



**Point of use water heater  
Electric undersink  
Water heaters**

**P 10 S/P15 S**

# **IMPORTANT SAFETY INSTRUCTIONS**

## **Warning**

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

- 1. READ ALL INSTRUCTIONS BEFORE USING THIS WATER HEATER.**
2. This water heater must be grounded. Connect only to properly grounded outlet. Use only the 3 prong plug that comes with the water heater. **Do not** use an adapter to bypass the ground connection.
3. Install or locate this water heater only in accordance with the provided installation instructions.
4. Use this water heater only for its intended use as described in this manual.
5. Do not use an extension cord set with this water heater. If no receptacle is available adjacent to the water heater, contact a qualified electrician to have one properly installed.
6. As with any appliance, close supervision is necessary when used by children.
7. Do not operate this water heater if it has a damaged cord or plug, if it is not working properly or if it has been damaged or dropped.
8. This water heater should be serviced only by qualified service personnel. Contact a service facility for examination, repair or adjustment.
9. Failure to service the anode rod at least once a year could cause the tank to fail and leak.

# **KEEP THESE INSTRUCTIONS AT HAND**

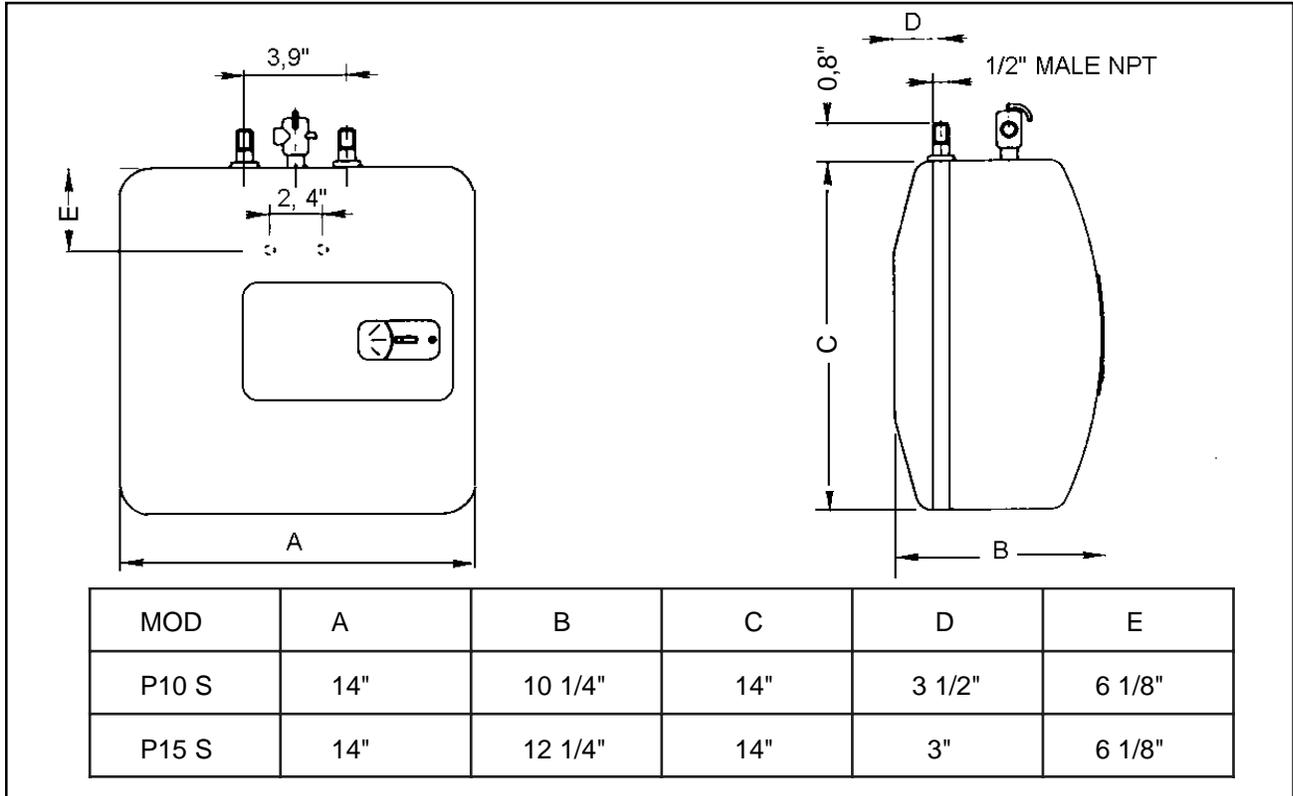
## **Technical Data**

Model		P10 S	P15 S
Capacity	gallons	2 1/2	4
Voltage	Vac	110 + 10	110 + 10
Power at 120vac	Watts	1350	1350
Water Pressure	psi	150	150
Weight empty	lbs	15.8	17.6
Amperage	Amps	11.25	11.25
Phases		1	1

## **Warning**

The installer should review the contents of this manual with the owner upon completion of installation, and the manual should be left with the owner and placed in a location close to the installation.

## DIMENSIONS FOR P10 S / P15 S



### General Remarks

- Caution** The manufacturer cannot be responsible for the damages caused by improper installation or by failure to follow instructions in this pamphlet. Comply with the installation instructions before completing electric connection.
- Caution** The thermostat has been pre-set at the factory to about 60°C/140°F. To reduce the risk of scald injury, keep the thermostat at the *warm* position. (letter M, Fig. 3-4)
- Caution** Hydrogen gas can be produced in a hot water system served by this heater that has not been used for a long period of time (generally 2 weeks or more). Hydrogen gas is extremely flammable. To reduce the risk of injury under these conditions, it is recommended that the hot water faucet be opened for several minutes at the kitchen sink before using any electrical appliance connected to the hot water system. If hydrogen is present, there will probably be an unusual sound such as air escaping through the pipe as the water begins to flow. There should be no smoking or open flame near the open faucet at this time.

### Installation Instructions

**The P 10S and P 15S water heaters can be installed under the sink.**

- Wall Mounting** Fasten the supplied mounting bracket to the wall. Use screws that are suitable for the wall material and the weight of the heater.  
Hang the water heater on the bracket. Tug downwards on the heater to ensure that both "fingers" of the bracket are seated in the mounting slots.

**Pipe Connections** Connect the cold water inlet pipe to the inlet nipple (marked with a blue ring - #1, Fig. 4). **IMPORTANT:** You must use dielectric fittings if inlet piping/fittings are copper or brass. Failure to provide dielectric insulation may result in premature tank or nipple failure and will void warranty. Dielectric nipples are recommended over unions and are available from a supply house or CEC.

**Caution** To reduce the risk of excessive pressures and temperatures in this water heater, install temperature and pressure protective equipment required by local codes but not less than a combination temperature and pressure relief valve certified by a nationally recognized testing laboratory that maintains periodic inspection of production of listed equipment or materials, as meeting the requirements for Relief Valves and Automatic Gas Shut-off Devices for Hot Water Supply Systems, ANSI Z21.22. This valve must be marked with a maximum set pressure not to exceed the marked maximum working pressure of the water heater. Install the valve into the opening provided and marked for this purpose in the water heater, and orient it or provide tubing so that any discharge from the valve will exit within 6 inches above, or at any distance below, the structural floor, and cannot contact any live electrical part. The discharge opening must not be blocked or reduced in size under any circumstances.

**Closed system thermal expansion** Periodic discharge of the temperature and pressure relief valve or failure of the element gasket may be due to thermal expansion in a closed water supply system. The water utility supply meter may contain a check valve, backflow preventer or water pressure reducing valve which will create a closed water system. During the heating cycle of the water heater, the water expands causing pressure inside the water heater to increase. The temperature and pressure relief valve may discharge hot water under these conditions which results in a loss of energy and a build-up of lime on the relief valve seat.

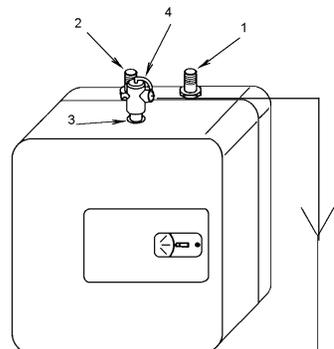
To prevent this from happening, there are two recommendations:

1. Install a diaphragm-type expansion tank that is suitable for potable water on the cold water supply line. The expansion tank must have a minimum capacity of 1.5 U.S. gallons for every 50 gallons of stored water.
2. Install a 125 PSI pressure relief valve in the cold water supply line. Make sure the discharge of this valve is directed to an open drain and protected from freezing. Contact the local water supplier or plumbing inspector for information on how to control this situation. Do not plug the temperature and pressure relief valve.

Fig. 2 Components Parts

**REFERENCE NUMBER**

- 1 - Cold water inlet 1/2" - NPT marked blue
- 2 - Hot water outlet 1/2" - NPT marked red
- 3 - 3/4" NPT female tapping for relief valve
- 4 - Temperature & pressure relief valve, 3/4" NPT. Make sure that the probe of the T&P valve is no longer than 4".
- 5 - Temperature & Pressure relief valve discharge line to drain



## Instructions for use

**Starting and testing** Before connecting the power, fill the tank and system with water and check for leaks. To be certain that all the air is out of the water system, open the hot water faucets on your fixtures until constant water flows from them, otherwise damage to the element may occur.

To start the heating cycle:

- A) first make sure tank is full. Otherwise the heating element may be damaged.
- B) move red on/off switch (letter F, Fig 3-4) to the ON position (to the left).
- C) turn the thermostat dial clockwise to the preferred position. The red light will come on and remain on until that temperature has been reached, at which point the light will go off, but will automatically come back on when the water temperature drops below the setting chosen.

**Temperature setting, and freeze protection** The temperature is controlled by turning the thermostat dial (letter M, Fig. 3-4) counter-clockwise to decrease the temperature, and clockwise to increase it.

**Note:** Setting on "very hot" is for an approximate temperature of 63° C / 145° F.

**Warning:** The "very hot" is a scalding temperature.

The lowest setting is that point on the dial where (with cold water in the tank) the light comes on when dialing from the lowest counter clockwise position. This lowest setting is for an approximate temperature of 27° C / 80° F.

**WARNING:** Adjusting the temperature dial above the "hot" setting will increase the risk of scald injury. Households with small children, the elderly, or invalids may require a temperature setting below "hot". Turning the heater's thermostat to the lowest setting provides economical and effective freeze protection.

## Maintenance Instructions

**Note:** Do not attempt to repair the water heater yourself. Call a service person for assistance. Always unplug the heater prior to servicing or draining the heater.

Refer to Fig. 3 (1-5) for corresponding letter parts

### PERIODIC MAINTENANCE AND PARTS REPLACEMENT

**Note:** For most of these operations, the water will have to be drained from the heater. For all of these operations the power cord needs to be unplugged and the front cover removed

**Draining the Heater**

1. If the heater has been installed with flexible hoses, unplug the power cord and turn the heater upside down over a sink to drain the water out of it, OR
2. If the heater has been installed with rigid piping, siphon the water out through any (lower) service valve on the (inlet side). Keep hot water faucet open while siphoning the water out, OR
3. If the heater has been installed with flexible hoses, it can also be emptied by siphoning through the inlet side hose. Keep a hot water faucet open while siphoning.

**Removing the heating element**

Unplug the power cord and drain the heater (see previous section).  
Remove the front cover plate, disconnect terminals X and Y (Fig. 3-3).  
Unscrew the heating element retaining nut (letter E, Fig. 3-3).  
Remove the element by first tapping it inward and then pull out using a circular motion.

**Descaling  
the heating  
Element**

Scale deposits can affect the heating capability of the element. Heavy scale can even cause the element to burn out. The element can be descaled either chemically or manually:

- A)** Soak the element in white vinegar or other descaling solution, **(do not soak the rubber gasket)**. Once descaled, rinse well with fresh water, to which you should add some baking soda, OR
- B)** Once the element has dried up, use a soft brush (non metallic to prevent damaging the stainless steel sheath) on element. Brush the dried mineral off. Reinstall the element with gasket and make the wire connections.
- C)** Replace anode rod if considerably shorter than diagram (letter N, Fig. 3-2).

**Warning: make sure the tank has been refilled with water before restoring power.**

**REPLACEMENT OF PARTS**

**Changing  
the anode  
rod**

The anode rod (letter N, Fig. 3-2) helps protect the tank against corrosion. Depending on the water condition, the magnesium anode rod may need to be changed every year or so. Galvanic and electrolytic corrosion can destroy a tank if the anode rod is "spent". Rusty water is usually an indication of a "spent" anode rod. If rusty water is present, examine anode rod immediately. Rapid degradation of the anode rod (less than 1 year) may indicate the presence of galvanic corrosion due to "stray" direct current. In this case, it may be necessary to add a "grounding strap" from the Ariston tank to the copper plumbing.

1. Unplug the power and drain the heater (see previous section).
2. Remove the heating element (see previous section).
3. Replace anode rod.
- 4. Refill tank with water before restoring power.**

**Changing  
the heating  
element**

1. Unplug and drain the heater (see previous section).
2. Remove the heating element (see section on **Removing the Heating Element**).
3. Remove and reuse anode rod if not "spent". Best to replace it.
4. Install new element with anode rod attached and rubber gasket, making sure the gasket and element are positioned correctly. Tighten the retaining nut and make the wire connections.
- 5. Refill tank with water before restoring power.**

**Changing  
the  
thermostat**

1. Disconnect power supply.
2. Disconnect the 2 push/pull type wires on thermostat (Fig. 3-5)
3. Loosen the two brass screws at right side of thermostat and pull wires out.
4. Unscrew and remove the two phillips screws holding the thermostat down.
5. Install new thermostat and re-attach wiring and screws.

**Resetting High Limit Switch**

Occasionally, the high temperature limit shut off device may trigger and shut the system down. This occurs when water temperature exceeds 190°F and shuts off power to the heating element. The shut off device may also trigger from a power outage or electrical storm.

To reset:

1. **IMPORTANT:** Disconnect heater from electrical power.
2. Remove front cover plate and temperature selector dial.
3. Firmly press blue reset button, (B, Fig. 3-5).
4. Replace temperature dial and cover plate, reconnect power.
5. **IMPORTANT:** Check the operation of the thermostat, turn temperature dial from high to low, if the red light does not go off on low setting, disconnect power cord and call a service person to replace thermostat.
6. If the system works, place dial setting to desired setting;  
Note: a lower setting is more economical, and reduces the risk of scalding.

**CAUTION:** Call a technician if the high limit needs to be reset frequently

**Troubleshooting**

**Water does not get hot**

1. Make sure the power cord is plugged in.
2. Make sure on/off switch is turned on (F, Fig. 3-4 or #8, Fig. 4)
3. Make sure thermostat dial (M, Fig. 3-4 or #7, Fig. 4) has been turned clockwise, and red on/off switch light has come on.
4. If light does not come on, check that the blue reset button (B, Fig. 3-5) is pushed in; follow steps from previous section.
5. If the indicator light works properly but temperature does not get hot at tap, test for a plumbing crossover; shut off cold supply to heater and open hot water tap. There should be no water flowing. Any continued flow indicates a crossover which will effect the temperature and will need to be corrected.

**Light not On**

1. If the on/off light switch does not come on, but water gets hot, check for faulty bulb.
2. If water is cold , turn the temperature dial clockwise to a higher temperature setting. If still no light follow previous section on how to reset the high limit switch.

**Brown Water**

1. Brown or rusty water indicates a "spent" anode rod. Replace anode rod.

**Odor in Water**

1. Smelly water could be due to an unusual reaction between local water and the heater's anode rod. Check anode rod.

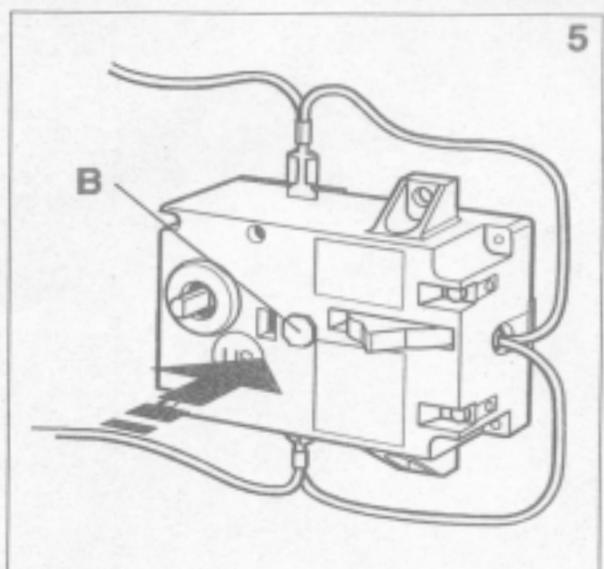
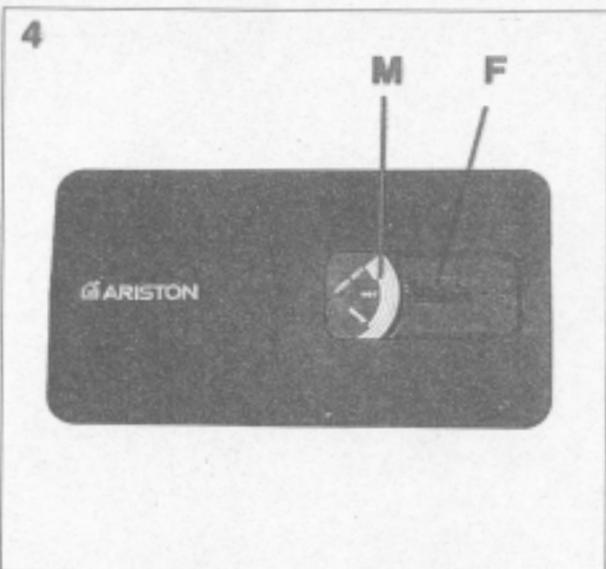
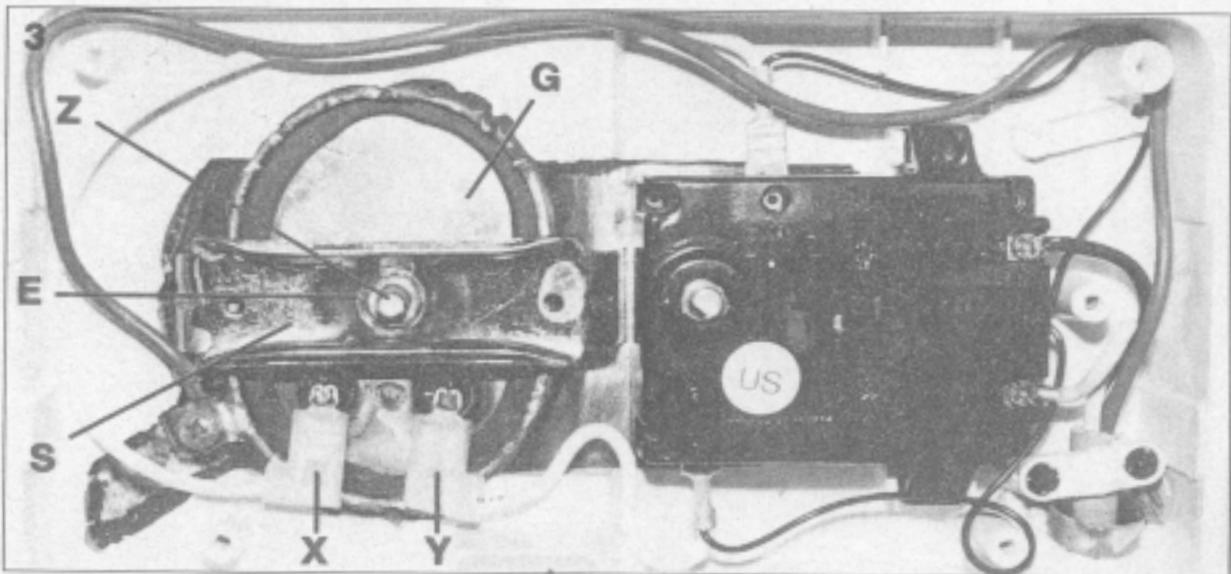
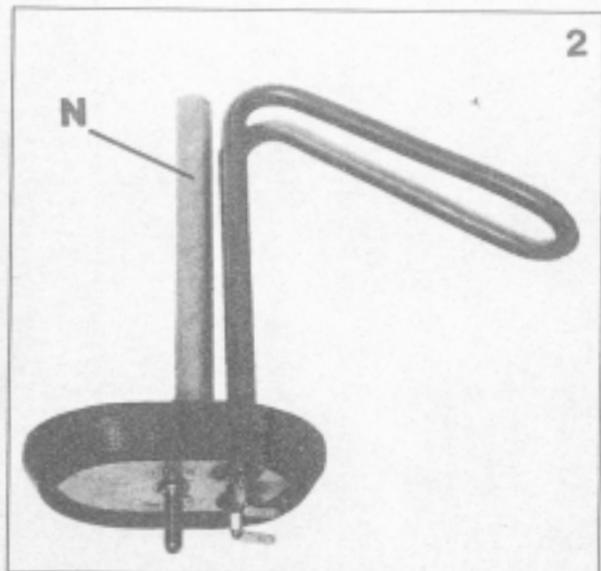
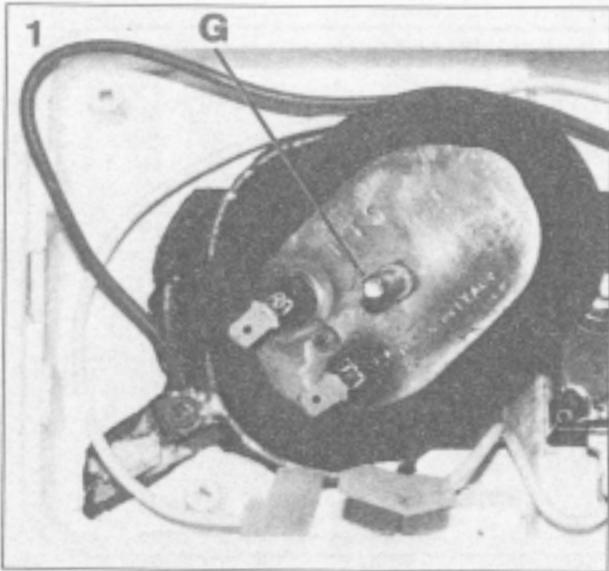
**Water is too hot**

1. Turn the temperature selector dial (M, Fig. 3-4) counter clockwise to lower temperature. If temperature never lowers then replace thermostat.

**Leaking**

1. Check water fittings and T&P fitting on top of tank.
2. Remove front cover and inspect heating element gasket. If gasket is not seated properly, unplug heater and follow steps to drain heater. Then remove heating element to reseal gasket. A torn gasket will need to be replaced.

FIGURE 3 (1-5)



# ARISTON • LIMITED 2 YEAR WARRANTY

## COVERAGE

ARISTON, THROUGH ITS U.S. DISTRIBUTOR CONTROLLED ENERGY CORP., (hereinafter CEC) guarantees this water heater to the Owner (hereinafter "Owner") of the water heater at the original installation location against defects in material and workmanship for the periods specified below.

## WARRANTY PERIOD

1. **The Inner Tank** - If the inner tank leaks within two (2) years from the date of original installation of the water heater, because of a defect in material or workmanship, CEC will furnish to such Owner a new heater of the then prevailing comparable model.
2. **Any Component Part Other than The Inner Tank** - If any other component part (other than the inner tank) proves to be defective in material or workmanship within one (1) year from the date of original installation of the water heater, CEC will furnish the Owner with a replacement of the defective part(s).
3. **Verification of Date of Original Installation** - When Owner cannot verify or document the original date of installation, the warranty period begins on the date of manufacture marked on the tag affixed to the water heater.

## EXCLUSIONS

1. THIS LIMITED WARRANTY SHALL BE THE EXCLUSIVE WARRANTY MADE BY THE MANUFACTURER AND IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED (WHETHER WRITTEN OR ORAL), INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
2. Manufacturer shall not be liable for any incidental, consequential, special or contingent damages or expenses arising, directly or indirectly, from any defect in the water heater or the use of the water heater.
3. Manufacturer shall not be liable for any water damage arising, directly or indirectly, from any defect in the water heater component part(s) or from its use.
4. Manufacturer shall not be liable under this warranty if:
  - a) The water heater or any of its component parts has been subject to misuse, alteration, neglect or accident, or
  - b) The water heater has not been installed in accordance with the applicable local plumbing and/or building code(s) and/or regulation(s), or
  - c) The water heater has not been installed in accordance with the printed manufacturer's instructions, or
  - d) The water heater is not continuously supplied with potable water.

5. The OWNER and not the Manufacturer or his representative shall be liable for and shall pay for all field charges for labor or other expenses incurred in the removal and/or repair of the product or any expense incurred by the owner in order to repair the product.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

## IMPORTANT: OWNER SHALL KEEP THIS CERTIFICATE

**NOTE:** A water heater should be installed in such a manner that if it should leak, the resulting flow of water will not cause damage to the area in which it is installed.

## HOW THE OWNER CAN SECURE SERVICE OR MAKE A CLAIM

1. Owner should contact the dealer who sold the water heater covered by this warranty or
2. Owner should submit the warranty claim directly to CEC at the address listed below, and they will arrange for the handling of the claim
3. Whenever any inquiry or service request is made, be sure to include the water heater model number the date of manufacture, date of installation, Dealer's name and the watts and voltage.
4. When returning the water heater or component part(s), they must be individually tagged and identified with the Returned Goods Authorization # issued by CEC and shipped prepaid to CEC at the address below.

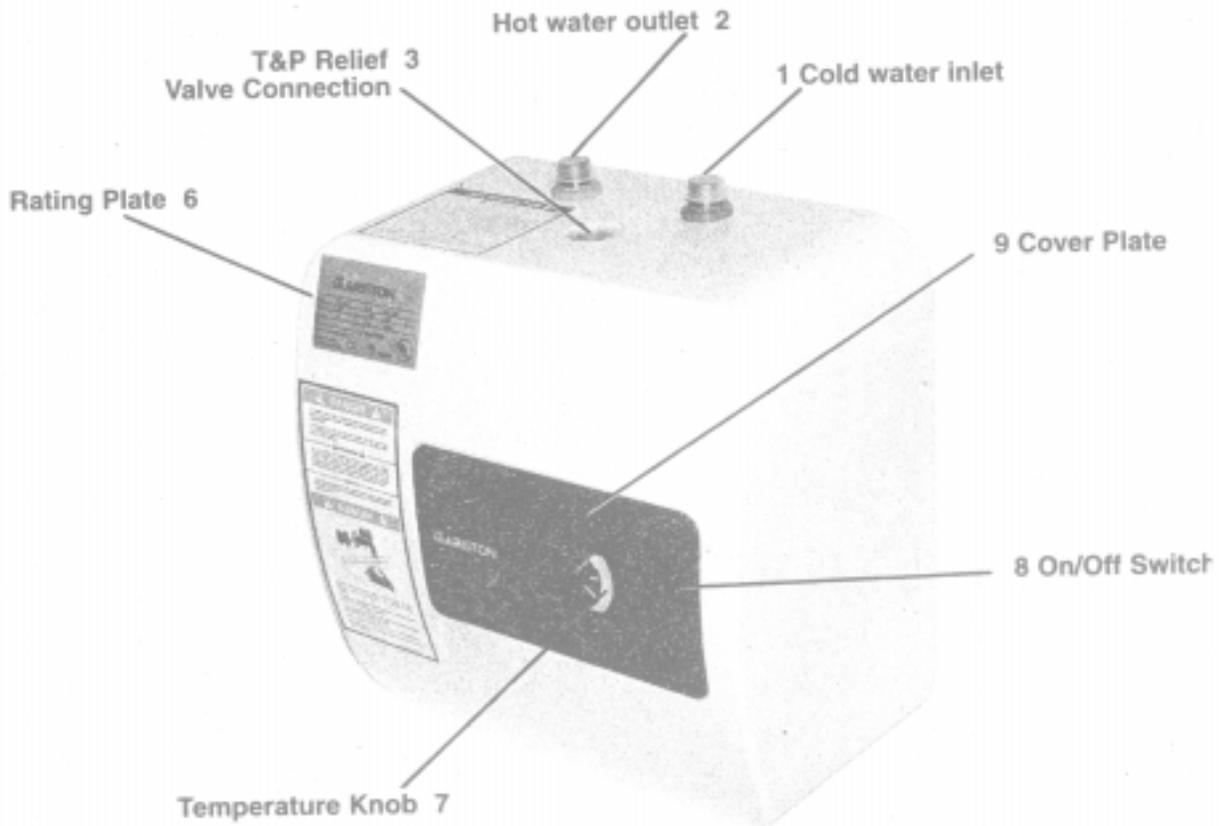


COMMON SENSE HEAT & HOT WATER TECHNOLOGY

Controlled Energy Corp.  
340 Mad River Park  
Waitsfield, VT 05673  
800-642-3111  
802-496-4436  
Fax: 802-496-6924

[www.controlledenergy.com](http://www.controlledenergy.com)

FIGURE 4



**Merloni TermoSanitari**

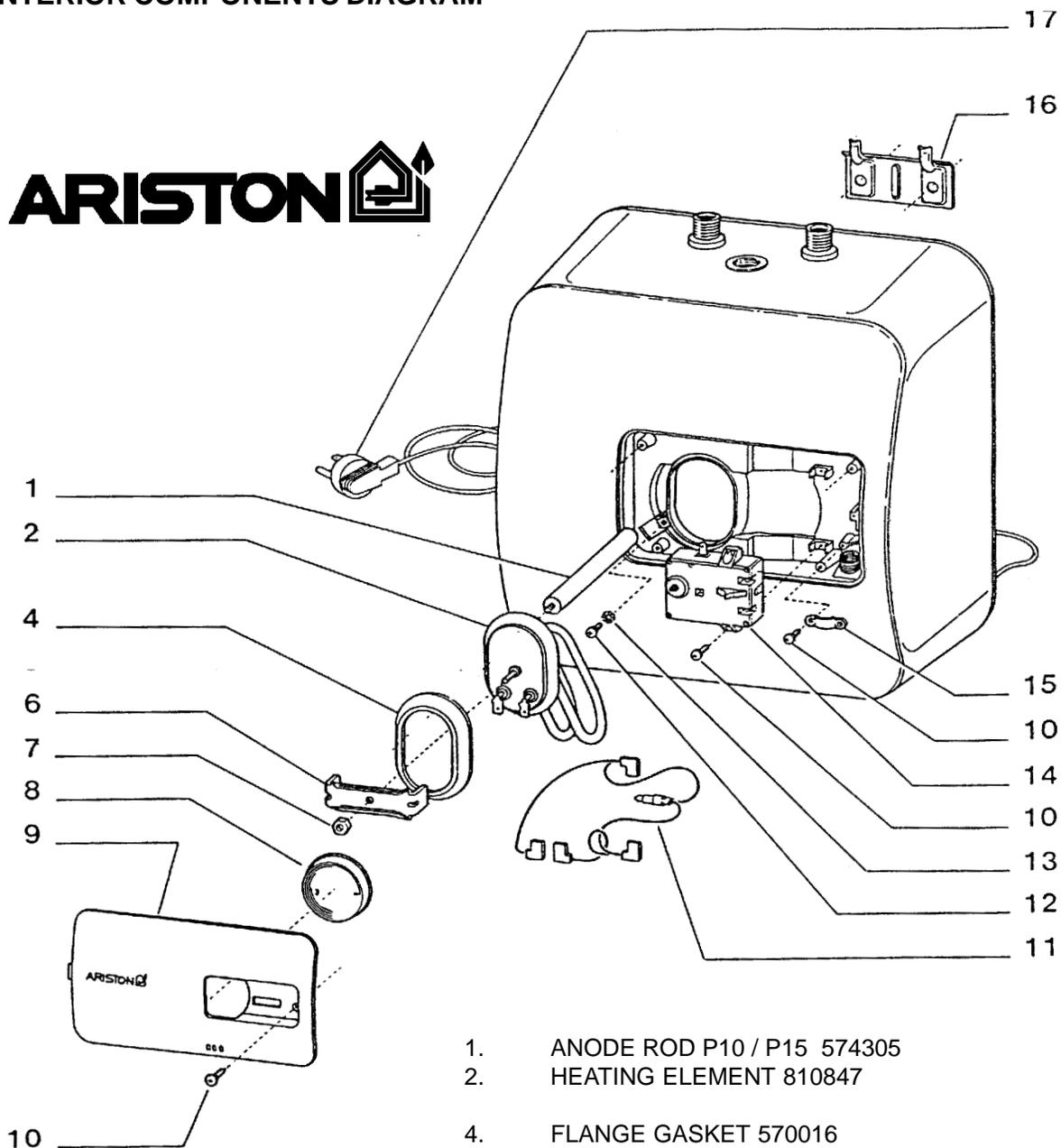
Viale Aristide Merloni, 45  
60044 Fabriano / Italia  
Telefono (0732) 6011  
Telefax (0732) 602331



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Controlled Energy Corp.  
340 Mad River Park  
Waitsfield, VT 05673  
800-642-3111  
802-496-4436  
Fax: 802-496-6924  
[www.controlledenergy.com](http://www.controlledenergy.com)

**ARISTON P10 & P15  
INTERIOR COMPONENTS DIAGRAM**



1. ANODE ROD P10 / P15 574305
2. HEATING ELEMENT 810847
4. FLANGE GASKET 570016
6. HEATING ELEMENT BRACKET
7. HEATING ELEMENT RETAINING NUT
8. TEMPERATURE DIAL
9. COVER
10. SCREW
11. THERMOSTAT WIRE HARNESS
12. GROUND SCREW
13. GROUND SCREW LOCK WASHER
14. THERMOSTAT 691551
15. POWER CORD BRACKET
16. HANGING BRACKET 570341
17. POWER CORD