

**SEARS**

**OWNERS  
MANUAL**

**MODEL NOS.**

**30 GALLON**

449.310310  
449.310311  
449.320310  
449.320311

**40 GALLON**

449.310410  
449.310411  
449.320410  
449.320411  
449.314410 SHORT

**52 GALLON**

449.310510  
449.310530  
449.310531  
449.320510  
449.320511

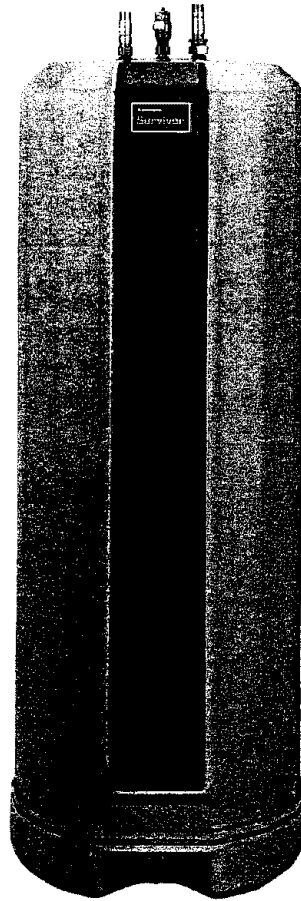
**CAUTION**

Read All Safety Guides  
Before You Start to  
Install Your Water Heater  
... See Page 2

**AVOID UNNEEDED  
SERVICE CALLS ...**

Read the HELPFUL HINTS  
CHECKLIST  
on Page 13.

**SAVE THIS MANUAL**



**KENMORE® SURVIVOR™**

**ELECTRIC  
WATER HEATER**

- SAFETY INSTRUCTIONS —
- INSTALLATION —
- OPERATION —
- CARE AND MAINTENANCE —
- TROUBLESHOOTING —
- PARTS LIST —
- WARRANTY —

**Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.**

# INTRODUCTION

Thank you for buying your Kenmore Survivor electric water heater from Sears. The water heater is made of the latest in non-metallic materials that will not rust or corrode. It will give you many years of hot water service when installed, operated and maintained following the guides in this manual.

Your water heater is completely assembled and ready to install. When installing, you must use a new temperature and pressure relief valve (included with the water heater\*). Please read Pages 4, 6 and 9 prior to installing a temperature and pressure relief valve. Other tools and supplies you will need to install the water heater are listed on Page 3.

If you want your water heater professionally installed, talk to your Sears salesperson who will arrange a prompt, quality, warranted installation by authorized installers. Please read your warranty on Page 16.

Almost all new products (automobiles, boats, clothing, plastic and wood items, etc.) have an odor or smell to them for a time. Your Survivor water heater may also have a "new" smell or odor to it, due to the non-metallic materials used in the manufacturing process. This "new" smell is not harmful to you and will disappear in a short time.

**\* NOTE:** All Model Numbers listed in this Manual are sold and shipped with a factory installed Temperature and Pressure Relief Valve. This valve will open at 150 psi and/or 210°F (see Pages 4, 6 and 9).

## TABLE OF CONTENTS

	Page No.		Page No.
Tools and Materials Needed.....	3	Controls and Temperature Settings.....	8-10
Where to Locate the Heater .....	3	Care of Your Water Heater.....	10-12
Removing the Old Water Heater.....	3-4	Helpful Hints Checklist.....	13
Steps to Install .....	4-10	Repair Parts.....	14-15
Temperature & Pressure Relief Valve.....	4, 6 & 9	Warranty.....	16
Electrical Wiring .....	7-8		

## GUIDES TO SAFELY INSTALL AND USE YOUR WATER HEATER

READ THIS BOOK CAREFULLY FOR ALL STEPS, GUIDES AND RULES TO SAFELY INSTALL AND USE YOUR WATER HEATER CORRECTLY. FOLLOW ALL STEPS EXACTLY OR BODILY INJURY, PROPERTY DAMAGE, OR DAMAGE TO THE WATER HEATER COULD RESULT.

CHECK WITH YOUR LOCAL PUBLIC WORKS DEPARTMENT FOR PLUMBING, ELECTRIC AND SANITATION CODES. BE SURE TO FOLLOW THEIR CODES AS YOU INSTALL THE WATER HEATER. IF YOU DO NOT KNOW HOW TO MAKE SAFE ELECTRICAL WIRING AND PLUMBING CONNECTIONS, GET HELP FROM A LICENSED ELECTRICIAN OR PLUMBER.

THIS WATER HEATER WORKS ON 240 VOLTS. SEE THE SPECIFICATIONS ON PAGE 3, AND WIRING GUIDES ON PAGE 7.

THE KENMORE SURVIVOR WATER HEATER HAS A FACTORY INSTALLED TEMPERATURE AND PRESSURE RELIEF VALVE (SEE PAGE 4). DO NOT REMOVE THIS VALVE UNLESS THERE IS APPARENT DAMAGE TO IT. SEARS AND THE MANUFACTURER ARE NOT LIABLE FOR ANY DAMAGE THAT MAY OCCUR FROM TOO HIGH OF A TEMPERATURE OR PRESSURE IN THE WATER HEATER IF THIS RELIEF VALVE IS REMOVED. (SEE NOTE ON TOP OF PAGE).

IF WATER SYSTEM PRESSURE IS OVER 80 PSI, BUY AND INSTALL A PRESSURE REDUCING VALVE (WATER PRESSURE REGULATOR) ON THE INLET PIPE TO THE WATER HEATER. HIGH INLET PRESSURE SHORTENS THE LIFE OF THE WATER HEATER AND OTHER WATER USING APPLIANCES.

**NOTE:** To protect other equipment in the water system, install the pressure reducing valve on the main water pipe where water enters the house.

THE WATER HEATER TANK IS INSULATED WITH 2 INCHES OF FOAM TO HELP STOP HEAT LOSS. MORE INSULATION IS NOT NEEDED. DO NOT INSTALL AN INSULATING JACKET.

BE SURE YOU HAVE ALL THE TOOLS AND MATERIALS YOU WILL NEED BEFORE STARTING THE INSTALLATION, PAGE 3.

AFTER INSTALLING, DO NOT TURN ON AND OPERATE THE WATER HEATER UNLESS... THE TEMPERATURE AND PRESSURE RELIEF VALVE IS IN PLACE AND OPERATING PROPERLY, YOU HAVE PROPERLY INSTALLED THE DRAIN PIPE ON THE TEMPERATURE AND PRESSURE RELIEF VALVE (SEE STEP 5 ON PAGE 6), THE VACUUM RELIEF VALVE HAS BEEN INSTALLED (SEE PAGE 4), AND YOU HAVE COMPLETELY FILLED THE WATER HEATER WITH WATER (SEE STEP 7 ON PAGE 6).

# SPECIFICATIONS TABLE

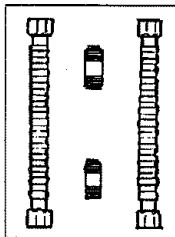
MODEL NUMBER	NOMINAL TANK CAPACITY (Gallons)	ELEMENTS (@ 240 Volts)		RECOVERY RATE ① (Gallons Per Hour)	MAX FUSE OR CIRCUIT BREAKER SIZE (Amps)	MINIMUM WIRE SIZE ② (Gauge No.)	DIMENSIONS (Inches)		MAXIMUM WORKING PRESSURE (PSI)	RECOM-MENDED WORKING PRESSURE (PSI)
		Qty.	Wattage				③ Diam.	④ Height		
449.310310	30	2	3800	17.3	20	12	21¼	53¾	150	80
449.310311	30	2	3800	17.3	20	12	21¼	53¾	150	80
449.320310	30	2	5500	25.0	30	10	21¼	53¾	150	80
449.320311	30	2	5500	25.0	30	10	21¼	53¾	150	80
449.310410	40	2	3800	17.3	20	12	21¼	65¾	150	80
449.310411	40	2	3800	17.3	20	12	21¼	65¾	150	80
449.320410	40	2	5500	25.0	30	10	21¼	65¾	150	80
449.320411	40	2	5500	25.0	30	10	21¼	65¾	150	80
449.314410	40 Short	1	3800	17.3	20	12	23⅜	55¾	150	80
449.310510	52	2	3800	17.3	20	12	23⅜	66¾	150	80
449.310530	52	2	3800	17.3	20	12	23⅜	66¾	150	80
449.310531	52	2	3800	17.3	20	12	23⅜	66¾	150	80
449.320510	52	2	5500	25.0	30	10	23⅜	66¾	150	80
449.320511	52	2	5500	25.0	30	10	23⅜	66¾	150	80

- ① At 90° F rise
- ② Standard 60° C copper wire (local codes may specify other gauge if fuse or circuit breaker box is more than 90 ft. from water heater).
- ③ Actual outside configuration is 16 equal sides. The front panel protrudes 1" to 1½" beyond above nominal diameter.
- ④ Includes factory installed temperature and pressure relief valve.

## PLAN HOW YOU WILL INSTALL YOUR WATER HEATER

### TOOLS AND MATERIALS NEEDED

- Copper or galvanized pipe and fittings (3/4" minimum size) as needed to make the plumbing connections (see FIG. 1, Page 5 and FIG. 2, Page 6). CPVC plastic pipe and fittings are permitted in some areas.
- You can buy water heater installation kits from Sears. The kits include flexible connectors with 3/4" fittings to help make installing the water heater easier.
- Pipe thread seal compound.
- Electrical wiring materials as needed (see Step 8 and Page 7).
- Pipe wrenches (2), hacksaw or pipe cutter, wire stripper or knife, a wire cutter, and a Phillips screwdriver. If installing copper pipe and solder fittings, you will need a propane torch, lead free solidcore solder (see following Note ①), paste flux, emery cloth, sand paper or steel wool. If installing CPVC plastic, solvent cement is needed.



① **NOTE:** For copper pipe installations, to help guard against the adding of lead to water supplies, Federal law prohibits the use of solder containing more than 0.2 percent of lead.

### WHERE TO LOCATE THE WATER HEATER

If you are replacing an old water heater, you will probably want to use the same location. If you want to change the location, or if this is a new installation, consider the following:

- Locate close to where you will use the most hot water. Less heat is lost when the hot water has a short distance to flow.
- Locate close to a floor drain, laundry tub or sink. A proper (check local codes) drain is needed for the temperature and pressure relief drain pipe (see Page 6), and for monthly draining of the water heater (see Page 10).

- Do not install where water could freeze in the water heater. Freeze damage voids your warranty from Sears (see Page 12).
- Do not install next to a wood-burning stove or other appliance where high temperature could warp or otherwise damage the water heater outer jacket.
- Put the water heater in a place water damage is least likely if it should start to leak. If needed (see following note ②), make or buy a suitable drain pan and place it under the water heater. The drain pan must have a free flowing drain line to carry away water that may leak into it.
- ② **NOTE:** Recommended by American National Standards Institute (ANSI) Z21-10.1- (latest issue) under instruction section, if water heater is located in or above an area that could be damaged by water leaks.
- For ease of service, be sure you are able to get to the drain valve, temperature and pressure relief valve, and access panels to the controls.
- Be sure the floor is level so the water heater will stand straight.

### REMOVE THE OLD WATER HEATER (if it applies)

1. TURN OFF ELECTRIC POWER TO THE WATER HEATER at the fuse or circuit breaker panel.  
If removing a gas water heater, TURN OFF THE GAS SUPPLY TO THE HOUSE, disconnect and cap, or remove, the gas line to the water heater (check local codes) and the vent pipe.

**WARNING**

DO NOT SMOKE, CREATE SPARKS OR USE OPEN FLAME DURING CAPPING OR REMOVING GAS LINE AS AN EXPLOSION MIGHT RESULT.

2. Turn off the water supply to the water heater.

# PLAN HOW YOU WILL INSTALL YOUR WATER HEATER

3. Fasten a length of garden hose to the water heater drain valve. Place the other end of the hose at a suitable drain point, lower than the drain valve (nearby floor drain, sink, tub, or outside). Open the drain valve and let all water drain from the water heater. **READ THE FOLLOWING WARNING.**

## WARNING

WATER FROM THE DRAIN HOSE MAY BE VERY HOT. BE SURE NO ONE IS NEAR THE DRAIN HOSE OR THEY COULD GET BURNED SEVERELY.

**NOTE:** For faster draining, open a hot water faucet, or the temperature and pressure relief valve, so air can enter the water heater plumbing system.

4. DO STEP 1, if not already done. Then remove the water heater junction box access cover. Disconnect electrical supply wires to the water heater.

5. When all water has drained from the water heater, remove the garden hose from the drain valve and close the valve.

6. Disconnect (or cut) the inlet and outlet water supply pipes close to the water heater. Be careful not to damage the pipes if you want to reuse them for installing your new water heater.

7. Remove and properly dispose of the old water heater.

**CAUTION:** Mineral buildup or sediment may have accumulated in your old water heater. This causes the water heater to be much heavier than normal. The remaining water and residue, if spilled out, could cause staining.

# STEPS TO INSTALL YOUR WATER HEATER

## 1. VACUUM RELIEF VALVE (FIG. 1, PAGE 5).

Your new water heater is designed to give you many years of trouble-free service. To help safeguard your water heater investment, a **VACUUM RELIEF VALVE** has been included with the parts kit. It must be installed according to the note below and the instructions on Page 5 to assure warranty coverage.

Certain conditions such as breakage in the main supply line, pump failure on a well system or other plumbing system malfunctions may cause a temporary pressure loss. The installation of the vacuum relief valve on the cold water supply line to the water heater will allow air to enter the tank and prevent damage in the event such conditions occur.

**NOTE:** The vacuum relief valve **MUST** be installed vertically at or above the highest point of the tank. Do not install the shut-off valve between the vacuum relief valve and the tank (see FIG. 1, Page 5).

**NOTE:** If your water pressure is over 80 PSI, be sure to install a pressure reducing valve (water pressure regulator) in the inlet supply pipe to the water heater (see the Safety Guides on Page 2).

## 2. COLD WATER SUPPLY TO WATER HEATER (FIG. 1, PAGE 5).

• Heat traps have been installed on your water heater to help achieve the best operating efficiency. Heat traps help prevent heat from flowing from the inlet and outlet plumbing connections during periods when the heater is not heating water. To replace a plugged or damaged heat trap due to scale build-up, be sure to follow the "CAUTIONS" on Page 4 and illustrations on Pages 5 and 13.

**CAUTIONS:** BE SURE TO INSTALL HEAT TRAPS AT THE CORRECT WATER HEATER CONNECTION. OBSERVE FLOW ARROWS ON THE HEAT TRAPS. IF INSTALLED WRONG, WATER FLOW THROUGH THE WATER HEATER IS GREATLY REDUCED.

Use pipe joint compound or Teflon tape on the heat trap threads. The last connection to the water heater must use the factory supplied seal ring washers only. **DO NOT** use sealants with seal ring washers.

**DO NOT REMOVE COLORED PLASTIC INSERTS FROM THE HEAT TRAPS.**

**DO NOT SWEAT SOLDER DIRECTLY TO THE HEAT TRAPS. DO ALL SOLDERING FIRST. THEN CONNECT HEAT TRAPS TO THE PIPES AND TO THE WATER HEATER.**

FOLLOW ALL INSTALLATION INSTRUCTIONS IN THIS MANUAL.

- Thread the cold side heat trap into the 1" x 3/4" reducer bushing using pipe joint compound or teflon tape.
- Loosely assemble the 1" x 3/4" reducer bushing with the cold side heat trap attached to the INLET (COLD) hex union. Be sure the seal ring is in place in the hex union. (Use factory supplied seal ring washers only. **DO NOT** use sealants with seal ring washer.) **DO NOT** TIGHTEN THE HEX UNION. Tightening of the hex

union will be done later, this is to help aid in measuring the amount of pipe or tube that may need to be cut.

- Run a cold water supply line to the cold side heat trap using Sears water heater installation kit (Page 3), threaded galvanized, soldered copper or CPVC plastic pipe and fittings.
- Be sure to include a shut-off valve and fittings for the vacuum relief valve as shown in FIG. 1, Page 5.
- Use pipe thread seal compound or teflon tape on all outside threads. **The last connection to the water heater must use the factory supplied seal ring washers only. DO NOT use sealants with seal ring washers.**
- Read the following caution notes before tightening fittings, soldering or cementing.

**CAUTION:** TO PREVENT HEAT TRANSFER AND DAMAGE TO THE INLET FITTING AND HEAT TRAP, DISCONNECT THE HEX UNION NUT FROM THE REDUCER BUSHING AND THE HEAT TRAP FROM THE SWEAT TO FEMALE PIPE ADAPTOR BEFORE SOLDERING. ALWAYS TIGHTEN THE HEX UNION LAST, AFTER PLUMBING IS IN PLACE, ALIGNED, SOLDERED, ETC. DO NOT ATTEMPT TO TURN PIPE OR FITTINGS AFTER HEX UNIONS ARE TIGHT OR YOU WILL DAMAGE THE WATER HEATER BEYOND REPAIR.

**NOTE:** If your water heater is installed using a check valve in the water line or a water meter with a check valve, contact the Sears Service Center or local water authority on how to control this situation.

## 3. HOT WATER PIPE FROM THE WATER HEATER.

Install the hot side heat trap to the outlet (HOT) hex union nut. Be sure a seal ring is in the hex union (USE FACTORY SUPPLIED SEAL RING WASHERS ONLY. **DO NOT** USE SEALANTS WITH SEAL RING WASHERS.)

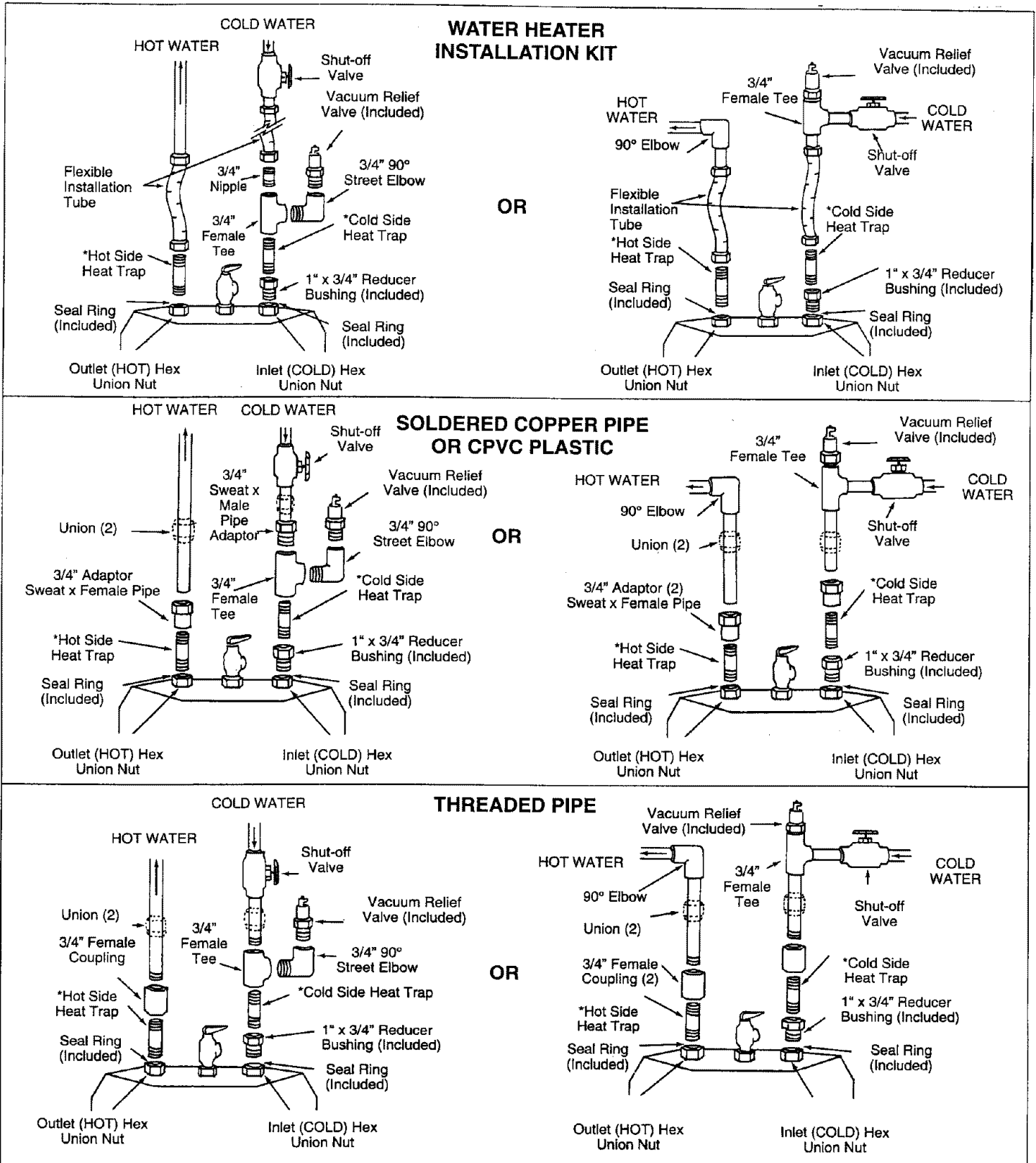
Make all pipe to fitting connections the same way as you did in Step 2, observing the hex union and heat trap sweat to pipe adaptor fitting, caution and tightening procedures listed on Page 4. Refer to the instructions on Page 4, Step 2, and FIG. A, Page 13 to replace a heat trap.

## 4. TEMPERATURE AND PRESSURE RELIEF VALVE (See \*Note on Page 2).

Your Survivor water heater was shipped with a temperature and pressure relief valve factory installed. Do not operate the water heater unless the temperature and pressure relief valve is in place and working properly. A relief valve is essential for safety and to protect the water heater. Too high of a temperature and/or pressure inside the water heater could cause it to burst. The relief valve automatically opens if temperature or pressure gets too high to relieve hot water and/or pressure to the drain. **READ AND COMPLY WITH THE WARNING ON PAGE 6.**

# STEPS TO INSTALL YOUR WATER HEATER (Continued)

**FIG. 1**



**NOTE:** The inlet fitting on electric water heaters is a 1-inch inside threaded hex union. Unions (dotted lines) are not needed if the inlet and outlet pipes move enough to allow connection or if flexible supply lines are used.

\* SEE PAGE 13 FOR HOT AND COLD HEAT TRAP INSTALLATION DETAILS.

# STEPS TO INSTALL YOUR WATER HEATER (Continued)

## WARNING

If the temperature and pressure relief valve ever needs replacing, use only a valve specified 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 or materials meeting the requirements for Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems, as specified in the latest edition of 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. (The relief valve provided with this heater meets these requirements.) Install the replacement valve into the opening provided and marked for this purpose on the water heater. Do not place any valve between the temperature and pressure relief valve and the tank. Orient it or provide tubing so that any discharge from the valve will exit only within 6 in. above (or 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. For maintenance and replacement of the temperature and pressure relief valve see pages 10 and 11.

**IMPORTANT:** TO HELP PREVENT POSSIBLE DAMAGE TO THE WATER HEATER, WE SUGGEST YOU READ STEP 5 CAREFULLY.

## 5. DRAIN PIPE FROM TEMPERATURE AND PRESSURE RELIEF VALVE.

### WARNING

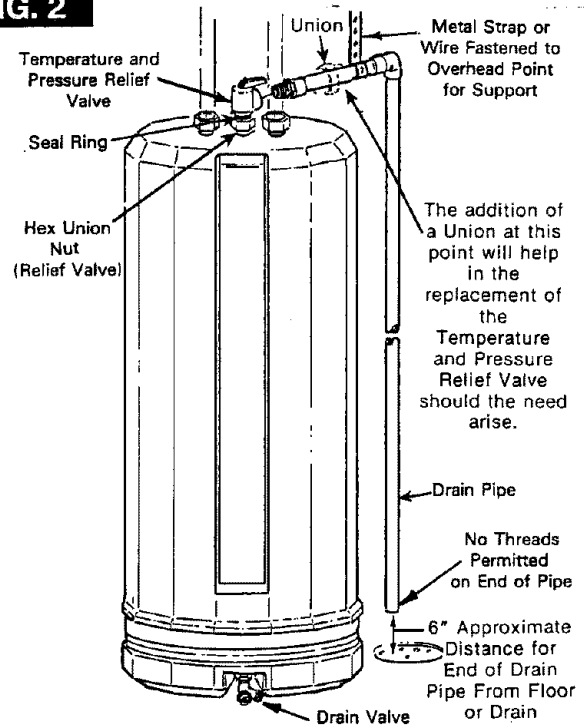
The temperature and pressure relief valve is designed to automatically open to vent dangerously high temperature or pressure from the water heater. To vent the temperature or pressure, the drain pipe must allow a free flow of water to a floor drain or other suitable drain point (CHECK LOCAL CODES). If it cannot vent properly, and fast enough, the heater could burst and damage property, or cause severe personal injury. BE SURE TO FOLLOW ALL GUIDES BELOW WHEN INSTALLING THIS DRAIN PIPE. (Also read the safety guides on page 2, and "WARNING" above.)

**DO NOT** operate the water heater unless the temperature and pressure relief valve is in place, correctly piped and working properly.

**CAUTION:** Do not apply heat to the fitting when making sweat connections to the temperature and pressure relief valve. Sweat an adaptor to the copper line before connecting to the valve. It is imperative that no heat be applied to the water heater connections as they are joined to the non-metallic structure of the heater.

- If the temperature and pressure relief valve needs repositioning, removing or replacing, two wrenches must be used — one to turn the valve and one to hold the union hex nut. Never use only one wrench.
- Use 3/4" pipe and fittings the same size as the outlet of the temperature and pressure relief valve. DO NOT USE A SMALLER SIZE PIPE.
- Use material that will withstand hot water (210°F), and will not distort, deform, melt, collapse, etc. Copper or CPVC plastic pipe and fittings are best to use, to keep weight stress on the center hex union at a minimum.
- DO NOT install valves or fittings in the drain pipe that will restrict drain flow.
- The end of the drain pipe must not have threads, so a fitting or cap could be turned onto it by mistake.

FIG. 2



- The end of the drain pipe must be no more than 6 in. (maximum air gap) above the floor drain as FIG. 2 shows.
- The drain run must not have any dips, bends or low spots that will trap water. ALL water must drain from the pipe and relief valve.
- Be sure freezing temperatures will not affect the flow of water from the drain pipe.
- Support the drain pipe in some manner to prevent stress on the water heater fitting. For example, use metal strapping or wire to an overhead point as shown in FIG. 2.

Following ALL of the above RULES, install the drain pipe. Use pipe thread seal compound on male pipe threads and tighten all connections. Solder all sweat connections. (READ CAUTION IN STEP 5.) REMEMBER DO NOT RESTRICT THE DRAIN PIPE IN ANY WAY.

## 6. DRAIN VALVE (FIG. 2).

The drain valve is factory installed. To face the drain valve outlet in the opposite direction, toward the drain point, FIRST LOOSEN THE UNION HEX NUT. DO NOT ATTEMPT TO TURN THE DRAIN VALVE WITHOUT LOOSENING THE HEX NUT OR YOU WILL DAMAGE THE WATER HEATER BEYOND REPAIR. POSITION DRAIN VALVE TO THE OPPOSITE DIRECTION AND RETIGHTEN HEX NUT.

## 7. FILL WATER HEATER WITH WATER AND CHECK FOR PLUMBING LEAKS.

- A. Be sure the water heater drain valve is closed by turning the handle clockwise ( ↻ ).
- B. Open nearby HOT water faucets to allow air to vent from the water heater and pipes.
- C. Open the water heater cold water supply shut-off valve you installed in Step 2.

# STEPS TO INSTALL YOUR WATER HEATER (Continued)

D. Open the MAIN water supply valve and the water heater will begin to fill.

E. When the water heater has filled completely, and water from nearby faucets runs smooth with no more air bubbles, close the faucets.

**CAUTION:** Be sure to allow all air to vent from the tank. The upper heating element will burn out if air is trapped at the top of the tank and the element is not covered with water when power is turned on.

F. Check your plumbing work for leaks. If any are found, repair before doing the electrical wiring. READ THE CAUTION NOTE FOLLOWING STEP 2 ON PAGE 4.

## 8. ELECTRICAL WIRING.

Wire the water heater (240V) to the main fuse or circuit breaker panel. Read all of the following notes, warnings and cautions before beginning. Refer to FIG. 3A thru 3F on Pages 7 and 8.

**NOTE:** Remove the water heater front panel (grasp with both hands and pull outward) and the junction box cover.

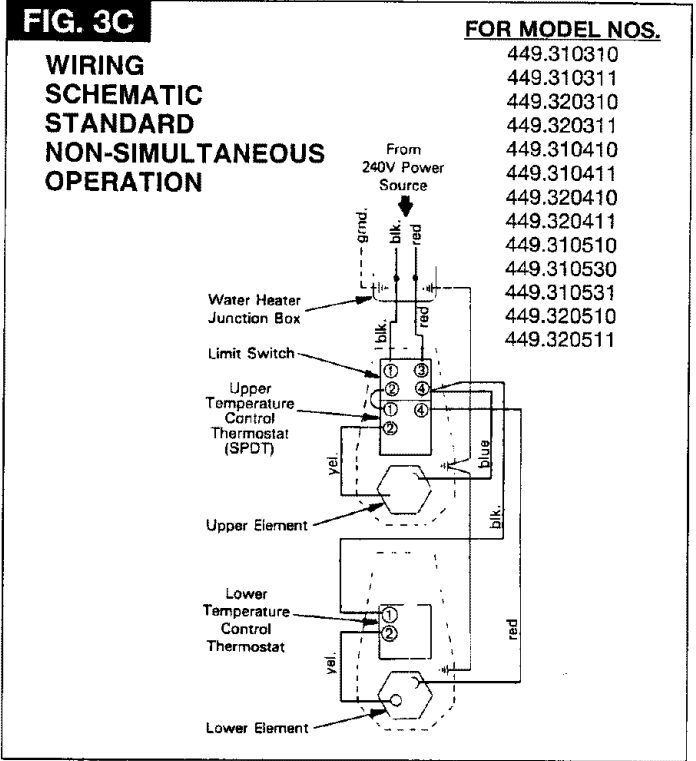
### WARNING

IF YOU ARE NOT FAMILIAR WITH WIRING AND YOU HAVE ANY DOUBTS, YOU SHOULD GET HELP FROM A LICENSED ELECTRICIAN. IF YOU DO SOMETHING WRONG, SEVERE BURN OR SHOCK HAZARDS CAN RESULT.

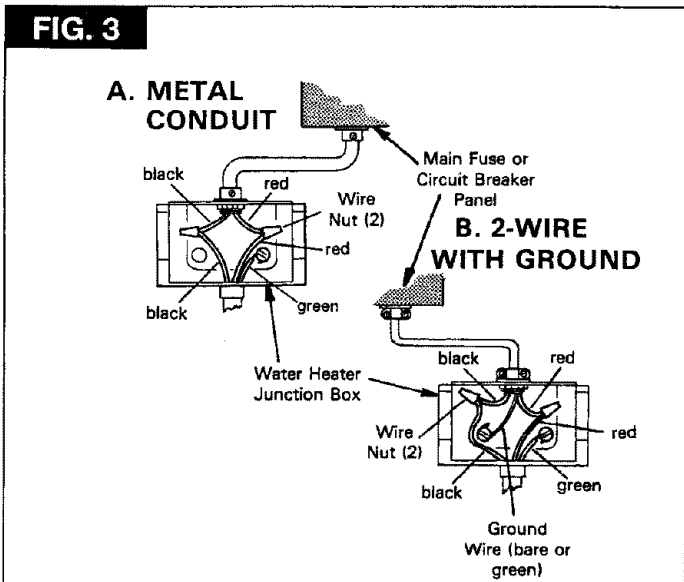
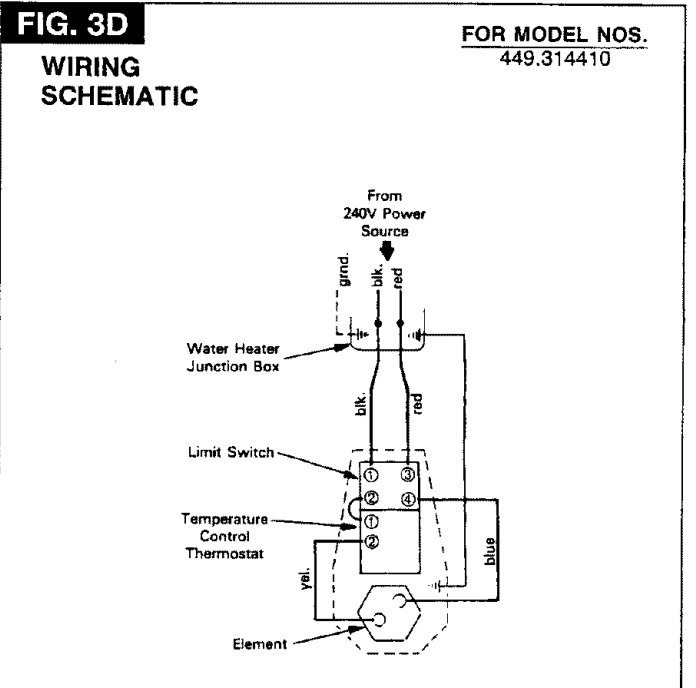
- BE SURE TO FOLLOW LOCAL AND NATIONAL CODES AND ELECTRIC UTILITY REQUIREMENTS WHEN MAKING THE CONNECTIONS.
- See the specification table on Page 3 for wire and circuit breaker or fuse size.

**CAUTION:** If you will use wiring from the old water heater, and it is aluminum, replace it with copper wiring or have a licensed electrician make the connections.

**CAUTION:** BE SURE TO GROUND THE WATER HEATER. Rigid metal conduit (FIG. 3A), between the main panel and the water heater junction box, with approved end fittings, is the preferred way to ground (check codes on the use of flexible conduit). If making a separate ground wire connection (FIG. 3B), a ground screw is provided in the water heater junction box.



**CAUTION:** Check your model number for the correct wiring schematic. See FIG. 3C or FIG. 3D for the proper wiring of each model. See FIG. 3E or 3F on Page 8 for time switch or off-peak wiring.



# STEPS TO INSTALL YOUR WATER HEATER (Continued)

## TIME SWITCH OR OFF PEAK WIRING

- For TIME SWITCH or "OFF-PEAK" operation of the lower element see either FIG. 3E or 3F wiring schematic.

**CAUTION:** If you are going to wire the unit for either a TIME SWITCH or "OFF-PEAK" operation, the black wire from Terminal No. 4 of the limit switch must be disconnected and replaced totally or disconnected and joined with a new section of wire using a proper connector. BE SURE TO FOLLOW ALL LOCAL AND NATIONAL CODES AND ELECTRIC UTILITY REQUIREMENTS WHEN MAKING THE CONNECTIONS.

Dual element water heaters are designed to allow only one element to heat at a time. This method is called non-simultaneous operation and is necessary to avoid overloading wiring in the house per the National Electric Code. Off-Peak wiring methods must ensure proper use of the high limit control in at least one line to each element and use the non-simultaneous feature.

### WARNING

IF YOU ARE NOT FAMILIAR WITH WIRING AND YOU HAVE ANY DOUBTS, YOU SHOULD GET HELP FROM A LICENSED ELECTRICIAN. IF YOU DO SOMETHING WRONG, SEVERE BURN OR SHOCK HAZARDS CAN RESULT.

- REPLACE THE JUNCTION BOX COVER after you have made the wiring connections.

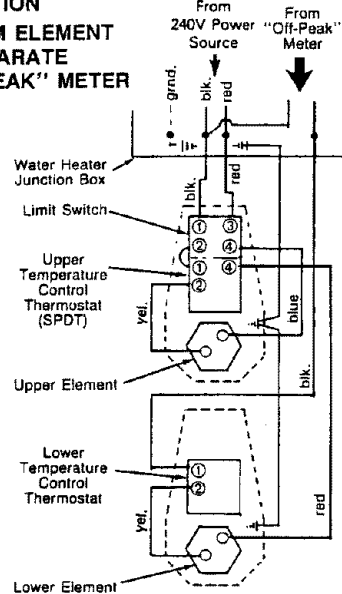
**CAUTION:** DO STEP 7, PAGE 6 BEFORE TURNING ON ELECTRICAL POWER TO THE WATER HEATER.

**FIG. 3F**

**WIRING SCHEMATIC NON-SIMULTANEOUS OPERATION BOTTOM ELEMENT ON SEPARATE "OFF-PEAK" METER**

**FOR MODEL NOS.**

- 449.310310
- 449.310311
- 449.320310
- 449.320311
- 449.310410
- 449.310411
- 449.320410
- 449.320411
- 449.310510
- 449.310530
- 449.310531
- 449.320510
- 449.320511



**CAUTION:**

The black wire from terminal No. 4 on the Limit Switch must be disconnected and replaced totally or disconnected and joined with a new section of wire. Be sure to follow all local and national codes when making this connection.

## 9. WATER HEATER START-UP.

To comply with safety regulations, the Kenmore Survivor water heater is factory set to heat water to 120 degrees F. At this temperature, water is hot enough for most household needs. A setting of 120° F, or lower if local codes require, is recommended as a starting point.

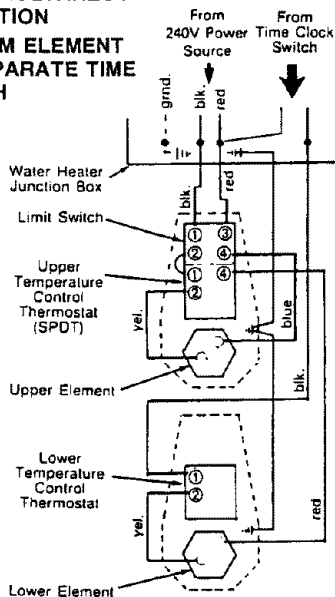
Safety and energy conservation are factors to be considered when selecting the water temperature setting of water heater's thermostat. The lower the setting the greater the safety and savings in energy and operating cost.

**FIG. 3E**

**FOR MODEL NOS.**

**WIRING SCHEMATIC NON-SIMULTANEOUS OPERATION BOTTOM ELEMENT ON SEPARATE TIME SWITCH**

- 449.310310
- 449.310311
- 449.320310
- 449.320311
- 449.310410
- 449.310411
- 449.320410
- 449.320411
- 449.310510
- 449.310530
- 449.310531
- 449.320510
- 449.320511



**CAUTION:**

The black wire from terminal No. 4 on the Limit Switch must be disconnected and replaced totally or disconnected and joined with a new section of wire. Be sure to follow all local and national codes when making this connection.

**TIME/TEMPERATURE RELATIONSHIPS IN SCALDS**

Temperature	Time to Produce Serious Burn
120° F.	More than 5 minutes
125° F.	1½ 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 1½ seconds
155° F.	About 1 second

Table courtesy of Shriners Burn Institute



# STEPS TO INSTALL YOUR WATER HEATER (Continued)

If the factory setting is satisfactory for your needs, replace the front panel and turn on the electric supply to the water heater.

**CAUTION: BE SURE THE WATER HEATER IS COMPLETELY FULL OF WATER BEFORE TURNING ON THE ELECTRICITY (SEE STEP 7 ON PAGE 6.)** Be sure the cold water supply to the water heater is fully on.

If you want to set the water heater to a higher temperature, **DO NOT TURN ON THE ELECTRIC POWER. FIRST READ THE TEMPERATURE CONTROLS SECTION AND ALL WARNINGS.**

## WARNING

**WATER TEMPERATURE OVER 125 DEGREES FAHRENHEIT CAN CAUSE BURNS OR DEATH FROM SCALDS. CHILDREN, DISABLED AND ELDERLY ARE AT HIGHER RISK OF BEING SCALDED. ALWAYS FEEL WATER BEFORE BATHING OR SHOWERING. TEMPERATURE LIMITING VALVES WITH INSTRUCTIONS ARE AVAILABLE FROM PLUMBING SUPPLY AND HARDWARE STORES.**

## THERMAL EXPANSION

Water supply systems may, because of high line pressure, frequent cut-offs, the effects of water hammer and others, have installed devices such as pressure-reducing valves, check valves, back flow preventors, etc... to control these types of problems. When these devices are not equipped with an internal by-pass, and no other measures are taken, the devices cause the water system to be closed. As water is heated, it expands (thermal expansion) and closed systems do not allow for the expansion of heated water.

The water within the water heater tank expands as it is heated and increases the pressure of the water system. If the relieving point of the water heater's temperature and pressure relief valve is reached, the temperature and pressure relief valve will relieve the excess pressure. The temperature and pressure relief valve is not intended for the constant relief of thermal expansion. This is an unacceptable condition and must be corrected. Do not plug the temperature and pressure relief valve.

If the system has any devices installed which could create a closed system, install a by-pass and/or an expansion tank to relieve the pressure built by thermal expansion in the water system. Expansion tanks are available for ordering through the Sears Service Center. Contact the local water supplier and/or Sears Service Center for assistance in controlling these situations.

## TEMPERATURE AND PRESSURE RELIEF VALVE

The relief valve, located on top of the water heater, protects against dangerously excessive temperature and/or pressure buildup inside the water heater. The relief valve automatically opens, if temperature or pressure gets too high, to relieve hot water and/or pressure to the drain. SEE VALVE REQUIREMENTS ON PAGE 4, AND YEARLY CARE FOR THE VALVE ON PAGE 10 AND 11.

## TEMPERATURE CONTROLS

The upper and lower heating elements have the same kind of temperature control thermostats. MODEL NUMBER 449.314410 HAS ONLY A LOWER HEATING ELEMENT AND CONTROL THERMOSTAT. The thermostat(s) are factory set to keep the water at approximately 120 degrees Fahrenheit. At 120 degrees Fahrenheit, water is hot enough for most household needs.

Safety and energy conservation are factors to be considered when selecting the water temperature setting of water heater's thermostat. Water temperatures above 120° F. can cause severe burns or death from scalding. Be sure to read and follow the warnings outlined below.

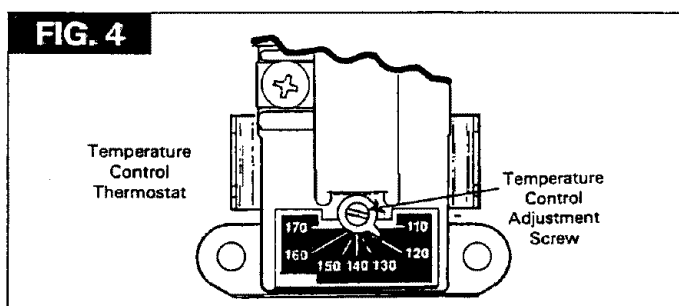
Maximum water temperatures occur just after the elements have shut off. To find hot water temperature being delivered, turn on a hot water faucet and place a thermometer in the hot water stream and read the thermometer.

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

TIME/TEMPERATURE RELATIONSHIPS IN SCALDS	
Temperature	Time to Produce Serious Burn
120° F.	More than 5 minutes
125° F.	1½ 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 1½ seconds
155° F.	About 1 second

*Table courtesy of Shriners Burn Institute*

If a different setting is desired, do the following.



READ THE WARNING NOTES IN STEP 9, PAGE 8

**NOTE: SOME DISHWASHERS AND/OR AUTOMATIC CLOTHES WASHERS MAY REQUIRE A TEMPERATURE SETTING HIGHER THAN 120 DEGREES FAHRENHEIT FOR SATISFACTORY OPERATION. REFER TO YOUR DISHWASHER AND/OR AUTOMATIC CLOTHES WASHER OWNERS MANUAL FOR THE REQUIRED TEMPERATURE SETTING.**

# STEPS TO INSTALL YOUR WATER HEATER (Continued)

Mixing valves for reducing point of use water temperature by mixing hot and cold water in branch water lines are available. Contact a licensed plumber or the local plumbing authority for further information.

## WARNING

**TO GUARD AGAINST SEVERE BURNS OR POSSIBLE FATAL ELECTRICAL SHOCK, BE SURE TO TURN OFF ELECTRICAL POWER TO THE WATER HEATER BEFORE REMOVING ANY PANELS.**

## TO ADJUST WATER TEMPERATURE

1. TURN OFF THE ELECTRIC SUPPLY TO THE WATER HEATER. SWITCH OFF THE CIRCUIT BREAKER OR TURN OUT THE FUSE.
2. Remove the front panel cover (grasp with both hands and pull outward).
3. Turn-out screws to remove the element control box cover(s). DO NOT REMOVE THE CONTROL PROTECTOR(S).
4. Use a common blade screwdriver to adjust the element control(s) to the desired temperature setting. (FIG. 4)

## WARNING

**WATER TEMPERATURE OVER 125 DEGREES FAHRENHEIT CAN CAUSE BURNS OR DEATH FROM SCALDS. CHILDREN, DISABLED AND ELDERLY ARE AT HIGHER RISK OF BEING SCALDED. ALWAYS FEEL WATER BEFORE BATHING OR SHOWERING. TEMPERATURE LIMITING VALVES WITH INSTRUCTIONS ARE AVAILABLE FROM PLUMBING SUPPLY AND HARDWARE STORES.**

5. Replace the control box cover(s).
6. Replace the front panel cover.
7. Turn on the electric power supply.

## HIGH LIMIT SWITCH

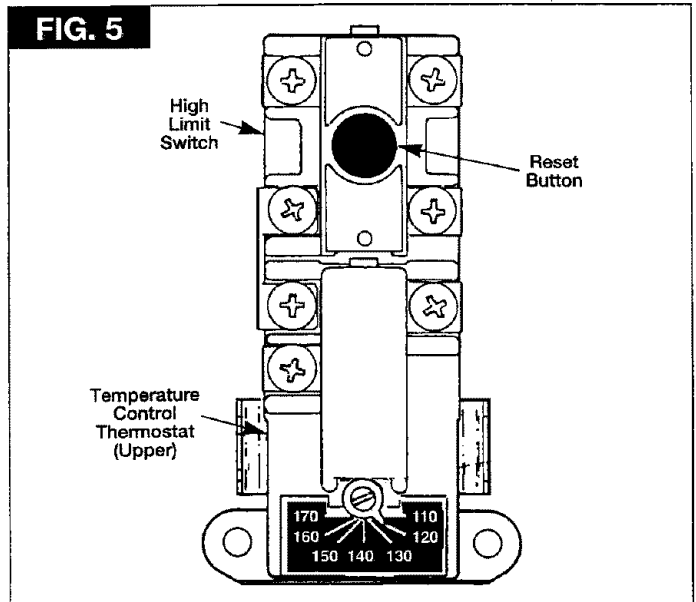
If water should reach 190 degrees Fahrenheit in the water heater, the high limit switch (FIG. 5, Page 10) will automatically "open" the circuit

to cut off power to the heating element(s). The high limit switch protects the heater tank and elements from damage due to overheating. The switch is located above the upper element temperature control thermostat. FOR MODEL NUMBER 449.314410 THE SWITCH IS LOCATED ABOVE THE ELEMENT TEMPERATURE CONTROL THERMOSTAT.

If the limit switch "opens", it must be reset. Use the following Steps.

1. TURN OFF THE ELECTRIC SUPPLY TO THE WATER HEATER. SWITCH OFF THE CIRCUIT BREAKER OR TURN OUT THE FUSE.
2. Remove the front panel cover (grasp with both hands and pull outward).
3. Remove the upper control box cover or lower control box cover for model number 449.314410.
4. Push the reset button, on the limit switch, inward.
5. Replace the covers and turn on the electric supply. IF THE RESET BUTTON WILL NOT STAY IN, CALL SEARS FOR SERVICE.

FIG. 5



# CARE OF YOUR WATER HEATER

## DRAIN WATER FROM WATER HEATER

Sand, silt, dirt, scale caused by hard water, and other sediments in the cold water supply, collect in the water heater and settle to the bottom. **ONCE EACH MONTH**, you should clean the sediments and scale from the water heater so it will continue to work efficiently. To clean out, do the following.

1. Fasten a length of garden hose to the drain valve. Put the other end of the hose at the floor drain (FIG. 6).

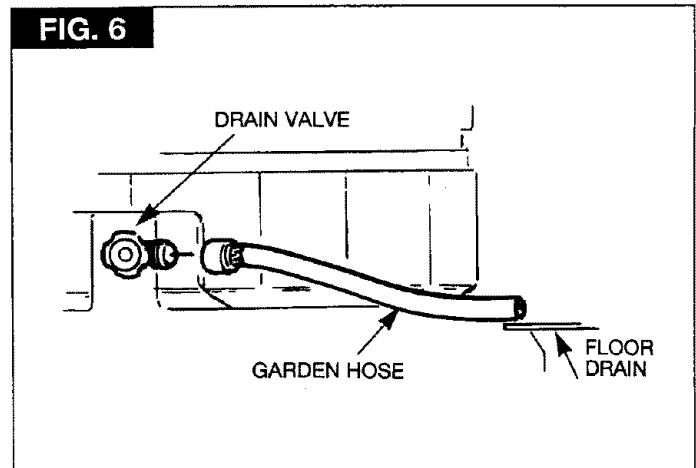
## WARNING

**WATER FROM THE DRAIN HOSE MAY BE VERY HOT. BE SURE NO ONE IS NEAR THE DRAIN HOSE OR THEY COULD GET BURNED SEVERELY.**

2. Open the drain valve and allow to run until water from the hose is clear, with no more sediments.

3. Close the drain valve and remove the drain hose.

FIG. 6



# CARE OF YOUR WATER HEATER

## WORK THE TEMPERATURE AND PRESSURE RELIEF VALVE

The relief valve, located on top of the water heater, protects against dangerously excessive temperature and/or pressure build-up inside the water heater. The relief valve automatically opens if the temperature or pressure gets too high to relieve hot water and/or pressure to the drain. To avoid serious safety hazards or damage to the water heater, it is very important to keep the valve in good working order. **ONCE EACH YEAR**, do the following:

**NOTE:** If you do not keep the relief valve in good working order, THE WARRANTY IS VOID if the water heater fails because of high temperature and/or pressure.

1. Be sure no one is standing near the relief valve drain pipe as hot water could splash on them. Also be sure water will flow to the drain point and not damage the surrounding area.

### WARNING

WATER FROM THE RELIEF VALVE DRAIN PIPE MAY BE VERY HOT. MAKE SURE NO ONE IS NEAR THE PIPE OR THEY COULD GET BURNED SEVERELY.

2. With your hand on the relief valve handle, open and close the valve 2 or 3 times (FIG. 7, Page 11). The valve should reset and close, stopping water flow from the drain pipe.

If you don't get any water from the drain pipe, or if water flow does not stop, the valve is bad and a new one is needed.

### WARNING

If the temperature and pressure relief valve ever needs replacing, use only a valve specified by local codes, but not less than combination temperature and pressure relief valve certified by a nationally recognized testing laboratory that maintains periodic inspection of listed equipment or materials meeting the requirements for Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems, as specified in the latest edition of ANSI Z21.22. The replacement valve must be marked with a maximum set pressure not to exceed the maximum working pressure of the water heater as indicated on the rating plate. (The relief valve provided with the water heater meets these requirements.)

### WARNING

If the temperature and pressure relief valve on the appliance weeps or discharges periodically, this may be due to thermal expansion. (See page 9.) Your water heater may have a check valve installed in the water line or a water meter with a check valve. Consult your local Sears Service Center for further information. Never plug the temperature and pressure relief valve.

## TO REPLACE THE TEMPERATURE AND PRESSURE RELIEF VALVE...

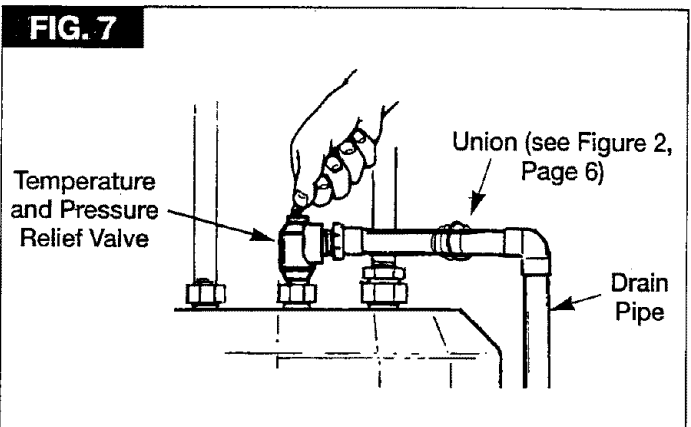
1. Turn off electric power to the water heater.
2. Close the cold water supply pipe shut-off valve to the water heater.
3. Open a nearby hot water faucet and KEEP OPEN.
4. Open the water heater drain valve for about 60 seconds or until the water level is below the temperature and pressure relief valve shaft (fasten a drain hose to the drain valve if needed to direct the water to a suitable drain). Then close the drain valve.

### WARNING

WATER FROM THE DRAIN HOSE MAY BE VERY HOT. BE SURE NO ONE IS NEAR THE DRAIN HOSE OR THEY COULD GET BURNED SEVERELY.

5. Remove the drain pipe from the temperature and pressure relief valve, then remove the old temperature and pressure relief valve (see FIG. 2, Page 6). Use two wrenches, one to hold the hex nut and one to remove the temperature and pressure relief valve. Never use just one wrench.
6. Put pipe thread seal compound on the new replacement valve male threads. Be sure a seal ring is inside the center (**RELIEF VALVE**) hex union nut. **Use factory supplied seal ring washers only. DO NOT use sealants with seal ring washers.** Then turn the valve into the hex union. **DO NOT** place any valve between the temperature and pressure relief valve and the tank. Face the relief valve outlet in the direction you will run the drain pipe. Hold the valve in place while you tighten the hex union nut. READ THE "CAUTION" NOTE FOLLOWING STEP 2 ON PAGE 4.
7. Install the drain pipe to the new temperature and pressure relief valve (see Step 5 and FIG. 2 on Page 6).
8. Open the cold water supply valve. When water from the hot faucet runs smooth, with no more air bubbles, close the faucet (see Step 7, Page 6).  
**CAUTION:** Be sure the water heater is completely full of water before turning on electric power.
9. Turn on the electric power.

FIG. 7



## HEATING ELEMENTS

Most water supplies will cause scale or mineral deposits to form on the heating elements. As the scale forms, it gets harder for the elements to heat water. If you hear a rumbling noise coming from the water heater, it's probably caused by scale build-up on the elements. Element life can be lengthened with a water softener (and possibly other water treating equipment ... check with Sears) which removes most of or all the minerals that cause the scale.

To REPLACE A BURNED OUT ELEMENT, do the following. You can buy new elements from Sears (see FIG. 8 and Pages 14-15). REPLACEMENT ELEMENTS, SOLD IN MOST HARDWARE STORES, WILL NOT FIT THIS WATER HEATER. AN ELEMENT WRENCH ITEM NUMBER 42-31923 IS ALSO AVAILABLE AT SEARS.

# CARE OF YOUR WATER HEATER (Continued)

1. TURN OFF ELECTRIC POWER TO THE WATER HEATER.
2. Close the cold water supply pipe shut-off valve to the water heater.
3. Open a nearby hot water faucet and KEEP OPEN.  
**CAUTION:** BE SURE TO KEEP THE HOT WATER FAUCET OPEN WHILE DRAINING THE WATER HEATER TO LET AIR ENTER AND PREVENT DAMAGE TO THE TANK.
4. Connect a garden hose to the drain valve at the bottom of the water heater. Put the other end of the hose over a suitable drain, lower than the drain valve.

## WARNING

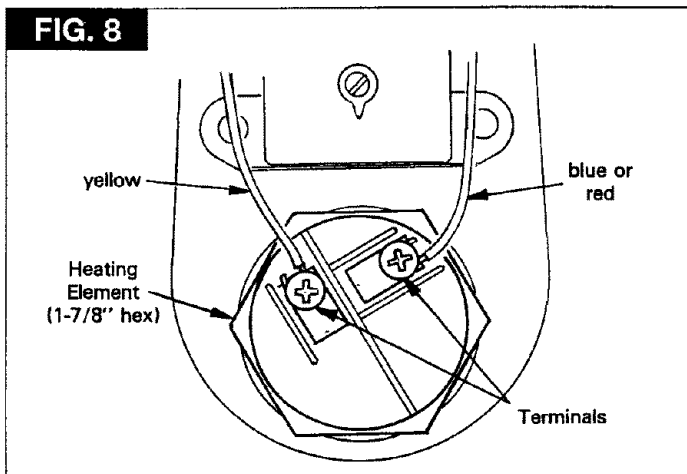
WATER FROM THE DRAIN HOSE MAY BE VERY HOT. BE SURE NO ONE IS NEAR THE DRAIN HOSE OR THEY COULD GET BURNED SEVERELY.

5. Open the drain valve on the water heater and allow it to drain to below the bad element.

## WARNING

TO GUARD AGAINST SEVERE BURNS OR POSSIBLE FATAL ELECTRICAL SHOCK, BE SURE TO TURN OFF ELECTRICAL POWER TO THE WATER HEATER BEFORE REMOVING ANY PANELS.

6. Remove the front panel cover from the water heater (grasp with both hands and pull outward).
7. Turn out 4 screws and remove the element control box cover.
8. Disconnect 2 wires from the element terminals (FIG. 8).



9. Turn out the element(s) (↺), using a wrench or socket to fit the 1 7/8 inch hex.
10. With a NEW gasket in place, install and tighten the new element (↻).

**NOTE:** Be sure the gasket sealing surface is clean. Wet the gasket with water to lubricate and make a good seal.

11. Close the water heater drain valve and completely fill the water heater with water (see Step 7, Page 6). CHECK YOUR WORK FOR LEAKS.
12. Reconnect wiring to the element. Make sure to tighten element screws securely.
13. Replace the control box cover and front panel.
14. THEN turn on the electric power.

## DRAINING THE WATER HEATER TO PROTECT FROM FREEZING

If the water heater is installed where it could freeze (summer cabin, lake home, etc.) you must drain all water from it. If the tank is full of water and it freezes, the tank will break. Freeze damage is not covered by the warranty. To drain the tank, do the following.

1. TURN OFF ELECTRIC POWER TO THE WATER HEATER.
2. Close the cold water supply pipe shut-off valve to the water heater.
3. Open a nearby hot water faucet and KEEP OPEN.  
**CAUTION:** BE SURE TO KEEP THE HOT WATER FAUCET OPEN WHILE DRAINING THE WATER HEATER TO LET AIR ENTER AND PREVENT DAMAGE TO THE TANK.
4. Connect a garden hose to the drain valve at the bottom of the water heater. Put the other end of the hose over a suitable drain, lower than the drain valve (see FIG. 6, Page 10).

## WARNING

WATER FROM THE DRAIN HOSE MAY BE VERY HOT. BE SURE NO ONE IS NEAR THE DRAIN HOSE OR THEY COULD GET BURNED SEVERELY.

5. Open the drain valve on the water heater and allow it to empty.
6. When water flow from the drain hose stops, close the drain valve but leave the hot water faucet open.

When you are ready to return the water heater to service, do Step 7 on Page 6. AFTER THE WATER HEATER IS FULL OF WATER, turn on the electric supply and close the hot water faucet.

It may be helpful to place a sign near the electric switch, fuse box or circuit breaker as a reminder to first fill the water heater with water before turning on the power.

**CAUTION:** DO NOT turn on electric power unless the water heater is completely full of water. Check by opening a hot water faucet. Failure to heed this warning may cause immediate element burnout.

# BEFORE YOU CALL FOR SERVICE

## WARNING

TO GUARD AGAINST SEVERE BURNS OR POSSIBLE FATAL ELECTRICAL SHOCK,  
BE SURE TO TURN OFF ELECTRICAL POWER TO THE WATER HEATER BEFORE REMOVING ANY PANELS.

## HELPFUL HINTS CHECKLIST

If your water heater fails to work right, make the following easy checks. Often, you will find what's wrong yourself and you won't have to call and wait for service and hot water. If you do not find what's wrong when making the checks, then call for service. PLEASE READ THE WARRANTY NOTES ON PAGE 16.

### A. NOT ENOUGH OR NO HOT WATER

1. Used more hot water than the water heater holds, or faster than the water heater can heat the water.
2. Hot water wasted through leaking or partially open faucet.
3. If the water heater is newly installed, check the Installation Steps to be sure it's installed correctly (THIS IS A 240V WATER HEATER AND MUST BE WIRED TO A 240V SUPPLY).
4. Make sure the electrical supply is turned on and that the cold water supply valve is fully open.
5. Check for a blown fuse or popped circuit breaker (circuit breakers weaken with age and may not handle the rated load).
6. During winter months, the colder supply water takes longer to heat.
7. The temperature limit switch (Page 10) may have opened the circuit if water temperature reached the maximum limit.
8. Temperature controls for the heating elements set too low (Page 9).
9. Possible burned out element(s).

### B. WATER TOO HOT

1. Temperature controls for the heating elements set too high (Page 9).
2. Temperature control thermostat not working.

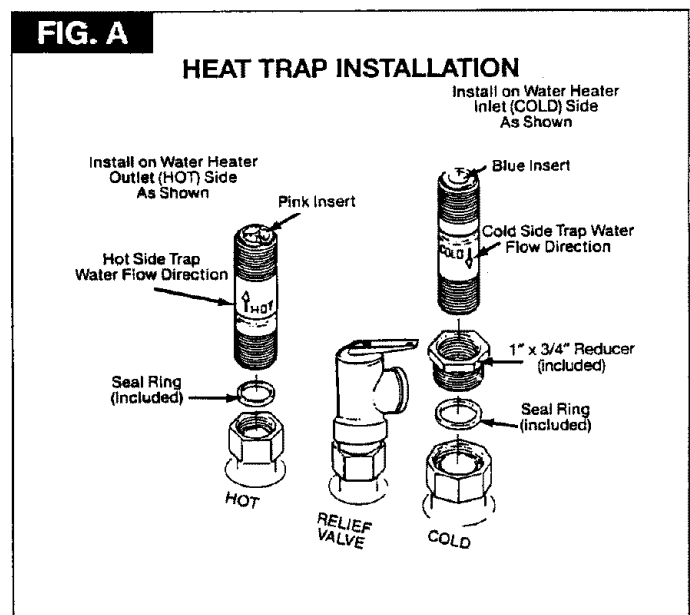
### C. WATER LEAKS

**NOTE:** Always check for condensation first as the source of the "leak". Wipe all wet surfaces dry and check again. Also, the temperature and pressure relief valve may have opened to vent high pressure or temperature. Points to check on the water heater for possible leaks are as follows.

**CAUTION:** TURN OFF ELECTRICAL POWER IF YOU WILL REMOVE THE ACCESS PANELS. Before repairing a leak, turn off the water supply and drain the tank (see Page 10).

1. Inlet and outlet fittings.
2. Temperature and pressure relief valve connection, or the valve itself (see Pages 4 and 6).
3. Drain valve, or drain valve threads to tank.
4. Gaskets around heating element(s).

**NOTE:** Improperly installed heat traps could cause reduced or restricted water flow (see Pages 4 and 5).



# REPAIR PARTS

## KENMORE SURVIVOR ELECTRIC WATER HEATERS

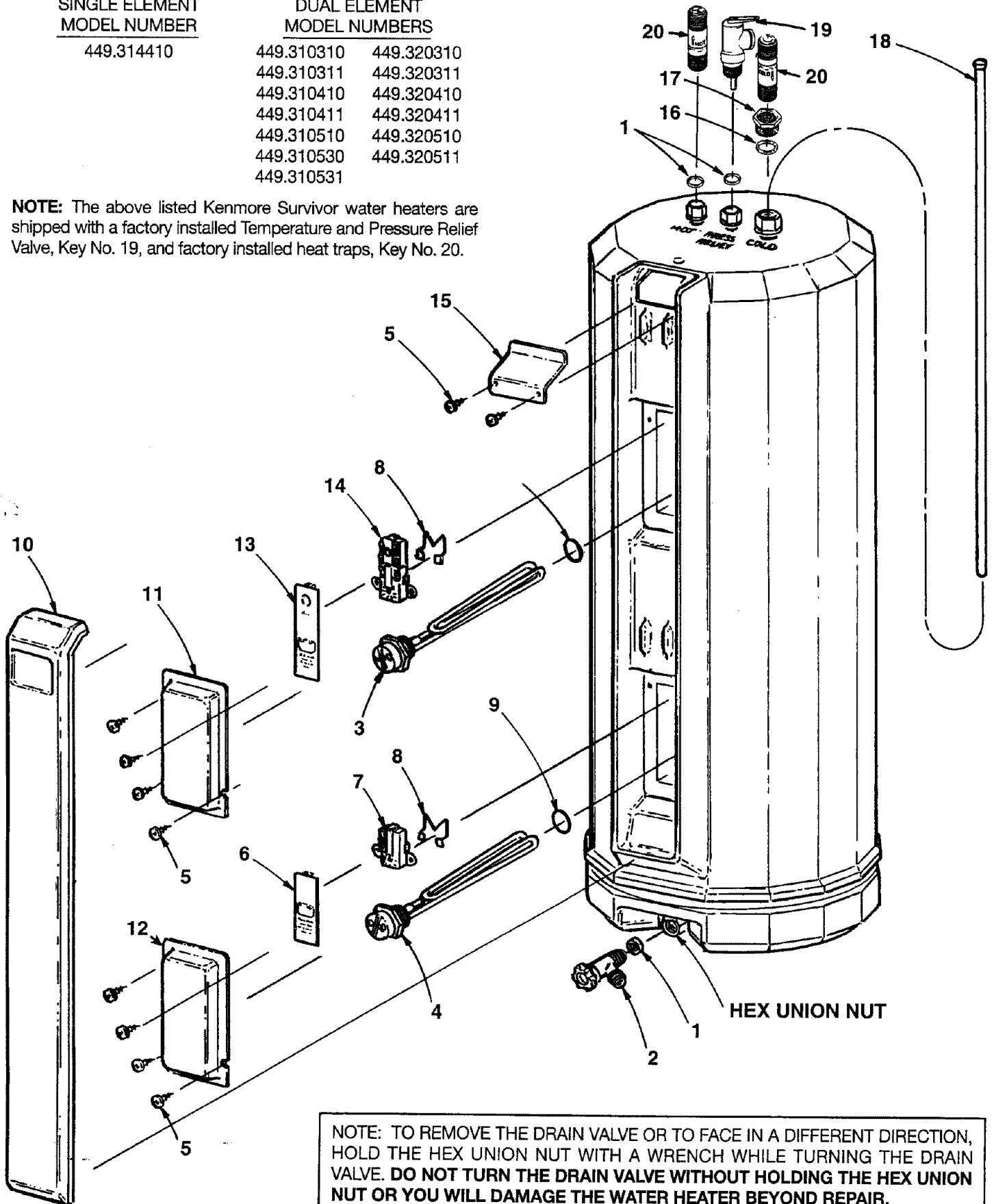
### SINGLE ELEMENT MODEL NUMBER

449.314410

### DUAL ELEMENT MODEL NUMBERS

449.310310 449.320310  
 449.310311 449.320311  
 449.310410 449.320410  
 449.310411 449.320411  
 449.310510 449.320510  
 449.310530 449.320511  
 449.310531

**NOTE:** The above listed Kenmore Survivor water heaters are shipped with a factory installed Temperature and Pressure Relief Valve, Key No. 19, and factory installed heat traps, Key No. 20.



**NOTE:** TO REMOVE THE DRAIN VALVE OR TO FACE IN A DIFFERENT DIRECTION, HOLD THE HEX UNION NUT WITH A WRENCH WHILE TURNING THE DRAIN VALVE. DO NOT TURN THE DRAIN VALVE WITHOUT HOLDING THE HEX UNION NUT OR YOU WILL DAMAGE THE WATER HEATER BEYOND REPAIR.

# REPAIR PARTS

## KENMORE SURVIVOR ELECTRIC WATER HEATERS

SINGLE ELEMENT MODEL NUMBER

449.314410

DUAL ELEMENT MODEL NUMBERS

449.310310	449.310510	449.320310	449.320510
449.310311	449.310530	449.320311	449.320511
449.310410	449.310531	449.320410	
449.310411		449.320411	

**REPAIR PARTS LIST**

KEY NO.	PART NUMBERS		DESCRIPTION OF PART
	SINGLE ELEMENT MODELS	DUAL ELEMENT MODELS	
1	SP 230090	SP 230090	Seal Ring (3 req.)
2	SP 330130	SP 330130	Drain Valve
3	—	SP 610130	Upper Heating Element, 3800 Watt (includes Key No. 9) for Model Nos. 449.310310, 449.310311, 449.310410, 449.310411, 449.310510, 449.310530 and 449.310531
	—	SP 610140	Upper Heating Element, 5500 Watt (includes Key No. 9) for Model Nos. 449.320310, 449.320311, 449.320410, 449.320411, 449.320510 and 449.320511
4	—	SP 610670	Lower Heating Element, 3800 Watt (includes Key No. 9) for Model Nos. 449.310310, 449.310311, 449.310410, 449.310411, 449.310510, 449.310530 and 449.310531
	SP 610130	—	Lower Heating Element, 3800 Watt (includes Key No. 9) for Model No. 449.314410
	—	SP 610740	Lower Heating Element, 5500 Watt (includes Key No. 9) for Model Nos. 449.320310, 449.320311, 449.320410, 449.320411, 449.320510 and 449.320511
5	SP 330020	—	Screw, #10-16 x 5/8 Tapping (6 req.)
	—	SP 330020	Screw, #10-16 x 5/8 Tapping (10 req.)
6	SP 310040	SP 310010	Protector (lower)
7	SP 310050	SP 310020	Temperature Control Thermostat (lower)
8	SP 230100	—	Retaining Spring (1 req.)
	—	SP 230100	Retaining Spring (2 req.)
9	SP 310060	—	Gasket (1 req.)
	—	SP 310060	Gasket (2 req.)
10	SP 410842	—	Front Panel - use on Model No. 449.314410
	—	SP 410843	Front Panel - use on Model Nos. 449.310310, 449.310311, 449.320310 and 449.320311
	—	SP 410844	Front Panel - use on Model Nos. 449.310410, 449.310411, 449.320410 and 449.320411
	—	SP 410845	Front Panel - use on Model Nos. 449.310510, 449.310530, 449.310531, 449.320510 and 449.320511
11	—	SP 410040	Control Box Cover Upper
12	SP 410260	SP 410260	Control Box Cover Lower
13	—	SP 310040	Protector (upper)
14	—	SP 310030	Temperature and Control Thermostat (upper)
15	SP 410120	SP 410120	Junction Box Cover
16	SP 230110	SP 230110	Seal Ring
17	SP 330030	SP 330030	Reducer Bushing, 1 in. x 3/4 in.
18	SP 230022	—	Dip Tube - use on Model No. 449.314410
	—	SP 230023	Dip Tube - use on Model Nos. 449.310310, 449.310311, 449.320310 and 449.320311
	—	SP 230024	Dip Tube - use on Model Nos. 449.310410, 449.310411, 449.320410 and 449.320411
	—	SP 230025	Dip Tube - use on Model Nos. 449.310510, 449.310530, 449.310531, 449.320510 and 449.320511
19	42-33075*	42-33075*	Temperature and Pressure Relief Valve
20	42-33094*	42-33094*	Hot and Cold Heat Traps
Δ	SP 212410	SP 212410	Owners Manual
Δ	42-31923*	42-31923*	Element Wrench
Δ	SP 330140	SP 330140	Vacuum Relief Valve (see Pages 4 and 5 for installation instructions.)

Δ Not illustrated.

\* These parts are available in many Sears stores plumbing departments or can be ordered from Sears Service Centers.

# KENMORE® SURVIVOR™ ELECTRIC WATER HEATER



The model number of your water heater is found on the rating decal. This decal is under the front panel.

WHEN ORDERING REPAIR PART, ALWAYS GIVE THE FOLLOWING INFORMATION:

- MODEL NUMBER
- PART NUMBER
- NAME OF ITEM
- PART DESCRIPTION

For in-home major brand repair service  
Call 24 hours a day, 7 days a week  
**1-800-4-REPAIR**  
(1-800-473-7247)



For the repair or replacement parts you need  
Call 7 am - 7 pm, 7 days a week  
**1-800-366-PART**  
(1-800-366-7278)



For information on purchasing a Sears  
Maintenance Agreement or to inquire  
about an existing Agreement  
call 9 am - 5 pm, Monday-Saturday  
**1-800-827-6655**



For the location of a  
Sears Repair Service Center in your area  
Call 24 hours a day, 7 days a week  
**1-800-488-1222**



## KENMORE® SURVIVOR™ WATER HEATER TANK WARRANTED FOR AS LONG AS YOU OWN YOUR HOME.

**FULL ONE YEAR WARRANTY ON WATER HEATER.** For one year from the date of purchase, when your Kenmore® Survivor™ Water Heater is installed and operated in accordance with the instructions in the Owner's Manual, Sears will:

1. Repair defects in material or workmanship in this water heater, free of charge.
2. Furnish and install a new current model water heater of equal capacity and quality, free of charge, if a leak occurs in the tank.

**LIMITED WARRANTY ON TANKS THAT LEAK:**

For as long as the original purchaser owns the home in which the Kenmore® Survivor™ Water Heater has been installed, if a leak occurs in the tank, Sears will furnish a new current model water heater of equal capacity and quality. You will be charged for installation and labor.

If the home is subsequently sold or the water heater is subject to commercial, institutional, industrial, rental or other non-residential use, the above warranty coverage for tanks that leak is effective for 15 years from the date of installation.

**LIMITED WARRANTY ON PARTS:**

After one year and through five years from the date of purchase, when your Sears Kenmore® Survivor™ Water Heater is installed and operated in accordance with the information in this Manual, if a part fails due to a defect in materials or workmanship; Sears will furnish a replacement part free of charge. You will be charged for installation and labor. If the water heater is subjected to commercial, institutional, industrial, rental, or other non-residential use, the above parts warranty is effective for one year from date of installation.

TO OBTAIN WARRANTY SERVICE, SIMPLY CONTACT THE NEAREST SEARS STORE OR SEARS SERVICE CENTER IN THE UNITED STATES.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.  
Sears, Roebuck and Co., D/817 WA, Hoffman Estates, IL 60179

If you want your new water heater professionally installed, contact your Sears Salesperson. Sears will arrange for prompt, quality installation by Sears authorized installers.

### SEARS INSTALLATION POLICY

All installation labor arranged by Sears shall be performed in a neat, workmanlike manner in accordance with generally accepted trade practices. Further, all installations shall comply with all local laws, codes, regulations and ordinances. The customer shall also be protected, during installation, by insurance relating to property damage, Workmen's Compensation and Public Liability.

### SEARS INSTALLATION WARRANTY

In addition to any warranty extended to you on the Sears merchandise involved, which warranty becomes effective the date the merchandise is installed, should the workmanship of any Sears arranged installation prove faulty within one year, Sears will, upon notice from you, cause such faults to be corrected at no additional cost to you.

### WARRANTY NOTES

The price you paid for your water heater DOES NOT include a free check-up service call.

If installed by a Sears authorized installer, Sears warrants the installation work (see above).

If the installer is NOT authorized by Sears ...

1. Sears warranty covers the water heater only.
2. Sears DOES NOT warrant the installation work.

3. A charge is made by Sears for a service call for reasons including:

- a. poorly or incorrectly installed
- b. turning on electric power, replacing blown fuses, or resetting tripped circuit breakers
- c. adjusting water heater thermostats
- d. water leaks in pipe and fittings to and from the water heater