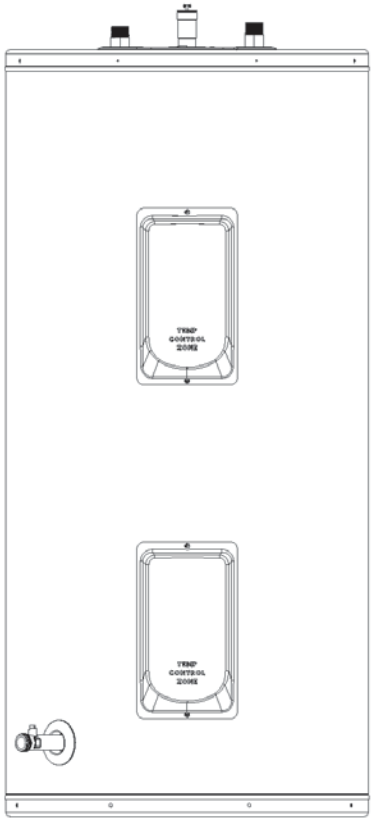
stream33®

Usage & Care Manual

Electric Residential Water Heater



REGISTER YOUR PRODUCT

After you register your product, you can find the warranty on the back.

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Table of contents

Safety information

Installation instructions

Operating instructions

Care and cleaning

Troubleshooting tips

Customer Service

Safety precautions

The purpose of this manual is two fold: one, to provide the installer with the basic directions and recommendations for the proper installation and adjustment of the water heater; and two, for the owner–operator, to explain the features, operation, safety precautions, maintenance and troubleshooting of the water heater. This manual also includes a parts list.

It is imperative that all persons who are expected to install, operate or adjust this water heater read the instructions carefully so they may understand how to perform these operations. If you do not understand these instructions or any terms within it, seek professional advice.

Do not destroy this manual. Please read carefully and keep in a safe place for future reference.

Any questions regarding the operation, maintenance, service or warranty of this water heater should be directed to the seller from whom it was purchased. If additional information is required, refer to the section on “If you need service.” Do not destroy this manual. Please read carefully and keep in a safe place for future reference.

Recognize this symbol as an indication of Important Safety Information!

California Proposition 65 Warning:
This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

For your records

Write the model and serial numbers here. You can find them on a label on the appliance. Staple sales slip or cancelled check here.

Proof of the original purchase date is needed to obtain service under the warranty.

Model # _____

Serial # _____

Read this manual

Inside you will find many helpful hints on how to use and maintain your water heater properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your water heater.

You’ll find many answers to common problems in the Before You Call For Service section.
If you review our chart of Troubleshooting Tips first, you may not need to call for service at all.

Read this safety information

Your safety and the safety of others are very important. There are many important safety messages in this manual and on your appliance. Always read and obey all safety messages.

This is the safety alert symbol. Recognize this symbol as an indication of Important Safety Information! This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word "DANGER", "WARNING", "CAUTION" or "NOTICE".

These words mean:

DANGER	**An imminently hazardous situation that will result in death or serious injury.**
WARNING	**A potentially hazardous situation that could result in death or serious injury and/or damage to property.**
CAUTION	**A potentially hazardous situation that may result in minor or moderate injury. Attention is called to observe a specified procedure**

Warning

WARNING -When using electrical appliances, basic safety precautions to reduce the risk of fire, electric shock, or injury to persons should be followed, including:

- Read all instructions before using this water heater.
- This water heater must be grounded. connect only to properly grounded outlet. see"grounding instructions" found on (Page 11 Electrical Connections section).
- Install or locate this water heater only in accordance with the provided installation instructions.
- Use this water heater only for its intended use as described in this manual.
- Do not use an extension cord set with this water heater. if no receptacle is available adjacent to the water heater, contact a qualified electrician to have one properly installed.
- As with any appliance, close supervision is necessary when used by children.
- Do not operate this water heater if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped.
- This water heater should be serviced only by qualified service personnel. Contact nearest authorized service facility for examination, repair, or adjustment.
- Do not use volatile oil, alcohol, thinner, etc. to clean the machine, otherwise it may damage the product.
- The installation torque for the inlet and outlet water pipes must not exceed 50 N.m, otherwise it will permanently damage damage the structure of the water heater.

⚠ Warning

- It is forbidden to modify the purpose and function of the product without permission.
- Before cleaning the machine or performing maintenance, please disconnect the main power supply, otherwise an accident may occur.
- If the machine is not used for a long time, please disconnect the main power supply.
- For water-related products, when not in use for a long time, or when the power is off in low temperature weather, the water must be drained.
- Do not place water containers on live products. Water seeps into the interior of the product and weakens the insulation of the electrical appliances, causing electric shock, fire, etc.
- The power supply must be within the specified voltage range of the product.
- Prevent children from entering the interior of the product.
- Note that "power cord modification is prohibited".
- "Safety precautions" are clearly stated as hazard prevention matters.
- List the prohibited installation locations, such as: around flammable and explosive products, strong electromagnetic interference environment, open flame environment, strong corrosive environment, etc. Places with safety hazards, try to stay away from neighbors' doors and windows during installation.
- Products that clearly require the use of independent power supplies, sockets, leakage/air and other safety switches. If there are no independent power supplies, sockets, leakage/air and other safety switches at the installation site, it is forbidden to install the product.
- The main power supply of the equipment should be located in a place that is not easily accessible to children and should be avoided from being blocked by flammable objects.
- When the installation involves drainage pipes, it must be ensured that the drainage can be done smoothly.
- Safety precautions for installation, the necessary strength and structure of the installation location (wall, ceiling, etc.), the fixing method of the fuselage, the method of use and related precautions.
- The auxiliary materials used for installation must use the company's designated brand or comply with local regulations.
- It is recommended to connect the rated specifications of the wiring, the rated specifications of the plug or switch. If the diameter of the user's power cord is too small, it is easy to cause heating and there is a risk of fire. If the diameter of the user's power cord is lower than the actual product's required diameter or the diameter does not meet the total power load, it is prohibited to install the product.
- Before installation, it is necessary to check whether the user's home power supply has a ground wire. If it is found that the user's home power supply has no ground wire, or the power ground wire is detected to be energized, and there are no effective on-site rectification measures, it is prohibited to install the product.
- Before drilling holes in walls and floors, if the holes are concealed wires or conduits and the locations of wires, water pipes, gas pipes, etc. cannot be clearly identified, you must confirm with the user; you can also use an induction test pen to detect whether there is a power line passing through the drilling location to avoid personal injury accidents caused by the drill bit damaging the power line.
- During installation and maintenance operations, please disconnect the main power supply, otherwise accidents may occur.
- To prevent safety issues such as electrical overload and leakage, it is recommend to install a leakage protection switch when connecting the power cord to the electrical appliance. This will help to promptly cut off the power supply in case of any issues with the appliance, and protect the safety of you and your family.
- To ensure the safety performance of your home water pipes, we recommend that you choose high-quality pipes such as PPR, CPVC, Copper, and PEX pipes that are resistant to high temperature, pressure, and corrosion when installing them.
- To ensure the long-term efficient operation of the electric water heater, it is recommended to have the inner tank cleaned once a year by a qualified installer or plumber to remove the sediment on the electric components inside the tank.
- When installing, repairing or replacing TP valves, inlet and outlet pipes, avoid collision between tools and threads at the connection, which may damage the threads. Otherwise, the sealed connection may be damaged, which may further cause the seal to fail and lead to water leakage.

IMPORTANT SAFETY INFORMATION. READ ALL INSTRUCTIONS BEFORE USING.

Water Temperature Setting

DANGER!

Safety and energy conservation are factors to be considered when selecting the water temperature setting of water heater's thermostat. Water temperatures above 125 F can cause severe burns or death from scalding. Be sure to read and follow the warnings outlined on the label pictured below. This label is also located on the water heater near the thermostat access panel.

Water temperature over 125°F(52°C) can cause severe burns instantly or death from scalds.
Children,disabled and elderly are at highest risk of being scalded.
See instruction manual before setting temperature at water heater.
Feel water before bathing or showering.
Temperature limiting valves are available,see manual.

Temperature	Time to produce a serious burn
120°F	More than 5 minutes
125°F	11/2 to 2 minutes
130°F	About 30 seconds
135°F	About 10 seconds
140°F	Less than 5 seconds
145°F	Less than 3 seconds
150°F	About 11/2 seconds
155°F	About 1 second

The chart shown above may be used as a guide in determining the proper water temperature for your home.

DANGER!

Households with small children, disabled, or elderly persons may require a 120 F or lower thermostat setting to prevent contact wih "HOT" water.

The temperature of the water in the heater is regulated by the adjustable surface mounted thermostat(s) located behind the jacket access panel(s). Dual element heaters have two thermostats. To comply with safety regulations the thermostat(s) were set at 120°F before the water heater was shipped from the factory

NOTICE: *Mixing valves are recommended for reducing point of use water temperature by mixing hot and cold water in branch water lines. It is recommended that a mixing valve complying with the Standard for Tempera - ture Actuated Mixing Valves for Hot Water Distribution Systems, ASSE 1017 be installed. See page 13 for more details and contact a licensed plumber or the local plumbing authority for further information.*

IMPORTANT SAFETY INFORMATION. READ ALL INSTRUCTIONS BEFORE USING.

WARNING!

For your safety, the information in this manual must be followed to minimize the risk of fire or explosion, electric shock, or to prevent property damage, personal injury, or loss of life.

Be sure to read and understand the entire Use and Care Manual before attempting to install or operate this water heater. It may save you time and cost. Pay particular attention to the Safety Instructions. Failure to follow these warnings could result in serious bodily injury or death. Should you have problems understanding the instructions in this manual, or have any questions, STOP, and get help from a qualified service technician, or the local electric utility.

For installations in the state of California

California Law requires that residential water heaters must be braced, anchored or strapped to resist falling or horizontal displacement due to earthquake motions. For residential water heaters up to 52 gallon capacity, a brochure with generic earthquake bracing instructions can be obtained from: Office of the State Architect, 400 P Street, Sacramento, CA 95814 or you may call 916-324-5315 or ask a water heater dealer.

However, applicable local codes shall govern installation. For residential water heaters of a capacity greater than 52 gallons, consult the local building jurisdiction for acceptable bracing procedures.

Safety precautions

Have the installer show you the location of the circuit breaker and how to shut it off if necessary. Turn off the circuit breaker if the water heater has been subjected to overheating, fire, flood, physical damage or if the ECO fails to shut off.

- **Read this manual entirely before installing or operating the water heater.**
- **Use this appliance only for its intended purpose as described in this Use and Care Manual.**
- **Be sure your appliance is properly installed in accordance with local codes and the provided installation instructions.**
- **DO NOT attempt to repair or replace any part of your water heater unless it is specifcally recommended in this manual.**
- **All other servicing should be referred to a qualified technician.**
- **DO NOT turn on the electrical supply or operate this water heater unless it is completely full of water.**

READ AND FOLLOW THIS SAFETY INFORMATION CAREFULLY. SAVE THESE INSTRUCTIONS.

Installing the water heater

The location chosen for the water heater must take into consideration the following:

Local installation regulations

This water heater must be installed in accordance with these instructions, local codes, utility codes, utility company requirements or, in the absence of local codes, the latest edition of the National Standard Plumbing Code.

Location

Locate the water heater in a clean dry area as near as practical to the area of greatest heated water demand. Long uninsulated hot water lines can waste energy and water.

0" (Zero Inches) of clearance (including top, rear, side & front of the heater) is required for installation. However, it is recommended that the water heater is placed in such a manner that allows for ease of access to service. For example, ensure the thermostat and element access panels can be removed to permit inspection and servicing such as removal of elements or checking controls.

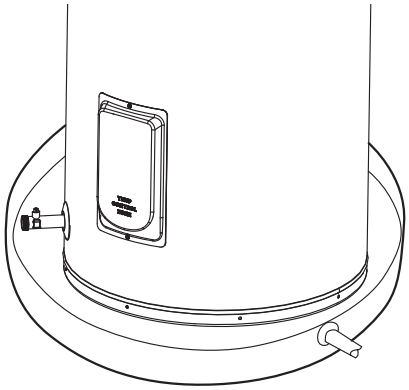
The water heater and water lines should be protected from freezing temperatures. Do not install the water heater in outdoor, unprotected areas.

Make certain the floor underneath the water heater is strong enough to sufficiently support the weight of the water heater once it is filled with water.

It is prohibited to install water heaters in bathrooms, outdoors, or other humid or open environments to prevent electrical malfunctions.

CAUTION!

The water heater should not be located in an area where leakage of the tank or connections will result in damage to the area adjacent to it or to lower floors of the structure. Where such areas cannot be avoided, it is recommended that a suitable catch pan, adequately drained, be installed under the water heater.



NOTICE: *Auxiliary drain pan MUST conform to local codes.*

Inspect shipment

Inspect the water heater for possible damage. Check the markings on the rating plate of the water heater to be certain the power supply corresponds to the water heater requirements.

Installing the water heater (cont.)

Thermal Expansion

When a water heater is installed in a closed water-supply system, such as one having a backflow preventer in the cold -water supply, means shall be provided to control thermal expansion. Contact the water supplier or local plumbing inspector for information regarding the control of this situation.

Determine if a check valve exists in the inlet water line. Check with your local water utility. It may have been installed in the cold water line as a separate back flow preventer, or it may be part of a pressure reducing valve, water meter or water softener. A check valve located in the cold water inlet line can cause what is referred to as a “closed water system”. A cold water inlet line with no check valve or back flow prevention device is referred to as an “open” water system.

As water is heated, it expands in volume and creates an increase in the pressure within the water system. This action is referred to as “thermal expansion”. In an “open” water system, expanding water which exceeds the capacity of the water heater flows back into the city main where the pressure is easily dissipated.

A “closed water system”, however, prevents the expanding water from flowing back into the main supply line, and the result of “thermal expansion” can create a rapid and dangerous pressure increase in the water heater and system piping. This rapid pressure increase can quickly reach the safety setting of the relief valve, causing it to operate during each heating cycle. Thermal expansion, and the resulting rapid and repeated expansion and contraction of components in the water heater and piping system can cause premature failure of the relief valve, and possibly the heater itself. Replacing the relief valve will not correct the problem!

The suggested method of controlling thermal expansion is to install an expansion tank in the cold water line between the water heater and the check valve (refer to the illustration below). The expansion tank is designed with an air cushion built in that compresses as the system pressure increases, thereby relieving the over pressure condition and eliminating the repeated operation of the relief valve. Other methods of controlling thermal expansion are also available. Contact your installing contractor, water supplier or plumbing inspector for additional information regarding this subject.

Water Supply Connections

Refer to the illustration below for suggested typical installation. The installation of unions or flexible copper connectors is recommended on the hot and cold water connections so that the water heater may be easily disconnected for servicing if necessary. The HOT and COLD water connections are clearly marked and are 3/4” NPT on all models. Install a shut-off valve in the cold water line near the water heater.

Typical Installation

NOTICE: *Do not apply heat to the HOT or COLD water connections. If sweat connections are used, sweat tubing to adapter before fitting adapter to the water connections on heater. Any heat applied to the water supply fittings will permanently damage the dip tube andor heat traps.*

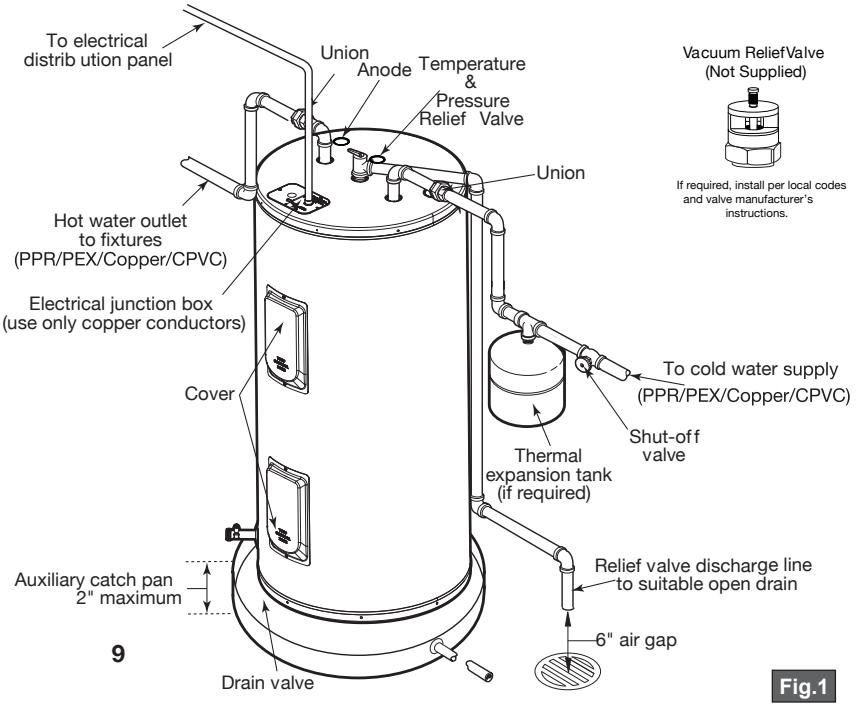


Fig.1

Lowboy models (See Figures 2&3)

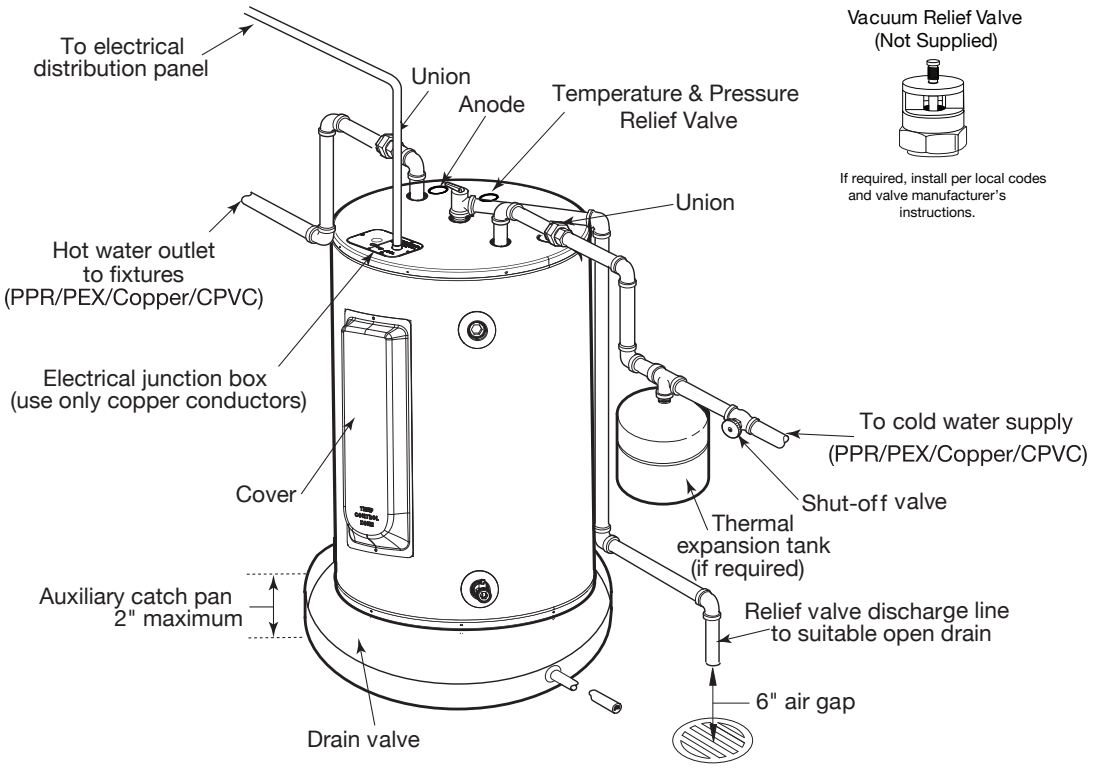


Fig.2

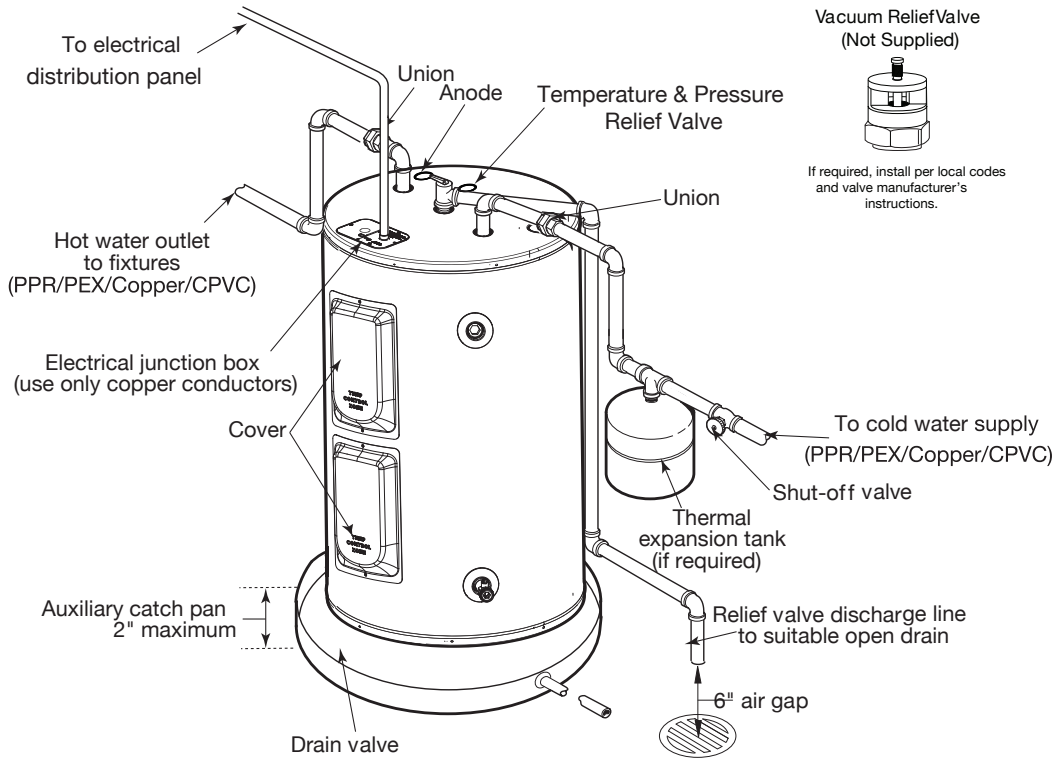


Fig.3

Installing the water heater (cont.)

CAUTION: To reduce the risk of excessive pressures and temperatures in this water heater, install temperature and pressure protective equipment required by local codes and 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 set pressure not to exceed the marked maximum working pressure of the water heater. 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 exits only within 6 inches above, or at any distance below, the structural floor, and does not contact any live electrical part. The discharge opening must not be blocked or reduced in size under any circumstances.

Relief Valve

The Btu/h rating of the relief valve must not be less than the input rating of the water heater as indicated on the rating label located on the front of the heater (1 watt=3.412 Btu/h).

Connect the outlet of the relief valve to a suitable open drain so that the discharge water cannot contact live electrical parts or persons and to eliminate potential water damage.

Piping used should be of a type approved for hot water distribution. The discharge line must be no smaller than the outlet of the valve and must pitch downward from the valve to allow complete drainage (by gravity) of the relief valve and discharge line. The end of the discharge line should not be threaded or concealed and should be protected from freezing. No valve of any type, restriction or reducer coupling should be installed in the discharge line.

WARNING!

The pressure rating of the relief valve must not exceed 150 PSI, the maximum working pressure of the water heater as marked on the rating plate.

To fill the water heater

Make certain the drain valve on the water heater is completely closed.Open the shut-off valve in the cold water supply line. Open each hot water faucet slowly to allow the air to vent from the water heater and piping.

A steady flow of water from the hot water faucet(s) indicates a full water heater.

WARNING!

DO NOT turn on the electrical supply or operate this water heater unless it is completely full of water. The tank must be full of water before heater is turned on. The water heater warranty does not cover damage or failure resulting from operation with an empty or partially empty tank.

Condensation

Condensation can form on the tank when it is first filled with water. Condensation might also occur with a heavy water draw and very cold inlet water temperature. This condition is not unusual, and will disappear after the water becomes heated. If, however, the condensation continues, examine the piping and fittings for possible leaks.

Water Heater Energy Cover Installation Instructions

Items Provided:

1 - water heater energy cover side
2 - water heater energy cover top
3 - tape strips - 3” x 85”(the accessories include five pieces of tape strips.)

Installation:

1. wrap the cover around water heater as shown in Figure 1, pay attention to the matching between the hole positions of the cover and the corresponding installation positions of valve bodies on the Water heater.
2. Apply 4 pieces of tape tape strips long across water heater energy cover side as shown in Figure 2.
3. Press down the periphery of the cover top until it laps over the upper end of the cover side, as shown in Figure 3.
5. Cut the remaining tape strips short with scissors,secure top insulation to cover by using 4 tape strips 7” long as shown in Figure 4.

CAUTION:

Avoid contact with your eyes and skin. Wear long sleeved, loose fitting clothing, gloves and eye protection when handling fiberglass. Wash with soap and warm water after handling.

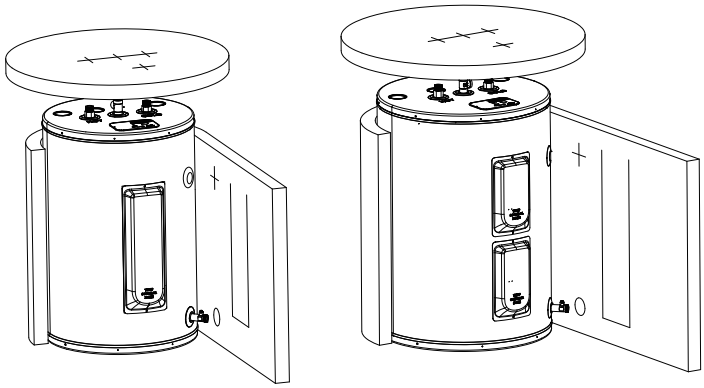


Figure 1

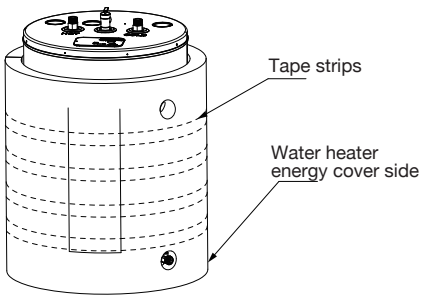


Figure 2

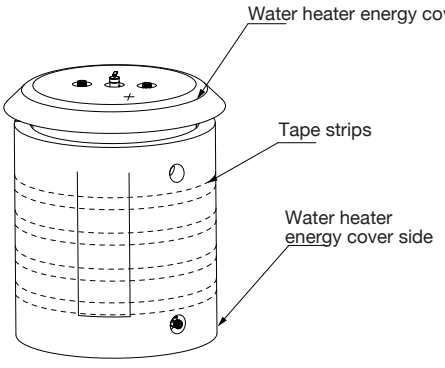


Figure 3

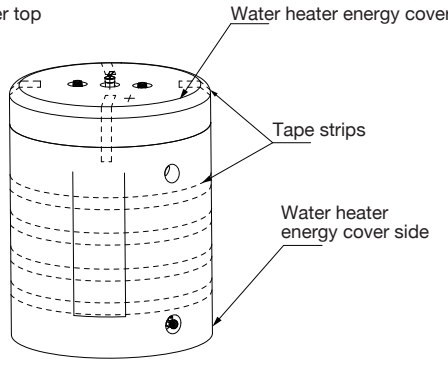
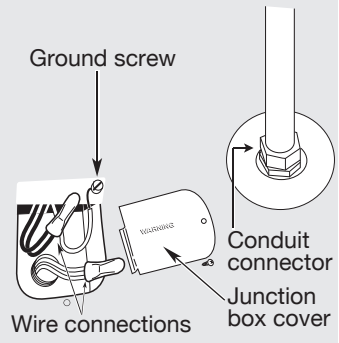


Figure 4

Installing the water heater (cont.)

Electrical Connections



Water heater junction box.

A separate branch circuit with copper conductors, overcurrent protective device and suitable disconnecting means must be provided by a qualified electrician.

All wiring must conform to local codes or latest edition of National Electrical Code ANSI/NFPA 70.

The water heater is completely wired to the junction box inside jacket at the top front of the water heater. An opening for 1/2″ or 3/4″ electrical fitting is provided for field wiring connections.

The voltage requirements and wattage load for the water heater are specified on the rating plate on the front of the water heater.

Connect the ground wire to the green ground screw.

To provide continued protection against risk of electrical shock, connect to a properly grounded circuit that is protected by a recognized CLASS A GROUND-FAULTCIRCUIT INTERRUPTER(GFCI).

The branch circuit wiring should include either:

1. Metallic conduit or metallic sheathed cable approved for use as a grounding conductor and installed with fittings approved for the purpose.

2. Non-metallic sheathed cable, metallic conduit or metallic sheathed cable not approved for use as a ground conductor shall include a separate conductor for grounding. It should be attached to the ground terminals of the water heater and the electrical distribution box.

CAUTION!

The presence of water in the piping and water heater does not provide sufficient conduction for a ground. Non-metallic piping, dielectric unions, flexible connectors etc. can cause the water heater to be electrically isolated.

CAUTION!

DO NOT turn on the electrical supply or operate this water heater unless it is completely full of water.

GROUNDING INSTRUCTIONS!

This appliance must be connected to a grounded, metallic, permanent wiring system or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance.

Branch Circuit Sizing and Wire Size

NOTICE: *This guide recommends minimum branch circuit sizing and wire size based on National Electric Code. Refer to wiring diagrams in this manual for field wiring connections.*

Total Water Heater Wattage	Recommended Over Current Protection (Fuse or circuit breaker amperage rating)		Copper Wire Size AWG Based on NE.C. Table 310-16 (75 C)	
	208V	240V	208V	240V
3,000	20	20	12	12
4,000	25	25	10	10
4,500	30	25	10	10
5,000	30	30	10	10
5,500	35	30	8	10

Technical Performance Parameters

Phase	1	1
Volts AC	240V	208V
Upper Element Watts	4500W	3380W
Lower Element Watts	4500W	3380W
Total Watts	4500W	3380W
Recommended circuit breaker	25A	20A
Protection Against Electric Shock:Class I		

Installation Checklist

A. Water heater locations

- ☐ Close to area of heated water demand.
- ☐ Indoors and protected from freezing temperatures.
- ☐ Area free of flammable vapors.
- ☐ Provisions made to protect area from water damage.

B. Water supply

- ☐ Water heater completely filled with water.
- ☐ Air purged from water heater and piping.
- ☐ Water connections tight and free of leaks.

C. Relief valve

- ☐ Temperature and Pressure Relief Valve properly installed and discharge line run to open drain.
- ☐ Discharge line protected from freezing.

D. Wiring

- ☐ Power Supply voltage agrees with water heater rating plate.
- ☐ Branch circuit wire and fusing or circuit breaker of proper size.
- ☐ Electrical connections tight and unit properly grounded.

Operating the water heater

CAUTION!

Hydrogen gas can be produced in a hot water system served by this water heater that has not been used for a long period of time (generally two weeks or more). HYDROGEN GAS IS EXTREMELY FLAMMABLE!! To dissipate such gas and to reduce risk of injury, it is recommended that the hot water faucet be opened for several minutes at the kitchen sink before using any electrical appliance connected to the hot water system. If hydrogen is present, there will be an unusual sound such as air escaping through the pipe as the water begins to flow. Do not smoke or use an open flame near the faucet at the time it is open.

Safety precautions

A Turn off power to water heater if it has been subjected to over heating, fire, flood, physical damage.

B Do **NOT** turn on water heater unless it is filled with water.

C Do **NOT** turn on water heater if cold water supply shut-off valve is closed.

D If there is any difficulty in understanding or following the Operating Instructions or the Care and Cleaning section, it is recommended that a qualified person or serviceman perform the work.

Safety controls

The water heater is equipped with a combination thermostat and temperature limiting control (ECO) that is located above the heating element in contact with the tank surface. If for any reason the water temperature becomes excessively high, the temperature limiting control (ECO) breaks the power circuit to the heating element. Once the control opens, it must be reset manually.

1. Turn off the power to the water heater.
2. Remove the jacket access panel(s) and insulation.

   The thermostat protective cover should not be removed.
3. Press the red RESET button.
4. Replace the insulation and jacket access panel(s) before turning on the power to the water heater.

WARNING!

If the water heater has been subjected to flood, fire, or physical damage, turn off power and water to the water heater.

Do not operate the water heater again until it has been thoroughly checked by qualified service personnel.

CAUTION!

The cause of the high temperature condition must be investigated by qualified service technician and corrective action must be taken before placing the water heater in service again.

Water temperature settings

DANGER!

There is a hot water scald potential if the thermostat is set too high. Households with small children, disabled, or elderly persons may require a 120 F or lower thermostat setting to prevent contact with HOT water.

The temperature of the water in the water heater can be regulated by setting the temperature dial of the adjustable surface mounted thermostat(s) located behind the jacket access panel(s).

Dual element heaters have two thermostats.

Safety and energy conservation are factors to be considered when selecting the water temperature setting of the water heater's thermostat(s). The lower the temperature setting, the greater the savings in energy and operating costs.

To comply with safety regulations the thermostat(s) are factory set at 120°F or less where local codes require. This is the recommended starting point. The factory set temperature of **this electric water heater is 125 ° F**

Water temperatures above 125°F can cause severe burns or death from scalding.

Be sure to read and follow the warnings outlined in this manual and on the label on the water heater. This label is located on the water heater near the thermostat access panel.

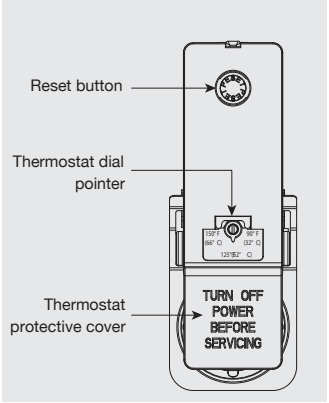
Mixing valves are recommended for reducing point of use water temperature by mixing hot and cold water in branch water lines. It is recommended that a mixing valve complying with the Standard for Temperature Actuated Mixing Valves for Hot Water Distribution Systems, ASSE 1017 be installed. See page 4 for more details and contact a licensed plumber or the local plumbing authority for further information.

Time/temperature relationship in scalds

Temperature	Time to produce a serious burn
120°F	More than 5 minutes
125°F	11/2 to 2 minutes
130°F	About 30 seconds
135°F	About 10 seconds
140°F	Less than 5 seconds
145°F	Less than 3 seconds

Table courtesy of Shriners Burn Institute

If adjustment is necessary..



Type 59T thermostat and protective cover.

1. Turn off the power to the water heater.
2. Remove the jacket access panel(s) and insulation exposing the thermostat(s).

   The thermostat protective cover(s) should not be removed.
3. Using a small screwdriver, set the thermostat(s) dial pointer(s) to the desired temperature.
4. Replace the insulation and jacket access panel(s). Turn on the power to the water heater.

Care and cleaning of the water heater

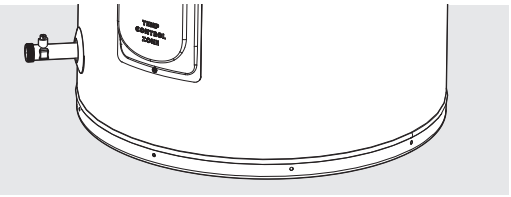
DANGER!

Before manually operating the relief valve, make certain no one will be exposed to the danger of coming in contact with the hot water released by the valve. The water may be hot enough to create a scald hazard. The water should be released into a suitable drain to prevent injury or property damage.

Draining the water heater

In order to drain the water heater, turn off the cold water supply. Open a hot water faucet or lift the handle on the relief valve to admit air to the tank.

Attach a garden hose to the drain valve on the water heater and direct the stream of water to a drain. Open the valve.



CAUTION!

Shut off power to the water heater before draining water.

Routine preventative maintenance

Properly maintained, your water heater will provide years of dependable trouble- free service.

It is suggested that a routine preventive maintenance program be established and followed by the user.

It is further recommended that a periodic inspection of the operating controls, heating element and wiring should be made by service personnel qualified in electric appliance repair.

Most electrical appliances, even when new, make some sound when in operation. If the hissing or singing sound level increases excessively, the electric heating element may require cleaning. Contact a qualified installer or plumbing contract to inspect.

At least once a year, lift and release the lever handle on the temperature pressure relief valve, located near the top of the water heater, to make certain the valve operates freely. Allow several gallons to flush through the discharge line to an open drain.

A water heater's tank can act as a setting basin for solids suspended in the water.It is therefore not uncommon for hard water deposits to accumulate in the bottom of the tank. It is suggested that a few quarts of water be drained from the water heater's tank every month to clean the tank of these deposits.

Rapid closing of faucets or solenoid valves in automatic water using appliances can cause a banging noise heard in a water pipe. Strategically located risers in the water pipe system or water hammer arresting devices can be used to minimize the problem.

The anode rod should be removed from the water heater's tank annually for inspection and replaced when more than 6" of core wire is exposed at either end of the rod.

Make sure the cold water supply is turned off before removing anode rod.

NOTICE: *If the temperature and pressure relief valve on the hot water heater discharges periodically, this may be due to thermal expansion in a closed water system. Contact the water supplier or your plumbing contractor on how to correct this. Do not plug the relief valve outlet.*

Care and cleaning of the water heater

Vacation and extended shut-down

If the water heater is to remain idle for an extended period of time, the power and water to the appliance should be turned off to conserve energy and prevent a build-up of dangerous hydrogen gas.
The water heater and piping should be drained if they might be subjected to freezing temperatures.

After a long shut-down period, the water heater's operation and controls should be checked by qualified service personnel. Make certain the water heater is completely filled again before placing it in operation.

NOTICE: *Refer to the Hydrogen Gas Caution in the Operating Instructions.*

Anode rod

This water heater is equipped with an anode rod designed to prolong the life of the glass lined tank. The anode rod is slowly consumed, thereby eliminating or minimizing corrosion of the glass lined tank.

Water sometimes contains a high sulfate and/or mineral content and together with cathodic protection process can produce a hydrogen sulfide, or rotten egg odor in the heated water. Chlorination of the water supply should minimize the problem.

NOTICE: *Do NOT remove the anode rod from the water heater's tank, except for inspection and/or replacement, as operation with the anode rod removed will greatly shorten the life of the glass lined tank and will exclude warranty coverage.*

⚠ WARNING: Electrical Shock Hazard

Improper grounding can result in serious injury or death from electric shock. This appliance must be properly grounded in accordance with the National Electrical Code (NEC) and all local electrical codes. Failure to provide proper grounding may result in electric shock, equipment failure, or fire.

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1. Purpose of Grounding

This water heater must be grounded to ensure user safety and to allow proper operation of overcurrent protection devices. Grounding provides a low-resistance path to carry away fault current in the event of a short circuit or insulation failure.

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2. Before Installation - Verify Grounding

Disconnect the breaker and inspect the electrical connections on the old water heater. If damage to the wiring coming from the electrical panel is apparent, please call a qualified electrician before continuing with the installation. Damage could look like frayed wiring, insulation degradation, and failed electrical bushings. Once electrical connections are confirmed to be undamaged, disconnect the wiring and remove the old heater.

3. During Installation

1. Visual Inspection of the Water Heater
    - Confirm that the green or bare copper grounding wire is securely connected to the water heater's ground screw within the terminal box located on top cover.
2. Continuity Test
    - Connect the wiring from the panel box to the water heater and then using a multimeter, check for electrical continuity between:
        - The water heater's metal jacket (or ground terminal), and the ground terminal screw located on the breaker panel (e.g., service panel ground bar or grounded outlet box).
    - The resistance should be close to 0 ohms. A high resistance indicates a faulty or broken ground. If the ground is broken, contact a qualified electrician for repair.
3. Ground Loop Impedance Test (if required by local code)
    - For professional verification, a loop impedance tester can be used to verify the ground path has sufficiently low impedance allowing breakers to safely trip in fault conditions.

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4. After Installation - Confirm Connection

- Ensure that all wire terminations are tight and corrosion free.
- Do not paint over bonding or grounding points.
- Do not energize the unit until grounding is confirmed.

Before you call for service

Troubleshooting Tips:
Save time and money! Review the chart on this page first and you may not need to call for service.

Problem	Causes	What to do
Rumbling noise	Water conditions in your home caused a build up of scale or mineral deposits on the heating elements.	Remove and clean the heating elements.
Relief valve producing popping noise or draining	Pressure build up caused by thermal expansion in a closed system.	This is an unacceptable condition and must be corrected. Contact the water supplier or plumbing contractor on how to correct this. Do not plug the relief valve outlet.
Not enough or no hot water	Water usage may have exceeded the capacity of the water heater.	Wait for the water heater to recover after an abnormal demand.
	A fuse is blown or a circuit breaker tripped.	Replace fuse or reset circuit breaker.
	Electric supply may be off.	Make sure electric supply to water heater and disconnect switch, if used, are in the ON position.
	The thermostat may be set set too low.	See the Temperature regulation of the water heater section of this manual.
	Leaking or open hot water faucets.	Make sure all faucets are closed.
	Electric service to your home may be interrupted.	Contact the local electric utility.
	Improper wiring.	See the Installing the water heater section of this manual.
	Manual reset limit (ECO).	See the Temperature regulation of the water heater section of this manual.
	Cold water inlet temperature may be colder during the winter months.	This is normal. The colder inlet water takes longer to heat.
Water is too hot	The thermostat is set too high.	See the Temperature regulation of the water heater section of this manual.

CAUTION!

For your safety DO NOT attempt repair of electrical wiring, thermostats, heating elements or other safety devices. Refer repairs to qualified service

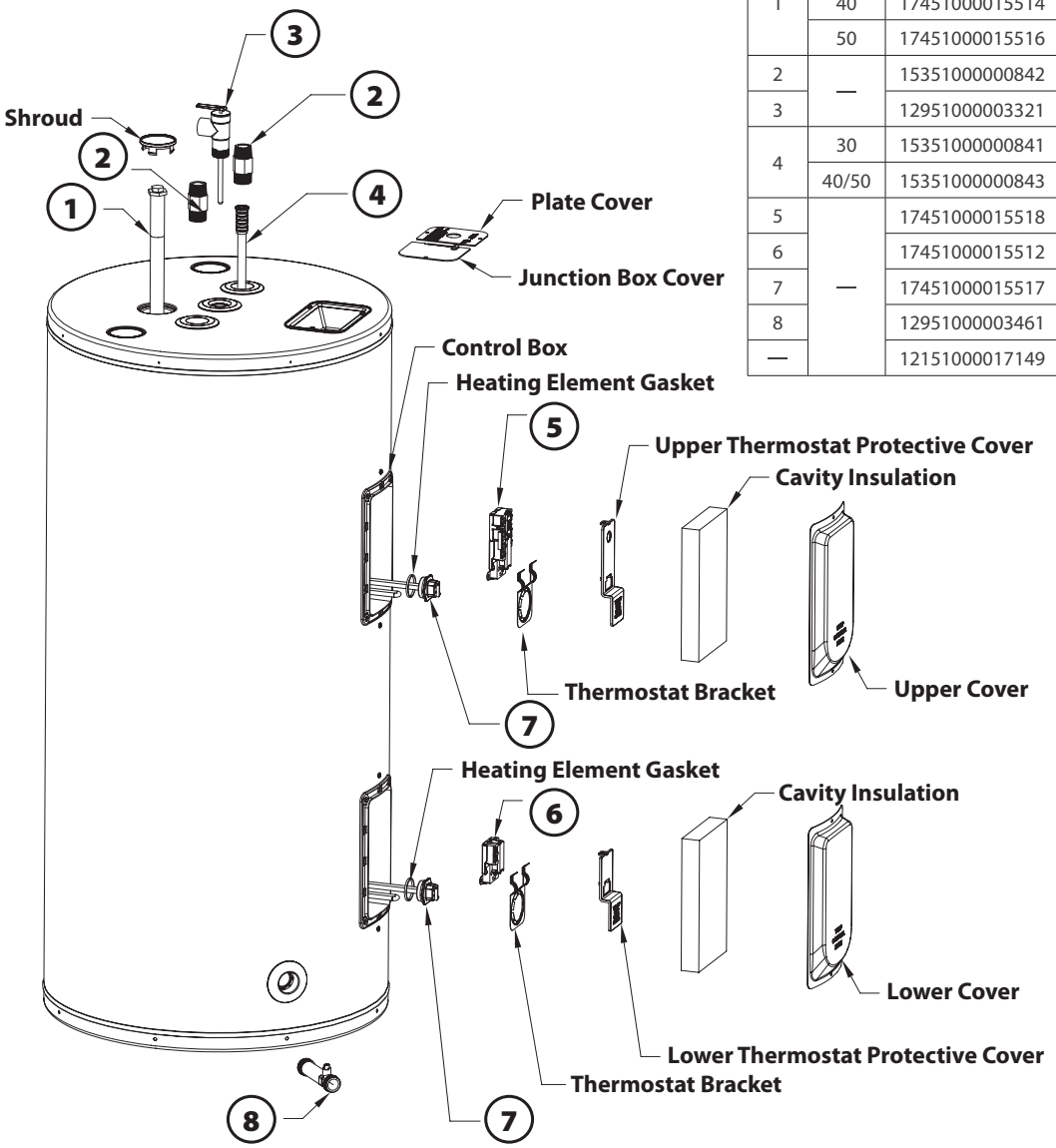
Replacement parts

CAUTION!

For your safety DO NOT attempt repair of electrical wiring, thermostat(s), heating elements or other operating controls. Refer repairs to qualified service personnel.

Replacement parts pertain to short and tall models only.

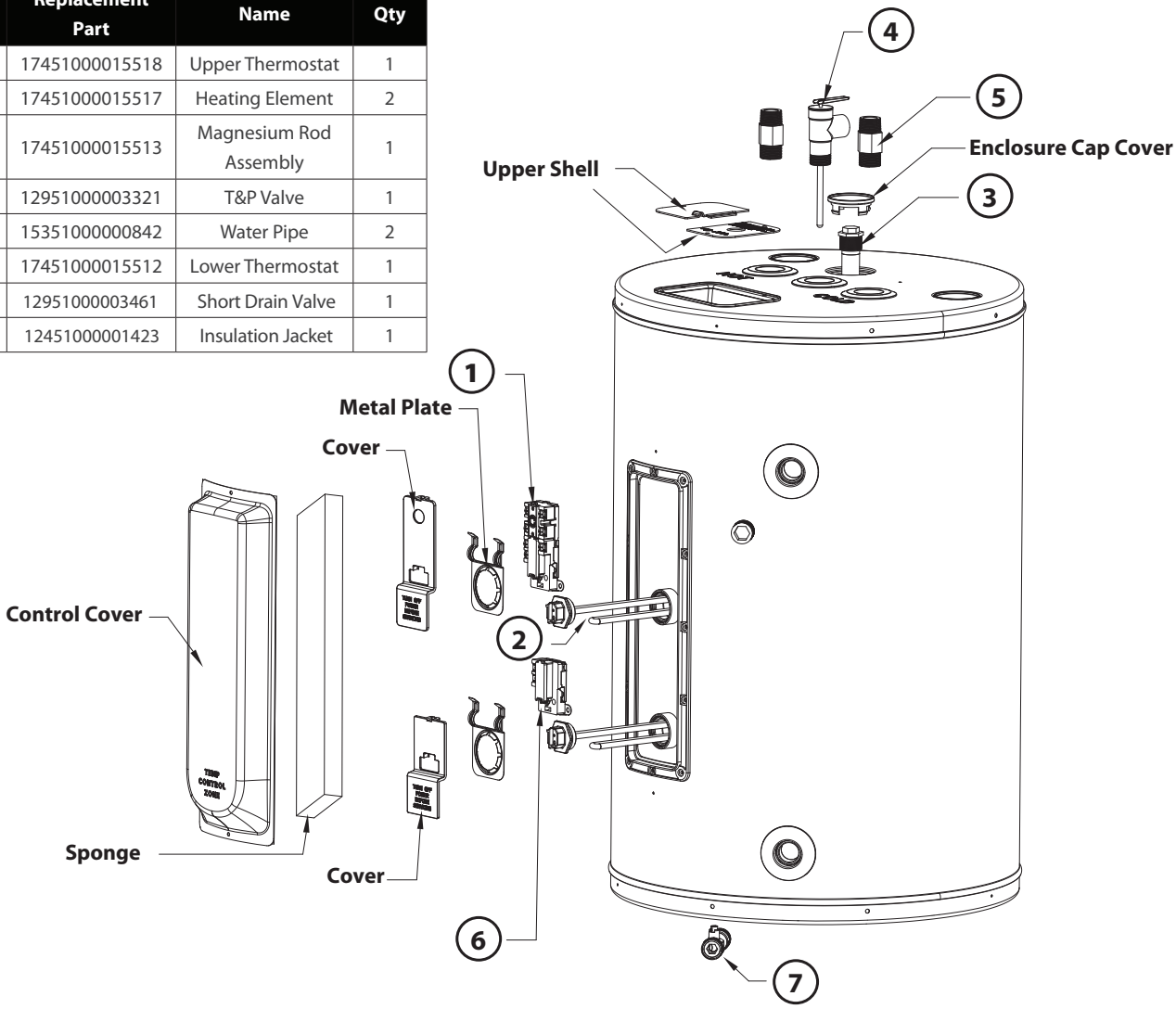
Part #	Model (Gal)	Replacement Part	Name
1	30	17451000015513	Magnesium Anode Rod
	40	17451000015514	
	50	17451000015516	
2	—	15351000000842	Cold & Hot Inlet
3		12951000003321	TP Valve
4	30	15351000000841	Dip Tube
	40/50	15351000000843	
5	—	17451000015518	Upper Thermostat
6		17451000015512	Lower Thermostat
7		17451000015517	Heating Element
8		12951000003461	Short Drain Valve
—		12151000017149	Heat Trap



Lowboy models: S33-30LEWH-4500

Replacement parts pertain to low models only.

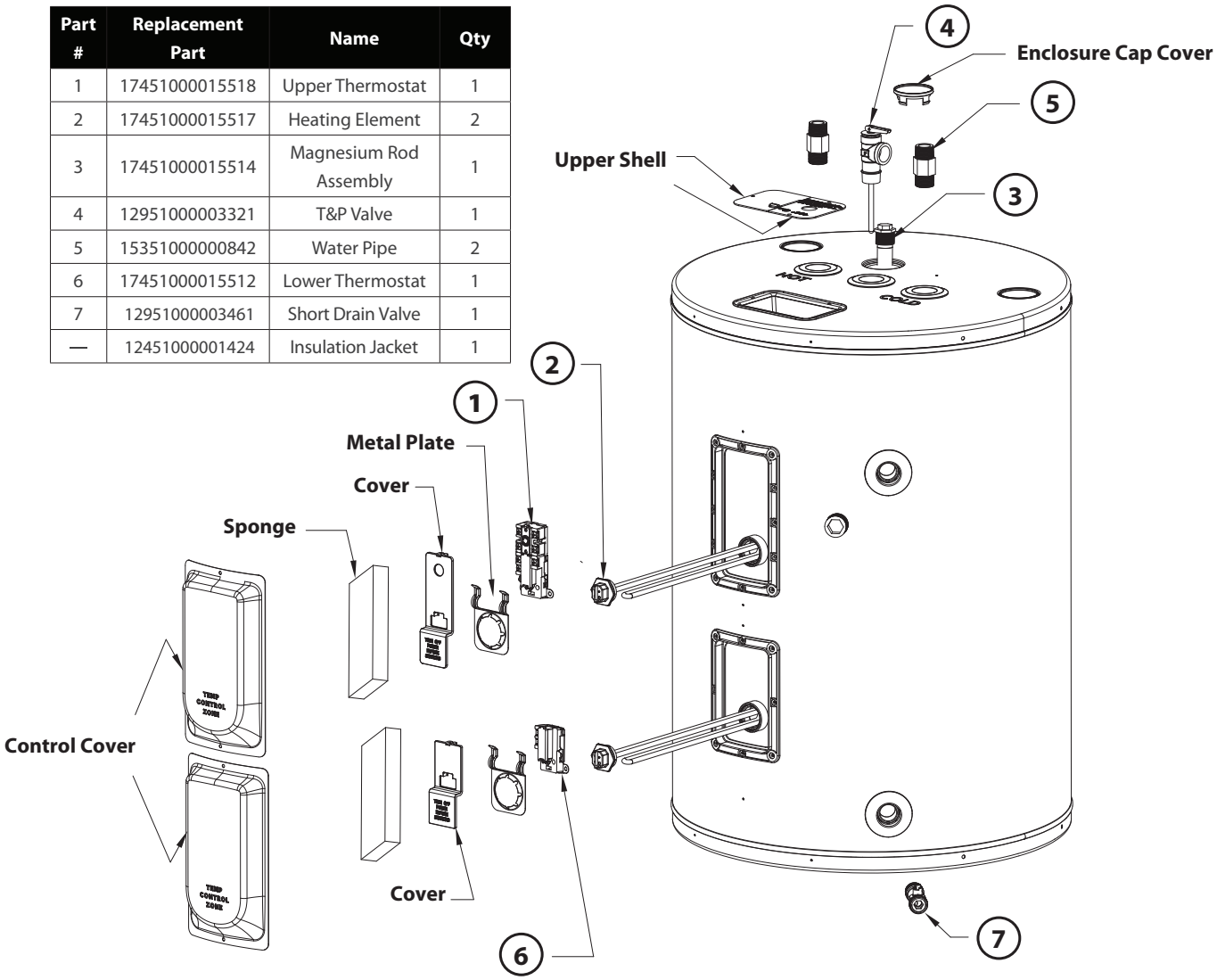
Part #	Replacement Part	Name	Qty
1	17451000015518	Upper Thermostat	1
2	17451000015517	Heating Element	2
3	17451000015513	Magnesium Rod Assembly	1
4	12951000003321	T&P Valve	1
5	15351000000842	Water Pipe	2
6	17451000015512	Lower Thermostat	1
7	12951000003461	Short Drain Valve	1
—	12451000001423	Insulation Jacket	1



Lowboy models: S33-40LEWH-4500

Replacement parts pertain to low models only.

Part #	Replacement Part	Name	Qty
1	17451000015518	Upper Thermostat	1
2	17451000015517	Heating Element	2
3	17451000015514	Magnesium Rod Assembly	1
4	12951000003321	T&P Valve	1
5	15351000000842	Water Pipe	2
6	17451000015512	Lower Thermostat	1
7	12951000003461	Short Drain Valve	1
—	12451000001424	Insulation Jacket	1

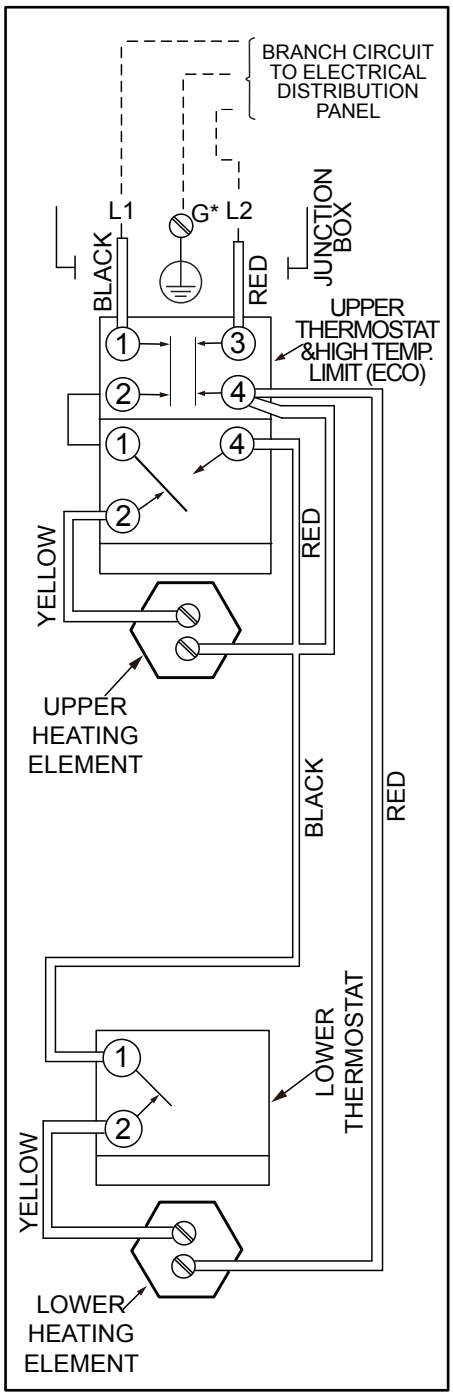


If you need service...

Should you have any questions about your new water heater, or if it requires adjustment, repair, or routine maintenance, it is suggested that you first contact your installer, plumbing contractor or previously agreed upon service agency. In the event the firm has moved, or is unavailable, refer to the telephone directory, commercial listings or local utility for qualified service assistance.

Should your problem not be solved to your complete satisfaction, please refer to the warranty at the end of this document.

This electric water heater is wired as indicated below.



Double element non-simultaneous

* Grounding conductor may be required. Refer to Wiring Section of Manual

This water heater is factory equipped for two (2) wire connection to electrical power. For use with "off-peak" meter (timer) remove wire nut from red and black leads and connect to "off-peak" meter (timer).

LIMITED WARRANTY

Stream33 Products LLC (Stream33®) warrants that this Electric Water Heater tank and component parts (the "Product") shall be free from defects in material, workmanship and/or manufacturing under normal use and service. This warranty applies to the original purchaser and all subsequent owners ("PURCHASER") provided that the Product remains in the original installation location and was installed by a Licensed Contractor. Should your Stream33 Product prove to be defective in material, workmanship and/or manufacturing under normal use during the durations outlined below, within the earlier of (i) sixty (60) days following date the equipment is first installed by a licensed contractor or (ii) from three (3) months or 90 days after the date of distribution from Stream33 (without proof of installation date), Stream33 will replace defective parts or Product as outlined below. All warranty parts, product and labor claims are subject to Stream33 inspection of the product and installation prior to release of replacement parts, unit or labor reimbursement. All claims must be validated and approved by an authorized Stream33 representative.

FULL FIRST YEAR LABOR

If the Product or any part supplied by Stream33 fails due to defects in material or workmanship within the first (1) year of purchase date by the PURCHASER, Stream33 will replace the defective part free of charge, including reasonable market labor allowances.

ONE YEAR NON-RESIDENTAL APPLICATION

If the Product supplied by Stream33 installed in a "NON-Residential Application" fails due to defects in material or workmanship within the first (1) year of purchase date by the PURCHASER, Stream33 will replace the defective part or replace the entire Product free of charge. "NON-Residential Application" refers to Product installed in any location other than homes (single or multi-family), apartments, duplexes, or condominiums used solely for personal, household, or family use.

SIX YEARS RESIDENTAL APPLICATION

If the Product supplied by Stream33 installed in a "Residential Application" fails due to defects in material or workmanship within the first six (6) years of purchase date by the PURCHASER, Stream33 will replace the defective part or replace the entire Product free of charge. "Residential Application" refers to Product installed in homes (single or multi-family), apartments, duplexes, or condominiums used solely for personal, household, or family use.

REPLACEMENT WARRANTY

All replacement water heaters and parts are covered under the remainder of the original warranty period. For example, if a water heater with a six (6) year tank warranty develops a leak due to defects in materials or workmanship after two (2) years, the replacement unit will only be covered for the remaining four (4) years of the original six (6) year warranty.

WHAT IS NOT COVERED?

This Limited Warranty applies only to Stream33 Products that are installed by licensed contractors who are licensed for installation under applicable local and state laws (a "Licensed Contractor"), and where installation of the Product is completed in strict compliance with (A) all applicable building codes, ordinances, regulations and permits; (B) Stream33's installation and operation instructions; and (C) good trade practices (each of the foregoing, the "Warranty Conditions"). In the event the Product is not installed by a Licensed Contractor and in strict compliance with each of the Warranty Conditions, this Limited Warranty, and Stream33's obligations arising hereunder, shall be deemed null and void.

This Limited Warranty does not cover and Stream33 is not liable for, (i) installation charges and/or costs related to the defective Products and/or parts that occur outside of the labor required for warranty covered repair or replacement including shipping, delivery or freight charges; (ii) any labor charges and/or costs related to the defective Products and/or parts including removal charges and required permit fees; (iii) Products which have been damaged as a result of any accident, misuse, abuse, neglect, improper installation or maintenance, the use of abrasive or organic solvent cleaners, flood/water damage, removal of magnesium anode, use of fuels or settings not listed on rating plate or modification; (iv) Adverse conditions including atmospheric corrosive elements and lime precipitate or sediment in the tank; (v) failure to use the Product in accordance with the instructions provided by Stream33; (vi) Products not installed by a Licensed Contractor; (vii) Products not installed in strict compliance with the Warranty Conditions; and/or (viii) Products for which the Stream33 Registration have not been completed on or before the Registration Deadline.

PRODUCT REGISTRATION

This Limited Product Warranty, and Stream33's obligations arising pursuant to this Limited Warranty are expressly conditioned upon the Product being registered with Stream33 (the "Stream33 Registration") within the earlier of (i) sixty (60) days following date the equipment is first installed by a licensed contractor; or (ii) ninety (90) days from the date of purchase (the "Registration Deadline"). In the event the Stream33 Registration is not completed on or before the Registration Deadline, this Limited Warranty shall default and begin ninety (90) days after Date of Sale by a Stream33 Distributor. Product can be registered online **using QR code at the bottom of the last page.**

WARRANTY RESPONSE

If a defect occurs within the warranty period, at Stream33 manufacture discretion, we will (i) Provide a replacement part (or, at our authorization, replace) the unit during warranty period. To receive a replacement, you must have prior approval from an authorized Stream33 representative and an RGA reference number. If government regulations require the replacement water heater to include features not present in the defective unit, you will need to cover the cost difference for those required features or (ii) Provide a replacement part (or, at our discretion, repair) any part that fails to function within the parts warranty period. To obtain a replacement, you must send us the defective part. If government regulations require the replacement part to include features not present in the defective part, you will need to cover the cost difference for those required features. We reserve the right to verify any defect claims through inspection

HOW TO OBTAIN WARRANTY SERVICE

Complete the Warranty Form to report the incident **using QR code at bottom of the last page.** Return failed Product with proof of purchase, your name, and address within thirty (30) days of failure to:

Stream33 Products LLC
ATTN: 33Brands Quality Team
5700 Lee Road South
Maple Heights, OH 44137

LIMITATION OF LIABILITY

Stream33's liability on any claim of any kind, including, without limitation, warranty, negligence and/or breach of contract, shall in no case exceed the purchase price paid by the Customer. IN NO EVENT SHALL STREAM33 BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO PROPERTY) OR PUNITIVE DAMAGES, DAMAGES IN THE NATURE OF PENALTIES OR SIMILAR OR RELATED DAMAGES OF ANY KIND.

DISCLAIMER OF WARRANTIES

STREAM33 EXPRESSLY DISCLAIMS ALL WARRANTIES, EXCEPT AS EXPLICITLY STATED HEREIN, TO THE FULLEST EXTENT PERMITTED BY LAW, WHETHER WRITTEN, ORAL, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT. THIS DISCLAIMER INCLUDES ANY ORAL WARRANTIES OR REPRESENTATIONS MADE OR IMPLIED BY ANY AGENT, EMPLOYEE, SUBCONTRACTOR, MANAGER, DIRECTOR AND/OR REPRESENTATIVE OF STREAM33.

Product Registration

Warranty Form