Comfort Indirect Fired Water Heater

Technical Specifications
Installation and Maintenance Guide

⚠ WARNING

- **Before proceeding with installation and operation, read entire manual carefully. Failure to do so can cause injury or property damage.**

IMPORTANT

- **When receiving COMFORT Water Heaters, any claims for damage or shortage in shipment must be filed immediately against the transportation company by the consignee.**
- **Warranty Registration Card must be filled out by the customer and mailed within thirty (30) days of installation in order to gain warranty coverage.**
- **Retain and affix this manual near the water heater for future reference**
- **Installation and service should only be performed by a qualified installer or service technician.**

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Product & Safety Information

Definitions

Following terms are used to bring attention to the presence of various risk levels, or to important information concerning product life.

⚠ DANGER

Indicates presence of a hazard which will cause severe personal injury, death or substantial property damage if ignored.

⚠ WARNING

Indicates the presence of a hazard which can cause severe personal injury, death or substantial property damage if ignored.

⚠ CAUTION

Indicates the presence of a hazard which will or can cause minor personal injury or damage if ignored.

NOTICE

Indicates special instructions on installation, operation, or maintenance which are important but not related to personal injury hazards.

BEST PRACTICE

Indicates recommendations made by Triangle Tube for the installers which will help to ensure optimum operation and longevity of the equipment.

NOTICE

Triangle Tube reserves the right to modify the technical specifications and components of its products without prior notice.

⚠ DANGER

Hot Water Can Scald!

- Water temperatures over 125ºF can cause severe burns instantly or death from scalding.
- Children, disabled and elderly are at highest risk of being scalded.
- Never leave them unattended in or near shower, bathtub or sink.
- Never allow small children to use a hot water faucet or draw their own bath.
- If anyone using hot water in the building fits the above description or if local codes or state laws require specific water temperatures at hot water faucet, it is recommended:
  - to install a thermostatic mixing valve at this appliance or at each water faucet.
    or
  - to set the thermostat knob for the lowest temperature which satisfies your hot water needs.
- Water drained from the system drain valves may be extremely hot. To avoid injury:
  – Make sure all connections are tight.
  – Direct water flow away from any person.

⚠ CAUTION

Protection must be taken against excessive temperature and pressure!

- Installation of a Temperature & Pressure (T&P) relief valve is required.

⚠ CAUTION

To prevent damage to the inner tank, the Installer must:

- Always fill inner tank prior to outer tank and always drain outer tank prior to inner tank.
- Relieve primary system pressure below 15 psig prior to draining inner tank.

Pre-Installation

Codes Compliance

Water heater installation must conform with the instructions in this manual and where applicable:

- local, state, provincial, and national codes, laws, regulations and ordinances.
- in Canada - CAN / CGA B149.1 or B149.2 Installation Code.

COMFORT water heaters are exempt from ASME Section VIII, Division 1 Code construction per Interpretation VIII-86-136. Check with local codes for applicability.

NOTICE

COMFORT Series water heaters will absorb less than 200,000 BTU/hr when domestic water outlet temperature is 210ºF and boiler water supply temperature is 240ºF. Listed outputs are based on ASME Section VIII Interpretation VIII-1-86-136.

Where recommendations in this manual differ from local, or national codes, the local or national codes take precedence.

Codes Restrictions

Single wall heat exchanger in the COMFORT water heater complies with National Standard Plumbing Code, provided that:

– boiler water (including additives) is practically non-toxic, having toxicity rating or class of 1, as listed in Clinical Toxicology of Commercial Products, and

– boiler water pressure is limited to maximum 30 psig by approved relief valve.

Single wall heat exchangers are permitted under the Uniform Plumbing code - Paragraph L3.2. and L3.3 if they satisfy all of the following requirements.

1. The heat transfer medium is potable water or contains only substances which are recognized as safe by the U.S. Food and Drug Administration.
2. The pressure of the heat transfer medium is maintained less than the normal minimum operating pressure of the potable water system

   Exception: Steam complying with section #1 above.
3. The equipment is permanently labeled to indicate that only additives recognized as safe by the FDA shall be used in the heat transfer medium.

Other heat exchanger designs may be permitted where approved by the Administrative Authority.

Operating Restrictions

- Maximum boiler water temperature is 194ºF.
- Maximum working pressure for inner (domestic water) tank is 125 psig.
- Maximum working pressure for outer (boiler water) tank is 45 psig.
- pH and chloride limits for water heaters are:

  - chloride, less than 150 mg/l (ppm)
  - pH value min. 6 - max. 8

NOTICE

Any water conditioning system must be installed and maintained in accordance with manufacturer's specifications.

NOTICE

Do not install the water heater on any application if the boiler piping contains non-oxygen barrier tubing or if the boiler piping is considered an "open system". Exposing the outer tank of the water heater to oxygen contamination will lead to premature tank failure and denial of the warranty.

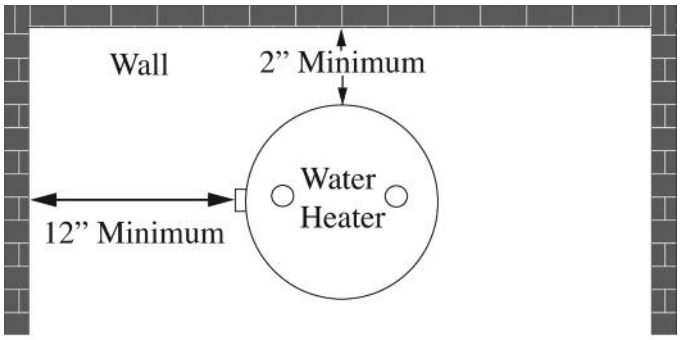
Pre-Installation

Locating Water Heater

- This water heater is not intended for outdoor installations.
- Keep distance between boiler and water heater to a minimum to:
  - reduce piping heat loss
  - provide minimal friction loss
- Locate water heater so that any leakage from the tank or water connections will not cause damage to the area adjoining the water heater or to lower floors in the structure.
  - When such a location is unavoidable, a suitable drain pan with adequate drainage, should be placed under the water heater.
- The COMFORT Series Water Heaters are designed for vertical installation only.

Recommended Clearances

- Water heater should be installed to allow adequate clearance for servicing.
- Zero clearance is permissible to any side of the COMFORT Series water heater, but information labels may be hidden.
- Recommended top or vertical clearance is 12" minimum.
- Refer to boiler manual for boiler clearances.



COMFORT Tank - Top View

Temperature & Pressure (T&P) Relief Valve

⚠ CAUTION

To reduce risk of excessive pressures and temperatures in the water heater, install temperature and pressure protective equipment required by local codes, but no 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 or materials, as meeting the requirements for Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems, ANSI Z21.22. This valve must be marked with a maximum working pressure of the water heater.

- Every COMFORT water heater must be protected with a T&P relief valve.
- Determine T&P relief valve size by the following specifications, unless they conflict with local codes:
  - COMFORT 55: 3/4"NPT with an AGA Rating of 100,000 BTU/hr and a maximum pressure rating of 125 psig. (Watts 40XL8-125210 or Apollo 18C40236 or equivalent).

NOTICE

For proper operation of the T&P and to prevent the T&P from activating due to boiler water temperature, use a T&P relief valve with extended element. We recommended an 8" minimum length to ensure element senses domestic water.

Installation

- Install the T&P in the run (straight through leg) of a tee located at the domestic hot water outlet. Use a long element T&P relief valve (Figs. 1 or 2 page 9).

T&P Relief Valve Discharge Piping

T&P relief valve discharge piping must be:

- made of material serviceable for temperatures of 250ºF or greater.
- directed so that hot water flows away from all persons.
- directed to a suitable place for disposal.
- installed so as to allow complete draining of the T&P relief valve and discharge line.

T&P relief valve discharge piping **must not** be:

- excessively long. Using more than 2 elbows or 15 feet of piping can reduce discharge capacity.
- directly connected to a drain. Terminate discharge piping within 6" from drain. Refer to local codes.
- plugged, reduced or restricted.
- subject to freezing.

⚠ WARNING

Do not install any valve between T&P relief valve and tank connection or on T&P relief valve discharge piping. Do not plug T&P relief valve or discharge piping. Improper placement and piping of T&P relief valve can cause severe personal injury, death or substantial property damage.

Drain Valve

Drain valve and fittings are supplied by others.

Standard Installation

- Install a tee connection at the domestic cold water inlet (Fig. 1 and 2 page 9).
- Pipe the drain piping with drain valve from the tee connection to:
  - a suitable place for disposal

  or
  - terminate within 12" of the floor

Manual Air Vent

1. A manual air vent is factory installed.
2. Open manul air vent and once the tank is full and air has stop escaping the manual air vent close.

Thermal Expansion

If a backflow preventer, check valve or pressure reducing valve is piped on cold water supply piping of water heater, install an expansion tank on cold water supply line to prevent normal thermal expansion from repeatedly forcing open T&P relief valve.

⚠ CAUTION

T&P relief valve is not intended for constant duty, such as relief of pressure due to repeated normal system expansion. Correct this condition by installing a properly sized expansion tank in domestic water system. Refer to expansion tank manufacturer's installation instructions for proper sizing.

Water Hammer

Dishwashers, clothes washers and fast-closing positive shut-off valves incorporated in the system all contribute to creating water shock. Install a water hammer arrester to prevent damage to pipes and appliances. See device manufacturer's instructions for application and installation.

NOTICE

Water hammering within the domestic piping system can cause premature failure of the inner tank of the water heater. This type of failure is *NOT* covered under warranty.

Vacuum Breaker

Installing a vacuum breaker Watts N36-M1 or equivalent on the domestic cold water inlet will prevent damage to the inner tank if a negative pressure is developed in the domestic supply line. See manufacturer's instructions for application and installation of the vacuum breaker.

General Piping

- For domestic water piping diagrams, see page 9.
- See pages 10 and 11 for boiler water piping.
- See water heater specifications for domestic and boiler piping connection sizes, page 25.
- All plumbing must meet or exceed all local, state and national plumbing codes.
- Use pipe dope or tape suitable for potable water systems.
- Use isolation valves to isolate system components.

Domestic Piping

- Union on domestic hot water outlet should be piped at a higher elevation than domestic water drain valve. This will make draining the water heater easier.
- Install unions for easy removal of water heater. It is recommended to use dielectric unions or couplings to protect hot and cold water fittings from corrosion when connecting dissimilar materials such as copper and galvanized iron pipe.
- If copper pipe is used for domestic water connections, first solder pipe to a threaded adapter and then screw adapter into cold water inlet on top of water heater. Inlet contains an internal plastic dip tube which can be damaged by heat from soldering.

NOTICE

Do not apply heat to the cold water inlet when making sweat connections to water heater. Sweat tubing to adapter before fitting adapter to cold water inlet of heater. It is imperative that no heat be applied to the cold water inlet, as it contains a non metallic dip tube.

- When the water supply pressure is higher than 70 psig, it is recommended to install a pressure reducing valve on cold water supply line to prevent water loss through T&P relief valve.
- If water heater will replace tankless coil in boiler, disconnect piping to coil. Allow water to drain from coil. Do not plug tankless coil.

⚠ DANGER

Plugging tankless coil inlet and outlet will result in severe personal injury, death, or substantial property damage.

Thermostatic Mixing Valve

- A mixing valve complying with ASSE 1017 must be installed on the domestic hot water outlet.

Recirculation Piping

- It is recommended to return the recirculation loop to the cold water inlet as shown Fig. 2, page 9.
- A stainless steel or bronze circulator is required on potable water systems.
- Install automatic mixing valve either at the hot water outlet of water heater or each hot water faucet.

Boiler Piping

- If plastic pipe is used for boiler water piping, it must have a maximum oxygen diffusion rate of 0.1 mg/liter-day for boiler and water heater protection.

NOTICE

The COMFORT IDWH must be installed on a closed type hydronic system. Failure to provide such a system will result in premature failure of the outer tank and annulment of warranty.

- Boiler water (including additives) must be practically non-toxic, having toxicity rating or class of 1, as listed in Clinical Toxicology of Commercial Products.

  If antifreeze is used in boiler system, local codes may require a backflow preventer on cold water supply line. Use antifreeze specifically intended for hydronic heating systems. Inhibited propylene glycol is recommended at a maximum 50/50 mixture.

⚠ DANGER

Do not use automotive, ethylene glycol or petroleum-based antifreeze. Do not use any undiluted antifreeze. This can cause severe personal injury, death or substantial property damage.

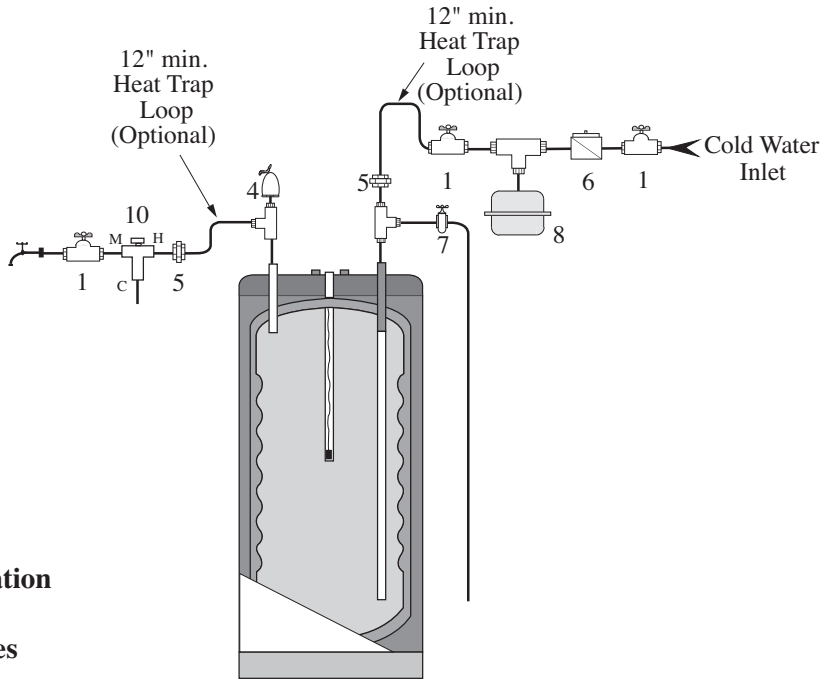


Fig. 1: Standard Installation Domestic Piping COMFORT Series

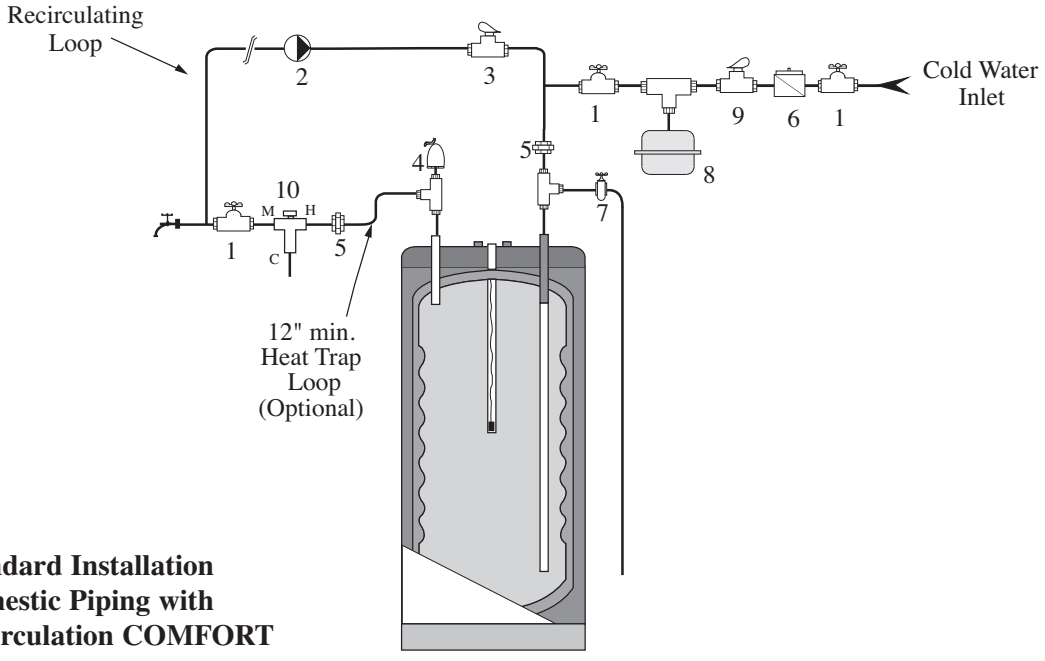


Fig. 2: Standard Installation Domestic Piping with Recirculation COMFORT

1. Shut-off valve
2. Recirculation Circulator
3. Flow Check Valve
4. T&P relief valve
5. Unions
6. Backflow preventer or pressure reducing valve(*)
7. Drain valve
8. Thermal expansion tank (potable)
9. Flow Check Valve (**)
10. Thermostatic mixing valve

(*) Optional device may be required by local codes

(**) Not required if item 6 is present

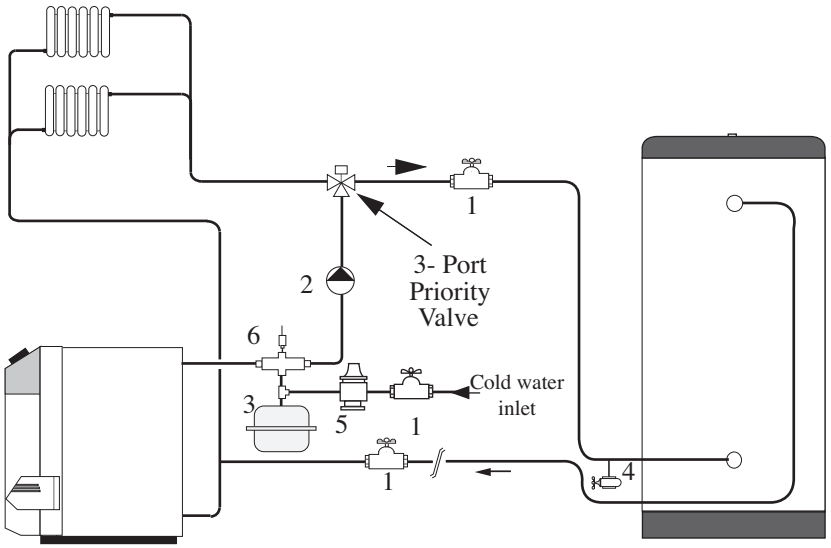


Fig. 3: COMFORT System Piping with 3-Port Zone Valve (Domestic Priority)

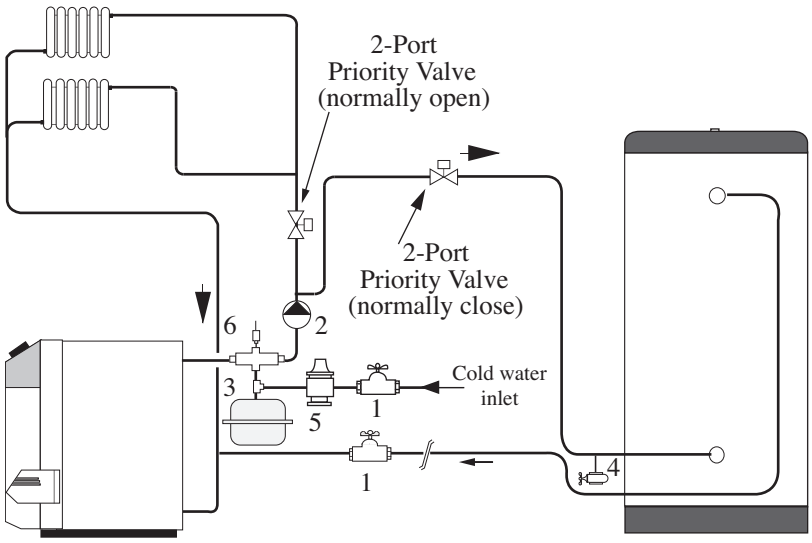


Fig. 4: COMFORT System Piping with 2-Port Zone Valves (Domestic Priority)

1. Shut-off valves
2. Circulator
3. Expansion tank
4. Drain valve
5. Feed valve
6. Air separator

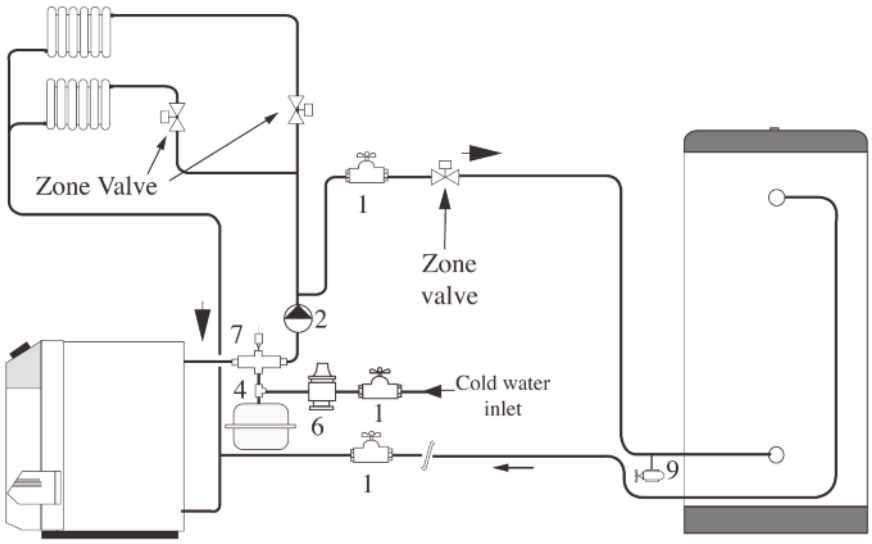


Fig. 5: COMFORT System Piping with Zone Valves (Non Domestic Priority)

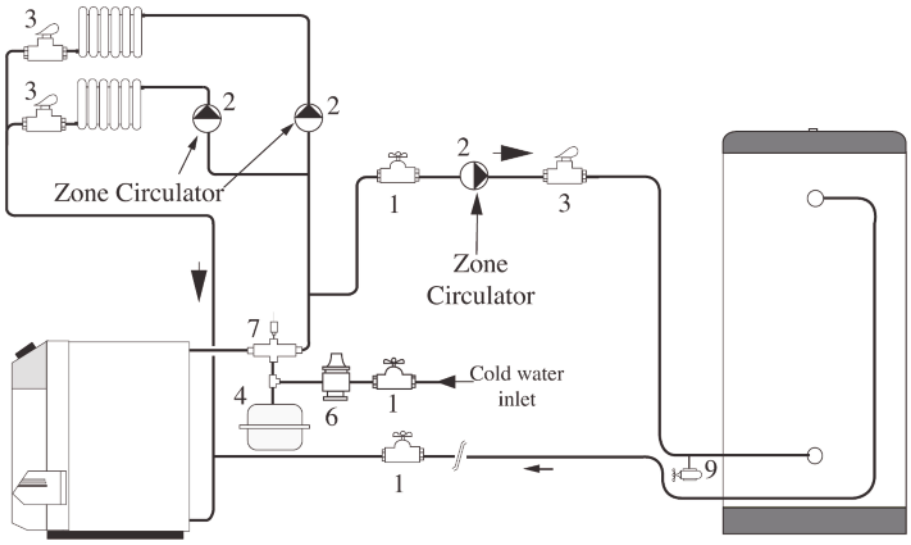


Fig. 6: COMFORT System Piping with Zone Circulators

1. Shut-off valves
2. Circulator
3. Flow check valve
4. Expansion tank
5. Drain valve
6. Feed valve
7. Air separator

Wiring Requirements

⚠ WARNING

Electrical shock hazard can cause severe personal injury, death or substantial property damage. Disconnect power before installing and/or servicing.

1. All wiring must be a minimum of 18 gauge and installed in accordance with:
   - U.S.A. - National Electrical Code and any other national, state or local code requirements having jurisdiction.
   - Canada - C.S.A. C22.1 Canadian Electrical Code Part 1 and any other national, provincial and local code requirements having jurisdiction.
2. If original wire supplied with appliance must be replaced, Type 90ºC or its equivalent must be used.
3. Refer to control component instructions packed with boiler for application information.
4. An optional service switch may be installed in water heater electrical circuit. This switch would only shut off the water heater, not the home heating system. Do not shut off water heater if there is a chance of freezing.
5. All electrical contacts shown do not have power applied - off the shelf condition. See pages 13 thru 18.

Circulators

- Priority relay must be sized for total amp draw of all circulators.

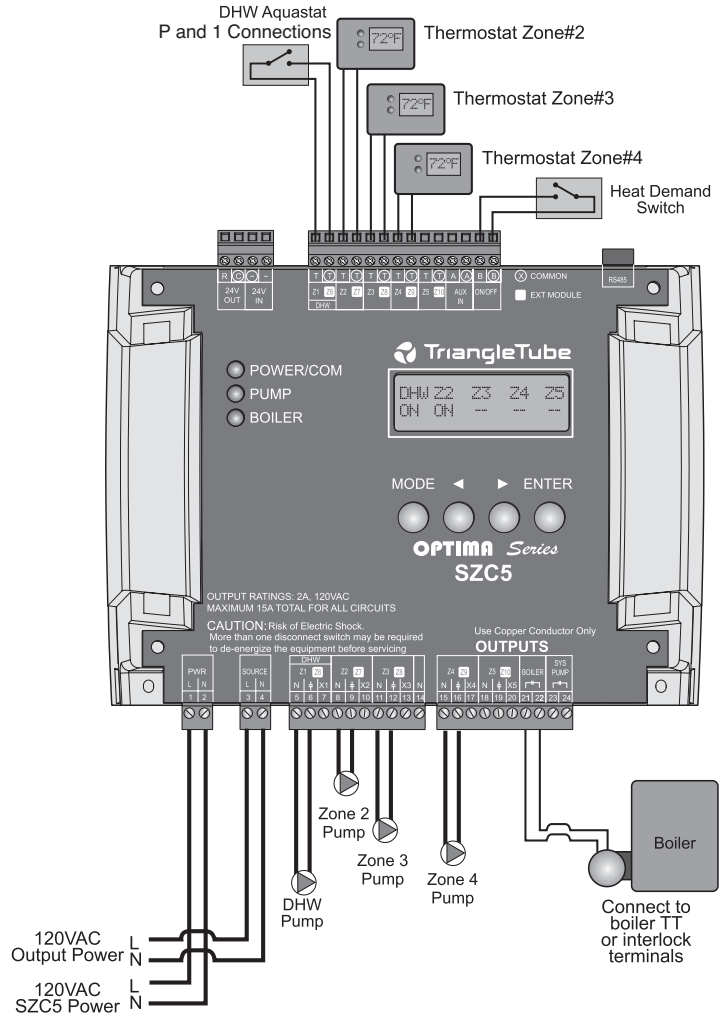
Zone Valves

- Transformer must be sized for maximum load of all zone valves.

Connection

- For easy wiring between water heater thermostats P and 1 connections and boiler controls see Installation Wiring section pages 13 through 18.

With DHW Pump Control

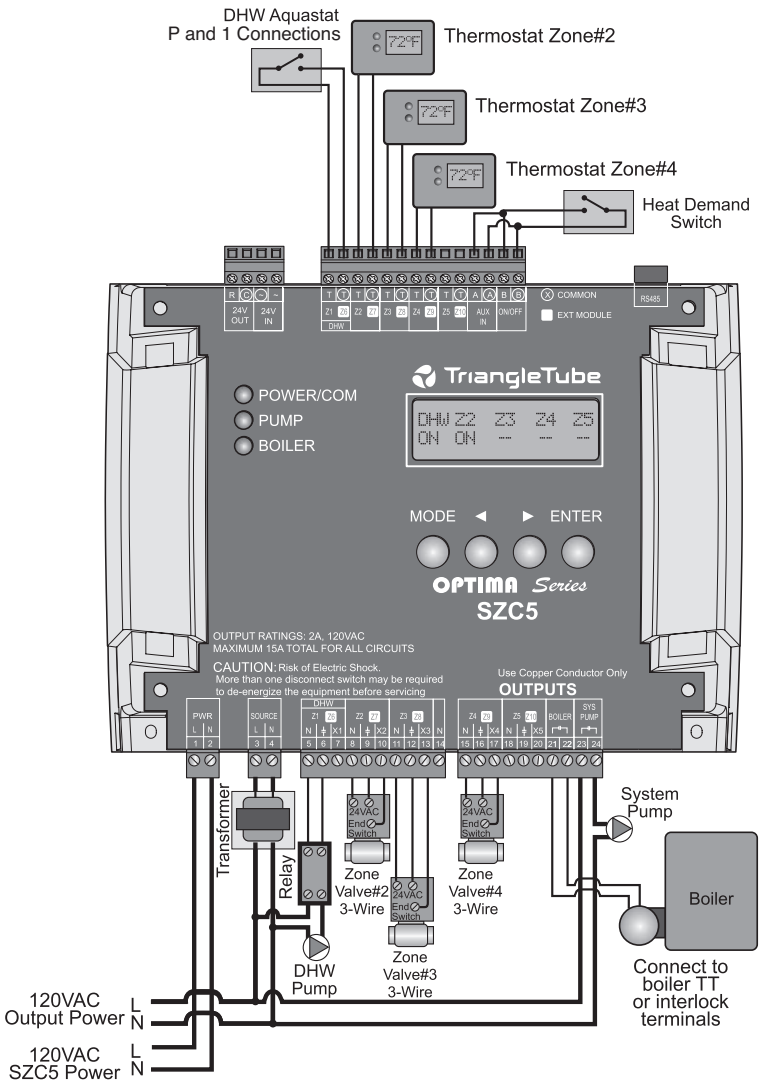


SZC5 SETTINGS:

- **Master Mode = Y**
- **Zone Valves with End Switch = N**
- **Zone (1) DHW = Y**
- **Heat Demand Enable = Short**

Fig. 7: Optima Zone Panel SZC5 with Zone Pumps Wiring

With DHW Pump Control



SZC5 SETTINGS:

- **Master Mode = Y**
- **Zone Valves with End Switch = Y**
- **Zone (1) DHW = Y**
- **Heat Demand Enable = Short**

Fig. 8: Optima Zone Panel SCZ5 with Zone Valves Wiring

Fig. 9: Typical 4-wire Zone Valve Zoning, with Domestic Priority

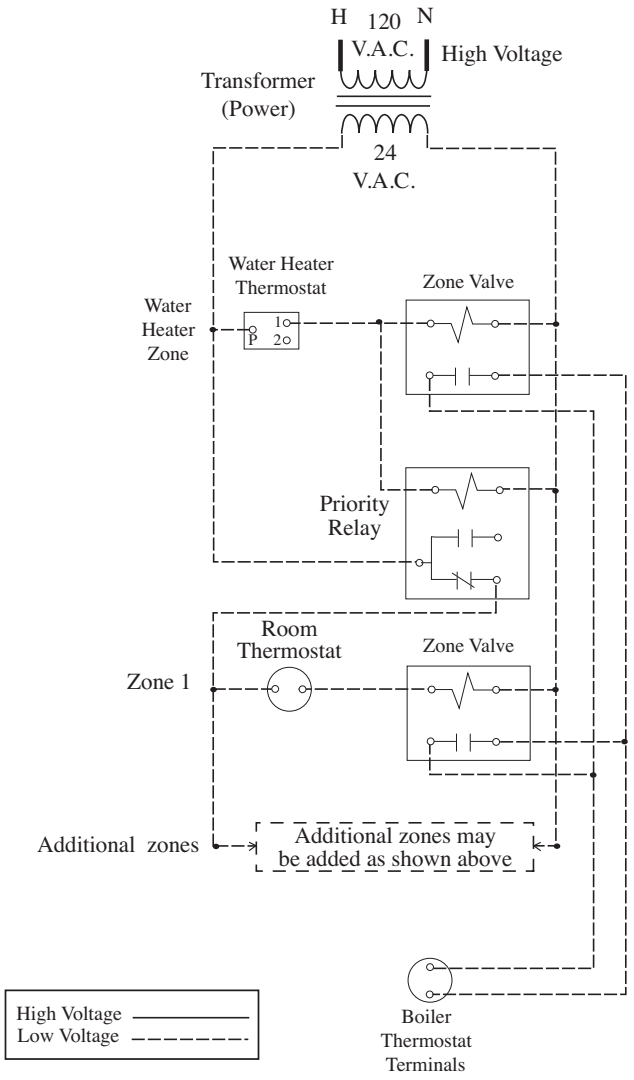
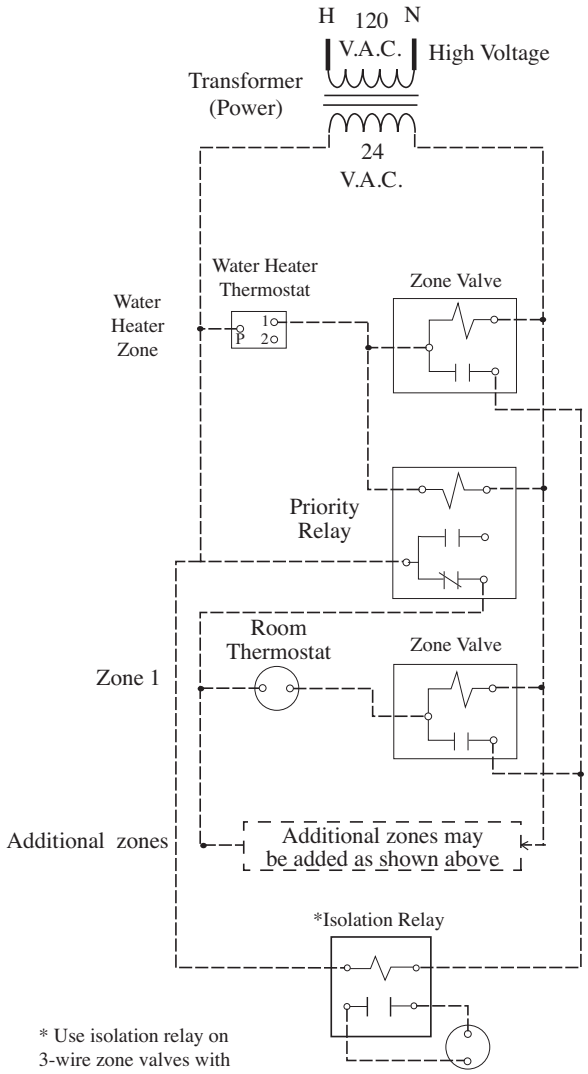


Fig. 10: Typical 3-wire Zone Valve Zoning, with Domestic Priority



* Use isolation relay on 3-wire zone valves with non-isolated end switches. Transformer and boiler control can burn out if isolation relay is not used

Fig. 11: Typical 4-wire Zone Valve Zoning, without Domestic Priority

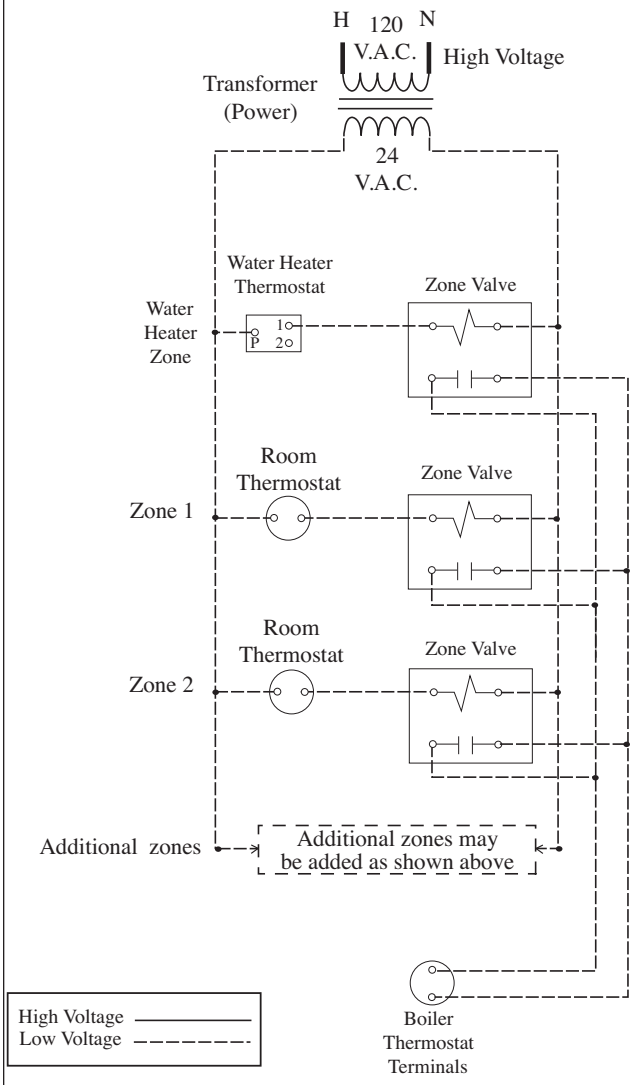
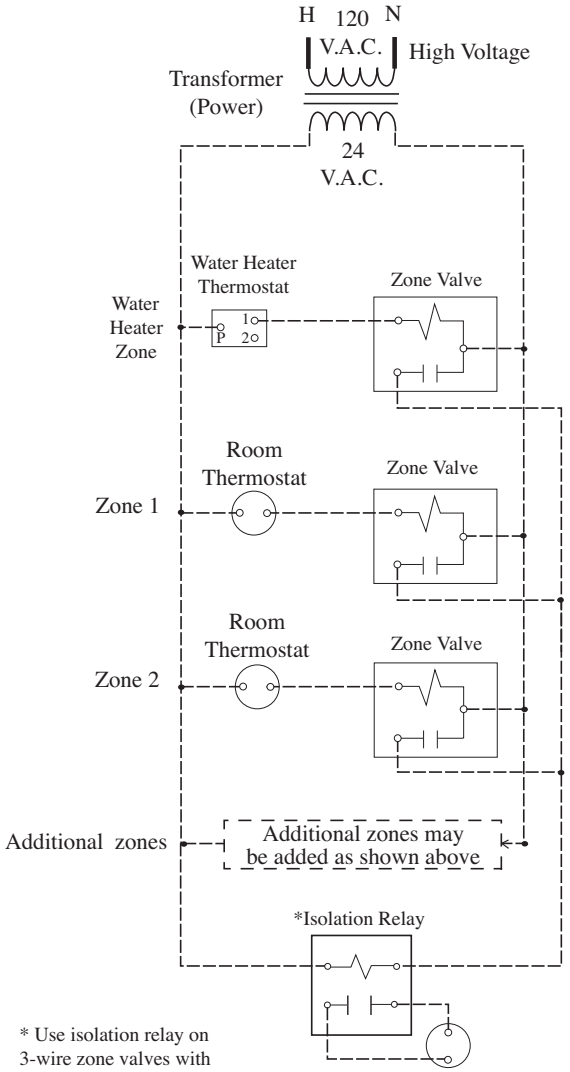


Fig. 12: Typical 3-wire Zone Valve Zoning, without Domestic Priority



* Use isolation relay on 3-wire zone valves with non-isolated end switches. Transformer and boiler control can burn out if isolation relay is not used

Fig. 13: Typical Circulator Zoning with Domestic Priority

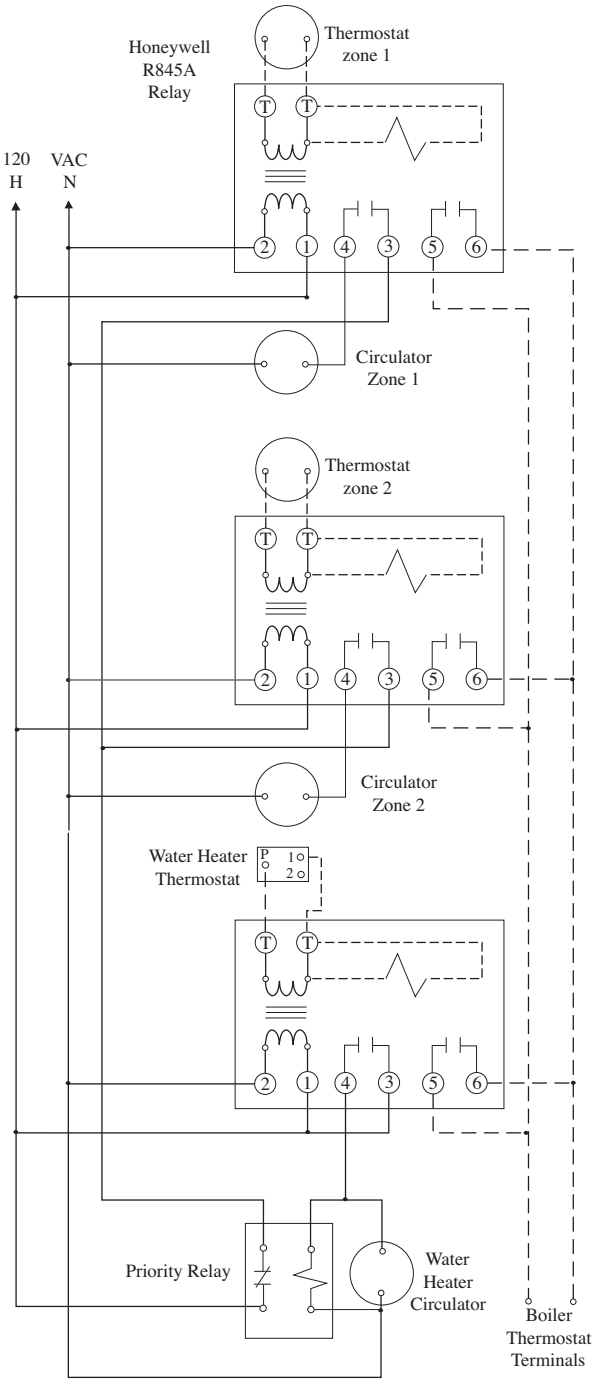


Fig. 14: Typical Circulator Zoning without Domestic Priority

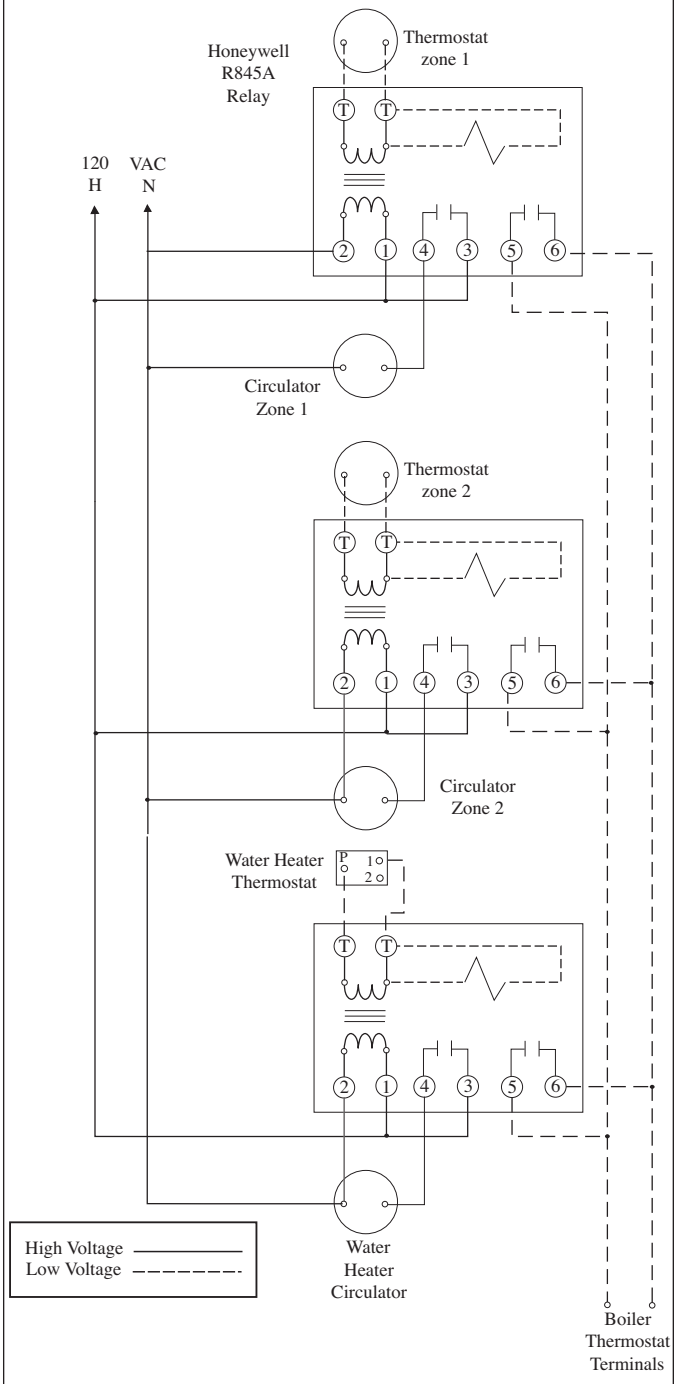
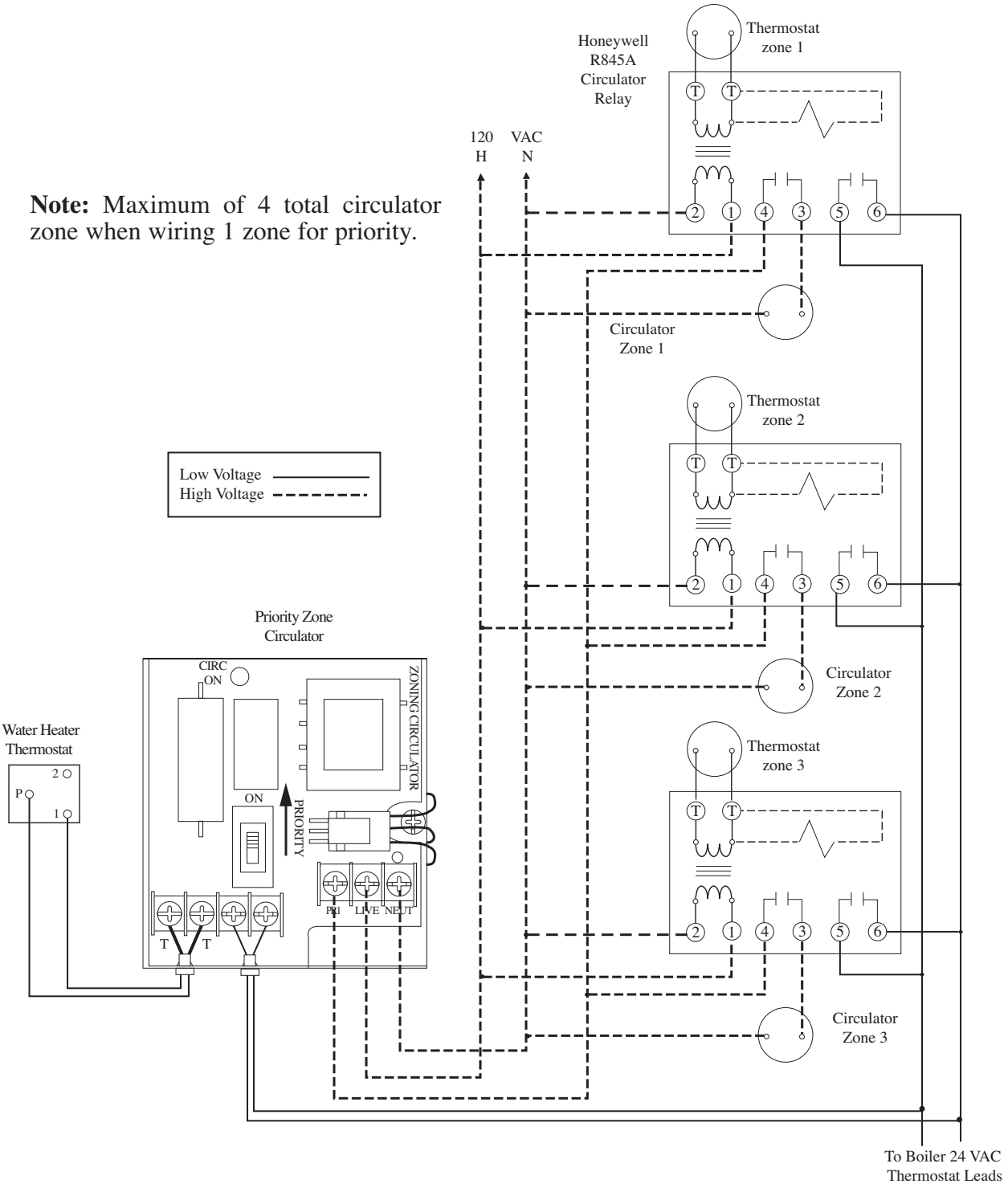


Fig. 15: Priority Zone Circulator Wiring



Note: Maximum of 4 total circulator zone when wiring 1 zone for priority.

Water Heater Start-Up

Filling the Inner (Domestic Water) Tank

CAUTION

- **Never use water heater unless inner and outer tanks are completely filled with water.**
- **Inner tank must be completely filled and pressurized before pressurizing outer tank.**

1. Close domestic water drain valve.
2. Open domestic water isolation valves for water heater.
3. Vent air from inner (domestic water) tank by opening nearest hot water faucet. Fill domestic water tank completely by allowing water to run until there is a constant flow of water.
4. Close hot water faucet.

Filling the Outer (Boiler Water) Tank

CAUTION

- **Never use water heater unless inner and outer tanks are completely filled with water.**
- **Inner tank must be completely filled and pressurized before pressurizing outer tank.**

1. Close boiler water drain valve at boiler water outlet of water heater.
2. Open water heater's boiler water isolation valves.
3. Allow air to escape from outer (boiler water) tank by opening manual air vent located on top of water heater.
4. Follow instructions furnished with boiler to fill with water.
5. When tank is full and air stops escaping, close the manual air vent.
6. If antifreeze is used in boiler water, check concentration. Boiler water (including additives) must be practically non-toxic, having toxicity rating or class of 1, as listed in Clinical Toxicology of Commercial Products.

WARNING

Do not use automotive, ethylene glycol or petroleum-based antifreeze. Do not use any undiluted antifreeze. This can cause severe personal injury, death or substantial property damage.

Water Heater Start-Up

⚠ DANGER

HOT WATER CAN SCALD!

- **Water temperatures over 125ºF can cause severe burns instantly, or death from scalds.**
- **Feel water before bathing or showering.**
- **Consumer Product Safety Commission and some states recommend temperatures settings of 130ºF or less. Setting thermostat higher than 130ºF will increase risk of scald injury and cause severe personal injury or death.**
- **Water heated to a temperature suitable for clothes washing, dish washing and other sanitizing needs will scald and cause permanent injury.**
- **Children and elderly, infirm, or physically handicapped persons are more likely to be injured by hot water. Never leave them unattended in or near a bathtub. If anyone using hot water in the building fits this description, or if state laws or local codes require certain water temperatures at hot water faucets, take special precautions.**
  - **Install an automatic mixing valve at water heater or at each hot water faucet, bath and shower outlet. Selection and installation must comply with valve manufacturer's recommendation and instructions.**
  - **Use the lowest practical temperature setting.**
  - **Check water temperature after any adjustment. You must follow "Adjusting the Water Heater Thermostat" procedures.**

General Notes

- Household water usage patterns will affect water temperature at any faucet or shower. Occasionally check temperature at each point of use, then adjust thermostat accordingly. Always recheck temperature after adjusting thermostat.
- When hot water is used in repeated small quantities, a "stacking" effect can develop in the water heater. The upper layer of water in tank can be hotter than lower layer.
- Lowering the thermostat setting or installing automatic mixing valves as indicated in these instructions will reduce water temperature levels. Consult your installer or service technician.

⚠ WARNING

At no time should boiler limit control be set above 210ºF. This can cause severe personal injury, death or substantial property damage if ignored.

Adjusting the Water Heater Thermostat

Water heater thermostat is factory set to its lowest temperature. This may or may not be suitable for your needs.

Turn thermostat knob clockwise ↷ toward 5 increase water temperature.

Turn thermostat knob counter-clockwise toward 1 ↶ to decrease water temperature.

⚠ WARNING

Studies have indicated that dangerous bacteria, including legionella, pneumophila, can form in the potable water distribution system if certain minimum water temperatures are not maintained. Contact your local health department for more information.

- Check water temperature at a hot water faucet immediately after first heating cycle. Further temperature adjustment may be necessary as water heating system is used. Recheck water temperature at faucet after adjustment.
- When adjusting thermostat, be sure boiler limit control is set a minimum of 20ºF higher.

Water Heater Maintenance

Maintenance Schedule

Annual service by qualified service technician should include the following:

- ☐ Any procedure required by local codes.
- ☐ Check air vent operation.
- ☐ Verify system pressure. Manual air venting procedure may require adding water to bring system up to pressure, typically 12 psig.
- ☐ Manually operate T&P relief valve at least once a year. This will release some hot water.

⚠ WARNING

Before operating T&P relief valve, make sure no one is in front of or around T&P relief valve discharge piping. Hot discharge water can cause severe personal injury or substantial property damage.

☐ Move operating lever to open position for a few seconds and then move it back, allowing it to snap closed. After T&P relief valve is operated, if it continues to release water, close cold water inlet to water heater immediately. Follow draining instructions, to relieve pressure from the inner tank and replace T&P relief valve. If T&P relief valve weeps periodically, it may be due to thermal expansion see Thermal Expansion, page 6. Do not plug T&P relief valve or discharge piping.

⚠ DANGER

Plugging T&P relief valve or discharge piping can cause excessive pressure in water heater, resulting in severe personal injury, death, or substantial property damage.

- ☐ Follow instructions on circulator to oil it, if required.
- ☐ Check mixing valve, valves, pipes and fittings for leaks.
- ☐ Check function of field-installed controls and valves. See component manufacturer's instructions.
- ☐ Review homeowner's maintenance responsibilities and their frequencies, including any not listed in the following section.

Homeowner monthly maintenance to include:

- ☐ Check for air
  - Manual air vent - open and close briefly to release any air.
- ☐ Visually check valves, pipes and fittings for leaks. Call qualified service technician to repair leaks.

Filling Water Heater

See "Filling the Inner (Domestic Water) Tank and "Filling the Outer (Boiler Water) Tank" on page 19.

Draining Water Heater

Drain water heater if it will be shut off and exposed to freezing temperatures. Freezing water will expand and damage water heater.

- If boiler water contains sufficient antifreeze, then only the domestic water needs to be drained.

⚠ WARNING

Close boiler water isolation valves and relieve system pressure to below 15 psig in outer tank before draining inner tank to prevent damage to inner tank.

- If boiler water does not contain sufficient antifreeze, then the boiler water and domestic water must be drained.

If antifreeze is used in boiler water, check concentration. Boiler water (including additives) must be practically non-toxic, having toxicity rating or class of 1, as listed in Clinical Toxicology of Commercial Products. A maximum 50/50 mixture of inhibited propylene glycol is recommended. Follow antifreeze manufacturer's instruction.

⚠ WARNING

Do not use automotive, ethylene glycol or petroleum-based antifreeze. Do not use any undiluted antifreeze. This can cause severe personal injury, death or substantial property damage.

⚠ WARNING

Water from opened drain valves, unions and other connections may be extremely hot. To avoid severe personal injury, death or substantial property damage:

- **Tighten all drain hose connections.**
- **Direct hot water away from all persons.**

Draining Inner (Domestic Water) Tank

BEST PRACTICE

There are 3 methods typically used in the draining of the inner tank. The first method outlined as Option 1 is to siphon the water out. This method is typically the easiest to perform, but may be lengthly in time to complete. The second method, shown as Option 2, uses compressed air. This method is more complicated however it is generally quicker in draining the tank. The final method, Option 3, use a pump to drain the tank. As with Option 2, Option 3 is generally more complicated, but is quicker in draining the tank.

NOTICE

Prior to draining the inner tank, ensure the following is completed:

1. **Wiring at the water heater is disconnected.**
2. **The DHW system supply isolation valve is closed.**
3. **The outer (boiler water) tank pressure is less than 15 psig.**

Reference domestic piping diagrams Figs. 1 and 2 on page 9.

Draining Inner Tank - Option 1

1. Connect a hose to the domestic water drain valve at the cold water inlet. The hose should extend to a drain at floor level to allow siphoning of the domestic inner tank.
2. Open a hot water faucet at the highest point above the water heater.
3. Open the domestic water drain valve to start the siphoning of the domestic inner tank.
4. When draining is complete, close the hot water faucet and the domestic drain valve.

Draining Inner Tank - Option 2

1. Connect a hose to the domestic water drain valve at the cold water inlet. Direct the hose to a proper drain/suitable place for drainage.
2. Close the isolation valve on the DHW system hot outlet of the water heater.
3. On the hot water outlet piping between the water heater and the isolation valve install a shrader (air tank) valve or some other fitting or means that allows connection of an air hose from a compressor.
4. Open the domestic water drain valve on the cold water inlet.
5. Apply compressed air at a maximum regulated pressure of 40 psig.

6. When draining is complete, remove the air hose and fittings needed to connect the air hose.

7. Close the domestic water drain valve on the cold water inlet and open the isolation valve on the hot water outlet.

Draining Inner Tank - Option 3

1. Connect the suction side of the pump to the domestic water drain valve using a hose and/or piping fittings.

2. Connect a hose to the discharge side of the pump. Direct the hose to a proper drain or a suitable place for drainage.

3. Open a hot water faucet at the highest point above the water heater.

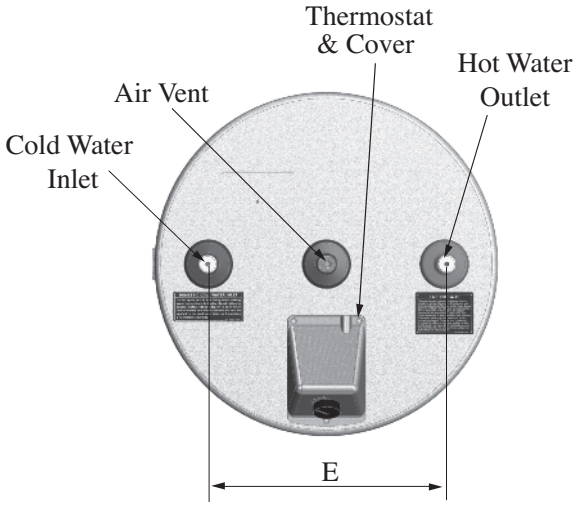
4. Open the domestic water drain valve and start the pump to begin draining the inner tank.

5. When draining is complete stop the pump, close the hot water faucet and close the domestic drain valve. Remove the pump and all hoses and fittings.

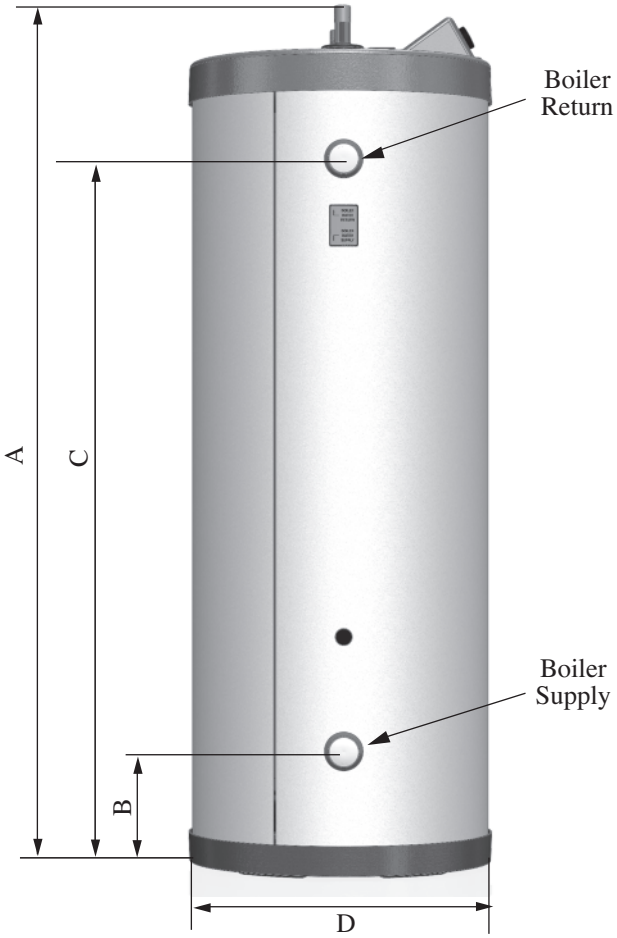
Draining Outer (Boiler Water) Tank

1. Disconnect wiring connection at water heater.
2. Close boiler water isolation valves between boiler and water heater.
3. Connect hose to boiler water drain valve at water heater. Open and drain water to a safe place.
4. To speed draining procedure, open manual air vent on top of tank.
5. When draining is complete, close drain valve and close manual air vent.

Water Heater Specifications



Top View



Left Side View

MODEL		COMFORT 55
Capacity	Gal.	
Domestic		35
Boiler		20
Heating surface	Sq. Ft.	16
Head loss boiler side	Ft.	1-1/4
Piping connections	Inches	
Domestic	Ø	3/4
Boiler	Ø	1-1/4
Dimensions	Inches	
Diameter		
A		55-1/4
B		8-1/2
C		47-3/4
D		20-5/8
E		14-3/16

Additional quality water heating equipment available from: **Triangle Tube**

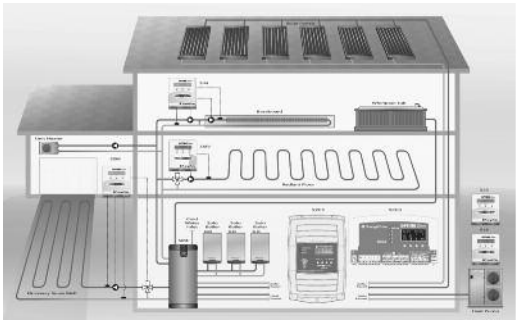
Prestige Condensing Wall Mounted Boiler

- 95% AFUE - Energy Star
- Fully modulating
- Natural gas or propane
- Stainless Steel Construction
- Direct vent PVC, CPVC, PP and SS
- Outdoor Reset
- Low NOx

Challenger Solo

- Up to 94% AFUE
- Fully modulating
- Natural gas propane
- Combination copper water tube/aluminum block heat exchanger
- Direct vent, PVC, CPVC, PP and SS
- Outdoor reset
- Low NOx

Optima Controls



- SCC4 Multiple modulation boiler control
- SCCX6 Multiple boiler control extension
- SZC5 Zone control panel
- S3S Three stage boiler control
- SMV Mixing valve control
- SIM Injection mixing control
- SSM Snow melt control

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