

CONGRATULATIONS, and sincere thanks from the TEMTROL deltaT Inc. family for purchasing the world's most advanced hot water recirculation / circulation / on-demand system ever built. REDYTEMP® OPTIMIZER is engineered with 21st century technology to maximize efficiency, comfort and water savings. The REDYTEMP® OPTIMIZER system provides an instant (Redy) means of optimizing the water temperature (Temp) throughout your home, giving your entire family the convenience of instant hot water at your desired temperature and readiness. And, by using the REDYTEMP® OPTIMIZER system, the conservation of our earth's precious water supply is an added benefit.

It has always been our goal to offer consumers the best technology, the highest quality in a homeowner friendly appliance that will supply many years of service and convenience to discriminating consumers. We extend our appreciation to you for incorporating the REDYTEMP® OPTIMIZER HOT WATER RECIRCULATOR into your household appliances, and trust that you too will want to be added to our list of satisfied customers.

Sincerely,

The RedyTemp Family

NOTE: A small amount of water, if any, in your REDYTEMP® OPTIMIZER is the result of QC testing. In keeping with Green Friendly product guidelines whenever possible packing materials, i.e. bags, shipping container, bubble wrap, foam popcorn, etc are recycled from part shipments we receive. Recycling reduces needless land filling, is good for the environment and should not be mistaken as indicators of being a used product.

Inspect and immediately report any damage or concerns of quality upon receipt by calling the below number.

Thank you.

A Product of Temtrol DeltaT Inc.
Ph 760-967-4133 Fax 760-754-1963
www.RedyTemp.com

ON-DEMAND PUSH BUTTON OVERRIDE CONTROL INSTALLATION **DO NOT** CONNECT TO HOME PHONE JACK OR TELEPHONE (doing so may damage unit and will void warranty)

The REDYTEMP® OPTIMIZER is engineered with single-cycle override capability or On-Demand hot water delivery via a momentary contact switch or a wireless momentary contact control device depending on the owner's desired operation.

The installation is simple and easy requiring a "momentary contact" switch or "NON-ILLUMINATING" (WITHOUT LIGHT BULB or it will always be enabled) doorbell button available at home improvement / hardware stores for around \$2.00. You will also need a single 2 wire or 4 wire phone cord easily available at 99 cent stores or electronics stores.

Simply cut the connector off one end of the phone cord, strip and connect the two middle wires within the cord to the momentary contact switch / doorbell switch connection screws. Temporarily unplug the main power cord from the back and then plug the opposite end of the phone cord into the REDYTEMP® OPTIMIZER. By pressing the button, "while in OFF-SCHEDULE" operation AND when the water temperature is below set point, the REDYTEMP® OPTIMIZER will override the controlled device and run for ONE (1) cycle only (until temp equals set point) and stop.

It is easy to imagine the simplistic installation for multiple switch installation throughout your home using a multi-phone jack connector and run multiple switches within your home. Thus, enabling operation from multiple locations throughout your home.



In keeping with Temtrol Delta T's tradition of "industry first's", we have enclosed an awareness safety sticker. This sticker is meant to notify any person before turning off the homes water supply that a recirculation system is installed and must be turn off before shutting off water supply to the home. **NEVER ALLOW REDYTEMP OPTIMIZER TO RUN WITHOUT WATER PRESENT IN THE PIPES. DOING SO MAY DAMAGE UNIT AND WILL VOID THE WARRANTY.** Place this sticker(s) or other signage in clear view of water heater and home main water supply shut-off valve . Additional printouts of this label can be downloaded / enlarged / printed from the below website address. We recommend protecting any signage / printout with document protectors or covering with clear tape.

www.redytemp.com/STOP_BEFORE_CLOSING_WATER_VALVE.jpg



OPERATING INSTRUCTIONS

AUTOMATIC SCHEDULED OPERATIONS:

Utilizing the supplied timer, REDYTEMP® OPTIMIZER can be scheduled to have hot water ready during your chosen time periods optimizing your lifestyle and water savings.

MANUAL / SWITCHED OPERATION:

Wireless wall switch controllers can replace the timer as a means of operation, including X-10 home automation products to turn the unit "ON" or "OFF" manually.

PUSH-BUTTON / TIMER OVERRIDE / ON-DEMAND OPERATION:

By installing a momentary contact switch (doorbell button) the REDYTEMP® OPTIMIZER can be operated on a single cycle basis as well as allow operation during scheduled-off time periods. Purchase any standard 2 or 4 wire phone cord. Cut one end of the phone cord off and connect the two middle wires from the phone cord to any momentary contact switch. Plug the other end of the phone cord into the phone jack on the front of the REDYTEMP® OPTIMIZER.

WIRELESS / REMOTE CONTROL:

REDYTEMP® OPTIMIZER can be operated "wirelessly" by unplugging the timer and replacing it with any number of wireless / remote outlet control or X-10 home automation devices available at most home improvement stores and the internet.

CONTINUOUS OPERATION:

Can be set for continuous operation by removing the timer and plugging in the short white cord to where the timer was plugged. Now the unit will function 24 hours a day.

TEMPERATURE CONTROL:

Turn the adjustment knob clockwise to increase the temperature cycle zone, counter clockwise to decrease. Most homeowners set their dial to between the 1 o'clock to 3 o'clock positions on the dial. Finding your homes unique delta-T "sweet spot" can be achieved by following this basic rule: If you turn on the "COLD WATER" faucet where the unit is installed and you get more than 2-3 seconds of "warmish" water then simply turn the temperature control knob counter clockwise "just a hair". Wait 1 hour for the homes plumbing to adapt to any new settings. Adjust the knob clockwise if the water from the hot water faucet is not hot enough. Setting the temperature dial "too high" will cause "hot" water to be placed into the cold line.

PIPE FREEZE PROTECTION:

REDYTEMP® OPTIMIZER can "assist" in preventing pipes from freezing by setting the temperature control dial to lower settings. If needed relocate the temperature probe to the area of pipe with the highest threat of freezing. And place the unit in continuous operation mode.

VACATIONS / DISABLED OPERATION:

When going on vacation or long periods of no hot water usage or any other time when hot water or no water will be available, simply unplug the power cord from the wall outlet.

PUMP CYCLES / OPERATION:

Many factors influence pumping cycles, i.e. outside temperature, length of water travel, diameter of pipes, pipes in cement slab/foundation, insulated / non-insulated pipes. Anticipating hot water usage periods accurately and using a control which best fits your lifestyle is the second part to an optimized hot water system. A person who travels a lot may find that using motion sensors or sound sensors more efficient than using a timer. One proud owner was known to use "The Clapper" set in burglar mode. The Clapper would activate the REDYTEMP® OPTIMIZER in the master bathroom upon hearing the CUSTOMERS morning alarm clock. Adjusting the sound sensitivity on The Clapper was key to preventing false starts. With the right temperature settings and control type homeowners can greatly improve their hot water comfort and convenience saving thousands of gallons of water each year.

PRECAUTIONS

Before operating the unit, please read this instruction guide thoroughly and with understanding before handling / installing unit. Keep this guide for future use.

IMPORTANT SAFEGUARDS

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only. Have a dry towel at the ready when installing or uninstalling unit to wipe up any water on unit or area of installation.

When using electrical products—especially when children are present—basic safety precautions should always be followed, including;

- Operate the unit only on 120—Volt AC.
- **Unplug the unit from the wall outlet when it is not going to be used for an extended period of time.** To disconnect the cord, pull it out by grasping the plug. **Never pull it by the cord.**
- Do not handle the plug or cord or unit if water is present on floor, near unit's power connections or with wet hands. Dry area's thoroughly before connecting or disconnecting to / from power outlets.
- Never operate this product if it has a damaged cord or plug; if it is not working properly; or if it has been dropped or damaged.
- Use this product only for its intended use as described in this instruction guide
- Under no circumstances should REDYTEMP® OPTIMIZER's pump be allowed to run without making sure that valves in the suction and discharge lines of the pump are open allowing for circulation to exist

WARNING: WHEN USING THIS PRODUCT PLEASE PAY CLOSE ATTENTION TO THE FOLLOWING SAFETY TIPS TO ACHIEVE THE BEST RESULTS FROM YOUR UNIT.

- Do not open or remove the enclosed cabinet. The unit has been tested and preset for normal operations. Do not alter, change or tamper with the unit or the water flex lines after installation.
- REDYTEMP® OPTIMIZER performs well with the hot water heater temperatures set at a minimum 120 F. **Some states prohibit water heater temperatures to be set above 120 degrees F to avoid scalding. If the water heater is set below 120 degrees F, you may experience warm water at your cold water faucet.**
- Turn-Off / Unplug the unit whenever the hot water heater or **water supply is shut off.** We recommend placing a 3x5 card next to shut-off valves at the heater and main shut-off valve stating: **STOP! Unplug Recirculation Pump Before Closing This Valve!** Continued use of the unit in this condition will result in damage of the pump and VOID WARRANTY.
- If a water leak occurs, follow safety instructions above before disconnecting the electrical plug from the wall outlet. Then turn-off the hot and cold water outlet valves.

WARNING

Proprietary information: The product(s) and documentation provided hereunder are TEMTROL DELTA T, Inc. trade secret, patented proprietary products and information. Customer agrees not to disclose such materials to any other party and not to reverse engineer or use the products in any manner except as contemplated in this User's Guide.

TANKLESS WATER HEATERS

NOTE: Some tankless water heaters have flow limitations set by the manufacturer. Using flex hoses ensures flow limitations are not exceeded. When no flex hoses are used flow rate can be manipulated using the isolation valves **ONLY IF NEEDED.**

“UNDER-SINK” INSTALLATION INSTRUCTIONS

To ensure proper installation, please read these instructions completely before proceeding. Your REDYTEMP® OPTIMIZER unit is fully assembled upon delivery. Remove unit from the shipping container and examine the contents for any visible damage. Write the unit's Serial number located behind the timer on the warranty / registration card.

Examine the plumbing system in your home to determine the furthest fixture from the hot water heater. Test when hot water has not been used for an hour or more. Turn the hot water faucet on at this fixture and wait until hot water arrives. If this “is” the fixture at the end of the line, hot water should be readily available at other fixtures leading back to the water heater. Repeat the test at another fixture if the results prove incorrect.

NOTE: Some homes may have two hot water main supply lines, requiring two REDYTEMP® OPTIMIZER units or a single unit on the most active line.

Remove all articles from under the desired plumbing fixture. Have a towel and small bucket available for any water spills.

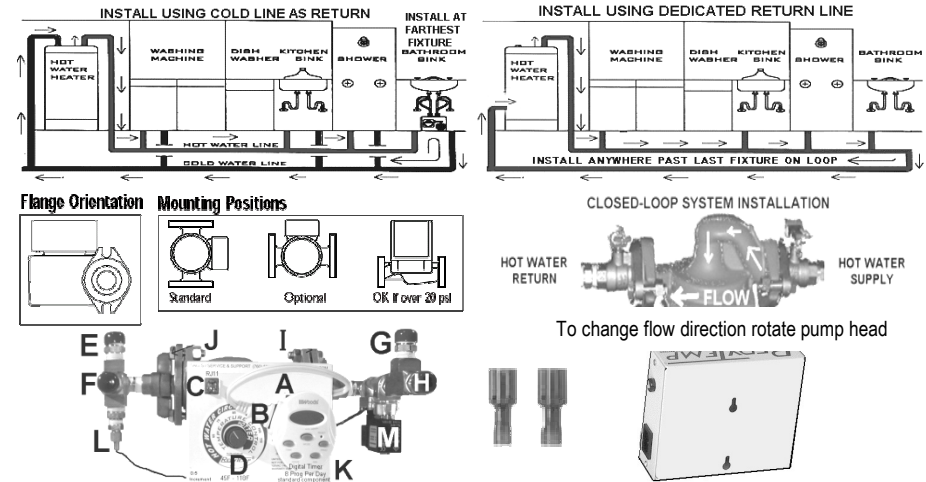
1. Shut the hot and cold water supply valves under the sink by turning both valves completely clockwise. (45 seconds)
2. Turn the hot and cold water faucets to the “Open” position. Make sure there is no water flow through the faucets before proceeding. (15 seconds)
3. Disconnect the existing supply lines or tubes “faucet end ONLY” from the faucets. An 8” crescent, 7/8” wrench or Basin Wrench (preferred), can be used for this job. (10 minutes)

NOTE: Fittings can be purchased that allow connecting the shutoff end of existing faucet hoses to the unit if disconnecting the faucet end is difficult. These are available at home improvement stores. Just tell them “I need an adapter to go from (your hose size) to 1/2” male NPT connection.”

4. Find the two flex lines provided (N models only) and connect and tighten one to each faucet adapter. (5 minutes)
5. Set the REDYTEMP® OPTIMIZER unit under the sink. **TAKE CARE NOT TO STRIP THREADS ON UNIT CONNECTORS.** Connect HW supply (left side) and CW supply (right side) flex lines to the units HW supply and CW supply connectors. Connect HW and CW faucet flex lines to the units HW and CW faucet connectors. Use wrench to tighten connections, but do not exceed more than a half turn after they first get snug. Double check all connections before proceeding. (5 minutes)
6. Turn on the hot and cold water faucets then fully OPEN hot and cold water supply valves by turning them counter clockwise. **SLOWLY** fully open (horizontal position / inline with pipe) the two green-handled isolation valves (one on each side of the pump) allowing water to fill pump. **Let water run 30 seconds or more until all air within the line is completely purged**, then turn off both faucets. Inspect all connections for any leaks. Wipe up all water from unit, floor and hands. **DO NOT PROCEED WITHOUT FIXING ANY LEAKS.** (2 minutes)
7. Find the disconnecting power cord provided and plug it into the power inlet socket on the side of the units control box. Plug the power cord into existing (some area electrical codes may require ground-fault circuit interrupters -- GFCI or GFI) 115 volt AC outlet. (30 seconds)

When installing under a kitchen sink, the outlet of choice is often controlled by the garbage disposal switch and may not allow usage correctly. If this is the case consider sharing the outlet used by the dishwasher. If there is no outlet in the sink cabinet, consult a licensed electrician for installation of an outlet.

Check the timer switch to make sure the unit is “ON”. The pump should start circulating the cold water out of the hot water lines. **THOROUGHLY PURGE AIR FROM SYSTEM BY OPENING / CLOSING COLD WATER FAUCET.** (30 seconds)



All wires have quick connects pre-installed making strategic relocation of temperature probe and / or wall mounting control box easy. To wall mount control box ensure main power cord is unplugged from control box. Remove 2 screws on each side, pull off cover. Unscrew loosen base plate retaining screws and lift off base from pump. Mount to wall using appropriate hardware. Replace control box cover using 4 screws. Mounting of the pump is not required. If desired use metal “L” brackets or metal strapping tape to suffice depending on the environment.

“CLOSED LOOP” SYSTEM INSTALLATION

This installation should only be performed by a certified plumber or other qualified professional with adequate knowledge of household water distribution systems. Any questions should be answered before beginning the installation. Prepare a bucket and towels for use during installation. Decide on point of installation for pump and mounting position. For maximum green efficiency, consider locating the water contacting temperature probe “L”(see above illustration) just after the last hot water usage point on the loop. Doing so minimizes pump cycle runtime, demand placed on water heater and eliminates wasteful end-of-loop pipe heating.

Shut off home water main. Drain home hot water supply by opening hot water faucets. Drain water heater if installing to drain valve. Follow your water heaters safety instructions for proper shutdown and restart.

Orientate the pumps supply and return to match your loops direction of flow. See above illustration. Ensure no debris exists in the lines before making connections. Connect using brass bushings or nipples as needed. Never connect brass with iron pipe directly. Chemical reaction can occur and degrade this type of connection. Appropriate connectors are made for these conditions and are readily available at home improvement stores and plumbing warehouses. RedyTemp flanges have 1/2” brass connections.

With both isolation valves connected to loop and **CLOSED**. **OPEN** the home main water supply and check for leaks. If, no leaks exist, **slowly** open both isolation valves to allow water to fill the pump. Open all faucets and showers for 30 seconds to evacuate air from the system. Plug-in the main power cord to the control box “K” and set desired temperature “D”. When no air is in the system the pump should run silently. Don’t hesitate to call with questions or concerns using number on the unit label or inside this manual. Save this manual for future reference. Pull out timer, write unit model / serial number on registration card. Program timer using included timer instructions. Finish filling out registration card. After filling out registration card check one final time for any leaks and that hot water comfort is at desired temperature.

Email two or more, clear digital pictures of your installation to info@redytemp.com and we'll post it on the internet for others to see.