

CHRONOMITE INSTANT-TEMP WATER HEATERS INSTALLATION AND OPERATION INSTRUCTIONS (STANDARD MODELS)

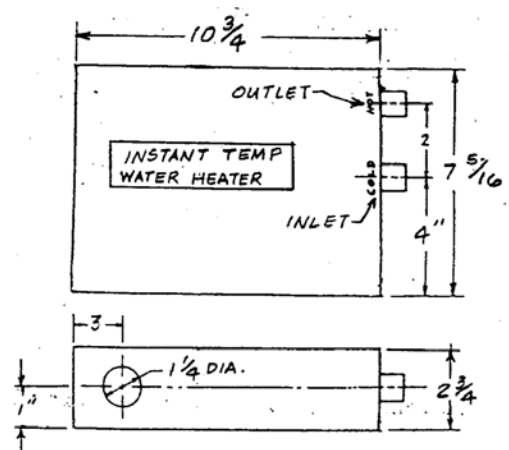
(Before installation, compare electrical needed for the model of heater selected)

TABLE 1

Model	Wattage	Voltage/AC	Breaker	Model	Wattage	Voltage/AC	Breaker
E-30	3000	110-120	30	E-70	7000	208	40
E-30	3000	208	15	E-70	7000	220-240	40
E-30	3000	220-240	15	E-70	7000	277	30
E-30	3000	277	15	E-80	8000	208	40
E-46	4600	208	30	E-80	8000	220-240	40
E-46	4600	220-240	20	E-80	8000	277	30
E-46	4600	277	20	E-90	9000	220-240	40
E-60	6000	208	30	E-90	9000	277	40
E-60	6000	220-240	30				
E-60	6000	277	30				

Instant-Temp Specifications:

- Dimensions: 10 3/4 x 7 5/16 x 2 3/4
- Weight: 8 lbs
- Materials: Rugged Steel housing, plastic element Assembly with nichrome parts
- Color: White
- Inlet/Outlet: Female 1/4 NPT Standard Pipe Thread
- Pressure Requirements: 45 PSI (20-40 PSI LP Models)
150 PSI maximum. No pressure relief valve needed, unless required by local code.
- Maximum Operating Temperature: 140 °F
- Flow Switch Activation: Heating Coil switch activates at 1.0 GPM
And deactivates at .65 GPM
- Listings: UL, IAMPO



THE MANUFACTURER OF THIS WATER HEATER WILL NOT BE LIABLE FOR ANY DAMAGES DUE TO THE FAILURE TO FOLLOW THESE INSTALLATION AND OPERATION INSTRUCTIONS

CAUTION:

BEFORE BEGINNING THE INSTALLATION:

- A) Turn off circuit breaker to avoid dangerous electrical shocks.
- B) Turn off water supply.

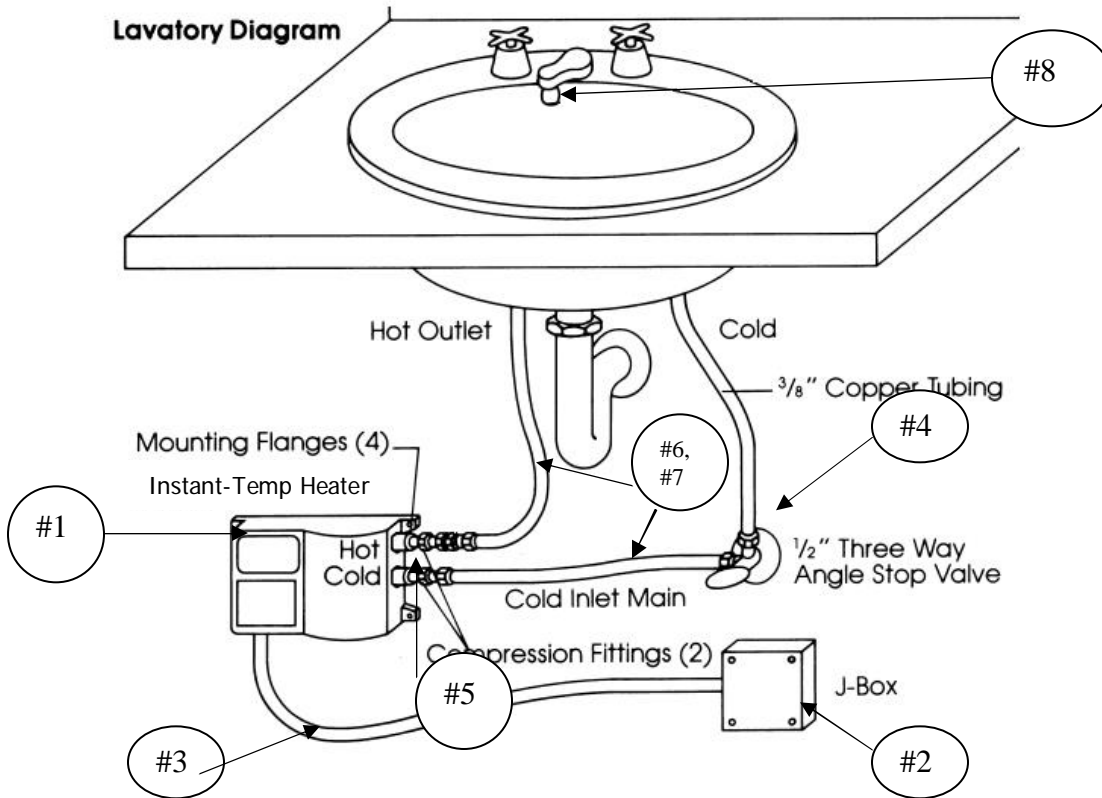
1. Remove heater cover. Attach conduit to the conduit through electrical access hole. Then feed wires. Do not attach wiring yet.
2. Mount unit horizontally against the wall so label reads correctly (See Fig. 1). Mount with four screws through the mounting holes located on the base plate housing using molly anchors or fasteners. **CAUTION:** Heating elements may burn out if unit is not mounted horizontally.
3. Connect plumbing. Use 1/4 inch tapered national pipe thread at cold-water inlet and hot water outlet (See Fig. 1). Use compression fittings for ease of installation and possible servicing. Do not apply heat to these fittings.
4. Run water through the unit to expel all air bubbles. Check for leaks at all fitting joints.
5. Connect wiring. Attach ground wire to center terminal and hot wires to outer terminals (See Fig. 3).
6. Install cover. Install the (2) cover mounting screws. Turn on circuit breaker. The unit is now ready for use.
7. The LED indicator located on the front cover will indicate that the power is "on". Local plumbing and electrical codes must be followed in this installation of water heater and the accessories.
8. Failure to comply with code requirements voids warranty.
9. **Optional** (if potentiometer is to be used, install at time of installation; see page 3 for further instructions):
Mount potentiometer to wall using bracket supplied as shown in diagram
 - a. Connect the quick connect of the potentiometer to the connection found on the lower right side of the heater.

IMPORTANT NOTES:

Air in the heater may cause the elements to burn out. If the water lines are drained, allowing air in the heater, be sure to use the following start up procedure.

1. Turn off electrical supply at circuit breaker.
2. Turn on water supply.
3. Expel all air from lines and heater by turning on the faucet.
4. Turn on electrical power supply at circuit breaker.

Figure 1 Heater Installation



ITEMS NEED FOR INSTALLATION (Fig. 1)

ITEM PART NO.	NAMES	QTY	DESCRIPTION
1.E - _ _	1. Chronomite Instant-Temp	1	As shown in figure 1
2.	2. Electrical junction box		
3.	3. Electrical conduit	1	1/2" conduit, length as required
4.	4. Dual outlet angle valve	1	1/2" female Pipe x 7/16" comp. x 3/8" comp. x Brass Craft PN R2701R-RGH or equivalent
5.	5. Compression fittings (supplied)	2	3/8" compression fittings x 1/4" Male Pipe
6.	6. Copper or flex tubing	1	3/8" OD, 5" long (keep short)
7.	7. Copper or flex tubing	1	3/8" OD, length as required (keep short)
8.A-212	8. Faucet Flow Control/Dual Thread	1	15/16" Male, 55/64" Female A-212 for Standard Flow Models or 15/16" Male, 55/64" Female L-212 for Low Flow Models (See Figure 2)
9.	9. Potentiometer (optional field temperature control)	1	2 3/16" x 4 3/16" x 3/4" (See Figure 4)

Items 1 and 8 are supplied

Note: C = Copper; MP = Male Pipe; FP Female Pipe; STD -Thread; Comp = Compression Fittings

OPERATION INSTRUCTIONS:

Turn the hot water faucet to activate the flow switch. The flow switch activates at one gallon per minute (GPM) and deactivates at .65 gallon per minute.

If you increase the flow rate the water will become cooler. Cold water can always be mixed when using a two handle faucet.

Once you decrease the flow rate to 0.65 GPM the unit will deactivate. The microprocessor will supply the correct amount of power (amperage x voltage) to maintain the temperature at the pre-selected temperature with varying flow rates.

>Periodically inspect the supply lines, connections and heater for any moisture, corrosion or other potential preventable problems.

HOW THE INSTANT-TEMP WORKS:

The steel case houses a series of ingeniously designed coils that instantly heats water as it flows through the vessel. A unique power switch automatically applies electrical current to the coils when hot water is being requested. The electrical current is not applied when the heater is not in use. The microprocessor maintains a constant output temperature at the pre-selected temperature.

FLOW CONTROLS SUPPLIED

You may want to install the supplied flow control in your design. The high quality Omni flow controls allow the water heating system to operate more effectively. The supplied 2.0 GPM faucet flow control assures the flow rate will not exceed 2.0 GPM. However, less water can always be used, and they will save water and energy. Consumers can mix the cold water as with a conventional system.

FLOW CONTROL MODELS

Standard Flow Models	GPM	Low Flow Models	GPM
A-212 (Male/Female)	2.0	L-212 (Male/Female)	0.5

FLOW CONTROL SPECIFICATIONS

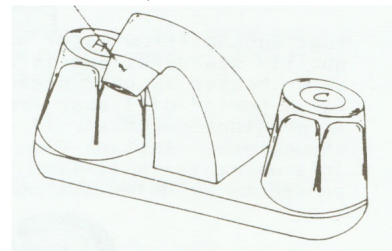
Material: Chrome plated, brass housing.
Threading: MODEL A212 and L212 have Male (outside) threads for faucets with 15/16" Female threads and 55/64" Male threads.

***Flow controls are adaptable to other thread configurations.**

Please call factory if an adapter is needed.

FIGURE 2

FLOW CONTROL INSTALLATION
(See Parts List #8)



Potentiometer (Optional Field Temperature Control)

The potentiometer allows the factory preset temperature of the heater to be changed in the field. The potentiometer will adjust water temperature between 70°F and 120°F providing the wattage of the heater supplied is capable of producing the temperature increase. See temperature chart for each model on page 4 of installation sheet to determine the temperature range of the heater installed.

The Instant-Temp heater will default to original factory preset temperature if the potentiometer is disconnected. If the potentiometer is not needed, remove the front cover of the housing and simply tuck the connector between the microprocessor board and the bottom of the back housing, Replace the front of the housing to secure the internal parts.

When using the potentiometer please use the following installation and operation instructions:

1. Mount potentiometer to wall using bracket supplied as shown in figure 4.
2. Connect the quick connect of the potentiometer to the connection found on the lower right side of the heater.
3. To increase temperature:
 - a. Loosen nut
 - b. Using a screwdriver, turn screw in small increments clockwise (to the right)
 - c. Once temperature of the water is acquired, tighten the nut
4. To decrease water temperature:
 - a. Loosen nut
 - b. Using a screwdriver, turn screw in small increments counter clockwise (to the left)
 - c. Once temperature is acquired, tighten the nut

TEMPERATURE INCREASE ABOVE INCOMING WATER TEMPERATURE

MODEL	VAC	0.5GPM	1.0 GPM	1.5 GPM	2.0GPM
E-30	208	41°F	21°F	14°F	10°F
E-30	220-240	41°F	21°F	14°F	10°F
E-30	277	41°F	21°F	14°F	10°F
E-46	208	63°F	31°F	21°F	16°F
E-46	220-240	63°F	31°F	21°F	16°F
E-46	277	63°F	31°F	21°F	16°F
E-60	208	82°F	41°F	27°F	20°F
E-60	220-240	82°F	41°F	27°F	20°F
E-60	277	82°F	41°F	27°F	20°F
E-70	208	95°F	48°F	32°F	24°F
E-70	220-240	95°F	48°F	32°F	24°F
E-70	277	95°F	48°F	32°F	24°F
E-80	208	109°F	54°F	36°F	27°F
E-80	220-240	109°F	54°F	36°F	27°F
E-80	277	109°F	54°F	36°F	27°F
E-90	220-240	122°F	61°F	41°F	31°F
E-90	277	122°F	61°F	41°F	31°F

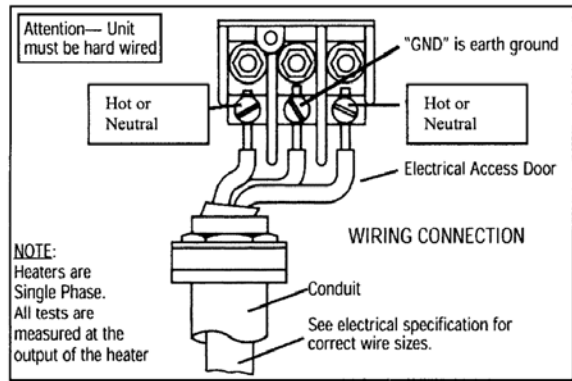


Figure 3 Wiring Connections

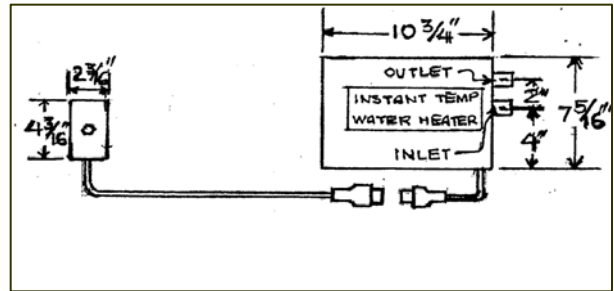


Figure 4 Potentiometer Connection

Microprocessor limits temperature increase according to the pre-selected temperature

TROUBLE SHOOTING GUIDE:

Your Instant-Temp water heater has no internal user serviceable parts and should be returned to the factory for repair or replacement. Please contact factory for return authorization. If after following the Installation Instructions, your Instant-Temp does not heat water in accordance with this literature, please check the following:

1. **Check flow rate** – Controlling flow rate is essential to insure proper temperature rise. All Standard Flow Models require 1.0 GPM to activate and shut off t 0.65 GPM. All Low Flow models require 0.5 GPM to activate.
2. **LED Indicator** – If front panel LED does not illuminate check A/C breaker.
3. **Low Power** – Make sure of your exact voltage by using a voltmeter. You should obtain your reading off the two outside terminals located on the heater. Compare this reading against the voltage specified in the Installation Instructions. The center terminal is always the earth ground.
4. **Low Voltage** – The percentage of reduction in voltage will result in a like reduction in temperature rise.
5. **Low Amperage Draw** – Check amperage draw using an Amperage probe. Please compare your results with the Installation Instruction sheets (Table 1) to determine if the heater is operating correctly.
6. **Length of pipe** – Length of pipe run will affect the temperature at the faucet. The heater should be mounted no more than 12-18 inches from the point of use.
7. **Check Shut-Off Valve** – Check shut-off valve and make sure valve is open 100% to allow full water pressure to heater. Models require a minimum of 45 PSI. (Low pressure (LP) models require 20-45 PSI).
8. **Freezing** – Instant-Temp heaters must be drained and stored if in a location subject to freezing. Disconnect the inlet/outlet compression fittings and blow air through one side to the heater to assist draining. Failure to completely remove water from the unit will result in freezing and cracking.
9. **Problems?** – Call our toll-free hot line (800) 447-4962 or (626) 937-4270.

Exclusive 12-Month Warranty

Your Instant-Temp water heater has been engineered and built to the highest quality standards and is backed by a full, factory warranty. Every Instant-Temp water heater is guaranteed to be free from defects in material and workmanship for a period of one (1) year from the date of purchase. The above warranty applies to original purchaser if unit is installed to Chronomite Laboratories, Inc.'s Installation Instructions. Chronomite Laboratories, Inc. will repair or exchange parts at the factory at no cost. This warranty is limited to repairing or replacing said products which prove to be defective upon factory inspection FOB City of Industry, CA

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