



Culligan®

Culligan
Medallist Series®
Automatic Water
Conditioner
Owners Guide





Thank You

And Welcome To Your New World Of Better Living With Culligan Water.

The Culligan Medallist Series® 8" Soft-Minder Softener and 8" Timeclock Softener are tested and certified by WQA against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) and barium/radium as verified and substantiated by test data.

The Culligan Medallist Plus Series® 30, 45 and 60 Soft-Minder Water Softeners are tested and certified by WQA against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) and barium/radium as verified and substantiated by test data. The Culligan Medallist Plus Series® 30, 45 and 60 Soft-Minder Water Softeners are tested and certified by WQA against NSF/ANSI 61 for material requirements.

The Culligan Outdoor Medallist Plus Series® 30, 45 and 60 Soft-Minder Water Softeners are tested and certified by WQA against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) and barium/radium as verified and substantiated by test data.



For installations in Massachusetts, Massachusetts Plumbing Code 248 CMR shall be adhered to. Consult your licensed plumber for installation of this system. This system and its installation must comply with state and local regulations. The use of saddle valves are not permitted.

Hardness sample kits are available through your local Culligan Dealer.

If this is your first experience having soft, conditioned water in your home, you'll be amazed at the marvelous difference it makes. We promise that you'll never want to be without it again.

Congratulations, too, on selecting one of the "first family" of water conditioners in the prestigious Culligan Medallist Series. With Culligan's many years of knowledge and experience in water treatment, you can be confident that the model you selected has been designed and engineered to provide years of service with a minimum of care and attention.

Some localities have corrosive water. A water softener cannot correct this problem and so its printed warranty disclaims liability for corrosion of plumbing lines, fixtures or appliances. If you suspect corrosion, your Culligan Dealer has equipment to control the problem.

SODIUM INFORMATION: Water softeners using sodium chloride for regeneration add sodium to the water. Persons who are on sodium restricted diets should consider the added sodium as part of their overall sodium intake.

Attention Culligan Customer:

The installation, service and maintenance of this equipment should be rendered by a qualified and trained service technician. Your local independently operated Culligan dealer employs trained service and maintenance personnel who are experienced in the installation, function and repair of Culligan equipment. This publication is written specifically for these individuals and is intended for their use.

We encourage Culligan users to learn about Culligan products, but we believe that product knowledge is best obtained by consulting with your Culligan dealer. Untrained individuals who use this manual assume the risk of any resulting property damage or personal injury.



Performance Data Sheets are included in this manual for various Culligan Medallist Series® Softener models. Refer to the Performance Data Sheet for your specific softener, as there are slight differences between the models. The softener warranty is located on page 51 of this Owner's Guide.

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Specifications

Culligan Medallist Series® Water Conditioners with Soft-Minder® Meter

	Medallist	Medallist Plus		
	8" Model	30 Model	45 Model	60 Model
Control Valve Type	3/4" 5-cycle Reinforced Thermoplastic	1" 5-cycle Reinforced Thermoplastic	1" 5-cycle Reinforced Thermoplastic	1" 5-cycle Reinforced Thermoplastic
Overall Conditioner Height	51 in., 1,295 mm	49 in., 1,245 mm	63 in., 1,600 mm	61 in., 1,549 mm
Media Tank Dimensions (Dia. x Ht.)	8 x 44 in. 203 x 1,118 mm	10 x 40 in. 254 x 1,016 mm	10 x 54 in. 254 x 1,372 mm	12 x 52 in. 305 x 1,321 mm
Salt Storage Tank Dimensions (Dia. x Ht.)	18 x 43 in. 457 x 1,092 mm	18 x 43 in. 457 x 1,092 mm	18 x 43 in. 457 x 1,092 mm	18 x 43 in. 457 x 1,092 mm
Exchange Media, Type & Qty	Cullex® Media, 0.7 ft ³	Cullex Media, 1.0 ft ³	Cullex Media, 1.5 ft ³	Cullex Media, 2.0 ft ³
Underbedding, Type & Quantity	Cullsan® Underbedding, 6 lb.	Cullsan Underbedding, 15 lb.	Cullsan Underbedding, 15 lb.	Cullsan Underbedding, 16 lb.
Exchange Capacity @ Salt Dosage Per Recharge ¹	13,312 gr @ 3 lb.	17,172 gr @ 4 lb.	26,770 gr @ 6 lb.	35,614 gr @ 8 lb.
	22,947 gr @ 9 lb.	23,664 gr @ 8 lb.	38,830 gr @ 12 lb.	51,659 gr @ 16 lb.
	24,853 gr @ 12 lb.	27,700 gr @ 12 lb.	45,493 gr @ 18 lb.	60,523 gr @ 24 lb.
Efficiency at Rated Salt Dosage ⁵	4437 gr./lb. @ 3.0 lb. salt dosage	4293 gr./lb. @ 4.0 lb. salt dosage	4461 gr./lb. @ 6.0 lb. salt dosage	4451 gr./lb. @ 8.0 lb. salt dosage
Freeboard to Media ²	20.5 - 21.5 in.	13 in.	15 in.	16 in.
Freeboard to Underbedding ³	42.0 - 42.5 in.	35 in.	48 in.	46 in.
Salt Storage Capacity	250 lb. or 375 lb.	250 lb. or 375 lb.	375 lb.	375 lb.
Rated Service Flow @ Press. Drop	5.9 gpm @ 12 psi	9.0 gpm @ 15 psi	9.4 gpm @ 15 psi	10.0 gpm @ 15 psi
Total Hardness, Maximum	75 gpg	75 gpg	99 gpg	99 gpg
Total Iron, Max. (dissolved)	5 ppm	5 ppm	5 ppm	5 ppm
Hardness to Iron Ratio, Minimum	8 gpg to 1 ppm	8 gpg to 1 ppm	8 gpg to 1 ppm	8 gpg to 1 ppm
	140 mg/L to 1 mg/L	140 mg/L to 1 mg/L	140 mg/L to 1 mg/L	140 mg/L to 1 mg/L
Operating Pressure	20 - 125 psi / 140 - 860 kPa	20 - 125 psi / 140 - 860 kPa	20 - 125 psi / 140 - 860 kPa	20 - 125 psi / 140 - 860 kPa
Operating Pressure (Canada)	20 - 90 psi / 140 - 620 kPa	20 - 90 psi / 140 - 620 kPa	20 - 90 psi / 140 - 620 kPa	20 - 90 psi / 140 - 620 kPa
Operating Temperature	33 - 120°F, 1 - 50°C	33 - 120°F, 1 - 50°C	33 - 120°F, 1 - 50°C	33 - 120°F, 1 - 50°C
Electrical Requirements	24V/60 Hz	24V/60 Hz	24V/60 Hz	24V/60 Hz
Electrical Power Consumption, Min./Max.	3 Watts/35 Watts	3 Watts/35 Watts	3 Watts/35 Watts	3 Watts/35 Watts
Drain Flow, Maximum ⁴	1.1 gpm	1.7 gpm	1.6 gpm	2.6 gpm
Recharge Time, Average	85 min.	64 min.	64 min.	52 min.
Recharge Water Consumption	23.3 gal.	36 gal.	46 gal.	51 gal.

- 1 Capacities and corresponding salt dosages pertain to low hardness waters. Capacities given per recharge.
- 2 Measured from top of media to top of inlet fitting (backwashed and drained) for 8" tanks. Measured from top of media to top surface of tank threads for 10" and 12" tanks.
- 3 Measured from top of underbedding to top of inlet fitting for 8" tanks. Measured from top of media to top surface of tank threads for 10" and 12" tanks.
- 4 Backwash at 120 psi (830 kPa)
- 5 Efficiency rating only valid at stated salt dosage on softminder models and is efficiency rated according to NSF/ANSI Standard 44.



Introduction

Read this Manual First

Before you operate the Medallist Series Water Softening System, read this manual to become familiar with the device and its capabilities.

Watch for Special Paragraphs

Please read the special paragraphs in this manual. Examples are shown below.

Safe Practices

Throughout this manual there are paragraphs set off by special headings.

Note: Check and comply with your state and local codes. You must follow these guidelines. For installations in Massachusetts, Massachusetts Plumbing Code 248 CMR shall be adhered to. Consult your licensed plumber for installation of this system. This system and its installation must comply with state and local regulations. The use of saddle valves are not permitted.

Note: Note is used to emphasize installation, operation or maintenance information which is important, but does not present any hazard. Example:

Note: The nipple must extend no more than 1 inch above the cover plate.

Caution: Caution is used when failure to follow directions could result in damage to equipment or property. Example:



Caution! Disassembly while under water pressure can result in flooding.

Warning: Warning is used to indicate a hazard which could cause injury or death if ignored. Example:



Warning! Electrical shock hazard! Unplug the unit before removing the cover or accessing any internal control parts.

Serial Numbers

The control valve serial number is located on the back of the timer case.

The media tank serial number is located on the top surface of the tank.

Note: Do not remove or destroy the serial number. It must be referenced on request for warranty repair or replacement.

This publication is based on information available when approved for printing. Continuing design refinement could cause changes that may not be included in this publication.

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Introduction (cont.)

It's All So Easy, So Economical, So Efficient, So Enjoyable!

Kind To Skin And Complexion

Soft water will help prevent red, itchy or dry skin because there are no hardness impurities to cause soreness, no soap curd to coat the skin. Shaving is easier, smoother - either with blade or electric shaver.

Bathing And Showering

You'll use far less soap with conditioned water. Use your soap very sparingly - not as you did before soft water. Just a quick rinse removes all lather, leaving your skin pleasantly smooth and silky - because now it's free of sticky soap curd and film.

Saves Washing Costs. Helps Control Environmental Pollution

Soft water washes whiter and cleaner with less soap or detergent. Because the hardness impurities are removed, your soap can concentrate solely on washing. People usually find that they can reduce the amount of soap they use substantially. If you normally used a cup per wash load with hard water, try using only 1/3 cup depending on the size of your wash load and the degree of soil. Different amounts are required, but you can use less with softened water. An added bonus is the fact that your washable fabrics will last longer.

Super Hair Conditioning

Soft water is great for scalp and hair care. No insoluble deposits are formed. Hair is shinier, softer, more manageable. Reduce the amount of shampoo you have normally used.

Dishes Are A Delight

Washed by hand or in a dishwasher, glassware, dishes and silver wash cleaner, easier. Follow your dishwasher manufacturer's instructions. Soft water promotes sanitation because no greasy hard water film can form to collect or harbor bacteria.

Easier Housekeeping, Gleaming Fixtures

You'll be amazed at the marvelous difference. Just a swish of the cloth, and the bathtub or shower and fixtures are clean and sparkling. Imagine, no scouring! No hard water scum to cause rings, streaks, spots and stains. To keep their gleaming luster, simply wipe fixtures with a towel after use. Formica, tile, walls, floors, woodwork surfaces clean easier, stay clean longer. You'll save on cleaning aids and save on time.



Introduction (cont.)

Saves Water-Heating Energy, Helps Water-Using Appliances

Soft water reduces the formation of rock-like hard water scale which encrusts water heaters, hot water pipes, shower heads, and water-using appliances. This scale can cause premature maintenance and failure.

Elimination of hard water also provides substantial energy savings because scale acts as an insulator, wasting electricity or gas used to heat water.

Savings Galore

A water conditioner is frequently referred to as "the appliance that pays for itself". You'll find that your savings on soaps, detergents, cleaning aids, and personal care products will help your family's household budget. And if you place a price on your time, you'll be most happy with the time saved by your new family servant.

Water For Lawns And Household Plants

If possible, lawn sprinkling faucets should be supplied with hard water primarily because it is uneconomical to soften so much water.

Household plants are much more sensitive than lawns with respect to the kind of water which is best. First, because they receive no rainfall and, second, there is little or no drainage of the soil. Preferably they should be watered with rainwater or water which is low in mineral content such as distilled or demineralized water. Softened water is not recommended for house plants because a build-up of sodium in the soil may interfere with efficient absorption of water by the plant root system. Additional information may be obtained from your independently operated Culligan dealer.

Why Water Gets Hard And How It's Softened

All of the fresh water in the world originally falls as rain, snow, or sleet. Surface water is drawn upward by the sun, forming clouds. Then, nearly pure and soft as it starts to fall, it begins to collect impurities as it passes through smog and dust-laden atmosphere. And as it seeps through soil and rocks it gathers hardness, rust, acid, unpleasant tastes and odors.

Water hardness is caused primarily by limestone dissolved from the earth by rainwater. Because of this, in earlier times people who wanted soft water collected rainwater from roofs in rain barrels and cisterns before it picked up hardness from the earth.

Some localities have corrosive water. A softener cannot correct this problem and so its printed warranty disclaims liability for corrosion of plumbing lines, fixtures or appliances. If you suspect corrosion, your Culligan Man has equipment to control the problem.



Introduction (cont.)

Iron is a common water problem. The chemical/physical nature of iron found in natural water supplies is exhibited in four general types:

1. Dissolved Iron - Also called ferrous or "clear water" iron. This type of iron can be removed from the water by the same ion exchange principle that removes the hardness elements, calcium and magnesium. Dissolved iron is soluble in water and is detected by taking a sample of the water to be treated in a clear glass. The water in the glass is initially clear, but on standing exposed to the air, it may gradually turn cloudy or colored as it oxidizes.
2. Particulate Iron - Also called ferric or colloidal iron. This type of iron is an undissolved particle of iron. A softener will remove larger particles, but they may not be washed out in regeneration effectively and will eventually foul the ion exchange resin. A filtering treatment will be required to remove this type of iron.
3. Organic Bound Iron - This type of iron is strongly attached to an organic compound in the water. The ion exchange process alone cannot break this attachment and the softener will not remove this type of iron.
4. Bacterial Iron - This type of iron is protected inside a bacteria cell. Like the organic bound iron, it is not removed by a water softener.

When using a softener to remove both hardness and dissolved iron it is important that it regenerates more frequently than ordinarily would be calculated for hardness removal alone. Although many factors and formulas have been used to determine this frequency, it is recommended that the softener be regenerated when it has reached 50 - 75% of the calculated hardness alone capacity. This will minimize the potential for bed fouling. (Iron removal claims have not been verified by the Water Quality Association or Underwriters Laboratories.)

If you are operating a water softener on clear water iron, regular resin bed cleaning is needed to keep the bed from coating with iron. Even when operating a softener on water with less than the maximum of dissolved iron, regular cleanings should be performed. Clean every six months or more often if iron appears in your conditioned water supply. Use resin bed cleaning compounds carefully following the directions on the container.



Caution! Do not use where the water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit.



Introduction (cont.)

The Culligan Process

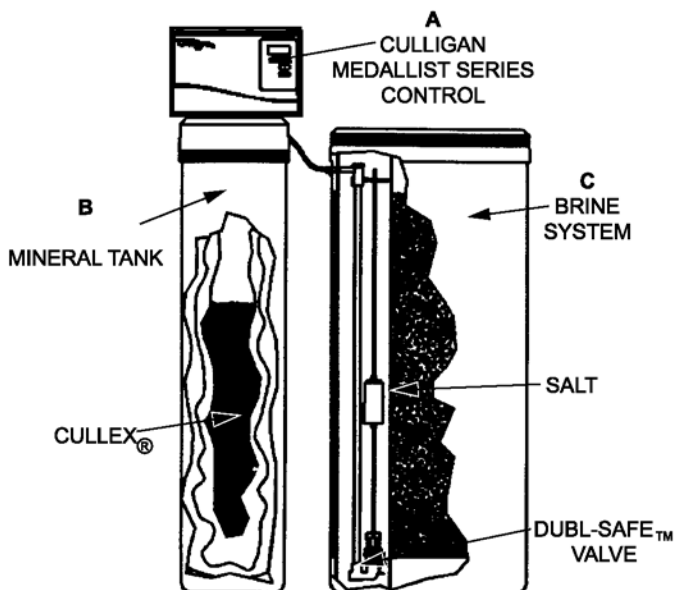
Your Culligan water conditioner consists of three basic components, (A) the Control Valve, (B) the Mineral Tank, and (C) the Brine System.

- A. The exclusive Culligan control valve automatically performs a variety of tasks that are necessary for the proper operation of your water conditioner. These tasks, commonly referred to as cycles or operating positions, are Service, Regeneration, and Brine Refill.
1. **Service:** While the control valve is in the "Service cycle", hard water is directed down through the column of Cullex® resin where hardness minerals are removed from the water. The softened water is then directed into your household plumbing lines. The ability of the Cullex resin to remove hardness minerals needs to be periodically replenished; this is referred to as . . .
 2. **Regeneration:** While the control valve is in the "Regeneration cycle", water is first directed up through the column of Cullex resin to flush accumulated sediment out of the resin and down the drain. Then, the regenerant brine solution is slowly drawn from the bottom of the salt storage tank of the Brine System and is directed down through the column of Cullex resin, restoring the ability of the resin to remove hardness minerals from your water supply. Once completed, the regeneration cycle is followed by . . .
 3. **Brine Refill:** While the control valve is in the "Brine Refill cycle", a predetermined amount of water is directed to the salt storage tank of the Brine System so that additional salt can be dissolved to provide the brine solution that will be needed for the next regeneration cycle.
- B. The Mineral Tank contains the Cullex resin column, Cullsan® underbedding, and an outlet manifold. The number of gallons of hard water that can be softened by the Cullex resin column before it needs regeneration is called the "capacity" of the resin column, and depends upon the amount of hardness minerals in each gallon of water (expressed as grains per gallon) and upon the amount of regenerant brine solution (expressed as pounds of salt) passed through the resin column during regeneration.

Your Culligan service person, taking into account the hardness of your water and the amount of softened water your household may reasonably expect to use each day, has carefully established how often the softener will regenerate and how much salt will be used for each regeneration. This will ensure that all of your soft water needs will be fulfilled without using an excessive amount of salt.

- C. The Brine System consists of a salt storage container and hydraulic Dubl-Safe™ valve. The salt storage container holds the salt that is used to make the regenerant brine solution. The hydraulic Dubl-Safe valve limits the amount of water that is returned to the salt storage tank during the brine refill cycle.

Since a predetermined amount of salt is dissolved with each brine refill cycle, the salt must be periodically replenished in order to maintain efficient operation. Your Culligan service person will be able to tell you about how often salt must be added to the salt storage container.





Preparation

Component Description

The water conditioner is shipped from the factory in a minimum of three cartons. Remove all components from their cartons and inspect them before starting installation.

Control Valve Assembly - Includes the 5-cycle regeneration control valve and the Accusoft® Microprocessor. A small parts pack will contain additional installation hardware. An Owner's Guide is included.

Media Tank - 8" and 10" media tanks are shipped filled with Cullex® ion exchange resin, underbedding and outlet manifold. For 12" tanks, the Cullex® ion exchange resin and underbedding are loaded at the installation site.

Salt Storage Tank Assembly - Includes salt storage container with support plate and Dubl-Safe™ brine refill valve and chamber.

Bypass Valve - Includes the Cul-Flo-Valv®, interconnecting couplings, and the screws necessary for assembly (Bypass Valve included with Control for Medallist Plus).

Tools and Materials

The following tools and supplies will be needed, depending on installation method.

All Installations

Note: Check and comply with your state and local codes. You must follow these guidelines.

For installation in Massachusetts, Massachusetts Plumbing Code 248 CMR shall be adhered to. Consult your licensed plumber for installation of this system. This system and its installation must comply with state and local regulations. The use of saddle valves are not permitted.

- Safety glasses
- Phillips screwdrivers, small and medium tip.
- Gauge assembly (PN 00304450 or equivalent)
- Silicone lubricant (PN 00471507 or equivalent) - Do Not Use Petroleum-Based Lubricants
- A bucket, preferably light-colored
- Towels

Special Tools

- Torch, solder and flux for sweat copper connections
- Use only lead-free solder and flux for all sweat-solder connections, as required by state and federal codes.
- Threading tools, pipe wrenches and thread sealer for threaded connections.
- Saw, solvent and cement for plastic pipe connections.

Materials

- Brine line, 3/8" (PN 01009819 or equivalent) for 8" and 10" tanks or 1/2" (PN 00901800 or equivalent) for 12" tanks
- Drain line, 1/2" (PN 00303082, gray, semi-flexible; or PN 00-3319-46, black, semi-rigid; or equivalent)
- Thread sealing tape
- Pressure reducing valve (if pressure exceeds 125 psi [860 kPa], PN 00490900 or equivalent)
- Pipe and fittings suited to the type of installation
- Water softener salt (rock, solar or pellet salt formulated specifically for water softeners)



Preparation (cont.)

Application

Water quality - Verify that raw water hardness and iron are within limits. Note the hardness for setting the salt dosage and recharge frequency.

Pressure - If pressure exceeds 125 psi (860 kPa), install a pressure reducing valve (see materials checklist). On private water systems, make sure the minimum pressure (the pressure at which the pump starts) is greater than 20 psi (140 kPa). Adjust the pressure switch if necessary.



Caution! Do not use where the water is microbiologically unsafe or with water of unknown quality adequate disinfection before or after the unit.

Caution! The use of a pressure reducing valve may limit the flow of water in the household.

Temperature - Do not install the unit where it might freeze, or next to a water heater or furnace or in direct sunlight. Outdoor installation is not recommended, and voids the warranty. Use the Culligan Outdoor Medallist Series Softener for outdoor installations. The Culligan Outdoor Medallist Series Softener has been certified by Underwriter's Laboratories for outdoor installation. If installing in an outside location, you must take the steps necessary to assure the softener installation plumbing, wiring, etc. areas well protected from the elements (sunlight, rain, wind, heat, cold), contamination, vandalism, etc. as when installed indoors.

Location

Space requirements - Allow 6-12 inches (15-30 cm) behind the unit for plumbing and drain lines and 4 feet (1.3 meters) above for service access and filling the salt container.

Floor surface - Choose an area with solid, level floor free of bumps or irregularities. Bumps, cracks, stones and other irregularities can cause the salt storage tank bottom to crack when filled with salt and water.

Drain facilities - Choose a nearby drain that can handle the rated drain flow (floor drain, sink or stand pipe). Refer to the Drain Line Chart, Table 3 (page 16), for maximum drain line length.

Electrical facilities - A 10-foot cord and wall mount plug-in transformer are provided. The customer should

Note: Most codes require an anti-siphon device or air gap. Observe all local plumbing codes and drain restrictions. The system and installation must comply with all state and local laws and regulations.

provide a receptacle, preferably one not controlled by a switch that can be turned off accidentally. Observe local electrical codes.

Note: The softener works on 24 volt - 60 Hz electrical power only. Be sure to use the included transformer. Be sure the electrical outlet and transformer are in an inside location to protect from moisture. Properly ground to conform with all governing codes and ordinances.

Note: P.N. 01012956 plug-in transformer is rated for indoor installations only.
P.N. 01015972 plug-in transformer is rated for indoor/outdoor installations.

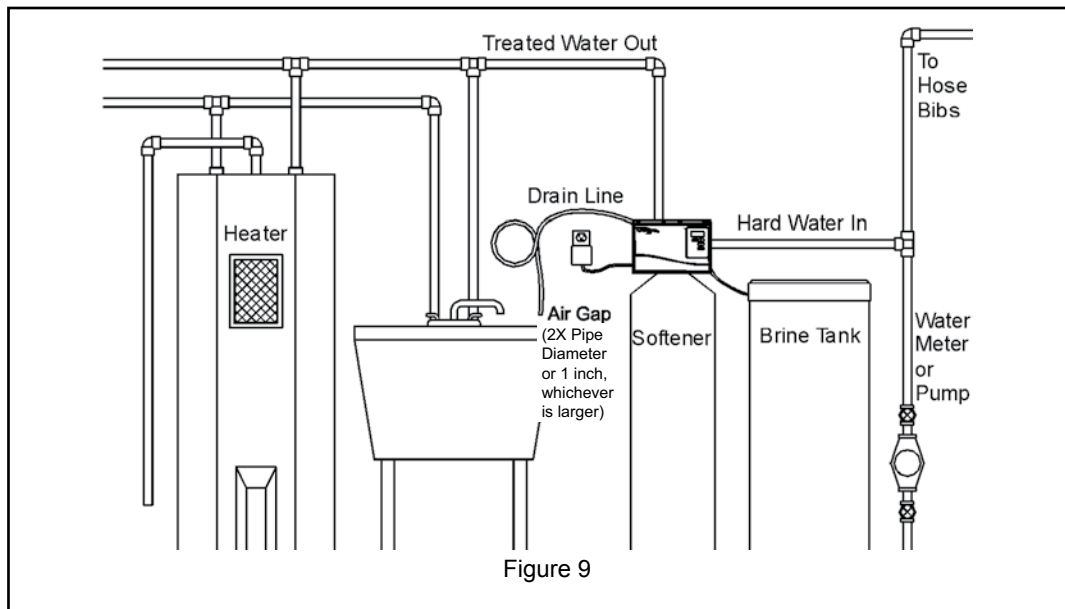


Installation

Placement

Refer to Figure 9 for system placement.

- Set the media tank on a solid, level surface near water, drain and electrical facilities. Place the outlet (black coupling) of the tank on the left.
- Set the brine system on a flat, smooth, solid surface as near the media tank as possible.



Mount The Control Valve - 3/4" Control

See figure 10 for a visual on mounting the control valve to the tank.

As shipped from the factory the Culligan Medallist Series® 3/4" control is equipped as a 8" unit.

1. Remove the two plastic caps from the tank couplings and lubricate the coupling O-rings with silicone lubricant.

Note: Do not use a petroleum base lubricant, for this will cause swelling of the rubber parts.

Note: The black molded tank adapter is marked with "IN" and "OUT", corresponding to the inlet and outlet of the tank. Position the tank with the inlet coupling on the right and the outlet coupling on the left as you face the front of the tank.

2. The control valve is marked also with "IN" and "OUT". Place the control onto the tank with the inlet and outlet of the control corresponding with the inlet and outlet of the tank. Press firmly onto the couplings.



Installation
(cont.)

3. Remove the two u-clamps and screws from the parts pack. Install the clamps on both sides of the control as indicated in Figure 10 and secure them with the screws.
4. Peel off the protective film off the circuit board label.
5. Attach the appropriate Culligan Medallist Series data plate that's included in the small parts pack onto the back of the control (over the holes used for the solenoid valve).

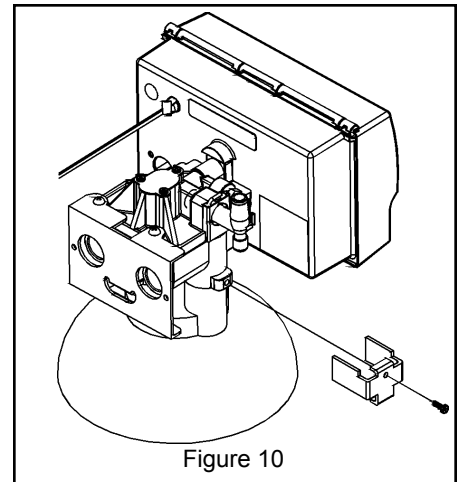


Figure 10

Mount The Control Valve - 1" Control

See Figure 11 for a visual on mounting the control valve to the tank.

- Assemble the o-rings, located in the parts pack, to the tank adapter.
- The valve adapter o-ring sits on the first step on the adapter. See Figure 12.

Note: Do not push the top o-ring down to the flange surface on the adapter.

Note: The larger of the two o-rings in the parts part goes between the adapter and the valve, do not stretch the smaller o-ring onto the top of the tank adapter.

- Lubricate only the top o-ring on the tank adapter, and the outlet manifold o-ring with silicone lubricant.
- Screw the adapter into the tank until the adapter bottoms out on the tank flange.

Note: The adapter only needs to be tightened hand-tight to the tank flange.

- Align the manifold with the center opening in the valve, and press the valve onto the adapter firmly.

Note: Make sure to push the valve straight down onto the manifold. If the valve is cocked, it may cause the o-ring to slip off the manifold.

- Assemble the tank clamp to the control, and tighten the clamp screw.

Note: The clamp and valve will be able to rotate on the tank until pressure is applied. Do not try to rotate control valve if the clamp is tightened - you may cut the o-ring.

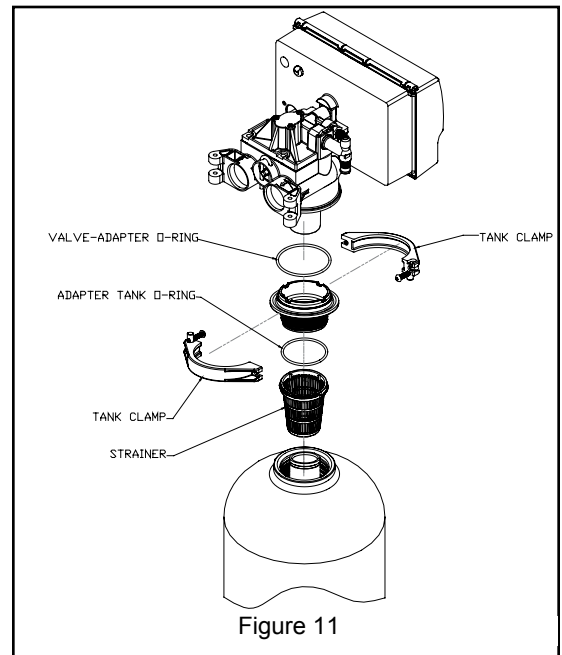


Figure 11

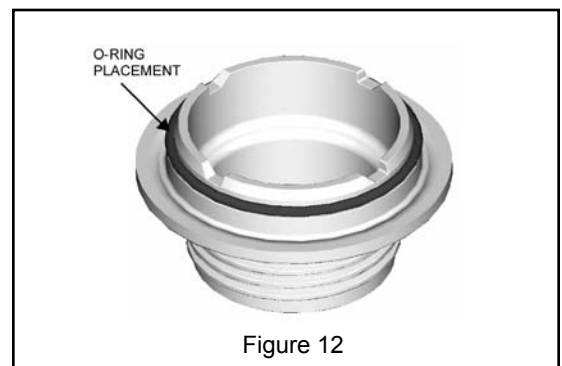


Figure 12



Installation (cont.)

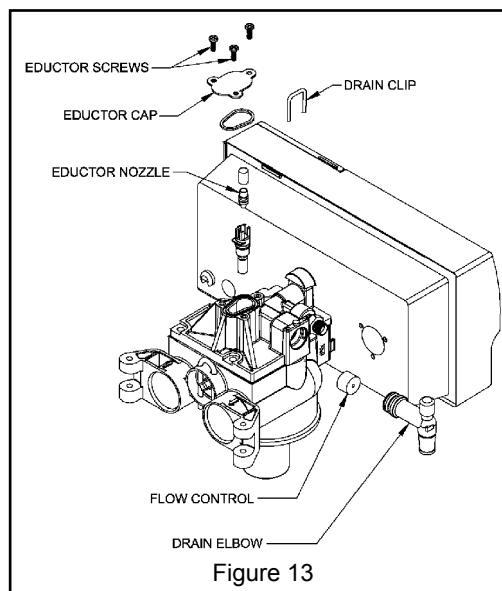
Unit	Backwash Flow	Nozzle	Throat	Brine Refill Flow
8"	#1, Black*	Blue*	Light Brown*	0.45 gpm
Medallist 30	#2, Brown*	Blue*	Light Brown*	0.45 gpm
Medallist 45	#2, Brown	@ 6 lbs - Blue Greater than 6 lbs - Beige	Light Brown	0.45 gpm
Medallist 60	#3, Green	Beige	Light Brown	0.8 gpm

* Standard from factory.

Refer to figure 13 for a visual on changing the eductor nozzle and the backwash flow control.

Eductor Nozzle Replacement:

- Remove the three screws on the eductor cap and remove the cap.
- Remove the eductor assembly.
- Remove the eductor screen from the assembly.
- Remove the blue nozzle and replace it with the beige nozzle. Make sure to put the o-ring on the beige nozzle.
- Reverse the procedure to reassemble. To prevent leaks, ensure that the gasket is in the proper position.



Backwash Flow Control Replacement:

- Remove the drain clip and pull the drain elbow straight off.
- Remove the backwash flow control located behind the elbow.

Note: The number on the flow control should face into the valve body.

- Reverse the procedure to reassemble.

Plumbing Connections

General Instructions

- Follow local plumbing & electrical codes. Failure to do so may result in your having to redo the installation at your expense.
- Take the time to make a clean, professional looking installation. Use flux and solder sparingly when making sweat connections, and avoid excessive use of pipe compound. When using galvanized pipe, clean out excess cutting oil and metal chips before assembly. Foreign objects, if allowed to enter the control valve, can cause operating problems.
- The main water supply line may then be reopened so that hard water will be available to the household throughout the remainder of the installation process. Set the Cul-Flo-Valve Bypass in the bypass position by screwing the stem all the way in against the body.



Caution! Close the inlet supply line and relieve system pressure before cutting into the plumbing! Flooding could result if not done!



Installation
(cont.)

Bypass Connections

Shipped with each softener is a Culligan bypass valve, which is used to connect the softener to the plumbing system. The bypass allows the softener to be isolated from the water service line if service is necessary while still providing water to the home. The bypass valve can be directly plumbed into the system, or can be connected with the following optional sweat connection kits.

3/4" Medallist Control		Medallist Plus	
PN	Description	PN	Description
P1019783	3/4" Sweat Copper Adapter Kit	01010783	1" Sweat Copper Adapter Kit
P1019782	3/4" Elbow Sweat Copper Adapter Kit	01016564	3/4" Sweat Copper Adapter Kit
		01016565	3/4" Elbow Sweat Copper Adapter Kit

For installations in Massachusetts, Massachusetts Plumbing Code 248 CMR shall be adhered to. Consult your licensed plumber for installation of this system. This system and its installation must comply with state and local regulations.



Caution! Close the inlet supply line and relieve system pressure before cutting into the plumbing! Flooding could result if not done!



Caution! When making sweat connections, remove all plastic and rubber components which contact brass or copper. Damage to these components may result otherwise.

Bypass Valve Installation - 3/4" Medallist Time Clock Units Only

The bypass valve connects directly to the backplate of the valve with a pair of couplings and screws (Figure 14). To facilitate this connection, remove the plate by pulling up on the u-clip on the back of the valve, and removing the two mounting screws. Lubricate all o-rings with silicone lubricant.

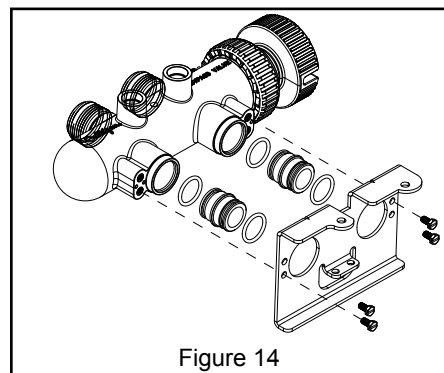


Figure 14

Bypass Valve Installation - 3/4" Medallist Soft-Minder® Meter Only

The Soft-Minder meter is placed between the bypass valve and the control in place of the couplings shipped with the Cul-Flo-Valv® (Figure 15). Make sure the meter is on the outlet port of the control and that it is installed with the arrow pointing in the direction of water flow. Four elongated bolts are packaged with the meter to hold the bypass valve to the back plate of the control. Lubricate all o-rings with silicone lubricant.

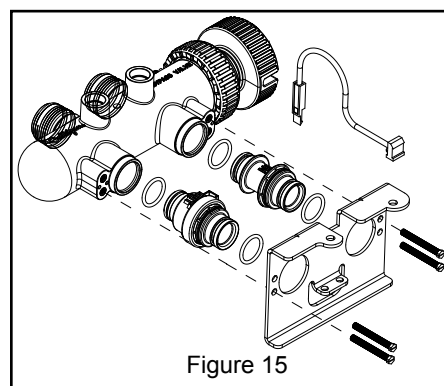


Figure 15



Caution! When reinstalling back plate to control valve, make sure the u-clip fully engages the two bottom holes of the bracket. Secure bracket from the top with the two mounting screws provided.



Bypass Valve Installation— 1" Medallist Plus Units

The bypass valve connects directly to the control valve with a pair of couplings and two assembly pins (Figure 16). Lubricate all o-rings on the couplings with silicone lubricant. On Soft-Minder® meter controls, the meter replaces the coupling on the outlet side of the control. The meter body fits in the same space as the coupling between the control valve and the bypass. Make sure that the arrow on the flow meter is pointing in the direction of flow (Figure 16).

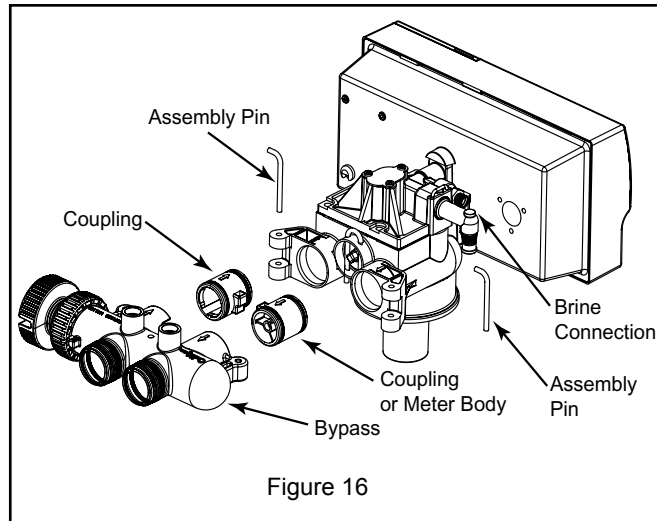


Figure 16

Installation (cont.)

Note: If the ground from the electrical panel or breaker box to the water meter or underground copper pipe is tied to the copper water lines and these lines are cut during installation of the bypass valve, an approved grounding strap must be used between the two lines that have been cut in order to maintain continuity. The length of the grounding strap will depend upon the number of units being installed. In all cases where metal pipe was originally used and is later interrupted by the bypass valve to maintain proper metallic pipe bonding, an approved ground clamp c/w not less than #6 copper conductor must be used for continuity. Check your local electrical code for the correct clamp and cable size.

To bypass, turn the blue knob clockwise (see directional arrow on end of knob) until the knob stops as shown. DO NOT OVERTIGHTEN! (Figure 17a).

To return to service, turn the blue knob counter-clockwise (see directional arrow on the end of knob) until the knob stops as shown. DO NOT OVERTIGHTEN! (Figure 17b)

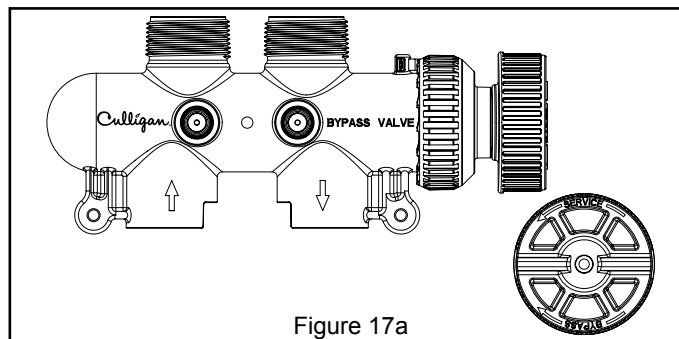


Figure 17a

Drain Line Connection

Refer to page 16 for drain line length and height limitations.

- Remove 1/2" pipe clamp from the small parts pack included with the control.
- Route a length of 1/2" drain line from the drain elbow to the drain.
- Fasten the drain line to the elbow with the clamp.
- Secure the drain line to prevent its movement during regeneration. When discharging into a sink,

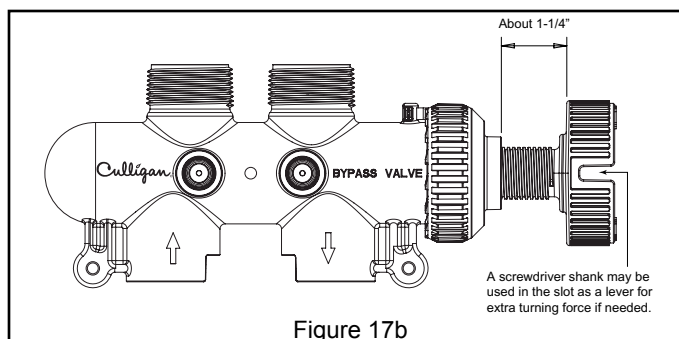


Figure 17b



Installation (cont.)

or open floor drain, a loop in the end of the tube will keep it filled with water and will reduce splashing at the beginning of each regeneration.

Note: Waste connections or drain outlets shall be designed and constructed to provide for connection to the sanitary waste system through an air gap of 2 pipe diameters or 1 inch, whichever is larger.

Note: Observe all plumbing codes. Most codes require an anti-siphon device or air gap at the discharge point. The system and installation must comply with state and local laws and regulations.

Connect the Brine Line

Refer to Figures 18 & 19.

- Measure a length of brine line sufficient to reach from the brine tank to the brine fitting, with no sharp bends. For easier access to the float it is recommended to add an extra four feet (1.3 meters) of length to the brine line. Cut both ends of the brine line squarely and cleanly.
- Remove the brine valve from the brine tank and then remove the white nut and insert from the float rod. Return float rod to its original position.
- Slip the white nut over one end of the tubing and press the plastic insert into the end of the tubing (Figure 19). Connect to the brine valve and tighten nut.
- Remove white nut and the plastic insert from the small parts pack.
- Slip the white nut over one end of the tubing and press the plastic insert into the end of the tubing (Figure 19). Connect to the brine connection on the valve and tighten nut (Figure 18).

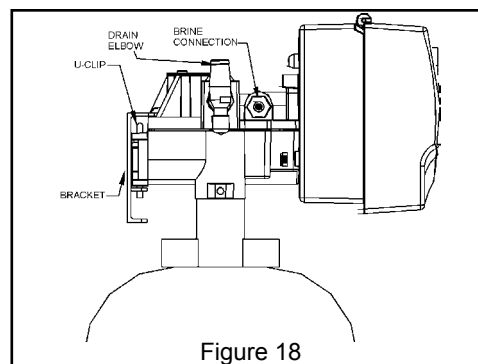


Figure 18

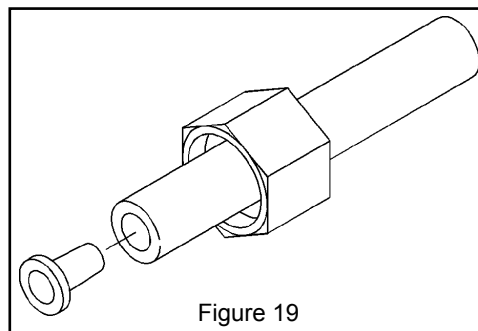


Figure 19



Installation (cont.)

Soft-Minder® Meter Connection

To connect the meter leads refer to Figure 20 and proceed as follows:

- Lift up the timer case from the back plate.
- Remove the small plastic plug from the backplate.
- Slip the meter harness through the hole and toward the circuit board.
- Connect the harness to the circuit board. The Soft-Minder® meter terminal is labeled "FLOWMETER".
- Pull any excess cable wire back out of the enclosure, and route the wiring inside the enclosure to avoid any interference with moving parts.
- Locate the strain relief bushing in the parts pack. Place it on the cable at the point of entry to the rear of the timer plate and push it into the hole.

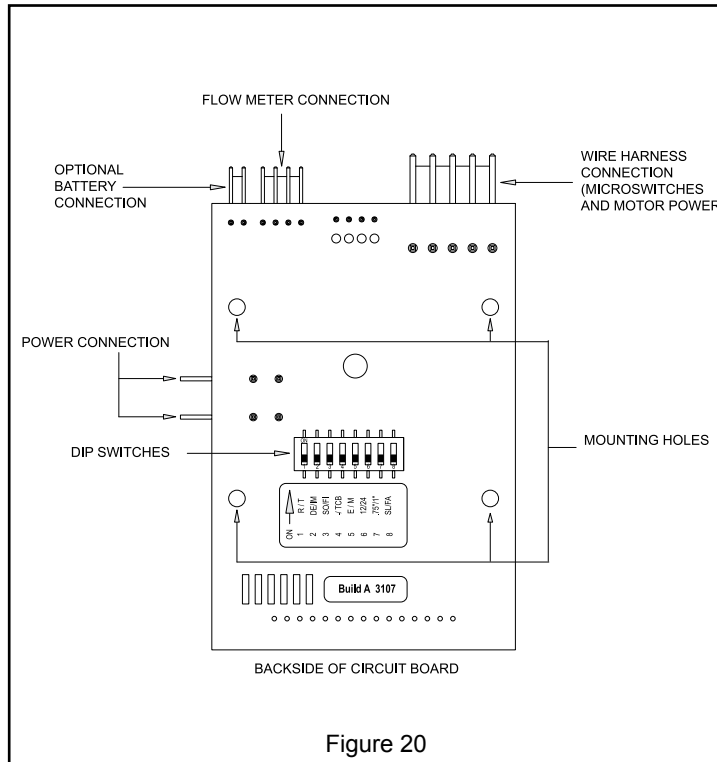


Figure 20

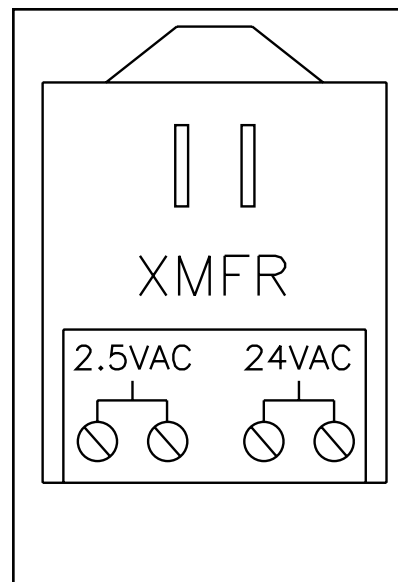
Note: The wire connectors must be connected to the circuit board properly. The wires must exit the plug-in connector opposite of the raised white base of the circuit board connector. Failure to properly connect any of the connectors will result in a malfunction of the circuit board operation.

Electrical Connections

The power cord needs to be connected to the plug-in transformer, wire orientation is not critical. Figure 21 shows the cord attachment to the transformer. Connect wire harness to 24 VAC terminals on transformer.

Note: Observe all state and local electrical codes.

Note: The plug-in transformer is rated for indoor installations only.





Installation
(cont.)

Table 3 - Maximum Allowable Drain Line Length

Height of Discharge Above Floor Level Operating						
Operating Pressure	0 ft (0 m)	2 ft (0.6 m)	4 ft (1.2 m)	6 ft (1.8 m)	8 ft (2.4 m)	10 ft (3 m)
30 psi (210 kPa)	60 ft (18 m)	50 ft (15 m)	30 ft (9 m)	15 ft (5 m)	Not allowable	Not allowable
40 psi (279 kPa)	100 ft (30 m)	90 ft (27 m)	70 ft (21 m)	50 ft (15 m)	30 ft (9 m)	12 ft (4 m)
50 psi (349 kPa)	145 ft (41 m)	115 ft (35 m)	80 ft (24 m)	80 ft (24 m)	60 ft (18 m)	40 ft (12 m)
60 psi (419 kPa)	Normal installation		100 ft (30 m)	100 ft (30 m)	85 ft (26 m)	60 ft (18 m)
80 psi (559 kPa)	Should not require more than				140 ft (43 m)	120 ft (37 m)
100 psi (699 kPa)	100 ft (30 m) of drain line					150 ft (46 m)

The microprocessor can be set in two distinct operation modes, Soft-Minder® meter or Timeclock. As shipped from the factory, the control is set for 8" Timeclock operation.

Soft-Minder® Operation

The Soft-Minder meter utilizes a turbine impeller to accurately monitor the customers water usage. After a predetermined amount of water has passed through the system, the microprocessor will signal a regeneration. The "REG" enunciator will light at this point. The unit will perform a standard regeneration cycle at the preset time, unless the programming option "dip 2" is changed from "DEL" to "Id". When programming option "dip 2" is changed from "DEL" to "Id", a regeneration will begin immediately.

The programming of the Soft-Minder provides several settable variables, the Time-of-Day, Time-of-Regeneration, Salt Dosage, Backwash Time, Brine/Rinse Time, Gallons to Signal and Timeclock Backup, if active. Refer to the programming section for further information on programming the microprocessor.

Time Clock Operation

When the microprocessor is set-up as a time clock unit, the Culligan Medallist Series™ control will regenerate at fixed intervals. The regeneration interval can be set anywhere from 1 to 99 days.

The programming for the time clock models is limited to Time-of-Day, Time-of-Regeneration, Salt dosage, Backwash Time, Brine/Rinse Time, and the Regeneration Interval. Refer to the programming section for further information on programming the microprocessor.



Programming

The timer uses four buttons:

Button	Description
Set-up / Enter Key (Status)	Advance timer through display options
Regeneration Key (REGEN)	Initiate a regeneration
Toggle Down Key ("-")	Decrease the setting
Toggle Up Key ("+")	Increase the setting

Time of Day

This setting is used to program the current time of day. When in this step the display will first show "tod" for two seconds.

After "tod" is displayed, "12:00 PM" will display (or the current set time if already programmed) and the minutes will flash.

- The minutes are adjusted with the "+" or "-" key until the correct value is displayed.
- Press the "Regen" key to flash the hours. Adjust with the "+" or "-" key until the correct time is displayed.

Pressing the "Status" key will move to the next programming step. Pressing "Regen" will move back to the minutes adjust.



Flashing Minutes



Flashing Hours



Time of Regeneration

This setting is used to program the time at which a regeneration is to occur in the delay mode, or in immediate mode with time clock backup on. The display will first show "tor" for two seconds.

After "tor" is shown the display will then show the default of 2:00 AM (or the current programmed time of regeneration if already set). The time can be adjusted in 30 minute increments by pressing the "+" or "-" keys.



Flashing Time



Pressing the "Status" key will save the setting and move to the next programming step.



Programming (cont.)

Regeneration Interval (Time Clock Mode)

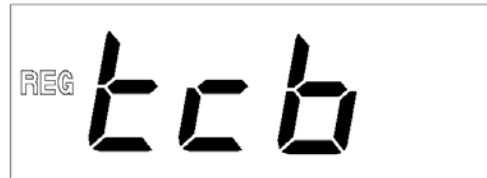
This setting is used to set the days between regeneration in time clock mode. The display will show "REG" icon and "dAY" for two seconds and then display the numbers to change. Adjust the value with the "+" or "-" keys.

Pressing the "Status" key will save the setting and move to the next programming step.



Regeneration Interval (Time Clock Back-up)

This setting is used to set the days between regeneration when time clock back-up is activated in a meter mode. It is activated in meter mode if the time clock backup DIP switch #4 is set to on. The display will show the REG icon and tcb" for two seconds and then the number of days. Adjust the value with the "+" or "-" keys. Pressing the "Status" key will save the setting and move to the next programming step.



Salt Dosage

This settings used to set the salt dosage. The display will first show "SLtP" (SLtG for metric according to DIP switch #5 setting) for two seconds and then display the default (or previously programmed value). Adjust the salt dosage with the "+" or "-" keys.

Pressing the "STATUS" key will save the setting and move to the next programming step.



Backwash Time

This setting is used to program the cycle 1 time that is usually backwash. The time of the cycle is kept in minutes. The display will show "buu" in the display for two seconds and then the cycle time in the right most digits. Adjust the value with the "+" or "-" keys.

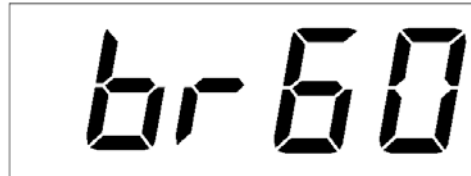
Pressing the "Status" key will save the setting and move to the next programming step.





Brine Draw / Slow Rinse Time

This setting is used to set the time in minutes for cycle 2. This cycle is usually brine draw / slow rinse for softeners and a settling time for filters. The display will show “br” in the left most digits and the cycle time in the right most digits. Adjust the value with the “+” or “-” keys.



Pressing the “Status” key will save the setting and move to the next programming step.

Batch Set Point

This setting is used to set the trip point for regeneration when in flow meter operation. It will only appear if a flow meter is connected. The programmed setting displays the actual set point to trigger regeneration. The display will show the REG icon and “CAPG” (or “CAPL for metric) for two seconds and then display the “REG” and the setting numbers to adjust. Adjust the value with the “+” or “-” keys.



Pressing the “Status” key will save the setting and move to the next programming step.



Blank Display

After the last programming menu is displayed (menu will vary depending on mode of operation), pressing status will move to a blank display screen.

From the ‘blank display’, pressing the “+” key from the blank display will enter the diagnostics menu.

From the ‘blank display’, pressing the “-” key will enter the statistics menu.

From the ‘blank display’, pressing the “Status” key will exit programming mode and return to the service mode time display.

- Pressing and holding the “REGEN” key while in the ‘blank display’ will put the control into “Auto Test Mode” (must be in service position to start).



Service Check

The service mode allows one to view the instantaneous flow rate, the gallons remaining before the softener signals for regeneration, the number of regenerations in the past 14 days, the total number of regenerations the control has cycled through and the number of days since the last regeneration.

The statistical functions are reached by pressing the “Status” key until the screen blanks and then pressing the “-” key. Repetitive presses of the “-” key will cycle through the statistics mode. Pressing the “Status” key will exit statistics and move to the time display. The following table outlines the statistic function display, range limits and default setting:

Display	Range Limits	Comments
Flow Rate	0 to 999.0	Based on “K” factor setting, updated a minimum of every 6 seconds (Only active with Flow Meter attached).
•Capacity Remaining (gal / L) (Meter Mode)	0 - 9,999	Remaining gallons (liters) until batch capacity is reached. Update display a minimum of every 6 seconds (Only active with Flow Meter attached).
• Number of Regenerations - Last 14 days	0 to 99	- Days counter is to be updated at 12:00 AM ONLY when dip #2 is on AND dip #4 is off; Otherwise update at whatever TOR is set for - Number of Regeneration is to be updated after a valid regeneration is complete (cycle 3 times out automatically)
• Number of days since last Regeneration	0 to 99	- Days counter is to be updated at 12:00 AM ONLY when dip #2 is on AND dip #4 is off; Otherwise, update at whatever TOR is set for - After a valid regeneration is complete (cycle 3 times out automatically), the counter is to be reset to 0
• Number of Regenerations - Life of the Unit	0 to 9,999	Counter is to be updated after completion of valid regeneration cycle (cycle 3 times out automatically)

- To be saved in EEPROM before the control is powered down during a power outage.

Once the statistics menu is entered the information shown for each display is outlined below:

- “Regen” key is always ignored in statistics mode;
- Can enter directly into diagnostics mode by pressing the “+” key;
- When returning to statistics mode directly from diagnostics mode, always display the first statistic in the list as if statistics mode was entered for the first time (don’t have to remember where it left off in the list);
- Can exit back to service mode by pressing the “status” key;
- Automatically times out back to service mode after 10 minutes of no key press activity - EXCEPT for “flow rate” and “capacity remaining”; when displaying “flow rate” and “capacity remaining” the control can stay in statistics mode indefinitely;
- Drop all leading zeros;



Service Check (cont.)

Flow Rate

This display will only show if the flow meter is attached to the control. The display shall show the current flow rate of the water passing through the control. The display will show "FLO" for two seconds and then the current flow rate passing through the flow meter until a key is pressed.

This display shall never time out, as opposed to the rest of standard statistics (10 minutes).

FLO

005.8

Capacity Remaining (gal/ L)

This display will only show if the flow meter is attached to the control. The display shows the gallons or liters of capacity remaining in the batch before regeneration will be triggered. The display will show "GALr" ("Litr" for metric) for two seconds and then display the remaining capacity. When reaching "0" the display will remain at "0" and not show negative values.

This display shall never time out, as opposed to the rest of standard statistic (10 minutes).

GALr

0870

Number of Regenerations in Last 14 Days

This display will show the number of regenerations that have occurred in the last 14 days. The display will first show "14dY" for two seconds and then display the number of valid regenerations that have occurred.

14dY

10

Number of Days since Last Regeneration

This display shows the number of days that have elapsed since the last regeneration. The display will show "dAYS" for two seconds and then the number of days that have elapsed since the unit completed its last valid regeneration.

dAYS

03



Service Check
(cont.)

Total Number of Regenerations for Life of Unit

This display will show the total number of regenerations that have occurred since installation. The display will show "totL" for two seconds and then display the total number of valid regenerations for the life of the unit.



Statistical Function Timeout

If no key activity occurs for a period of 600 seconds (10 minutes) while in statistics functions mode, the mode will time out and return to the time of day display. An exception is that the flow rate and capacity remaining will not time out but will remain displayed until a key is pressed. Pressing the "Status" key at any time will return the unit back to the time display.



Final Start-up

Regeneration

There are several conditions that will cause the control to trip a regeneration. The "REG" enunciator will light when the control has signaled for a regeneration. The "REG" enunciator will flash while the control is in regeneration. The following are conditions that will call for regeneration:

1. When the Soft-Minder[®] meter has recorded the passage of a predetermined number of gallons.
2. When the time clock has counted past the set number of days.
3. At the preset time, when the number of days without a regeneration is equal to the Timeclock Backup setting.
4. At the preset time, when the "REGEN" button is depressed once. "REG" will light.
5. Immediately, when the "REGEN" button is depressed for five seconds. "REG" will light and blink.
6. Immediately, if power to the unit has been off for more than 3 hours and time of day has been restored.

If "dIP 2" is set to "ld", the unit will begin a regeneration immediately for instances 1 and 2. With "dIP 2" set to "del", the regeneration will not begin until the preset regeneration time.

Note: If set to immediate mode as timeclock or timeclock backup, the unit will initiate regeneration at 12:00 AM. In the delay mode, "REG" indicator will light at 12:00 AM and regeneration will occur at delayed time.

Start-Up

- Close the main water supply valve.
- Set the Cul-Flo-Valv[®] to the bypass position.
- Ensure that all faucets at the installation site are closed.
- Direct the drain line discharge into a bucket where flow can be observed.
- Plug the transformer into a 120 Volt, 60 Hz, single-phase receptacle.
- Wait for the control to energize the motor and home itself.
- Set the timer to the correct time of day.
- Open the main supply valve.
- Initiate an immediate regeneration to move the control into the backwash position.
- Refer to the section on manual cycling for information on cycling the control through its positions.
- When in the backwash position, slowly shift the bypass to the soft water position until water flows.
- Allow the tank to fill slowly until water flows from the drain line.
- When flow to drain is established, open the bypass fully. Watch the drain line discharge for signs of resin. If signs of resin particles appear, reduce the flow. Increase the flow again when resin no longer appears in the discharge.
- When the unit is filled with water, return the timer to the service position and proceed with setting the microprocessor. Refer to the programming section.
- Sanitize the water softener (see sanitizing procedure on page 26).

Note: Unplugging the Culligan[®] Medallist Series water softener will not affect any of the control settings. Once programmed in, the settings will be stored indefinitely. In the event of a power failure the time-of-day setting will be stored for 1-2 days. If longer time storage is necessary, a battery backup is available. Refer to the Service Manual for additional information.



Salt Supply, Usage and Service

Salt is the mineral used to “recharge” your water conditioner. A brine solution is automatically made up in the bottom of the salt storage container, the Culllex® resin beads in the tall, thin tank are flushed with brine solution as a step in the recharging process.

Your Culligan Water Conditioner has been carefully designed to get the greatest amount of softening capacity from the salt it uses. Here is some pertinent information about salt usage, types and service.

Salt Economizer

This control is set at the time of installation, and determines salt usage according to the water hardness, number of persons in the household, and water usage.

What Kind of Salt is Best

All Culligan Water Conditioners are designed to use any water conditioner salt of good quality, including “rock”, “pellet”, “solar”, or “evaporated” types.

All rock salt, regardless of source, contains insoluble material which collects at the bottom of the salt storage tank and requires periodic clean-out.

Regardless of what type of salt is used, we recommend Culligan Brand Salt as suggested by your Culligan Dealer. He is the expert and can provide you with the best product for your Culligan Water Conditioner.

Automatic Salt Delivery Service

Ask your Culligan Dealer for details about salt delivery service. You can have your salt supply replenished on a regular basis. Whether you have automatic delivery service or pick up salt from your Culligan Dealer, you will be getting quality salt packaged according to rigid Culligan specifications. Using Culligan Brand Salt will help assure continued efficiency and trouble-free operation of your water conditioner.

Care and Cleaning of Your Culligan Water Conditioner

Following these simple precautions will help assure continued trouble-free service and keep your Culligan Water Conditioner looking like new for years.

- 1 Do not place heavy objects on top of the salt storage tank or timer cover.
- 2 Use only mild soap and warm water when cleaning the exterior of the conditioner. Never use harsh, abrasive cleaning compounds or those which contain acid, such as vinegar, bleach and similar products.
- 3 Important: Protect your water conditioner and the entire drainline from freezing temperatures.
DANGER! If your unit should freeze, do not attempt to disassemble it. Call your Culligan Dealer.
- 4 Important: Culligan water softeners are sold for use on potable water, only. If at any time the water becomes contaminated, such as during a “boil water” situation, the operation of the water softener should be discontinued until it is verified that the water is again potable. To do this, rotate the blue knob clockwise until it contacts the bypass body - Do not overtighten. Then, call your Culligan dealer to have your system sanitized before it is placed back into service.



Salt Supply, Usage and Service (cont.)

- 5 Should service, adjustment or trouble-shooting information be needed which is not covered in the Use and Care Guide, call your Culligan Dealer.

Note: Following the manufacturer's instructions regarding operation, maintenance and replacement requirements, including replacement of filters if applicable, is essential for Culligan's products to perform as advertised.

If you have further questions, please call your local independently operated Culligan dealer. He or she will be glad to be of assistance to you.

Recommended Preventative Maintenance Inspection Schedule

The Culligan Medallist Series commercial water softener has been designed to provide a good, consistent service life. Routinely inspecting the system may help avoid potentially costly breakdowns related to circumstances outside of the control of the dealer and/or user.

Component	Suggested Inspection Frequency	Reason for Maintenance
Entire System	At Start-up, after infrequent use (idle for one week or more) or every 3 - 6 months	On private supplies, the appearance of off-tastes and odors, particularly if musty or "rotten egg" (caused by harmless sulfate-reducing bacteria) may indicate a need for the system to be sanitized. See page 26.
Backwash Flow Controller	Every 12 months or every time service is performed on the system.	Build up of sediment, iron and/or other foreign materials (found in some water supplies but not necessarily all) could negatively affect system performance. Monitor item for normal or unexpected wear.
Brine eductor nozzle and throat	Every 12 months or every time service is performed on the system.	Build up of sediment, iron and/or other foreign materials (found in some water supplies but not necessarily all) could negatively affect system performance. Monitor item for normal or unexpected wear.
Softening Media (Cullex)	Every 2 - 3 years	Chlorinated water supplies can breakdown and destroy resin material. Resin material may also perform poorly if subjected to other materials (sediment, iron, alum, etc.) found in some water supplies (but not necessarily all).



Sanitizing Procedure

A water softener in daily use on a potable water supply generally requires no special attention other than keeping the salt tank filled. Occasionally, however, a unit may require sanitization under one of the following conditions:

- At start-up time.
- After standing idle for a week or more.
- On private supplies, the appearance of off-tastes and odors, particularly if musty or "rotten egg" (caused by harmless sulfate-reducing bacteria).

Note: If the water supply contains iron, regenerate the softener before sanitizing to remove iron from the resin.



Caution! HAZARD FROM TOXIC FUMES! Chlorine bleach and common iron control chemicals may generate toxic fumes when mixed.

- If the unit Culligan Softner-Gard® or other compounds containing sodium hydrosulfate, sodium bisulfate, or any other reducing agent, disconnect the device feeding the chemical(s) and manually regenerate the unit before sanitizing.
- Do not use this procedure if the softener salt contains iron control additives.

1. Remove the brine tank cover.
2. Pour directly into the brine chamber 1/3 to 1/2 cup of common household bleach (5.25% sodium hypochlorite) for each cubic foot of resin in the tank.

Note: Do not use lemon scented bleach or similar bleaches that contain perfumes.

3. Manually start recharge. Allow the unit to complete the recharge cycle automatically.

If tastes and odors return frequently, even after sanitization, a continuous chlorination system may be needed. Send a water sample to a qualified laboratory for bacterial analysis.



To Clean Out the Salt Storage Tank

A periodic clean-out of the Salt Storage Tank is necessary to keep your Culligan Water Conditioner at peak operating efficiency. Do it at least every 2 years when the salt supply is low. Follow these step-by-step procedures:

Tools needed:

- Scoop
- Clean, bucket-size container
- Phillips-head screwdriver
- Garden hose, Household scrub brush or sponge

1. Remove the salt storage tank cover and the cap from the brine valve chamber.
2. Lift the brine valve out of the brine valve chamber and set aside in an upright position.
3. If you'd like to save any clean, dry salt remaining in the tank, remove it and place it in a clean container.
4. Using the scoop, dig out and discard as much remaining salt, water and debris as possible.
5. Remove the brine valve chamber by removing the chamber retaining screw and nut.
6. Remove the salt plate at the bottom of the tank.
7. Lay the salt tank on its side and direct a brisk stream of water from your garden hose to its inside to rinse out all residue.
8. Using a household scrub brush and a mild soapy solution, clean the salt plate. This will complete the tank cleaning.
9. Stand salt tank upright. Make sure to place the tank on a flat, smooth, solid surface.
10. Replace the salt plate. Place brine valve chamber in position and affix with screw and nut.
11. Insert the brine valve into the chamber and replace brine valve chamber cap.
12. Fill the salt storage tank with 4 to 6 inches of water.
13. Fill the tank with salt to within a few inches of the top.
14. Replace salt storage tank cover.

Troubleshooting

The Culligan Medallist Series Softener is equipped with an advanced error detection system. During all operating modes the softener's electronics are performing self-diagnostics to ensure that the unit is operating correctly. There may be times, however, when something may occur that could cause the unit to improperly operate. In those instances the microprocessor will identify the exact problem and alert the user with a telephone handset symbol in the upper left corner of the display and the error code will be shown. Shown below is codes that would appear if an error is detected.

Display	Error Description	Response
E1	Motor will not stop turning	Call Culligan service technician
E2	Motor stuck	Call Culligan service technician
E3	Wrong position	Call Culligan service technician

If an error code appears that requires an authorized service technician please contact your local Culligan Dealer.

For any additional troubleshooting or service needs please contact your local Culligan Dealer.



Things to Check Before Calling for Service

If you unexpectedly experience hard water, make these simple checks before calling your Culligan dealer. One of the following conditions may be the reason for your interruption of service.

Important

If any of the following conditions is found, the water conditioner should be manually recharged according to instructions on page 23 after you have corrected the problem.

Power Supply

Check your power supply cord. Is it plugged fully into the electric outlet? Be certain that the outlet is not controlled by a wall switch which has been turned off. Reset conditioner to proper time of day and then plug in.

Blown Fuse

Check the house fuse or circuit breaker panel. Replace a blown-out fuse or reset an open circuit breaker.

Power Failure

Any interruption in your power supply or time changes - such as daylight savings - will disrupt your conditioner's recharge schedule by causing the timer to run off-schedule. Reset timer to proper time of day.

Bypass Valves

Check to see if they are in the proper position. Cul-Flo-Valv[®] Bypass, if used, should be in the "Service" position (handle screwed out). If hand valves are used, see that inlet and outlet valve are opened and that the bypass valve is closed.

No Water

If you aren't getting any water flow at all, make sure your water supply is working. Open a tap ahead of the conditioner (outside tap) to see if you have any water pressure. If you have water pressure, check the bypass valve. If it is in the Service position, put it into the bypass and call your Culligan dealer for service.

Increased Usage

Guests, family additions, new water-using appliances, etc., all will result in more water usage and will require more capacity from your conditioner. You can reprogram your recharging schedule by following the directions on pages 18 and 19. Call your Culligan dealer for advice and save a service call.

Salt Supply

Check it. Refill if necessary and wait approximately 4 hours for salt to dissolve before initiating a recharge cycle.

Salt Bridging

Salt bridging occurs when a space is formed between the salt and the water underneath, preventing the salt from dissolving to make brine. No brine, no soft conditioned water!

High humidity and/or use of some brands of purified salt products may cause a salt bridge to form.

The best way to check and eliminate a salt bridging problem is to take a broom handle or similar instrument and make a mark 34 inches from the end. Then carefully begin to probe down through the salt with the instrument. Should an obstruction be found before the mark on your instrument reaches the rim of the salt storage tank, a salt bridge is likely to have formed. Continue to probe and break the salt bridge completely.



Caution! Do not force the implement past the mark as damage to the horizontal salt plate may occur.



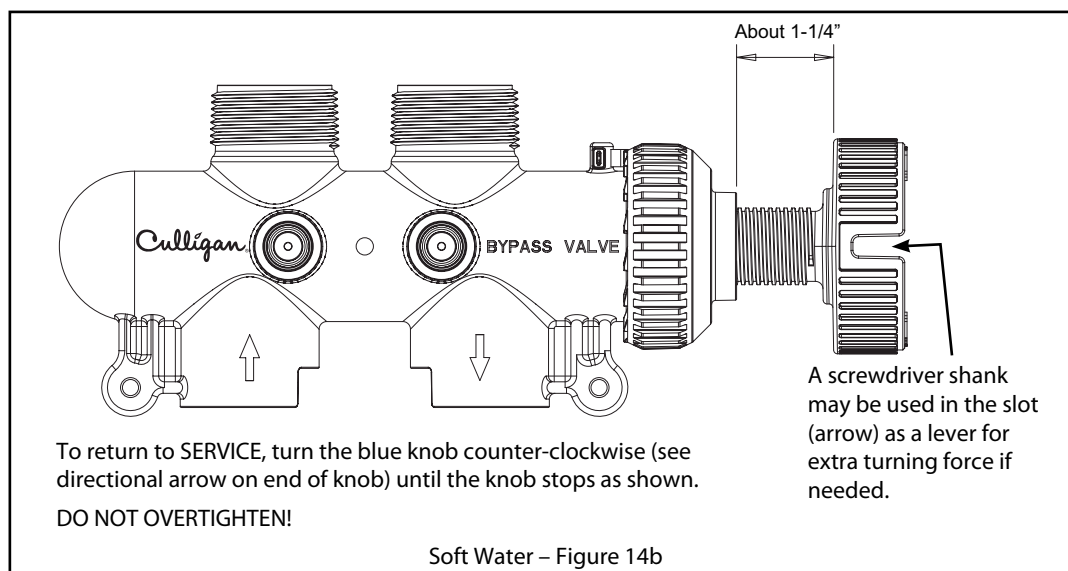
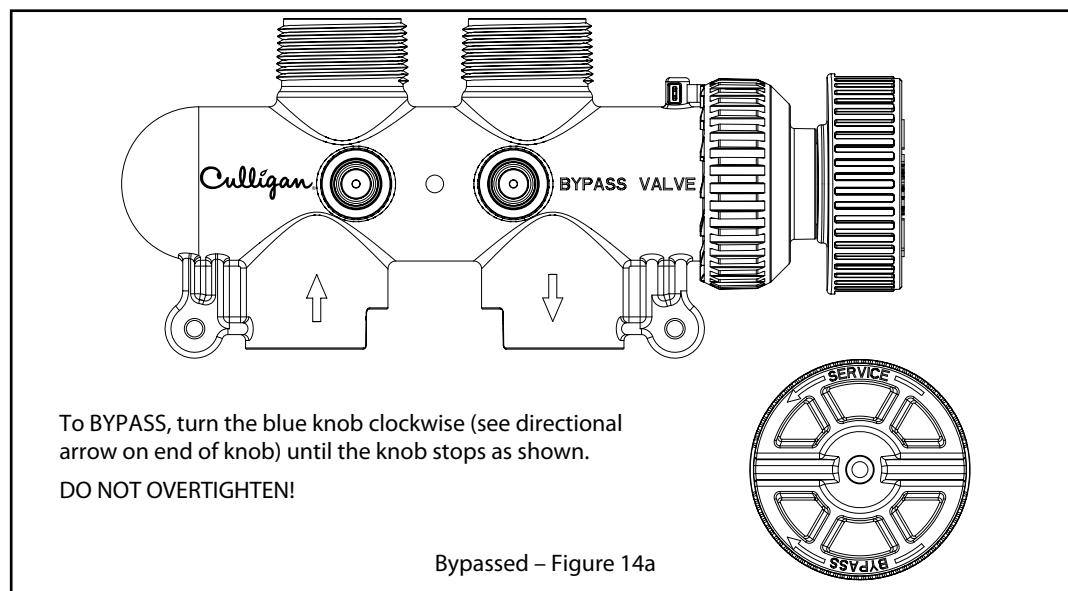
When and How to Bypass Your Water Conditioner

Normally, all water except outside lines passes through the water conditioner. There are times when the water conditioner should be bypassed, using the Cul-Flo-Valv[®] Bypass, or a 3-way bypass valve. You should bypass:

1. If lines to outside faucets do not bypass the water conditioner, and you do not want to waste soft water on lawn sprinkling or other outside uses.
2. If you are going away on vacation and want to save salt by not having the unit recharge while you're away.

Medallist Series Bypass Valve

In the back of Culligan water conditioners is a Cul-Flo-Valv Bypass. NOTE: The 3/4" Medallist bypass valve will look different on the valve connections but function the same. To bypass unit, simply turn the blue knob clockwise. To return to soft water service, reverse the procedure - turn the blue knob counter-clockwise.





Performance Data Sheet

Culligan knows the more informed you are about your water treatment systems, the more confident you will be about its performance. It's because of this and more than seventy years of commitment to customer satisfaction that Culligan is providing this Performance Data Sheet to its customers.

IMPORTANT NOTICE: Read this Performance Data Sheet and compare the capabilities of this unit with your actual water treatment needs. It is recommended that before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs.

MANUFACTURER: Culligan International Company,
9399 W. Higgins Rd., Suite 1100, Rosemont, IL 60018 USA
1-800-CULLIGAN or 1-847-430-2800

PRODUCT: Culligan Medallist Series® 8" Water Softener

TESTING CONDITIONS & RESULTS:

Flow Rate:	5.9 gpm @12 psi	Capacity:	13,312 grains @ 3.0 lb. salt
Pressure:	30 - 40 psi		22,947 grains @ 9.0 lb. salt
Acidity:	Non-Corrosive		24,853 grains @ 12.0 lb. salt
Temperature:	68° (20°C)	pH:	7.6

SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 5.9 gpm (22 Lpm)
 Pressure Drop at Maximum Flow Rate: 12 psi (83 kPa)
 Operating Temperature Range: 33 - 120°F (1 - 50°C)
 Maximum Drain Flow Rate: 1.1 gpm (8 Lpm)
 Operating Pressure Range: 20 - 125 psi (140 - 860 kPa)
 Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)



Name of Substance	USEPA Maximum Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 ± 0.5	5.9 gpm	12 (psig)
Radium 226/228	5 pCi/L	7.5 ± 0.5	5.9 gpm	12 (psig)

This system is certified for barium and radium 226/228 reduction based on hardness reduction. It is recommended you test your water every 6 months to ensure the system is performing properly and that hardness, and therefore barium and radium 226/228, are being reduced. Hardness test strips have been included. Additional strips are available from your local Culligan dealer.

The Culligan Medallist Series® 8 Water Softeners are tested and certified by WQA against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) and barium/radium as verified and substantiated by test data.

Refer to the Specifications, Familiarization and Warranty section of this Owner's Guide for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan Man. Performance will vary based on local water conditions. The substances reduced by this system are not necessarily in your water.

Culligan water softeners are designed to work with any salt of good quality, although it is recommended that you ask your local Culligan Man for his suggestion on the best type and grade of salt to use in this softener.

NOTICE: This softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____



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MANUFACTURER: Culligan International Company,
9399 W. Higgins Rd., Suite 1100, Rosemont, IL 60018 USA
1-800-CULLIGAN or 1-847-430-2800

PRODUCT: Culligan Medallist Series® 8" Water Softener with Soft-Minder® Meter

TESTING CONDITIONS & RESULTS:

Flow Rate:	5.9 gpm @12 psi	Capacity:	13,312 grains @ 3.0 lb. salt
Pressure:	30 - 40 psi		22,947 grains @ 9.0 lb. salt
Acidity:	Non-Corrosive		24,853 grains @ 12.0 lb. salt
Temperature:	68° (20°C)	Efficiency Rated Dosage**:	4,437 gr./lb.
pH:	7.6		



SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 5.9 gpm (22 Lpm)	Pressure Drop at Maximum Flow Rate: 12 psi (83 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)	Maximum Drain Flow Rate: 1.1 gpm (8 Lpm)
Oper. Press. Range: 20-125 psi (140 - 860 kPa)	Oper. Press. Range (Canada): 20-90 psi (140-620 kPa)

Name of Substance	USEPA Maximum Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 ± 0.5	5.9 gpm	12 (psig)
Radium 226/228	5 pCi/L	7.5 ± 0.5	5.9 gpm	12 (psig)

This system is certified for barium and radium 226/228 reduction based on hardness reduction. It is recommended you test your water every 6 months to ensure the system is performing properly and that hardness, and therefore barium and radium 226/228, are being reduced. Hardness test strips have been included. Additional strips are available from your local Culligan dealer.

The Culligan Medallist Series® 8 Water Softeners are tested and certified by WQA against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) and barium/radium as verified and substantiated by test data.

This softener is efficiency rated, it has a Demand Initiated Regeneration (D.I.R.) feature which complies with specific performance specifications intended to minimize the amount of regenerant brine and water used in their operation. The softener has a rated salt efficiency of not less than 3350 grains of total hardness exchange per pound of salt used (based on NaCl equivalency), and shall not deliver more salt than its listed rating. The efficiency is measured by a laboratory test described in NSF/ANSI Standard 44. This test represents the maximum possible efficiency that the system can achieve. Operational efficiency is the actual efficiency achieved after the system has been installed. Operational efficiency is typically less than the efficiency due to individual application factors including water hardness, water usage, and other contaminants that reduce the softener's capacity.

Refer to the Specifications, Familiarization and Warranty section of this Owner's Guide for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan Man. Performance will vary based on local water conditions. The substances reduced by this system are not necessarily in your water.

Culligan water softeners are designed to work with any salt of good quality, although it is recommended that you ask your local Culligan Man for his suggestion on the best type and grade of salt to use in this softener.

NOTICE: This softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

** The efficiency rated dosage is only valid at the 4.0 lb. salt dosage.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____



Performance Data Sheet

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IMPORTANT NOTICE: Read this Performance Data Sheet and compare the capabilities of this unit with your actual water treatment needs. It is recommended that before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs.

MANUFACTURER: Culligan International Company,
9399 W. Higgins Rd., Suite 1100, Rosemont, IL 60018 USA
1-800-CULLIGAN or 1-847-430-2800

PRODUCT: Culligan Medallist Plus Series® 30 Water Softener with Soft-Minder® Meter

TESTING CONDITIONS & RESULTS:

Flow Rate:	9 gpm @ 15 psi	Capacity:	17,172 grains @ 4.0 lb. salt
Pressure:	30 - 40 psi		23,664 grains @ 8.0 lb. salt
Acidity:	Non-Corrosive		27,700 grains @ 12.0 lb. salt
Temperature:	68° F (20°C)	Efficiency Rated Dosage**:	4,293 gr./lb.
pH:	7.6		



SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 9 gpm (34 Lpm)	Pressure Drop at Maximum Flow Rate: 15 psi (109 kPa)
Operating Temperature Range: 33 - 120° F (1 - 50°C)	Maximum Drain Flow Rate: 1.7 gpm (6.4 Lpm)
Oper. Press. Range: 20-125 psi (140-860 kPa)	Oper. Press. Range (Canada): 20-90 psi (140-620 kPa)

Name of Substance	USEPA Maximum Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 + 0.5	9.0 gpm	15 (psig)
Radium 226/228	5 pCi/L	7.5 + 0.5	9.0 gpm	15 (psig)

This system is certified for barium and radium 226/228 reduction based on hardness reduction. It is recommended you test your water every 6 months to ensure the system is performing properly and that hardness, and therefore barium and radium 226/228, are being reduced. Hardness test strips have been included. Additional strips are available from your local Culligan dealer.

The Culligan Medallist Plus Series® 30 Water Softeners are tested and certified by WQA against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) and barium/radium as verified and substantiated by test data.

The Culligan Medallist Plus Series® 30 Water Softeners are tested and certified by WQA against NSF/ANSI Standard 61 for material requirements.

This softener is efficiency rated, it has a Demand Initiated Regeneration (D.I.R.) feature which complies with specific performance specifications intended to minimize the amount of regenerant brine and water used in their operation. The softener has a rated salt efficiency of not less than 3350 grains of total hardness exchange per pound of salt used (based on NaCl equivalency), and shall not deliver more salt than its listed rating. The efficiency is measured by a laboratory test described in NSF/ANSI Standard 44. This test represents the maximum possible efficiency that the system can achieve. Operational efficiency is the actual efficiency achieved after the system has been installed. Operational efficiency is typically less than the efficiency due to individual application factors including water hardness, water usage, and other contaminants that reduce the softener's capacity.

Refer to the Specifications, Familiarization and Warranty section of this Owner's Guide for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan Man. Performance will vary based on local water conditions. The substances reduced by this system are not necessarily in your water.

Culligan water softeners are designed to work with any salt of good quality, although it is recommended that you ask your local Culligan Man for his suggestion on the best type and grade of salt to use in this softener.

NOTICE: This softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

**The efficiency rated dosage is only valid at the 4.0 lb. salt dosage.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____



Performance Data Sheet

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IMPORTANT NOTICE: Read this Performance Data Sheet and compare the capabilities of this unit with your actual water treatment needs. It is recommended that before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs.

MANUFACTURER: Culligan International Company,
9399 W. Higgins Rd., Suite 1100, Rosemont, IL 60018 USA
1-800-CULLIGAN or 1-847-430-2800

PRODUCT: Culligan Medallist Plus Series® 45 Water Softener
with Soft-Minder® Meter

TESTING CONDITIONS & RESULTS:

Flow Rate:	9.4 gpm @ 15 psi	Capacity:	26,770 grains @ 6.0 lb. salt
Pressure:	30 - 40 psi		38,830 grains @ 12.0 lb. salt
Acidity:	Non-Corrosive		45,943 grains @ 18.0 lb. salt
Temperature:	68°F (20°C)	Efficiency Rated Dosage**:	4,461 gr./lb.
pH:	7.6		



SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 9.4 gpm (35.5 Lpm)	Pressure Drop at Maximum Flow Rate: 15 psi (109 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)	Maximum Drain Flow Rate: 1.6 gpm (6.1 Lpm)
Oper. Press. Range: 20-125 psi (140-860 kPa)	Oper. Press. Range (Canada): 20-90 psi (140-620 kPa)

Name of Substance	USEPA Maximum Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 + 0.5	9.4 gpm	15 (psig)
Radium 226/228	5 pCi/L	7.5 + 0.5	9.4 gpm	15 (psig)

This system is certified for barium and radium 226/228 reduction based on hardness reduction. It is recommended you test your water every 6 months to ensure the system is performing properly and that hardness, and therefore barium and radium 226/228, are being reduced. Hardness test strips have been included. Additional strips are available from your local Culligan dealer.

The Culligan Medallist Plus Series® 45 Water Softeners are tested and certified by WQA against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) and barium/radium as verified and substantiated by test data.

The Culligan Medallist Plus Series® 45 Water Softeners are tested and certified by WQA against NSF/ANSI Standard 61 for material requirements.

This softener is efficiency rated, it has a Demand Initiated Regeneration (D.I.R.) feature which complies with specific performance specifications intended to minimize the amount of regenerant brine and water used in their operation. The softener has a rated salt efficiency of not less than 3350 grains of total hardness exchange per pound of salt used (based on NaCl equivalency), and shall not deliver more salt than its listed rating. The efficiency is measured by a laboratory test described in NSF/ANSI Standard 44. This test represents the maximum possible efficiency that the system can achieve. Operational efficiency is the actual efficiency achieved after the system has been installed. Operational efficiency is typically less than the efficiency due to individual application factors including water hardness, water usage, and other contaminants that reduce the softener's capacity.

Refer to the Specifications, Familiarization and Warranty section of this Owner's Guide for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan Man. Performance will vary based on local water conditions. The substances reduced by this system are not necessarily in your water.

Culligan water softeners are designed to work with any salt of good quality, although it is recommended that you ask your local Culligan Man for his suggestion on the best type and grade of salt to use in this softener.

NOTICE: This softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

**The efficiency rated dosage is only valid at the 6.0 lb. salt dosage.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____



Performance Data Sheet

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IMPORTANT NOTICE: Read this Performance Data Sheet and compare the capabilities of this unit with your actual water treatment needs. It is recommended that before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs.

MANUFACTURER: Culligan International Company,
9399 W. Higgins Rd., Suite 1100, Rosemont, IL 60018 USA
1-800-CULLIGAN or 1-847-430-2800

PRODUCT: Culligan Medallist Plus Series® 60 Water Softener
with Soft-Minder® Meter

TESTING CONDITIONS & RESULTS:

Flow Rate:	10 gpm @ 15 psi	Capacity:	35,614 grains @ 8.0 lb. salt
Pressure:	30 - 40 psi		51,659 grains @ 16.0 lb. salt
Acidity:	Non-Corrosive		60,523 grains @ 24.0 lb. salt
Temperature:	68°F (20°C)	Efficiency Rated Dosage**:	4,451 gr./lb.
pH:	7.6		



SOFTENER SPECIFICATIONS:

Max. Flow Rate: 10 gpm (38 Lpm)	Pressure Drop at Maximum Flow Rate: 15 psi (109 kPa)
Operating Temperature Range: 33-120°F (1-50°C)	Maximum Drain Flow Rate: 2.6 gpm (9.8 Lpm)
Oper. Press. Range: 20-125 psi (140-860 kPa)	Oper. Press. Range (Canada): 20-90 psi (140-620 kPa)

Name of Substance	USEPA Maximum Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 + 0.5	10 gpm	15 (psig)
Radium 226/228	5 pCi/L	7.5 + 0.5	10 gpm	15 (psig)

This system is certified for barium and radium 226/228 reduction based on hardness reduction. It is recommended you test your water every 6 months to ensure the system is performing properly and that hardness, and therefore barium and radium 226/228, are being reduced. Hardness test strips have been included. Additional strips are available from your local Culligan dealer.

The Culligan Medallist Plus Series® 60 Water Softeners are tested and certified by WQA against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) and barium/radium as verified and substantiated by test data.

The Culligan Medallist Plus Series® 60 Water Softeners are tested and certified by WQA against NSF/ANSI Standard 61 for material requirements.

This softener is efficiency rated, it has a Demand Initiated Regeneration (D.I.R.) feature which complies with specific performance specifications intended to minimize the amount of regenerant brine and water used in their operation. The softener has a rated salt efficiency of not less than 3350 grains of total hardness exchange per pound of salt used (based on NaCl equivalency), and shall not deliver more salt than its listed rating. The efficiency is measured by a laboratory test described in NSF/ANSI Standard 44. This test represents the maximum possible efficiency that the system can achieve. Operational efficiency is the actual efficiency achieved after the system has been installed. Operational efficiency is typically less than the efficiency due to individual application factors including water hardness, water usage, and other contaminants that reduce the softener's capacity.

Refer to the Specifications, Familiarization and Warranty section of this Owner's Guide for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan Man. Performance will vary based on local water conditions. The substances reduced by this system are not necessarily in your water.

Culligan water softeners are designed to work with any salt of good quality, although it is recommended that you ask your local Culligan Man for his suggestion on the best type and grade of salt to use in this softener.

NOTICE: This softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

**The efficiency rated dosage is only valid at the 7.0 lb. salt dosage.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____



California
Certifications

State of California
Department of Public Health
Water Treatment Device
Certificate Number

09-1987

Date Issued: June 4, 2009

Trademark/Model Designation

Culligan International Company Medallist 8" Timeclock

Culligan International Company Medallist 8" Soft-Minder

Manufacturer: Culligan International Company

Replacement Elements

N/A

N/A

The water treatment device(s) listed on this certificate have met the testing requirements pursuant to Section 116830 of the Health and Safety Code for the following health related contaminants:

Microbiological Contaminants and Turbidity

None

Organic Contaminants

None

Inorganic/Radiological Contaminants

Barium

Radium

Rated Service Capacity: N/A

Rated Service Flow: 5.9 gpm

Conditions of Certification:

Do not use with water that is microbiologically unsafe or of unknown quality, without adequate disinfection before or after the system.



California
Certifications
(cont.)

State of California
Department of Health Services
Water Treatment Device
Certificate Number

04 - 1618

Date Issued: July 21, 2004

<u>Trademark/Model Designation</u>	<u>Replacement Elements</u>
Culligan Medallist Plus 30 Time Clock	None
Culligan Medallist Plus 30 Soft Minder	None
Manufacturer: Culligan International	

The water treatment device(s) listed on this certificate have met the testing requirements pursuant to Section 116830 of the Health and Safety Code for the following health related contaminants:

<u>Microbiological Contaminants and Turbidity</u>	<u>Inorganic/Radiological Contaminants</u>
None	Barium Radium 226/228
<u>Organic Contaminants</u>	
None	

Rated Service Capacity: N/A **Rated Service Flow:** 9.0 gpm

Conditions of Certification:

Do not use with water that is microbiologically unsafe or of unknown quality, without adequate disinfection before or after the system.



California
Certifications
(cont.)

State of California
Department of Health Services
Water Treatment Device
Certificate Number

04 - 1619

Date Issued: July 21, 2004

Trademark/Model Designation

Culligan Medallist Plus 45 Soft Minder

Culligan Medallist Plus 45 Time Clock

Replacement Elements

None

None

Manufacturer: Culligan International

The water treatment device(s) listed on this certificate have met the testing requirements pursuant to Section 116830 of the Health and Safety Code for the following health related contaminants:

Microbiological Contaminants and Turbidity

None

Inorganic/Radiological Contaminants

Barium

Radium 226/228

Organic Contaminants

None

Rated Service Capacity: N/A

Rated Service Flow: 9.6 gpm

Conditions of Certification:

Do not use with water that is microbiologically unsafe or of unknown quality, without adequate disinfection before after the system.



California
Certifications
(cont.)

State of California
Department of Health Services
Water Treatment Device
Certificate Number

04 - 1575

Date Issued: July 21, 2004

<u>Trademark/Model Designation</u>	<u>Replacement Elements</u>
Medallist Plus 60 Softminder	None
Medallist Plus 60 Time Clock	None
Manufacturer: Culligan International	

The water treatment device(s) listed on this certificate have met the testing requirements pursuant to Section 116830 of the Health and Safety Code for the following health related contaminants:

Microbiological Contaminants and Turbidity

None

Inorganic/Radiological Contaminants

Barium
Radium 226/228

Organic Contaminants

None

Rated Service Capacity: N/A

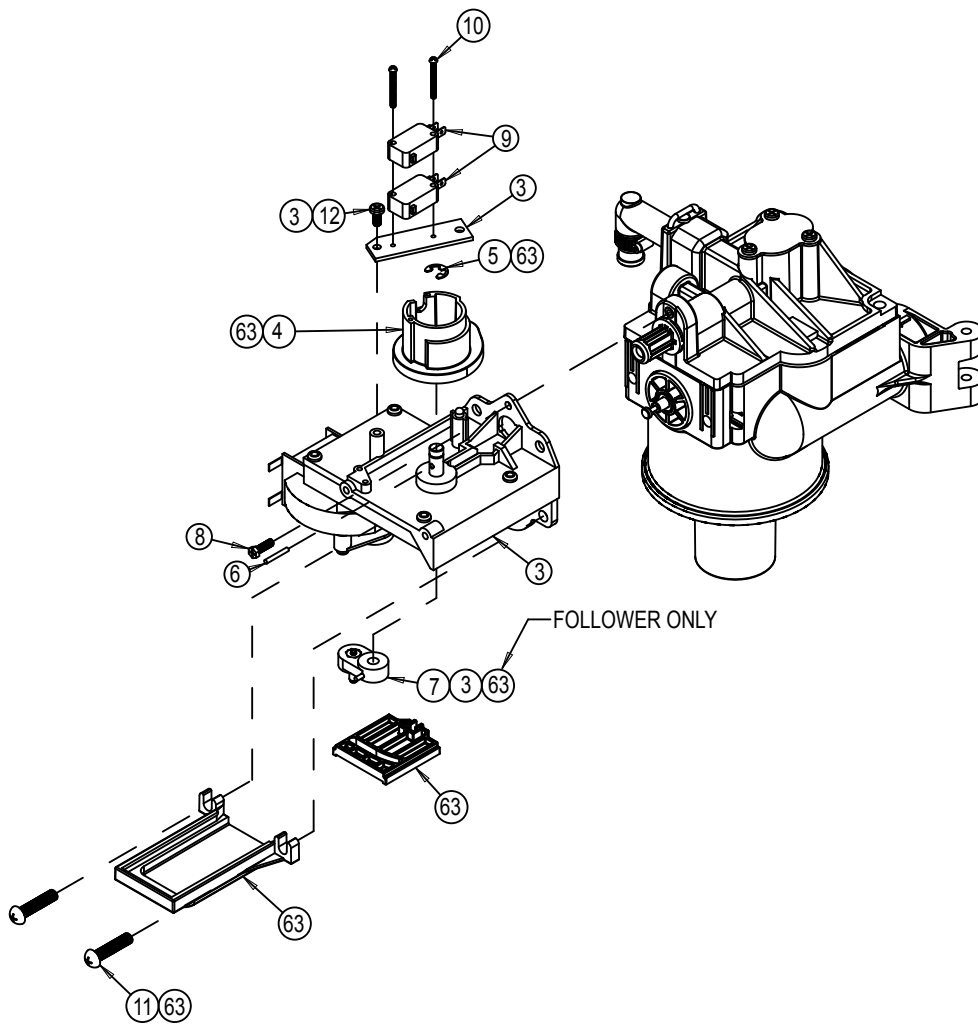
Rated Service Flow: 10 gpm

Conditions of Certification:

Do not use with water that is microbiologically unsafe or of unknown quality, without adequate disinfection before or after the system.



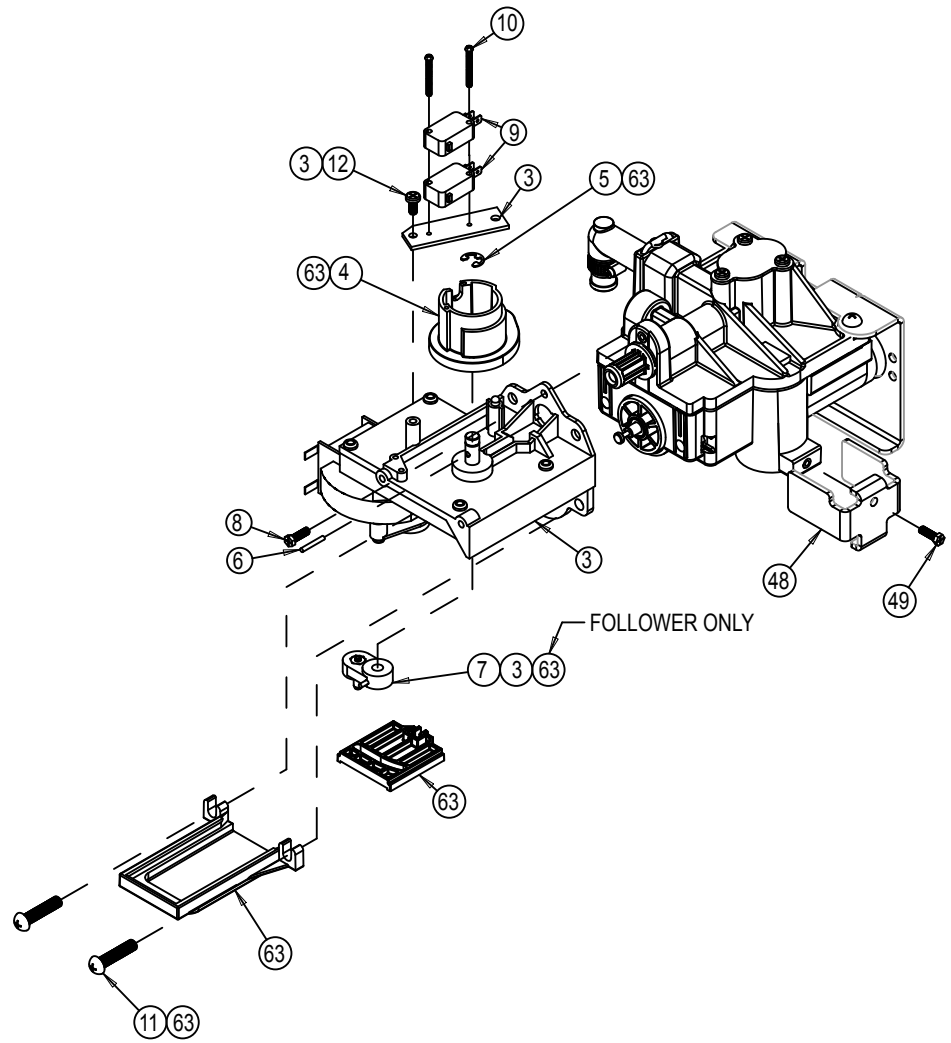
Parts List



1" Softener Valve



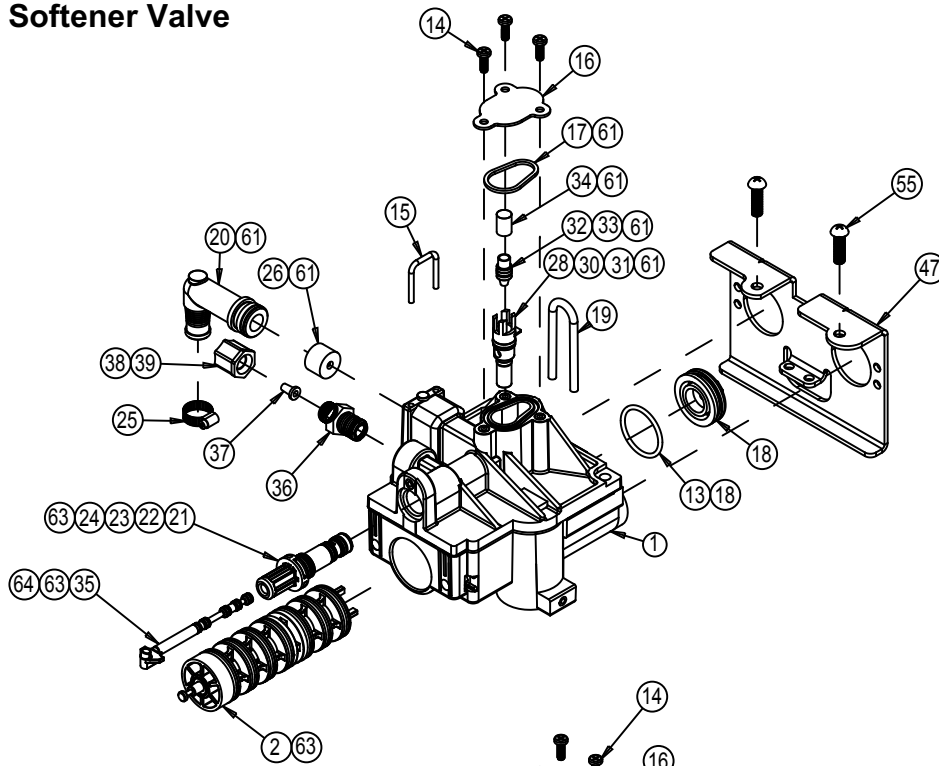
Parts List
(cont.)



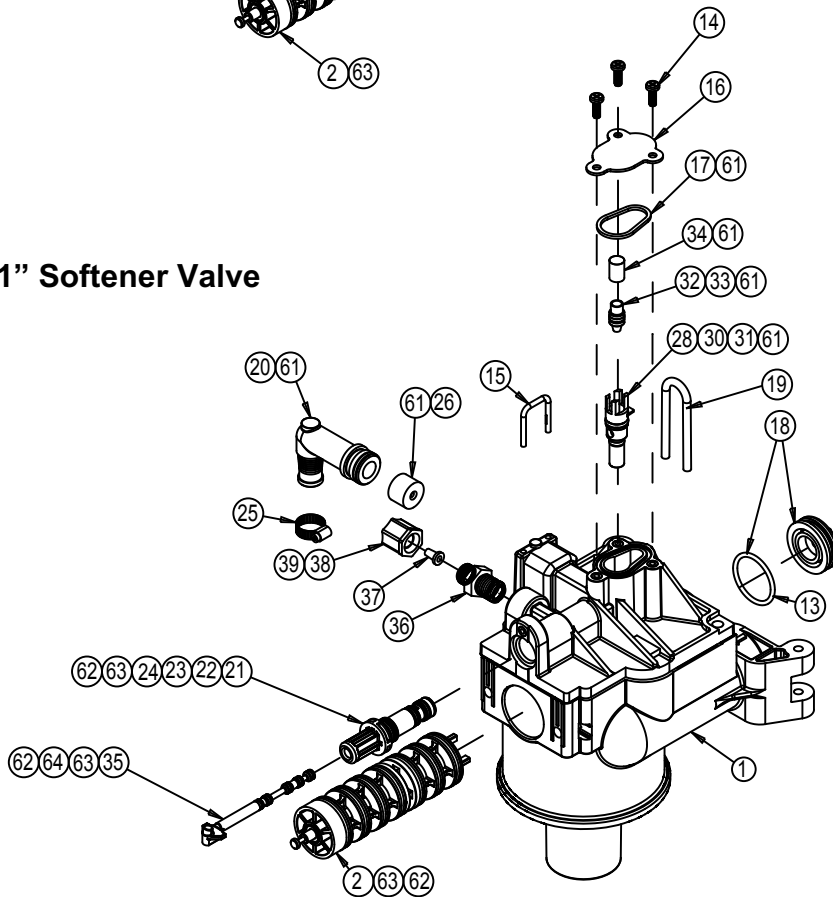
3/4" Softener Valve



3/4" Softener Valve



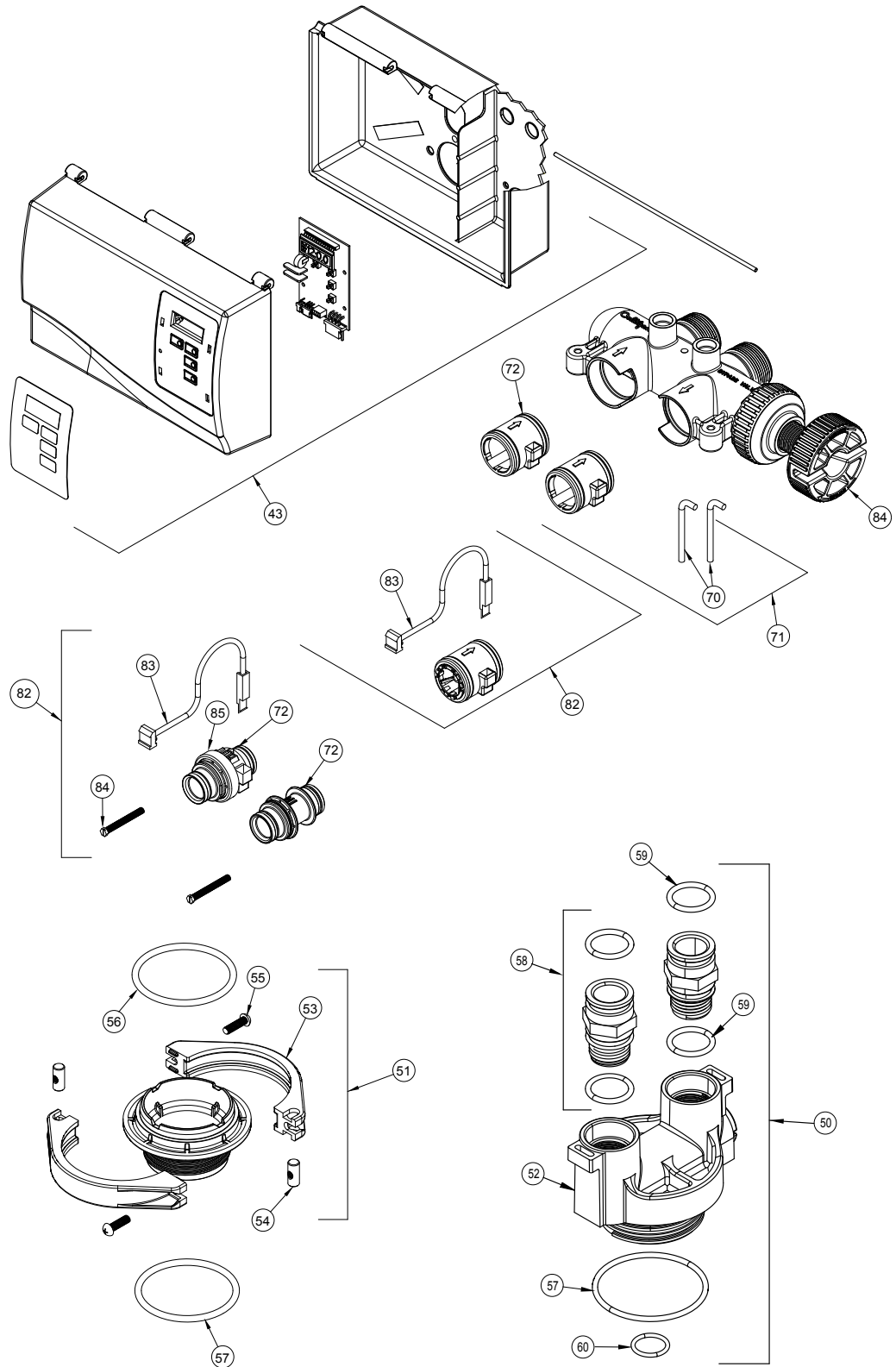
1" Softener Valve



Parts List
(cont.)



Parts List
(cont.)





Power Valve Service Parts List

Item #	Part #	DESCRIPTION	Quantity/Pack	Valve Size	
				3/4" Valve	1" Valve
1	01013976	Control Valve Body 1"	1 Each		X
1	00449865	Control Valve Body 3/4"	1 Each	X	
2	01013083	Seal Pack Assembly	1 Each	X	X
3	01014179	Drive Motor Kit 24V	1 Each	X	X
4	P1013031	Drive Cam	10 Each/Pack	X	X
5	P1013043	Retaining E-ring	10 Each/Pack	X	X
6	00445246	Pin	1 Each	X	X
7	P1013677	Bell Crank/Follower Kit	10 Each/Pack	X	X
8	P1001784	Screw, motor retaining, top	25 Each/Pack	X	X
9	P1003244	Microswitch 24v	10 Each/Pack	X	X
10	P0448686	Screw, Microswitch retaining	25 Each/Pack	X	X
11	P0318452	Screw, Motor retaining, bottom	25 Each/Pack	X	X
12	P0318455	Screw, Microswitch Plate	25 Each/Pack	X	X
13	P0444914	O-ring, Rear Seal	10 Each/Pack	X	X
14	P0448687	Screw, Eductor Cover	25 Each/Pack	X	X
15	P0447387	Clip, Drain Elbow	25 Each/Pack	X	X
16	P0401022	Eductor Cover	10 Each/Pack	X	X
17	P0445797	Seal, Eductor Port	10 Each/Pack	X	X
18	00448126	Plug, Body, Rear	1 Each	X	X
19	00448128	Clip, Body, Rear	1 Each	X	X
20	01017758	Drain Elbow Assembly	1 Each	X	X
21	P0448853	Repl Eductor Sleeve (Softener)	10 Each/Pack	X	X
22	P0447986	O-ring, Eductor Sleeve, Small	25 Each/Pack	X	X
23	P0308407	O-ring, Eductor Sleeve, Large	25 Each/Pack	X	X
24	P0448750	Screen, Eductor Sleeve	10 Each/Pack	X	X
25	P0451701	Hose Clamp, Drain	25 Each/Pack	X	X
26	P0331634	FC Washer, 1.2 GPM Black	10 Each/Pack	X	X
26	P0331635	FC Washer, 2.0 GPM Brown	10 Each/Pack	X	X
26	P0331636	FC Washer, 3.5 GPM Green	10 Each/Pack	X	X
28	P0401248	Eductor Throat, Brown (9",10",12")w/O-rings	10 Each/Pack	X	X
30	P0308437	O-Ring, Eductor Throat/Plug, Large	25 Each/Pack	X	X
31	P0308438	O-Ring, Eductor Throat, Small	10 Each/Pack	X	X
32	P1013894	Eductor Nozzle, Blue (9",10") w/ O-ring	10 Each/Pack	X	X
33	P0308438	O-ring, Eductor Nozzle	10 Each/Pack	X	X
34	P0445269	Eductor Screen	10 Each/Pack	X	X
35	P0447987	O-ring, brine piston	10 Each/Pack	X	X
36		Connector, Brine Line, 3/8"	1 Each	X	

Parts List
(cont.)



Parts List
(cont.)

Item #	Part #	DESCRIPTION	Quantity/Pack	Valve Size	
				3/4" Valve	1" Valve
36	00447915	Connector, Brine Line, 1/2"	1 Each		X
37	P1018871	Insert, Brine Line Connector, 3/8"	25 Each/Pack	X	X
37	00440516	Insert, Brine Line Connector, 1/2"	1 Each		X
38	P1002205	Nut, Brine Line Connector, 3/8"	25 Each/Pack	X	X
39	00440402	Nut, Brine Line Connector, 1/2"	1 Each		X
40B	01020368	Circuit Board Kit - Medallist	1 Each	X	X
43B	01019708	Enclosure Kit - Medallist	1 Each	X	X
44A	P1014734	Wire Harness - CB Gold/ Medallist	5 Each/Pack	X	X
45B	P1014787	Power Cord - Medallist	5 Each/Pack	X	X
46	P1000372	Cord Grip (Power Cord)	25 Each/Pack	X	X
47	01004689	Bracket - 3/4" Medallist Rear	1 Each	X	
48	01005130	U-clamp - 3/4" Medallist	1 Each	X	
49	P0448687	Screw, U-clamp, 3/4" Medallist	25 Each/Pack	X	
50	01013971	Tank Adapter Kit, ACME, Medallist	1 Each	X	
50	01013970	Tank Adapter Kit, NPSM, Medallist	1 Each	X	
51	01014153	Adapter Assy, 1" valve to tank w/o O-ring	1 Each		X
52	01013958	Tank Adapter, 1" Valve	1 Each		X
52	00444808	Tank Adapter, 3/4" Valve, ACME threads	1 Each	X	
52C	00403523	Tank Adapter, 3/4" Valve, NPSM threads	1 Each	X	
53	P1013959	Tank Clamp, 1" Valve	10 Each/Pack		X
54	P1013669	Tank Clamp Pin, 1" Valve	10 Each/Pack		X
55	P0318383	Tank Clamp Screw, 1" Valve/3/4" bkt	10 Each/Pack		X
56	P1014848	O-ring, Large, 1" Valve to Tank Adapter	25 Each/Pack		X
57	P0440052	O-ring, 3/4"/1" Valve Adapter to ACME Tank	25 Each/Pack	X	X
57	P0308447	O-ring, 3/4" Valve Adapter to NPSM Tank	10 Each/Pack	X	
60	P0308427	O-ring, Manifold, 3/4" Valve	50 Each/Pack	X	
61	01016266	Eductor Rebuild Kit (Softeners)	1 Each	X	X
62	01016267	Rebuild Kit - Brine Piston/Seal Pack	1 Each	X	X
63	01016269	Seal Pack/Bell Crank Kit	1 Each	X	X



Item #	Part #	DESCRIPTION	Quantity/Pack	Valve Size	
				3/4" Valve	1" Valve
67	01018425	Bypass Valve - 1" Rotary	1 Each	X	
67	01018760	Bypass Valve - 1"/1-1/4" Rotary	1 Each		X
67	01018248	1" Straight Through Adapter	1 Each		X
67	01018249	1 1/4" Straight Through Adapter	1 Each		X
68	01018755	Rebuild Kit - 1"/1-1/4" Rotary Bypass	1 Each		X
70	P1009075	Retaining Clip, 1" Bypass valve	10 Each/Pack		X
71	01013985	Coupling Kit - 3/4" Bypass	1 Kit	X	
71	01014033	Coupling Kit - 1" Bypass	1 Kit		X
72	P0308427	O-ring, 3/4" Couplings/Meters	50 Each/Pack	X	
72	P1009099	O-ring, 1" Couplings/Meters	50 Each/Pack		X
74	P0318546	Screw, 3/4" Couplings	25 Each/Pack	X	
75	01010783	1" Copper Adapter Kit, (1" Bypass)	1 Each		X
75	01016564	3/4" Copper Adapter Kit (1" Bypass)	1 Each		X
75	P1019783	3/4" Elbow Copper Adapter Kit	10 Pairs/Pack	X	
76	01016565	3/4" Elbow Copper Adapter Kit (1" Bypass)	1 Each		X
76	P1019782	3/4" Copper Adapter Kit	10 Pairs/Pack	X	
77	01018757	1" NPT Female Elbow Kit (1" Rotary Bypass)	5 Pair/Pack		X
78	01018758	1" NPT Kit (1" Rotary Bypass)	5 Pair/Pack		X
79	P1009856	Gasket, Copper Plumbing Adapters	25 Each/Pack		X
81	01018248	Plumbing Adapter Kit - 1" NPT	1 Each		X
81	01018249	Plumbing Adapter Kit - 1-1/4" NPT	1 Each		X
82	01012905	Meter Kit - 3/4" w/wire harness	1 Each	X	
82	01011188	Meter Kit - 1" w/wire harness	1 Each		X
83	01008070	Wire Harness, 3/4"/1" Meters	1 Each	X	X
84	P1012820	Screw, 3/4" meter kit	25 Each/Pack	X	
86	01018133	Transformer, Dual Output	1 Each	X	X
87	01015972	Transformer, Outdoor Models, 120/24	1 Each	X	X
89	01013839	Backup Battery, Gold	1 Each	X	X

Parts List
(cont.)



Parts List
(cont.)

Service Parts Kits

Part No.	Description
01-0162-67	Power Valve Seal Rebuild Kit (#62)
	Seal Pack
	Eductor Sleeve w/ O-Rings
	Brine Piston w/ O-Rings
01-0162-66	PV Eductor Rebuild Kit (#61)
	Light Brown Eductor w/ O-Ring
	Blue Restrictor w/ O-Ring
	Beige Restrictor w/ O-Ring
	Eductor Screen
	Eductor Port Gasket
	Black Flow Control (1.2 gpm)
	Brown Flow Control (2.0 gpm)
	Green Flow Control (3.5 gpm)
	Drain Elbow Assembly w/ O-Ring
01-0162-69	Power Valve Drive & Seal Rebuild Kit (#63)
	Seal Pack
	Eductor Sleeve w/ O-Rings
	Brine Piston w/ O-Rings
	Scotch Yoke Bracket
	Scotch Yoke
	Bell Crank & Follower Assembly
	Screw (2 each)
	E-Ring
	Cam
01-0141-79	Drive Motor Kit (#3)
	Motor
	Bell Crank
	Nut
	Follower
	Roll Pin
	Roll Pin
	Switch Bracket
	Screw (2 each)

Conditioner Tank

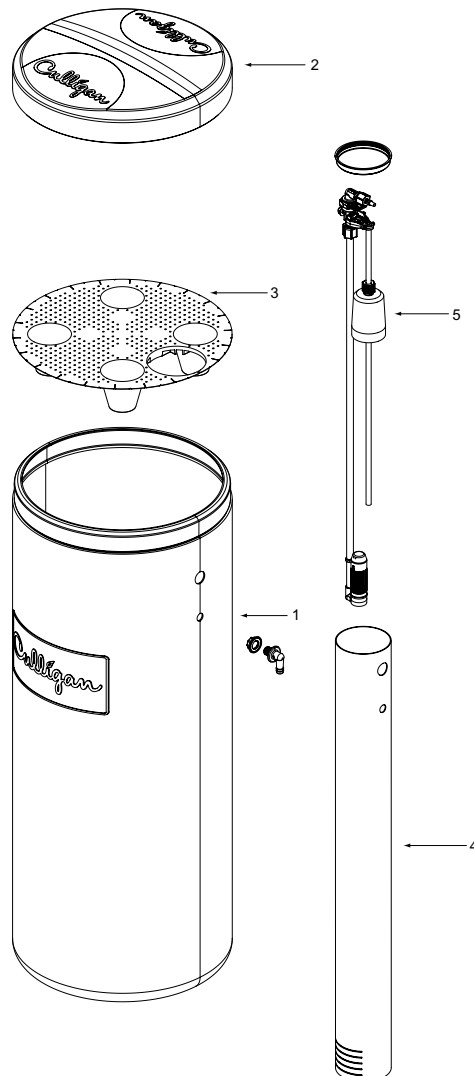
Part No.	Description
00440821	Tank Assembly, 8", Complete
01016389	Tank Assembly, 10" x 40", Complete
01016390	Tank Assembly, 10" x 54", Complete
00441897	Replacement Tank, 8", Empty
01014891	Replacement Tank, 10" x 40", Empty
01014572	Replacement Tank, 10" x 54", Empty
01014573	Replacement Tank, 12" x 52", Empty
01000819	Outlet manifold, 8"
01014482	Outlet manifold, 10" x 40"
01014540	Outlet manifold, 10" x 54"
01014570	Outlet manifold, 12" x 52"
P0308427	O-ring (outlet manifold for 3/4" control)
P1009099	O-ring (outlet manifold for 1" control)
01009847	Top Strainer, Fine Slot, Medallist Plus Softeners
01011195	Top Strainer, Wide Slot, Medallist Plus Softeners
01014508	Top Strainer, Fine Slot, Medallist 8" Softeners
01014507	Top Strainer, Wide Slot, Medallist 8" Softeners
01018390	8" Tank Jacket
01018391	10" x 40" Tank Jacket
01018392	10" x 54" Tank Jacket
01017725	8" Tank Base
01017724	10" Tank Base
01017752	Screw for Tank Base (2 required per tank)



16" and 18" Brine Systems

Item No.	Part No.	Description
-	01-0187-05	Brine System, 250 lb
-	01-0187-15	Brine System, 375 lb
1	01-0187-09	Replacement Tank, 250 lb
	01-0187-16	Replacement Tank, 375 lb
2	01-0187-04	Cover, 250 lb
	01-0187-17	Cover, 375 lb
3	01-0187-07	Salt Plate, 250 lb
	01-0187-13	Salt Plate, 375 lb
4	01-0187-07	Brine Chamber, 250 lb & 375 lb
5	01-0187-06	Brine Valve

Parts List
(cont.)

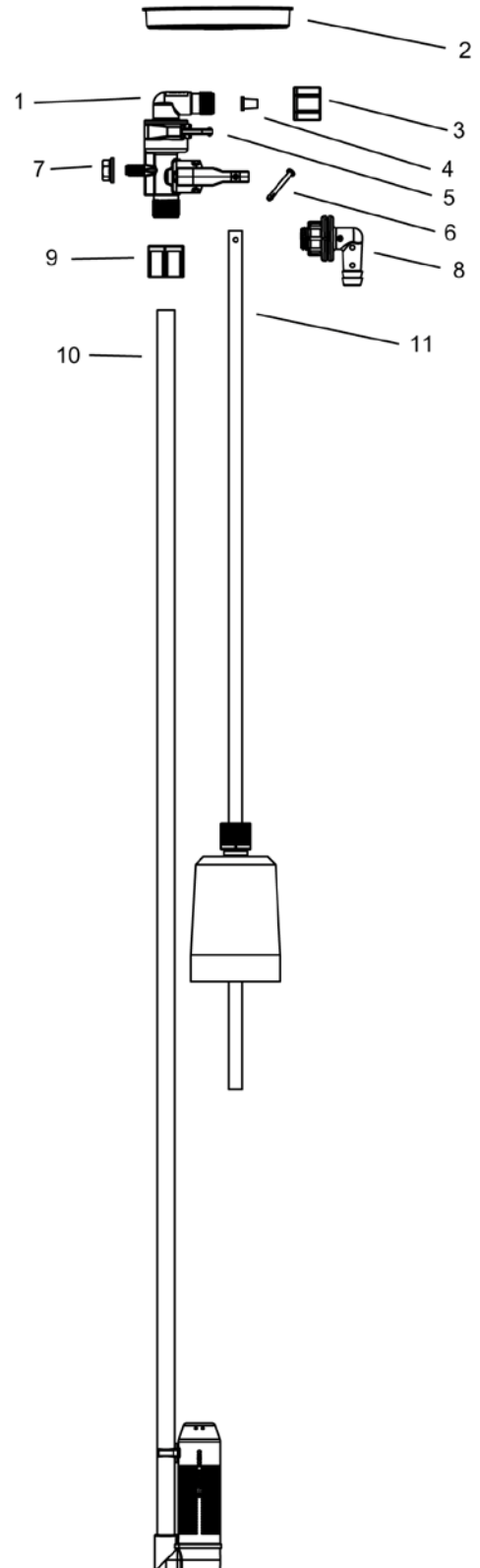




Parts List
(cont.)

Brine Valve

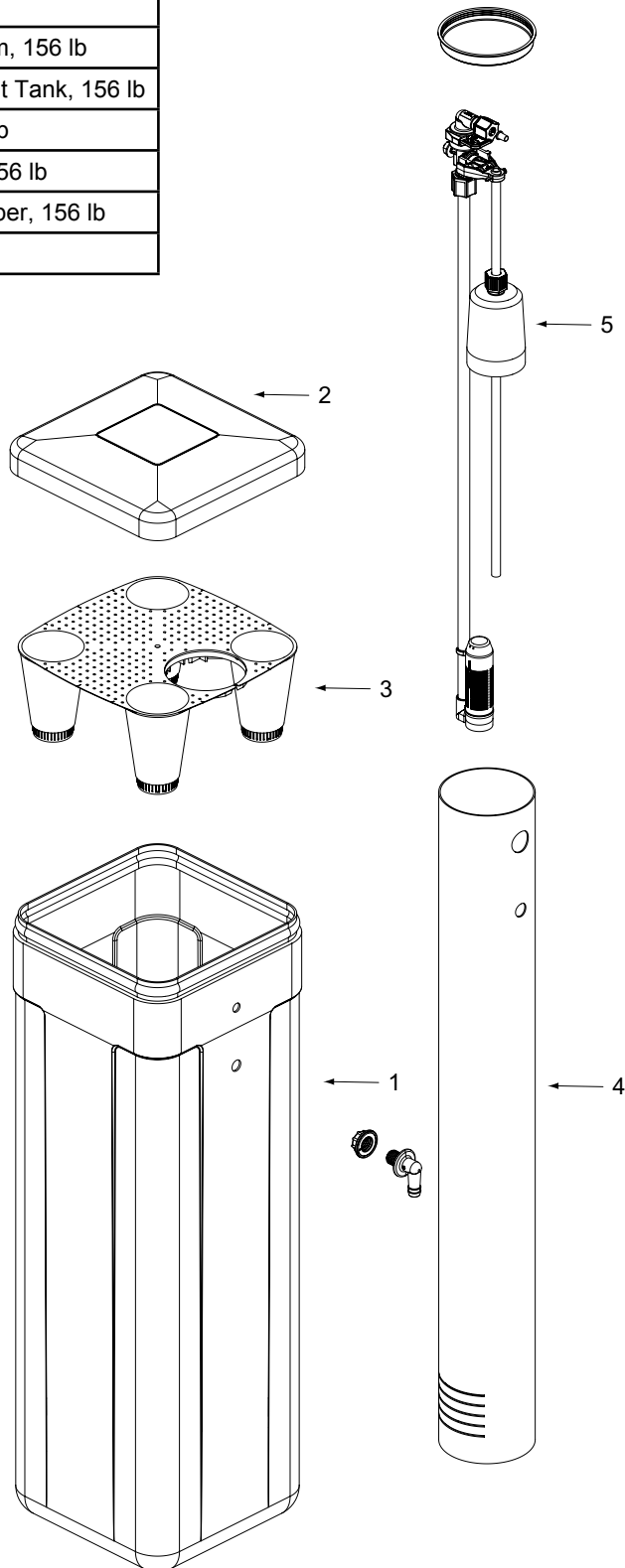
Item No.	Part No.	Description
-	01018706	Brine Valve
1	01018710	BLFC Elbow - 0.45 gpm
	01018711	BLFC Elbow - 0.8 gpm
2	P1020194	Brine Well Cap - 24 Pack
3	P1020196	3/8" Compression Nut - 24 Pack
4	P1018871	3/8" Insert - 25 Pack
5	P1012091	Retaining Clip - 24 Pack
6	P1020192	Pin - 24 Pack
7	P1020193	5/16" Nut - 24 Pack
8	P1020190	Overflow Fitting w/ Nut - 24 Pack
9	P1020195	3/8" Nut - 24 Pack
10	P1020198	Air check Assembly - 24 Pack
11	P1020197	Float - 24 Pack





11" Brine System

Item No.	Part No.	Description
-	01-0187-70	Brine System, 156 lb
1	01-0187-69	Replacement Tank, 156 lb
2	01-0189-10	Cover, 156 lb
3	01-0187-64	Salt Plate, 156 lb
4	01-0187-68	Brine Chamber, 156 lb
5	01-0187-06	Brine Valve



Parts List
(cont.)



Records and Data

Important Data on Your Water Conditioner

It is advisable to have the salesperson or installer fill in the information below for your future reference. If this has not been done, please ask for it, as it is necessary if you contact your dealer.

Identification

Model Name _____ Catalog No. _____

Control Model No. _____ Control Serial No. _____

Date of Installation _____ Tank Serial No. _____

Settings

Salt Setting _____ lbs.

Time of Recharge: _____ a.m. _____ p.m.

Regeneration Interval _____ days (Time clock models)

Gallons to signal _____ gallons (Soft-Minder® models)

Number of people in household _____

Water Analysis

Total Hardness _____ (gpg) Total Iron _____ (ppm) pH (acidity) _____

Other _____



Culligan Medallist Series® Automatic Water Conditioners

You have just purchased one of the finest water conditioners made. As an expression of our confidence in Culligan International Company products, your water conditioner is warranted to the original end-user, when installed in accordance with Culligan specifications, against defects in material and workmanship from the date of original installation, as follows:

For a period of ONE YEAR	The entire conditioner
For a period of FIVE YEARS	The AccuSoft® circuit board, or Soft-Minder® meter, if so equipped
For a period of TEN YEARS	The control valve body, excluding internal parts The conditioner tank The salt storage container, brine valve and all its component parts
For the LIFETIME of the	The Cullex® resin original consumer purchaser

If a part described above is found defective within the specified period, you should notify your independently operated Culligan dealer and arrange a time during normal business hours for the dealer to inspect the water conditioner on your premises. Any part found defective within the terms of this warranty will be repaired or replaced by the dealer. You pay only freight from our factory and local dealer charges.

We are not responsible for damage caused by accident, fire, flood, freezing, Act of God, misuse, misapplication, neglect, oxidizing agents (such as chlorine, ozone, chloramines and other related components), alteration, installation or operation contrary to our printed instructions, or by the use of accessories or components which do not meet Culligan specifications, is not covered by this warranty. Refer to the specifications section in the Installation and Operating manual for application parameters.

Our product performance specifications are furnished with each water conditioning unit. To the extent permitted by law, Culligan disclaims all implied warranties, including without limitation warranties of merchantability and fitness for particular purpose; to the extent required by law, any such implied warranties are limited in duration to the one-year period specified above for the entire conditioner. As a manufacturer, we do not know the characteristics of your water supply or the purpose for which you are purchasing a water conditioner. The quality of water supplies may vary seasonally or over a period of time, and your water usage rate may vary as well. Water characteristics can also differ considerably if your water conditioner is moved to a new location. For these reasons, we assume no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligations for us. Further, we assume no liability and extend no warranties, express or implied, for the use of this product with a non-potable water source. Our obligations under this warranty are limited to the repair or replacement of the failed parts of the water conditioner, and we assume no liability whatsoever for direct, indirect, incidental, consequential, special, general, or other damages.

Some states do not allow the exclusion of implied warranties or limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Similarly, some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Consult your telephone directory for your local independently operated Culligan dealer, or write Culligan International Company for warranty and service information.

Culligan International Company
9399 W. Higgins Road, Suite 1100
Rosemont, Illinois 60018
1-800-CULLIGAN or (847) 430-2800
www.culligan.com

**Culligan
Limited
Warranty**



With Culligan
You Get More
Than A Quality
Product

You Get Your Water Expert, The Culligan Man

We're here to provide you with fast, dependable service, making sure any problems you have are taken care of. The Culligan Man has been around for over seventy years, delivering dependable service all along. That's why people say "Hey, Culligan Man!" Because we're the water experts. And that's who you want taking care of your water.

The Culligan Promise

At Culligan, we understand that a water quality improvement system is an investment in your family's well-being. That's why our 1,350 independently operated dealers worldwide don't just sell products; they sell water quality you can count on. We stand behind our products with written limited warranties and our unequaled Culligan service. No matter where you live, you can depend on Culligan expertise to work for you — today and tomorrow.

