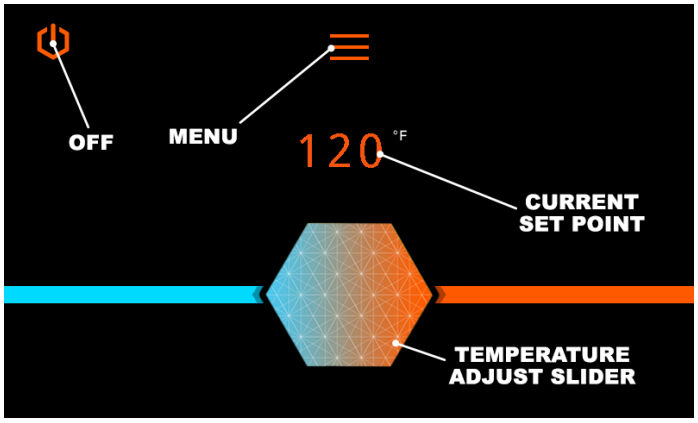
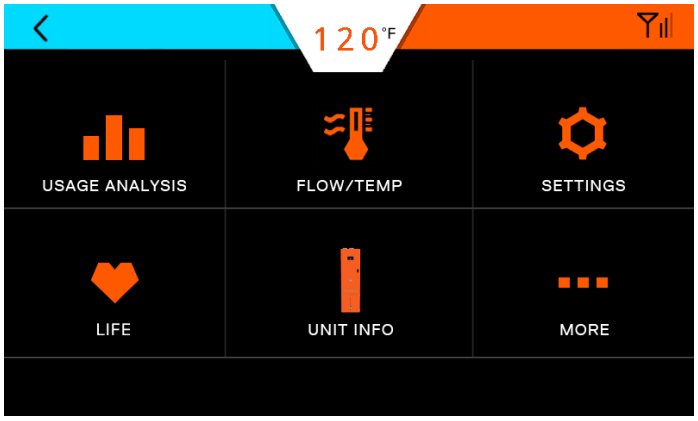
12. Operation

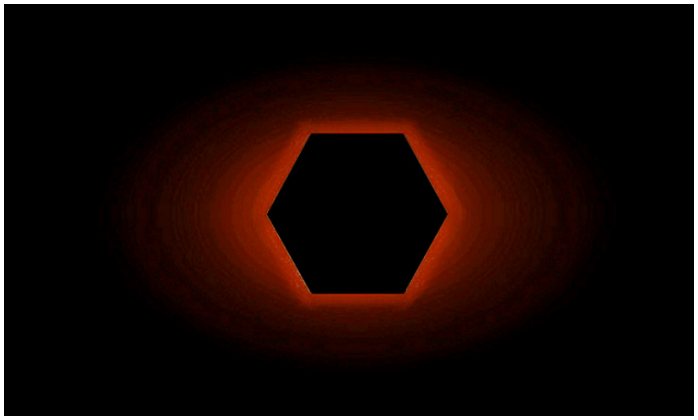
12.1 Control Panel



Main Menu Screen



Selecting the Menu button brings up this screen.

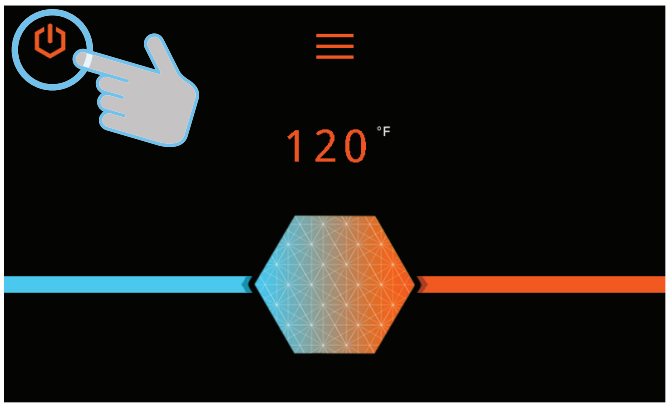


A sleep mode screen will appear after a period of inactivity.

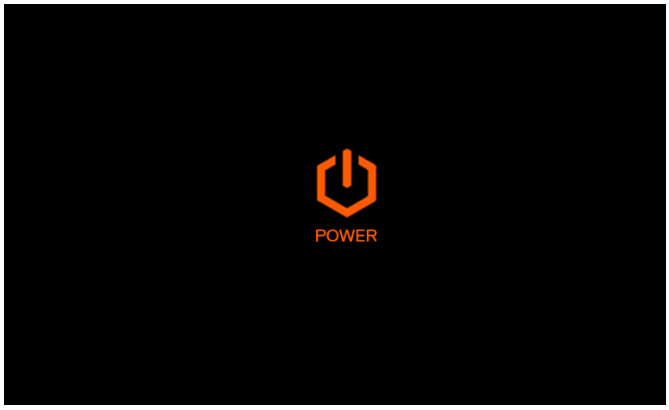
12.2 Turning Water Heater ON and OFF

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.



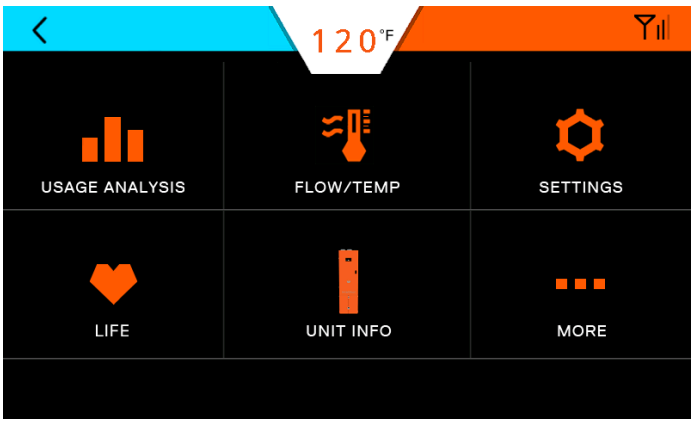
3. Press the Power button to turn the unit ON.

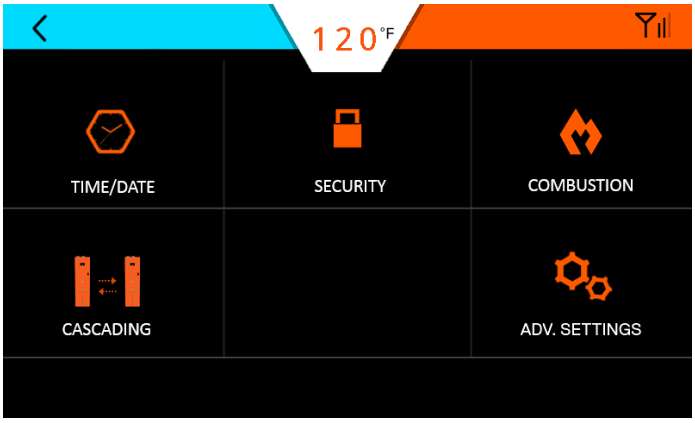


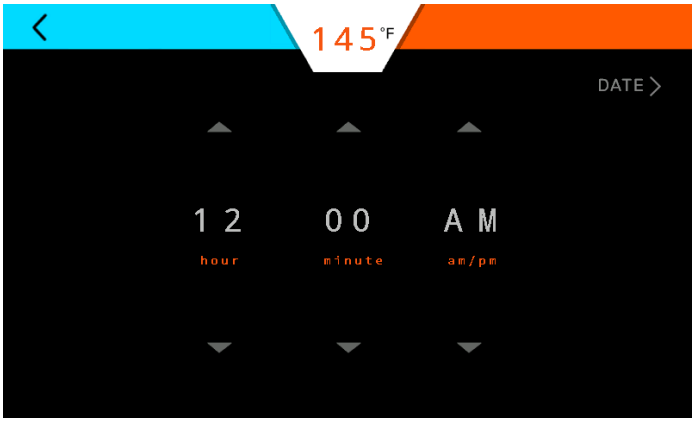
⚠ WARNING

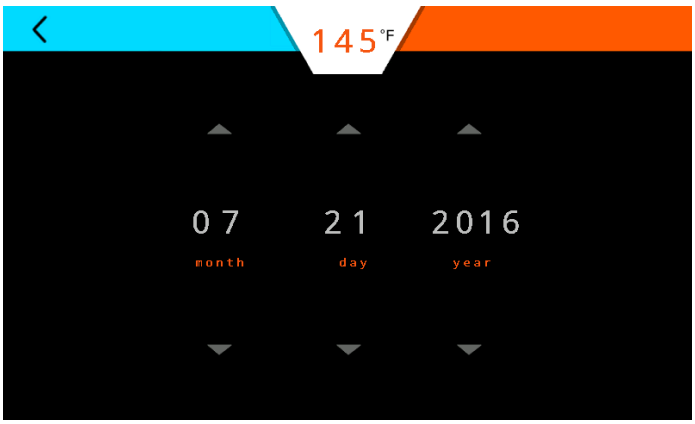
Turning the unit OFF does not disconnect it from the power source. Whenever working around electrical components within the water heater, turn off the power at its source. Touching live electrical components can cause serious injury or death.

12.3 Setting the Time









Press the Up/Down arrows to make adjustments. Press the Back button to return to the main screen.

12.4 Adjusting the Water Temperature

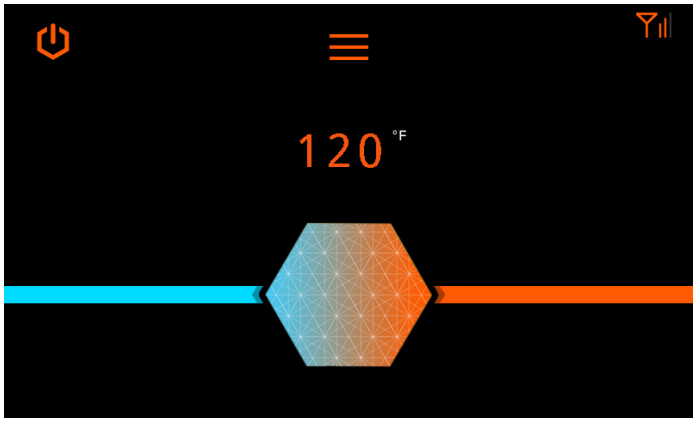
Note: The outlet water temperature is factory preset to 120°F, however these commercial water heaters are capable of heating water to 190°F.

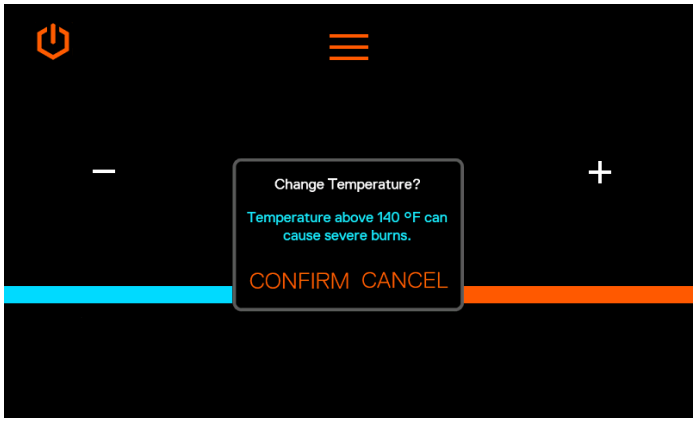
⚠ DANGER

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.

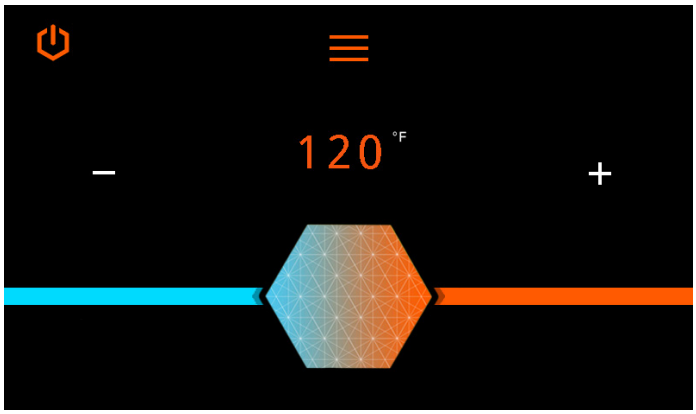
All water faucets must be closed before changing the temperature setting. The unit must not be operating.

1. Firmly press the (+) and (–) to increase or decrease the temperature by 5°F. Firmly hold the icon until the display reaches the desired temperature.





2. For finer temperature adjustments, tap the (+) and (–) icons to change the temperature by 1ºF.



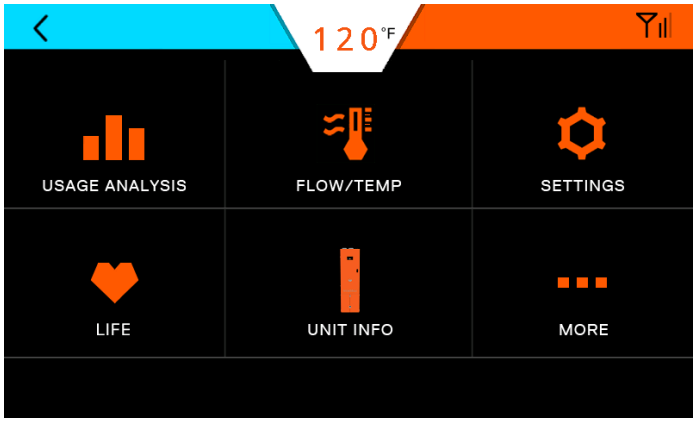
3. Follow any prompts shown on the screen.

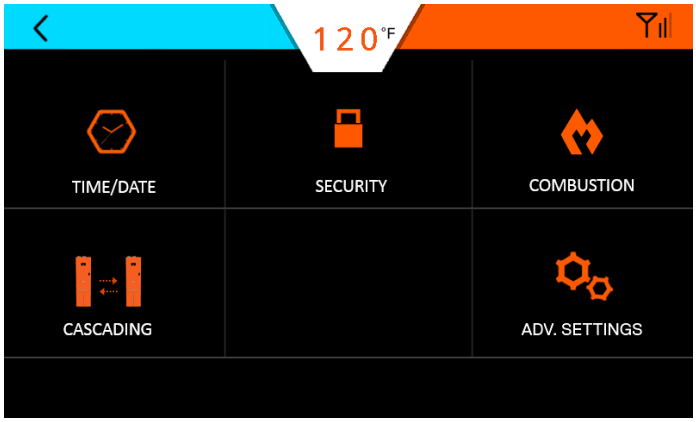
12.5 Security

12.5.1 Setting Passcode Protection

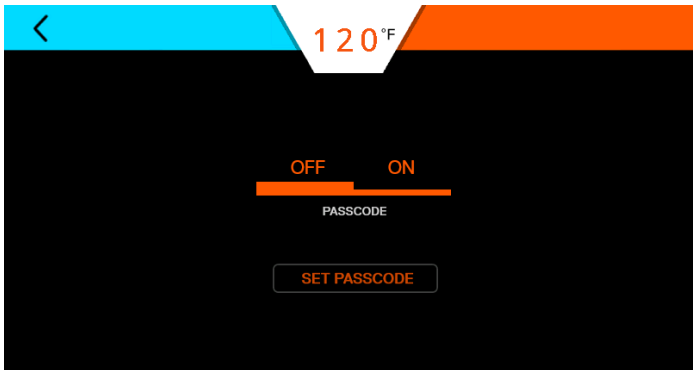
It is not necessary to set a passcode for the water heater to function properly. This feature is available to help prevent unauthorized access to the unit.

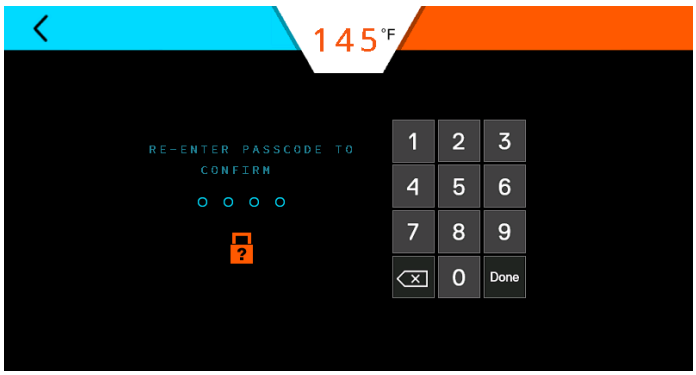
If a passcode is set, it must be entered prior to accessing the main screen.

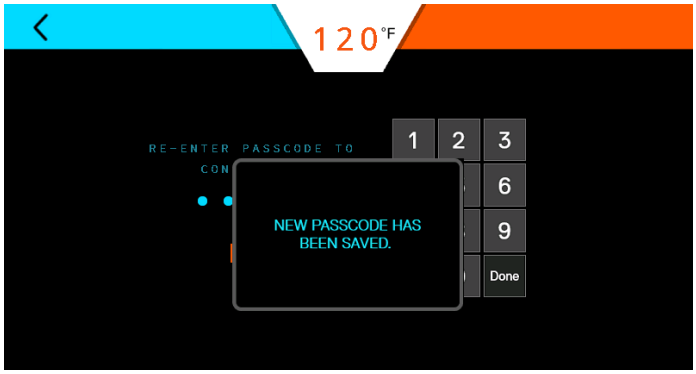


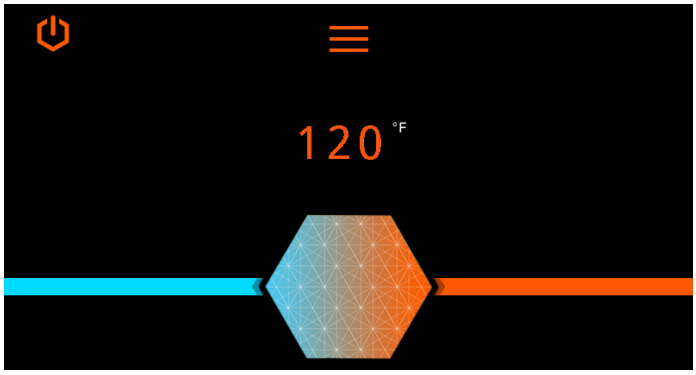


Press ON/OFF and follow the prompts.

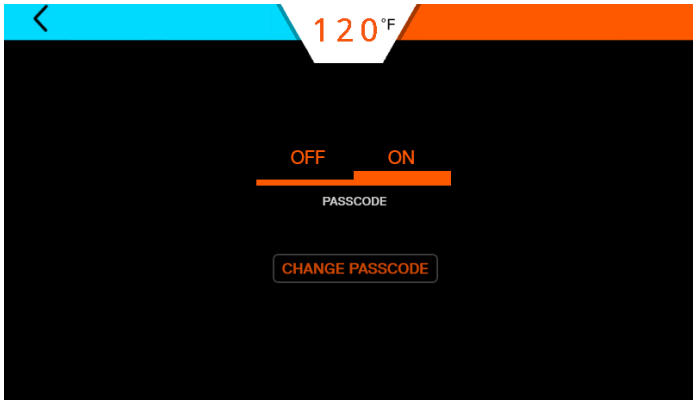


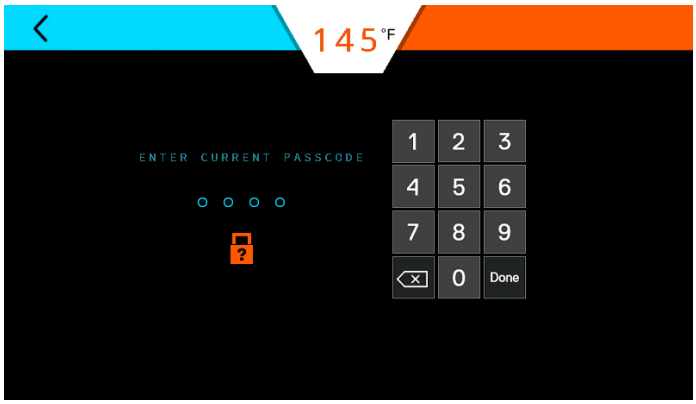


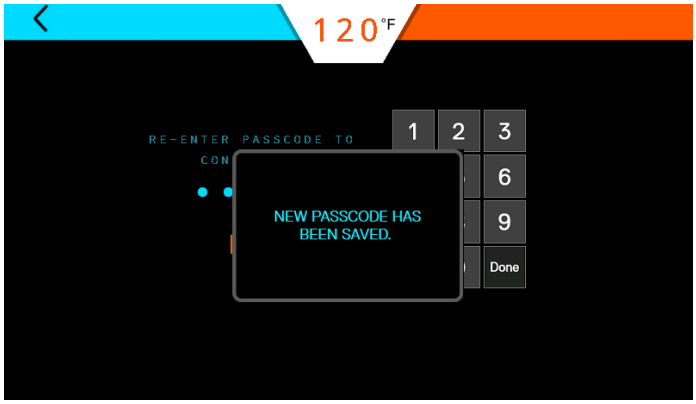


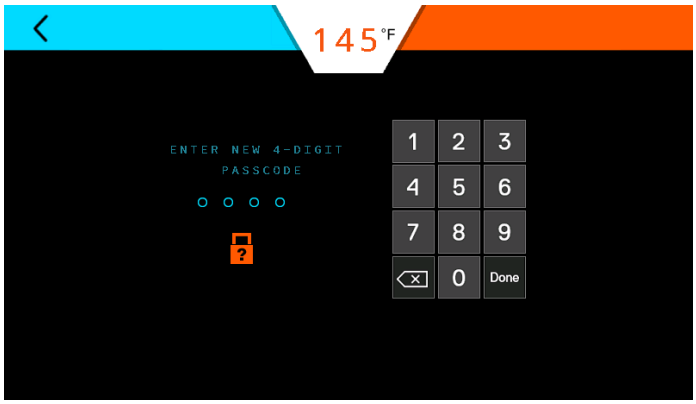


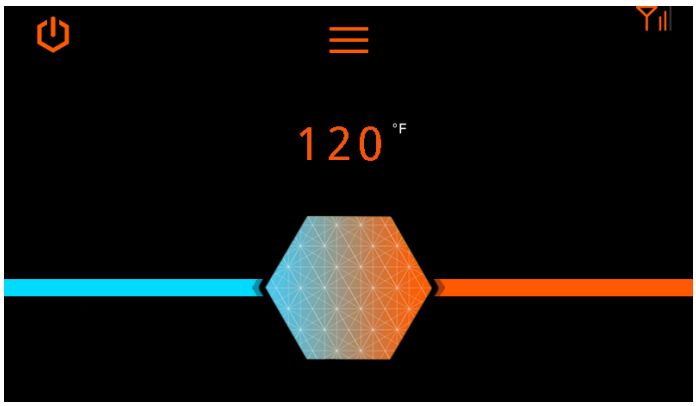
12.5.2 Changing Passcode

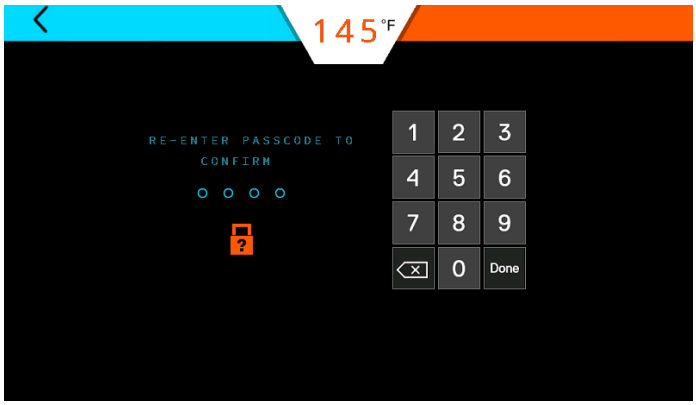






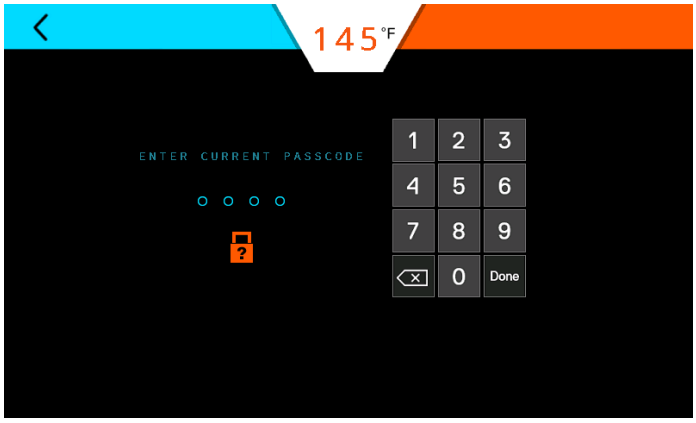


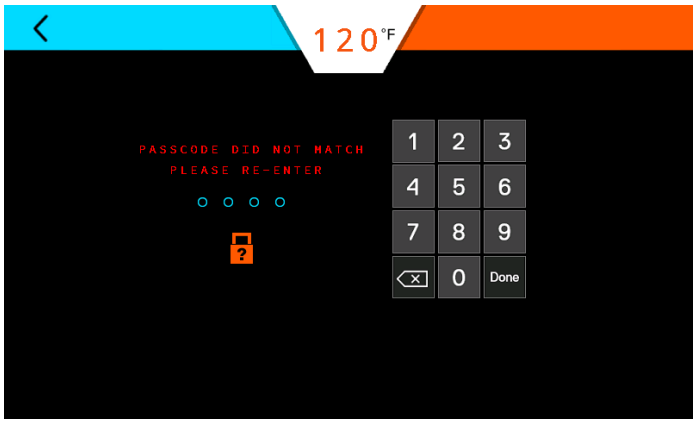




12.5.3 Forgot Passcode

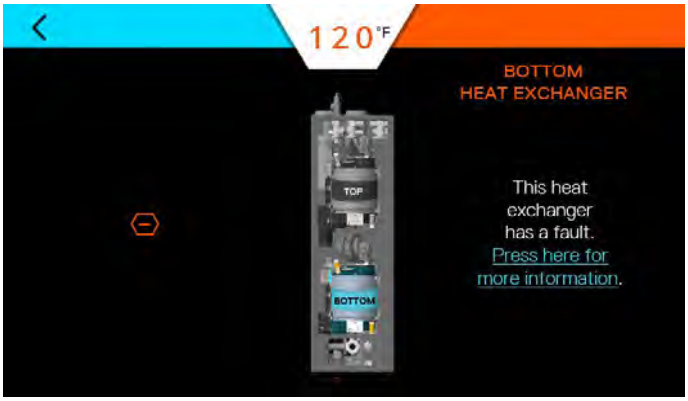
If the unit passcode is lost or forgotten, press the "?" icon and call technical support.





12.6 Temp / Flow

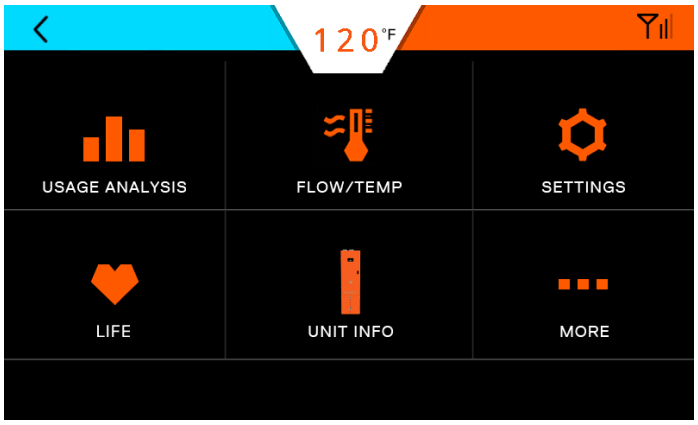
Provides the general operating parameters of each heat engine.

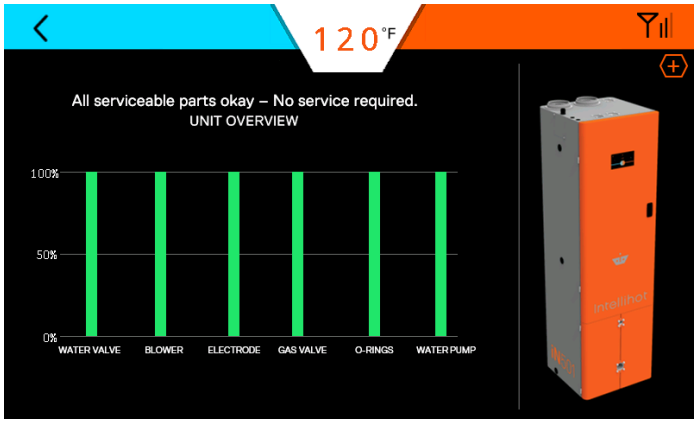


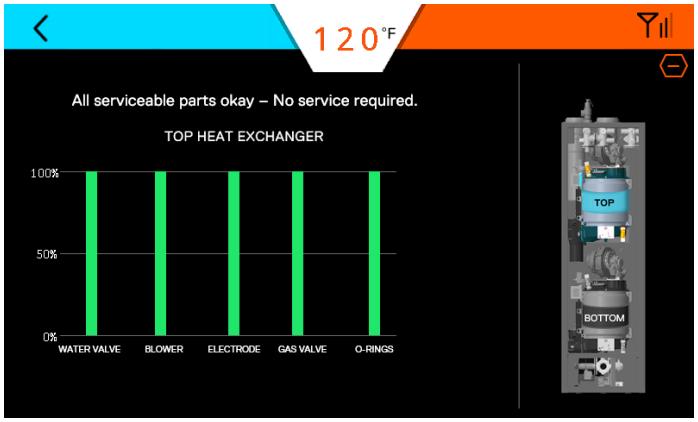
12.7 Life Screen

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

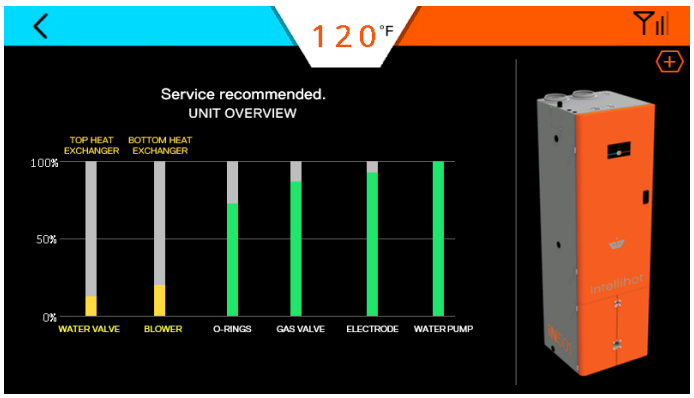
Note: Parts can be ordered by contacting technical support.

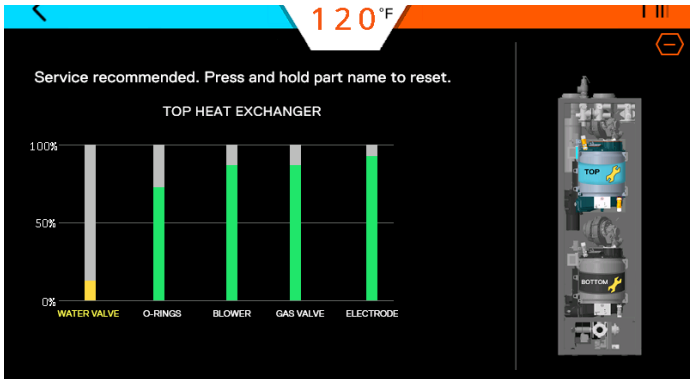




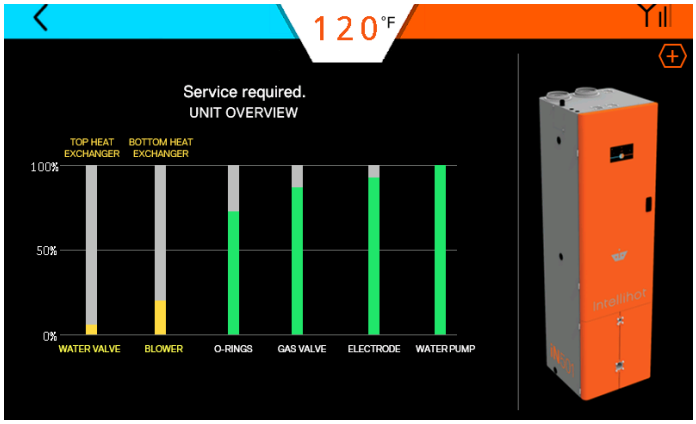


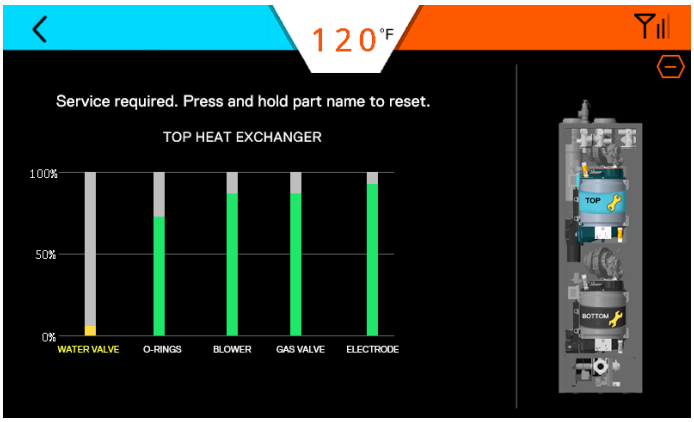
Press the (+) button to show the details of the various heat engines.





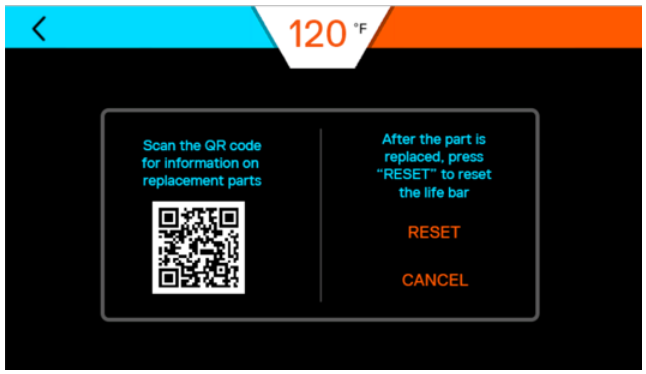
Service recommended: Order appropriate replacement part as soon as possible. To reset life, press and hold the appropriate bar and follow the prompts.

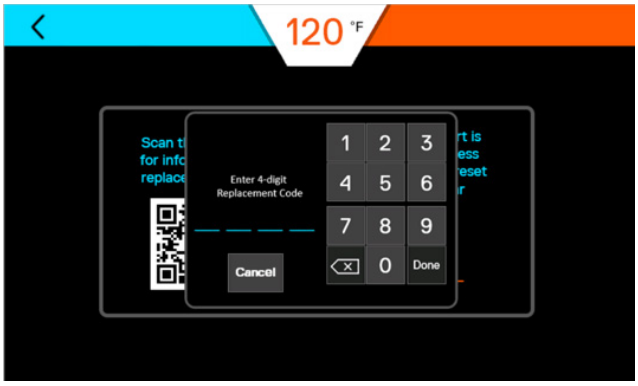


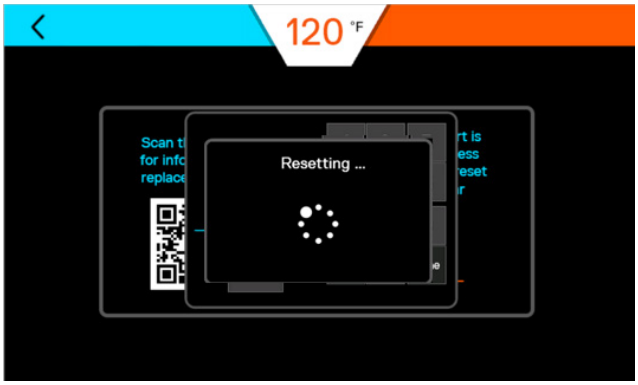


Service required: Take IMMEDIATE action when this screen appears because the part life is critical. To reset life, press and hold the appropriate bar and follow the prompts.

When a part is replaced, the screens will show a QR code to identify the part. The replacement parts can be ordered from the local distribution or Intellihot website (https://intellihot.com/shop/). After replacing the part, return to this screen to reset service life.





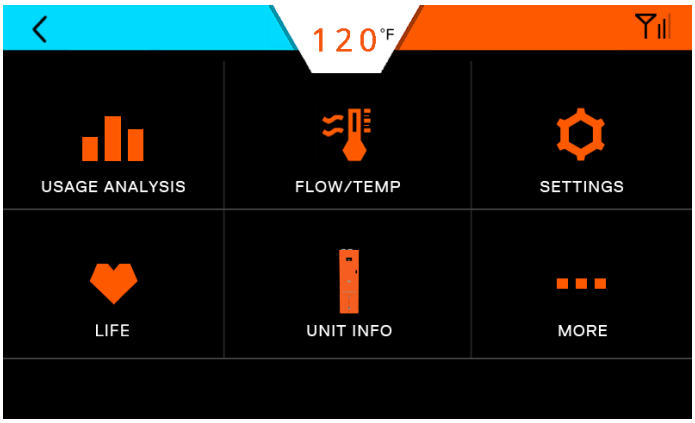


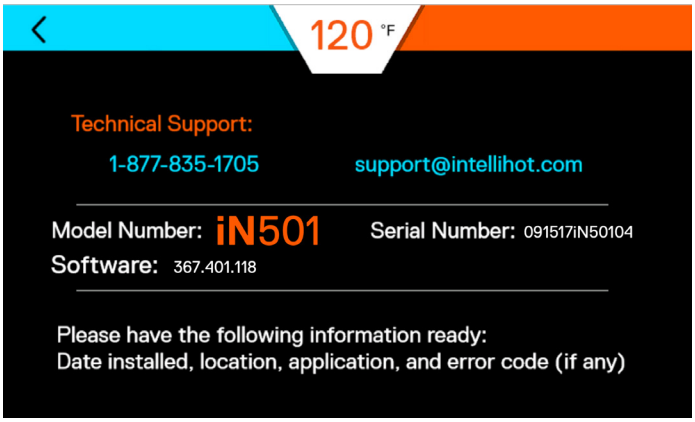
Reset Codes:

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

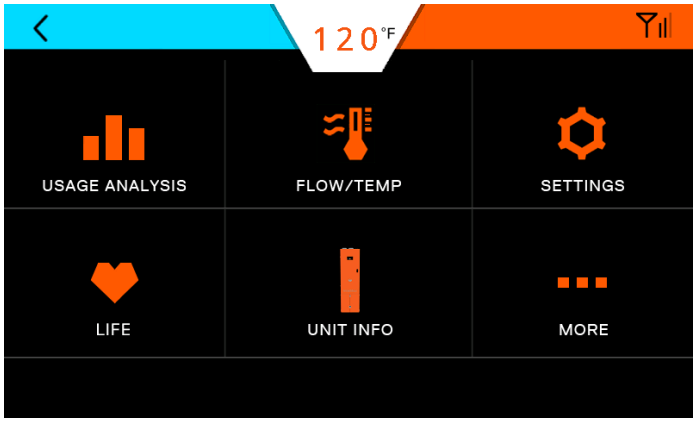
12.8 Unit Information

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



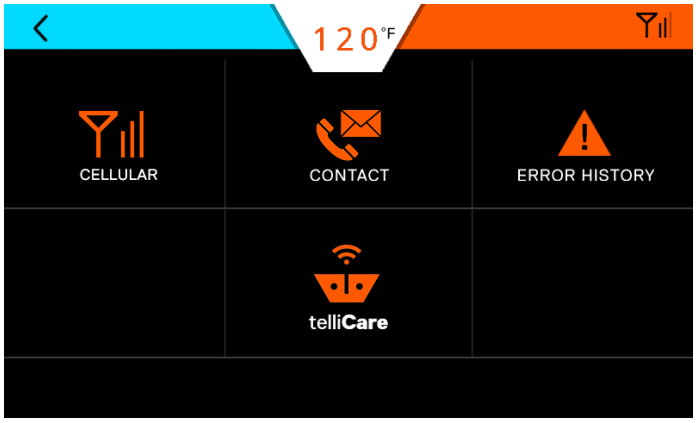


12.9 More Screens



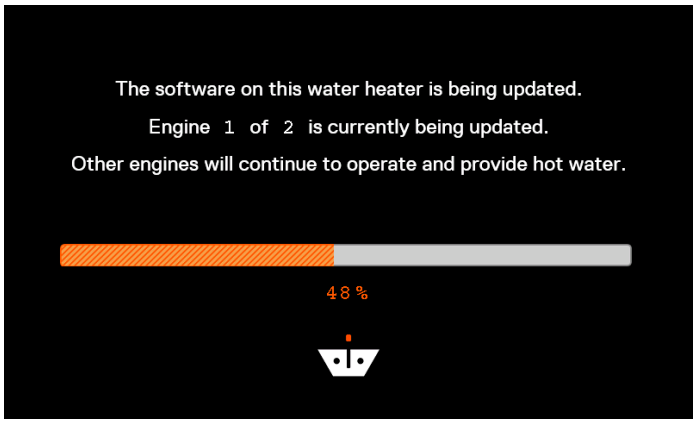
12.9.1 Cellular

Intellihot Gen II water heaters are cellular capable. This feature also allows the units to be monitored.



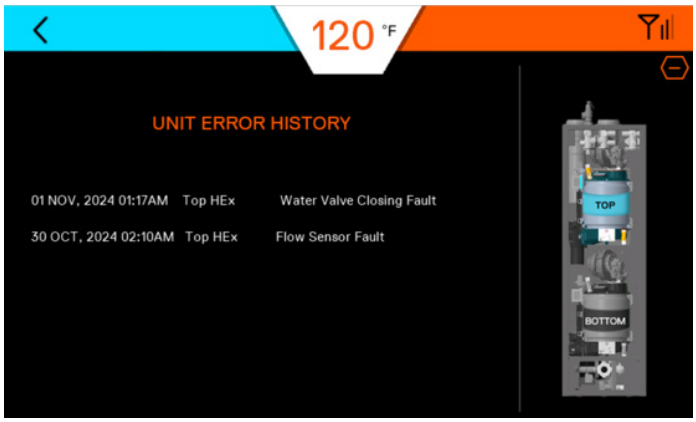
Status of cellular connection screens.

Whenever software updates are being made the following screens will appear.



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.



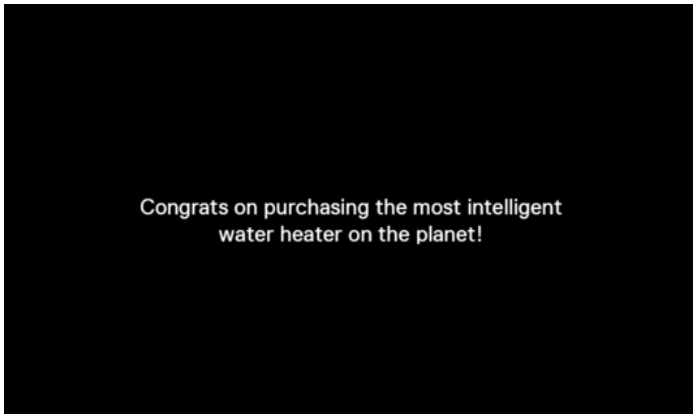
12.9.3 telliCare Service (Subscribe at Startup)

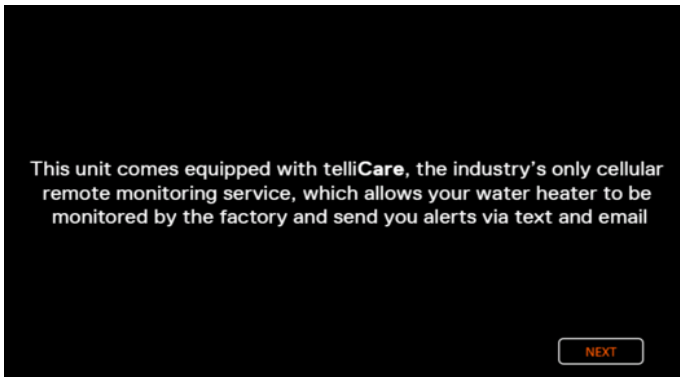
telliCare is a cellular enabled, prognostics and predictive maintenance service for Gen II water heaters. This service allows water heaters to be monitored and controlled remotely via an app on a mobile device.

Subscribe to this service by downloading the telliCare app from iTunes App Store and following the prompts on the app.

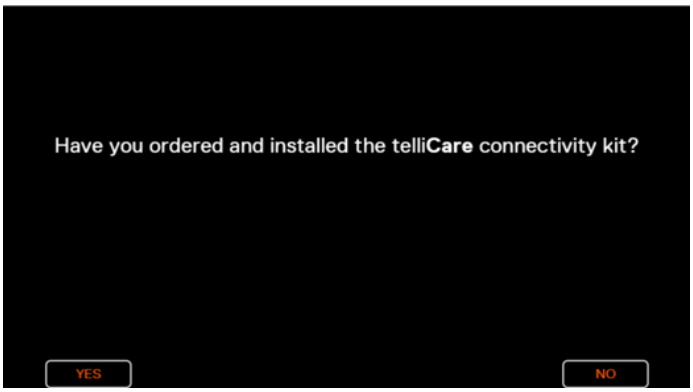
Upon startup the following screens appear.

1. Tap anywhere on the screen to continue.

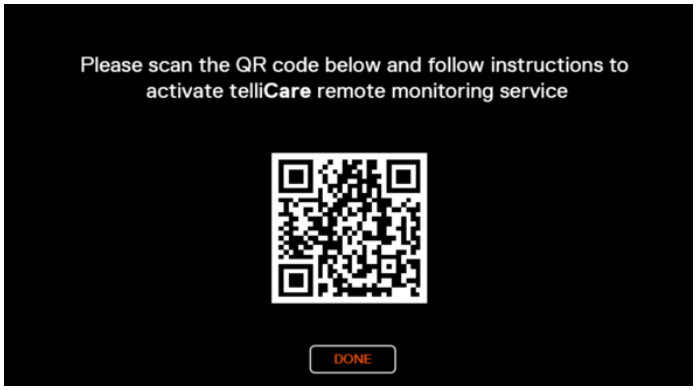




2. If tellicare wasn't activated, press No to continue. Press Yes to return to main menu.

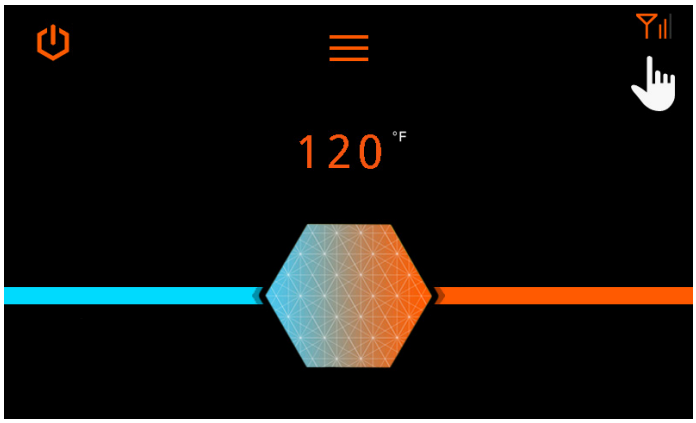


3. If No was pressued or telliCare wasn't activated previously the following screen will appear. Please use a mobile to scan the QR code to continue the registration.

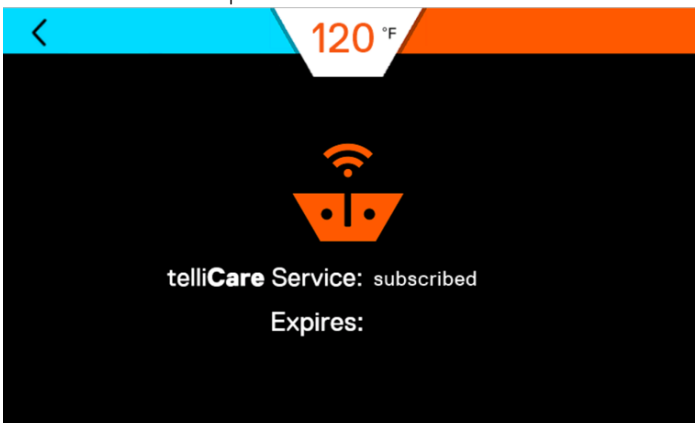


4. Follow the prompts on the mobile phone to complete the registration

5. Users can also click on the cell signal icon to get to the tellicare screen.



i. If telliCare was previously activated, the screen would show the subscription status:



ii. If telliCare is not activated, then the QR code screen will be shown.

13. Connecting Multiple Units

13.1 General Information

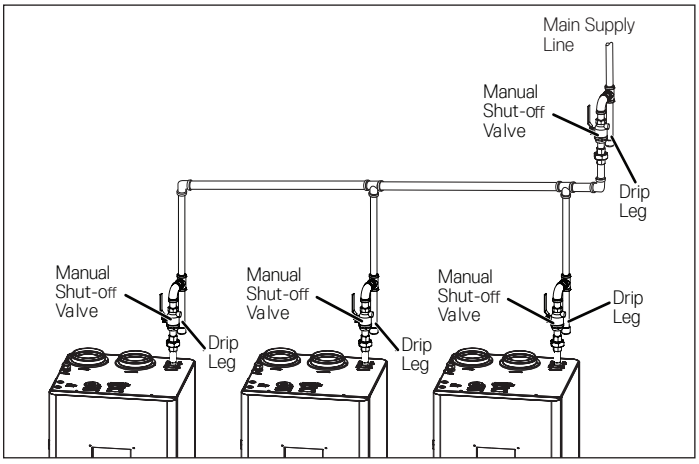
Multiple units can be connected together to supply large demands of hot water.

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.

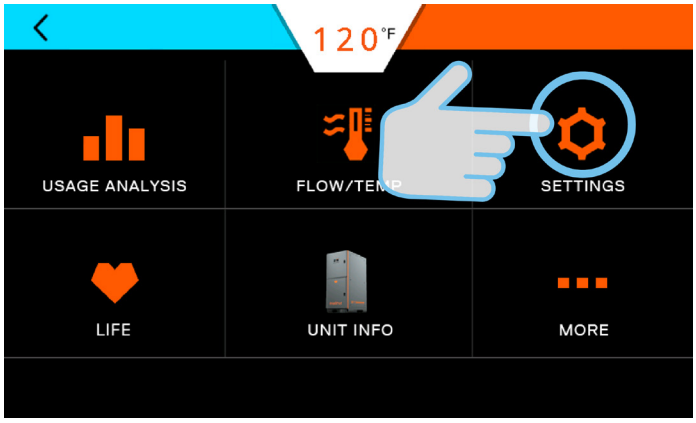
13.2 Installation Procedure

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 15 for additional information.
2. Connect all the units to the power supply. Refer to "9. Electrical Power" on page 31 for additional information.

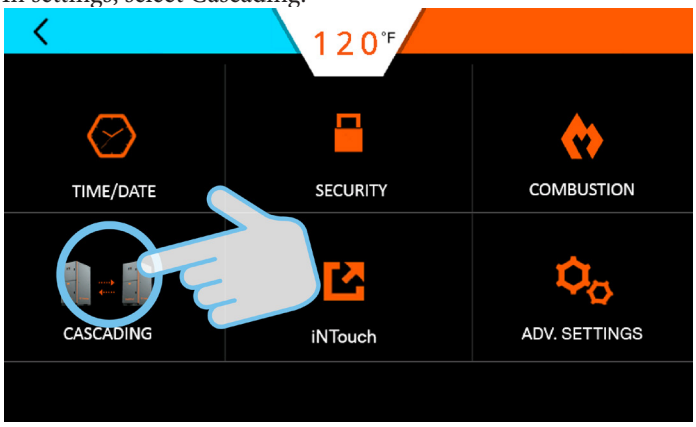


3. Install the combustion (fresh) air intake and exhaust outlet pipes. Refer to "7. Air Intake Inlet and Exhaust Gas Outlet Pipe Connections" on page 20 for additional information.
4. Install and connect the hot water lines. If an optional hot water storage tank is required, connect the hot water lines 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 29 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

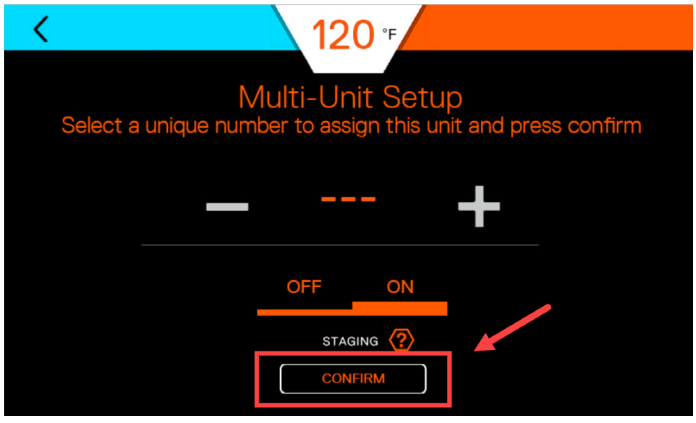
In the main menu, select settings.



In settings, select Cascading.

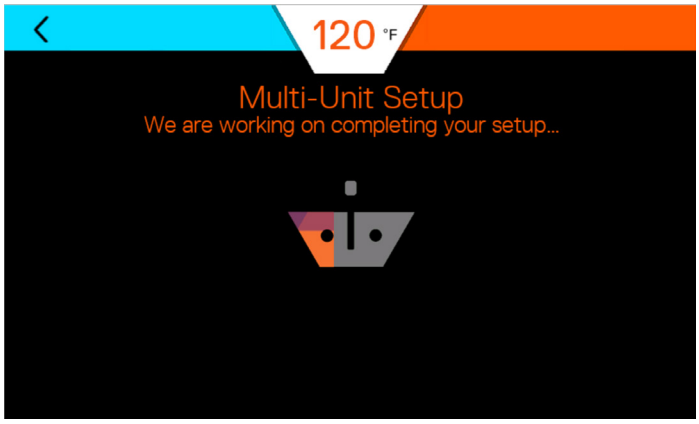


In the Multi-unit Setup, select confirm at the bottom to change the cascading ID.



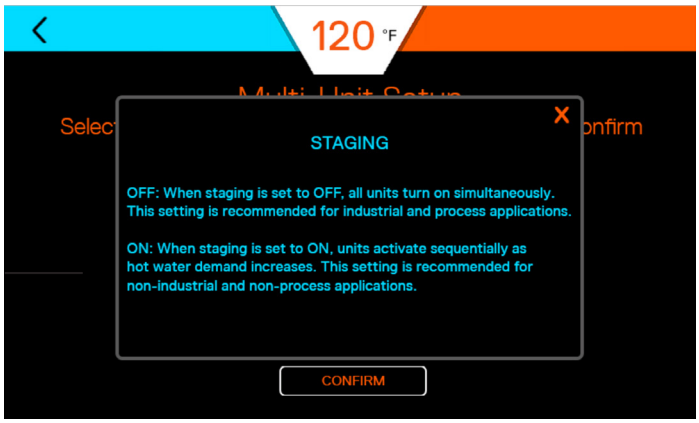
Please ensure the cascading cables between the units (external to the water heaters) are disconnected. This step is critical. After you have verified this, please click Confirm to continue.

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



9. 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.

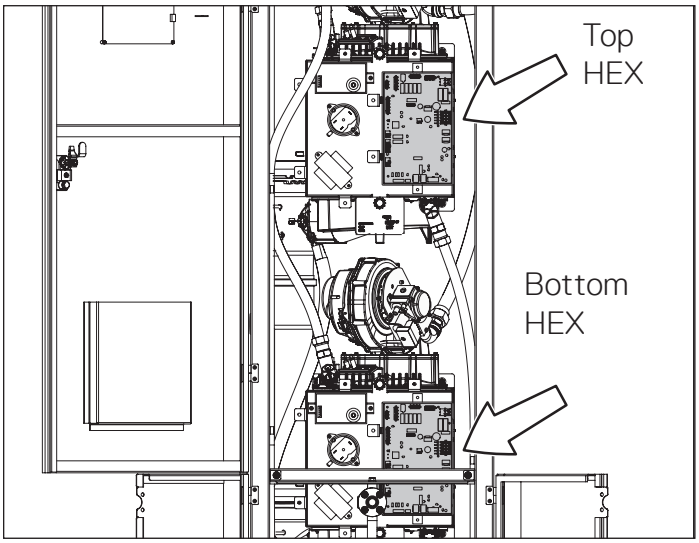
STAGING ON/OFF



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.).

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



iN401/iN501 have 2 Circuit Boards.

Neuron Cascading		
Model (Max Number of Cascaded Units)	**iN401**	**iN501**
iN401	Yes (Max 4 units)	Yes (Max 4 units)
iN501	Yes (Max 4 units)	Yes (Max 4 units)
All other Models (i200, i250, iQ251, iQ251D, iQ751, iQ1001, iQ1501, iQ2001, and iQ3001)	Not supported	

11. 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.
12. 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.
13. Position all other switches on the circuit boards in the unit to the OFF position (right).
14. 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).
15. On the last water heater, locate DIP Switch 3 as shown in the table below.
16. Once the communication cables are routed and connected and the DIP switches are correctly positioned, close and lock the front door.
17. 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.

Note: 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.

13.2.1 telliCare for Multiple Units

If cascading multiple units, if software version is 205 or earlier, the cellular module on all units shall be installed as it is. If software version is 205(iN501)/105(iN401) or earlier, please do not remove the cellular module. This step is different from our current Wi-Fi based models.

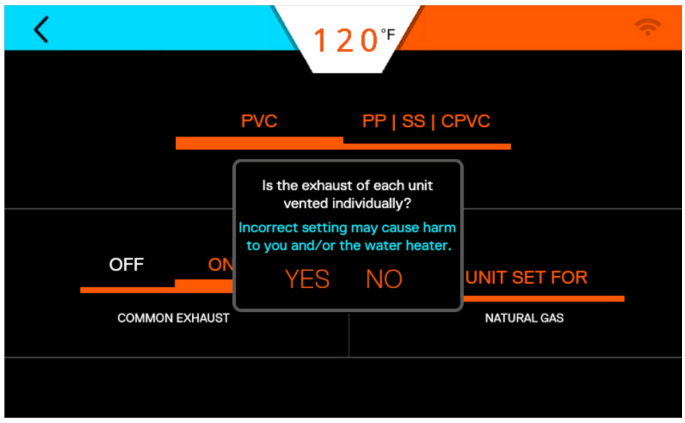
Cascade Termination DIPSW 3 Setting (2 units)			Cable Connection	Note
Model	**DIP SW 3 ON (up)**	**DIP SW 3 OFF (down)**	Cascade cable connects from Unit#1 Top HEX to Unit#2 Top HEX	If software version is 205/105 or earlier, please do not remove the cellular module.
Unit# 1	Bottom HEX	Top HEX		
Unit# 2	Bottom HEX	Top HEX		

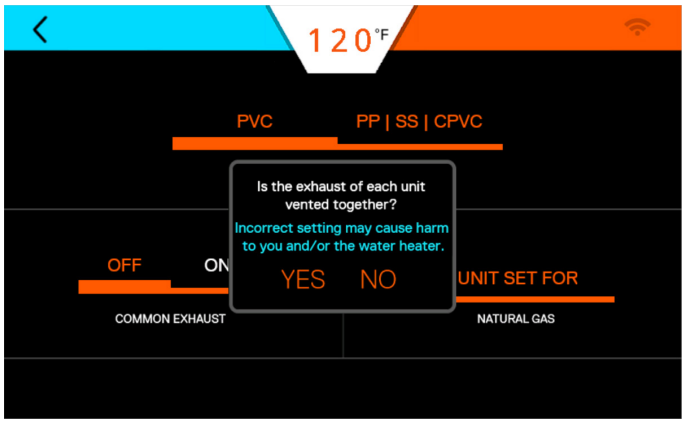
Cascade Termination DIPSW 3 Setting (3 units)			Cable Connection	Note
Model	**DIP SW 3 ON (up)**	**DIP SW 3 OFF (down)**	1. Cascade cable connects from Unit#1 Top HEX to Unit#2 Cellular module (near Bottom HEX) 2. Cascade cable connects from Unit#2 Top HEX to Unit#3 Top HEX	If software version is 205/105 or earlier, please do not remove the cellular module.
Unit# 1	Bottom HEX	Top HEX		
Unit# 2		Top HEX & Bottom HEX		
Unit# 3	Bottom HEX	Top HEX		

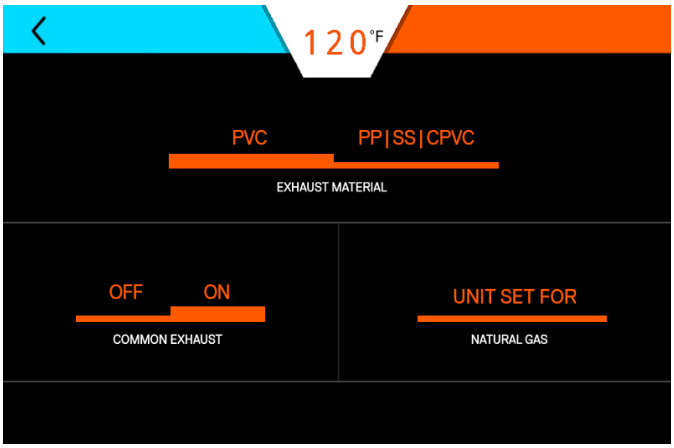
Cascade Termination DIPSW 3 Setting (4 units)			Cable Connection	Note
Model	**DIP SW 3 ON (up)**	**DIP SW 3 OFF (down)**	1. Cascade cable connects from Unit#1 Top HEX to Unit#2 Cellular module (near Bottom HEX) 2. Cascade cable connects from Unit#2 Top HEX to Unit#3 Cellular module (near Bottom HEX) 3. Cascade cable connects from Unit#3 Top HEX to Unit#4 Top HEX	If software version is 205/105 or earlier, please do not remove the cellular module.
Unit# 1	Bottom HEX	Top HEX		
Unit# 2		Top HEX & Bottom HEX		
Unit# 3		Top HEX & Bottom HEX		
Unit# 3	Bottom HEX	Top HEX		

13.3 Venting for multiple units

When venting for multiple units the following screens will appear.



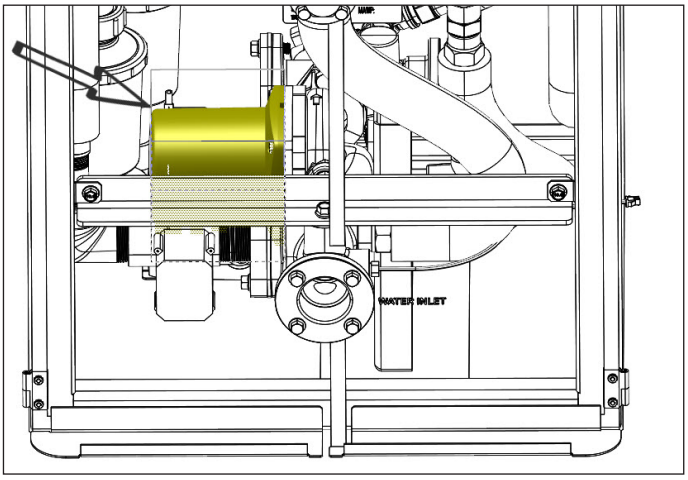




14. Maintenance

14.1 Maintenance-Free Circulation Pump

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



14.2 Heat Engine Locations

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