

Owners Manual

For Water Softener/Conditioner Systems

Models: ET42H | ET50H | ET64H

P/N: 2-F70MDV-342 | 2-F70MDV-350 | 2-F70MDV-364

Includes: Specifications, Installation and Service Instructions, and Trouble Shooting Guidelines



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INTRODUCTION

Congratulations! You have purchased one of the highest-quality water softener/conditioner systems available today. Your new water softener/conditioner is very efficient in its salt and water usage. The system is completely automatic and will contribute to better and longer service of all your water-using appliances. There is very little maintenance required for a water softener/conditioner, and it can give you many years of trouble-free use. This system has been engineered with the finest-quality components and materials. You'll soon be enjoying better water quality and the personal benefits that come from soft/conditioned water use

IMPORTANT: ONLY USE ON POTABLE WATER SUPPLIES

**Read entire manual before attempting installation or routine service.
Obtain all materials and tools needed for installation before starting.
Installation requires soldering copper plumbing fittings. If you don't possess soldering skills, seek professional installation service.
System and installation must be in compliance with state and local laws and regulation.**

Benefits of Soft/Conditioned Water

1. Save up to 30% of the cost of hot water heating.
2. Reduce dishwashing detergent use up to 75%. See dishwasher owner's manual for proper amount of soap at "0" softness.
3. Reduce use of all soaps and cleaning products up to 75%. You may be able to use less shampoo, conditioners and skin lotions.
4. Reduce laundry soap use up to 75%. Typically, a one-quarter cup to one-half cup of standard laundry detergent is recommended.
5. Reduced cleaning time and effort. Many people report that their cleaning time is cut in half.
6. The silky-smooth feeling you may experience while rinsing the soap off your skin during a shower is your natural body oils. Soap actually rinses off much faster with soft/conditioned water, but you may not feel like the soap is rinsed off because of this slick feeling. You will find that if you shower in hard water again, it will feel sticky and unclean. Enjoy the fresh, new showering experience; and remember, you don't need as much soap now!
7. There are many other benefits of soft/conditioned water that you can now start to enjoy. Studies have indicated that savings from a softener/conditioner can easily range from \$10.00 to \$30.00 per month. Start to experience the benefits of soft/conditioned water now! We hope you enjoy!

Warnings

1. **Do not let unit freeze** or place unit where unit, connections, or drain lines will ever be subject to room temperatures under 40° F, or over 140° F. Warm valve to room temperature before putting into operation.
2. Hook up to cold water supply only.
3. Check existing plumbing and repair prior to install of water softener.
4. Improper installation may void warranty. Read manual completely before installation and mail in warranty card.
5. Do not lay unit down on its side, or drop, or set on sharp protrusions.
6. Avoid setting unit in direct sunlight or outside, if possible.
7. Do not use soft water on your outside faucets for watering or sprinkling.
8. Check with your evaporative cooler company to see what it recommends about soft water use in your coolers.
9. Check with your pool company to see what it recommends about soft water use in your pool.
10. Never let your water softener run out of salt. May void your warranty.
11. If sand particles are present in water supply to be softened, a pre-filter will be required.
12. If certain iron types are present in water supply, proper pre-treatment will be required.
13. Do not solder joints within 6" of bypass or drain line fitting.
14. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

SPECIFICATIONS AND LIMITATIONS

2-F70MDV-342 | 2-F70MDV-350 | 2-F70MDV-364

Total Grain Capacity: 2-F70MDV-342 / ET42H 1.32 cubic foot of high capacity cation resin Efficiency**	23,700 @ 5.3 lbs. of salt 40,500 @ 11.9 lbs. of salt 43,200 @ 13.7 lbs. of salt 45,700 @ 19.8 lbs. of salt 4,490 grains/lb of salt @ 5.3 lbs. of salt
Total Grain Capacity: 2-F70MDV-350 / ET50H 1.56 cubic foot of high capacity cation resin Efficiency**	28,000 @ 6.2 lbs. of salt 47,800 @ 14.0 lbs. of salt 51,000 @ 16.2 lbs. of salt 54,100 @ 23.4 lbs. of salt 4,490 grains/lb of salt @ 6.2 lbs. of salt
Total Grain Capacity: 2-F70MDV-364 / ET64H 2.0 cubic foot of high capacity cation resin Efficiency**	35,900 @ 8.0 lbs. of salt 61,300 @ 18.0 lbs. of salt 65,400 @ 20.8 lbs. of salt 69,300 @ 30.0 lbs. of salt 4,490 grains/lb of salt @ 8.0 lbs. of salt
Maximum Water Hardness	24-60 Grains Per Gallon
Maximum Ferrous Iron (depending on type of Iron)	1-10 PPMs
Minimum Ph	7
Regeneration Time	Approximately 80 – 120 Minutes
Water consumed during regeneration: 2-F70MDV-342 / ET42H 2-F70MDV-350 / ET50H 2-F70MDV-364 / ET64H	77 gallons 90 gallons 116 gallons
Water Pressure	40 Min. –100 Max. PSI 85 psi day time pressure
Service Flow Rates: 2-F70MDV-342 / ET42H 2-F70MDV-350 / ET50H 2-F70MDV-364 / ET64H	13.7 gpm @ 15 psi pressure drop 16.0 gpm @ 15 psi pressure drop 18.6 gpm @ 15 psi pressure drop
Maximum flow rate to drain during regeneration: 2-F70MDV-342 / ET42H 2-F70MDV-350 / ET50H 2-F70MDV-364 / ET64H	2.0 GPM 2.4 GPM 3.5 GPM
Temperature	Air : 40° to 140° F Water : 40° to 110°F
Bypass Valve Size	1" or 1 1/4"
Drain Line Size	1/2" (under 20' run and lower than 10' vertical at 60 PSI) 3/4" (over 20' run or over 10' high, or over 7GPM backwash rates)
Electrical Requirements	*Continuous 110 Volt, 60 Cycles/12volt/24volt
System Dimensions: Media Tank and Valve: 2-F70MDV-342 / ET42H 2-F70MDV-350 / ET50H 2-F70MDV-364 / ET64H Brine Tank: ET42H & ET50H ET64H	9" dia. X 56" high 10" dia. X 62" high 12" dia. X 60" high 11" square X 34" high 14" square X 34" high
Salt/Potassium Storage Capacity	11" square X 34" high = 150 lbs. 11" X 14" X 34" high = 225 lbs.
Approximate Shipping Weight (with no salt)	100-140 lbs.

*Continuous means to a 110 outlet that has continuous voltage not able to be turned off by a light switch.

** Efficiency based at stated factory set salt dosage and maximum service flow rate only. Efficiency determined in accordance with NSF/ANSI 44.

**Systems conform to NSF/ANSI 44 for the specific performance claims
as verified and substantiated by test data.**

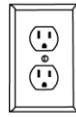
❖ **No reduction of specific contaminant claims**


INSTALLATION INSPECTION

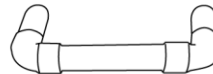
IS YOUR HOME PRE-PLUMBED?

Your home is pre-plumbed for a water softener/conditioner if you have a loop in the garage or laundry room. A pre-plumb consists of a 110-volt outlet within 6 feet of the loop and a 1/2" drain line stubbed out of the wall. All three components are required. If your home is pre-plumbed, skip now to Step 1 of Installation Procedures.

CAUTION: Before starting up system, check water softener drain line to insure that it will drain properly.



drain source 

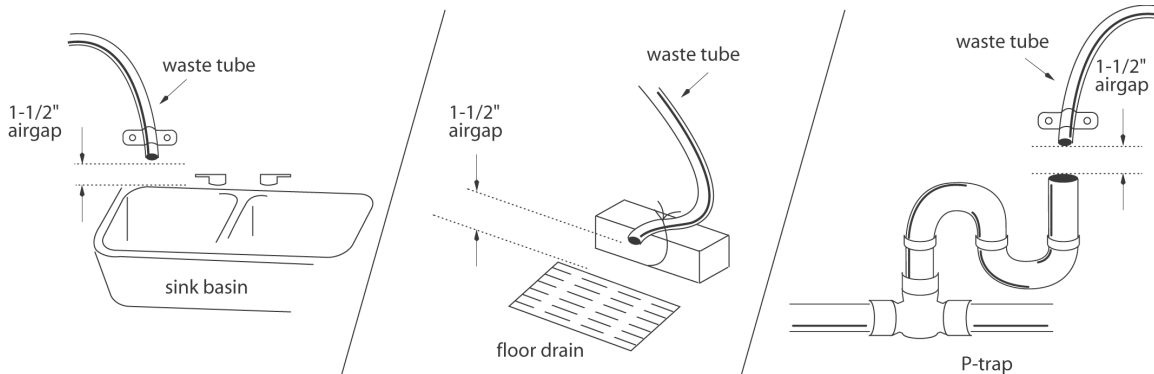
loop 

IF YOUR HOME IS NOT PRE-PLUMBED

If your home is not pre-plumbed for a water softener, then we recommend calling for professional installation. If you are attempting to install the system yourself, you must determine where to locate the water softening/conditioning system.

The best location depends on several questions:

1. How will you get the water from the water main to the water softener/conditioner?
2. Where will you run the drain line/waste tube? (See illustration on page 5)



3. Where is a 110V outlet within 6 feet of the softener?
Optional: Use a 24-volt timer motor and transformer.
Or run a longer wire to most any 110V outlet.
4. Do you need to run a hard-water line to your outside hose bibs, pool fillers or irrigation system?
1. Where can the water softener sit on a firm, fairly level concrete floor or slab?

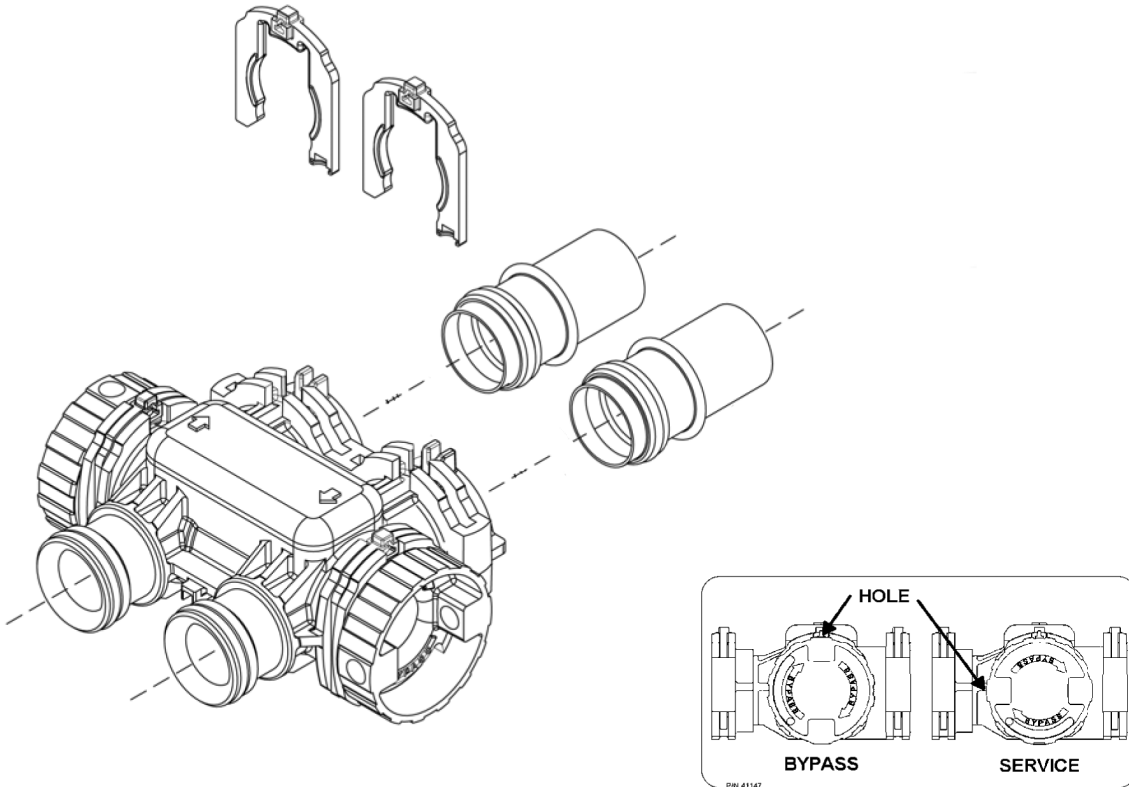
Determine the location of your water softener/conditioner, taking into account the above factors, and determine what materials and tools will be needed for installation. You are now ready to move on to Step 1 of the installation procedures.

INSTALLATION PROCEDURES

STEP 1 – CONNECT TO WATER SUPPLY

- A. Prepare the water softener valve for installation.
1. Remove the two red H-clips from the control valve to allow installation of the bypass valve. Use a small screwdriver to pry the H clips up and off the valve.
 2. Apply non-petroleum silicone lubricant to the two connection ends on the bypass valve.
 3. Push the bypass assembly into the control valve.
 4. Install the two red plastic H-clips from the top of the bypass valve. Push the H-clips all the way down until they snap into place.
 5. The brass connectors should already be installed in the bypass valve. If they are not, push the two brass connectors in place into the bypass valve and install the two H-clips.
 6. Put the bypass valve into the bypass position by turning both sides of the valve to the bypass position as shown on top of the bypass valve.

Note: The valve comes with two extra red H-clips and one extra gray clip for the brine line connector.



- B. Prepare the softener loop for installation.
1. Shut off the main water supply to the house.
 2. Open the hose bib to relieve pressure and drain out excess water.
 3. Place a bucket or the softener brine tank under the softener loop to catch the excess water that will spill out when you cut the pipe.
 4. Cut the plumbing loop off.
 5. Determine the inlet side of the loop by turning the main water on very slightly until water comes out of one of the sides of the loop. This is the inlet supply. **Warning: You must connect the incoming side of the softener/conditioner to the inlet supply from the loop.** Failure to connect with the proper directional flow can damage the water softener/conditioner and your household plumbing.

- C. Make the plumbing connections to the water supply.
 1. Protect the control valve from the heat generated from soldering by wrapping a wet towel around the bypass valve near the brass connectors while soldering the joints away from the valve.
 2. Connect the inlet supply side of the loop to the inlet connector on the bypass valve. A directional arrow on the top of the bypass valve designates the inlet.
 3. Connect the outlet from the valve to the outlet side of the loop.

STEP 2 – CONNECT TO DRAIN

We recommend using ½" I.D. black drip-line sprinkler tubing for the drain line run, (not provided). A typical drain line runs from a ½" copper stub out located at the softener loop to a washing machine drain. Sometimes the softener will drain to a floor drain, sanitary sewer line with a p-trap, a sink drain, or a sump. **CAUTION: Check with all local plumbing codes to insure proper installation in your area. An air-gap is required. Be sure to install proper drain line size (see specifications or step 2D for sizing).**

- A. Push one end of the ½" I.D. drain-line onto the drain-line hose barb fitting located on top and behind the controller.
- B. Secure the tube with a hose clamp, (not provided).
- C. Connect the tubing to the drain stub out provided with your pre-plumb loop. Some pre-plumbs may provide an ABS drainpipe to run the drain-line to. **CAUTION: Be sure the drain-line discharges properly into a drain to prevent flooding.**
- D. If the following conditions exist, it is recommended to increase the drain line tubing from ½" to ¾" I.D.
 1. Drain line run is over 20'.
 2. Drain line vertical rise is over 10 feet above the water softener with incoming water supply pressure of 60 psi. (You can increase or decrease height of run 2 feet per 10 psi. variations in either direction, i.e. 12 feet vertical run with 70 psi. or 8 feet vertical run with 50 psi.).

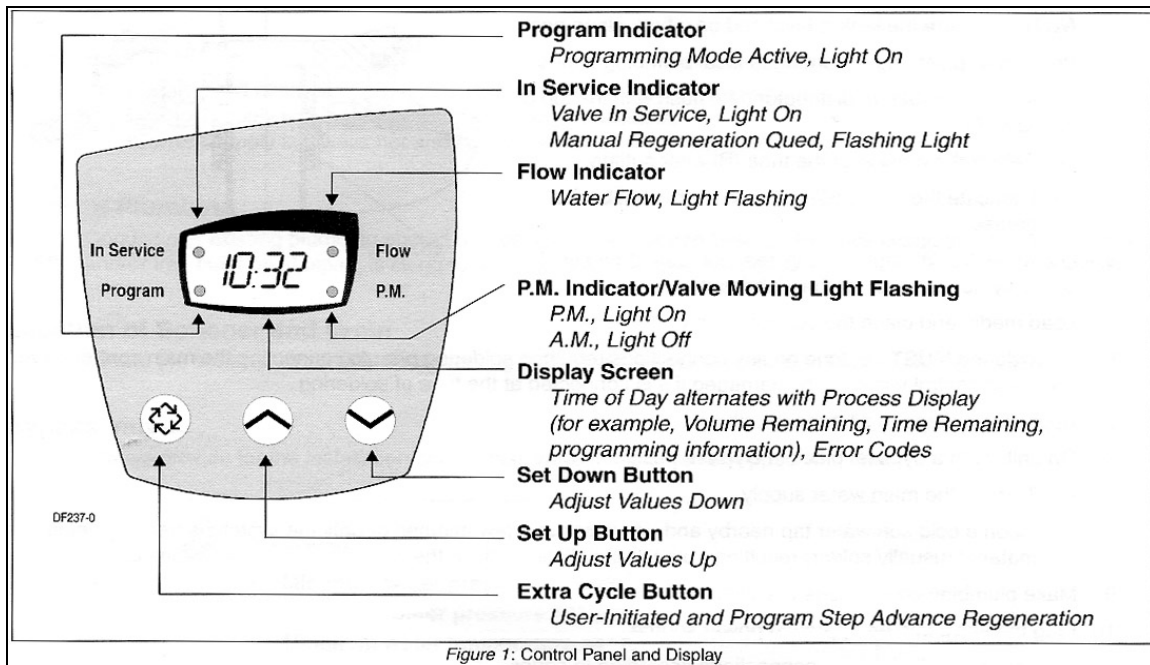
STEP 3 – ASSEMBLE THE BRINE TANK AND CONNECT THE BRINE LINE

- A. Take off the cap from the brine well.
- B. Take out the float assembly.
- C. Place the brine well into the brine tank and align the holes in the brine well to the holes in the brine tank.
- D. Take out the 1/2" 90° elbow hose barb and remove the rubber washer and plastic nut.
- E. From the outside of the brine tank, install the elbow fitting through the bottom hole.
- F. Place the rubber washer onto the threads inside the brine well and secure with the plastic nut.
- G. Remove the nylon nut from the float assembly; insert the float assembly inside the brine well with the bolt through the small hole opposite the elbow fitting. Secure with the nylon nut.
- H. Connect one end of the 3/8" black line to the brine float fitting located at the top of the brine well inside the brine tank. **Note:** The brine line enters the brine tank through the hole aligned with the fitting for the brine float.
- I. Connect the other end of the 3/8" black line to the brine line flow control fitting located just behind the control head using the black nut provided. The line enters from the left side facing the control.
- J. Be sure all fittings and connections are tight. (See diagram on page 17).

STEP 5 – CONNECT THE ELECTRICAL

- A. Plug the transformer into a 110 VAC outlet that is **NOT** controlled by a wall switch.
- B. The display will now alternately display the time of day and capacity remaining.

STEP 4 – START UP THE SYSTEM



- A. Make sure when opening the valves to allow water to enter the softener for the first time that you open the valves slowly and allow the water to fill the softener **very slowly**.
- B. Verify that the bypass valve is in the bypass position.
- C. Turn on the water supply to the house slowly and check for leaks in the soldered connections. If there are leaks, repair before continuing with start-up.
- D. Put about 4 inches of water in the brine tank.
- E. Open a nearby faucet in the house.
- F. Slowly open the inlet knob on the bypass valve. Then slowly open the outlet knob on the bypass valve.
- G. Locate the **Extra Cycle Button** on the lower left corner of the control display.
- H. Press and hold the **Extra Cycle Button** until the display shows a flashing "1", approximately 5 seconds. The "1" will stop flashing when it advances to the proper position.
- I. The water will be flowing to the drain in this first cycle.
- J. Check the drain discharge to verify the water is draining into the drain properly.
- K. Let water run to the drain for about 3 or 4 minutes.
- L. Turn off the faucet in the house.
- M. Press the **Extra Cycle Button** again to advance the controller to the next stage, **Brine Draw**.
- N. The display will show a flashing "2". Again the "2" will stop flashing after a few seconds.
- O. The valve will be drawing water out of the brine tank very slowly during this stage. Watch the water level and see that it is indeed drawing out the water.
- P. Allow the valve to run in this cycle for about 2 minutes.
- Q. Press the **Extra Cycle Button** again. A flashing "3" will be displayed.
- R. After the "3" stops flashing, press the **Extra Cycle Button** again. A flashing "4" will be displayed.
- S. After the "4" stops flashing, press the **Extra Cycle Button** again. A flashing "5" will be displayed.
- T. Leave the valve in this cycle, **Brine Refill**. This cycle will fill the brine tank with water. The control will automatically cycle itself back to the **In Service** position after about 12 minutes.
- U. Once the valve is in the **In Service** position proceed to the next step, Programming the Valve.

STEP 6 – PROGRAM THE VALVE CONTROL

- A. Set the Time of Day Setting.
1. Locate the up and down buttons on the face of the control valve.
 2. Simply push the up button to set the time forward, or the down button to set the time backward. On the right of the display there is a P.M. indicator dot. Holding the button in will advance the time more quickly. It will start slow at first, and then increase in speed the longer you continue to hold the button in.
 3. Release the buttons when you have set the control to the current time of day.
- B. Program the feed water hardness.
1. Enter the programming mode by pressing both the up and down buttons for (5) seconds.
 2. The first setting displayed is the feed water hardness listed in grains per gallon. The factory default value is 18 grains.
 3. Change the setting to the feed water hardness in your area by pushing the up or down button. We recommend setting the value about 3 grains higher than what the actual level is to compensate for seasonal changes in the feed water hardness. You can find out what your feed water hardness is by contacting the municipality or company providing the water service to your home.
 4. Press the **Extra Cycle** button to advance to the regeneration time setting.
- C. Program the regeneration time.
1. The factory default regeneration time setting is 2:00 A.M.
 2. To change the time of day the system will regenerate, simply push the up button to set the time forward, or the down button to set the time backward. On the right of the display there is a P.M. indicator dot. Holding the button in will advance the time more quickly. It will start slow at first, and then increase in speed the longer you continue to hold the button in.
 3. To accept the setting and advance forward to the **In Service** position, press the **Extra Cycle** button.

FACTORY DEFAULT SETTINGS

Model	Hardness (Grains/gallon)	Capacity (Kilo grains)	Salt (Pounds)	Calendar Override (Days)
2-F70MDV-342 / ET42H	18	20	6	15
2-F70MDV-350 / ET50H	18	24	7	15
2-F70MDV-364 / ET64H	18	31	9	15

USE AND CARE

- A. **Type of System**
Your water softener is a fully automatic **Demand Initiated**, metered system. This means the softener meters, or keeps track of, the water used in the home. It uses this information to determine when to perform the regeneration, or cleaning cycle. The control of the softening process automatically adjusts to your water use. For example, if you have company and your water use increases substantially, the softener will adjust to insure you don't run out of soft water. If you go away for a time and are not using any water in the home, the softener will adjust again and not perform a regeneration cycle thereby saving salt and water.
- B. **Type of Salt**
Basically, salt is salt. However, some makes of salt contain more dirt in the bag than others. We recommend Morton™ or Diamond Crystal™ salt pellets, but any type will work. Salt is readily available at most grocery stores and home improvement centers.
- C. **Type of Potassium**
Potassium can also be used in the water softener. When Potassium is used however, the softener control valve will need to be adjusted. Add 3 grains to the feed water hardness setting i.e. feed water = 18 grains + 3 for potassium = 21 grains entered for the feed water setting. Also keep the level of potassium in the brine tank low.

D. **Amount of Salt or Potassium**

We recommend keeping the level of salt in the brine tank about half full for most households. Larger households can start out with more. Let the salt level drop down to the water level before adding more salt. Potassium should be kept as close to the water level as is practical to help prevent a “salt bridge”. Periodically you may experience a salt bridge. A salt bridge occurs when the salt forms a crust right at the water level in the brine tank. The salt remains suspended above the water and cannot make the brine solution required for the regeneration of the softener bed. If you do experience a salt bridge, simply tap a broom handle down in the salt to break up the bridge. Wait at least 1 hour, and then manually regenerate the softener.

E. **Sodium and Potassium in Softened Water**

The softening process does add some sodium or potassium to the conditioned water. The following chart shows approximately how much sodium or potassium is added to one quart of conditioned water based on the amount of feed water hardness.

Sodium added to water from cation exchange softening		
Initial feed water hardness	Sodium added by softening	Potassium added by softening
Grains per Gallon	Milligrams Na ⁺ /qt.	Milligrams K ⁺ /qt.
5	37	62.9
10	75	127.5
15	112	190.4
20	150	255
30	225	382.5

For comparison, (2) slices of white bread contain approximately 278 milligrams of sodium and (2) cups of milk contain approximately 226 milligrams of sodium. One large banana contains approximately 600 milligrams of potassium.

F. **Noise during the regeneration cleaning process**

The water softener will automatically perform a cleaning process called regeneration. During regeneration the softener will cycle through several stages including backwash, brine rinse, rapid rinse, and brine refill. There may be considerable noise coming from the valve control during this process. The regeneration process will take approximately (2) hours to complete. The default time of day when the regeneration takes place is 2:00 A.M. If this time proves disruptive to you, program the valve to regenerate at a different time of day. See step 6, page 9.

G. **Cleaning the Brine Tank**

Normally it is not necessary to clean the brine tank. In time dirt and silt can build up in the brine tank and if you choose you can clean it out. Let the salt level drop down very low. The night before you clean, manually regenerate the softener. Disconnect the brine line and dump out the old salt, **(Do not dump the old salt anywhere near living plants)**. Reconnect the brine line, add about (3) gallons of water, and add the new salt.

H. **Changing the Control Valve Settings**

It is not necessary to change the control valve settings other than the ones described in step (6). Over the course of several months it is possible the display will not show the correct time of day due to power fluctuations. Reset the control to the correct time of day. If your feed water hardness changes, reset the control to the new hardness. Other settings are programmed at the factory for optimum efficiency and do not need to be changed.

I. **Bypassing the Softener**

You may need to bypass the softener for service or if you do not want your household water to pass through the softener. See the diagram in step (1) for instructions on bypassing the softener. The instructions are also shown on top of the bypass valve. **Make sure you depressurize the system before performing any service or removing the softener.** See the “WARNING” in the troubleshooting section below.

J. **Vacations or extended periods of non-use**

It is not necessary to shut down the softener for periods of non-use equal to two-week to one-month vacations. If however, you are a temporary resident and leave for periods of four to six months, we recommend you shut the softener down. Put the softener in bypass and unplug it. When you return you will need to start the softener up. Make sure there are approximately (3) gallons of water in the brine tank, plug the softener in, and manually regenerate the softener.

K. **Disinfection of the Water Softener**

The materials of construction of the modern water conditioner will not support bacterial growth, nor will these materials contaminate a water supply. However, during normal use, a conditioner may become fouled with organic matter, or in some cases with bacteria from the feed water supply. This may result in an off-taste or odor in the water.

Therefore, your conditioner may need to be disinfected after installation. Some conditioners will require periodic disinfection during their normal life. Consult your installing dealer for more information on disinfecting your conditioner.

Depending upon the conditions of use, the style of conditioner, the type of ion exchanger, and the disinfectant available, a choice can be made among the following methods.

Sodium or Calcium Hypochlorite

These materials are satisfactory for use with the polystyrene resin in your water softener.

5.25% Sodium Hypochlorite

These solutions are available under trade names such as Clorox™. If stronger solutions are used, such as those sold for commercial laundries, adjust the dosage accordingly.

1. Dosage

2-F70MDV-342 / ET42H	1.5 fluid ounce
2-F70MDV-350 / ET50H	1.8 fluid ounce
2-F70MDV-364 / ET64H	2.4 fluid ounce
2. Application
 - a. Manually put the water softener into regeneration.
 - b. Let the softener proceed through the first cycle, about (10) minutes.
 - c. Add the sodium hypochlorite solution to the brine well inside the brine tank.
 - d. Let the softener proceed with the regeneration process.

Calcium Hypochlorite

Calcium hypochlorite, 70% available chlorine, is available in several forms including tablets and granules. These solid materials may be used directly without dissolving before use.

1. Dosage

2-F70MDV-342 / ET42H	2.5 grains (approximately 0.13 ounce)
2-F70MDV-350 / ET50H	3 grains (approximately 0.15 ounce)
2-F70MDV-364 / ET64H	4 grains (approximately 0.20 ounce)
2. Application
 - a. Manually put the water softener into regeneration.
 - b. Let the softener proceed through the first cycle, about (10) minutes.
 - c. Add the sodium hypochlorite solution to the brine well inside the brine tank.
 - d. Let the softener proceed with the regeneration process.

TROUBLESHOOTING

The technology upon which the control valve is based is well established and proven in service over many years. However, should a problem or question arise regarding the operation of the system, the control can very easily be serviced.

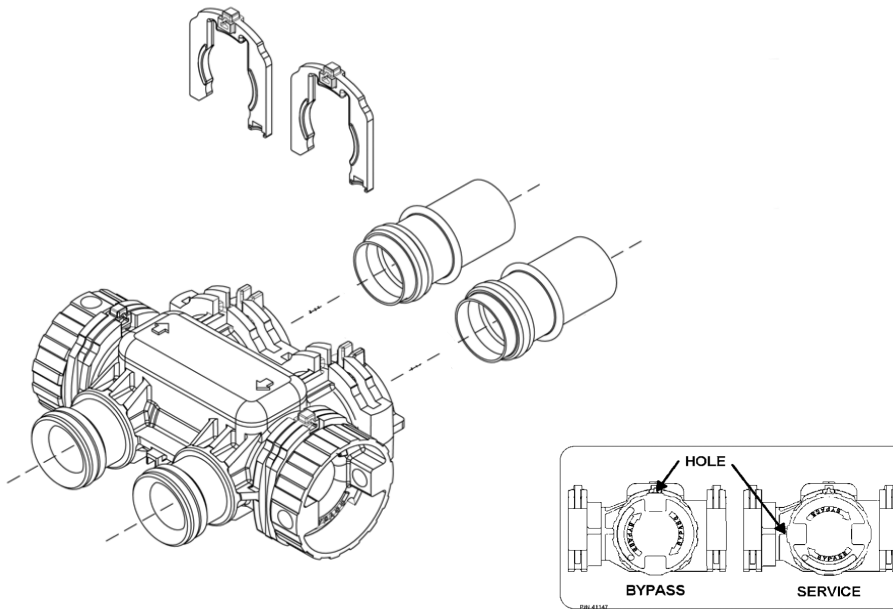
WARNING: The water softener operates under house pressure and can be as high as 80 psi. The control valve **must be depressurized** before servicing. The best way to depressurize the system is:

- Turn off service to the house.
- Open a hose bib or faucet in the house to relieve pressure.
- Put softener valve into the bypass position.
- The softener is now depressurized and service may be turned back on to the house.

General Troubleshooting

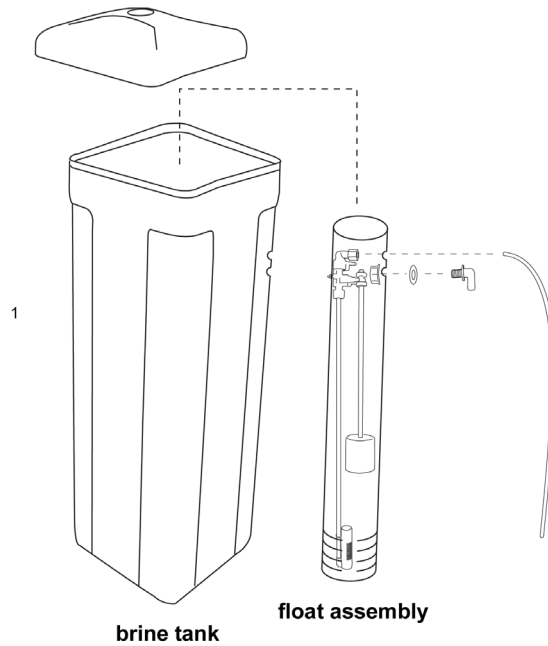
PROBLEM	CAUSE	CORRECTION
Softener fails to regenerate	<ul style="list-style-type: none"> - Electrical service to unit has been interrupted. - Timer is defective. 	<ul style="list-style-type: none"> - Assure permanent electrical service (check fuse, outlet). Plug should not be plugged into a switched outlet. - Replace defective timer.
Softener is not softening	<ul style="list-style-type: none"> - Bypass valve is in the bypass position - No salt in the brine tank. - Injector screen plugged. - Insufficient water flowing into brine tank. - Internal valve leak. - Hot water is hard. - Leak at distributor tube. - System may not be regenerating often enough. 	<ul style="list-style-type: none"> - Move bypass valve to the service position. - Add salt to brine tank above the water level. Wait (1) hour, and then manually regenerate. - Clean injector screen. - Check brine tank fill time and clean brine line flow control if plugged. - Replace seals, spacers, piston or distributor. - Use enough hot water to turn over tank with soft water. - Make sure distributor tube is not cracked. Check O-Ring and tube pilot. - Increase feed water hardness setting.
Softener uses too much salt	<ul style="list-style-type: none"> - Improper salt setting. - Excessive water in the brine tank. 	<ul style="list-style-type: none"> - Check salt usage and salt setting. - Brine draw not functioning. Clean or replace injectors.
Loss of water pressure	<ul style="list-style-type: none"> - Iron build up in water softener - Inlet of control plugged. - Resin fouled. 	<ul style="list-style-type: none"> - Clean control and add resin cleaner. Increase regeneration frequency and/or backwash time. - Remove piston and clean control of foreign material. - Replace resin.
Loss of resin media through drain line.	<ul style="list-style-type: none"> - Air in the water system. - Drain line flow control too large. 	<ul style="list-style-type: none"> - Assure that well system has proper air eliminator control. Check for dry well condition. - Check to ensure drain line flow control is sized properly for your mineral tank.
Iron in softened water	<ul style="list-style-type: none"> - Iron fouled resin bed. 	<ul style="list-style-type: none"> - Add resin cleaner, and increase frequency of regeneration.
Excessive water in brine tank.	<ul style="list-style-type: none"> - Plugged drain line flow control. - Plugged injector system. - Timer not cycling. - Foreign material in brine valve. - Foreign material in brine line flow control. - Power loss during brine fill. 	<ul style="list-style-type: none"> - Clean flow control. Put system through a manual regeneration cycle. - Clean injector and screen. - Replace timer. - Replace brine valve seat and clean valve. - Clean brine line flow control. - Check power source.

Bypass Assembly



Item Number	No. Req'd	Part Number	Description
1	1	40569	(7000) Bypass assembly
2	1	40565-10	connector, 1-1/4" BSP
3	1	40953	connector, 1-1/4" sweat, copper
4	2	40576	clip, H, plastic
5	1	40951	o-ring

Brine Tank Assembly



Parts			
Code	Part No.	Description	Qty.
1	208-11111	Brine Tank Assembly with safety float	1

MANUFACTURERS WARRANTY

WATER SOFTENER/CONDITIONER

LIMITED WARRANTY

Your Water Softener / Conditioner System is warranted to the original owner from date of purchase, as indicated below.

Factory labor, (trip charge not included), to repair or replace defective component(s) is covered for:

Models:	2-F70MDV-342 / ET42H	1-year from date of purchase
	2-F70MDV-350 / ET50H	1-year from date of purchase
	2-F70MDV-364 / ET64H	1-year from date of purchase

The MaxFlow™ valve, water softener valve and its components are warranted to the original owner to be free from material defects for:

Models:	2-F70MDV-342 / ET42H	5-years from date of purchase
	2-F70MDV-350 / ET50H	6-years from date of purchase
	2-F70MDV-364 / ET64H	6-years from date of purchase

The UltraStar™ resin media, media tank, brine tank, and valve body are warranted to the original owner to be free from material defects for:

Model:	2-F70MDV-342 / ET42H	20-years from date of purchase
	2-F70MDV-350 / ET50H	Lifetime from date of purchase
	2-F70MDV-364 / ET64H	Lifetime from date of purchase

On all Models:

All other components are warranted to original owner to be free from material defects for a period of 1-year from date of purchase. All other media beds are warranted for their service life or one year, whichever is less. Trip charge is not included.

Please read carefully the installation, maintenance, and specification manual. Divergence from these instructions or use on non-potable water supply will void your warranty.

DO NOT CONTACT THE LOCATION WHERE YOU PURCHASED YOUR EQUIPMENT. For warranty service contact the manufacturer. Send or deliver the defective component or unit to the manufacturer for inspection, freight prepaid, with a copy of sales invoice and manufacturer warranty. The parts or unit will be repaired or replaced at our option and returned to the customer, freight prepaid.

This warranty does not cover any defects or damage resulting from water pressure exceeding 85psi, misuse, misapplication, neglect, alterations, accident, improper maintenance or installation contrary to manufacturers printed instructions and specifications, casualties, fire, flood, water softener/conditioner drain line plugging, sediment/scale fouling, air temperatures over 140°F, water temperatures over 110°F, freezing, environmental factors, or acts of God.

This warranty is void if equipment is moved from original installation site or repaired by an unauthorized service agent or if not using AmeriFlow approved components. This warranty does not cover systems used outside the United States.

This warranty does not cover any consequential damages, including travel expense, telephone charges, loss of revenue, loss of time, inconvenience, loss of use of the equipment and/or its failure to function properly.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES, IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE DURATION OF THIS GUARANTEE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS. SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. AMERIFLOW WATERS SYSTEMS INC. WILL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES SUFFERED BY CUSTOMER ARISING FROM ANY DEFECT OR MALFUNCTION IN THE UNIT. SOME STATES DO NOT ALLOW THE EXCLUSION OF LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

AmeriFlow™ Water Systems Inc. 115 W. 1st Ave. Suite C, Mesa, AZ 85210 U.S.A. · 1-602-275-4188

WARRANTY REGISTRATION

Mail form and a copy of original sales receipt to:

AmeriFlow™ Water Systems Inc. 115 W. 1st Ave. Suite C, Mesa, AZ 85210 U.S.A. · 1-602-275-4188

Or Fax form and a copy of original sales receipt to: 602-244-2505.

AmeriFlow™ Water Systems Inc. considers the safety of your personal information very important. AmeriFlow™ collects personal information when you register your product with us. This information is kept in our records and we do not share personal information with other nonaffiliated companies. We reserve the right to communicate with you via direct mail, email, or telephone pertaining to our products and services. We limit access to your personal information to those employees whose job requires them to communicate with you regarding our products and services. By registering your product the original purchaser will be entitled to the full benefits of AmeriFlow™ Water System's warranty.

KEEP FOR YOUR RECORDS

Model #: _____ Serial #: _____

Date of Purchase: _____ Date of Install: _____

Where Purchased: _____

Installed by: _____

WARRANTY REGISTRATION

Original Purchaser

First Name: _____ Last Name: _____

Address: _____ City: _____

State: _____ Zip Code: _____

Country: _____ Phone #: _____

Email: _____

Date of Purchase: _____ Date of Install: _____

Where Purchased: _____

Installed by: _____

Model #: _____ Serial #: _____