Sears

# owners manual

## MODEL NO.

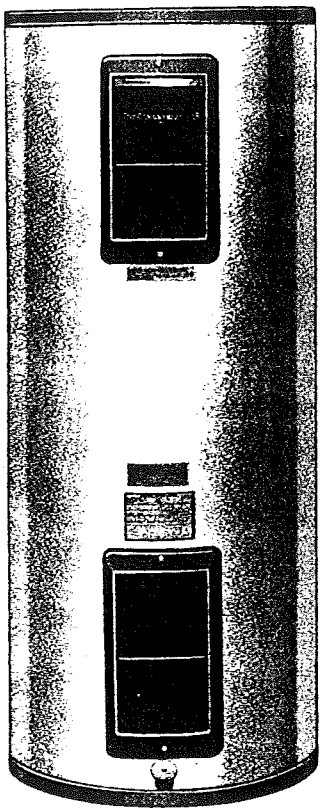
| | |
|---|---|
| 153.312142 | 30 Gal. |
| 153.312341 | 30 Gal. |
| 153.312441 | 40 Gal. |
| 153.312541 | 52 Gal. |
| 153.312841 | 82 Gal. |
| 153.312941 | 40 Gal. |
| 153.322441 | 40 Gal. |
| 153.322541 | 52 Gal. |
| 153.322841 | 82 Gal. |

EFFICIENCY RATING CERTIFIED Gama

GAMA certification applies to all residential electric water heaters with capacities of 20 to 120 Gallons. Input rating of 12 KW or less at a voltage no greater than 250 V.

**CAUTION:**
**Read All Instructions Carefully Before Starting The Installation.**

**Save This Manual For Future Reference**



## TALL & SHORT
## THE ECONOMIZER 5

# ELECTRIC WATER HEATER

- Installation
- Operation
- Repair Parts

Printed in U.S.A.

Sears, Roebuck and Co., Chicago, Ill. 60684 U. S. A.

# Contents



# introduction

Please read our instructions before you install your water heater. This will help you get the full value of your heater. It will also help you avoid any needless service costs that result from causes we cannot control and cannot cover in our warranty.

FULL ONE YEAR WARRANTY ON WATER HEATER

For one year from the date of purchase, when your Sears glasslined 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

After one year and through 5 years from the date of purchase, 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 the installation.

Some States are imposing energy efficient standards on water heaters. Such standards may prohibit Sears from replacing some water heaters with others of equal capacity and quality. If your State prohibits Sears from replacing your water heater with one of equal capacity and quality, should you need replacement under the warranty, Sears will replace your water heater with one meeting the required standards under the following conditions:

(1) During the Full One Year Warranty, the replacement will be provided free of charge.
(2) During the Limited Warranty, you will be charged the difference between the current price of the replacement water heater meeting the required standards and a water heater in Sears line available in other States which is of equal capacity and quality to your water heater. In addition, you will be charged for installation as stated in the warranty.

To obtain warranty service, SIMPLY CONTACT THE NEAREST SEARS STORE OR SERVICE CENTER IN THE UNITED STATES. "This warranty applies only while this product is in use 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., Dept. 698/731A, Sears Tower, Chicago, IL 60684"

If you want your new water heater professionally installed, contact your Sears Salesman. He 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.

# ABOUT YOUR WARRANTY

Some warranties say that you must drain the tank once a month. Your tank will last longer if you do this. Your Sears warranty is good whether you drain the tank often or not. We include a drain valve because:

1. Many plumbing codes require a drain valve.
2. Your heater will continue to heat efficiently, if a small amount of water is drained each month.

THE PRICE OF YOUR WATER HEATER DOES NOT INCLUDE A FREE CHECKUP SERVICE CALL.

ON WATER HEATER INSTALLATIONS ARRANGED BY SEARS, Sears warrants the installation.

ON INSTALLATIONS NOT MADE BY SEARS AUTHORIZED INSTALLERS:

1. Your Sears warranty applies to the product only.
2. Sears does not warrant the installation.
3. A charge will be made on service calls due to poor or incomplete installation.
   These include:
   a. Adjusting thermostat.
   b. Turning electric power on.
   c. Leaks in pipes or fittings.

Your owners manual is in non-technical language. It may help you avoid the cost of a needless service call. Many service calls really aren't needed. Such as when:

1. The fuse is blown or circuit breaker is tripped.
2. The switch is off, or electric power is not available.
3. A leak is due to loose pipes or fittings.

# Rules for Safe Installation and Operation

1. Read your owners manual and these rules carefully. Failure to follow these rules and the instructions could cause a malfunction of the heater and result in death, serious bodily injury, and/or property damage.
2. Check your local codes and electric utility requirements. The installation must comply with their rules.
3. Review the Installation Check List before turning on electric power to safeguard against possible dangerous malfunction of the heater. Be sure the proper sized fuses or circuit breakers are used and that a proper Temperature and Pressure (T & P) Relief Valve has been installed.
4. If you are not thoroughly familiar with electrical codes and safety practices, consult a competent electrician.
5. You should follow these instructions when you put your heater in. You must obey local codes and electric utility rules. Your Sears manual follows the rules and codes usually found.
6. WARNING: USE OF ADDITIONAL WATER HEATER INSULATION
   For reasons of safe operation of your electric water heater, only a water heater insulation jacket especially designed for water heaters should be used; other types of insulation must not be applied to electric water heaters.
   When installing a Water Heater Insulation Jacket on an electric water heater, follow carefully the instructions provided with the Jacket.
   a. Do not cover the temperature and pressure safety relief valve.
   b. Operating instructions, and safety or installation related warning labels and materials affixed to the water heater must not be covered by this insulation jacket. Do not remove these labels from the water heater.
   c. Do not cover electrical junction box (Entry supply wire into water heater).

# Basic Tools and Materials Needed

If you don't have these tools, your neighbor might, or they can be purchased along with the materials from your local Sears Store.

### TOOLS

Pipe wrenches (2) 14" or 18"
Wire stripper or knife
Wire cutters
Hack saw, if pipe unions are not provided
Phillips head screwdriver
Regular screwdriver

### MATERIALS

New temperature and pressure relief (T & P) valve with ratings not over 210 degrees F. and 150 pounds pressure. (Must comply with local codes).
Pipe joint compound. (Sears Pipe-tite stick, stock No. 42-2235) (Iron pipe systems)
Wire nuts (2) or suitable wire connectors and plastic tape.
Miscellaneous pipe and fittings (copper and galvanized iron pipe systems)
Copper Pipe Systems only:
- Propane Torch
- Solder, Flux
- Emery Paper

## Specifications

| Model Number | Tank Capacity in Gals. | Dimensions Height | Dimensions Diameter | Rec. Rate Gals. Per Hr. @90°F. Rise | Element Wattate at 240 Volts Upper | Element Wattate at 240 Volts Lower | Minimum Wire Size* (Gauge) | Maximum Fuse or Circuit Breaker Size (Amps) |
|---|---|---|---|---|---|---|---|---|
| 153.312142 | 30 | 29¾ | 21 | 17.1 | 3800 | 3800 | #12 | 20 |
| 153.312341 | 30 | 45½ | 17 | 17.1 | 3800 | 3800 | #12 | 20 |
| 153.312441 | 40 | 59¼ | 17 | 17.1 | 3800 | 3800 | #12 | 20 |
| 153.312541 | 52 | 59¼ | 19 | 17.1 | 3800 | 3800 | #12 | 20 |
| 153.312841 | 82 | 62¼ | 23 | 17.1 | 3800 | 3800 | #12 | 20 |
| 153.312941 | 40 | 31¾ | 23 | 17.1 | 3800 | 3800 | #12 | 20 |
| 153.322441 | 40 | 59¼ | 17 | 24.8 | 5500 | 5500 | #10 | 30 |
| 153.322541 | 52 | 59¼ | 19 | 24.8 | 5500 | 5500 | #10 | 30 |
| 153.322841 | 82 | 62¼ | 23 | 24.8 | 5500 | 5500 | #10 | 30 |

*Based on standard 60°C. Copper Wire. If distance from fuse or circuit breaker box to water heater is more than 90 feet refer to your local electrical code.

## Locating the Heater

If you have a choice of where to put your heater, these ideas may help you to decide.

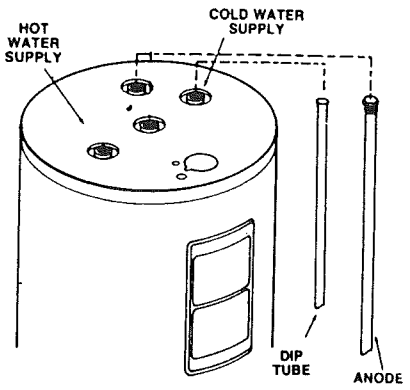
1. Put the heater as close as possible to where you use the most hot water.
2. It is handy to have a floor drain, tub or sink nearby. That will make it easy to drain water from your heater. It is also a good place to end the drain line of the Temperature and Pressure Relief (T & P) valve.
3. The tank or the pipes and your connections may, in time leak. Put the heater in a place where a water leak will not damage anything. The water heater should be located in an area where water leakage from the tank or connections will not result in damage to the area adjacent to the water heater or to the lower floors of the structure. When such locations cannot be avoided, ANSI Z21-10.1-1981 Std 1.28 B-9 recommends that a suitable drain pa (either purchased or fabricated on the job), with adequate drain line, be installed under the water heater. The pan must not restrict combustion air flow on a gas water heater. Sears and the manufacturer are not responsible for any water damage.
4. You must not put your heater in an area where it might freeze. You must turn off the electricity to the heater before you drain it, to protect the heating elements.
5. Make sure that you are able to reach the drain valve and all access panels when your heater is in place. This will make it easy to service your heater.
6. The heater must be level before you begin the piping.

# installation

## 1 OLD HEATER REMOVAL

1. Turn off the electricity at the fuse or circuit breaker box.
2. Turn off the water to your heater. Attach your hose to the heater drain and place the other end of hose in a floor drain or out-of-doors. Open the heater drain valve. Opening a hot water faucet or the T & P valve will allow air into your heater letting the water drain faster.
3. Having made sure the electric power is off, re move access cover of the junction box on your old heater, and disconnect the wire leads.
4. When your heater is drained, remove the hose, close the drain valve, disconnect and remove the old heater.

## 2 ANODE

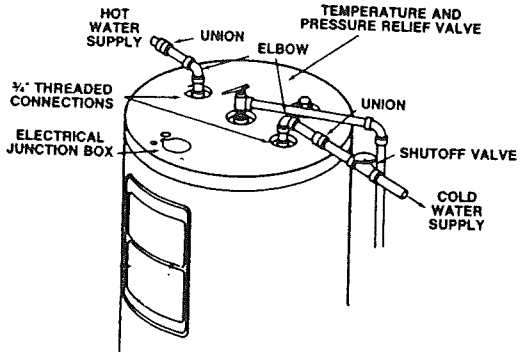



Your heater has an anode rod. This anode was installed at the factory and is important to the life of your tank. If you remove the anode, the warranty is void.

Sometimes bacteria and mineral action on the anode will make your water smell. Chlorination of water supply will get rid of the odor. Equipment for treating problem water is available at Sears.

CAUTION — Hydrogen can be produced in a hot water system that has not been used for a long period of time (generally two weeks or more). Hydrogen gas is extremely flammable. To prevent the possibility of injury under these conditions, we recommend the hot water faucet be opened for several minutes at the kitchen sink before you use any electrical appliances which are connected to the hot water system. If hydrogen is present, there will probably be an unusual sound such as air escaping through the pipe as the hot water begins to flow. There should be no smoking or open flame near the faucet at the time it is open.

## 3 WATER PIPING




ɔur heater will work better if you keep the hot ıter runs short. You will also get hot water fast- and with less heat loss.

ıe illustration shows the correct valves and fit- ıgs that you will need to install your heater. ıreaded (¾") water connections are supplied rough the tank top.

1. Buy the fittings that you need to connect the pipes. Remember that you have to connect both the hot and cold water pipes.
2. Apply a light covering of pipe joint compound to each outside thread before making connection.
3. Connect the cold water supply pipe to the cold water inlet of your heater as follows:
   a. Look at the top cover of the heater. The hot and cold connections are marked there.
   b. A non-metallic dip tube is supplied to carry cold water from the tank top to the bottom. Be sure that it is in the cold water inlet.
   c. If using copper tubing, solder tubing to an adaptor BEFORE you attach the adapter to the cold water inlet. DO NOT solder the cold water supply pipe directly to the cold water inlet connection. It might harm the dip tube.
   d. The cold water supply line must have a shut-off valve and union. These should be installed in the order shown.
4. Use a union to connect the hot water supply pipe to your heater's hot water outlet.

## 4 TEMPERATURE AND PRESSURE RELIEF VALVE INSTALLATION

new certified temperature and pressure (T&P) ef valve must be installed as shown. The sensing ment of the T&P valve is to extend into the ter at the tank top.

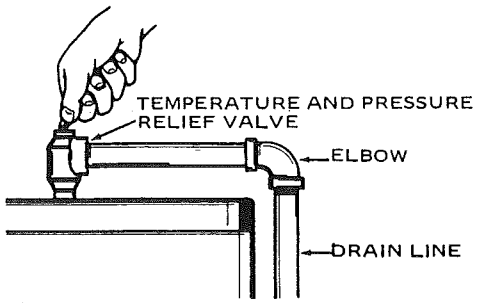
UTION: For protection against excessive pres- es and temperatures in this water heater, install ıperature and pressure protective equipment re- red by local codes, but not less than a combin- ɔn temperature and pressure relief valve certified a nationally recognized testing laboratory that intains periodic inspection of production of list- equipment or materials, as meeting the require- ments for Relief Valves and Automatic Gas Shut-off Devices for Hot Water Supply Systems, ANSI-Z21.22-1979. This valve must be marked with a maximum set pressure not to exceed the marked hydrostatic working pressure of the hot water heater. Install the valve into opening provided and marked for this purpose in the water heater. Orient the valve or provide tubing so that any discharge will exit only within 6 inches above, or at any distance below the structure floor. Be certain that no contact is made with any live electrical part. The discharge opening must not be blocked or reduced

in size under any circumstances. Do not connect tubing directly to discharge drain unless air gap is provided. To prevent bodily injury, hazard to life or damage to property, the relief valve must be allowed to discharge water in the event of excessive temperature or pressure developing in the heater. The function of the temperature and pressure relief valve is to discharge water in quantities should circumstances demand. If the discharge pipe is not connected to a drain as shown in illustration or other suitable means, the water flow may cause property damage.

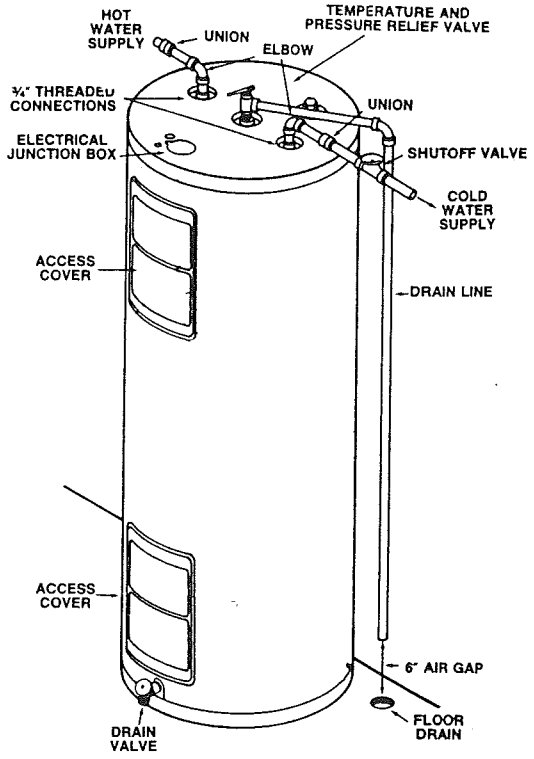
The Discharge Pipe:

- Must not be smaller in size than the outlet pipe size of the valve.
- Must not be plugged or blocked.
- Must be of material capable of withstanding 210°F. without distortion.
- Must be installed so as to allow complete drainage of both the temperature and pressure relief valve, and the discharge pipe.
- Must terminate at an adequate drain.
- Must not have any valve between the relief valve and tank.

The temperature and pressure relief valve must be manually operated at least once a year. Caution should be taken to ensure that (1) No one is in front of or around the outlet of the temperature and pressure relief valve discharge line, and (2) that the water manually discharged will not cause any property damage. If after manually operating the valve it fails to completely reset and continues to release water, immediately close the cold water inlet to the heater, follow the draining instructions, and replace the temperature and pressure relief valve with a new one.




Failure to install and maintain a new properly listed temperature and pressure relief valve will release the manufacturer from any claim which might result from excessive temperature or water pressure.




TO INSTALL THE T&P VALVE:

1. Apply a light coat of pipe joint compound to the male threads of the T&P valve into the opening in the tank top. See illustration. Then tighten it with a wrench.
2. Run a drain line pipe from your T&P valve outlet to an open tub, sink, or drain. Make sure the place is not likely to freeze and where water will not damage anything. This drain line must be the same size as your T&P valve opening. The drain line end must be open and unthreaded. Damage could result if your T&P valve opens and drain line is plugged or frozen.
3. Leave about a 6" air gap between the end of the pipe and your draining point.
4. DO NOT INSTALL A SHUTOFF VALVE, PLUG OR CAP IN YOUR T&P VALVE DRAIN LINE.

# 5 FILLING

1. Close the heater drain valve. The drain valve is on the lower front of your heater.
2. Open the cold water supply valve to your heater. NOTE: THIS VALVE MUST BE LEFT OPEN WHEN THE HEATER IS IN USE.
3. Fill your heater until water runs out an opened hot water faucet. This will let out air in the heater and the piping. Close the faucet after the water comes out. You must not turn the electricity on until the heater is full of water. IF ANY AIR IS LEFT IN THE TOP OF THE HEATER, THE TOP HEATING ELEMENT WILL BURN OUT RIGHT AWAY.
4. Check all your new water piping for leaks. Fix as needed. CAUTION: Read over the installation checklist in page 8 BEFORE you turn on the electricity.

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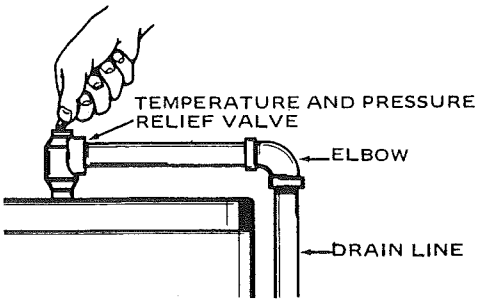
The Discharge Pipe:

— Must not be smaller in size than the outlet pipe size of the valve.
— Must not be plugged or blocked.
— Must be of material capable of withstanding 210°F. without distortion.
— Must be installed so as to allow complete drainage of both the temperature and pressure relief valve, and the discharge pipe.
— Must terminate at an adequate drain.
— Must not have any valve between the relief valve and tank.

The temperature and pressure relief valve must be manually operated at least once a year. Caution should be taken to ensure that (1) No one is in front of or around the outlet of the temperature and pressure relief valve discharge line, and (2) that the water manually discharged will not cause any property damage. If after manually operating the valve it fails to completely reset and continues to release water, immediately close the cold water inlet to the heater, follow the draining instructions, and replace the temperature and pressure relief valve with a new one.

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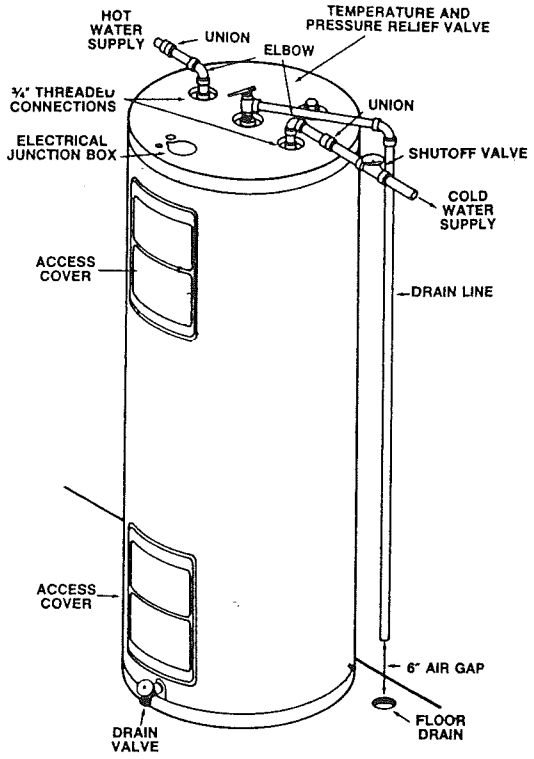


TO INSTALL THE T&P VALVE:

1. Apply a light coat of pipe joint compound to the male threads of the T&P valve into the opening in the tank top. See illustration. Then tighten it with a wrench.
2. Run a drain line pipe from your T&P valve outlet to an open tub, sink, or drain. Make sure the place is not likely to freeze and where water will not damage anything. This drain line must be the same size as your T&P valve opening. The drain line end must be open and unthreaded. Damage could result if your T&P valve opens and drain line is plugged or frozen.
3. Leave about a 6" air gap between the end of the pipe and your draining point.
4. DO NOT INSTALL A SHUTOFF VALVE, PLUG OR CAP IN YOUR T&P VALVE DRAIN LINE.

# 5 FILLING

1. Close the heater drain valve. The drain valve is on the lower front of your heater.
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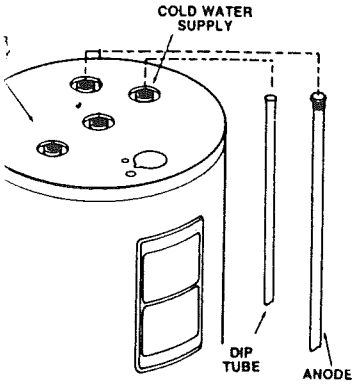
## NODE

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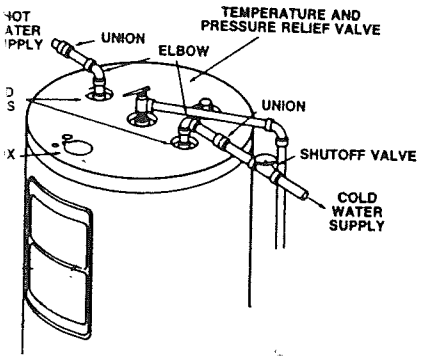
## ATER PIPING

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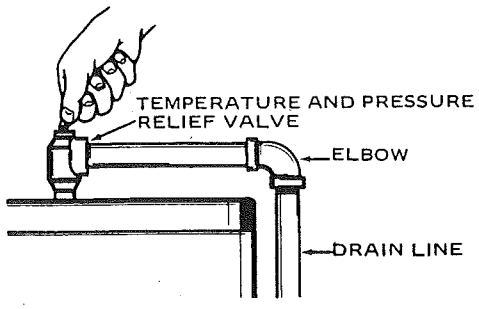
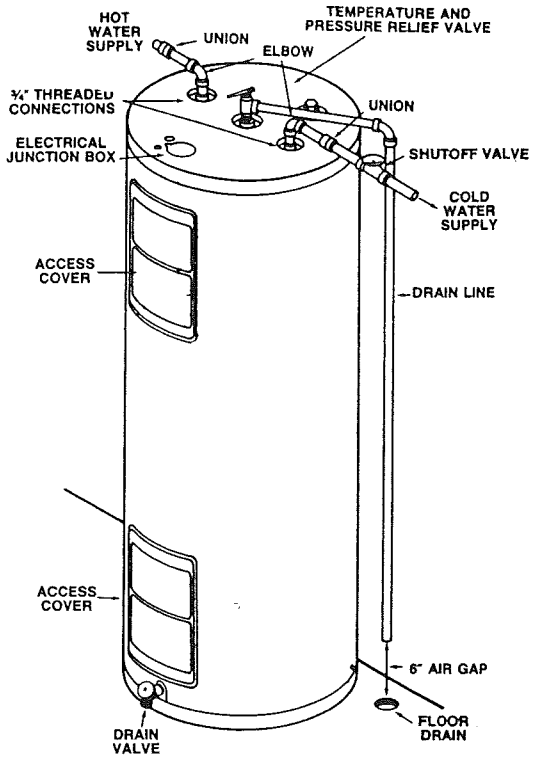
The temperature and pressure relief valve must be manually operated at least once a year. Caution should be taken to ensure that (1) No one is in front of or around the outlet of the temperature and pressure relief valve discharge line, and (2) that the water manually discharged will not cause any property damage. If after manually operating the valve it fails to completely reset and continues to release water, immediately close the cold water inlet to the heater, follow the draining instructions, and replace the temperature and pressure relief valve with a new one.




Failure to install and maintain a new properly listed temperature and pressure relief valve will release the manufacturer from any claim which might result from excessive temperature or water pressure.




TO INSTALL THE T&P VALVE:

1. Apply a light coat of pipe joint compound to the male threads of the T&P valve into the opening in the tank top. See illustration. Then tighten it with a wrench.
2. Run a drain line pipe from your T&P valve outlet to an open tub, sink, or drain. Make sure the place is not likely to freeze and where water will not damage anything. This drain line must be the same size as your T&P valve opening. The drain line end must be open and unthreaded. Damage could result if your T&P valve opens and drain line is plugged or frozen.
3. Leave about a 6" air gap between the end of the pipe and your draining point.
4. DO NOT INSTALL A SHUTOFF VALVE, PLUG OR CAP IN YOUR T&P VALVE DRAIN LINE.

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1. Close the heater drain valve. The drain valve is on the lower front of your heater.
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4. Check all your new water piping for leaks. Fix as needed. CAUTION: Read over the installation checklist in page 8 BEFORE you turn on the electricity.

# 6 WIRING

NEVER USE THIS HEATER UNLESS IT IS COMPLETELY FULL OF WATER.

You must provide all wiring of the proper size outside of the heater. You must obey local codes and electric utility requirements when you install this wiring.
If you are not familiar with electric codes and practices, or if you have any doubt, even the slightest doubt, in your ability to connect the wiring to this water heater, obtain the service of a competent electrician. Contact your Sears salesperson to arrange for a professional electrician.

**CAUTION**

If the wiring from your fuse box or circuit breaker box was aluminum for your old water heater, replace it with copper wire. If you wish to reuse the existing aluminum wire, have the connection at the water heater made by a competent electrician.

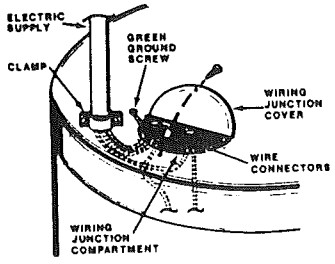
1. Install and connect a circuit directly form the main fuse or circuit breaker box. This circuit must be the right size and have its own fuse or circuit breaker. Refer to the chart on page 4 for the correct size wire and fuse or circuit breaker.
2. A standard ½" conduit opening has been made in the heater junction box for the conduit connection.
3. Provide a way to easily shut off the electric power when working on the heater. This could be a circuit breaker or fuse block in the entrance box or a separate disconnect switch.
4. The water heater must be electrically "grounded" by the installer. A green ground screw has been provided on the heater's junction box.

The grounding electrode conductor shall be of copper, aluminum, or copperclad aluminum. The material shall be of one continuous length without a splice or joint.

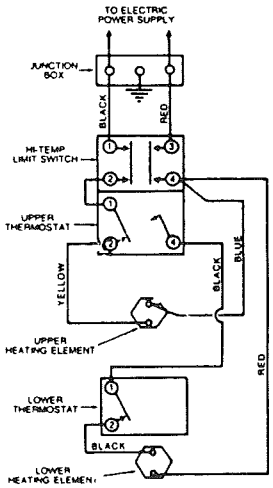
Rigid metal conduit, intermediate metal conduit, or electrical metallic tubing may be used for the grounding means if conduit or tubing is terminated in fittings approved for grounding.

Flexible metal conduit or flexible metallic tubing shall be permitted for grounding if all the following conditions are met.
a). The length in any ground return path does not exceed 6 feet.
b). The circuit conductors contained therein are protected by overcurrent devices rated at 20 amperes or less.
c). The conduit or tubing is terminated in fittings approved for grounding.

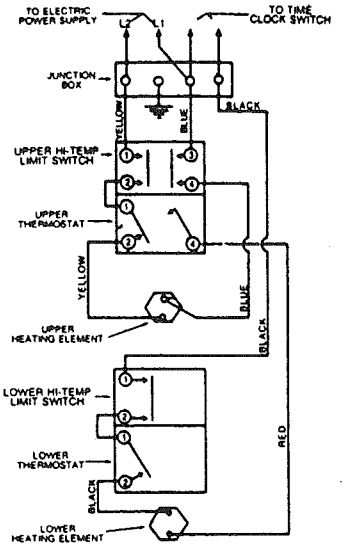
For complete grounding details and all allowable exceptions, refer to the latest edition of the National Electrical Code.



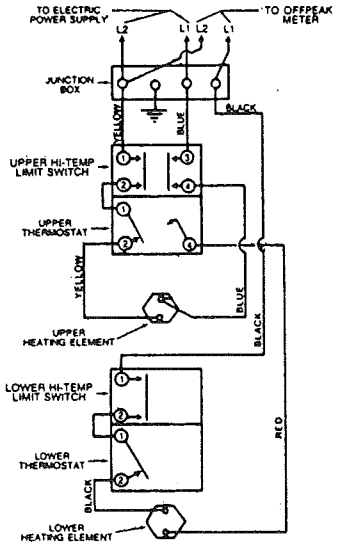

## ELECTRIC SUPPLY WIRING FOR 2 WIRE WATER HEATERS



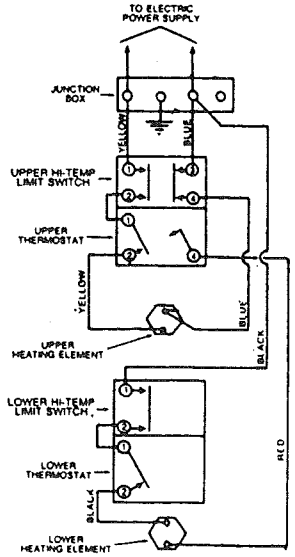

## ELECTRIC SUPPLY WIRING FOR 3 WIRE WATER HEATERS




240 VOLT OFF PEAK
NON-SIMULTANEOUS OPERATION
TIME SWITCH OPERATES
BOTTOM ELEMENT ONLY




240 VOLT "OFF PEAK"
NON-SIMULTANEOUS OPERATION
BOTTOM ELEMENT ON
SEPARATE "OFF PEAK" METER




2 WIRE 240
VOLT POWER SUPPLY
NON-SIMULTANEOUS OPERATION

# 7 INSTALLATION CHECK LIST

☐ 1. Are the fuse or circuit breaker and wire sizes right as shown in the chart on page 4?

☐ 2. Is the T & P relief valve in right; See the section on Safety, below, and T & P Valve Section 4, page 6.

☐ 3. Will a water leak damage anything? See pages 4 and 6.

☐ 4. Is the dip tube in the cold water inlet connection? See the section on water piping, step 3, page 5.

☐ 5. Is the heater completely filled with water? See section on filling, page 6.

☐ 6. Turn on your electricity.

# 8 SAFETY

HIGH LIMIT (TEMPERATURE) SHUT OFF SYSTEM

This heater is equipped with an automatic high temperature electric shut off system. This system operates when excessively high water temperatures are present. Refer to page 9 for resetting the shut off system.

TEMPERATURE AND PRESSURE RELIEF VALVE

Caution: For protection against excessive pressures and temperatures in this water heater, install temperature and pressure protective equipment required by local codes, but not less than a combination temperature and pressure relief valve certified by a nationally recognized testing laboratory that maintains periodic inspection or production of listed equipment or materials, as meeting the requirements for Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems, ANSI Z21.22-1979. This valve must be marked with a maximum set pressure not to exceed the marked hydrostatic working pressure of the hot water heater. Install the valve into opening provided and marked for this purpose in the water heater. Orient the valve or provide tubing so that any discharge will exit only within 6 inches above, or at any distance below the structure floor. Be certain that no contact is made with any live electrical part. The discharge opening must not be blocked or reduced in size under any circumstances. Do not connect tubing directly to discharge drain unless air gap is provided.

To prevent bodily injury, hazard to life or damage to property, the relief valve must be allowed to discharge water in the event of excessive temperature or pressure developing in the heater. The function of the temperature and pressure relief valve is to discharge water in quantities should circumstances demand. If the discharge pipe is not connected to a drain or other suitable means, the water flow may cause property damage.

The discharge pipe:
—Must not be smaller in size than the outlet pipe size of the valve.
—Must not be plugged or blocked.
—Must be of material capable of withstanding 210°F without distortion.
—Must be installed so as to allow complete drainage of both the temperature and pressure relief valve, and the discharge pipe.
—Must terminate at an adequate drain.
—Must not have any valve between the relief valve and tank.

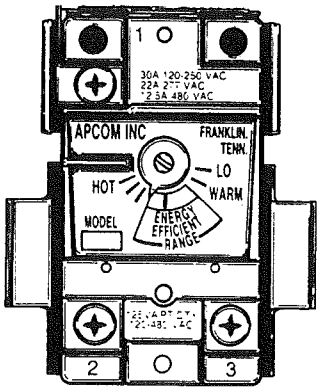
The temperature and pressure relief valve must be manually operated at least once a year.
Failure to install and maintain a new properly listed temperature and pressure relief valve will release the manufacturer from any claim which might result from excessive temperature or water pressure.

EXCESSIVELY HIGH WATER PRESSURE

If your water pressure gets higher than 80 pounds, you should put in a pressure reducing valve. High pressure causes short life and other problems with faucets, dishwashers, clothes washer, ice makers, and water softeners. The FHA requires a pressure reducing valve whenever pressures exceed 80 pounds. Pressure reducing valves are available at Sears.

# operating

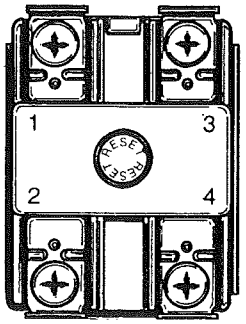
## TEMPERATURE REGULATION




1. Turn OFF the electrical power to your heater, at the junction box.
2. Take off the access panels and fold away the insulation.
3. Each thermostat has been factory set at 140°F. as shown, to reduce the risk of scald injury. If lower water temperatures were desired, the adjustment can be made by turning the indicator on both thermostats toward the "LO" point. The line in the mid point of the "energy efficiency range" (shaded area) represents a setting of approximately 130°F.
4. Fold the insulation back in place and replace the access panels.
5. Turn ON the power supply.

## RESETTING

### High Limit (Temperature) Shut Off System

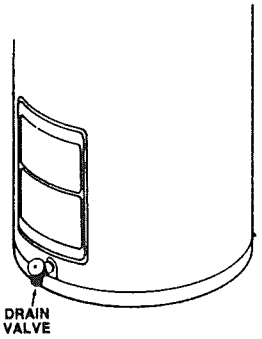



If your water heater is connected to an "OFF PEAK" clock, and uses the wiring diagram in the lower right of page 7, your water heater will have an upper and lower hi-limit. Follow the resetting instructions below which refer to the hi-limit behind the upper access panel to also reset the hi-limit behind the lower access panel.

1. Turn off the electrical supply to the heater.
2. Take off the upper access panel.
3. Fold back the insulation. Reset the control by pushing in the red button marked "RESET".
4. Put the insulation and access panel back on.
5. Turn on the electricity. If the high limit must be reset again, call Sears Service Department to find out why the high limit switch turned off the electric power.

## DRAINING

You may want to shut off your water heater for long periods of time. If you do and your heater may be exposed to freezing temperatures, it must be drained. Water will expand when frozen, damaging your heater. This is not covered by the warranty.




1. Turn off the electrical supply to your heater. Then turn off the cold water supply.
2. Connect hose to the drain valve.
3. Open a nearby hot water faucet. Open your heater drain valve.
4. Keep the drain valve open during the shutdown period.
5. See your filling instructions (page 6) to restart the water heater.

# TANK

# CLEANING

Sometimes bacteria and minerals will react with an anode making your water smell. Chlorination of your water supply will eliminate the bacteria and get rid of the odor. Equipment for treating problem water is available at Sears.

Once a month your drain valve should be opened. The water should be allowed to run until it flows clean. This will keep sediment from building up in your tank bottom. Follow the instructions in the section on draining on page 9.

# ELEMENTS

In some water areas, scale or mineral deposits will build up on your heating elements. This buildup will cause a rumbling noise. Follow the element replacement directions to remove the element from your tank. Soaking in vinegar and scraping will remove the mineral deposit. Be careful not to bend element.
If your element is burned out, make sure the new element does not exceed your circuit's capacity. See the chart on page 4 for details.

ELEMENT REPLACEMENT

1. Turn off electrical supply to heater.
2. Drain your water heater. Follow the directions for draining.
3. Take off the access panel and turn back the insulation. Disconnect the wires from the heating element terminals.
4. Remove the element and gasket. You should always use a new gasket when you replace the element.
5. Install new element.
6. Reconnect the wires as they were.
7. Fill your tank, following the filling directions on page 6. Fill the tank with water, BEFORE you turn on the electric supply.

# OPERATIONAL

# CHECK

# LIST

Check the water heater installation before you call Sears. The heater may not be working because something is wrong outside the heater. You can often find what is wrong by checking the operational check list. Then you won't have to wait for a serviceman to get hot water.

NOT ENOUGH OR NO HOT WATER

1. In a new installation the heater may not be properly connected. Make sure the cold water supply valve is open. Check the dip tube and piping installation. Review the installation section.
2. Make sure the electrical supply to your water heater is ON.
3. Check for loose or blown fuses in your heater circuit. Circuit breakers weaken with age and may not handle their rated load and should be replaced.
4. If the water was too hot and is now cold, the high temperature limit switch may have shut the electric power off. See the "Resetting High Limit Shutoff System" section (page 9).
5. You may have used more hot water than the heater can store.
6. The heater may be controlled by a timer. If it is, you will not get hot water until your heater get electricity. Check with your electric company.
7. The temperature of cold water going into your heater may be colder because it is winter. If it is, it will take more time to heat the water.
8. Look for leaking or open hot water faucets.

WATER IS TOO HOT

1. Adjust the thermostat to a lower setting. See the temperature regulation section, page 9.

## LEAKAGE CHECKPOINTS

Use this guide to check a "Leaking" water heater. Many suspected "Leakers" are not leaking tanks. Often the source of the water can be found and corrected.

If you are not thoroughly familiar with electrical codes, your water heater, and safety practices, contact a competent serviceman to check your heater.

CAUTION: Read your installation and instruction manual first. Then before checking your heater make sure the electrical power supply has been turned "OFF", and never restore power before the tank is completely full of water.

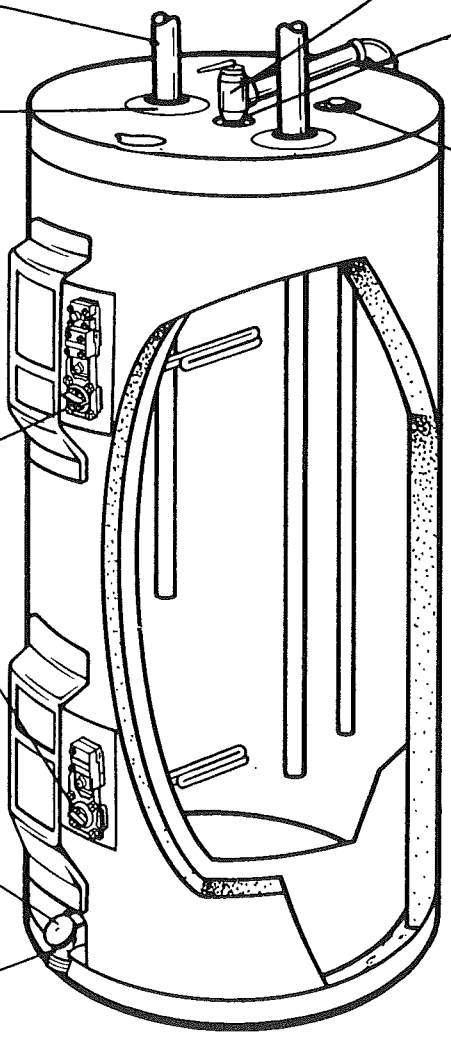
Water from the T & P may be due to high water pressure or sediment in the valve seat. If the valve is not piped to an open drain the water could be mistaken for a leaking heater.

*The T & P may be leaking at the tank fitting. Turn OFF electrical power, follow proper draining instructions, remove T & P, apply pipe joint compound and replace.

*The anode rod fitting may be leaking. Turn off electrical power, follow proper draining instructions, remove the anode, apply pipe joint compound and replace.

Condensation and drips may be seen on piping, during certain times of the year.

Piping connections and fittings may be leaking. Turn OFF electrical power, follow proper draining instructions, disconnect piping, apply pipe joint compound and replace.



Turn electrical power OFF, remove access panels and fold back insulation. If leaking around elements, follow proper draining instructions, and remove element. Check element seat, use a new element gasket and replace element.

Water from a drain valve may be due to the valve opened slightly. Tighten the handle and if a leak persists, turn off electrical supply to the heater, following proper draining instructions and replace drain valve.

The drain valve may be leaking at the tank fitting. Turn electrical power OFF, follow proper draining instructions, remove drain valve, apply pipe joint compound and replace.

To check where threaded portion enters tank, insert Q-Tip between jacket opening and valve to swab area. Remove if leak is indicated. Repair with pipe joint compound.

Water in the heater bottom or on the floor may be from condensation (especially on energy efficient models), loose connections, or the relief valve. DO NOT replace the heater until a full inspection of all possible water sources is made and necessary corrective steps made. Leakage from other appliances, water lines, or ground seepage should also be checked.

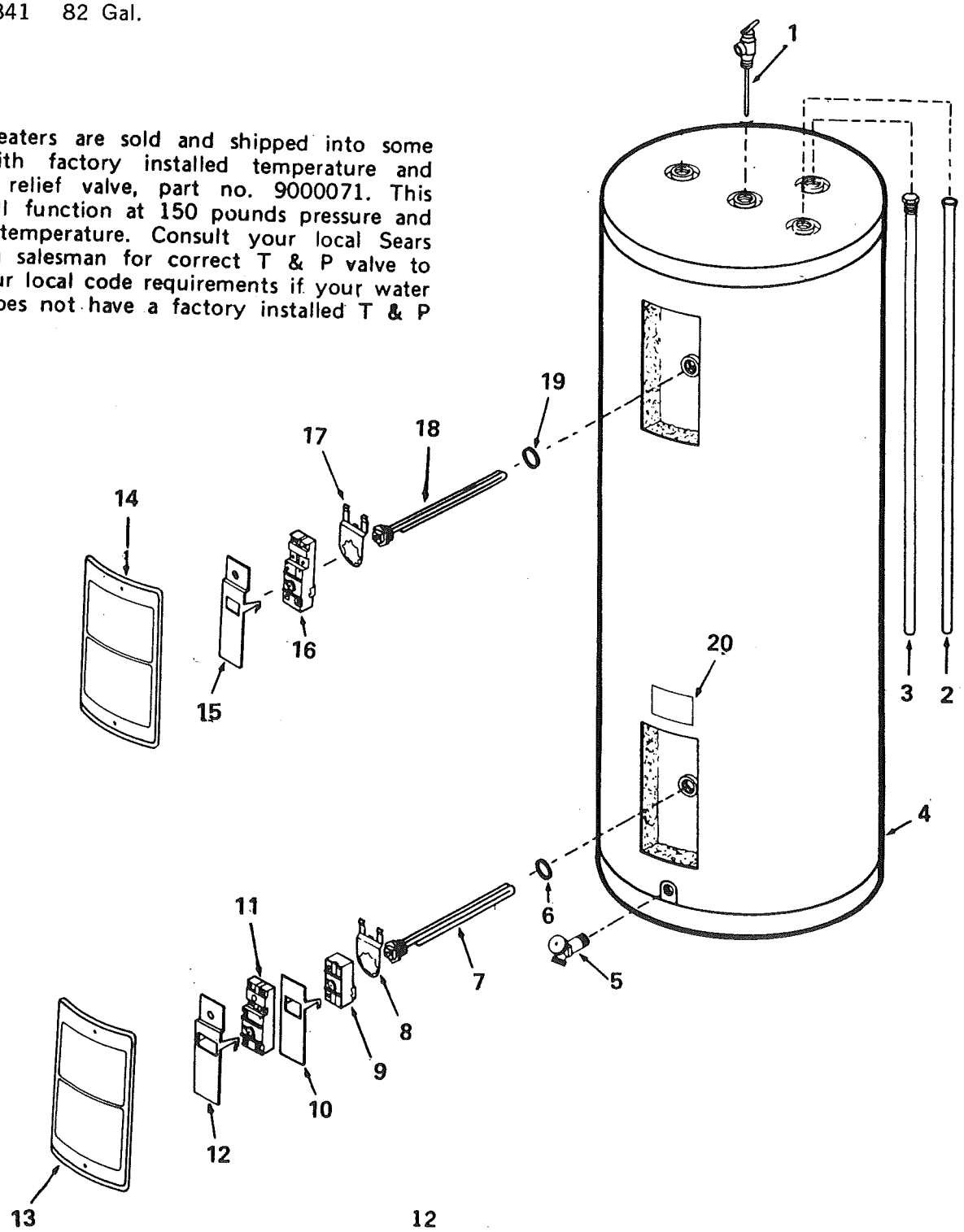
# repair parts

SEARS TALL & SHORT THE ECONOMIZER 5 ELECTRIC WATER HEATER
MODEL NUMBERS:

| | | | |
|---|---|---|---|
| 153.312142 | 30 Gal. | 153.312941 | 40 Gal. |
| 153.312341 | 30 Gal. | 153.322441 | 40 Gal. |
| 153.312441 | 40 Gal. | 153.322541 | 52 Gal. |
| 153.312541 | 52 Gal. | 153.322841 | 82 Gal. |
| 153.312841 | 82 Gal. | | |

NOTE A

Water heaters are sold and shipped into some areas with factory installed temperature and pressure relief valve, part no. 9000071. This valve will function at 150 pounds pressure and 210°F. temperature. Consult your local Sears plumbing salesman for correct T & P valve to meet your local code requirements if your water heater does not have a factory installed T & P valve.



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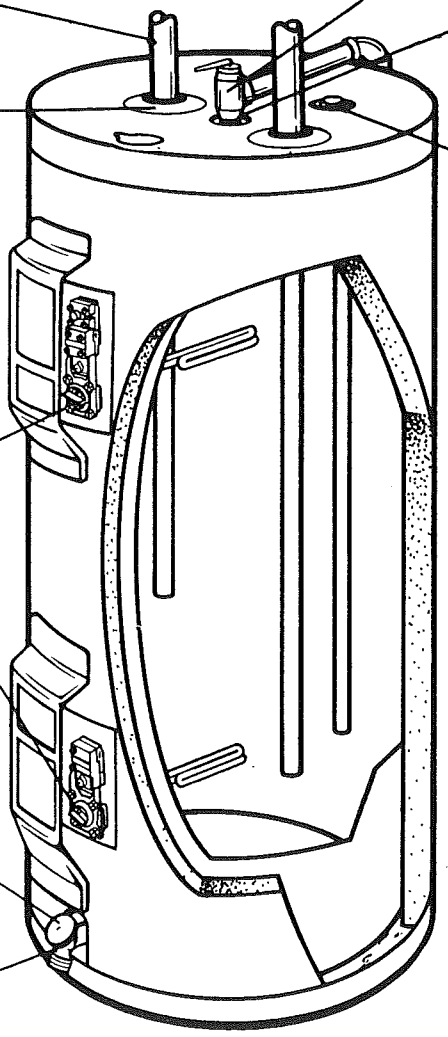

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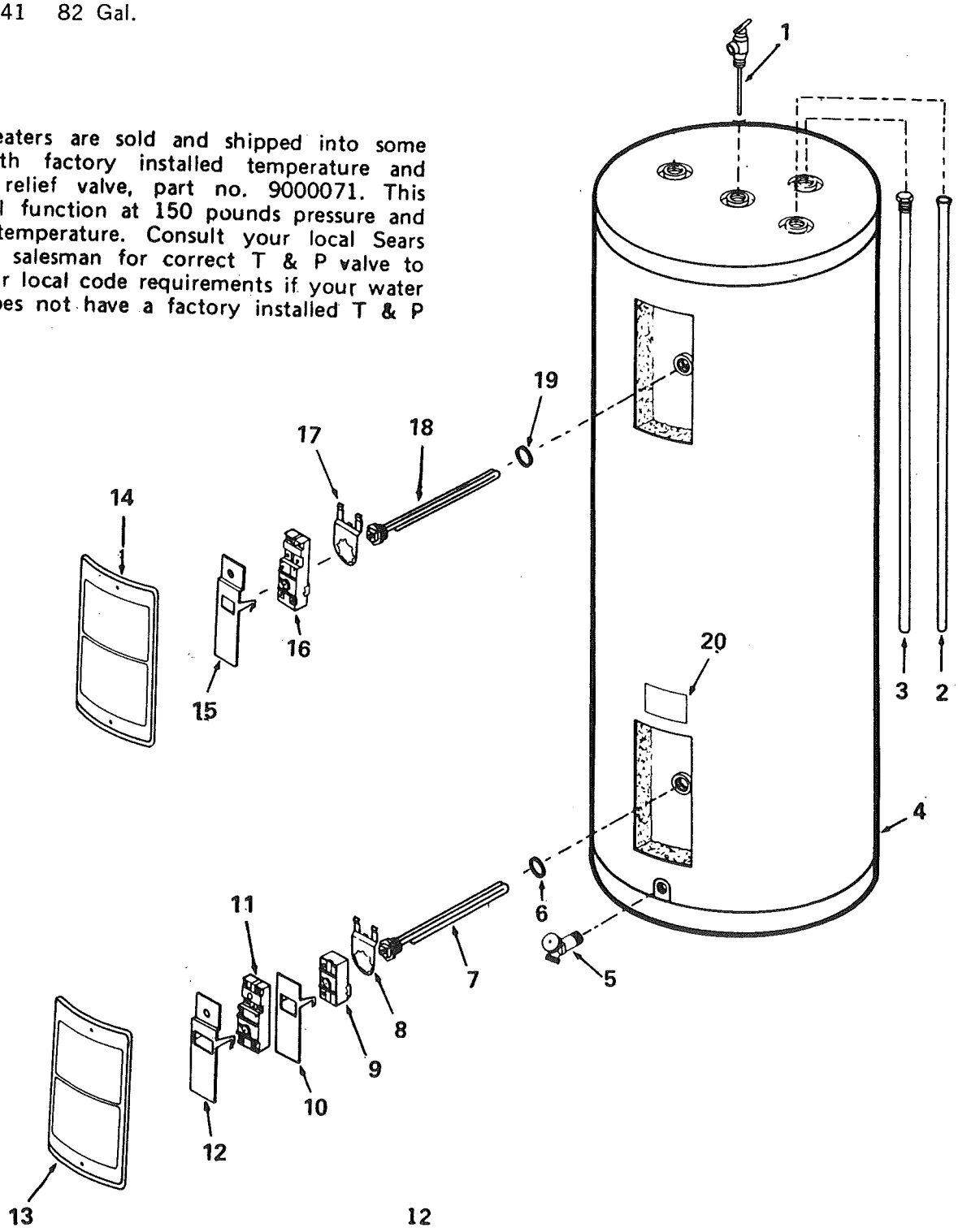

SEARS TALL & SHORT THE ECONOMIZER 5 ELECTRIC WATER HEATER
MODEL NUMBERS:

153.312142 30 Gal.
153.312341 30 Gal.
153.312441 40 Gal.
153.312541 52 Gal.

| KEY NO. | MODEL NUMBERS 153.312142 | 153.312341 | 153.312441 | 153.312541 | PART DESCRIPTION |
|---|---|---|---|---|---|
| | PART NUMBERS | | | | |
| 1. | SEE NOTE "A" PAGE 12 | | | | Temperature & Pressure Relief Valve |
| 2. | 0260119 | — | — | — | Dip Tube (Length 24") |
| 2. | — | 0260127 | — | — | Dip Tube (Length 36") |
| 2. | — | — | 0260120 | 0260120 | Dip Tube (Length 53") |
| 3. | 0160103 | 0160134 | 0160135 | 0160135 | Primary Anode Rod |
| 4. | 8000001 | 8000001 | 8000001 | 8000001 | Tank w/Jacket & Insulation |
| 5. | 9000058 | 9000058 | 9000058 | 9000058 | Drain Valve |
| 6. | 9000308 | 9000308 | 9000308 | 9000308 | Element Gasket |
| 7. | 9000260 | 9000260 | 9000260 | 9000260 | Lower Element |
| 8. | 9000309 | 9000309 | 9000309 | 9000309 | Thermostat Bracket |
| 9. | 9000507 | 9000507 | 9000507 | 9000507 | 2 Pole Thermostat |
| 10. | 9000313 | 9000313 | 9000313 | 9000313 | Terminal Protector |
| 11. | 9000508 | 9000508 | 9000508 | 9000508 | Lower Thermostat w/Hi Limit |
| 12. | 9000310 | 9000310 | 9000310 | 9000310 | Terminal Protector |
| 13. | 9000383 | 9000383 | 9000383 | 9000383 | Lower Access Panel |
| 14. | 9000383 | 9000383 | 9000383 | 9000383 | Upper Access Panel |
| 15. | 9000310 | 9000310 | 9000310 | 9000310 | Terminal Protector |
| 16. | 9000510 | 9000510 | 9000510 | 9000510 | Upper Thermostat w/Hi Limit |
| 17. | 9000309 | 9000309 | 9000309 | 9000309 | Thermostat Bracket |
| 18. | 9000260 | 9000260 | 9000260 | 9000260 | Upper Element |
| 19. | 9000308 | 9000308 | 9000308 | 9000308 | Element Gasket |
| 20. | 0270104 | 0270104 | 0270104 | 0270104 | Model & Rating Plate† |
| # | ← 0290879-01 → | | | | Owners Manual |

†Replaced only upon return of damaged plate

THIS IS A REPAIR PARTS LIST, NOT A PACKING LIST.

# repair parts

SEARS TALL & SHORT THE ECONOMIZER 5 ELECTRIC WATER HEATER
MODEL NUMBERS:

153.312841 82 Gal.
153.312941 40 Gal.
153.322441 40 Gal.
153.322541 52 Gal.
153.322841 82 Gal.

| KEY NO. | MODEL NUMBERS 153.312841 | 153.312941 | 153.322441 | 153.322541 | 153.322841 | PART DESCRIPTION |
|---|---|---|---|---|---|---|
| | PART NUMBERS | | | | | |
| 1. | SEE NOTE "A" PAGE 12 | | | | | Temperature & Pressure Relief Valve |
| 2. | 0260120 | 0260119 | 0260120 | 0260120 | 1260120 | Dip Tube (Length 53") |
| 3. | 0160135 | 0160103 | 0160135 | 0160135 | 0160135 | Primary Anode Rod |
| 4. | 8000001 | 8000001 | 8000001 | 8000001 | 8000001 | Tank w/Jacket & Insulation |
| 5. | 9000058 | 9000058 | 9000058 | 9000058 | 9000058 | Drain Valve |
| 6. | 9000308 | 9000308 | 9000308 | 9000308 | 9000308 | Element Gasket |
| 7. | 9000260 | 9000260 | 9000151 | 9000151 | 9000151 | Lower Element |
| 8. | 9000309 | 9000309 | 9000309 | 9000309 | 9000309 | Thermostat Bracket |
| 9. | 9000507 | 9000507 | 9000507 | 9000507 | 9000507 | 2 Pole Thermostat |
| 10. | 9000313 | 9000313 | 9000313 | 9000313 | 9000313 | Terminal Protector |
| 11. | 9000508 | 9000508 | 9000508 | 9000508 | 9000508 | Lower Thermostat w/Hi Limit |
| 12. | 9000310 | 9000310 | 9000310 | 9000310 | 9000310 | Terminal Protector |
| 13. | 9000383 | 9000383 | 9000383 | 9000383 | 9000383 | Lower Access Panel |
| 14. | 9000383 | 9000383 | 9000383 | 9000383 | 9000383 | Upper Access Panel |
| 15. | 9000310 | 9000310 | 9000310 | 9000310 | 9000310 | Terminal Protector |
| 16. | 9000510 | 9000510 | 9000510 | 9000510 | 9000510 | Upper Thermostat w/Hi Limit |
| 17. | 9000309 | 9000309 | 9000309 | 9000309 | 9000309 | Thermostat Bracket |
| 18. | 9000260 | 9000260 | 9000151 | 9000151 | 9000151 | Upper Element |
| 19. | 9000308 | 9000308 | 9000308 | 9000308 | 9000308 | Element Gasket |
| 20. | 0270104 | 0270104 | 0270104 | 0270104 | 0270104 | Model & Rating Plate† |
| # | ← 0290879-01 → | | | | | Owners Manual |

†Replaced only upon return of damaged plate.

THIS IS A REPAIR PARTS LIST, NOT A PACKING LIST.

# NOTES

Sears

# owners manual

Service

## MODEL NO.

| | |
|---|---|
| 153.312142 | 30 Gal. |
| 153.312341 | 30 Gal. |
| 153.312441 | 40 Gal. |
| 153.312541 | 52 Gal. |
| 153.312841 | 82 Gal. |
| 153.312941 | 40 Gal. |
| 153.322441 | 40 Gal. |
| 153.322541 | 52 Gal. |
| 153.322841 | 82 Gal. |

**HOW TO ORDER REPAIR PARTS**

**TELL SEARS YOU WANT IT INSTALLED THEN RELAX**

# TALL & SHORT THE ECONOMIZER 5 ELECTRIC WATER HEATER

Now that you have purchased your Electric Water Heater, should a need ever exist for repair parts or service, simply contact any Sears Service Center and most Sears, Roebuck and Co. stores. Be sure to provide all pertinent facts when you call or visit.

The Model Number will be found on the jacket, near the bottom, and to one side of front panel.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

PART NUMBER — PART DESCRIPTION

MODEL NUMBER — NAME OF ITEM

All parts listed may be ordered from any Sears Service Center and most Sears stores.

If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

When Sears arranges the installation, you can be sure the job is done right. We will arrange for professional workmanship. . .and we'll take care of the entire project. What's more, during installation you get insured protection. . .against property damage and also against accidents to workmen. All you have to do is talk to your Sears salesperson or call your nearest Sears store today for detailed information.

Sears, Roebuck and Co., Chicago, Ill. 60684 U.S.A.

F642-5483 (Rev. 9-83)

0290879-01