HUBBELL
a nudyne company

Operation and Installation Manual

Hubbell Omni PBX Heat Pump Water Heater

10/28/25

This version is applicable for units 04-2023 to present

INDEX

SAFETY INFORMATION 3
GENERAL INFORMATION 5
OPERATING PRINCIPLE 6
HEAT PUMP DESIGN 7
OPTIONS 7
SPECIFICATIONS 8
INSTALLATION GUIDELINES 9
A. INSPECTING AND PREPARING THE HEATER 9
B. LOCATION 9
C. PROTECTION FROM WATER DAMAGE 10
D. TEMPERATURE & PRESSURE RELIEF VALVE 10
E. PIPING INSTALLATION 11
F. FILLING THE WATER HEATER 11
G. ELECTRICAL INSTALLATION 12
H. DUCTING 12
I. EARTHQUAKE PREVENTION 12
FIGURE 1 13
FIGURE 2 14
CONTROLLER OPERATION 15
CONTROLLER SETTING FLOWCHART 26
MAINTENANCE 27
A. CONTROLS 27
B. CLEANING THE HEAT PUMP FILTER 27
C. ELECTRICAL TESTING 27
D. VERIFYING ELEMENTS 28
E. ANNUAL INSPECTION 28
TROUBLESHOOTING 29
CONTROLLER ERROR MESSAGES 30
CONTROLLER ERROR MESSAGES CONTINUED 31
SERVICE 32
REPLACEMENT PARTS 33
HPC-1 Connection Diagram 34
HOW TO OBTAIN SERVICE ASSISTANCE 35
WARRANTY 36

HUBBELL ELECTRIC HEATER COMPANY
45 SEYMOUR STREET
STRATFORD, CT 06615

PHONE: (203) 378-2659
FAX: (203) 378-3593
Hubbellheaters.com

SAFETY INFORMATION

WARNING / CAUTION

1. Tank is to be completely filled with water, and all air is to be vented before energizing. Do not turn on the water heater if cold water supply shut off valve is closed.

2. Due to the rigors of transportation, all connections should be checked for tightness before the heater is placed in operation.

3. Safety relief valve must be installed in tapping provided.

4. KEEP AWAY FROM LIVE ELECTRICAL CIRCUITS. Do not perform any maintenance, make any adjustments, or replace any components inside the control panel with the high voltage power supply turned on. Under certain circumstances, dangerous potential may exist even when the power supply is off. To avoid casualties, always turn the power supply safety switch off, turn the charge or ground the circuit before performing any maintenance or adjustment procedure.

5. The unit is designed to operate at pressure of not more than 150 psi.

6. Generalized instructions and procedures cannot anticipate all situations. For this reason, only qualified installers should perform the installations. A qualified installer is a person who has licensed training and a working knowledge of the applicable codes, regulations, tools, equipment, and methods necessary for safe installation of an electric resistance water heater. If questions regarding installation arise, check your local plumbing and electrical inspectors for proper procedures and codes. If you cannot obtain the required information, contact the company.

7. In the event of overheating, fire, flood, or physical damage, turn off all power to your water heater. Do not power up the heater until it has been examined by a trained professional.

8. Do not store or use gasoline or other flammable vapors and liquids, such as adhesives or paint thinner, in the vicinity of this water heater. If such flammable materials must be used near the unit, open nearby doors and windows to allow for ventilation.

9. California law requires, and other states may require that all new and replacement water heaters, and all existing water heaters, must be braced, anchored, or strapped to resist falling or horizontal displacement due to

earthquake motion. At a minimum, any water heater shall be secured in accordance with the California Plumbing Code.

Please read the following safety information before proceeding:

Water temperature over 125°F (51.6°C) can cause severe burns instantly or death from scalds.

Children, people with disabilities, and the elderly are at highest risk of being scalded.

See instruction manual before setting the temperature at the water heater.

Feel water before bathing or showering.

Temperature-limiting valves are available. See manual.

The temperature of the water in the heater is regulated by an adjustable, automatic, temperature control which uses surface mounted thermistors located behind the outer plastic jacket. These automatic controls are set at the factory to maintain a water temperature of 125°F. Although these controls are designed to meet industry standards, they can fail to control temperature properly without any notice and therefore should be tested periodically for your protection.

To perform the test:
Turn on the hot water faucet and measure the maximum temperature with an accurate thermometer. If the temperature is above the safe limits for your circumstances call a service technician to adjust or replace the control.

DANGER: IF YOU DISCOVER EXTREME HOT WATER COMING FROM THE FAUCET, IMMEDIATELY SHUT OFF THE ELECTRICITY AT THE MAIN SWITCH AND CALL A COMPETENT SERVICE PERSONNEL. ANY OVERHEATED WATER HEATER IS A POTENTIAL HAZARD TO LIFE AND PROPERTY. DO NOT OPERATE UNTIL THE SOURCE OF THE PROBLEM HAS BEEN DETERMINED AND ELIMINATED.

GENERAL INFORMATION

PLEASE READ INSTRUCTIONS COMPLETELY

BEFORE INSTALLING WATER HEATER

IMPORTANT OWNER'S RESPONSIBILITY

Hubbell Electric Heater Company (herein called the Company) specifically does not expressly or impliedly warrant the merchantability or the fitness for any particular purpose or the performance of the heater within that system, nor does it assume liability for any consequential damage to general property or other components of the system.

The Hubbell Omni PBX Heat Pump Water Heater uses a small amount of electricity to transfer heat from the air to water. In comparison, traditional electric water heaters use resistive heating elements to directly heat the water. A benefit of the heat pump water heater is that it uses less than a third of the electricity of a traditional electric water heater to produce the same amount of hot water and therefore the Hubbell Heat Pump Water Heater is significantly more energy efficient compared to a conventional electric water heater.

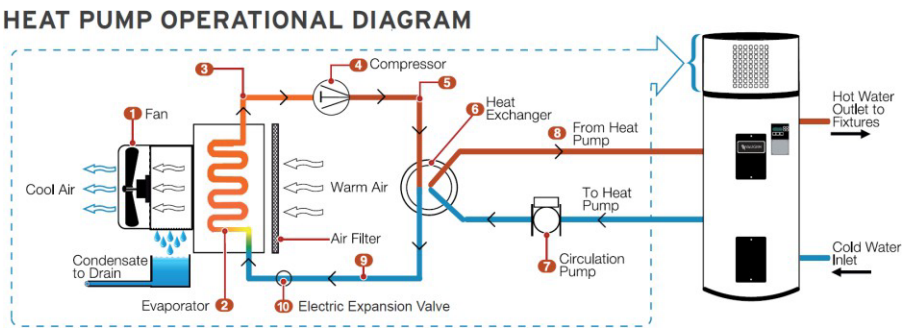
In principle, a heat pump works like a refrigerator in reverse. A refrigerator moves heat from inside the refrigerator and transfers that heat energy to the surrounding room. A heat pump water heater on the other hand, pulls free heat from the surrounding air and transfers that heat to the water stored in the tank. The Hubbell Omni PBX Heat Pump Water Heater can pull heat out of air as cool as 35°F, and if it cannot provide enough heating capacity to meet demand, the water heater includes back-up resistive heating elements to ensure the unit provides sufficient hot water. In addition, the heat pump process of removing heat from the air and transferring it to the water results in the exhaust of cooler dryer air while the unit is heating water.

Generalized instructions and procedures cannot anticipate all situations. For this reason, only qualified installers should perform the installation. A qualified installer is a licensed person who has appropriate training and a working knowledge of the applicable codes, regulations, tools, equipment, and methods necessary for safe installation of the heat pump water heater.

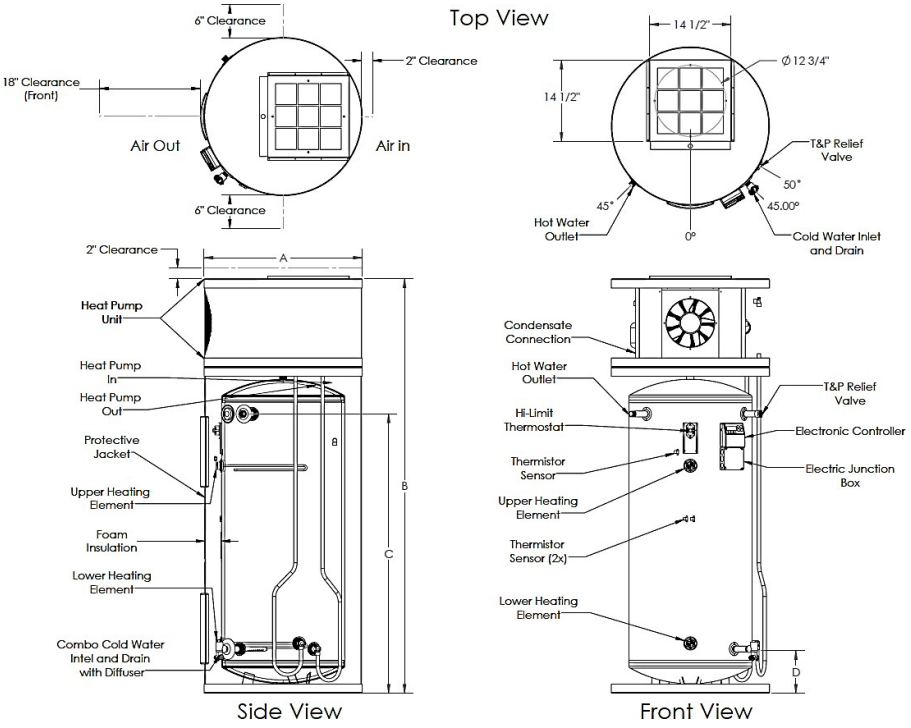
If questions regarding installation arise, check with your local plumbing and electrical inspectors for proper procedures and codes. Local codes take precedence over instructions in this manual.

OPERATING PRINCIPLE

1. The built-in fan draws room air into the heat pump compartment and across an evaporator coil, and exhausts cooler and slightly dryer (dehumidified) air.
2. The evaporator coil captures heat energy in the air and transfers that energy to a specially formulated CFC free refrigerant contained within the evaporator.
3. The refrigerant changes from a liquid/gas mixture to 100% vapor as it gets warmer.
4. The refrigerant, now entirely vapor, exits the evaporator and passes into a compressor.
5. The vapor is compressed, causing it to become a superheated hot gas and then flows to the heat exchanger.
6. The heat exchanger transfers heat energy from the superheated hot gas to the cold water from the tank.
7. The pump circulates cold water from the tank through the heat exchanger in the upper unit, resulting in a continuous transfer of heat energy from the superheated gas to the water.
8. Hot water exits the heat exchanger and is stored in the tank.
9. The superheated gas condenses back to a liquid.
10. The liquid refrigerant expands when passing through the expansion valve, becoming a vapor/liquid mixture, and awaits to repeat the process.



HEAT PUMP DESIGN



OPTIONS

- 1-1/2” Male NPT inlet and outlet water connections.
- ASME tank construction.
- Tank installed heat exchanger for use with solar or radiant heating systems.
- Alternate single and 3 phase voltages and alternate wattages.
- Condensate removal pump (120V plug-in) to remove and lift condensate to drain.
- Ducting Options available- 10” - Ducting Kit p/n 900-00010-00
- “CN” Models have CTA-2045 and NEEA compliance.

SPECIFICATIONS

Vessel:	HydraStone Lined Steel
Pressure Rating:	150 psi WP, 300 psi TP
Orientation:	Vertical
Inlet Size:	3/4” Female NPT or 1-1/2" MNPT heater dependent
Outlet Size:	3/4” Male NPT or 1-1/2" MNPT heater dependent
Drain Size:	3/4” GHT
Condensate Size:	3/8” Tube
Relief Valve Size:	3/4” Female NPT
Relief Valve Type:	T&P, 210°F, 150 psi
Insulation:	3” Polyurethane Foam
Jacket:	High Impact Composite

Voltage:	208-240, 277 or 480 Volts AC
Phase:	Single or 3 phase
Frequency:	60 Hz
Elements:	Refer to Rating Plate
Hi-Limit:	190°F Manual Reset
Thermostat Range:	50-160°F
Error Indication:	Visual and Audible
Demand Response Capable:	Yes (with option CN)
Child Lock Capable:	Yes

Refrigerant:	R134A
Ozone Depleting Potential:	0
Global Warming Potential:	1430
Over Pressure Safety:	Manual Reset
Field Chargeable:	No
Air Flow (High Fan):	450 CFM
Air Flow (Low Fan):	250 CFM
Air Filtration:	Washable / Removable
Temperature Range:	35-110°F

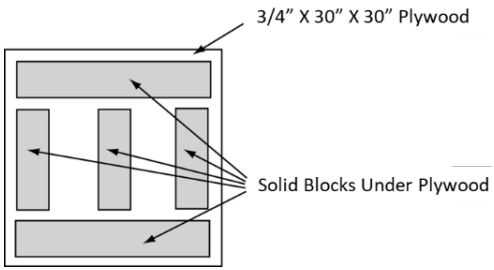
INSTALLATION GUIDELINES

A. INSPECTING AND PREPARING THE HEATER

- ❑ Disassemble the crate and remove the shrink wrap packaging. The packaging will contain a T&P valve (temperature and pressure relief valve).
- ❑ Do not cover or damage the T&P relief valve opening located on the top right of the tank.

B. LOCATION

- ❑ **CAUTION: All water heaters have a risk of leakage at some unpredictable time.**
- ❑ **CAUTION: The heater's outer jacket is plastic and can melt.**
- ❑ Do not install in close proximity to wood burning stove or other high temperature apparatus.
- ❑ Do not place the heater where there is a risk of property damage in the event of a leak.
- ❑ Do not install in an area where flammable liquids or combustible vapors are present.
- ❑ Place the heater on a solid foundation in a clean, dry location.
- ❑ The heater should be protected from freezing and water lines should be insulated to reduce energy and water waste.
- ❑ The space that the water heater is installed in must be no less than 10' x 10' x 7' high (700 cubic feet). If a smaller space is used, there must be louvers installed in the space that will allow for 450 CFM air flow.
- ❑ The installation location must not be cooler than 35°F. Locations with warmer ambient air (ex. furnace rooms) are more advantageous as they provide abundant "free" heat.
- ❑ Face the front of the heat pump water heater away from walls.
- ❑ Leave sufficient headroom to service the heat pump unit.
- ❑ The heat pump dehumidifies the air and as a result produces condensate which must be piped to a drain or outdoors.
- ❑ **NOTE: If the heat pump is placed on blocks to raise it from the floor, be sure to support the entire bottom with at least ¾" plywood on the top of the blocks.**



C. PROTECTION FROM WATER DAMAGE

- **CAUTION: All water heaters have a risk of leakage at some unpredictable time.**
- It is the customer's responsibility to provide a catch pan or other adequate means, so that the resultant flow of water will not damage furnishings or property.
- The warranty provided assures replacement within its terms, but specifically does not warrant against consequential damage caused by a leaking water heater.

D. TEMPERATURE & PRESSURE RELIEF VALVE

- **WARNING: A POTENTIAL HAZARD TO LIFE AND PROPERTY MAY EXIST IN ANY WATER HEATER IF AN APPROVED TEMPERATURE-AND-PRESSURE RELIEF VALVE IS NOT PROPERLY INSTALLED.**
- For protection against excessive pressures and temperatures in this water heater, install temperature-and-pressure protective equipment required by local codes, but not less than a combination temperature-and-pressure relief valve certified by a nationally recognized testing laboratory that maintains periodic inspection of production of listed equipment of materials, as meeting the requirements for Relief Valves and Automatic Gas Shutoff for Hot Water Supply Systems. ANSI Z21.22.1971. This valve must be marked with a maximum set pressure not to exceed the marked maximum allowable working pressure of the water heater (150psi). Install the valve into an opening provided and marked for this purpose in the water heater and orient it or provide tubing so that any discharge from the valve will exit only within 6 inches above, or at any distance below the structural floor and cannot contact any live electrical part. The discharge opening must not be blocked or reduced in size under any circumstances.
- **CAUTION: A relief valve is designed to discharge excessively hot water. THE CUSTOMER IS RESPONSIBLE TO PROTECT PROPERTY AND PERSONNEL FROM HARM WHEN THE VALVE FUNCTIONS.**
- The temperature and pressure relief valve opening is a ¾" NPT female threaded fitting for all models and is located at the top of the tank.
- Install the provided temperature and pressure relief valve in the provided fitting as shown in FIGURE 1 on page 13.
- The drain line from the relief valve must not be concealed or blocked and must be protected from freezing.
- No valves of any kind should be installed between the relief valve and tank or in the drain line.
- **WARNING: If the water supply is from a well, or known to have hard water, it is recommended to use a pressure relief valve in**

the cold-water line as well as a temperature and pressure relief valve in the hot water line.

E. PIPING INSTALLATION

- ❑ **WARNING: Some local codes mandate the use of a backflow preventer or check valve or pressure-reducing valve. An adequate expansion tank (or other adequate means) must be installed to prevent pressure build up or damage from thermal expansion when a check valve or backflow preventer or pressure-reducing valve is used. Failure to do so could result in tank leakage and therefore void the warranty.**
- ❑ The hot and cold-water fittings are a threaded connection to the tank. Do not overtighten.
- ❑ Water inlet connection is a ¾" NPT female threaded fitting on residential models. This connection serves as an inlet and drain combination. See FIGURE 1 on page 13.
- ❑ Water inlet connection is a 1.5" NPT male threaded fitting on commercial (D models). This connection is separate from the drain valve.
- ❑ Provide a shut off valve on the cold-water line. Mark for future emergency use.
- ❑ **Do not apply heat directly to the cold-water inlet as it includes a plastic dip tube which can melt.**
- ❑ Water outlet connection is a ¾" NPT male threaded fitting on residential models. See FIGURE 1 on page 13.
- ❑ Water outlet connection is a 1.5" NPT male threaded fitting on commercial models (D models).
- ❑ **NOTE:** The orientation of the hot water outlet pipe nipple must not change during installation to ensure water is taken from the highest level inside of the tank. There is a marking on the outlet nipple for reference.
- ❑ A piece of 8 foot x 3/8" clear tubing is provided with the heat pump water heater for condensate drainage.
- ❑ Pipe the condensate removal tube into a drain in the floor, or a condensate removal pump and follow all local plumbing codes.

F. FILLING THE WATER HEATER

- ❑ Completely close the drain valve.
- ❑ Open the highest hot water faucet to allow all air to escape from piping.
- ❑ Open the valve to the cold-water inlet and allow the heater and piping system to completely fill, as indicated by a steady flow of water from the open faucet.
- ❑ Close the faucets.
- ❑ Lift the top cover of the heat pump unit.

- ❑ Carefully open the air purge valve at the top of the heat pump unit to let air escape. See the Heat Pump Design illustration for the location on page 7.
- ❑ Fully tighten the air purge valve.

G. ELECTRICAL INSTALLATION

- ❑ Enter junction box with properly sized feeder leads. Note that overcurrent circuit protection of adequate size is also required.
- ❑ Connect these power leads to wires enclosed in junction box with supplied wire nuts.
- ❑ All other electrical connections are made at the factory; therefore, no other electrical connections are necessary.

H. DUCTING

- ❑ The heat pump water heater is capable of air intake and/or air exhaust ducting. The ducting adapters can be purchased with the assembled tank or as a retro installation kit.
- ❑ Heat Pump ducting kit part number = 900-00010-00
- ❑ Always check with local building and HVAC codes before designing the duct system.
- ❑ **CAUTION: DO NOT connect this water heater to existing duct work; it must be ducted separately from other appliances.**
- ❑ UL/ETL/CSA Certified terminations must be used for ducting to the outside. These terminations have been evaluated to ensure there is sufficient protection from rainwater entry and resistance to air flow is minimized.
- ❑ The ducting adapters are for 10” standard ducting.
- ❑ The air inlet adapter is located on the top of the unit over the air filter.
- ❑ The air exhaust adapter is located at the front of the unit in front of the fan.
- ❑ See FIGURE 2 on page 14.
- ❑ Calculated duct length is the inlet plus exhaust length. Each 45 or 90 degree elbow adds approx. 10-15’ to the length of the exhaust. This combination is to not exceed the table below.

Duct Type	10” Diameter
Flexible	100’
Rigid	300’

I. EARTHQUAKE PREVENTION

- ❑ In some states, the water heater must be braced, anchored, or strapped to avoid moving during an earthquake.
- ❑ In the State of California: Contact local utilities for code requirements in your area, visit http://www.dsa.dgs.ca.gov, or call 1-916-445-8100 and request instructions.

FIGURE 1

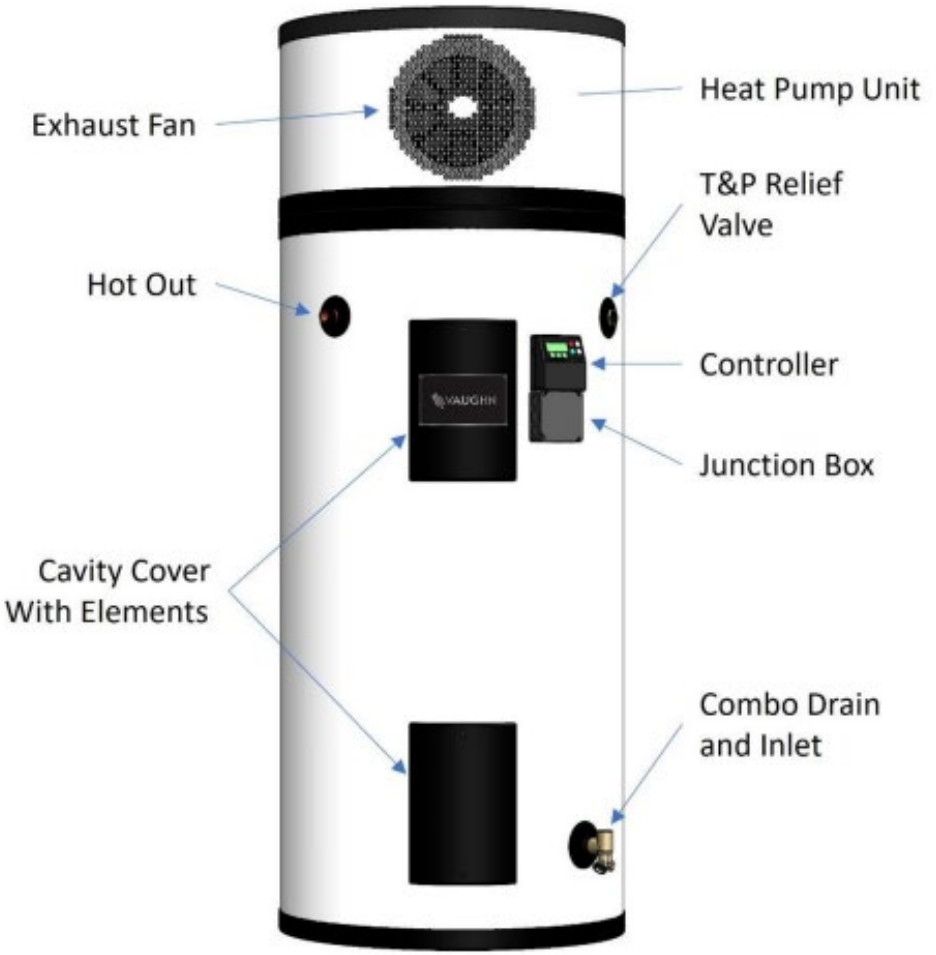
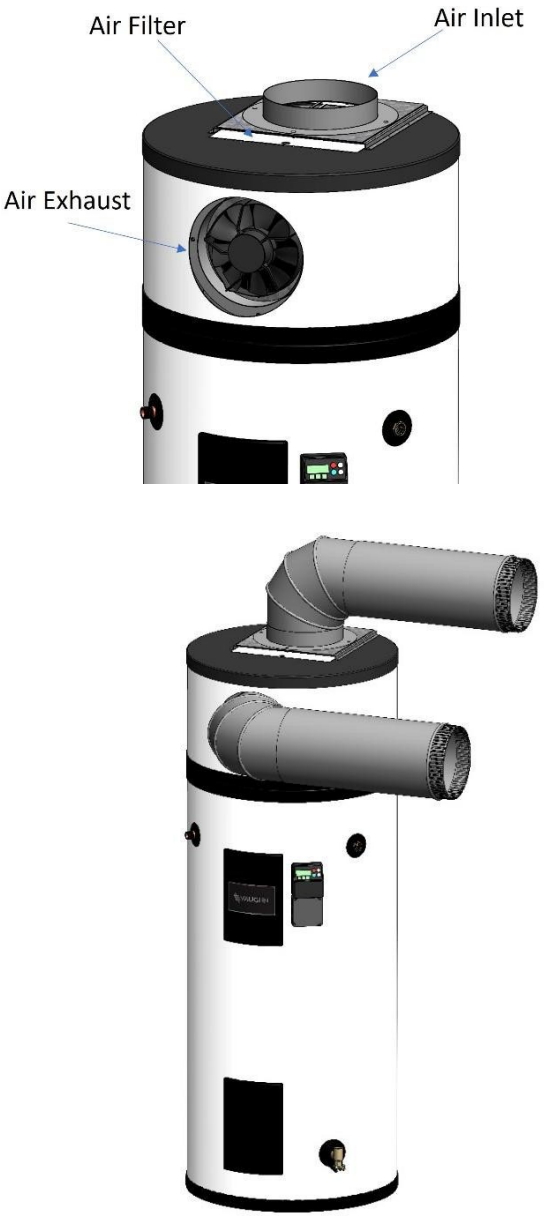

Exhaust Fan
Heat Pump Unit
T&P Relief Valve
Hot Out
Controller
Junction Box
Cavity Cover With Elements
Combo Drain and Inlet

FIGURE 2



Example of possible ducting orientation

CONTROLLER OPERATION

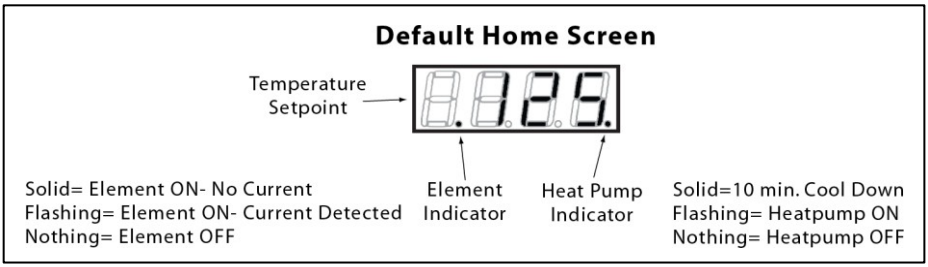
A. ABOUT THE CONTROLLER

- The Hubbell Omni PBX Heat Pump Water Heater Controller provides the user with the ability to control and customize the operation of their heat pump water heater. The 4-digit display shows the current status of the water heater and can display useful information such as current temperature conditions inside the tank, error notifications, and more. It allows basic customization, such as mode and temperature setpoint, as well as more advanced settings, such as temperature differential, and display settings. Once the setup is complete the water heater is automatic in operation and will maintain a full tank of water at the temperature setting of the controller.

B. THE HOME SCREEN

- The Hubbell Hot Water Heat Pump comes programmed in Hybrid mode (“hibr”) with a temperature setpoint of 125°F.
- The home screen provides a quick reference to the current status of the water heater and can be modified to fit the user’s preference. If desired, the temperature readouts can be displayed in Celsius and the user has the option to display either the temperature setpoint, or the current temperature conditions inside the tank, denoted by “t” and “b” preceding the top and bottom temperatures, respectively.
- If an error condition is detected, the error code is displayed until the error condition is resolved. There are several error conditions which may result in this behavior. Please see Controller Error Messages on page 30.
- As shown in the following diagram, the home screen also has two indicators: Element Indicator and Heat Pump/Cool Down Indicator.
- The Element Indicator denotes whether the element is on, off, or if there is no current detected. If the Element Indicator light is not visible, no elements are powered on. If the Element Indicator light is flashing, the unit has not yet reached the temperature setpoint, and that current is being drawn to power the heating elements. If the Element Indicator light is on solid, the unit is calling for power but is not detecting amperage draw to the elements. This may indicate a problem with the elements.
- The Heat Pump Indicator denotes whether the heat pump is on, off, or in a cool down mode. If the Heat Pump Indicator light is not visible, the heat pump is off. If the Heat Pump Indicator light is flashing, the heat pump is on. If the Heat Pump Indicator light is on solid, the heat pump is in a cool down mode. The duration of this cool down period is 10 minutes and starts from the time when the compressor turns off. When

the compressor is running, pressure builds up within the heat pump module. The Heat Pump Indicator shows whether the heat pump has had sufficient time to allow the pressure within the system to stabilize.



C. BUTTON OVERLAY

- The button overlay provides the user with a means to alter the configuration settings and control the operation of the water heater. A brief description of the basic functionality of each button is provided below. Detailed descriptions of how to use these buttons to perform certain functions is provided throughout this manual.

Standby

- Used for taking the water heater in and out of standby mode. When the unit is in standby, “StbY” will be displayed. The tank will come on at very low temperatures to prevent freezing. Also serves as an execute button in certain menus. Used to cancel setpoint selection without saving.

Mode

- Used for changing modes and to enter settings. Serves as a cancel button in certain menus. Used for navigating the controller settings menu.

Up

- Used for increasing numeric settings. Also scrolls up when changing settings. Can be held for auto scroll.

Down

- Used for decreasing numeric settings. Also scrolls down when changing settings. Can be held for auto scroll.

Away 

- Used for entering/exiting vacation (away) override. Also used to set/unset child lock. Can be used to clear temporary overrides.

Max Heat 

- Used for entering/exiting Super Mode (Max Heat). Can be used to clear temporary overrides.

Fan Off 

- Used for entering/exiting Electric Mode (Fan Off) and low fan speed override. Can be used to clear temporary overrides.

D. TEMPERATURE SETPOINT 

- The temperature setpoint represents the desired approximate temperature of the water inside the heat pump water heater. The setpoint may be adjusted to your liking as high as 160°F degrees or low as 50°F. Standby mode lowers the setpoint to 50°F.
- To change the temperature setpoint for hot water output, from the home screen, press the ▲ AND ▼ buttons simultaneously on the controller. The setpoint temperature will flash quickly on the display. The temperature is adjusted up or down as the ▲ or ▼ buttons are pressed. Pressing and holding the ▲ or ▼ will allow fast scrolling through the temperatures. Once the desired temperature setting has been reached, press the ▲ AND ▼ buttons simultaneously to save the new setpoint. The setpoint will also auto save 5 seconds after single button presses. The temperature will NOT auto save after fast scrolling without pressing the ▲ AND ▼ buttons to save the new setpoint.

E. OPERATING MODES

- The Hubbell Omni PBX Heat Pump Water Heater is equipped with four operating modes: Economy, Hybrid, Electric, and Super. A brief overview of each mode and setting is listed below.

Economy 

- Economy mode allows only the heat pump portion of the unit to operate; the electric heating elements will not operate in this mode.

This is the most efficient mode but may not meet high demand situations.

Hybrid 

- Hybrid mode makes efficient use of the electric heating elements. In Hybrid mode, the heat pump provides the vast majority of the heating capacity. The top electric element will be automatically switched on only when necessary to meet high demand situations. This is the default mode from the factory.

Electric 

- Electric mode disables the heat pump unit, allowing only the electric heating elements to heat the water in the tank.
- On “CN” models, this mode can only be active for a maximum of 72 hours, so a duration prompt needs to be set after selection.

Super 

- Super mode allows either of the electric elements as well as the heat pump to function simultaneously, providing the fastest recovery option for the unit. This provides the fastest heating rate in high demand situations.
- On “CN” models, this mode can only be active for a maximum of 72 hours, so a duration prompt needs to be set after selection.

F. CHANGING THE MODE

- To display the current mode, from the home screen, press the MODE button once. This will display the current mode the water heater is operating in for 10 seconds. Allow the display to timeout to return to the home screen.
- On “CN” models, Electric and Super modes must be cleared before the mode can be changed. To clear these modes, push either the AWAY, MAX HEAT, or the FAN OFF buttons once. A clear message “CLr” will display. This puts the water heater into the previous selected mode. These modes can also be cleared by holding the MODE button or pushing it twice.
- To switch between modes, from the home screen, press the MODE button once. This displays the current mode. Before 10 seconds elapses, press the MODE button again. The display will show the current mode as a flashing display. Press the MODE button again to cycle through the mode options until the desired mode is displayed and press the ⏻ button to set the mode.

- On “CN” models, if selecting Super or Electric mode, an override timer will then display to set the duration. The timer can be set between 1 to 72 hours using the ▲ and ▼ buttons. Press the ⏻ button to confirm timer.
- **Note:** To cancel out of the mode select menu without changing the mode, press any button other than the MODE or ⏻ buttons.

G. TEMPORARY OVERRIDES

- The Hubbell Omni PBX Heat Pump Water Heater is equipped with three temporary overrides buttons. These overrides are Vacation Override, Fan Off Override & Low Fan Speed Override, and Max Heat Override. A brief overview of each override and setting is listed below.

Away Override 

- Away override deactivates the water heater for extended periods of time. This is useful for saving energy when the water heater will not be used for a period of several days. Using only the heat pump, the unit will maintain a water temperature of 50°F to prevent freezing.
- To activate Away override, press the AWAY button on the controller. The display will show a flashing “A-07,” indicating the default duration of 7 days. To adjust the duration, use the ▲ or ▼ buttons on the controller until the display indicates the desired amount of time in days e.g., “A-7” for a 7-day period of Away override. Press the ⏻ button to confirm the timer. The minimum duration is 2 days, and the maximum is 99 days.
- The heat pump will exit Away override automatically one day before the specified time period has elapsed. It is designed this way such that when the user returns from being away, hot water will be available. To end the session prematurely, press either the FAN OFF, MAX HEAT, or AWAY buttons once. The display will show a “CLr” message and place the controller into the previous mode.
- To deactivate the water heater for an indefinite period, place the water heater in standby mode by pushing the ⏻ button.

Fan Off Override and Low Fan Speed Override

- The Fan Off override allows the user to temporarily stop the heat pump portion from operating and place the water heater into Electric mode or lower the fan speed for a specified number of hours. This is useful if the water heater is located in a populated part of a building, and the

user wishes to temporarily eliminate any noise or airflow created by the heat pump unit.

- To activate Fan Off override, press the FAN OFF button on the controller. The display will show a flashing "E-06," indicating the default duration of 6 hours. To adjust the duration, use the ▲ or ▼ buttons on the controller until the display indicates the desired amount of time in hours e.g., "E-6" for a 6-hour period of Fan Off override. Press the ⏻ button to confirm the timer. The minimum duration is 1 hour, and the maximum is 72 hours.
- To adjust the Low Fan Speed override, press the FAN OFF button twice to display a flashing "L-06," indicating the default duration of 6 hours. To adjust the duration, use the ▲ or ▼ buttons on the controller until the display indicates the desired amount of time in hours e.g., "L-6" for a 6-hour period of Low Fan Speed override. Press the ⏻ button to confirm the timer. The minimum duration is 1 hour, and the maximum is 72 hours.
- The Fan Off override and Low Fan Speed override feature will automatically turn off after the specified number of hours has elapsed. To end the session prematurely, press either the FAN OFF, MAX HEAT, or AWAY buttons once. The display will show a "CLr" message and place the controller into the previous mode.

Max Heat Override

- The Max Heat override supersedes the water heater's current mode and temporarily changes to Super mode, which will allow use of either electric heating element as well as the heat pump unit for a set period of time. This is useful if the user is expecting high demand hot water usage for a specified number of hours.
- To activate the Max Heat override, press the MAX HEAT button and the controller will display a flashing "S-06," indicating the default duration of 6 hours. To adjust the duration, use the ▲ or ▼ buttons on the controller until the display indicates the desired amount of time in hours e.g., "S-06" for a 6-hour period of Max Heat override. Press the ⏻ button to confirm the timer. The minimum duration is 1 hour, and the maximum is 72 hours.
- The Max Heat override feature will automatically turn off after the specified number of hours has elapsed. To end the session prematurely, press either the FAN OFF, MAX HEAT, or AWAY buttons once. The display should show a "CLr" message and place the controller into the previous mode.

Child Lock 

- Child Lock is a safety feature to lock the controller. If the user wishes, they may set the child lock, which will disrupt any future attempt to change modes, change the setpoint, etc. The user will be locked out of performing any function on the device until the child lock is released.
- To activate the Child Lock feature, press and hold the AWAY button until "chLd" is displayed on the screen and wait 5 seconds. The controller is now locked.
- To deactivate the child lock, press and hold the AWAY button until "Un" (unlock) is displayed and wait 5 seconds. The controller will be returned to the home screen.

H. CONTROLLER SETTINGS MENU

- The Hubbell Omni PBX Heat Pump Water Heater is equipped with various customizable settings. A brief overview of each setting is listed below.
- To access the controller settings menu, from the home screen, press and hold the MODE button until the display reads "FLtr", this is the first selection in the controller settings menu.
- To navigate the controller settings menu, if "FLtr" is not the desired setting, continue to press the MODE button to cycle through the available settings until the desired setting is displayed. When the desired setting is displayed, press the ▲ or ▼ buttons to edit the setting, the display will begin to flash. Continue to press the ▲ or ▼ buttons until the desired choice is displayed. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button. The change will be made, and the controller will return the user to the controller settings menu.

Filter 

- The filter indicator will alert the user when the filter needs to be checked or cleaned after 1000 hours of use or 365 days of operation, whichever comes first.
- A display alternating between "Err" (error) and "F-07" indicates that the filter needs to be cleaned. The error will have to be cleared manually, using the controller settings menu after the filter has been cleaned.
- To clear the filter warning, access the controller settings menu by pressing and holding the MODE button until the display reads "FLtr". Press the ▲ or ▼ buttons to alternate between cancelling the operation, "no", or resetting the filter, "rSt". To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

Diagnostics 

- Enabling this setting causes the control to perform various checks on both elements and show the top and bottom sensors.
- Any errors will be displayed after all the tests are complete. Please see the controller troubleshooting section to correct any errors found.
- To enable the diagnostic setting, access the controller settings menu by pressing and holding the MODE button until the display reads “FLtr”. Release and press the MODE button until “diAg” is displayed. Press the ▲ or ▼ buttons to alternate between cancelling the operation, “no”, or resetting to default, “YES”. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.
-

Differential

- A temperature differential represents how far the water temperature can fall before the water heater must call for heat again. For example, if the setpoint is 125°F and the differential is 10°F, then after satisfying at 125°F, the water temperature must fall to 115°F before the water heater will call for heat.

Top Differential 

- The top differential controls the temperature differential in the upper section of the water heater. The top differential can be adjusted between 25°F and 40°F. Typically, the top differential is larger than the bottom differential.
- To change the top differential, access the controller settings menu by pressing and holding the MODE button until the display reads “FLtr”. Release and press the MODE button until “diFt” is displayed. Press the ▲ or ▼ buttons until the desired value is reached. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

Bottom Differential 

- The bottom differential controls the temperature differential in the lower section of the water heater. The bottom differential can be adjusted between 5°F and 20°F. Typically, the bottom differential is smaller than the top differential.
- To change the bottom differential, access the controller settings menu by pressing and holding the MODE button until the display reads “FLtr”. Release and press the MODE button until “diFb” is displayed. Press the ▲

or ▼ buttons until the desired value is reached. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

Buzzer 

- The buzzer is programmed to sound every 30 seconds whenever an error is detected that requires user attention. It is designed to attract the attention of the user, and it is highly recommended that the user leave this buzzer on. However, the user can turn the buzzer off if desired (not available in “CN” models).
- To turn the buzzer on or off, access the controller settings menu by pressing and holding the MODE button until the display reads “FLtr”. Release and press the MODE button until “buSr” is displayed. Press the ▲ or ▼ buttons to alternate between buzzer on, “bOn”, or buzzer off, “bOFF”. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.
- A buzzer ring may temporarily be muted by pressing any button.

Display 

- By default, the home screen will show the temperature setpoint and any active temporary overrides.
- This setting can be changed to display the measured water temperature inside the tank for both the upper and lower sections. In this setting, the home screen will cycle the display to show the top temperature (designated by a ‘t’ preceding the measurement) for 5 seconds, followed by the bottom temperature (designated by a ‘b’ preceding the measurement) for 5 seconds.
- To change the home display, access the controller settings menu by pressing and holding the MODE button until the display reads “FLtr”. Release and press the MODE button until “diSP” is displayed. Press the ▲ or ▼ buttons to alternate between display setpoint, “diSS”, or display water temperature, “diSt”. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

Defaults 

- Enabling this setting will reconfigure the controller to factory defaults. The factory defaults are shown below.
  - Setpoint: 125°F
  - Mode: Hybrid
  - Top Differential: 40

- Bottom Differential: 10
- Fan Speed: High
- Display: Show Setpoint
- Degrees: Fahrenheit
- Buzzer: On

- To set the unit back to factory defaults, access the controller settings menu by pressing and holding the MODE button until the display reads "FLtr". Release and press the MODE button until "dFLt" is displayed. Press the ▲ or ▼ buttons to alternate between cancelling the operation, "no", or resetting to default, "YES". To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

Degrees 

- The degrees setting provides the user with the ability to switch between imperial and metric temperature readings. The "dEgF" choice will set the temperatures to be displayed in Fahrenheit. The "dEgC" choice will set the temperatures to be displayed in Celsius.
- To change the display units, access the controller settings menu by pressing and holding the MODE button until the display reads "FLtr". Release and press the MODE button until "dEgr" is displayed. Press the ▲ or ▼ buttons to alternate between degrees Fahrenheit, "dEgF", or degrees Celsius, "dEgC". To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

Disable Errors

- The disable errors setting allows for use of external timer controllers to inhibit operation of the elements during certain times without removing power to the controller or otherwise affecting operation. If no external control is used, these errors should remain enabled. Use the Standy button to clear the F-03 and F-04 errors, by going into and out of Standby mode, or cycle power to the tank.

Bottom Error 

- To disable the bottom element error, access the controller settings menu by pressing and holding the MODE button until the display reads "FLtr". Release and press the MODE button until "dEF4" is displayed. Press the ▲ or ▼ buttons to alternate between "OFF" or "ON. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

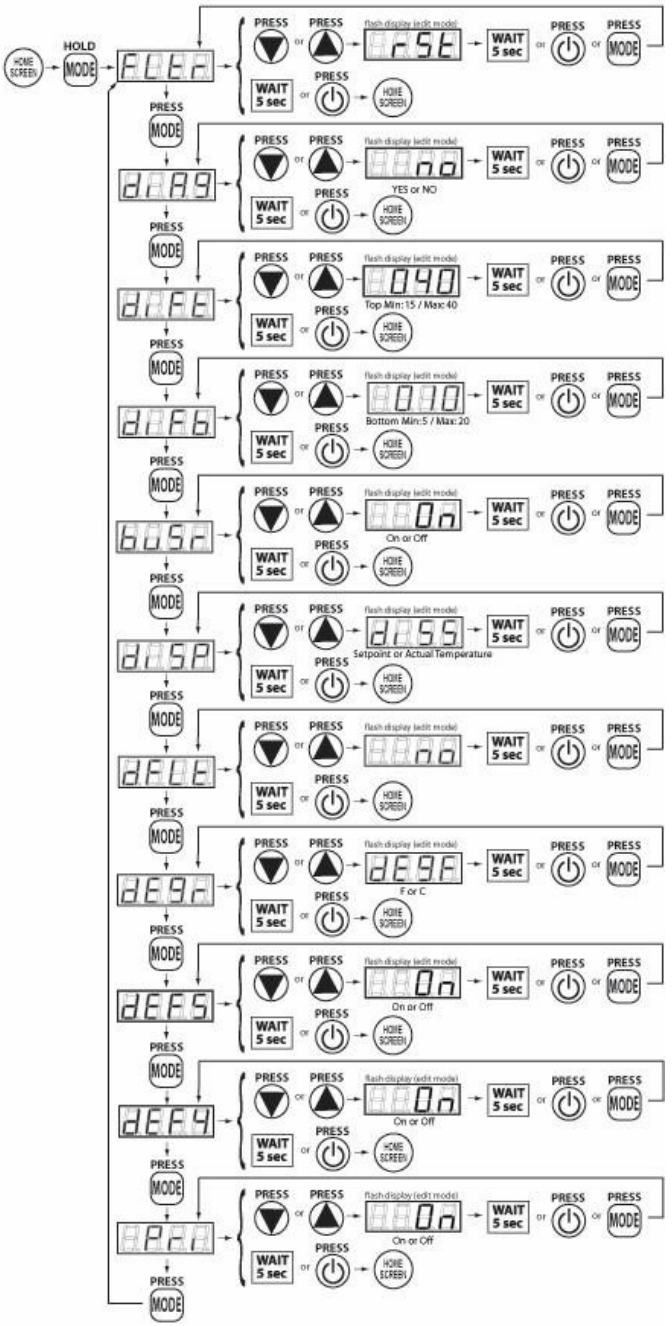
Top & Bottom Error 

- To disable both the top and bottom element errors, access the controller settings menu by pressing and holding the MODE button until the display reads “FLtr”. Release and press the MODE button until “dEF5” is displayed. Press the ▲ or ▼ buttons to alternate between “OFF” or “ON. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

Prime 

- Activating this feature will turn on just the water pump to help draw water and eliminate air (prime). “Pri” will show on the display in place of the mode. Use this feature for about 2 minutes if a pressure error occurs after installation or after the tank is drained. Prime is automatically activated for two minutes upon power up if the power was off to the control for two days or more.
  To enter the Prime setting, access the controller settings menu by pressing and holding the MODE button until the display reads “FLtr”. Release and press the MODE button until “Pri” is displayed. Press the ▲ or ▼ buttons to select “ON” or “OFF”. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

CONTROLLER SETTING FLOWCHART



MAINTENANCE

Properly maintained, your water heater can provide years of dependable, trouble-free service. It is suggested that the purchaser follow the preventive maintenance program outlined below.

Before performing any maintenance procedure, make certain the power supply is OFF and cannot accidentally be turned on.

A. CONTROLS

- A periodic inspection of the operating controls and wiring should be made by qualified service personnel. The temperature of the water should be tested periodically at the faucet to be sure temperature controllers are working properly.

B. CLEANING THE HEAT PUMP FILTER

- When the filter needs to be cleaned, the controller will alternate between “Err” and “F-07”. The filter is located on the top of the heat pump water heater. To remove and clean the filter, pull the filter towards the front of the tank and out of the filter slot. Clean the filter either by vacuuming or with soap and water. Allow filter to dry thoroughly before replacing.
- To clear the filter error, press and hold the MODE button to access the controller settings menu. “FLtr” will be displayed. To clear the filter warning, in the controller settings menu, press the ▲ or ▼ buttons to alternate between cancelling the operation, “no”, or resetting the filter, “rSt”. To set the change, let the display timeout after 5 seconds, press the MODE button, or press the ⏻ button.

C. ELECTRICAL TESTING

- Always turn the power OFF to the water heater before examining any electrical component.
- Always reinstall insulation and plastic covers after servicing or replacing elements, thermostats, or thermistors.
- Never energize elements unless the tank is completely filled with water.
- The standby power button on the controller does not turn power off or disconnect power from the heater. Circuits remain energized even when in standby.

D. VERIFYING ELEMENTS

- **WARNING: The following should only be performed by a certified electrician.**
- The standard heat pump element size is 4500 watts. This may change depending on your water heater selection.

Verifying Element Resistance:

- **NOTE: Water Heater must NOT be energized for this test.**
- Set the multimeter to read ohms. Place leads on both element terminals. Verify ohm reading is 10-14 ohms (depending on meter accuracy) for standard 4500 watt elements.

Verify Element Operation:

- **NOTE: Element must be energized for this test.**
- Set the multimeter to read amps. Place meter clamp around either wire to element. Verify amp reading to the “Electric” column in the chart below.

Verifying Voltage at Element:

- **NOTE: Element must be energized for this test.**
- Set the multimeter to read volts AC. Place leads on both element terminals. Verify correct voltage as listed on nameplate.

Amperage Rating Chart (Amps) for 4500-Watt Elements				
Supply Voltage	**Total Maximum Amp Draw in Various Operating Modes**			
	Economy	**Hybrid**	**Electric**	**Super**
240V	2.6	18.75	18.75	21.35
220V	2.8	20.45	20.45	23.25
208V	3.0	21.63	21.63	24.63

E. ANNUAL INSPECTION

- Lift test lever on relief valve and let water run through valve for a period of approximately 10 seconds. This will help flush away any sediment that might build up in water passageways.
- Inspect element fittings for leakage as follows:
- Shut off power supply and remove element housing cover.
- Visually inspect heating element gasket for evidence of leakage.
- Rub finger around gasket that is between the heating element and tank flange for any evidence of moisture. If moisture is present or a water drip is observed, replace the heating element gasket.
- Check for loose electrical connections. Tighten as necessary.
- Flush tank at 10 years (or earlier if needed).

TROUBLESHOOTING

Symptom	Probable Cause	Corrective Action / Remedy
Blank display	Circuit breaker tripped at source	Reset circuit breaker.
	Faulty controller	If controller display is not lit and power is available at the controller, check wire connections then replace controller.
No hot water	All hot water used.	Wait for tank to recover.
	High limit switch tripped.	Reset high limit switch.
	Heating element(s) inoperable (only applicable when not in “Econ” mode).	Run Diagnostics
	Check control display for error messages.	See heat pump error codes in manual.
Relief valve discharges occasionally	Temperature and pressure relief valves are designed to operate if the water temperature exceeds 210°F or tank pressure exceeds the pressure rating of the safety relief valve.	Could be related to faulty T&P valve or water expansion in system. Contact a service technician to replace T&P and add an expansion tank.
Relief valve discharges continuously	Temperature and pressure relief valves are designed to operate if the water temperature exceeds 210°F or tank pressure exceeds the pressure rating of the safety relief valve.	Could be related to faulty T&P valve or control system issues. Shut down power and contact a service technician.

CONTROLLER ERROR MESSAGES

Error	Symptom / Probable Cause	Corrective Action / Remedy
F-01 or F-02	Indicates that the controller's water temperature sensor has experienced an error. F-01 indicates top sensor (red sensor wires), F-02 indicates bottom sensor (black sensor wires).	Turn off the power to the unit. Examine the connections on the back of the controller to verify that connector is attached, and then repower the unit. If the problem persists, contact your local service professional.
F-03 or F-04	Indicates that one of the elements does not draw power when expected. F-03 indicates top element failure, F-04 indicates bottom element failure.	Turn off the power to the unit. Examine the connections in the junction box and at the high limit and element terminals. Check resistance of the elements.
F-05	F-05 indicates there is no current through both elements.	Turn off the power to the unit. Examine the connections in the junction box and at the high limit and element terminals. Check for a tripped or faulty high limit. Check external timer switch if present. If the problem persists, contact your local service professional.
F-06	Indicates that an error has occurred in communications from the controller in the heat pump unit and the controller on the water heater.	Turn off the power to the unit. Examine the connections on the back of the main control. Check all connections on the heat pump control. Power the unit. If the error continues, contact a service professional. Will switch automatically to Electric Mode.
F-07	Indicates when the filter needs to be cleaned. The error will have to be cleared manually after the filter has been cleaned.	This is the only error message that needs to be cleared manually; all other error messages should automatically be cleared upon resolution of the error. See Scheduled Maintenance for how to clean the filter.
F-08	Indicates that the heat pump unit air temperature sensor has experienced an error.	Turn off the power to the unit. Check connections on the heat pump control board.
F-09	Indicates that the heat pump unit pressure sensor has experienced an error.	Turn off the power to the unit. Check connections on the heat pump control board. Will switch automatically to Electric Mode.

NOTE: A buzzer ring may temporarily be muted by pressing any button. If a problem persists, contact your local service professional.

CONTROLLER ERROR MESSAGES CONTINUED

Error	Symptom / Probable Cause	Corrective Action / Remedy
F-10	Indicates that the heat pump unit water temperature sensor has experienced an error.	Turn off the power to the unit. Check connections on the heat pump control board. Will switch automatically to Electric Mode.
F-11	Indicates that the heat pump unit defrost temperature sensor has experienced an error.	Turn off the power to the unit. Check connections on the heat pump control board. Will switch automatically to Electric Mode.
F-12	Indicates that the water heater has experienced a pressure error in the refrigeration system, and the pressure limit switch has tripped.	Turn off the power to the unit. Remove the top housing and press the red button on the left side of the heat pump. This will reset the pressure sensor connection. Open air bleeder valve and check that no air comes out. Turn on power to the unit and activate the Prime setting in the controller settings menu to help prime the water pump. Check that water pump in the heat pump unit is circulating by checking pipe temperature in and out of heat exchanger. Will switch automatically to Electric Mode.
F-13	Indicates that the flow of the condensate tube is blocked.	Check for kinks or blockages in the condensate tube. Will switch automatically to Electric Mode.
F-14	Indicates when the unit is in defrost mode.	Defrost mode occurs when ice has built up on the evaporator coil. When the defrost cycle is complete the unit will return to its normal mode of operation. If constantly in defrost mode, check for blocked filters, defective fan, and defrost temperature sensor.
F-15	Indicates that the water heater has experienced a pressure error in the refrigeration system.	Turn off the power to the unit. Examine the connections on the heat pump unit. If a problem persists, contact your local service professional.
F-16	Indicates the ambient temperature of the room is too cold.	Wait or allow the room to warm up. Will switch automatically to Electric Mode.

NOTE: A buzzer ring may temporarily be muted by pressing any button. If a problem persists, contact your local service professional.

SERVICE

WARNING / CAUTION
The following should only be performed by a certified electrician or plumber.

Before servicing or replacing any part make sure to turn the power supply switch to the OFF position.

NOTE: Refer to your specific drawing for your heater

Surface Temperature Hi-Limit Cutout Switch

1. Disconnect power from unit.
2. Remove upper access cover and insulation.
3. Disconnect the wires from the four terminals.
4. Remove hi-limit switch.
5. Install new high limit switch.
6. Rewire hi-limit switch according to wiring diagram.
7. Reinstall access cover and insulation.

Heating Element

1. Disconnect power from unit.
2. Shut off incoming water supply.
3. Attach hose to drain connection.
4. Lift manual release lever on relief valve to let air into system or break union on outgoing water line and drain water from tank.
5. Remove upper and/or lower access cover and insulation, as applicable.
6. Disconnect the wires from the heating element terminals.
7. Remove the element from the tank.
8. Install new gasket and new heating element.
9. Rewire element according to wiring diagram.
10. Reinstall element and tighten.
11. Fill the tank and check around gasket for any leaks.
12. Reinstall access cover(s) and insulation.

Relief Valve

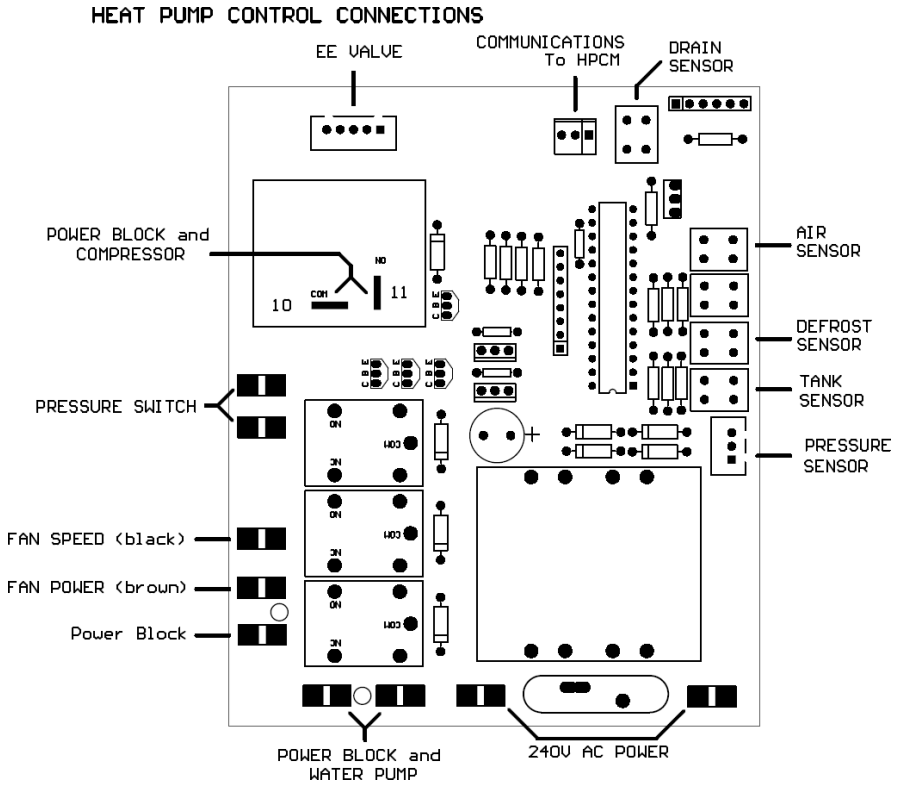
1. Disconnect power from unit.
2. Shut off incoming water supply.
3. Lift test lever on relief valve to relieve pressure in tank.
4. Disconnect overflow piping.
5. Unscrew relief valve, remove assembly, and replace with new one.
6. Connect overflow piping.
7. Turn on incoming water supply and check for leaks.

REPLACEMENT PARTS

Note: Refer to your specific drawing for parts not listed

Description	Part Number
Heat Pump Unit	261-00027-00
Thermistor Air Sensor	359-00003-00
Thermistor Top	359-00003-00
Thermistor Bottom	359-00003-00
Elements	Heater dependent
Combination Drain Assembly	for 120 gallon tank, p/n **Drain Valve** for all other tanks, p/n **Drain Assembly**
Filter	399-0005-00
Heat Pump Controller	HPC-1
Heat Pump Controller Main	HPCM-1
Water Pump	261-00035-00
Ducting Kit	900-00010-00
High Limit	D2719500
T&P Relief Valve Extension	EXT.75X3.75
Compressor Capacitor	3381229Z
T&P Relief Valve	120 gallon tank p/n: VRTPBNZ-075-NMF-8-150-40X 80 gallon tank p/n: VRTPBNZ-075-NMF-8-150 65 gallon tank p/n: VRTPBNZ-075-NMF-8-150 50 gallon tank p/n: VRTPBNZ-075-NMF-8-150
Special Components	Call Hubbell Technical Support

HPC -1 Connection Diagram



HOW TO OBTAIN SERVICE ASSISTANCE

Hubbell Electric Heater Company does not have a service department or personnel to service your heater in the field. A qualified installer or service technician must do all service work. Therefore, if you have any questions about your new water heater concerning service adjustment, repair, routine maintenance, or replacement - **first contact your installer, plumbing contractor, or service agency.**

In the event that the contractor is unable to help, refer to the telephone directory commercial listings for qualified service assistance.

If neither action has solved your problem, please have your plumbing contractor contact us for assistance.

Hubbell Tech Support 203 378-2422

HUBBELL ELECTRIC HEATER COMPANY
45 Seymour Street
Stratford, CT 06615

Phone: (203) 378-2659
Fax: (203) 378-3593
Hubbellheaters.com

When contacting Hubbell, the following information should be made available:

1. **The model and serial number of the water heater as listed on the rating plate on the heater.**
2. **Address where water heater is installed.**
3. **Name and address of dealer from whom the heater was purchased and installer's name and address.**
4. **Date of original installation and any service work performed since then.**
5. **Details of the problem as you can best describe.**
6. **List of people who have been contacted regarding the problem.**

WARRANTY

Ten (or Five) Year Limited Tank Replacement Policy

Ten (or One) Year Limited Parts Warranty

Hubbell Electric Heater Company , (hereinafter called the Company) offers the following Limited Warranty and Tank Replacement Policy to the original purchaser/owner of this residential water heater.

This Limited Warranty and Tank Replacement Policy is not transferable beyond the original purchaser/owner and is not valid if the tank is removed from initial installation site. The Company reserves the right to require proof of purchase as a condition of this warranty. Excludes any implied warranty of merchantability or fitness for any particular purpose. This limited Warranty is the only Warranty for this unit given by the Company. No one is authorized to make any other warranties on behalf of the Company. ANY IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE APPLICABLE WARRANTY PERIODS SPECIFIED PREVIOUSLY. THE Company SOLE LIABILITY, WITH RESPECT TO ANY DEFECT, SHALL BE AS SET FORTH IN THIS LIMITED WARRANTY, AND ANY CLAIMS FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGE FROM WATER LEAKAGE) ARE EXCLUDED.

LIMITED WARRANTY

DURATION: The warranty is effective for (1) one year beginning with the date of original installation and installed in a single-family dwelling. Exception: (10) ten years for CN models and installed in a single-family dwelling. At the time the claim is filed, if the original purchaser cannot provide an original installation sales receipt, deed or equivalent document in the case of a new home purchase, this warranty shall begin from the date of manufacture as indicated by the serial number. If the heater is installed anywhere other than a single-family dwelling the warranty is (1) year beginning from the date of original purchase. At the time the claim is filed, If the original purchaser cannot provide an original sales receipt, deed, or equivalent document in the case of a new home purchase, this warranty shall begin from the date of manufacture as indicated by the serial number.
COVERAGE: The warranty covers any component part of the residential water heater proven to be defective in workmanship or material. Recovery under the terms of this agreement is subject to prior approval by the company.
COMPANY OBLIGATION: Repair or replacement is the option of the Company and constitutes the fulfillment of **ALL** obligations of the Company hereunder.
LIMITATION: All repairs or replacements will be made F.O.B. the Company. The purchaser must pay for transportation service, labor, installation, administrative fees, or other costs involving the repair or replacement of such component parts.
YOUR ACTION: When you discover a defect, immediately notify the dealer from whom the heater was purchased. If you cannot locate the dealer, contact the Company.

TANK REPLACEMENT POLICY

DURATION: The warranty is effective for (10) ten years beginning with the date of original installation and installed in a single-family dwelling. Exception: (5) years for commercial use, see Limitations below. If the original purchaser cannot provide an original installation sales receipt, deed, or equivalent document in the case of a new home purchase, this warranty shall begin from the date of manufacture as indicated by the serial number.
COVERAGE: Replacement policy covers only the storage tank for leaks caused by the corrosive effects of the water under normal and proper use. Recovery under the terms of this agreement is

subject to prior approval by the company. The tank replacement policy excludes any performance warranty implied or specific of merchantability and fitness for its intended use.

LABOR: For CN models only, for the first year, and if installed and used in a single-family dwelling, the Company will provide onsite service or labor to replace a defective part or tank using a factory authorized service professional.

COMPANY OBLIGATION: Repair of the original tank or replacement of the entire heater with a new comparable model is the option of the Company and constitutes the fulfillment of all the obligations of the Company hereunder. In replacing or repairing the residential water heater, the Company reserves the right to make such changes in details of design, construction or material as shall in their judgment constitute an improvement of former practices.

REPLACEMENT: When a replacement is made under the terms of this policy, the replacement unit will have a policy of replacement only for the remaining time under the original policy. The Company reserves the right to require the return of the defective unit at the expense of the purchaser.

LIMITATION: The duration of the tank replacement policy on the tank assembly shall be reduced to a period of five years if (1) the purchaser is a business, partnership, or corporation, or if (2) the water heater is used for a commercial, institutional, industrial, non-residential, or multi-application. All repairs or replacements will be made F.O.B. the Company. The purchaser must pay for transportation, service, labor installation, administrative fees or other costs involving the repair or replacement of such part.

YOUR ACTION: When you discover a defect, immediately notify the dealer from whom the heater was purchased. If you cannot locate the dealer, contact the Company.

EXCLUSIONS AND LIMITATIONS

Limited Warranty and Tank Replacement Policy are valid only if you comply with the following conditions and limitations:

1. The water heater must be correctly installed according to the installation manual provided with the unit and all applicable local and national codes.
2. Proper safety practices such as but not limited to a properly sized drain pan.
3. The unit must be operated within the factory calibrated temperature limits and water pressure not exceeding 80 psi static pressure. Any failure or malfunction that results from improper or negligent operation, accident, abuse (including freezing), misuse, unauthorized alteration or improper maintenance is specifically excluded, fire, lightening, acts of God, and the like.
4. Any failure or malfunction that results from failure to keep the tank full of potable water, free to circulate at all times, and free of damaging water sediment or scale deposits, is specifically excluded. In areas where adverse water conditions are suspected (i.e., calcium and other minerals), it is essential that the water be tested, and appropriate action be taken to prevent damage to the water heater.
5. This Limited Warranty and Tank Replacement Policy specifically excludes any implied warranty of merchantability or of fitness for any particular purpose, as well as any performance warranty.
6. Installed in the United States, or Canada
7. Sized in accordance with proper sizing techniques for residential water heaters.
8. Connected to the proper voltage per rating plate.
9. Installed with no attempted, nor actual modification or alteration of the water heater's design in any way, including but not limited to, the attachment of non-company approved appliances or equipment, including any additional aftermarket equipment introduced into the sealed system.
10. Units with their rating plate removed.

IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER.

Some states do not allow the exclusion or limitation of implied warranties or of liability for incidental or consequential damages, so the above limitation(s) or exclusion(s) may not apply to you.

The following information should be noted At time of installation and retained for future reference.

Model No: _____

Serial No: _____

Date Installed: _____

Dealer's Name: _____

Address: _____

City: _____

State: _____ Zip: _____

HUBBELL ELECTRIC HEATER COMPANY
45 SEYMOUR STREET
STRATFORD, CT 06615

PHONE: (203) 378-2659
FAX: (203) 378-3593
Hubbellheaters.com

Revision 3.15