



## WATER TREATMENT SYSTEMS

Water Softener

Manual and Information Guide



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## **Attention**

Your water softener was installed pre-programmed. The water softener will automatically go into a cycle after you have gone through 800-900 gallons of water (unless technician was asked by you to change the gallon usage) at 2 am the following morning. There is no reason to change or manipulate these settings. The only time you should put your water softener into a manual cycle is if you have been away from your home for a week or longer (please see non-immediate cycle on page 3). If you lose power or the breaker that your water softener is plugged into flips you will need to re-set the time on the water softener (see page 4). The only maintenance required for your water softener is to make sure that there is salt in the brine tank and the clock is set to the current time of day.

## Non-Immediate Manual Cycle

How to put water softener into a manual cycle for 2am

\*you can use water throughout the day until 2am\*

1. Remove the black cover from the top of your water softener by lifting it straight up.



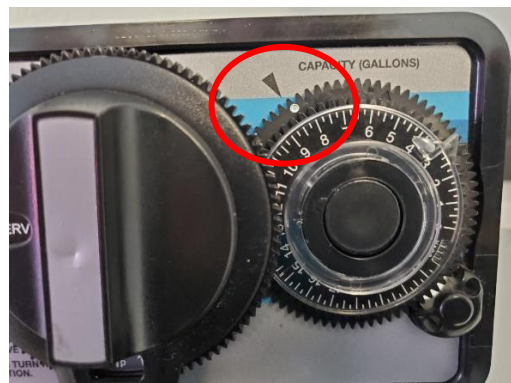
2. Make sure the time is correct in the time window. The water softener should be showing the current time. (see how to set time)



3. Turn the clear dial all the way to the left until the arrow is on 0 (zero)



4. The water softener will go into its cycles at 2 am the following morning. Once the system is finished with its cycle the arrow should be on the white dot.



## Immediate Manual Cycle

How to put your water softener into an immediate cycle.

**\*You will not be able to use water during the cycles\***

1. Remove the black cover from the top of your water softener by lifting it straight up.



2. Once the cover is removed you will see 3 gears. The largest gear with the silver line will show in service.



3. By using the largest gear turn the dial clockwise two clicks until it says regen. Your water softener will now start going through its cycles.

**\*you cannot use water until system says in service again\***



# How to set the time on your water softener

1. Remove the black cover from the top of your water softener by lifting it straight up.



1. Push in the red gear like button



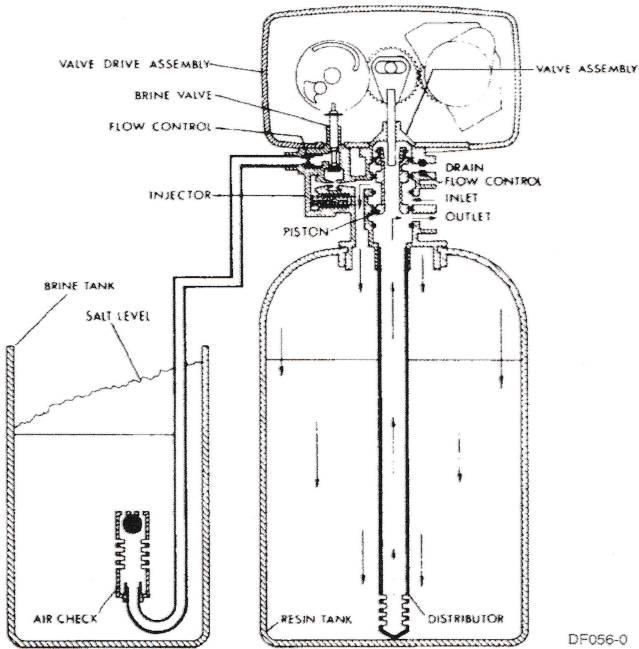
2. While pushing in red button - Spin the large outer edge gear until the number in the lower window is the current time

**\*DO NOT USE THE NOB TO MOVE GEAR\***

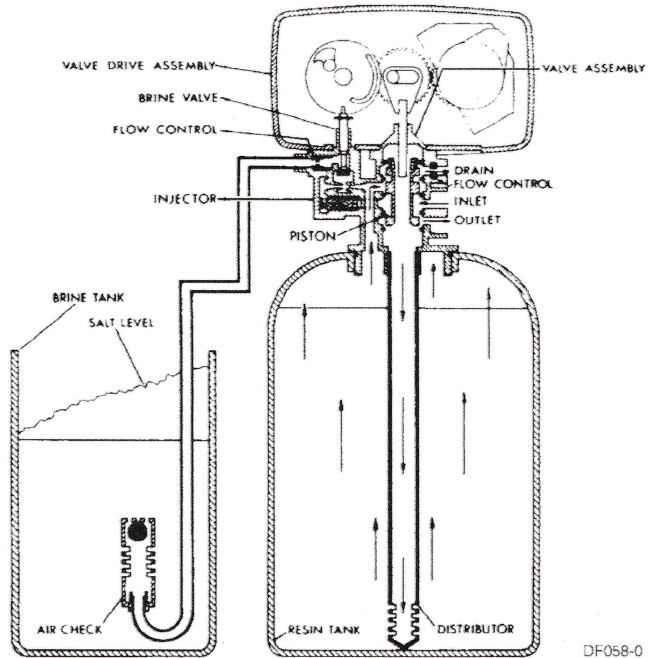


# WATER CONDITIONER FLOW DIAGRAMS

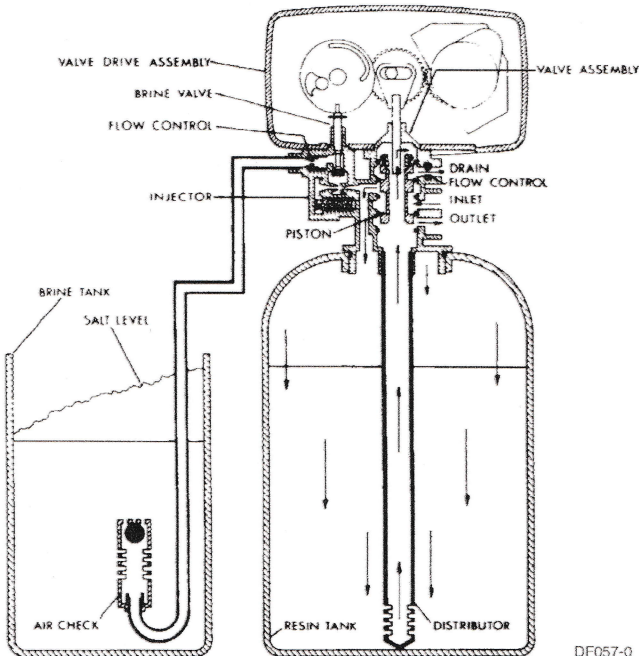
## Service Position



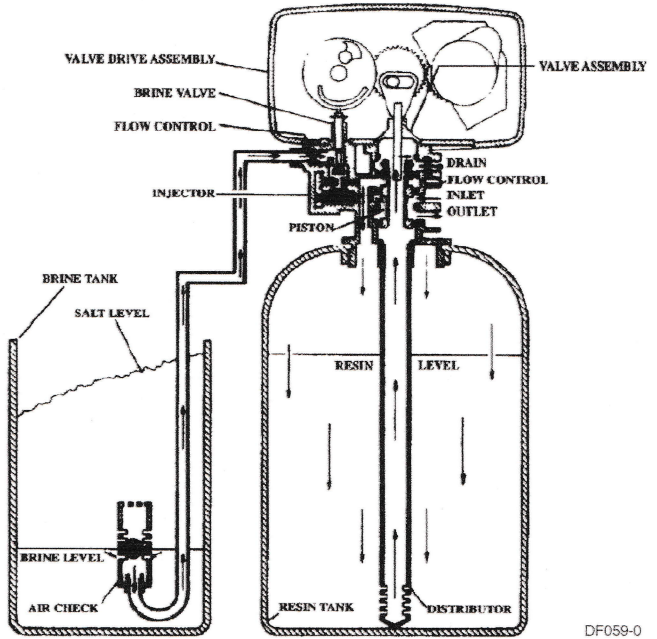
## Backwash Position



## Preliminary Rinse Position

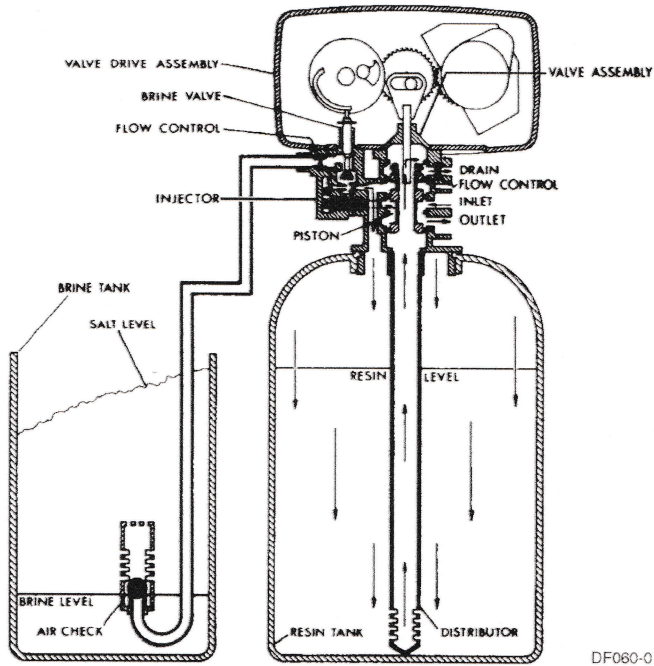


## Brine Position



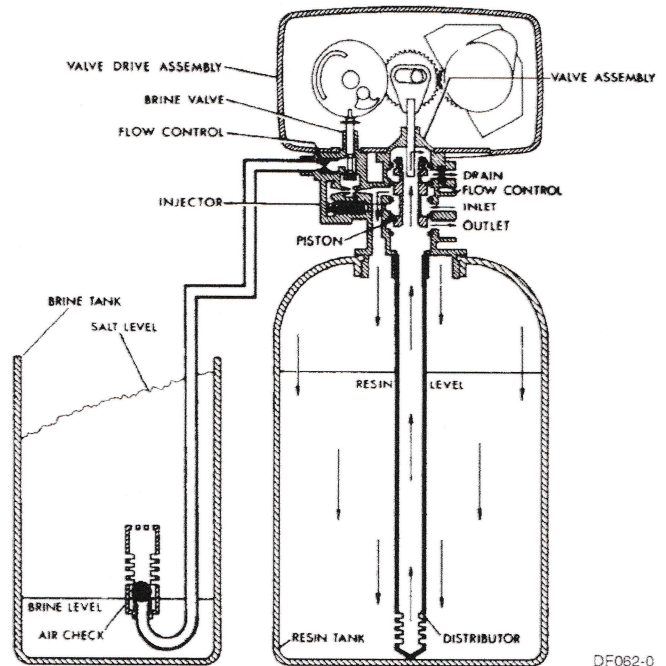
# WATER CONDITIONER FLOW DIAGRAMS *CONTINUED*

**Slow Rinse Position**



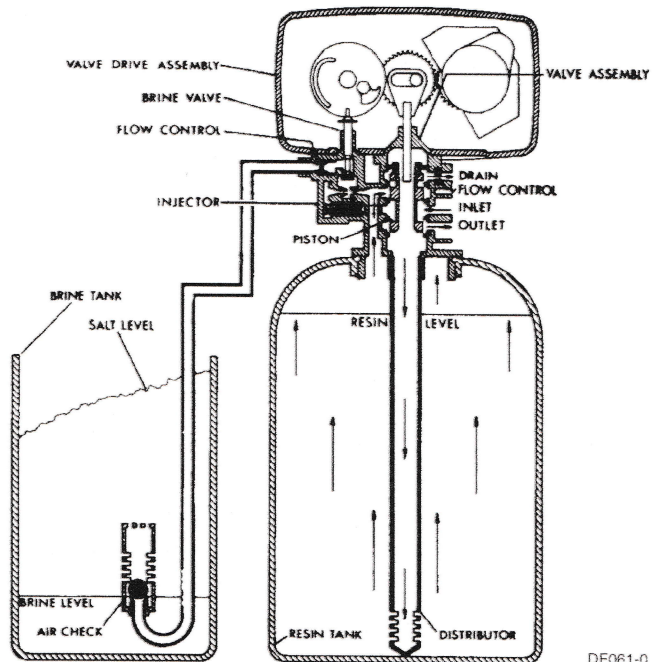
DF080-0

**Settling Rinse Position**



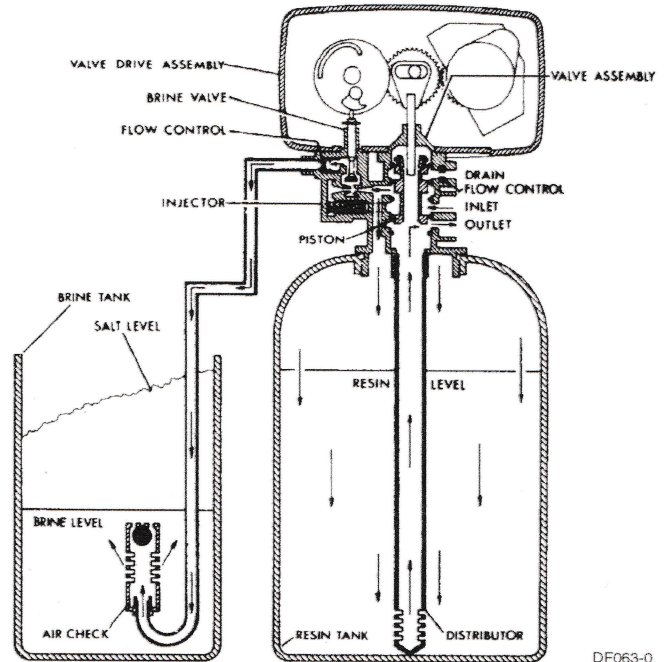
DF082-0

**Second Backwash Position**



DF061-0

**Brine Tank Fill Position**



DF063-0

## TROUBLESHOOTING

| Problem                              | Cause                                                                                                        | Correction                                                                                                               |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1. Softener fails to regenerate.     | A. Electrical service to unit has been interrupted.                                                          | A. Assure permanent electrical service (check fuse, plug, pull chain or switch).                                         |
|                                      | B. Timer is defective.                                                                                       | B. Replace timer.                                                                                                        |
|                                      | C. Power failure.                                                                                            | C. Reset time of day.                                                                                                    |
| 2. Softener delivers hard water.     | A. Bypass valve is open.                                                                                     | A. Close bypass valve.                                                                                                   |
|                                      | B. No salt in brine tank.                                                                                    | B. Add salt to brine tank and maintain salt level above water level.                                                     |
|                                      | C. Injectors or screen is plugged.                                                                           | C. Replace injectors and screen.                                                                                         |
|                                      | D. Insufficient water flowing into brine tank.                                                               | D. Check brine tank fill time and clean brine line flow control if plugged.                                              |
|                                      | E. Hot water tank hardness.                                                                                  | E. Repeated flushings of the hot water tank is required.                                                                 |
|                                      | F. Leak at distributor tube.                                                                                 | F. Make sure distributor tube is not cracked. Check O-ring and tube pilot.                                               |
|                                      | G. Internal valve leak.                                                                                      | G. Replace seals and spacers and/or piston.                                                                              |
| 3. Unit uses too much salt.          | A. Improper salt setting.                                                                                    | A. Check salt usage and salt setting.                                                                                    |
|                                      | B. Excess water in brine tank.                                                                               | B. See problem number 7.                                                                                                 |
| 4. Loss of water pressure.           | A. Iron build-up in line to water conditioner.                                                               | A. Clean line to water conditioner.                                                                                      |
|                                      | B. Iron build-up in water conditioner.                                                                       | B. Clean control and add resin cleaner to resin bed. Increase frequency of regeneration.                                 |
|                                      | C. Inlet of control plugged due to foreign material loose from pipes by recent work done on plumbing system. | C. Remove piston and clean control.                                                                                      |
| 5. Loss of resin through drain line. | A. Air in water system.                                                                                      | A. Assure that well system has proper air elimination control, Check for dry well condition.                             |
| 6. Iron in conditioned water.        | A. Fouled resin bed.                                                                                         | A. Check backwash, brine draw and brine tank fill, increase frequency of regeneration, increase backwash time.           |
| 7. Excessive water in brine tank.    | A. Plugged drain line flow control.                                                                          | A. Clean flow control.                                                                                                   |
| 8. Salt water in service line.       | A. Plugged injector system.                                                                                  | A. Clean injector and replace screen.                                                                                    |
|                                      | B. Timer not cycling.                                                                                        | B. Replace timer.                                                                                                        |
|                                      | C. Foreign material in brine valve.                                                                          | C. Clean or replace brine valve.                                                                                         |
|                                      | D. Foreign material in brine line flow control.                                                              | D. Clean brine line flow control.                                                                                        |
| 9. Softener fails to draw brine.     | A. Draw line flow control is plugged.                                                                        | A. Clean drain line flow control.                                                                                        |
|                                      | B. Injector is plugged.                                                                                      | B. Clean or replace injectors.                                                                                           |
|                                      | C. Injector screen plugged.                                                                                  | C. Replace screen.                                                                                                       |
|                                      | D. Line pressure is too low.                                                                                 | D. Increase line pressure (minimum 20 psi [1.3 bar] at all times).                                                       |
|                                      | E. Internal control leak.                                                                                    | E. Change seals, spacers and/or piston assembly.                                                                         |
| 10. Control cycles continuously.     | A. Faulty timer mechanism.                                                                                   | A. Replace timer.                                                                                                        |
| 11. Drain flows continuously.        | A. Foreign material in control.                                                                              | A. Remove piston assembly and inspect bore, remove foreign material and check control in various regeneration positions. |
|                                      | B. Internal control leak.                                                                                    | B. Replace seals and/or piston assembly.                                                                                 |
|                                      | C. Control valve jammed in Brine or Backwash position.                                                       | C. Replace seals and/or piston assembly.                                                                                 |
|                                      | D. Timer motor stopped or jammed.                                                                            | D. Replace timer.                                                                                                        |



## GENERAL SERVICE HINTS FOR METER CONTROL

| Problem                          | Cause                                               | Correction                                                                                                                                                                                                                    |
|----------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Softener delivers hard water. | A. Reserve capacity has been exceeded.              | A. Check salt dosage requirements and reset program wheel to provide additional reserve.                                                                                                                                      |
|                                  | B. Program wheel is not rotating with meter output. | B. Pull cable out of meter cover and rotate manually, program wheel must move without binding and clutch must give positive "clicks" when program wheel strikes regeneration stop (if not, replace timer).                    |
|                                  | C. Meter is not measuring flow.                     | C. Check output by observing rotation of small gear on front of timer (program wheel must not be against regeneration stop for this check) each tooth to tooth is approximately 30 gallons (113.5 L) (if not, replace meter). |

## MODEL 5600SF TROUBLESHOOTING

| Problem                                      | Cause                                                                                                    | Correction                                                                                                                                                                                                                                                            |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Filter fails to backwash.                 | A. Electrical service to unit has been interrupted.                                                      | A. Assure permanent electrical service (check fuse, plug, pull chain or switch).                                                                                                                                                                                      |
|                                              | B. Timer is defective.                                                                                   | B. Replace timer.                                                                                                                                                                                                                                                     |
|                                              | C. Power failure.                                                                                        | C. Reset time of day.                                                                                                                                                                                                                                                 |
| 2. Filter "bleeds" iron.                     | A. Bypass valve is open.                                                                                 | A. Close bypass valve.                                                                                                                                                                                                                                                |
|                                              | B. Excessive water usage.                                                                                | B. Reduce days between, backwashing (see timer instructions), make sure that there is not a leaking valve in the toilet bowl or sinks.                                                                                                                                |
|                                              | C. Hot water tank rusty.                                                                                 | C. Repeated flushings of the hot water tank is required.                                                                                                                                                                                                              |
|                                              | D. Leak at distributor tube.                                                                             | D. Make sure distributor tube is not cracked, check O-ring and tube pilot.                                                                                                                                                                                            |
|                                              | E. Defective or stripped filter medium bed.                                                              | E. Replace bed.                                                                                                                                                                                                                                                       |
|                                              | F. Inadequate backwash flow rate.                                                                        | F. Make sure filter has correct drain flow control, be sure flow control is not clogged or drain line restricted, be sure water pressure has not dropped, increase backwash flow rate according to specifications for your unit, see your dealer for recommendations. |
| 3. Loss of water pressure.                   | A. Iron or turbidity build-up in water filter.                                                           | A. Reduce days between backwashing so filter backwashes more often, make sure filter is sized large enough to handle water usage.                                                                                                                                     |
|                                              | B. Inlet plugged due to foreign material broken loose from pipes by recent work done on plumbing system. | B. Remove piston and clean control.                                                                                                                                                                                                                                   |
| 4. Loss of filter medium through drain line. | A. Broken or missing top screen.                                                                         | A. Replace top screen, must have 0.020" wide slots.                                                                                                                                                                                                                   |
| 5. Drain flows continuously.                 | A. Foreign material in control.                                                                          | A. Remove piston assembly and inspect bore, remove foreign material and check control in various cycle positions.                                                                                                                                                     |
|                                              | B. Internal control leak.                                                                                | B. Replace seals and/or piston assembly.                                                                                                                                                                                                                              |
|                                              | C. Control valve jammed in rinse or backwash.                                                            | C. Replace piston, seals and spacers (and drive motor if necessary).                                                                                                                                                                                                  |