

# OWNER'S MANUAL

**MODEL NO.  
625.348261**

**Caution:**

Read and Follow  
All Safety Rules and  
Operating Instructions  
Before First Use of  
This Product.

If you have questions when  
installing, operating or main-  
taining your filter, and when  
setting the timer, call this  
toll-free number...

**1-800-426-9345**

(M - F, 7 am - 8 pm, CST)

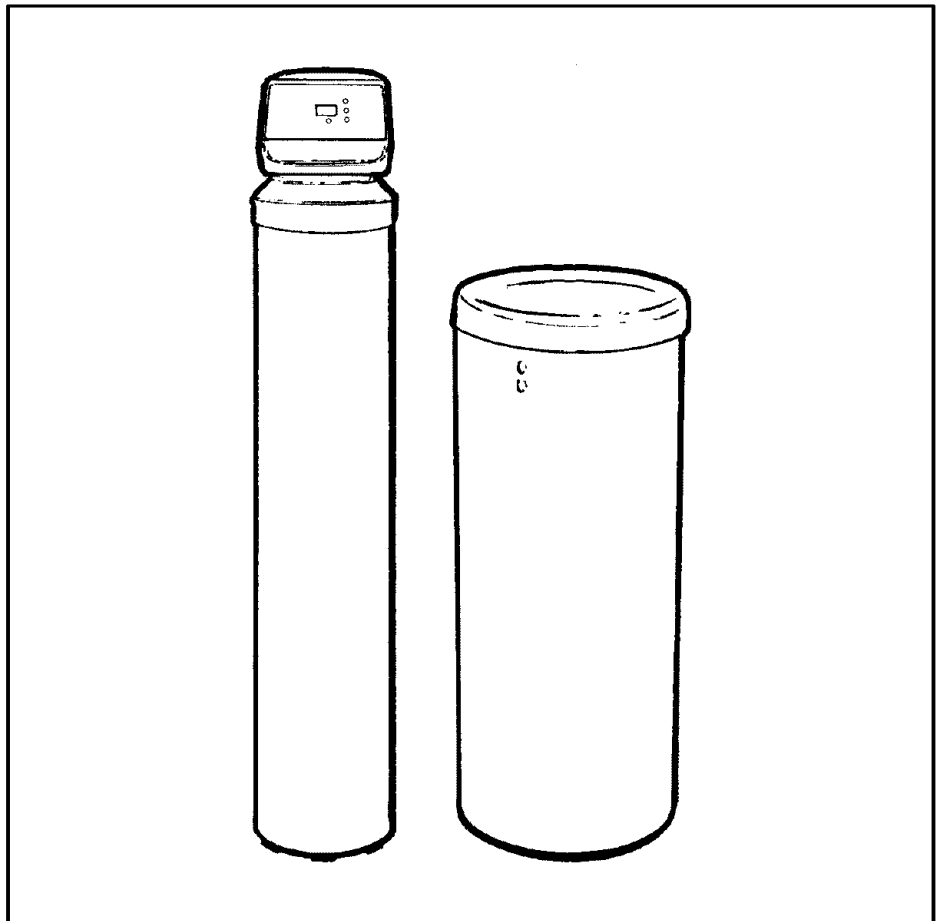
For repair or replacement  
parts, call this toll-free num-  
ber...

**1-800-366-7278**

See back cover for other  
Sears service numbers.

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

**SAVE THIS MANUAL**



## Tannin Water Filter

- ◆ Warranty
- ◆ Start Up / Setting Timer
- ◆ How It Works
- ◆ Care Of
- ◆ Specifications
- ◆ Repair Parts

**Sears, Roebuck and Co., 3333 Beverly Road, Hoffman Estates, IL 60179 USA**

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**SEARS RESIDENTIAL WATER FILTER**

**FULL ONE YEAR WARRANTY ON FILTER**

For one year from the date of purchase, when this filter is installed and maintained in accordance with our instructions, Sears will repair, free of charge, defects in material or workmanship in this water filter.

**FULL TEN YEAR WARRANTY AGAINST LEAKS**

For ten years from the date of purchase, Sears will furnish and install a new current model water filter tank or salt storage drum, free of charge, if either the tank or drum develop a leak.

TO OBTAIN WARRANTY SERVICE, SIMPLY CONTACT THE NEAREST SEARS SERVICE CENTER THROUGHOUT 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 have other rights which vary from state to state.

Sears, Roebuck and Co., D/817 WA, Hoffman Estates, IL 60179

If you want your water filter professionally installed, talk to your Sears Salesman. He will arrange for a 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. Customer shall also be protected, during installation, by insurance relating to Property Damage, Workman'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.

**FACTS AND FIGURES TO KEEP**

Fill in the blanks below and keep this book in a safe place so you always have these facts.

Water Filter Model No.† \_\_\_\_\_

Serial Number \_\_\_\_\_

Date Installed \_\_\_\_\_

Water Hardness \_\_\_\_\_ Grains Per Gallon

Iron Content \_\_\_\_\_ Parts Per Million

Tannin \_\_\_\_\_ Parts Per Million

pH \_\_\_\_\_ Taste And/Or Odor \_\_\_\_\_

Water Pressure \_\_\_\_\_ Pounds/Square Inch

Water Flow Rate \_\_\_\_\_ Gallons Per Minute

† The model number is on the rating decal, located on the rim, under the salt hole cover.

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## A. SAFETY GUIDES

▲ Read all steps, guides and rules carefully before installing and using your new water filter. Follow all steps exactly to correctly install. Failure to follow them could cause personal injury or property damage. Reading this book will also help you to get all of the benefits from your water filter.

▲ Your tannin filter will remove tannins from your water supply as described on page 4–2. Also see the specifications on page 4–1. It will not soften hard water, purify contaminated water, or make other unsafe water safe to drink. The tannin removal resin will foul or deteriorate if supply water exceeds any of the limitations as specified on page 4–1. Pretreatment may be needed.

▲ Protect the filter and piping from freezing. Damage from freezing voids the filter warranty. See page 3–3.

▲ Connect the filter to the house COLD water (120° max.) pipe only. **DO NOT CONNECT TO HOT WATER.** Hot water will damage inner parts and weaken or break the tank.

### CAUTIONS

PLEASE READ AND COMPLY WITH THE FOLLOWING GUIDES TO PREVENT DAMAGE TO THE FILTER OR OTHER PROPERTY, PERSONAL INJURY, OR POSSIBLE FATAL SHOCK.

▲ THIS FILTER WORKS ON 24 VOLTS ONLY. BE SURE TO USE THE TRANSFORMER INCLUDED, AND PLUG IT INTO A GROUNDED 120V OUTLET.

▲ Unplug the transformer right away if the power cable should become damaged or frayed. Make repairs before plugging back into the power outlet.

▲ Always unplug the filter from electrical power before removing outer valve covers.



European Directive 2002/96/EC requires all electrical and electronic equipment to be disposed of according to Waste Electrical and Electronic Equipment (WEEE) requirements. This directive or similar laws are in place nationally and can vary from region to region. Please refer to your state and local laws for proper disposal of this equipment.

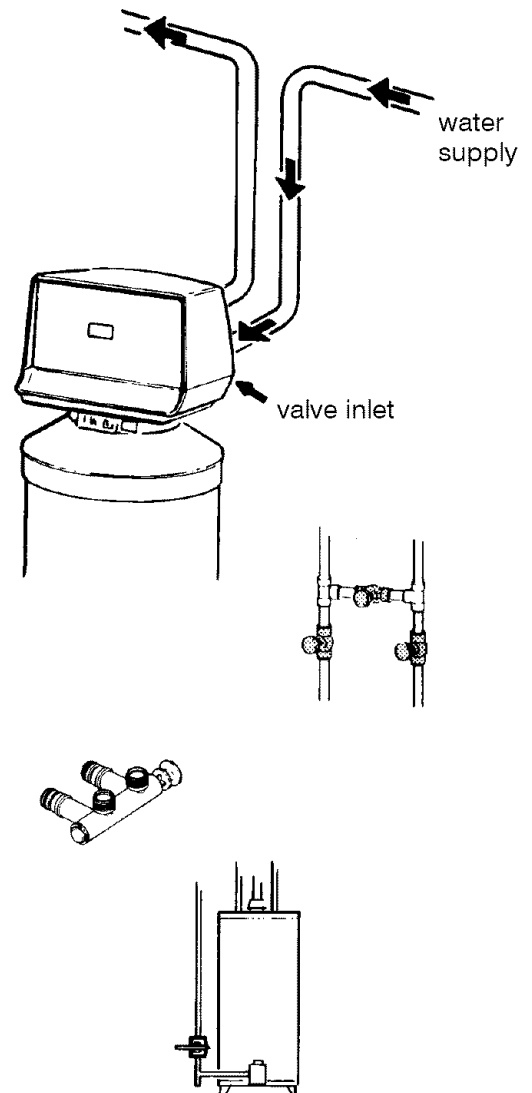
## B. CHECK LIST OF ALL STEP-BY-STEP GUIDES TO INSTALL

Refer to the Installation Manual, part number 7146611, for step-by-step guides.

To be sure you have done all the steps to install the filter, read the following list. Page numbers referred to are in the Installation Manual.

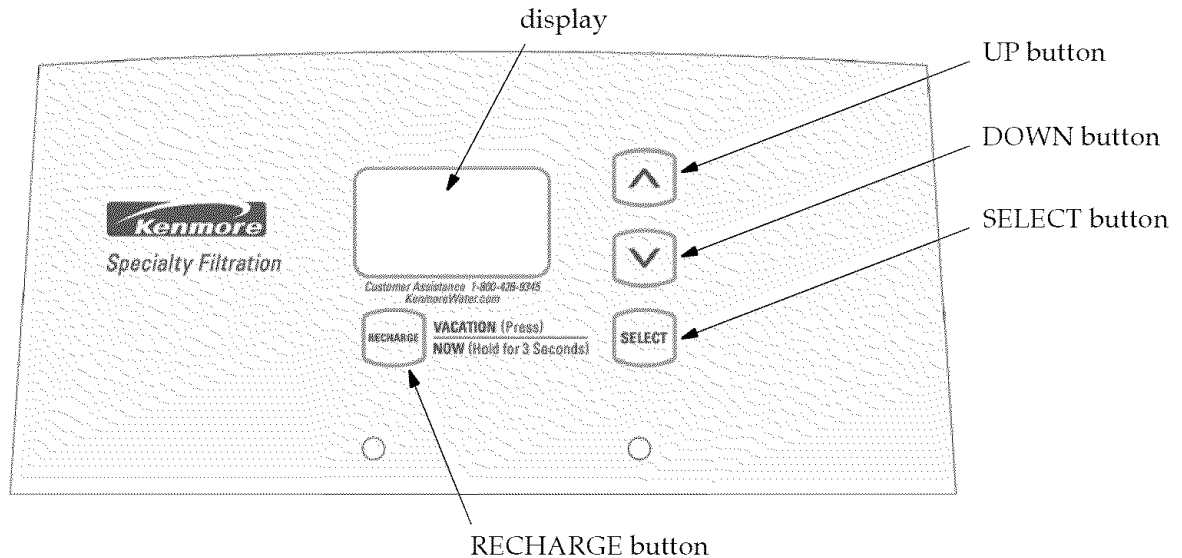
- ✓ Is the house water flow going INTO the filter valve INLET? Trace piping to be sure . . . page 9.
- ✓ Is the plumbing bypass valve (or three valves) set for SERVICE? . . . See Figure 13, page 4-1 of this manual.
- ✓ Is the valve drain hose connected the right way, and without sharp bends or kinks that could stop or reduce water flow? . . . page 14.
- ✓ Is the transformer plugged into an inside, continuously "live", grounded, 120V-60Hz electrical outlet . . . page 17.
- ✓ Be sure to restart the water heater . . . page 18.

**FIGURE 1**

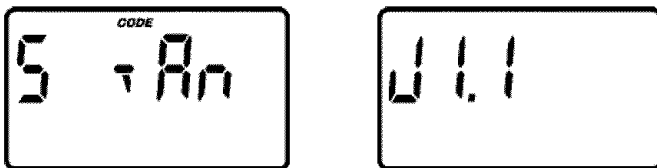


## C. PROGRAM THE TIMER

FIGURE 2



When the transformer is plugged into the electrical outlet a model code is displayed for a few seconds followed by a test number (example: J1.1). Then, 12:00 PM and the words PRESENT TIME will begin to flash in the time display.



## Notes:

If - - - - shows in the display, press the UP or DOWN button until "S tAn" shows in the display. Then, press the SELECT button to set, and change to the flashing PRESENT TIME display.

To check the model code, unplug the transformer at the wall outlet and plug in again. **if other than this code shows, see page 5-2 to reset.**

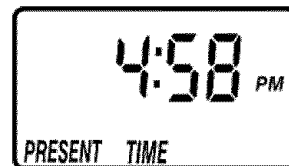
If the words PRESENT TIME do not show in the display, press the SELECT button (FIGURE 2) until they do.

**SOUND "BEEPER":** A "beeper" sounds while pressing buttons for set-up. One beep signals a change in the face plate display. Repeated beeps mean the timer will not accept a change from the button you have pressed, telling you to use another button.

## 1. SET PRESENT TIME OF DAY

Press the UP or DOWN buttons to set the present time. Press UP to move the display ahead; press DOWN to move the time backward.

- a. If the present time is between noon and midnight, be sure PM shows.



- b. If the present time is between midnight and noon, be sure AM shows.



Each press of the UP or DOWN buttons changes the time by 1 minute. Holding the buttons in changes the time 32 minutes each second.

- c. Press the SELECT button once to set the present time of day and advance to the next set up screen.

### C. PROGRAM THE TIMER

#### 2. SET DAYS TO RECHARGE

This setting is the number of days the filter will go between recharges. The default setting is 2 days, with a maximum setting of 99.



- a. Press the UP or DOWN buttons until the correct number of days between recharges is shown in the display.
- b. Press the SELECT button once to set the days to recharge and advance to the next set up screen.

See the chart below to determine the frequency of recharges. Find the number of people living in the household, and then going across the chart, find the number of days that the filter should be set for recharges.

Regeneration Table	
Number of People in Household	Days to Recharge setting
1 - 3	3 days
4 - 6	2 days
7 - 10	1 days

#### 3. SET RECHARGE TIME

The filter is factory set to begin recharge at 12:00 AM. If a different recharge time is desired, or needed, do the following.



- a. Press the UP or DOWN buttons until the correct recharge time is shown in the display.
- b. Press the SELECT keypad once to set the recharge time and return the display to the normal operating screen with the present time of day shown.

### D. SANITIZING THE WATER FILTER

Care is taken at the factory to keep your water filter clean and sanitary. Materials used to make the filter will not infect or contaminate your water supply, and will not cause bacteria to form or grow. However, during shipping, storage, installing and operating, bacteria could get into the filter. For this reason, sanitizing as follows is suggested<sup>①</sup> when installing.

1. The first time you sanitize your filter, be sure to do *all* steps in the installation manual, and on pages 1-2, 1-3 and 1-4 of this manual first.

**NOTE:** Be certain the bypass valve is pulled out to "service" position.

2. Lift the salt hole cover and use a pail to fill the salt storage tank with up to 3 gallons of water.
3. Remove the brinewell cover (FIG. 3) and pour about 3/4 ounce, or 1 to 2 tablespoons, of common 5.25%, *unscented*, household bleach (Clorox, Linco, BoPeep, White Sail, Eagle, etc.)

in the filter brinewell. Replace the brinewell cover.

4. Press the **RECHARGE** button and *hold for 3 seconds* to start a recharge. This first recharge does several things.
  - It draws the bleach into and through the filter to sanitize it.
  - It fills the salt tank to the water level needed.
  - It gets all the air out of the resin tank.
  - It prepares the resin bed (see page 2-4) for service and flushes residual chlorine from the filter.



**NOTE:** This recharge takes about 2 hours.

<sup>①</sup> Recommended by the Water Quality Association. On some water supplies, the water filter may need periodic disinfecting.



## A. FACEPLATE TIMER FEATURES

## RECHARGE NOW

For times you expect to use more water than usual, use the RECHARGE NOW feature. Press the RECHARGE button and hold in for three seconds. "RECHARGE NOW" begins to flash in the display and a recharge starts right away. You will have filtered water when the recharge is over in about two hours.

FIGURE 3



## VACATION

The day you leave on vacation or other long absence, press and release (do not hold) the RECHARGE button. "VAC" begins to flash in the display. The timer will keep time, but the filter will not recharge and waste water.

FIGURE 4



When you return, press and release the RECHARGE button again to return the filter to service, and the correct time of day will show in the display.

**Remember to do this** or the filter will not recharge and you will soon have tannins in your water supply.

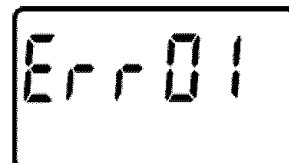
**NOTE:** While in VACATION, the filter will go through a recharge if the RECHARGE NOW feature is used.

To shut off the water supply to the filter, use the plumbing bypass valve(s) . . . Figure 13 on page 4-1.

## ERROR CODE

FIGURE 5

An error code could appear in the faceplate display if a problem occurs in the filter electronics. If you see an error code instead of the present time of day, please call your local Sears Service Department for service.

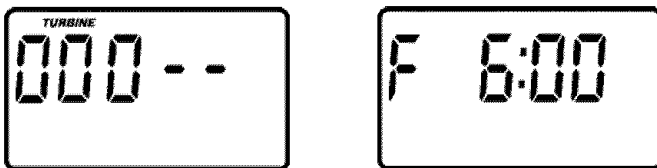


## A. FACEPLATE TIMER FEATURES

The default settings for fill (6:00 minutes), brine draw (80 minutes), backwash (12 minutes) and fast rinse (8 minutes) cycles of regeneration are factory set for maximum performance of the filter. Use the following procedures to check for correct cycle times, or to change if desired. **However, only trained technicians should change the time settings.**

### FILL

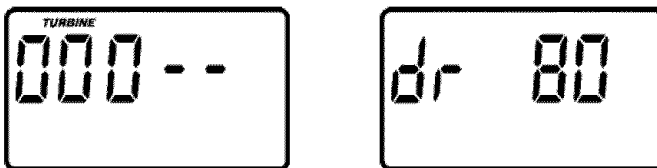
Press and hold the SELECT button until the display shows "000--", then press the SELECT button once to display the Fill time screen.



This setting should stay at the 6:00 minute fill time.

### ADJUSTABLE BRINE DRAW

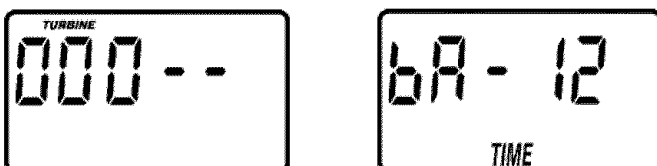
Press and hold the SELECT button until the display shows "000--", then press the SELECT button twice to advance to the Brine Draw time adjust screen.



Using the UP or DOWN buttons, adjust the brine draw time from 0 minutes to 255 minutes.

### ADJUSTABLE BACKWASH

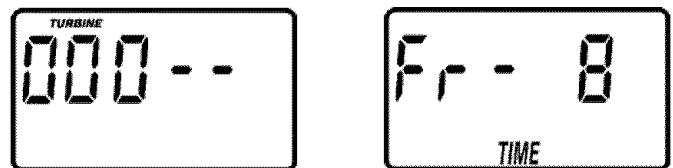
Press and hold the SELECT button until the display shows "000--", then press the SELECT button three times to advance to the Backwash time adjust screen.



Using the UP or DOWN buttons, adjust the backwash time from 0 minutes to 60 minutes.

### ADJUSTABLE FAST RINSE

Press and hold the SELECT button until the display shows "000--", then press the SELECT button four times to advance to the Fast Rinse time adjust screen.



Using the UP or DOWN buttons, adjust the fast rinse time from 0 minutes to 60 minutes.

### TIMER "POWER-OUTAGE MEMORY"

If electrical power to the timer is interrupted, the "memory" built into timer circuitry keeps time for 6 hours (minimum) or more. The display is blank and the filter will not regenerate. When electrical power comes on, one of two things will happen.

1. The present time of day will show steady, meaning the timer has not lost time.
2. The display will show a time, but it will be flashing. The timer memory did not keep the time setting and must be reset (page 1-3). If you do not reset the time, regenerations will most likely be at the wrong time of day.

**NOTE:** The flashing display is to remind you to reset the timer.

**NOTE:** If the filter was in a recharge when power was lost, it will now finish the cycle.

## B. FILTERED WATER, SERVICE AND REGENERATION

**IMPORTANT:** Sears water filters are sometimes installed alone in the water system, but most often other water treating equipment is needed. Always be sure to have your water tested by a qualified testing laboratory. If you need help, ask at your Sears store, or call the Kenmore Water Line, 1-800-426-9345.

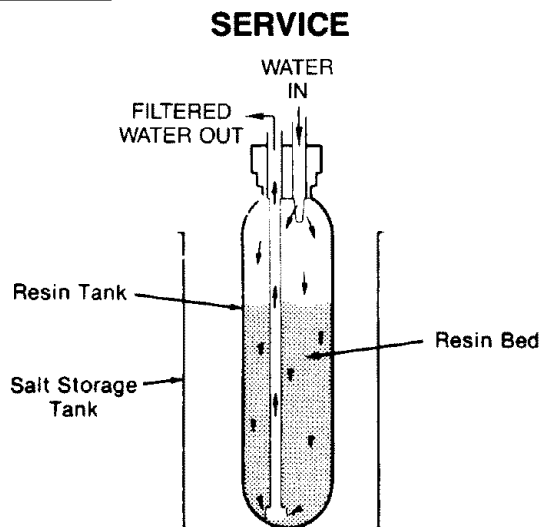
### TANNIN WATER

Water containing tannin has a yellowish cast (even after softening and/or filtering). Tannin can be an associated cause of yellow stains on washable fabrics, china, and plumbing fixtures. Tannins (humic acids) are harmless organics, caused by the water passing through peaty soil and decaying vegetation.

### SERVICE

When the filter is providing filtered water, it is called "Service". During service, unfiltered water flows from the house main water pipe into the filter. Inside the filter resin tank is a bed made up of thousands of tiny, plastic resin beads. As unfiltered tannin passes through the bed, each bead attracts and holds the tannin particles. It is much like a magnet attracting and holding metals. Water without the tannin particles flows out of the filter.

**FIGURE 6**

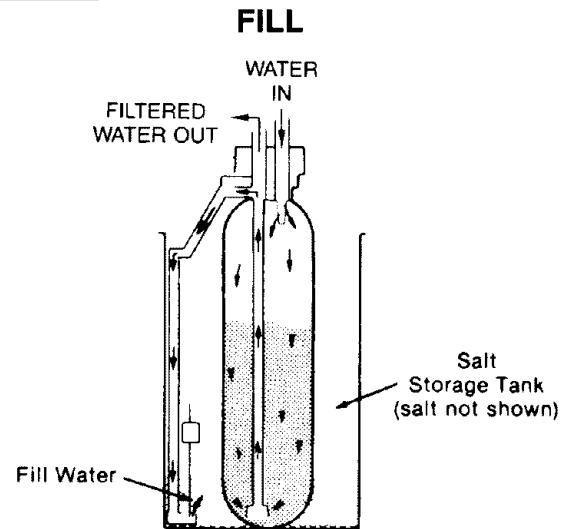


After a period of time the resin becomes coated with tannin particles and it has to be cleaned. This cleaning is called regeneration. Regeneration is started at 12:00 AM (or other preselected time) by the timer, and consists of five cycles: (1) FILL, (2) BRINING, (3) BRINE RINSE, (4) BACKWASH, (5) FAST RINSE.

### REGENERATION

**FILL:** Salt, dissolved in water is called brine. Brine is needed to clean the tannin particles from the resin beads. To make the brine, water flows into the salt storage area during the fill stage as shown below.

**FIGURE 7**



**BRINING:** During brining, the brine travels from the salt storage area, to the resin tank. Brine causes the resin to release the tannin particles, and they are carried to the drain.

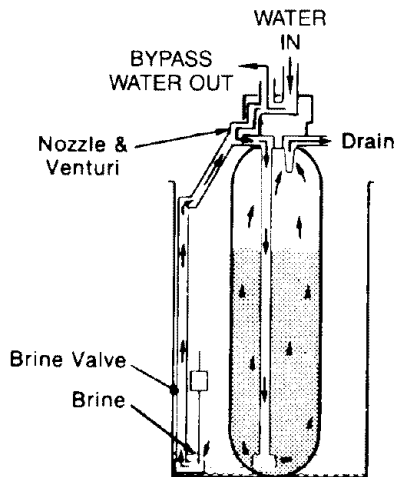
The nozzle and venturi create the suction to move the brine, maintaining a slow flow rate for maximum cleaning.

## B. FILTERED WATER, SERVICE AND REGENERATION

**BRINE RINSE:** After a premeasured amount of brine is used, the brine valve closes. Water flow continues as during brining, except for the brine draw. Tannin particles and brine are flushed from the resin tank to the drain.

**FIGURE 8**

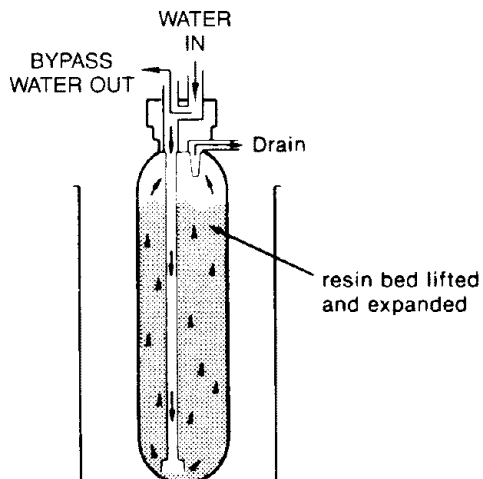
### BRINING / BRINE RINSE



**BACKWASH:** During backwash, water flows UP through the resin tank at a fast rate to flush iron minerals, dirt and sediments from the bed and to the drain. The bed lifts and expands for maximum cleaning.

**FIGURE 9**

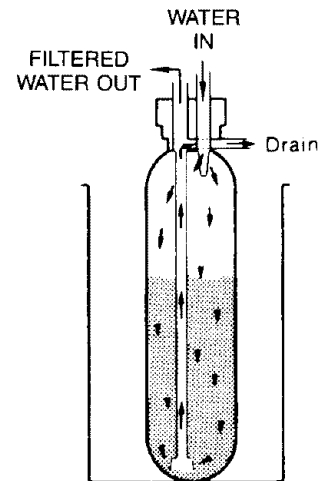
### BACKWASH



**FAST RINSE:** Backwash is followed by as fast flow of water down through the resin tank (page 19). The fast flow packs the resin bed and gets it ready for return to service.

**FIGURE 10**

### FAST RINSE



### AUTOMATIC BYPASS

During the brining, brine rinse and backwash cycles of regeneration, unfiltered water goes through the filter valve and to the house pipes, if a faucet is opened. However, you should not use **HOT** water, if possible, because the water heater will refill with unfiltered water.

**A. CHECKING THE SALT STORAGE LEVEL AND REFILLING**

Brine (salt dissolved in water) is needed for each and every regeneration. The water for making brine is metered into the salt storage tank by the filter. However, you must keep salt in the tank.

**WHEN TO REFILL WITH SALT:** Check the salt level a few weeks after you install the filter and every week after that. Refill when the storage tank is about 1/3 full. Never let the filter use all the salt before refilling. Without salt, you will soon have unfiltered water.

Use nugget or pellet water softener salt only. Do not use rock salts. They have dirt and sediments that will cause maintenance problems. Fill the tank from 1/2 to 3/4 full. In humid areas where salt bridging may be a problem, it is best to keep the salt level lower and to refill more often.

**CAUTION: WATER SOFTENING SALT WITH IRON REMOVING ADDITIVES -** Some salts have an additive to help keep the resin bed clean. **THIS ADDITIVE WILL RUIN THE TANNIN REMOVING RESIN ... SEE PAGE 4.**

**B. BREAKING A SALT BRIDGE**

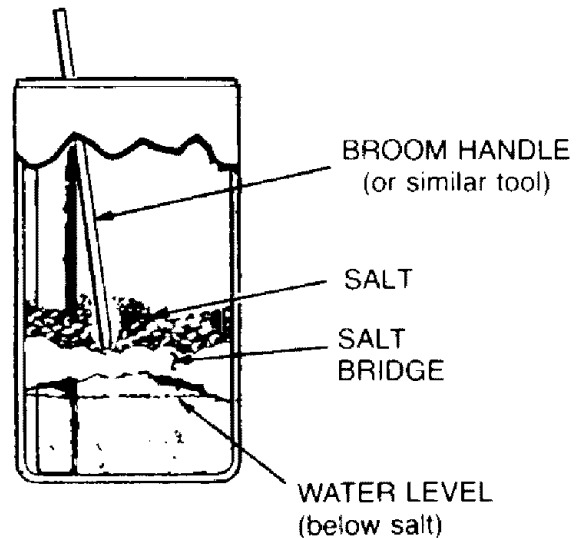
Sometimes, a hard crust or salt bridge forms in the salt storage tank. It is usually caused by high humidity or the wrong kind of salt. When the salt bridges, an

empty space forms between the water and salt. Then salt will not dissolve in the water to make brine.

If the storage tank is full of salt, it is hard to tell if you have a salt bridge. Salt is loose on top, but the bridge is under it. The following is the best way to check for a salt bridge.

Salt should be loose all the way to the bottom of the tank. Take a broom handle, or like tool, and **CAREFULLY** push it down into the salt, working it up and down. If the tool strikes a hard object (be sure it's not the tank bottom), it's most likely a salt bridge. Carefully break the bridge with the tool. Do not pound on the outside of the brine tank.

If the wrong kind of salt made the bridge, take it out. Then fill (about 1/2 full) the tank with nugget or pellet salt only.

**FIGURE 11**

### C. CLEANING THE FILTER RESIN BED

To keep the tannin resin bed clean and working efficiently, do the following at least once each month.

Use one gallon of luke warm water (do not use hot water) to fully dissolve 1 cup of soda ash. After

thoroughly stirred, pour the solution directly into the brinewell (see key no. 25, page 6-2).

The solution will be drawn into and through the resin bed during filter regenerations.

### D. CLEANING THE NOZZLE AND VENTURI

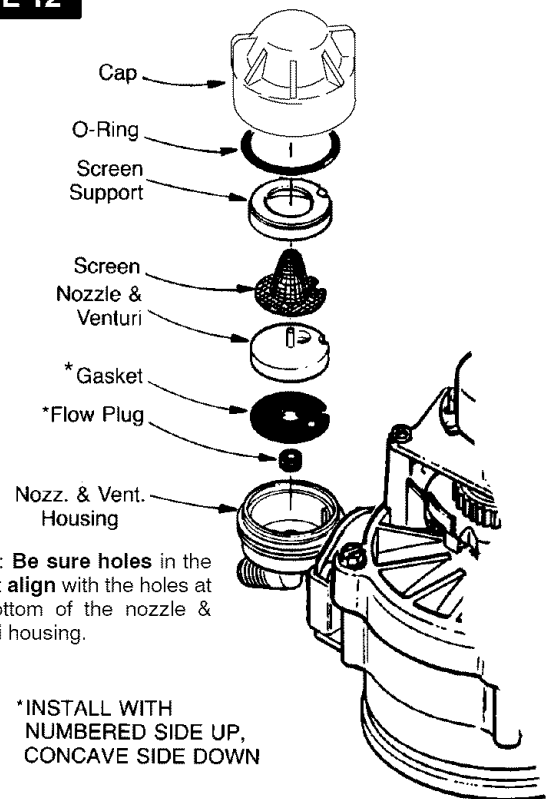
A clean nozzle and venturi (Figure 12) is a must for the filter to work right. This small unit moves brine from the salt storage tank to the resin tank during regeneration. If it becomes plugged with sand, silt, dirt, etc., the filter will not work and you will get unfiltered water.

Be sure the filter is in service cycle (no water pressure at nozzle and venturi), then turn off the cap from the nozzle and venturi housing. Lift out the screen support and screen, then the nozzle and venturi. Wash and rinse the parts in warm water until clean. If needed use a small brush to remove iron or dirt. Also check and clean the gasket and flow plug if dirty.

Carefully replace all parts in the correct order. Lubricate the o-ring seal with silicone grease or Vaseline and place in position. Install and tighten the cap, BY HAND ONLY. DO NOT OVER TIGHTEN AND BREAK THE CAP OR HOUSING.

It is recommended that you clean the nozzle and venturi at least three times a year. Clean more often if you notice a difference in water quality.

**FIGURE 12**



**E. KEEP THE FILTER FROM FREEZING**

If the filter is installed where it could freeze (summer cabin, lake home, etc.) you must drain all water from it to stop possible damage caused by freezing. To drain the filter-

1. Close the shutoff valve on the house main water pipe, near the water meter or pressure tank.
  2. Open a faucet in the filtered water pipes to vent pressure in the filter.
  3. Looking at Figure 13 on page 4-1, move the stem in a single bypass valve to bypass. Close the inlet and outlet valves in a three valve bypass system, and open the bypass valve.
  4. Unplug the transformer at the wall outlet.
  5. Pull the holding clip to remove the drain fitting, with drain hose attached, from the valve.
- DO NOT LOSE THE BLACK RUBBER FLOW PLUG AND RETAINER.
6. Looking at page 11 in the installation manual, remove the plastic clips and pull the adaptors or bypass valve from the inlet and outlet.
  7. Move the filter close to the floor drain. SLOWLY and CAREFULLY (the filter is heavy) tip the filter over so the valve inlet and outlet are over the drain. DO NOT REST THE FILTER ON THE INLET AND OUTLET FITTINGS OR THEY WILL BREAK.
  8. Tip the bottom of the filter up a few inches and hold until all water has drained. Leave the filter laying like this until you are ready to use it. Plug the inlet and outlet with rags to keep dirt, bugs, etc. out.

## F. BEFORE YOU CALL FOR SERVICE . . . HELPFUL HINTS CHECKLIST

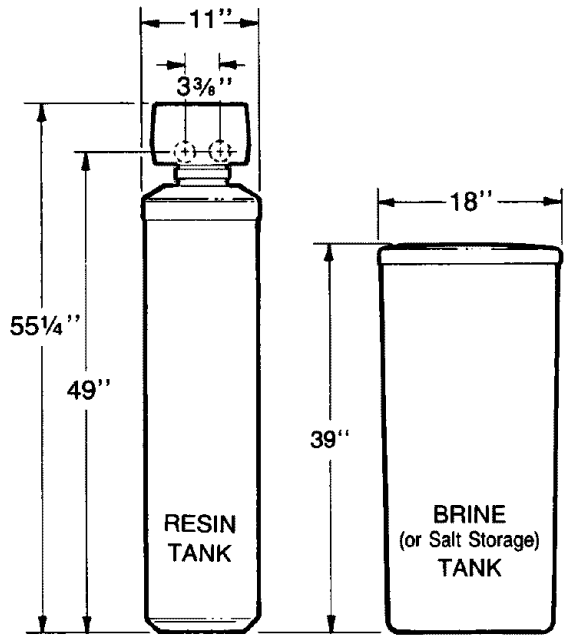
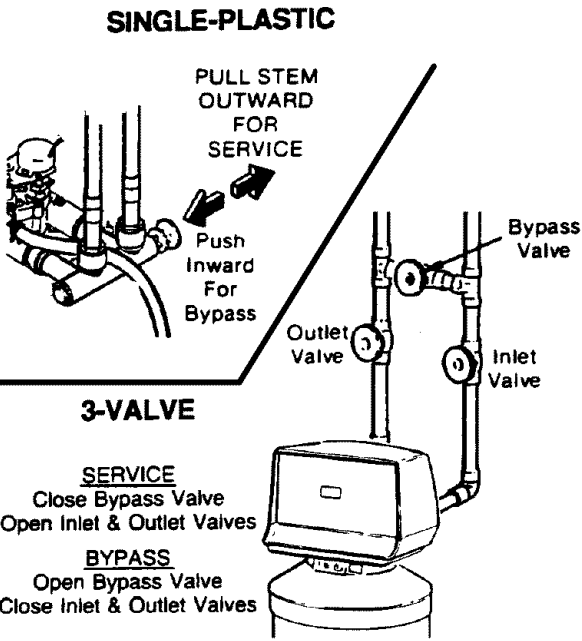
PROBLEM	CAUSE	CORRECTION
NO FILTERED WATER	<p>No salt, or salt bridged, in storage tank.</p> <p>Plumbing bypass valve(s) in "bypass" position.</p> <p>Transformer unplugged at wall outlet, power cable disconnected from electronic board, fuse blown/circuit breaker popped, or circuit switched off.</p> <p>Timer in the vacation "VAC" position</p> <p>Timer not programmed for recharge.</p> <p>An error code shows in the face plate display.</p> <p>Backwash flow washer plugged.</p> <p>Drain hose plugged, kinked or bent.</p>	<p>Add salt to storage tank, or break up salt bridge, and use the RECHARGE NOW feature, page 2-1.</p> <p>Move stem in a single bypass valve to SERVICE. In a three valve bypass, open the inlet and outlet valves, close the bypass valve.</p> <p>Check for loss of power and correct. Re-set the time and use the RECHARGE NOW feature, page 2-1. Also see "Electric Power Outlet For Your Filter", page 17 in the installation manual.</p> <p>Press the VACATION button once to return the filter to service, see page 2-1.</p> <p>See page 1-4 to program a recharge schedule.</p> <p>See page 2-1.</p> <p>Remove drain hose adaptor to clean, see pages 5-4 and 6-4.</p> <p>Straighten hose, or remove and clean.</p>
FILTER RECHARGES, BUT FILTERED WATER SOMETIMES CONTAINS TANNINS	<p>Too few regenerations programmed.</p> <p>Possible change in water conditions.</p> <p>Using more water since timer was programmed.</p> <p>HOT water used while the filter is recharging</p> <p>Leaking faucet or toilet valve</p>	<p>See page 1-4 to change recharge schedule.</p> <p>See maximum limits, page 4-2.</p> <p>See page 1-4 to program additional regeneration(s).</p> <p>The water heater will refill with bypass iron water. Avoid using water during recharges.</p> <p>A small leak can waste hundreds of gallons of water in a few days. Fix plumbing leaks, and always fully close faucets.</p>



A. DIMENSIONS / SPECIFICATIONS

SECTION 4

**FIGURE 13** BYPASS VALVES



Nominal Resin Tank Size: 10" Diameter x 47" high

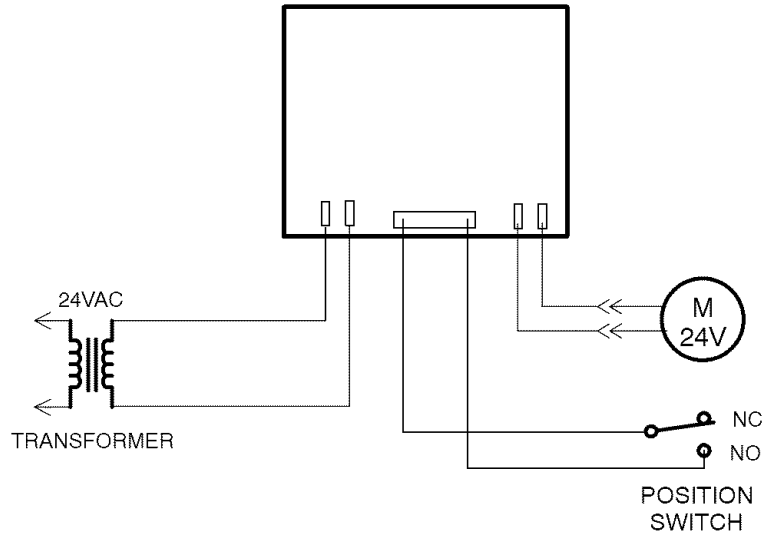
CLASSIFICATION OF FILTER: .....	Household
FILTER TYPE: .....	Tannin removal
TYPE OF RESIN: .....	Acrylic, strongly basic macroporous anion exchange
AMOUNT OF MINERAL: .....	1.0 cu. ft.

## A. DIMENSIONS / SPECIFICATIONS

	Supply Water Limits	Pretreatment Needed For Higher Amounts Listed
MAX. WATER HARDENESS: .....	10 gpg	Water Softener
MAX. CLEAR WATER IRON: .....	2 ppm	Water Softener and/or Iron Filter
MAX. CHLORINE*: .....	1 ppm	Activated Iron Filter
MAX. TANNIN: .....	3 ppm	
MAX. pH: .....	8.0	
MAX. NITRATES: .....	2 mg/L	
MAX. SUSPENDED SOLDS*: .....	1.0 NTU	
INLET WATER PRESSURE LIMITS: .....	20–125 psi	
MAX. INLET WATER TEMPERATURE: .....	120°F	
MIN. INLET WATER FLOW: .....	4 gal/min.	
MIN. INLET AND OUTLET PIPE SIZE: .....	3/4 inch	
BACKWASH FLOW RATE (at 35 psi inlet pressure): .....	1 gal/min.	
MIN. SALT USAGE AT EACH REGENERATION: .....	5 lbs	
MIN. FREQUENCY OF REGENERATIONS: .....	every 2 days	
CAPACITY RATING: .....	See Rating Decal on Filter	

\* continuous

## A. WIRING SCHEMATIC

SECTION  
5

**IMPORTANT:** KEEP THIS MANUAL WITH YOUR WATER FILTER. IF REPAIRS ARE NEEDED, THE SERVICE TECHNICIAN MUST HAVE THE INFORMATION ON THE FOLLOWING PAGES.

## B. TROUBLESHOOTING

ALWAYS MAKE THESE **INITIAL CHECKS** FIRST

1. Does the time display show the correct time of day?

...If display is blank, check power source to the filter.

...If time is flashing, power was off for over two days. The filter resumes normal operation but recharges occur at the wrong time.

2. Plumbing bypass valve(s) must be in SERVICE position (see Figure 13, page 4-1).

3. The inlet and outlet pipes must connect to the filter inlet and outlet respectively.

4. Is the transformer plugged into a "live" grounded wall outlet, and the power cable fastened securely?

5. The valve drain hose must be free of kinks and sharp bends.

If you do not find the problem after making the initial checks, do the **MANUAL ADVANCE DIAGNOSTICS** on page NO TAG.

### MANUAL INITIATED ELECTRONICS DIAGNOSTIC

1. To enter diagnostics, press and hold the SELECT button until (000- -) shows in the display.



The letter (P) and dash or dashes indicate position switch operation. The letter shows if the switch is closed. A dash shows when the switch is open.

SWITCH DISPLAYS	VALVE CYCLE STATUS
- -	valve in service, fill, brine draw, backwash or fast rinse position
- P	valve rotating from one position to another

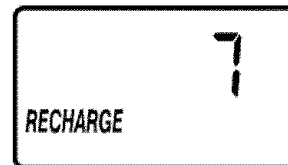
Use the RECHARGE button to manually advance the valve into each cycle and check correct switch operation.

While in this diagnostic screen, the following information is available and may be beneficial for various reasons. This information is retained by the computer from the first time electrical power is applied to the face plate.

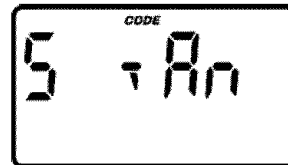
...Press the UP button to display the number of days this face plate has had electrical power applied.



...Press the DOWN button to display the number of regenerations initiated by this face plate since the model code number was entered.



2. Press the SELECT button and *hold* for 3 seconds until the model code appears in the display.



**NOTE:** For correct filter operation, the model code must be S tAn.

To reset the code, press the UP or DOWN buttons until the correct model code shows in the display.

3. Press the SELECT button to return the present time display. If the code was changed, make **ALL** the timer settings, page 1-3 and 1-4.

**NOTE:** If the face plate is left in a diagnostic display (or a flashing display when setting times or days to recharge), preset time automatically returns if a button is not pressed within 4 minutes.

**B. TROUBLESHOOTING**

**MANUAL ADVANCE DIAGNOSTICS**

Use the following procedures to advance the filter valve through the regeneration cycles to check operation.

Remove the top cover to observe cam and switch operation during valve rotation.

DISPLAY MUST SHOW TIME AND DAY

1. Press and hold the RECHARGE button for 3 seconds until RECHARGE NOW flashes in the display and the filter moves into the fill cycle.



...If the motor does not run, check the motor and all wiring connections.

Check for fill water flow to the brine tank. If water does not enter the tank, look for an obstructed nozzle and venturi, fill flow plug or brine tubing.

2. After verifying fill, press the RECHARGE button to move the valve into brining. A slow flow of water to the drain will begin. Verify brine draw from the brine tank by shining the flashlight into the brinewell and observing a noticeable drop in the liquid level.

If the unit does not draw brine, check for...

- ...dirty or defective nozzle and venturi
- ...nozzle and venturi not seated on the gasket, or gasket defective
- ...restriction in valve drain, causing a back-pres-

- sure (bends, kinks, elevated too high, etc.),
- ...obstruction in brine valve or brine tubing
- ...inner valve failure (obstructed rotor disc, wave washer defective, etc.)

**NOTE:** Be sure a salt bridge is not preventing contact of the water with salt.

3. Again press the RECHARGE button to move the valve into backwash. Look for a fast flow of water from the drain hose (see specifications, page 4-1).

...An obstructed flow indicates a plugged top distributor, backwash flow plug, or drain hose.

Be sure household water pressure (well system) is maintained at a minimum of 20 psi. Adjust the pump switch upward, if needed.

4. Press the RECHARGE button to move the filter into fast rinse. Again, look for a drain flow rate about the same as backwash.

5. To return the filter to service, press the RECHARGE button once.

**OTHER SERVICE**

**UNFILTERED WATER BYPASS** (unfiltered water "bleeds" into filtered water supply).

1. Missing or defective o-ring(s) at resin tank to valve connection.
2. Defective rotor disc, seal or wave washer.

**WATER LEAKS FROM DRAIN HOSE** (during service)

1. Defective rotor disc, seal, or wave washer.
2. Defective o-ring on disc shaft.

**AUTOMATIC ELECTRONIC DIAGNOSTICS**

The face plate has a self diagnostic function for the electrical systems (except input power). The face

plate monitors the electronic components and circuits for correct operation. If a malfunction occurs, an error code appears in the face plate display.

**POSSIBLE DEFECT**

CODE	MOST LIKELY >----->	LEAST LIKELY
Err 01, Err 03 & Err 04	wiring harness or connection to position switch / switch / valve defect causing high torque / motor inoperative	
Err 05	faceplate	

**PROCEDURE FOR REMOVING ERROR CODE FROM FACEPLATE:** 1. Unplug transformer---- 2. Correct defect---- 3. Plug in transformer---- 4. Wait for 12 minutes. The error code will return if the defect was not corrected. Press and hold the RECHARGE button for 3 seconds as an alternate way to clear an error code.

### C. ROTARY VALVE SERVICE

**IMPORTANT:** Before working on the valve, turn off the water supply and disconnect from electrical power.

To relieve pressure:

... **THREE VALVE BYPASS:** Close the inlet and open a filtered water faucet. Then close the outlet valve and open the bypass valve.

... **SEARS SPECIAL BYPASS:** Slide the bypass valve stem to bypass position. Loosen the three hex head screws (see **A** in drawing) toward the backside of the valve to allow pressure water to bleed out (catch water with a rag).

#### DISASSEMBLY

To remove a part or group of parts, refer to the valve drawing. A common screwdriver or nut driver, Phillips screwdriver and pliers are the only tools needed to completely disassemble.

#### SERVICING THE VALVE

Inspect all o-rings, seals and gaskets for wear or defects.

Inspect the bottom surface of the rotor and disc for scratches, chips or wear.

**NOTE:** If a replacement is needed, be sure to use the current replacement part.

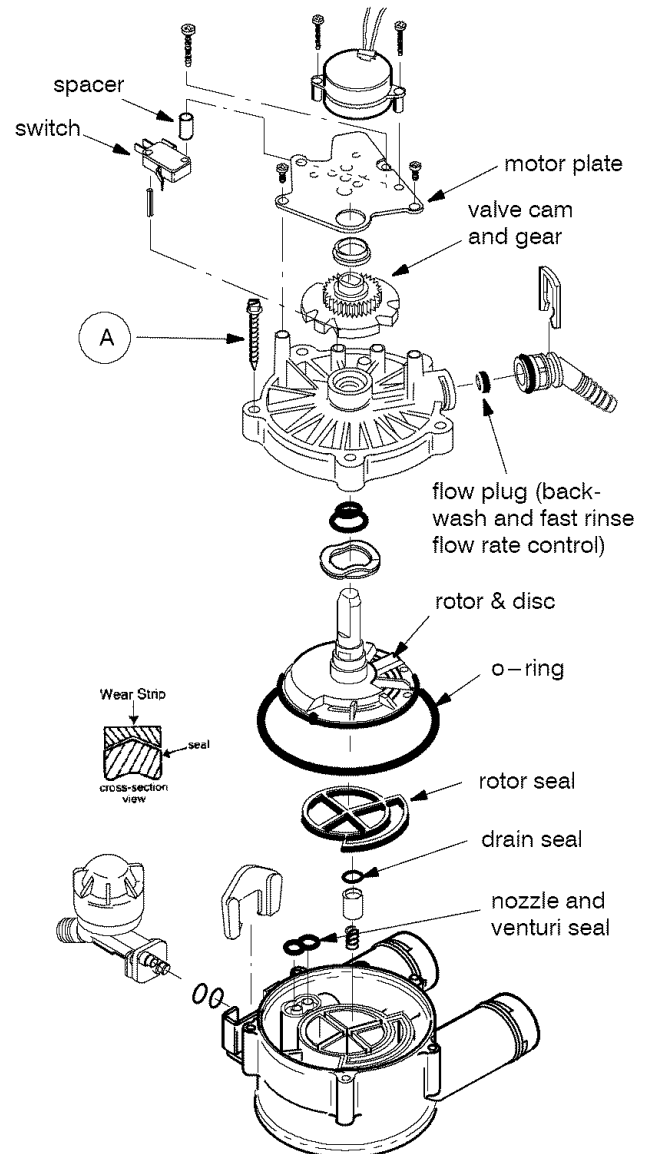
#### ASSEMBLY

Be sure all parts are in place and in the proper position. Lubricate ALL o-rings, and seals with FDA approved silicone grease. To install the rotor seal, first place the seal into the valve groove, round side down (see cross section). Apply a light coating of silicone grease to the seal's crossing ribs. Then carefully center the wear strip on the seal, and push it downward onto the seal.

Install the nozzle and venturi seal and drain seal. Assemble two o-rings and the wave washer onto the rotor and disc. The center the rotor and disc, in the valve body, on the rotor seal.

Lower the cover onto the valve body and rotor shaft. Then install the cover holding screws.

Before tightening the screws, install the valve cam and gear, then turn the rotor (clockwise only) to service position.



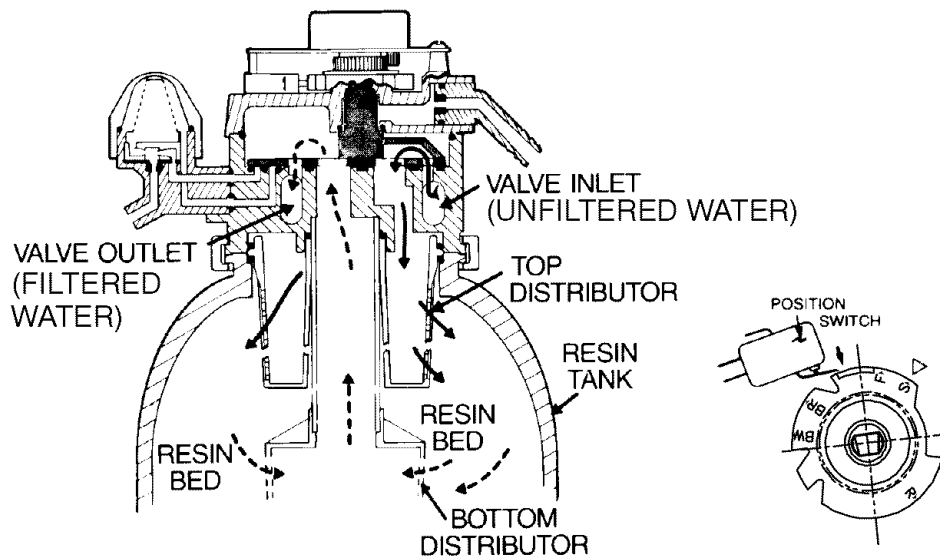
Tighten the screws using a criss-cross pattern. If a torque wrench is available, torque to 30-40 inch pounds.

Lubricate the gear on the motor, and the valve cam gear with Molykote grease, or other high quality gear lubricant.

Be sure to orient switch as shown, with lever toward the valve cam.

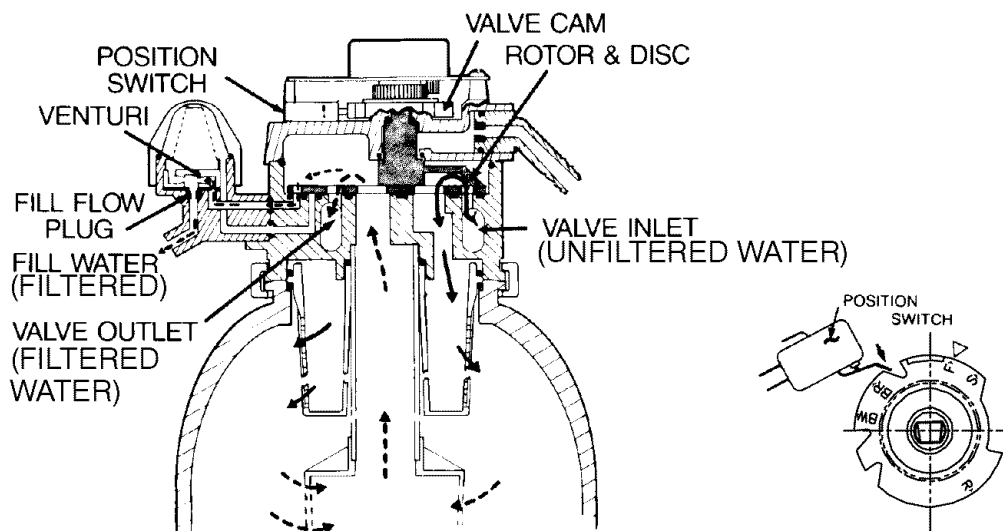
## D. WATER FLOW THROUGH THE FILTER VALVE

## SERVICE CYCLE



Unfiltered water enters the valve inlet port. Internal valve porting routes the water down and out the top distributor, into the resin tank. Unfiltered water is filtered as it passes through the resin bed, then enters the bottom distributor. Filtered water flows back into the valve and out the valve outlet, to the house water pipes.

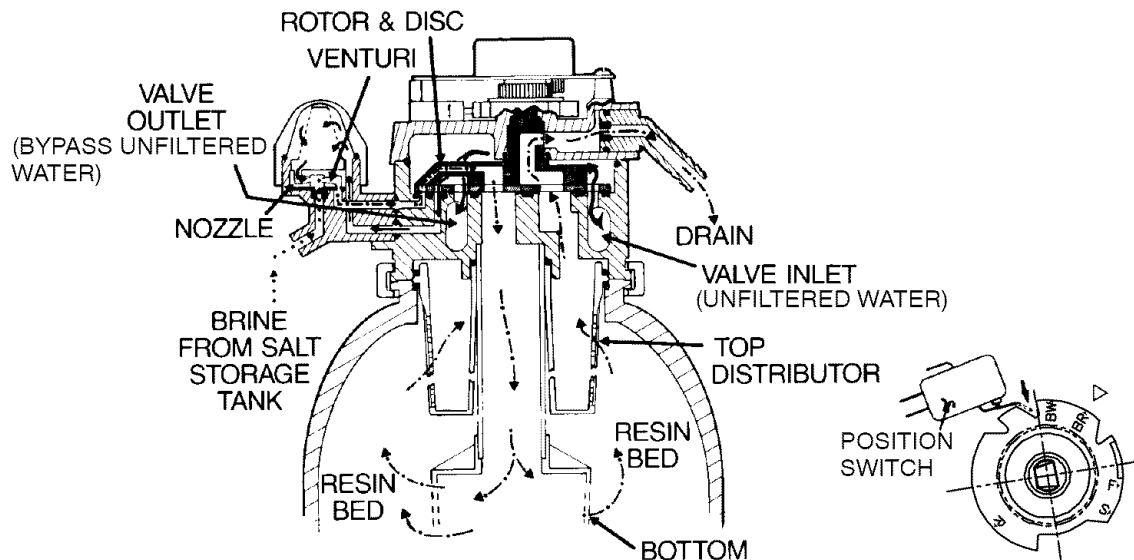
## FILL CYCLE



To begin a regeneration, the electronic *timer* energizes the circuit to the valve motor. The valve motor rotates the rotor and disc and the valve cam until the position switch lever drops to open the motor circuit, when the valve reaches FILL position. As the rotor and disc rotates, the port opens for filtered water to fill through the venturi. Fill flow continues to the brine valve, and into the salt storage tank. Filtered water is still available to the house lines.

## D. WATER FLOW THROUGH THE FILTER VALVE

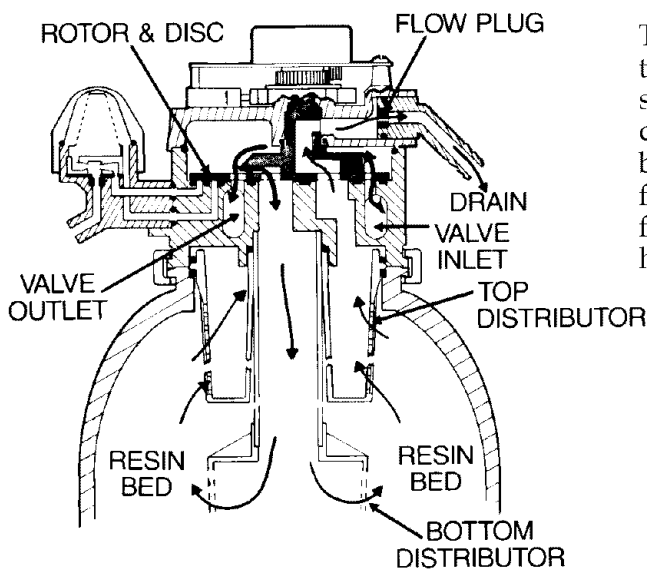
## BRINING AND BRINE RINSE CYCLES



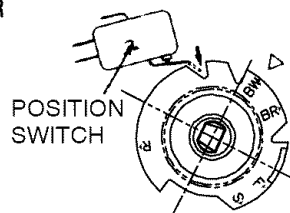
After fill, timer/switch action allows the motor to turn the rotor and disc into BRINING position. Water flow is directed to the nozzle. Suction, created by the nozzle and venturi, draws brine from the salt storage tank and injects it into the resin bed via the bottom distributor. Flow continues out the top distributor and to the drain. Unfiltered water is available at the valve outlet.

When the brine valve closes to end brine draw, water flow continues in the same directions to slowly RINSE brine from the resin bed and to the drain.

## BACKWASH CYCLE



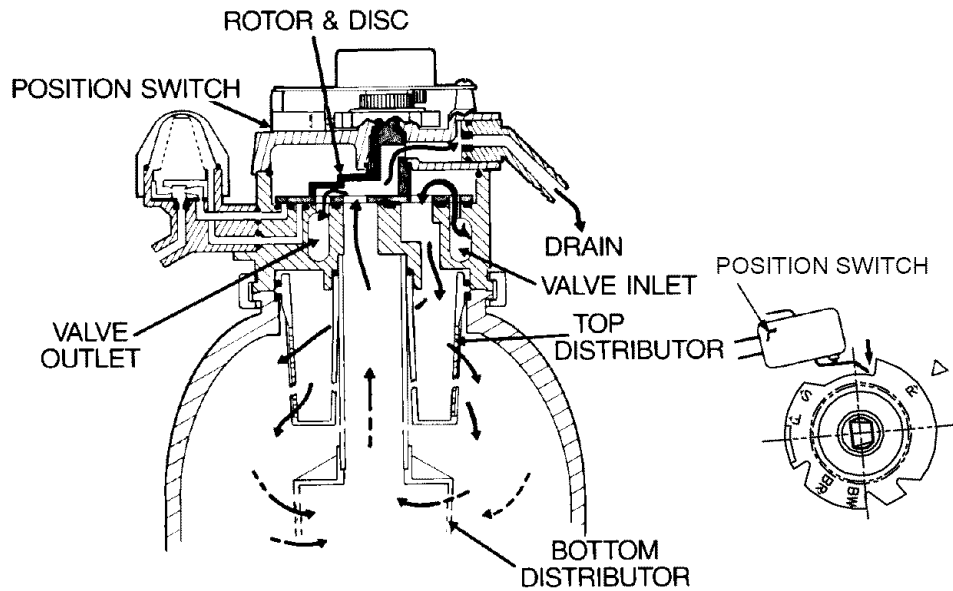
Timer/switch action again allows the motor to turn the rotor & disc to place the valve in BACKWASH, stopping water flow to the nozzle. Water is routed down and out the bottom distributor, up through the bed, and out the top distributor to the drain. The fast flow (controlled by a flow plug in the drain fitting) flushes dirt, sediments, deposits, remaining brine and hardness to the drain.





## D. WATER FLOW THROUGH THE FILTER VALVE

## FAST RINSE CYCLE

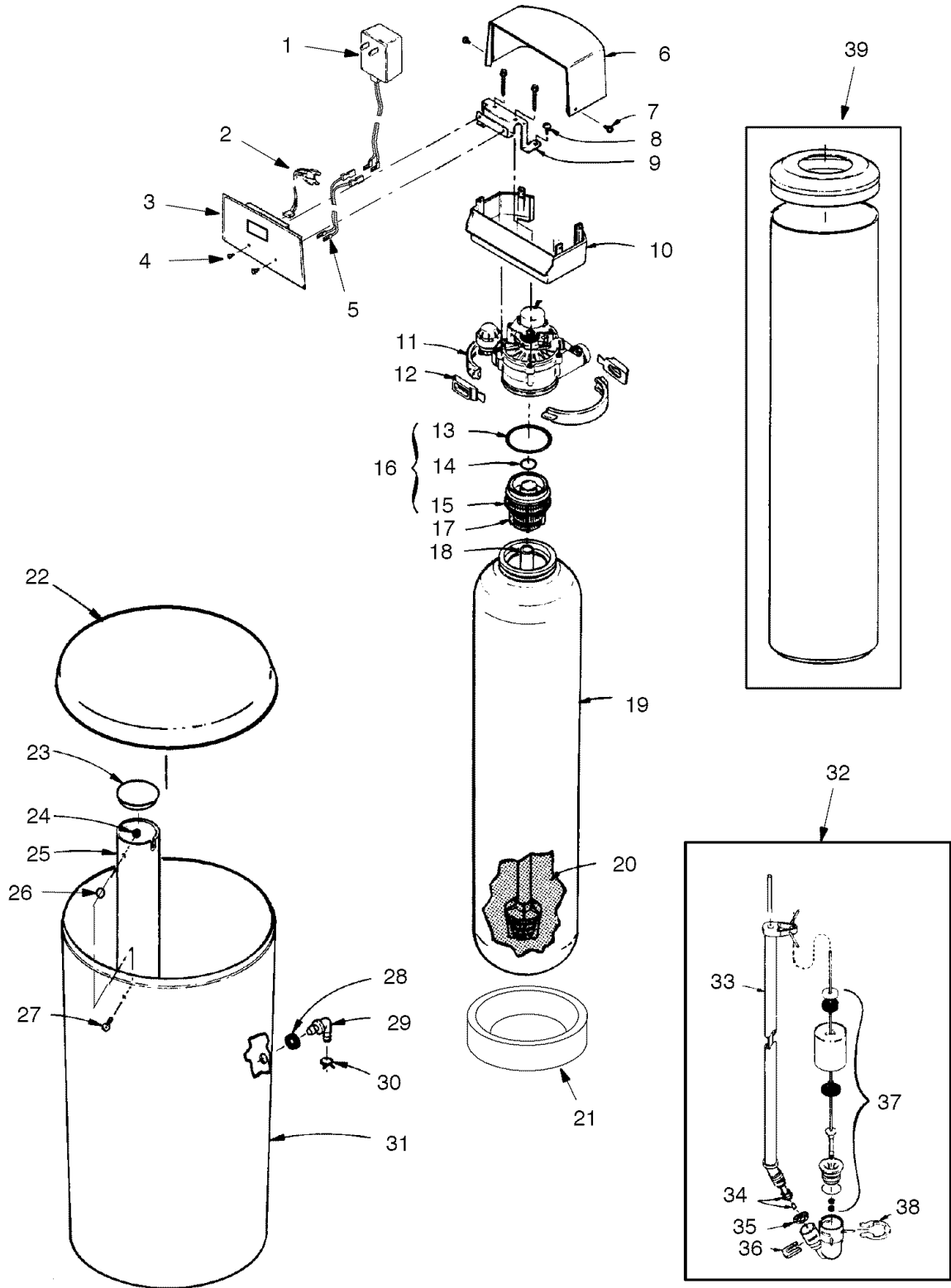


During FAST RINSE, the rotor & disc is positioned so water flow enters the resin tank through the top distributor, and exits through the bottom distributor, to the drain.

The timer again energizes the motor to return the valve to **service**, and as the valve rotates, the position switch lever drops to open the circuit. The valve remains positioned in service until the timer initiates the next regeneration.

Kenmore MODEL NO. 625.348261

SECTION  
NO-1-10-11-12  
6



## Kenmore MODEL NO. 625.348261

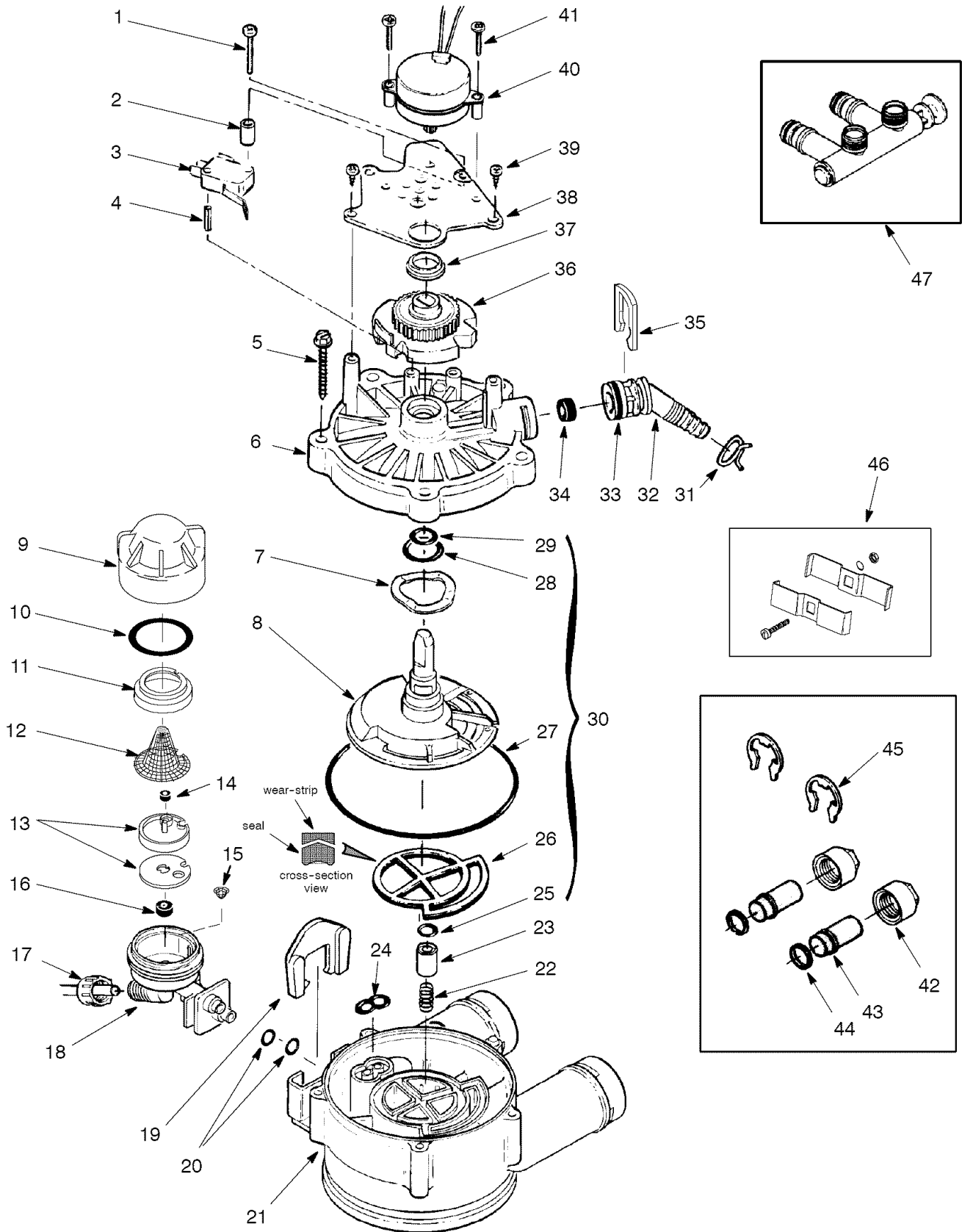
KEY NO.	PART NO.	DESCRIPTION
1	7275907	Transformer
2	7259927	Wire Harness
3	7285677	Rep'l Faceplate Timer
4	0900300	Screw, #4 x 1/4" (2 req'd.)
5	7128566	Power Cable Wire Harness
6	7144449	Cover, Controller
7	7103972	Screw, #8 x 7/16" (4 req'd.)
8	0900291	Screw, #18 x 3/8" (2 req'd.)
9	7288120	Bracket
10	7146734	Bottom Cover
11	7176292	Clamp Section (2 req'd.)
12	7088033	Clamp Retainer (2 req'd.)
13	7170296	O-ring, 2-7/8" x 3-1/4"
14	7170254	O-ring, 13/16" x 1-1/16"
15	7170270	O-ring, 2-3/4" x 3"
16	7112963	O-ring Kit
17	7077870	Top Distributor
18	7105047	Repl. Distributor (bottom)
19	7092202	Resin Tank, 10" x 47"
20	7148338	Resin, 1 cu ft
21	7026196	Base

KEY NO.	PART NO.	DESCRIPTION
22	7180437	Cover, Brine Tank
23	0500283	Brinewell Cover
24	7082150	Wing nut
25	7100819	Brinewell
26	7003847	O-ring
27	7148875	Screw, 1/4-20 x 5/8" long
28	9003500	Grommet ■
29	1103200	Hose Adaptor ■
30	0900431	Hose Clamp ■
31	7112612	Brine Tank
32	7116488	Brine Valve Assembly
33	7095470	Brine Tube
34	7113016	Tubing Assembly
35	7131365	Screen
36	7080653	Clip
37	7113008	Float, Stem & Guide Assembly
38	1205500	Clip
39	7092210	Shroud Kit
◆	7123613	Grease for O-rings
◆	7139999	Drain Tubing
◆	7282572	Owners Manual
◆	7146611	Installation Manual

■ included on small parts skin-pack

◆ not illustrated

Kenmore MODEL NO. 625.348261



## Kenmore MODEL NO. 625.348261

KEY NO.	PART NO.	DESCRIPTION
1	7070412	Screw, #4 – 24 x 1 – 1/8 in.
2	7117816	Spacer
3	7030713	Switch
4	7077472	Expansion Pin
5	7074123	Screw, #10 14 x 2 in. (5 req'd)
6	7085263	Valve Cover
7	7082087	Wave Washer
8	7199232	Rotor & Disc
9	7199729	Cap
10	7170262	O – ring Seal, 1 – 1/8 in. x 1 – 3/8 in.
11	7167659	Screen Support
12	7146043	Screen
13	7187772	Nozzle & Venturi, with Gasket
–	7204362	Gasket only
14	7084607	Flow Plug (.15 gpm)
15	7095030	Cone Screen
16	1148800	Fill Flow Plug (.3gpm)
17	1202600	Nut – Ferrule
18	7081104	Nozzle & Venturi Housing
–	7137507	Nozzle & Venturi Assembly (includes key nos. 9 – 16 & 18)
19	7081201	Retainer
20	7170319	O – ring Seal, 1/4 in. x 3/8 in. (2 req'd)
21	7082053	Valve Body
22	7129889	Spring
23	7092642	Plug (Drain Seal)
24	7081764	Seal (Nozzle & Venturi)

KEY NO.	PART NO.	DESCRIPTION
25	7170204	O – ring Seal, 3/8 in. x 9/16 in.
26	7134224	Rotor Seal
27	7170246	O – ring Seal, 3 – 3/8 in. x 3 – 5/8 in.
28	7170212	O – ring Seal, 3/4 in. x 15/16 in.
29	7170238	O – ring Seal, 7/16 in. x 5/8 in.
30	7129716	Seal Kit (Includes Key Nos. 24 – 29)
31	0900431	Hose Clamp
32	7024160	Drain Hose Adaptor
33	7170327	O – ring Seal, 5/8 in. x 13/16 in.
34	0501226	Flow Plug, Bkw. and F. Rinse (.9 gpm)
35	7142942	Clip
36	7284964	Cam and Gear
37	0503288	Bearing
38	7288112	Motor Plate
39	0900857	Screw, #6 – 20 x 3/8 in. (2 req'd)
40	7285936	Motor – Includes Key No. 41
41	7131755	Screw, #6 – 20 x 7/8 in. (2 req'd)
42	0507369	Installation Nut (2 req'd) ■
43	0507615	Installation Tube (2 req'd) ■
44	7170335	Washer (2 req'd) ■
45	7116713	Clip (2 req'd) ■
46	7248706	Ground Clamp Kit ■
47	7129871	Bypass Valve

■ included on small parts skin – pack

NOTES

NOTES

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