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RainSoft[®]
Water Treatment Systems

**COMPUTER "Q2" VALVE
WATER TREATMENT SYSTEM**

**Owners
Manual**

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ENJOYING YOUR NEW WATER TREATMENT SYSTEM

You have purchased the finest water treatment system made. It will give you years of soft, crystal clear water, with only occasional attention.

To make using, operating, and maintaining your unit as enjoyable as possible, please read this Owners Manual. It contains all the information you need, presented in a clear, concise manner.

This unit was shipped from the factory ready for operation, and will start delivering filtered, treated water immediately.

USING CONDITIONED WATER

AT THE BATHROOM SINK: Use far less soap! After rinsing, you may think that your skin still feels slick or "soapy". Actually, this feeling is not soap at all, but the natural feeling of *clean* skin! When your skin dries, it will feel soft and moist—like you used lotion!

IN THE BATH OR SHOWER: Use a bath mat to guard against slips and falls. With conditioned water, there is no sticky hard water scum to provide traction.

IN THE KITCHEN: Try using less coffee. You'll find less is required, and your coffee will be smooth and rich. If you do dishes by hand, try using a mild, pure soap and see the difference it makes on your hands. If you have an automatic dishwasher, try different cleaning products to find the one that does the best spotless job.

IN THE LAUNDRY: Here again, use less cleaning product. If you are now using a detergent, try using a genuine soap.

OPERATING YOUR UNIT

When your unit is properly adjusted to your water hardness and use of water, the only further attention required is the regular addition of salt. For maximum satisfaction, add salt before the salt container is empty. Two kinds of salt are recommended:

1. Water softener block salt is pure salt pressed into the shape of blocks. It is recommended because it is low in cost, pure, and will not cake.
2. Rock salt is mined and crushed. It is low in cost, but contains impurities which deposit in the brine tank, and must be cleaned out eventually. Use the largest size rock salt obtainable in your area, preferably #2 rock.

Astro owners only: Water softener salt tablets are pure salt pressed into a candy mint shape. They are recommended for Astro models only.

DO NOT USE compressed granulated salt products such as "pellets", "ovals", "cubes", or "nuggets", as they will lose their shape and compress into a solid mass. Do not use granulated or flake salt.

If there is iron in your water, it is wise to provide preventive maintenance by using block salt containing an iron remover. Or, you can add iron remover resin cleaner when you add salt (*or more often if necessary*) to prevent the treatment media from becoming iron fouled. USE CAUTION AND FOLLOW INSTRUCTIONS CAREFULLY IF YOU USE A CLEANER CONTAINING NITRIC ACID OR OTHER STRONG OXIDIZING AGENT.

From time to time, you may also need to reset the Timer. If you change from Standard to Daylight Savings Time, you may want to reset the timer, just as you do the other clocks in your home. If your water hardness changes—or if your water usage changes—you may want to change the number of regenerations per week.

REGENERATION TIME

PRESET REGENERATION TIME

The "Q2" valve must be set to your choice of regeneration time. You'll probably want to set the regeneration for a time when it is likely that water will not be used.

In the case of a home, you may set regeneration for a time when the family is sleeping. In the case of a business, set regeneration for a time when the business is unoccupied.

When the "Q2" valve starts a regeneration, it first puts treated water into the salt container. Then it waits 2 hours to dissolve the salt and make a salt brine. During this time, the output water is treated, and water can be used. Backwashing will vary from 6.0 to 14.4 minutes. The rest of the cycle takes 63 minutes (units over 45,000 grains in size take longer.)

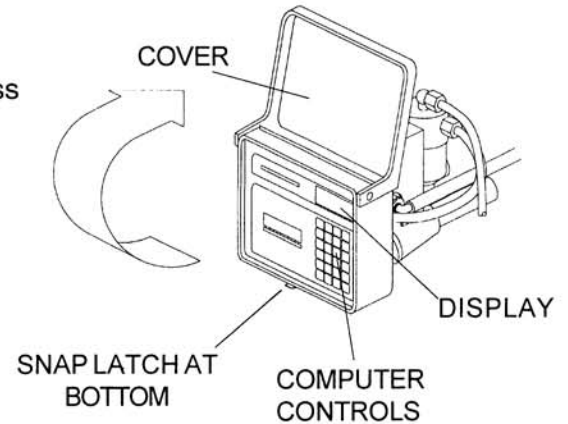
EXHAUSTION REGENERATION TIME

If the treatment media becomes 90% exhausted prior to the **PRESET REGENERATION TIME** (due to unusually high water usage, etc.) a regeneration cycle will start immediately. Treated water will be available for the following 2 hours, up to the limit of the remaining 10% of the unit's capacity.

HOW TO SET TIMER

Open the timer enclosure and swing the cover upwards to access the computer controls. The alarm will sound when the unit is first plugged in (a continuous tone). It will also sound after the power is off, and then comes back on, if the battery is low.

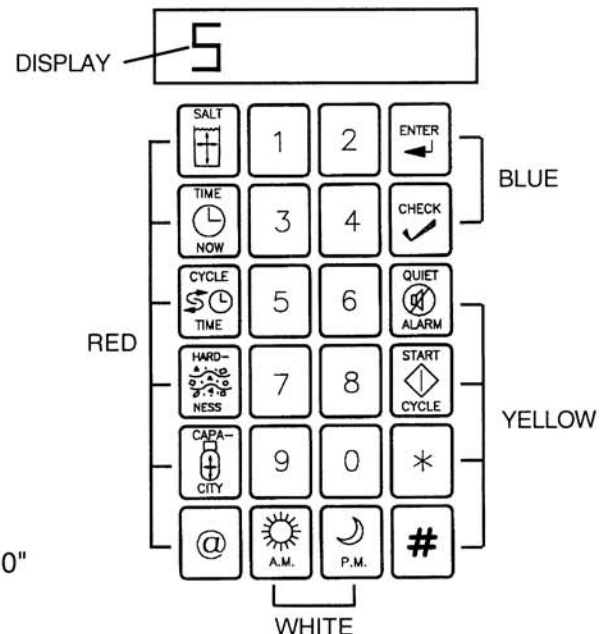
To quiet alarm, press the yellow button **QUIET ALARM**.



- When the unit is first plugged in, the display window will show a "prompt" letter, ("**S**" for Salt as shown at right) indicating that the timer is ready for you to set that function
 Press **SALT** (Red)
 Press Number of pounds of salt in the salt container (White)
 Example: 100 pounds: press "1", then "0", then "0".
 Press **ENTER** (Blue)

For Astro Units Only:

- After you have done that, the next prompt will appear: "**P**", for Present Time Now.
 Press **TIME NOW** (Red)
 Press Hour and Minutes-then **A.M.** or **P.M.** (White)*
 *NOTE: Noon is 12 PM, Midnight is 12 AM
 Example: 2:20 P.M., press "2" then "2", then "0" then "P.M."
 Press **ENTER** (Blue)



3. Then the prompt "**h**" will appear, representing the hour of Cycle Time.
 Press **CYCLE TIME** (Red)
 Press Hour only-then **AM** or **PM** (White)**
 **NOTE: Noon is 12 PM, Midnight is 12 AM
 Example: 1:00 A.M., press "1" then "A.M."
 Press **ENTER** (Blue)

4. Next, a capital "**H**" will appear, representing Hardness of the water supply.
 Press **HARDNESS** (Red)
 Press Total compensated Hardness of the untreated water supply in grains per gallon (White).
 (Note: To get "Compensated" Hardness - if there is iron in your water supply, add 5 grains to the hardness for each part per million of iron)
 Example: 15 grains Hardness: Press "1", then "5".
 Press **ENTER** (Blue)

6. Finally, the capital letter "**C**" will appear. This stands for the Capacity (size) of the unit in thousands of grains.
 Press **CAPACITY** (Red)
 Press Size of unit divided by 1000 (White)
 Example: 20,000 grain unit, enter "20": Press "2", then "0"
 Press **ENTER** (Blue)

Time Now will appear

+ (You can use water during regeneration, but it will be untreated raw water. You should avoid using hot water during regeneration, because you don't want untreated water mixing with all the treated hot water in your water heater.)

If you would like to check your settings

PRESS	DISPLAY SHOULD READ
SALT and then CHECK	S Number of pounds of salt
CYCLE TIME and then CHECK	h Hour of regeneration
HARDNESS and then CHECK	H Hardness
CAPACITY and then CHECK	C Size of unit divided by 1000

To reset any function at any time, simply press the appropriate buttons. A new setting automatically erases the previous setting.

NOTE: Always reset **SALT** (even if salt container is empty). Timer will not function properly if **SALT** is zero (0).

SETTING THE TIMER FOR PROBLEM WATER

If the hardness of the raw water is greater than 30 grains, softness of the effluent can be maximized by setting the regeneration to start at 60%, 70% or 80% of the unit's capacity. Follow the directions below.

(If, at any time, you get an "ERROR" display, simply repeat the procedure)

STARTING CAPACITY:

press **CAPACITY** (Red button). "C" is displayed
 press * (Yellow button). "CP" is displayed.
 press 60, 70 or 80 (White buttons). . .
 for example: 70%: press "7", then "0".
 press **ENTER** (Blue button).

NOTE: To return to the original starting capacity percent (33%) press "CAPACITY", then "*", then "0", then "ENTER".

If there is a great deal of iron (over 3 ppm), or sediment in the water, increase the backwashing time to 15, 20, 25 or 30 minutes. Follow the directions below.

(If, at any time, you get an "ERROR" display, simply repeat the procedure)

BACKWASH TIME:

press **CYCLE TIME** (Red button). "h" is displayed.
 press * (Yellow button). "hb" is displayed.
 press 15, 20, 25 or 30 (White buttons). . .
 for example: 20 minutes: press "2", then "0".
 press **ENTER** (Blue button).

NOTE: To return to the original backwash time, press "CYCLE TIME", then "*", then "0", then "ENTER".

TO CHECK SETTINGS:

PRESS
CAPACITY, then *, then check
CYCLE TIME, then *, then CHECK

DISPLAY SHOULD READ
CP + % of CAPACITY to start regeneration.
hb + minutes of backwash time.

NOTICE TO INSTALLER: IF THE ABOVE OPTIONS ARE UTILIZED; WRITE DOWN THE REGENERATION CAPACITY PERCENT AND BACKWASH TIME ON THE BLACK AND WHITE LABEL BELOW AND AFFIX THE LABEL ON THE INSIDE OF THE TIMER COVER.

SUPPLEMENTARY INSTRUCTIONS FOR RESETTING THE TIMER FOR PROBLEM WATER CONDITIONS:	
1. Press "CAPACITY" (Red)	1. Press "CYCLE TIME" (Red)
2. Press * (Yellow)	2. Press * (Yellow)
3. Press ___ then ___ (White)	3. Press ___ then ___ (White)
4. Press "ENTER" (Blue)	4. Press "ENTER" (Blue)

UNDERSTANDING YOUR EQUIPMENT ALARM TONES

LOW SALT ALARM

Each regeneration, the approximate amount of salt is calculated and subtracted from the amount you originally set into the memory of the timer. When the salt level in the timer memory drops below 30 pounds, an **intermittent beep** sounds at the conclusion of regeneration.

To silence the alarm, press **QUIET ALARM**.

Add salt to the salt container and set the timer for the new salt quantity.

SET-TIMER ALARM

A **continuous** alarm tone will sound when:

- a. The unit is first plugged in, or
- b. The electricity was off over 72 hours, the battery became exhausted and the electricity came back on.

In either case, silence the alarm by pressing **QUIET ALARM**, then set the timer.

DIAGNOSTICS

Your RainSoft "Q2" timer has several useful diagnostic features.

You can check it at any time for the following:

	PRESS
Capacity in Gallons	* and then 1
Gallons used since last regeneration	* and then 2
Gallons used before last regeneration	* and then 3
Hours since last regeneration	* and then 4
Salt used last regeneration	* and then 5

HOW TO REGENERATE MANUALLY

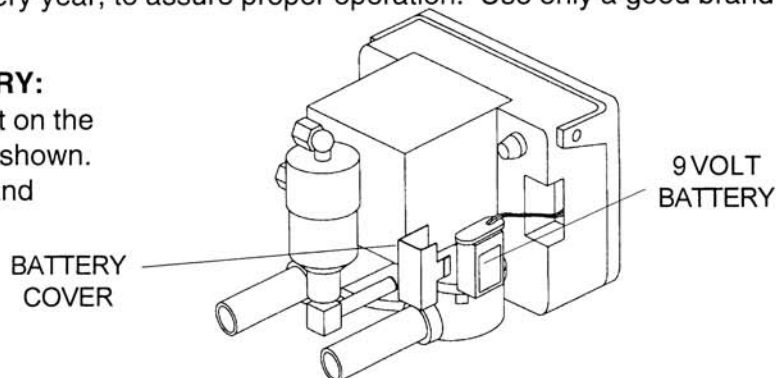
If you anticipate a larger than normal use of water, and a reading of diagnostic * -2 indicates a possibility of exhaustion (compare amount used, diagnostic * 2 with total capacity, diagnostic * 1) you may want to regenerate manually, to assure a fully regenerated unit to supply its maximum capacity. Simply press **START CYCLE**, and then press **ENTER**. A full regeneration will start immediately.

BATTERY BACK-UP

If your electricity goes off, and your battery is fresh all information in the timer memory is maintained. If your battery is exhausted, or in low condition, the dots on the display will flash continuously. The battery should be replaced every year, to assure proper operation. Use only a good brand of alkaline battery.

HOW TO REPLACE BATTERY:

Open the battery compartment on the rear of the timer enclosure as shown. Replace battery, close cover and reset timer.



Equipment Troubleshooting

(Note: See also "How to set the timer for problem water", page 5)

1. **CONDITION: HARD WATER** (Water may be **rusty** without being **hard**.)

Possible Causes

Cure

- | | |
|---|---|
| a. Unit not regenerating enough | INCREASE hardness setting |
| b. Water used during regeneration | Check CYCLE TIME (Did you reset for Daylight Savings Time? AM/PM?) |
| c. No salt | Refill salt container. |
| d. Caked salt. | Remove caked salt and refill with proper salt. |
| e. Not plugged in. | Plug in and set Timer correctly. |
| f. Slow Flow (drippy faucet, slow-filling toilet, reverse osmosis unit) flowmeter not rotating. | Check for leaks. Increase toilet refill flow. Increase setting of hardness. |

2. **CONDITION: RUSTY WATER**

- a. If the water is rusty **and** hard, the cause is generally the same as that which is causing hard water.
- b. If the water is rusty but **soft**, these are likely reasons why:
 1. **Iron deposits in your pipes and water heater** are being dissolved by the soft water. No immediate cure (unless you wish to clean your entire plumbing system with acid). Soft water will eventually clean out the system.
 2. **Your water heater may need to be drained.** A heater acts as a collector of sludge. This sludge should be drained off, from the valve at the bottom of the heater, once a month - or more often if necessary. Heater may also be rusty inside.
 3. **You may have soft brass valves in your home.** Some alloys of brass will color soft water yellow. There is no cure—just let the first gallon of colored water run down the drain.
 4. **Your city water supply may have unusually high iron.** This can be caused by:
 - (a) Hydrants being flushed
 - (b) Storage tank being flushed
 - (c) Repairs on water mains causing agitation of iron sludge in mains, or
 - (d) City water treatment plant not functioning properly.
 The water from your outside sprinkling faucets may be yellow. It is best not to use water when this condition exists. To do so will cause the treatment resin to become iron-clogged. Check with your city water department.
 5. **Iron content of your water may have increased.** It is not unusual for well water to increase in iron content. Consult your RainSoft® dealer for recommendations.

3. CONDITION: WATER SMELLS OR TASTES BAD

- a. **Magnesium anode rod in water heater.** Causes “rotten-egg” odor in hot water, under some conditions. Cure : Remove rod from heater. **WARNING:** Removal of anode rod in water heater may void water heater’s warranty.
- b. **Contaminated well.** Cure: Have your well sterilized.
- c. **Contaminated treatment tank.** Remove the Brine Line from the Brine Tank and insert it to the bottom of a quart of household bleach. Regenerate unit.

For removal of other strong tastes and odors, (except sulphur), install a Taste and Odor Filter ahead of the unit. For removal of sulphur odors, consult your dealer.

4. CONDITION: LOW WATER PRESSURE

- a. **Low pressure in city mains.** Check pressure at an outside sprinkler tap. Call City water department.
- b. **Low pressure from pump.** Check pressure at an outside sprinkler tap. Call your City water department.
- c. **Clogged strainer or sink faucet.** Cure: Unscrew and Clean strainer.
- d. **Valve in plumbing system partially closed or defective.**

5. CONDITION: SALTY WATER

Soft water normally has a “flat” taste, due to the limestone and iron being removed. Do not confuse this “flat” taste with saltiness.

IF WATER IS SALTY, OPEN COLD WATER FAUCET AND RUN UNTIL SALTINESS DISAPPEARS. DO NOT USE HOT WATER. IF HOT WATER IS SALTY, DRAIN HOT WATER FROM BOTTOM OF HEATER.

6. CONDITION: WATER RUNNING FROM DRAIN LINE

Unit is regenerating. Allow unit to complete regeneration. Reset timer to correct time if necessary.

**IF YOU REQUIRE SERVICE ON YOUR RAINSOFT
PRODUCT, PLEASE CALL YOUR LOCAL DEALER.**

**IF THERE IS DAMAGE TO PERSONAL PROPERTY DUE
TO PRODUCT MALFUNCTION, PLEASE FOLLOW
THESE INSTRUCTIONS:**

- 1. DO NOT REPAIR UNIT.**
- 2. DO NOT REPAIR DAMAGED PROPERTY OR MERCHANDISE.**
Damaged property or merchandise should be preserved "as is" for inspection by a properly credentialed Factory Representative. (Not a dealer or agent of dealer.)
- 3. NOTIFY CUSTOMER SERVICE-DAMAGE CLAIM DEPARTMENT, Elk Grove Village,** immediately by calling 1-800-860-7638 or 847-437-5539, followed by a confirming letter sent by registered mail to:

CUSTOMER SERVICE-DAMAGE CLAIM DEPARTMENT
RAINSOFT DIVISION OF AQUION PARTNERS L.P.
2080 E. LUNT AVENUE
ELK GROVE VILLAGE, ILLINOIS 60007

- 4. A FACTORY REPRESENTATIVE** will examine damage and determine liability of company.

**POSITIVELY NO CLAIMS WILL BE HONORED BY THE FACTORY
UNLESS THE ABOVE PROCEDURE IS FOLLOWED!**

Benefits will be provided by various types of RainSoft equipment when installed and operated according to manufacturer's recommendations. Operational, maintenance and replacement requirements are essential for the product to perform as advertised. All claims based on best available information at time of printing. Manufacturer makes no representations as to the suitability of this equipment for a particular application. Buyer relies entirely on dealer's recommendations in the purchase of this equipment. Independent RainSoft dealers may include, together with your RainSoft product, a product or component that is not manufactured by RainSoft or their parent company, Aquion Partners L.P. Any non-RainSoft product may be covered by the manufacturer of that product, and is not covered by the RainSoft warranty. Aquion Partners L.P. does not warrant that your RainSoft product and the non-RainSoft product will perform properly when used together, and assume no liability therefore.