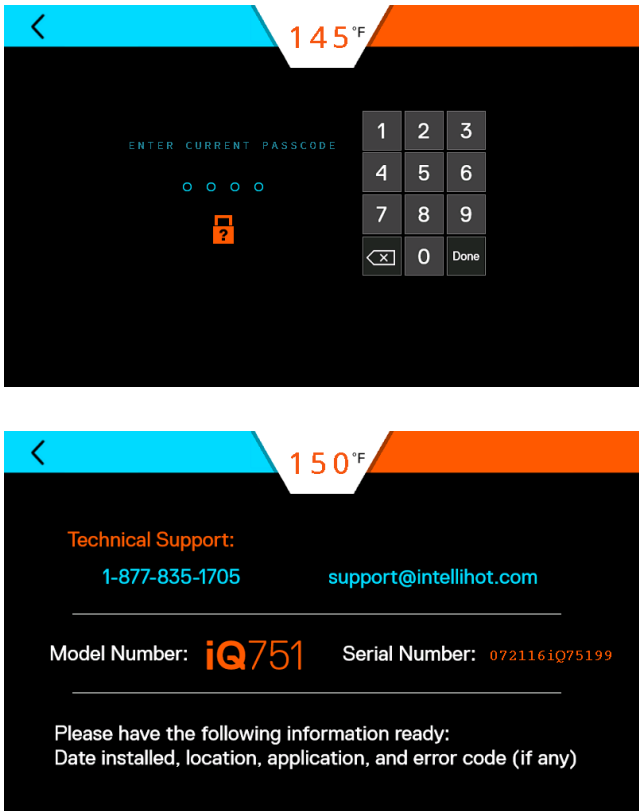


Press ON/OFF and follow the prompts.



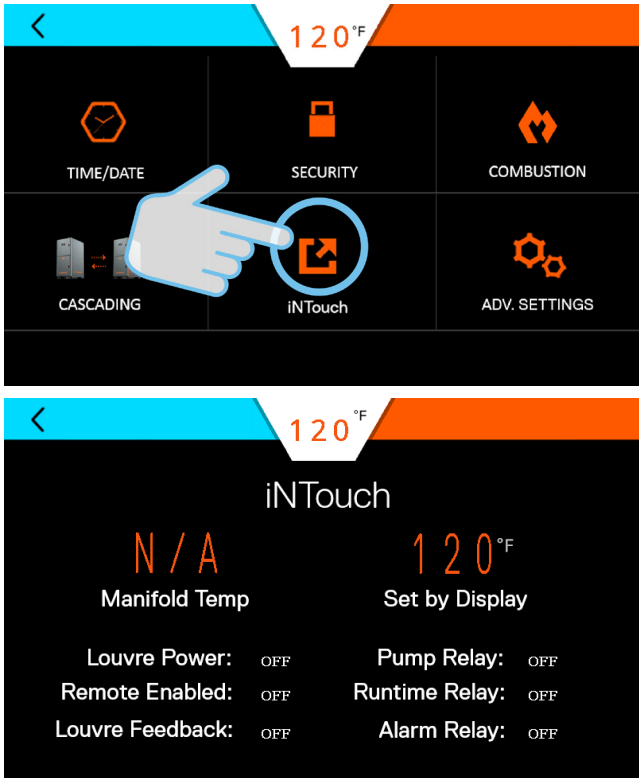
12.5.2 Forgot Passcode

If the unit passcode is lost or forgotten, press the “?” icon and call technical support.



12.6 iNTouch (aka BMS)

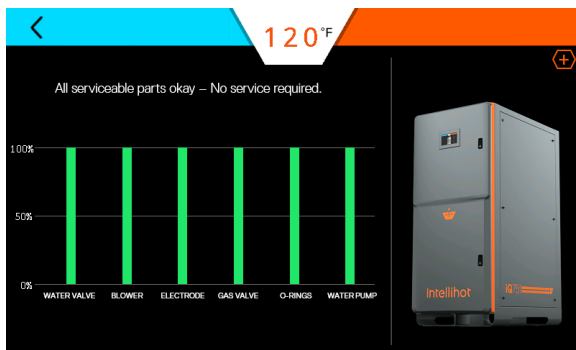
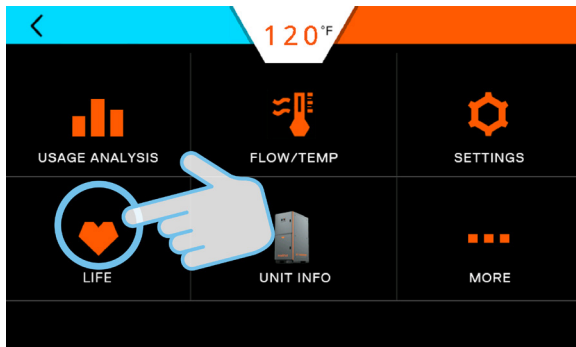
If equipped, the iNTouch icon will be active.



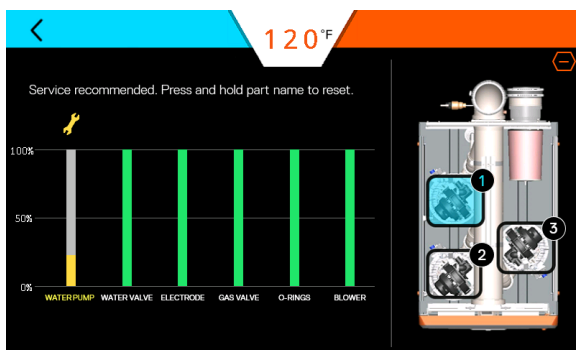
## 12.7 Life Screen

These screens provide a visual indication of the remaining life of various components.

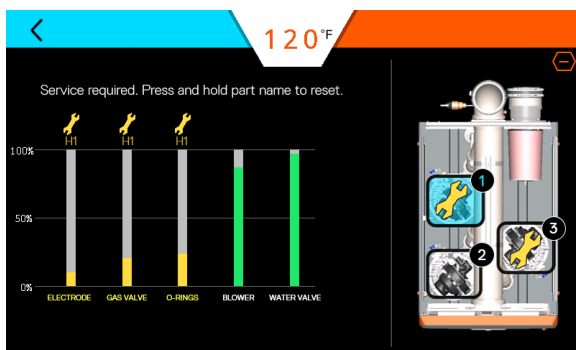
**Note:** Parts can be ordered by contacting technical support.



Press the (+) button to show the details of the various heat engines.



**Service recommended:** Order appropriate replacement part as soon as possible. To reset life, press and hold the appropriate bar and follow the prompts.

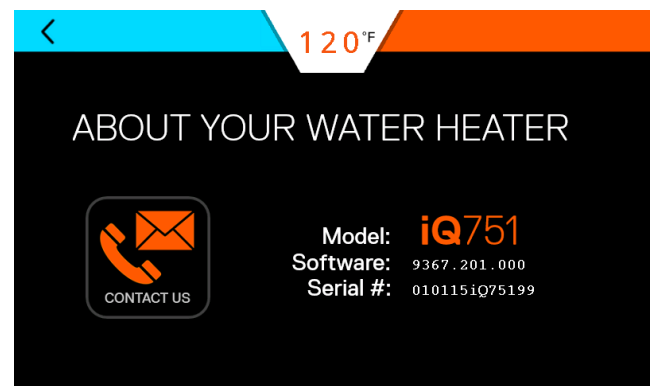
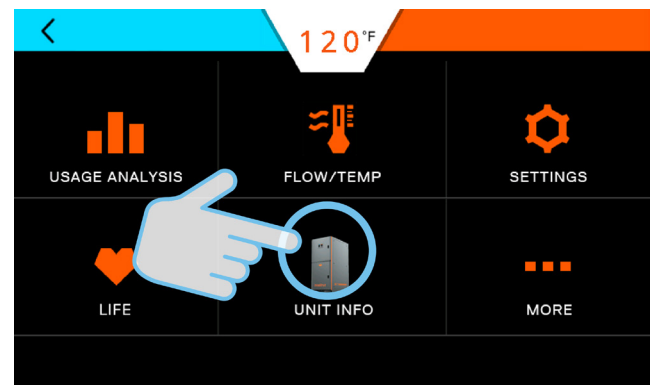


**Service Required:** Take IMMEDIATE action when this screen appears because the part life is critical. To reset life, press and hold the appropriate bar and follow the prompts.

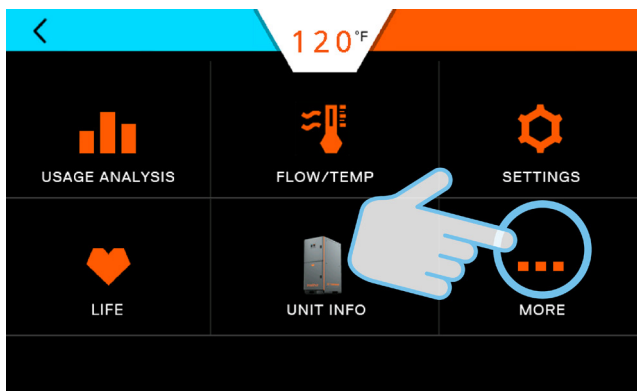
Service Alert	Reset Code
Electrode	0836
Blower	2009
Time Valve (Water Valve)	0721
Gas Valve	0682
O-Ring (at the HEX inlet & HEX outlet)	0310
Internal Pump	6452

## 12.8 Unit Information

This screen provides the model, software version, serial number, and a link to the contact us screen for the water heater.

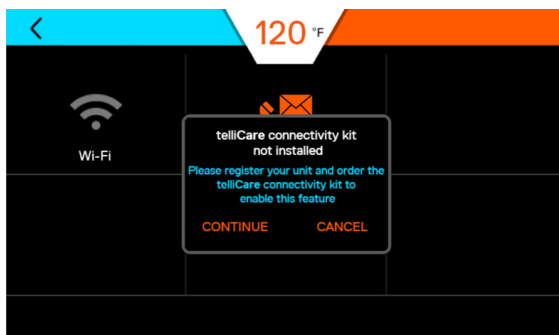
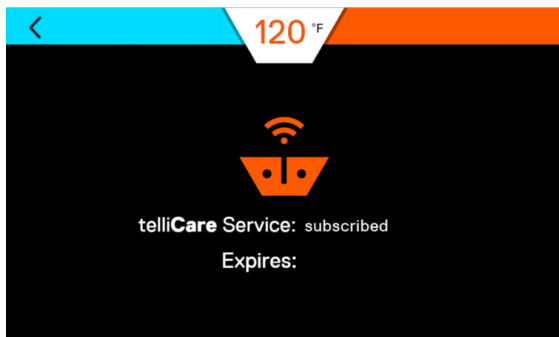
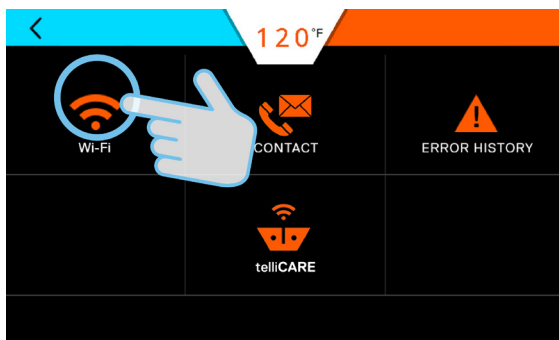


## 12.9 More Screens



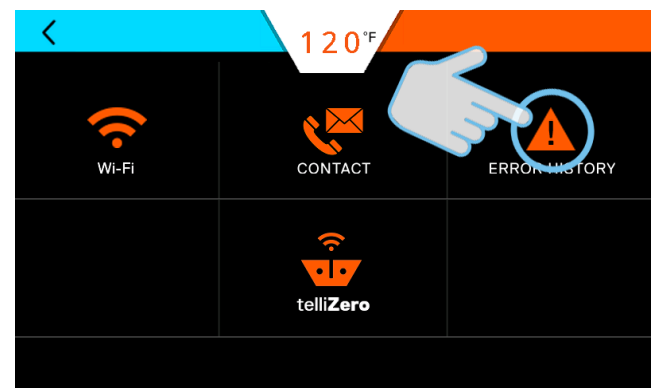
### 12.9.1 Wi-Fi

Intellihot Gen II water heaters are Wi-Fi capable. Please follow section 12.9.3 to order the Wi-Fi kit.

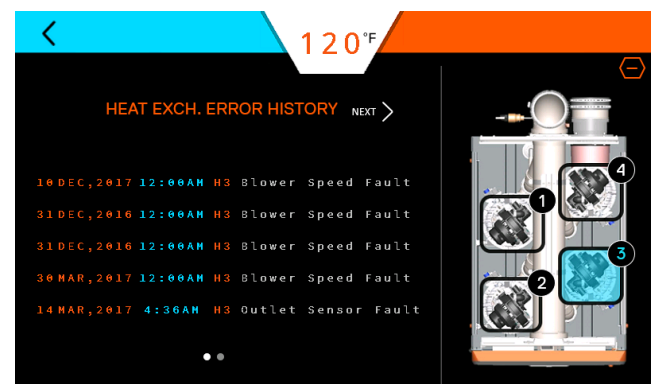


Status of Wi-Fi connection screens.

### 12.9.2 Error History



There are two error history screens. One screen provides an overview of the entire unit. Pressing the (+) icon provides more detailed error information.



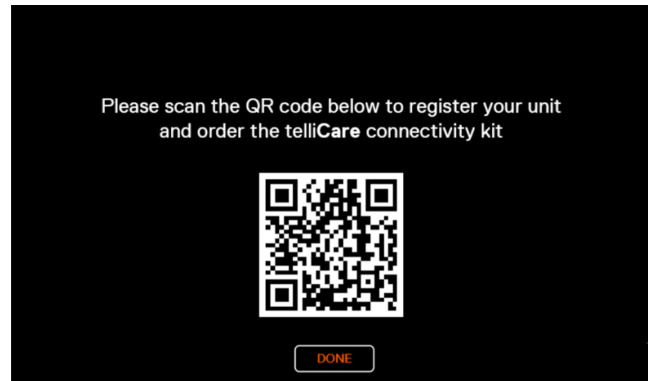
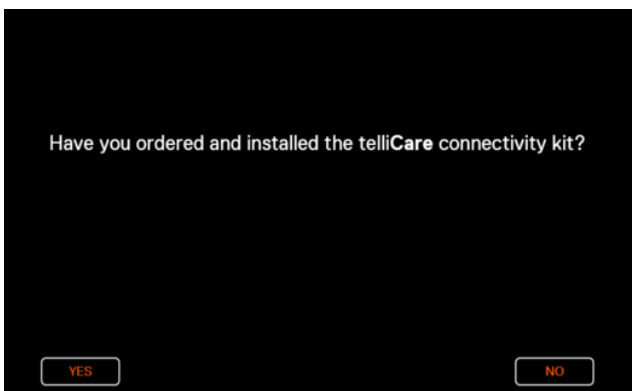
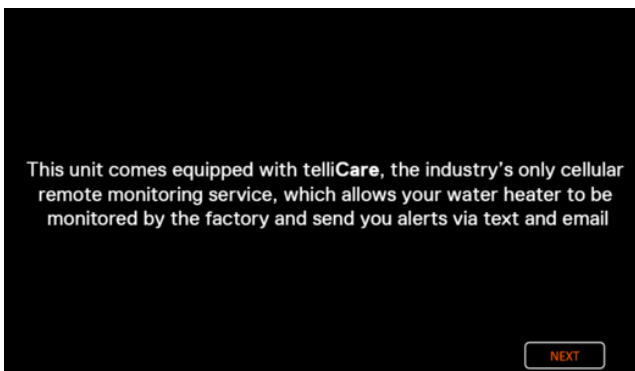
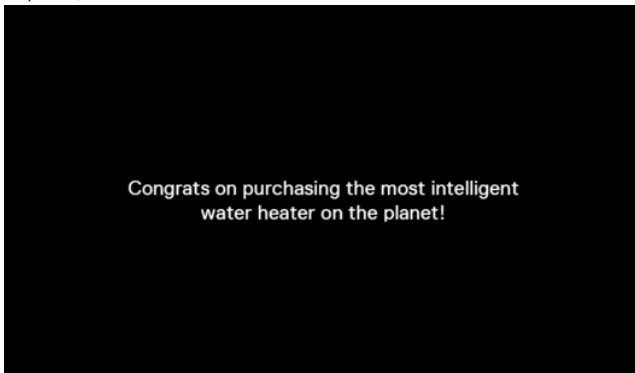
### 12.9.3 telliCare Service(Subscribe at Startup)

telliCare is a Wi-Fi enabled, prognostics and predictive maintenance service for Gen II water heaters. This service allows water heaters to be monitored and controlled remotely via an app on a mobile device.

On Startup:



Tap anywhere on the screen to conti



**Note:** Each individual unit must be registered and each unit can only be registered once.

## 13. Connecting Multiple Units

### 13.1 General Information

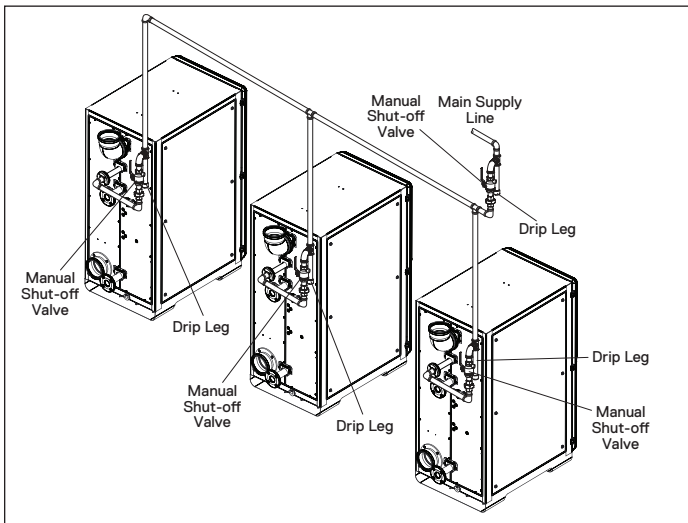
Multiple units can be connected together to supply large demands of hot water.

The water heaters communicate through a cable connection between each water heater. The benefits of connecting the units are:

- When demand for hot water is low, fewer units will operate.
- If one unit has an error code, the others will continue to operate.
- Changing the settings (temperature, time, etc.) on one unit changes settings on all the units.
- It allows shut down of one unit for maintenance while the others continue to operate.

### 13.2 Installation Procedure

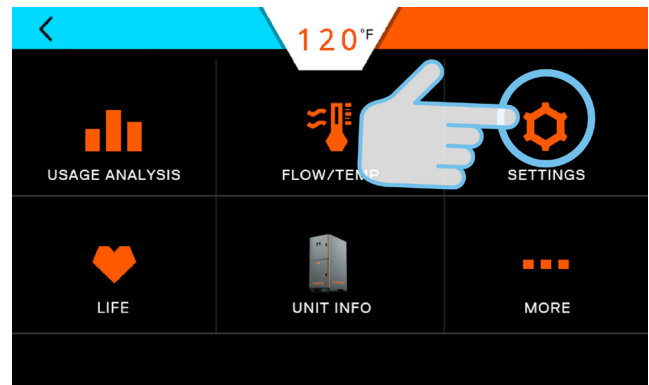
1. Connect all the units to a gas supply pipe. Make sure the pipe is properly sized in accordance with the BTU draw and number of units being operated. Refer to “6. Gas Connection” on page 18 for additional information.
2. Connect all the units to the power supply. Refer to “9. Electrical Power” on page 37 for additional information.



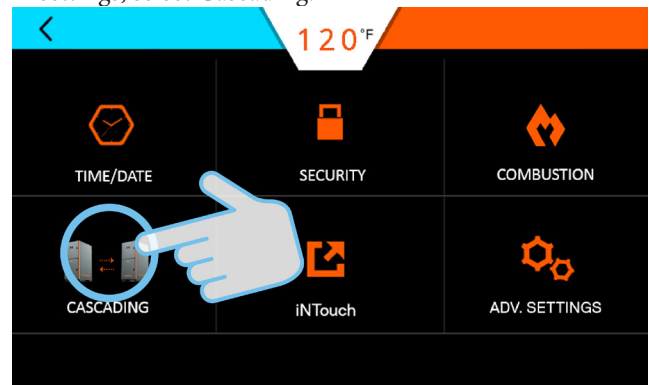
3. Install the combustion (fresh) air intake and exhaust outlet pipes. Refer to “7. Air Intake Inlet and Exhaust Gas Outlet Pipe Connections” on page 23 for additional information.
4. Install and connect the hot water lines. If an optional hot water storage tank is required, connect the hot water lines to this tank. Make sure the water pipe is properly sized in accordance with the number of units being operated.
5. Install and connect the cold water lines. Make sure the water line is properly sized in accordance with the number of units being operated.
6. Connect and route the condensate drain lines to a suitable discharge location. Refer to “8. Water Connections” on page 33 for additional information.
7. **Do Not connect communication cables at this time.**

8. Power up all the units and assign a unique number, one through four to each unit.

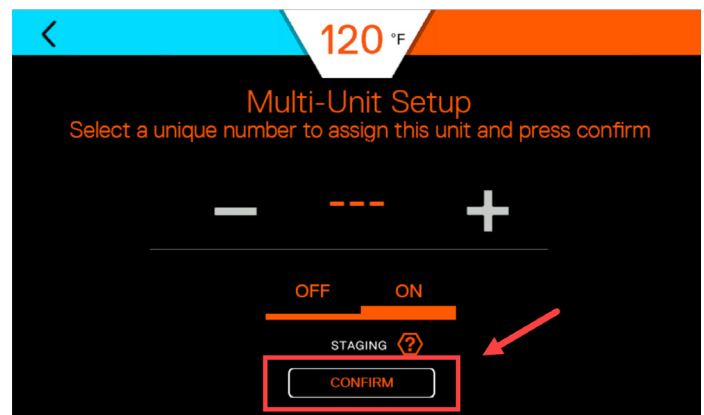
In the main menu, select settings



In settings, select Cascading.



In the Multi-unit Setup, select confirm at the bottom to change the cascading ID.



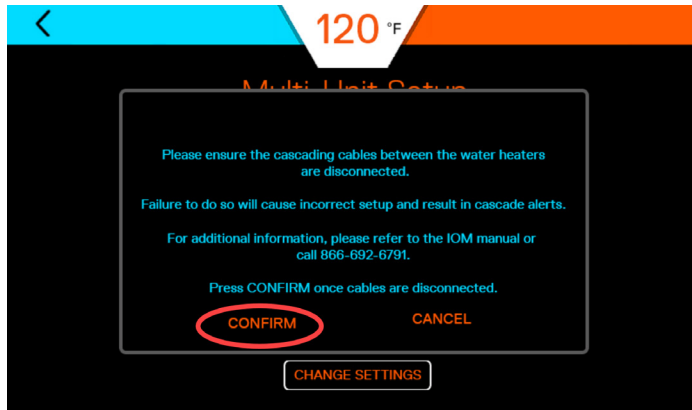
**Note:** Different size water heaters (iQ751, iQ1001, or iQ1501) can be connected. When assigning unit numbers, start with the smallest unit and progress to the largest.

### **⚠ WARNING**

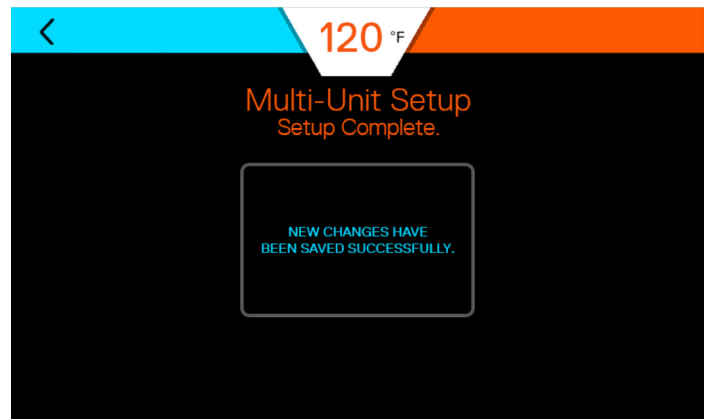
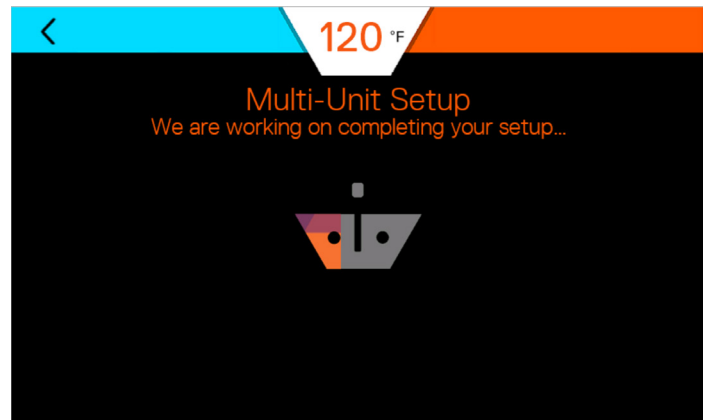
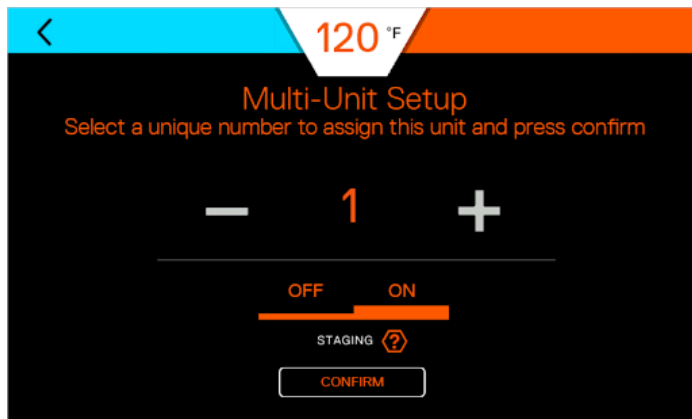
**Before making any adjustments or connections inside the water heater cabinet, make sure the power is disconnected. Unplug the water and/or turn the circuit breaker OFF.**



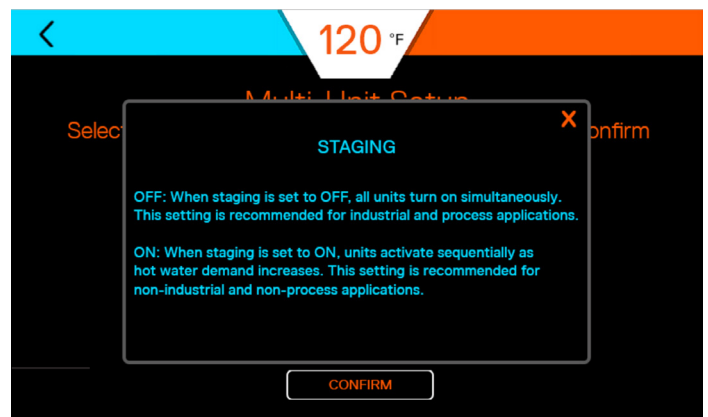
Please ensure the cascading cables between the units (external to the water heaters) are disconnected. This step is critical. After you have verified this, please click Confirm to continue.



Please change the cascading ID to the desired number (1, 2, 3, or 4). Based on the application, staging may need to be turned off. Please refer to Staging ON/OFF below to before changing it.



#### STAGING ON/OFF



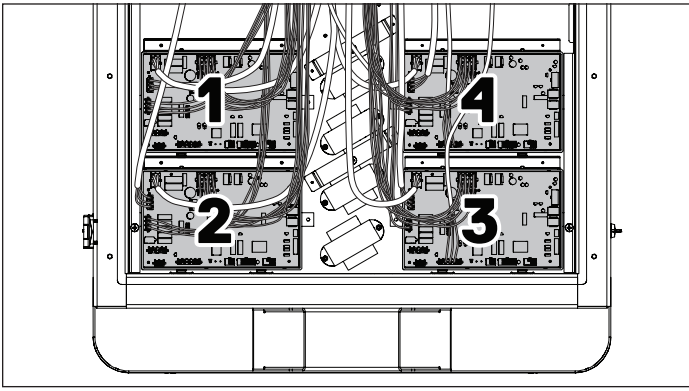
**STAGING ON:** When the staging is set to ON, heat exchangers and units are activated sequentially as hot water demand increases. This setting is recommended for most commercial applications, such as hotels, multi-family, etc.

**STAGING OFF:** When staging is set to OFF, all the heat exchangers and units are turned ON simultaneously. This setting is required for industrial and process applications (such as washdown, food processing, etc.).

- After completing the above steps on all the units, press the Power button to turn OFF each water heater in the system and disconnect power from all the units in the system.



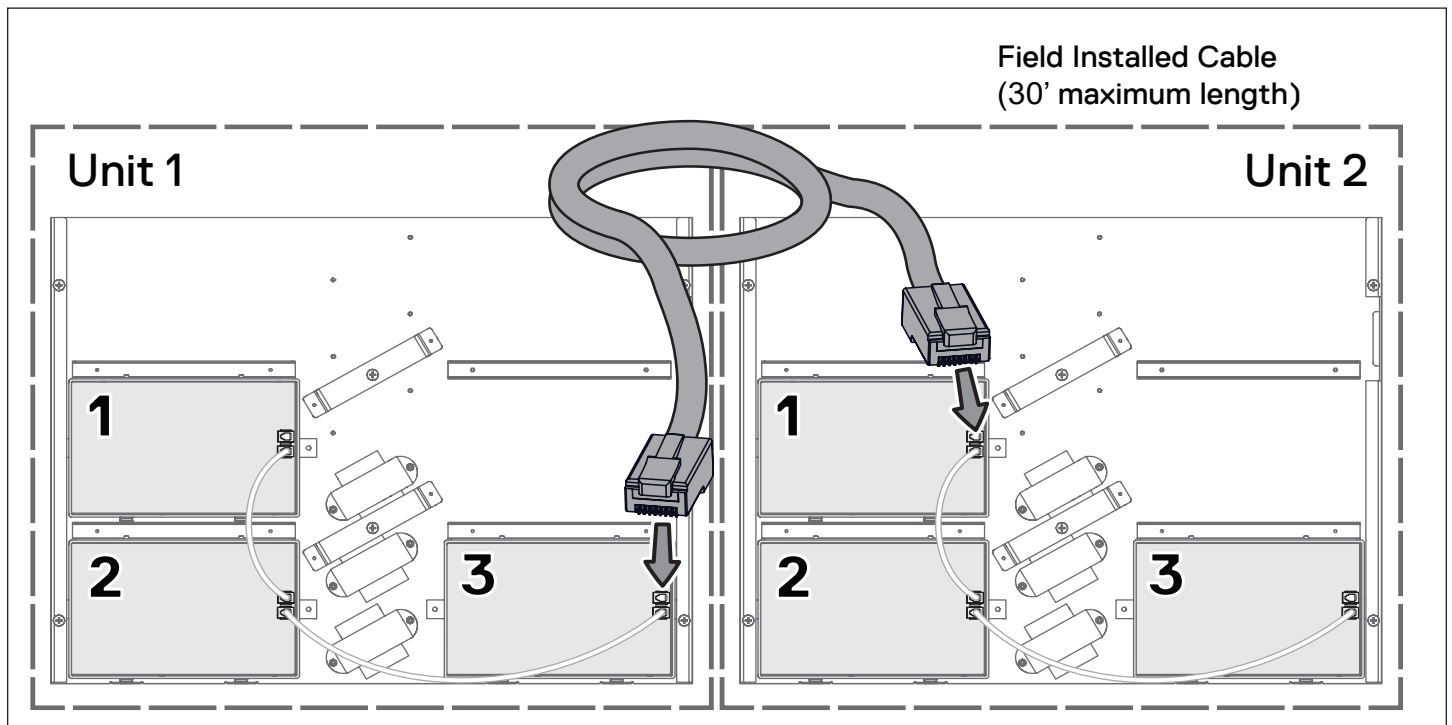
1. Open the front door and locate the main circuit boards.



iQ1001 Shown (Four Circuit Boards). iQ751 has Three Circuit Boards.  
iQ1501 has Six Circuit Boards.

2. Connect the included communication cable from an open jack on the circuit board in one unit to an open jack in the next unit. Repeat this step as required by the number of water heaters being connected.

8. Reconnect the power and turn the water heater ON. The water heaters, should now be ready to communicate with each other and operate as a single system.
9. On the first water heater, locate DIP Switch 3 on circuit board 1. Position the switch in the ON position (left) as shown in the table below.
10. Position all other switches on the circuit boards in the unit to the OFF position (right).
11. On any water heater unit between the first and last unit, Unit 2 and/or Unit 3, position all DIP SW3 switches in the OFF position (right).
12. On the last water heater, locate DIP Switch 3 as shown in the table below.
13. Once the communication cables are routed and connected and the DIP switches are correctly positioned, close and lock the front door.
14. Reconnect the power and turn the water heater ON. The water heaters, should now be ready to communicate with each other and operate as a single system



Example: iQ751 Communication Cable Routing Diagram shown.

3. On the first water heater, locate DIP Switch 3 on circuit board 1. Position the switch in the ON position (left) as shown in the table below.
4. Position all other switches on the circuit boards in the unit to the OFF position (right).
5. On any water heater unit between the first and last unit, Unit 2 and/or Unit 3, position all DIP SW3 switches in the OFF position (right).
6. On the last water heater, locate DIP Switch 3 as shown in the table below.
7. Once the communication cables are routed and connected and the DIP switches are correctly positioned, close and lock the front door.

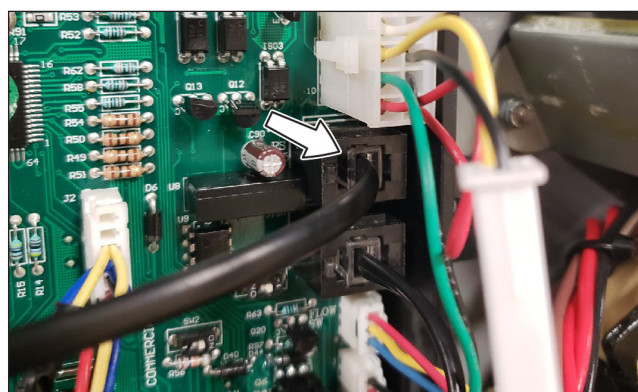
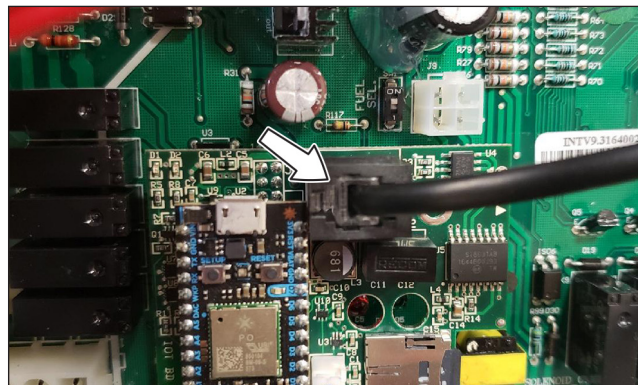
**Note:**

- A. Whenever a change is made to any one water heater, all the other units in the system will be automatically updated to the new settings.
- B. A simple way to check the cascading setup is to change temperature 1 degree down on one unit. All other units will show the new temperature within 2 minutes.

iQ751/iQ1001/iQ1501 Cascading Support			
Model (Max Number of Cascaded Units)	iQ751	iQ1001	iQ1501
iQ751	Yes (Max 4 units)	Yes (Max 4 units)	Yes (Max 4 units)
iQ1001	Yes (Max 4 units)	Yes (Max 4 units)	Yes (Max 4 units)
iQ1501	Yes (Max 4 units)	Yes (Max 4 units)	Yes (Max 4 units)
All other models (i200, i250, iQ251, iQ251D, iN401, iN501, iQ2001 and iQ3001)	Not Supported		

### 13.2.1 telliCare for Multiple Units

If cascading multiple units, the Wi-Fi module on all units besides “Unit 1” in the sequence need to be disconnected to make room for cascade communication cables. Remove the attached cable at each end from the referenced jacks and set aside.



Cascade Termination DIPSW 3 Setting(Two Units)			Cable Connection	Note
Unit	DIP SW 3 ON (up)	DIP SW 3 OFF (down)	Cascade cable connects from Unit#1 last HEX to Unit#2 H1	Remove the IoT board from Unit#2
Unit# 1	H1	Except H1		
Unit #2	Last HEX*	Except Last HEX*		

Cascade Termination DIPSW 3 Setting(Three Units)			Cable Connection	Note
Unit	DIP SW 3 ON (up)	DIP SW 3 OFF (down)	1. Cascade cable connects from Unit#1 last HEX to Unit#2 H1. 2. Cascade cable connects from Unit#2 last HEX to Unit#3 H1.	Remove the IoT board from Unit#2 and Unit#3.
Unit# 1	H1	Except H1		
Unit #2	-	All HEXes		
Unit #3	Last HEX*	Except Last HEX*		

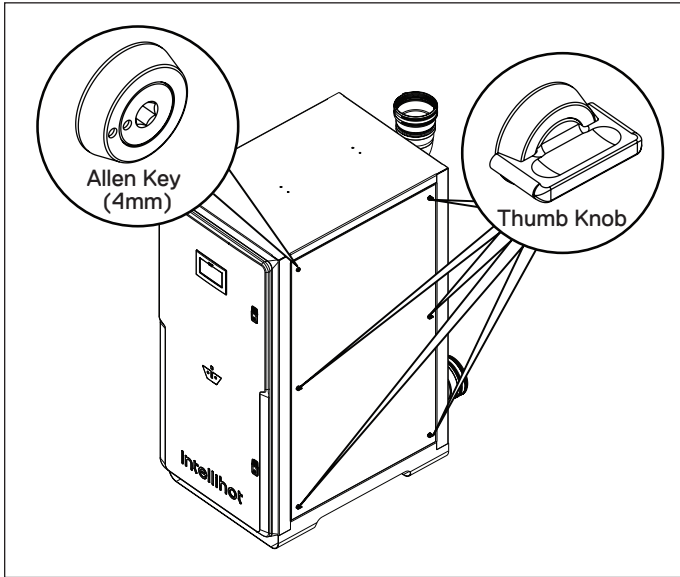
Cascade Termination DIPSW 3 Setting(Two Units)			Cable Connection	Note
Unit	DIP SW 3 ON (up)	DIP SW 3 OFF (down)	1. Cascade cable connects from Unit#1 last HEX to Unit#2 H1. 2. Cascade cable connects from Unit#2 last HEX to Unit#3 H1. 3. Cascade cable connects from Unit#3 last HEX to Unit#4 H1.	Remove the IoT board from Unit#2, Unit#3 and Unit#4
Unit# 1	H1	Except H1		
Unit #2	-	All HEXes		
Unit #3	-	All HEXes		
Unit #4	Last HEX*	Except Last HEX*		

Last HEX\* iQ751 = H3; iQ1001 = H4; iQ150 = H6;

## 14. Maintenance

### 14.1 Side Panel Doors

Each side panel door contains one Allen key lock in the upper left hand corner. Turn the key 90° clockwise to unlock. The other locks are a thumb knob style.



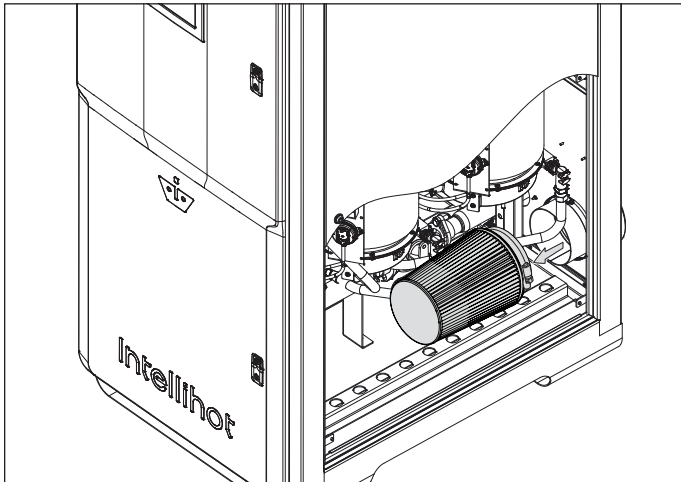
### 14.2 Air Filter

#### 14.2.1 Inspection

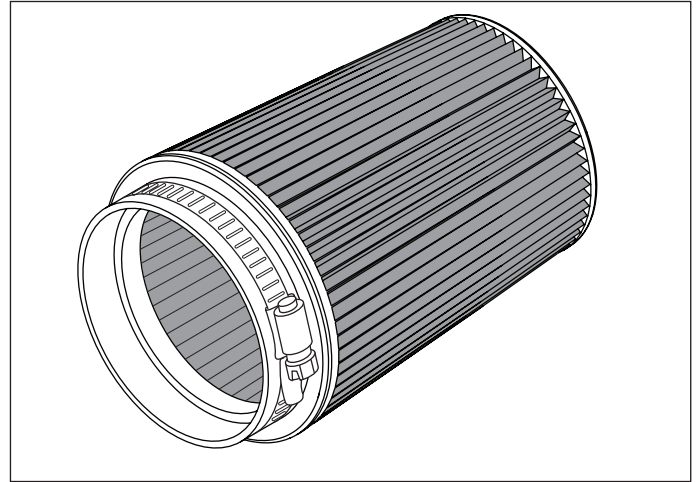
Check the filter **every six months** for dirt and dust build-up. Clean and re-oil the filter annually. If the filter is dirty, follow the cleaning procedure.

**Note:** The air filter is manufactured by K&N. Contact K&N at 800-858-3333 or online at [www.knfilters.com](http://www.knfilters.com) for the necessary supplies to clean the filter.

1. Loosen the band clamp and remove the air filter.



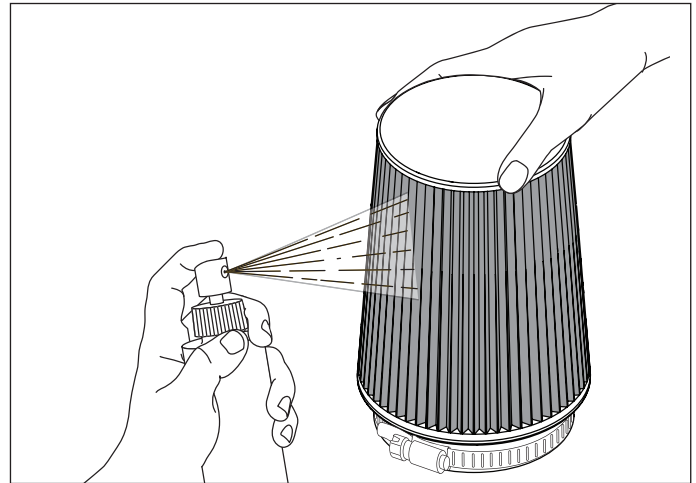
2. Inspect the inside of the filter for dirt and dust build-up. Clean the filter, if needed.



3. After inspection and/or cleaning, replace the air filter and snugly tighten the band clamp.

#### 14.2.2 Cleaning Procedure

1. Liberally spray K&N Air Filter Cleaner and Degreaser (99-0606) onto both sides of filter and allow to soak for 10 minutes to loosen the dirt. Do not allow cleaner to dry on air filter.



### NOTICE

*K&N Air Filter Cleaner is the only cleaner formulated to safely clean K&N air filters with cotton media. The use of any other cleaning solution could damage the cotton material.*

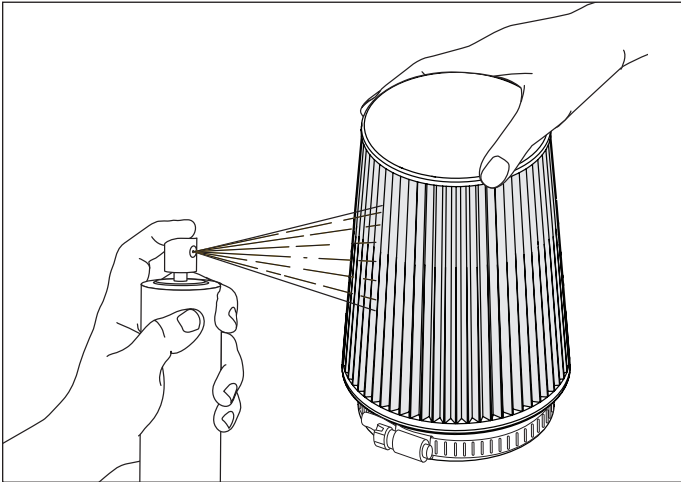
2. Rinse the air filter with cool low-pressure water applied from the outside inward in order to flush the dirt out of the filter. Continue to rinse the filter until all traces of cleaner are gone. It may be necessary to repeat Steps 1 and 2.

3. After rinsing, gently shake off the excess water and air dry the filter.

## NOTICE

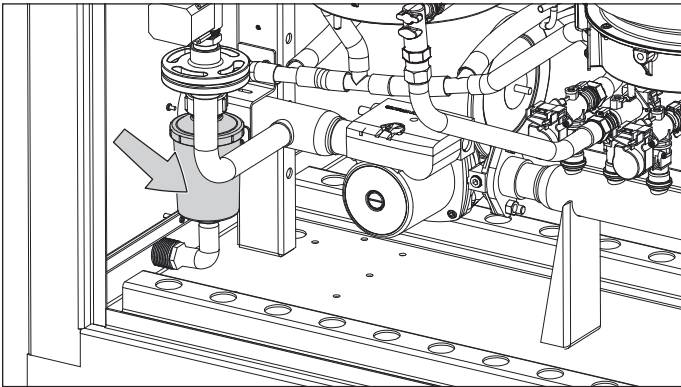
*Do not use compressed air to dry the filter. Do not apply oil to the filter until it is completely dry.*

4. Spray K&N Aerosol Air Filter Oil (99-0504) evenly along the crown of each pleat holding nozzle about 3" away. Allow oil to wick for approximately 20 minutes. Touch up any light areas on either side of the filter until there is a uniform red color at all areas.

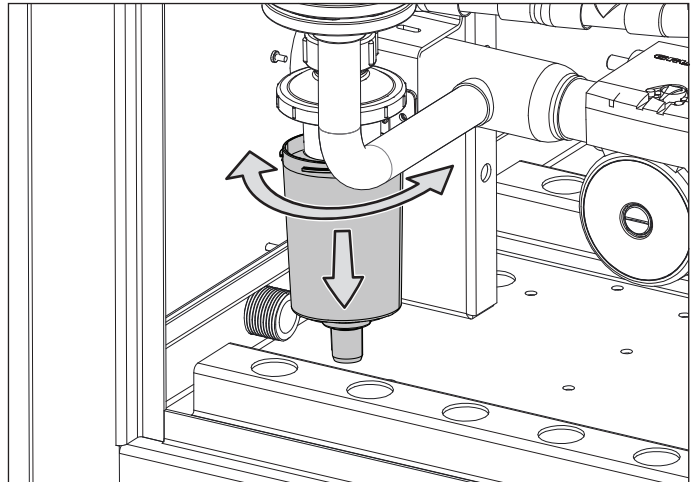


### 14.3 Condensate Sediment Cup Cleaning

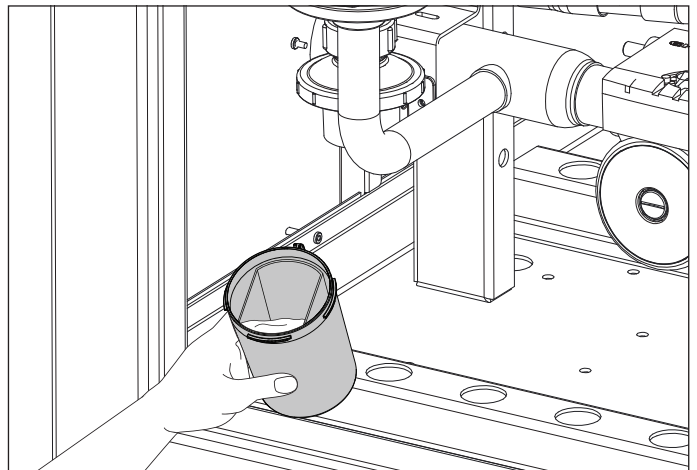
One sediment cup is located inside the water heater cabinet. This cup should be removed and cleaned **every 3 months or as often as necessary**.



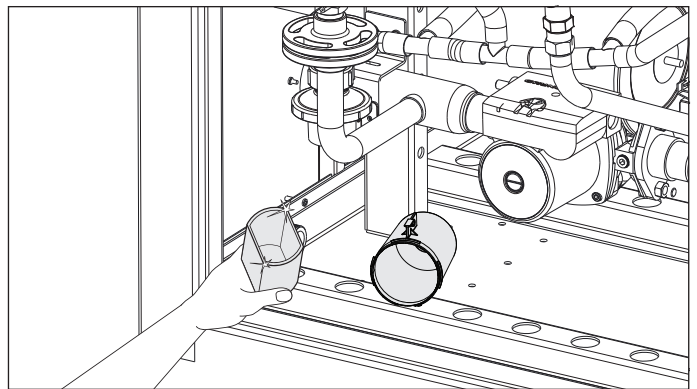
1. Twist the bottom of the sediment cup to release the locking clips.



2. Pull down on the sediment cup and pull it away from the upper portion of the unit. The sediment cup will normally be full of condensate. Carefully, pour the condensate into a container and properly dispose of it.



3. Remove the inner sediment cup from inside the lower portion of the unit.

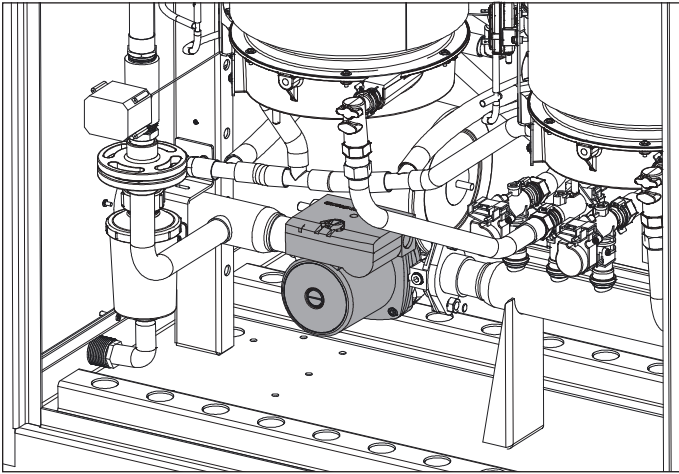


4. Remove any dirt and debris build-up using soap and warm water.
5. Replace the inner sediment cup and reattach the entire unit.



## 14.4 Maintenance-Free Circulation Pump

The circulation pump is maintenance-free and therefore does not require any servicing. The speed setting must be set to Speed 3 (III).



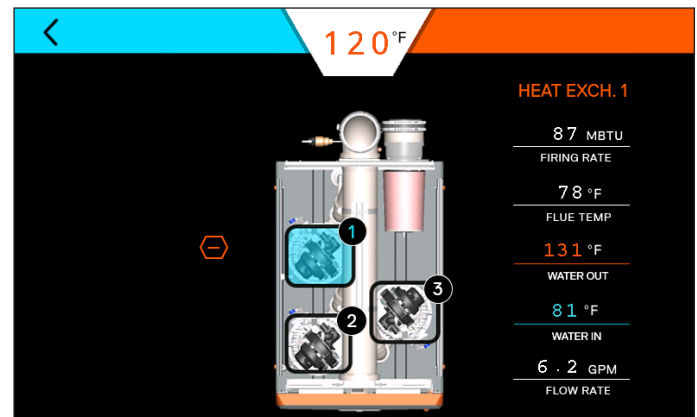
## 14.5 Wye Strainer

**Please Note:** This heater includes an external Wye strainer. The Wye strainer must be installed to qualify for unit warranty.

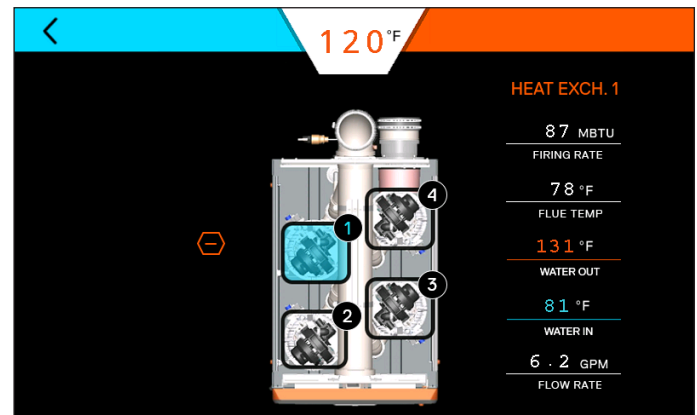
1. Please clean the Wye strainer every 3 months.

## 14.6 Heat Engine Locations

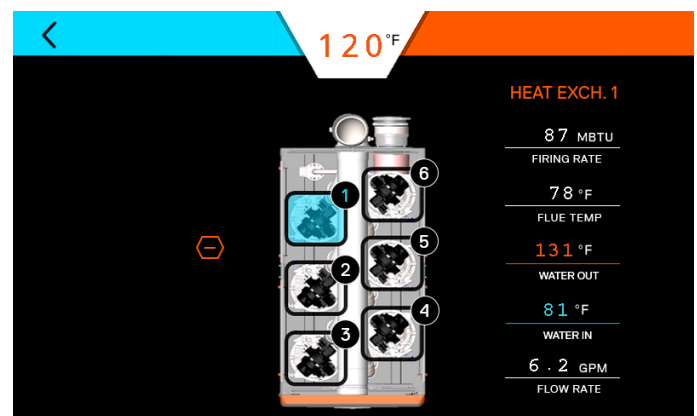
Use the following diagrams to identify the location of the heat engines.



iQ751



iQ1001



iQ1501