



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 Plus Series® 30, 45 and 60 Water Softeners are tested and certified by WQA against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) 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.



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.

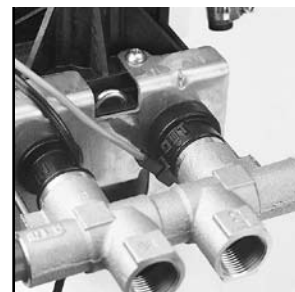
Some localities have corrosive water. A water softener cannot correct this problem and so its printed warranty disclaims liability for corrosion of plumbing lines, fixtures or appliances. If you suspect corrosion, your Culligan Dealer has equipment to control the problem.

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 49 of this Owner's Guide.

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Specifications

Culligan Medallist Series® Water Conditioners with Timeclock or 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 & Quantity	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	Cullsant® Underbedding, 6 lb.	Cullsant Underbedding, 15 lb.	Cullsant Underbedding, 15 lb.	Cullsant Underbedding, 16 lb.
Exchange Capacity @ Salt Dosage Per Recharge ¹	18,300 gr @ 4 lb.	18,200 gr @ 4 lb.	28,900 gr @ 6 lb.	32,600 gr @ 7 lb.
	25,100 gr @ 9 lb.	27,600 gr @ 8 lb.	38,900 gr @ 12 lb.	61,600 gr @ 18 lb.
	27,500 gr @ 12 lb.	32,000 gr @ 12 lb.	46,800 gr @ 18 lb.	71,700 gr @ 30 lb.
Efficiency at Rated Salt Dosage ⁵	4 lb. salt dosage / 4570 gr./lb.	4 lb. salt dosage / 4550 gr./lb.	6 lb. salt dosage / 4814 gr./lb.	7 lb. salt dosage / 4664 gr./lb.
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 @ Pressure Drop	5.9 gpm @ 12 psi	9.0 gpm @ 12 psi	9.6 gpm @ 15 psi	10.0 gpm @ 14 psi
Total Hardness, Maximum	75 gpg	75 gpg	99 gpg	99 gpg
Total Iron, Maximum (dissolved)	5 ppm	5 ppm	5 ppm	5 ppm
Hardness to Iron Ratio, Minimum	8 gpg to 1 ppm 140 mg/L to 1 mg/L	8 gpg to 1 ppm 140 mg/L to 1 mg/L	8 gpg to 1 ppm 140 mg/L to 1 mg/L	8 gpg to 1 ppm 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.

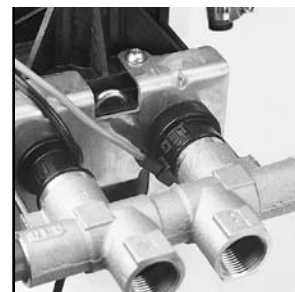
1 Capacities and corresponding salt dosages pertain to low hardness waters. Capacities given per recharge.

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.



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.

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



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

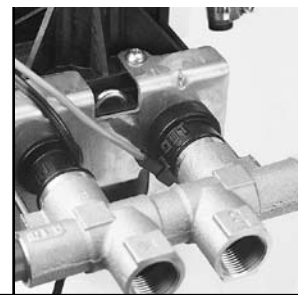
Soft water is great for scalp and hair care. No insoluble deposits are formed. Hair is shinier, softer, more manageable. Reduce the amount of shampoo you have normally used.

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.



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.)



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:

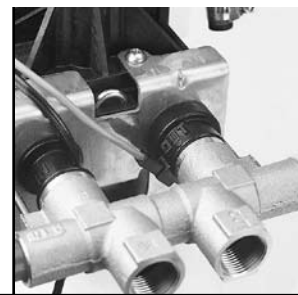
1. **Dissolved Iron** - Also called ferrous or "clear water" iron. This type of iron can be removed from the water by the same ion exchange principle that removes the hardness elements, calcium and magnesium. Dissolved iron is soluble in water and is detected by taking a sample of the water to be treated 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.



The Culligan Process

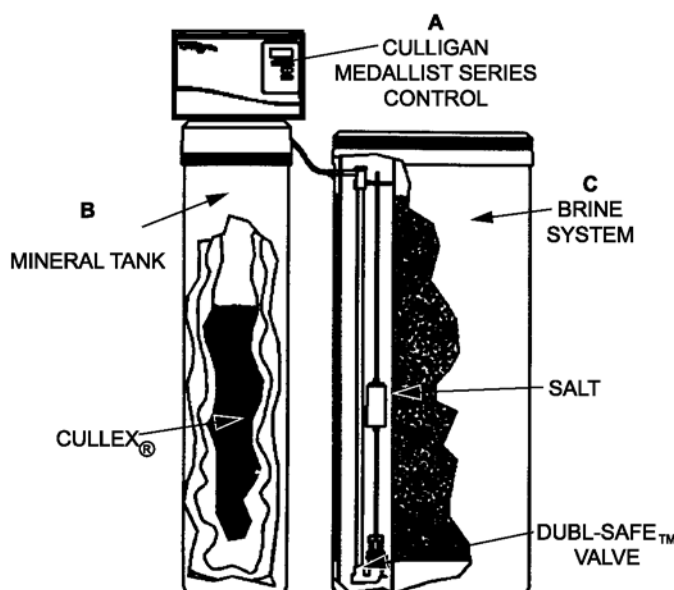
Your Culligan water conditioner consists of three basic components, (A) the Control Valve, (B) the Mineral Tank, and (C) the Brine System.

- 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, Cullsian® 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.



Introduction (cont.)



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 reclaim 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.

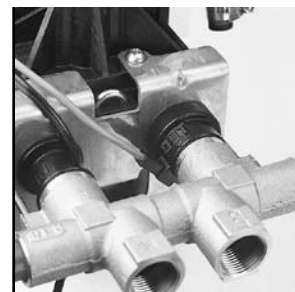
- Safety glasses
- Phillips screwdrivers, small and medium tip.
- Gauge assembly (PN 00304450 or equivalent)
- Silicone lubricant (PN 00471507 or equivalent) - Do Not Use Petroleum-Based Lubricants
- A bucket, preferably light-colored
- Towels

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, 5/16" (PN 00303128 or equivalent)
- 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)



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 1 (page 14), for maximum drain line length.

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.

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

Preparation (cont.)



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.

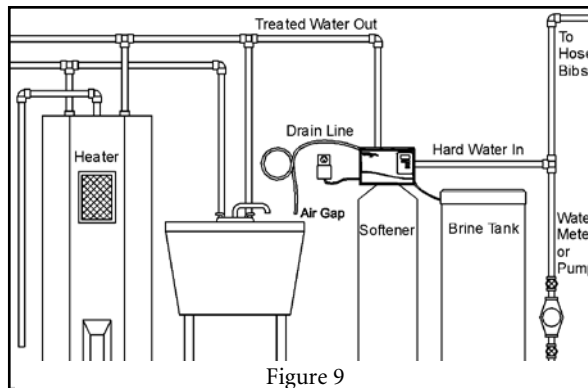


Figure 9

Mount The Control Valve - 3/4" Control

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.

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.
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).

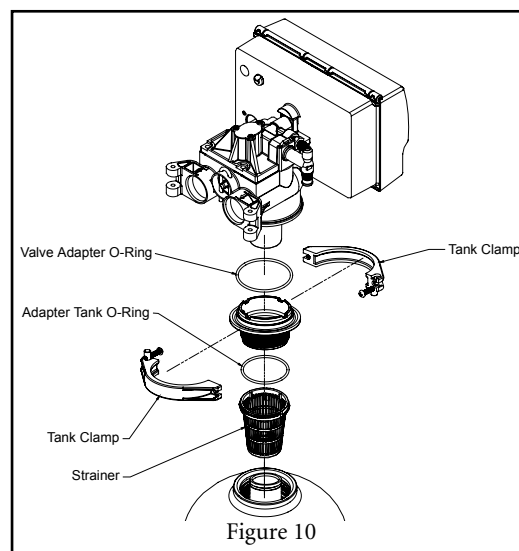
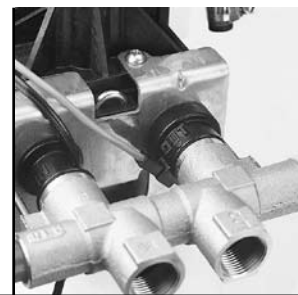


Figure 10



Mount The Control Valve - 1" Control

See Figure 10 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

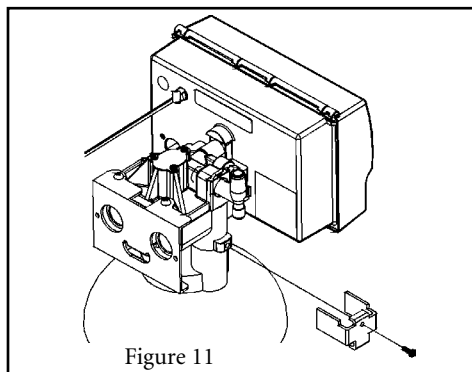


Figure 11

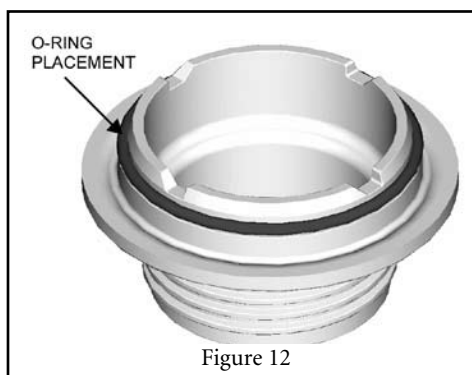


Figure 12

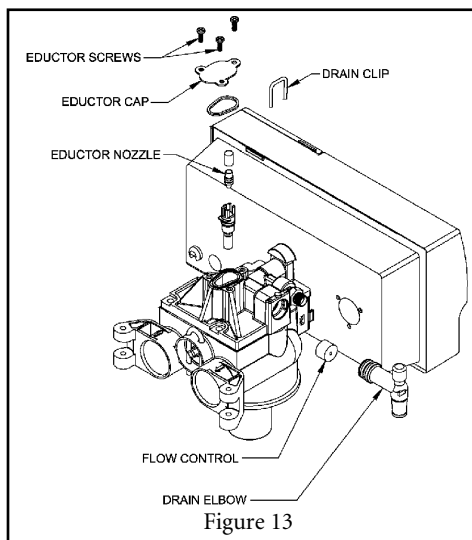


Figure 13

Flow Control and Eductor Nozzle

The Medallist 30 and 45 use the same flow control. Listed below is the recommended eductor nozzle to be used at various salt dosages (No changes need to be made to the Medallist 60 control).

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

Medallist 30	Medallist 45
@ 4 lbs - Blue	@ 6 lbs - Blue
@ 8 lbs - Blue	@ 12 lbs - Beige
@ 12 lbs - Blue	@ 18 lbs - Beige

Installation (cont.)



Installation (cont.)

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.
- Once the plumbing connections have been made to the Cul-Flo-Valv® Bypass, make certain the interior of the valve is clean and free of debris, lubricate the valve stem O-rings with silicone lubricant, reinsert the stem, and replace the red or blue knob. The stem may be inserted in either direction. Set the Cul-Flo-Valv Bypass in the bypass position by pushing the red knob completely inward. 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.



Warning! Do not remove the Cul-Flo-Valv® bypass knobs or stem while the unit is under pressure!



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

Plumbing Connections - 3/4" Controls

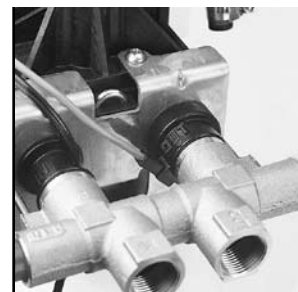
Two methods of connecting the water softener to the plumbing system are available. Shipped with each softener is a Culligan® Cul-Flo-Valv® bypass valve, either PN 01012488 (3/4" sweat) or 01010238 (3/4" NPT). If local conditions warrant, you may use the sweat adapter kits, PN 00331444 or 00331445.

Note: The Soft-Minder® meter cannot be used with the sweat adapters.



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 - 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. Lubricate all o-rings with silicone lubricant.

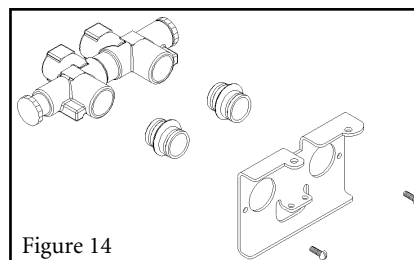


Figure 14

Bypass Valve Installation - 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. A pair of 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.

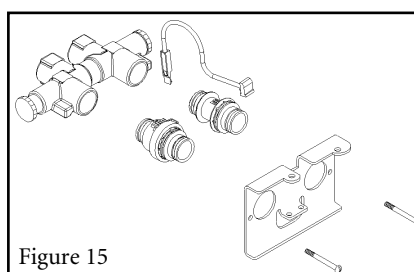


Figure 15

Installation (cont.)

Sweat Adapter Installation

The sweat adapters use a snap ring to hold them to the backplate of the control valve. The back plate will need to be removed from the valve for this connection. A pair of snap ring pliers, PN 00591609, are needed for this connection.



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.

Plumbing Connections - 1" Controls

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:

P/N 01010783	1" Sweat copper adapter kit
P/N 01016564	3/4" Sweat copper adapter kit
P/N 01016565	3/4" Elbow sweat copper adapter kit



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, use care to keep heat away from the plastic nuts used to connect the plumbing to the bypass. Damage to these components may result otherwise.



Installation (cont.)

Bypass Valve Installation

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).

Note: The bypass stem can only be removed from valve on the bypass side (red knob). The bypass valve is designed so that it can be flipped over, with the bypass (red) knob on the left side of the valve. This will need to be taken into consideration if the control is plumbed in close to a wall which may prevent the stem from being easily removed.

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)

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.

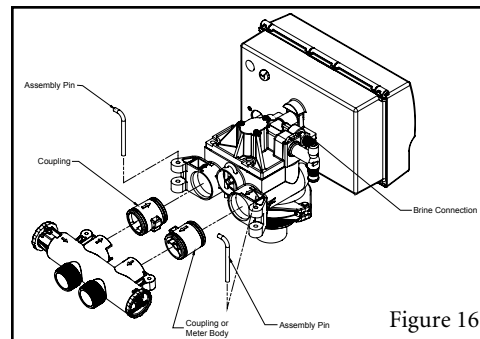


Figure 16

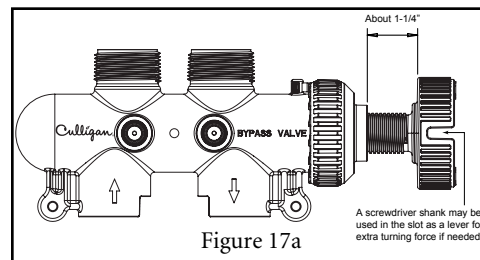


Figure 17a

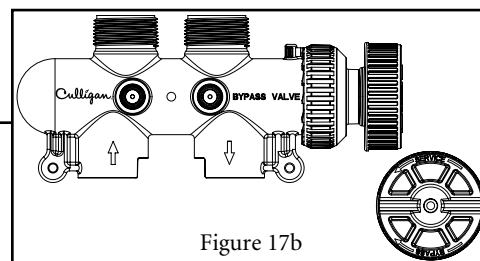


Figure 17b

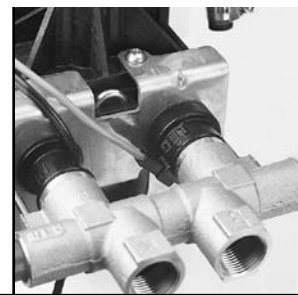
Drain Line Connection

Refer to table 1 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, 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.



Installation (cont.)

Table 1 – 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 should not require more than 100 ft (30 m) of drain line		100 ft (30 m)	100 ft (30 m)	85 ft (26 m)	60 ft (18 m)
80 psi (559 kPa)					140 ft (43 m)	120 ft (37 m)
100 psi (699 kPa)						150 ft (46 m)

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).

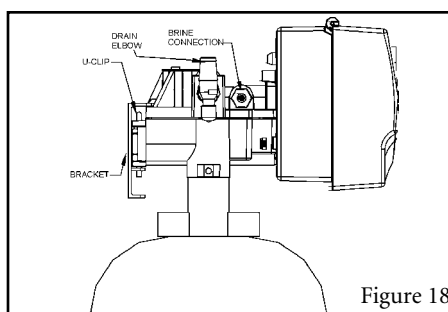


Figure 18

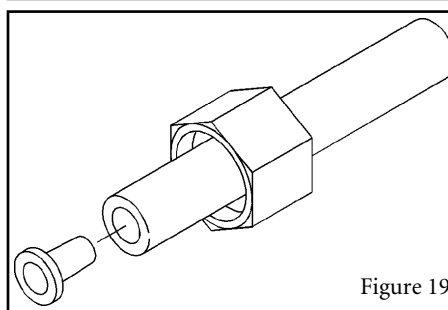


Figure 19

Fill the Salt Storage Tank

Fill the salt storage container with water until the level reaches about 1 inch above the salt support plate. Pour salt into the container. Fill with salt to within a few inches of the top.



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.

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.

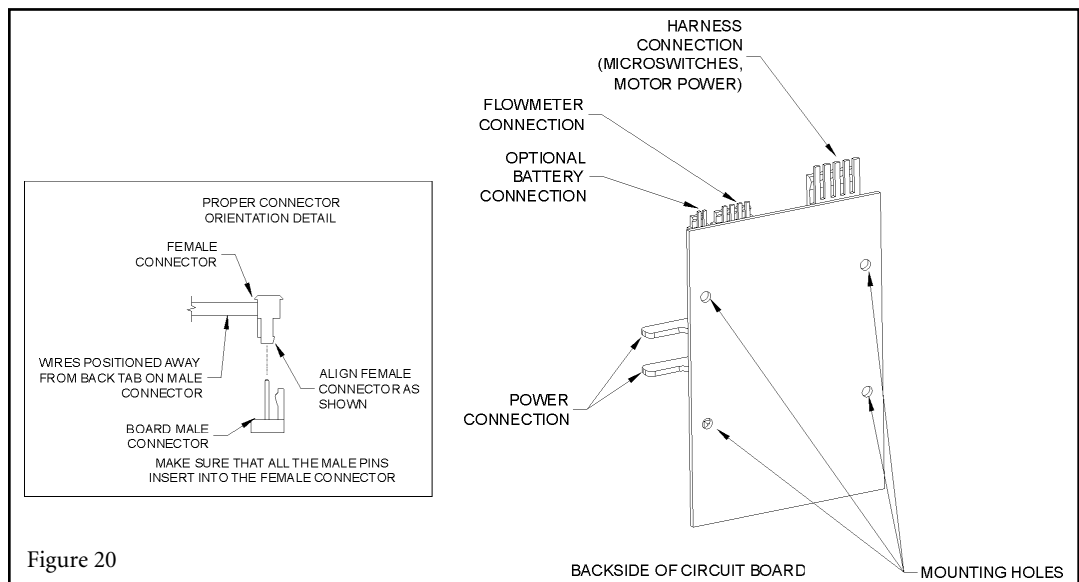


Figure 20

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.

Note: Observe all state and local electrical codes.

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

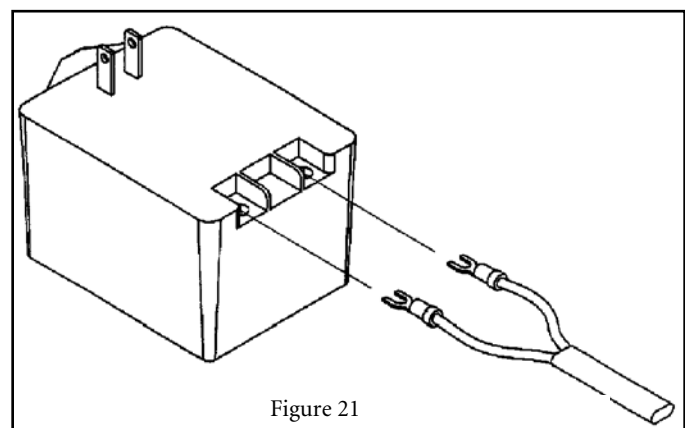
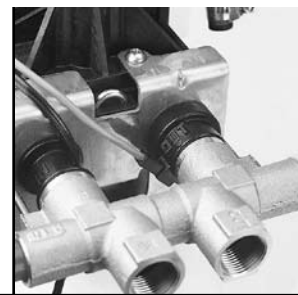


Figure 21



Power Loss

The AccuSoft® circuit board is equipped with a Hi-Cap Capacitor and EEPROM memory chip. The capacitor is capable of maintaining the time, for at least two days, in the event of a power outage. The EEPROM ensures that the individual programming parameters of your softener are not lost.

If the power outage lasts long enough to drain the Hi-Cap Capacitor, the control will flash “12:00 PM” when power is returned to the control. The unit will continue to keep time from the moment power is restored, and will initiate a full regeneration at the preset regeneration time. The time of day will need to be reset in order to return the regeneration to its preset time.

If you live in an area where power outages occur with a regular frequency, a battery backup option is available for ensuring that the time of day is properly maintained. Contact your Culligan Dealer for more information.

Meter Operation

For units equipped as a Soft-Minder® meter, the gallons remaining can be viewed by pressing the STATUS button until the screen is blank. Press the “-” key. The display will blink “FLO” for 3 seconds and then display the gallons per minute flow rate. Press the “-” key. The display will blink “GAL” for 3 seconds and then display the gallons remaining before regeneration (multiply the displayed number by 10).

Regeneration

To initiate a regeneration at the preset time, press the “REGEN” button. The “REG” light will light. To initiate an immediate regeneration, press and hold the “REGEN” button for at least five seconds. The “REG” will light and blink. An immediate regeneration will also occur if a power outage has lasted for more than four hours and the Immediate Regeneration option is chosen. Ask your Culligan Dealer about this feature.

A regeneration at the Time of Regeneration will occur if so signaled by the Soft-Minder meter. The “REG” enunciator on the display will also be lit.

Service

The Culligan Medallist Series® water softener is equipped with a self diagnostic program to insure optimal operation of your water softener. Should service become necessary, a phone icon will appear in the display. If this condition occurs, call your local Culligan Dealer for assistance. The phone icon and error code will be the only items displayed when service is required on the control.

Programming



Programming (cont.)

Make sure the inlet water supply is turned off, then supply power to the timer. The display will power up flashing “12:00 PM” and the motor will energize and cycle the control, without stopping, to the home position. This is required to ensure that the control is in the home position.

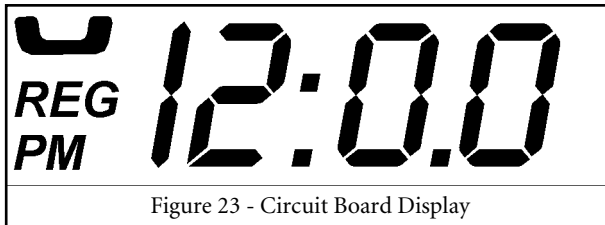


Figure 23 - Circuit Board Display

The timer uses four buttons:

1. STATUS: Advance timer through display options.
2. PLUS SIGN “+”: Increase the setting.
3. MINUS SIGN “-”: Decrease the setting.
4. REGEN.: Initiate a manual regeneration.

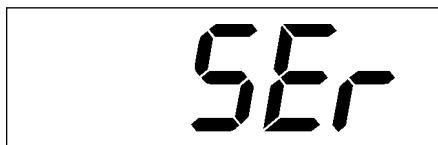
Programming the Option Settings

The microprocessor has several programming options that can be changed for various additional functions. Listed are the functions for the programming options used on the Culligan Medallist Series® control.

Dip Switch	Function	Default Position
1	Service or Test	Service
2	Delay or Immediate Regeneration	Delayed Regeneration
3	Softener or Filter	Softener
4	Time Clock Backup	OFF
5	English or Metric	English
6	3/4” or 1” Meter	3/4” Meter

1. Service or Test Mode

Press and hold the “STATUS” key until “dIP1” appears in the display. “dIP1” will blink for 3 seconds and then the display will show the status of this option (SEr or tES). Toggle the feature with the “+” or “-” key.



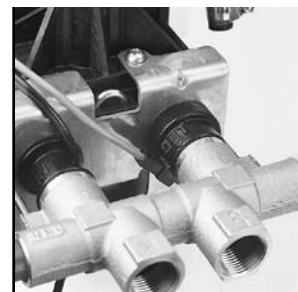
Note: Pressing “STATUS” after changing option to test mode will place the control in test mode. After testing is complete press and hold “STATUS” for 3 seconds to return to “dIP1” setting. Placing the unit in test mode will not change any of the programmed values (Refer to the service manual for test menu).

2. Delay or Immediate Regeneration

Press the “STATUS” key. The display will blink “dIP2” for 3 seconds and then show the current status. Toggle between “DEL” (Delay) and “Id” (Immediate) with the “+” or “-” key.



Note: Changing this setting will not change any of the programmed value with the exception that Step #2, time of regeneration will be ignored when set to immediate.



Programming (cont.)

3. Softener or Filter

Press the "STATUS" key. The display will blink "dIP3" for 3 seconds and then show the current status. Toggle between "SOF" (Softener) and "FIL" (Filter) with the "+" or "-" key.

SOF

Note: Changing this setting will cause the unit to load the Filter or Softener defaults.

4. Timeclock Backup

Press the "STATUS" key. The display will blink "dIP4" for 3 seconds and then show the current status. Toggle between "OFF" (Timeclock backup is off) and "ON" (Timeclock backup is on) with the "+" or "-" key.

OFF

Note: Changing this setting will not change any of the programmed values and will load the default Timeclock Backup value of 3 days. Programming step 7 will be activated when this is set to On.

Note: This option will only be available when the flowmeter is plugged into the control.

5. English or Metric

Press the "STATUS" key. The display will blink "dIP5" for 3 seconds and then show the current status. Toggle between "En" (English units) and "MET" (Metric units) with the "+" or "-" key.

En

6. 12 or 24 Hour Clock

Press the "STATUS" key. The display will blink "dIP6" for 3 seconds and then show the current status. Toggle between "12 Hr" (12 hour clock) and "24 Hr" (24 hour clock) with the "+" or "-" key.

12 Hr

7. 3/4" or 1" Meter

Press the "STATUS" key. The display will blink "dIP7" for 3 seconds and then show the current status. Toggle between "3-4" and "InCH" with the "+" or "-" key.

3-4

Note: The 3/4" meter setting is to be used with the 8" Medallist Series softener. The 1" meter setting is for the Medallist Plus series softener.



Programming (cont.)

Setting the Microprocessor

The microprocessor senses when it is installed as a Soft-Minder® control. Adding or removing any connection to the board will automatically reset the microprocessor to the factory settings.

Step 1 – Programming Time of Day

Press the “STATUS” key.

The display will blink “tod” for 3 seconds and then change to time of day with the “minutes” digits blinking.

Adjust the “minutes” digits with the “+” or “-” keys. Press the “REGEN” key to blink the “hours” digits. Adjust the “hours” digits with the “+” or “-” keys.

Press the “REGEN” key to cycle back to “minutes”

Note: The “hours” setting scrolls through 1-12 and 1-12 PM.

Make sure the proper AM or PM indicator is shown when setting the time (AM is not displayed).



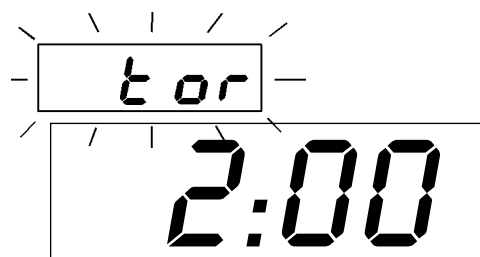
Step 2 – Programming Regeneration Time

Press the “Status” key after setting the time of day.

The display will blink “tor” for 3 seconds and then change to the time setting with the “ones” digit blinking.

Adjust regeneration time as time of day above.

Note: This option will not show if the “dIP 2” option is set to immediate



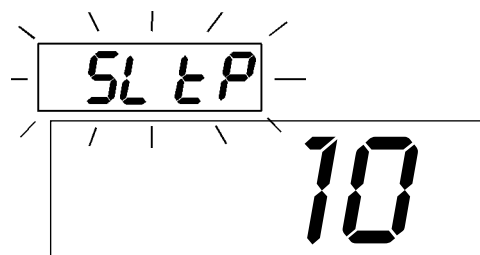
Step 3 – Programming Salt Dosage

Press the “Status” key after programming regeneration time.

The display will blink “SLtP” if set to English or “SLtG” if set to Metric for 3 seconds and then display the salt dosage.

Adjust the setting with the “+” or “-” key
(3-24 lbs.) (1-10 kgs.)

Note: This option will not show if the control is set to Filter mode.

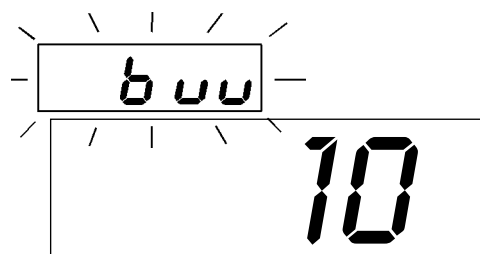


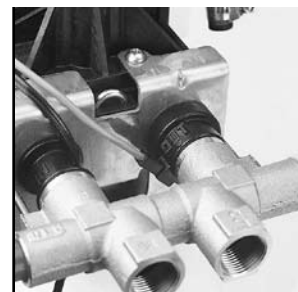
Step 4 – Programming Backwash Time

Press the “Status” key after programming salt dosage.

The display will blink “bw” for 3 seconds and then display the backwash time in minutes.

Adjust the setting with “+” or “-” key. (1-40 minutes)

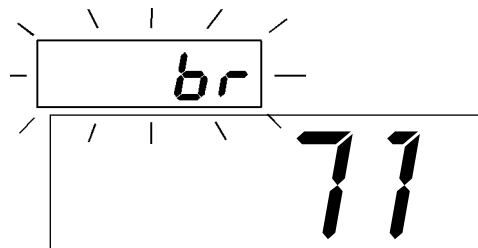




Step 5 – Programming Brine Draw/Slow Rinse Time

Press the “Status” key after programming the backwash time. The display will blink “br” for 3 seconds and then display the brine draw/slow rinse time in minutes. Adjust the setting with the “+” or “-” key. (35-99 minutes). See Table 5 for suggested brine draw/slow rinse times.

Note: This option will not show if the control is set to Filter mode.



Step 6 – Programming Gallons (Liters) or Days to Regeneration Meter Mode

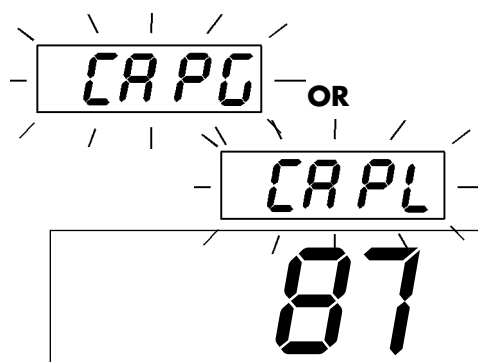
Press the “Status” key after programming the brine draw/slow rinse time.

The display will blink “CAPG” (“CAPL”) for 3 seconds and then display the gallons or liters set point.

Adjust the setting with the “+” or “-” key.

(10-9990 Gallons)(40-37000 Liters)

Note: The programmed value must be multiplied by 10 to obtain the actual setting. For example, if 87 is shown in the display, the control will regenerate after 870 gallons have passed through the meter.



Timeclock Mode

Press the “Status” key after programming the brine draw/slow rinse time.

The display will blink “CAP” for 3 seconds and then display the number of days between regenerations.

Adjust the setting with the “+” or “-” key. (1-42 days)

Exiting Program Mode

From Step 6 (or step 7 if it is active) press the “Status” key.

The display will go blank.

Press the “Status” key again to exit programming.

Note: The control will exit the programming mode if no key press activity takes place within one minute.

Programming (cont.)



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 three 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 “Id”, 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.

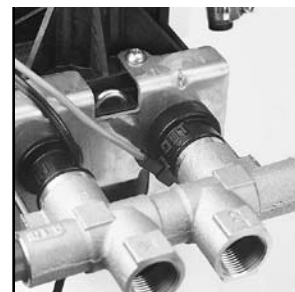
Note: If set to immediate mode as timeclock or timeclock backup, the unit will initiate regeneration at 12:00 AM. In the delay mode, “REG” indicator will light at 12:00 AM and regeneration will occur at delayed time.

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.

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.

- Sanitize the water softener (see sanitizing procedure on page 24).



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 Cullex® 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, push the red knob on the back of the water softener against the barrel of the bypass valve. Then, call your Culligan dealer to have your system sanitized before it is placed back into service.**
- 5** Should service, adjustment or trouble-shooting information be needed which is not covered in the Use and Care Guide, call your Culligan Dealer.



Salt Supply, Usage and Service (cont.)

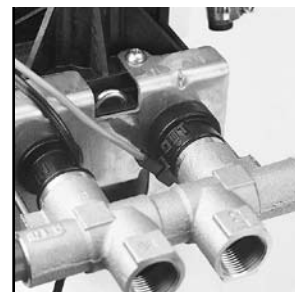
Note: Following the manufacturer's instructions regarding operation, maintenance and replacement requirements, including replacement of filters if applicable, is essential for Culligan's products to perform as advertised.

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 40.
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 Sofner-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

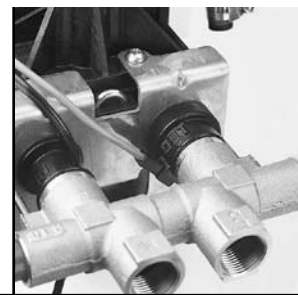
1. Remove the salt storage tank cover and the cap from the brine valve chamber.
2. Lift the brine valve out of the brine valve chamber and set aside in an upright position.
3. If you'd like to save any clean, dry salt remaining in the tank, remove it and place it in a clean container.
4. Using the scoop, 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.



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 9 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 "Push for Service" position. 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 19 and 20. 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.

Things to Check Before Calling for Service



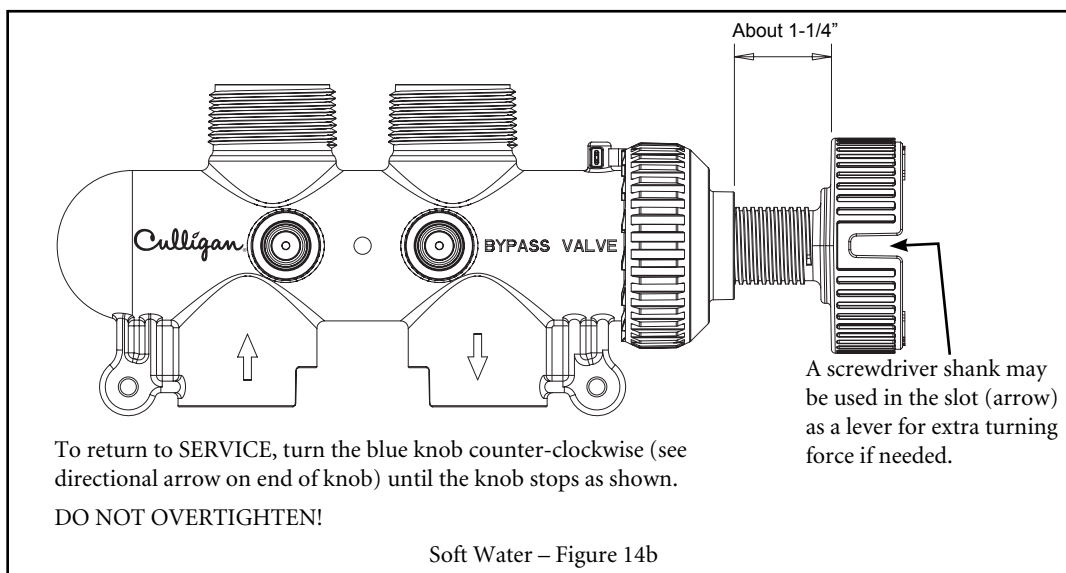
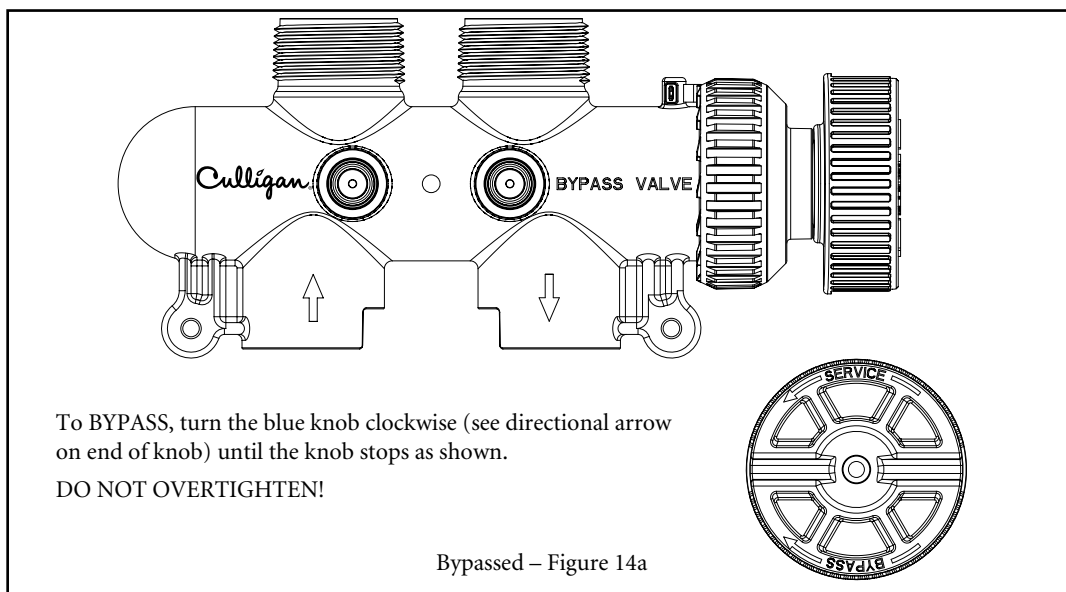
When and How to Bypass Your Water Conditioner

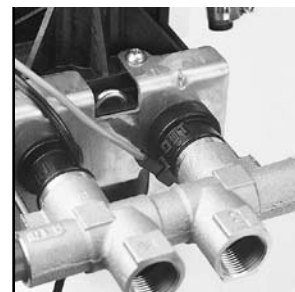
Normally, all water except outside lines passes through the water conditioner. There are times when the water conditioner should be bypassed, using the push-button Cul-Flo-Valv® Bypass, or a 3-way bypass valve. You should bypass:

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 push-button Cul-Flo-Valv® Bypass. 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,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

PRODUCT: Culligan Medallist Series® 8" Water Softener

TESTING CONDITIONS & RESULTS:

Flow Rate:	5.9 gpm	Capacity:	18,300 grains @ 4.0 lb. salt
Pressure:	30 - 40 psi		25,100 grains @ 9.0 lb. salt
Acidity:	Non-Corrosive		27,500 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)

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,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

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

TESTING CONDITIONS & RESULTS:

Flow Rate: 5.9 gpm	Capacity: 18,300 grains @ 4.0 lb. salt
<i>Note: The nipple must extend no more than 1 inch above the cover plate.</i>	
Pressure: 30 - 40 psi	25,100 grains @ 9.0 lb. salt
Acidity: Non-Corrosive	27,500 grains @ 12.0 lb. salt
Temperature: 68° (20°C)	Efficiency Rated Dosage**: 4,570gr./lb.
 Caution! Disassembly while under water pressure can result in flooding.	7.6

SOFTENER SPECIFICATIONS:	
 Warning: Electrical shock hazard! Unplug the unit before removing the cover or accessing any internal electrical parts.	
Maximum Inlet Flow Rate: 12 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)	Oper. Press. Range (Canada): 20-90 psi (140-620 kPa)

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.

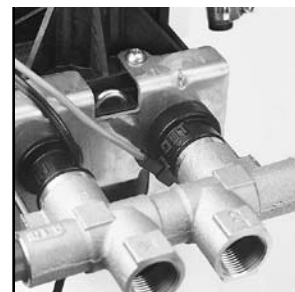
Culligan water softeners are designed to work with any salt of good quality, although it is recommended that you ask your local Culligan Man for his suggestion on the best type and grade of salt to use in this softener.

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,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

PRODUCT: Culligan Medallist Plus Series® 30 Water Softener with Time Clock

TESTING CONDITIONS & RESULTS:

Flow Rate:	9.0 gpm	Capacity:	18,200 grains @ 4.0 lb. salt
Pressure:	30 - 40 psi		27,600 grains @ 8.0 lb. salt
Acidity:	Non-Corrosive		32,000 grains @ 12.0 lb. salt
Temperature:	68° (20°C)	pH:	7.6



SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 9.0 gpm (34 Lpm)	Pressure Drop at Maximum Flow Rate: 12 psi (83 kPa)
Operating Temperature Range: 33 - 120° F (1 - 50°C)	Maximum Drain Flow Rate: 1.7 gpm (6.4 Lpm)
Operating Pressure 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	14.71 gpm	35 + 5 (psig)
Radium 226/228	5 pCi/L	7.5 + 0.5	14.71 gpm	35 + 5 (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 Water Softeners are tested and certified by WQA against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) 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.

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MANUFACTURER: Culligan International Company,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

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

TESTING CONDITIONS & RESULTS:

Flow Rate:	9.0 gpm	Capacity:	18,200 grains @ 4.0 lb. salt
Pressure:	30 - 40 psi		27,600 grains @ 8.0 lb. salt
Acidity:	Non-Corrosive		32,000 grains @ 12.0 lb. salt
Temperature:	68° F (20°C)	Efficiency Rated Dosage**:	4,550 gr./lb.
pH:	7.6		



SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 9.0 gpm (34 Lpm)	Pressure Drop at Maximum Flow Rate: 12 psi (83 kPa)
Operating Temperature Range: 33 - 120° F (1 - 50°C)	Maximum Drain Flow Rate: 1.7 gpm (6.4 Lpm)
Operating Pressure Range: 20-125 psi (140-860 kPa)	Oper. Press. Range (Canada): 20-90 psi (140-620 kPa)

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Radium 226/228	5 pCi/L	7.5 + 0.5	14.71 gpm	35 + 5 (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 Water Softeners are tested and certified by WQA against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) 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.

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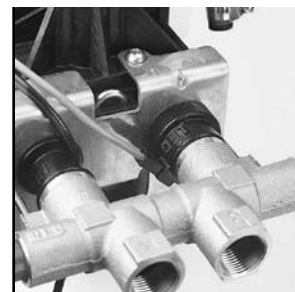
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NOTICE: This softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

**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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MANUFACTURER: Culligan International Company,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

PRODUCT: Culligan Medallist Plus Series® 45 Water Softener with Time Clock

TESTING CONDITIONS & RESULTS:

Flow Rate:	9.6 gpm	Capacity:	28,900 grains @ 6.0 lb. salt
Pressure:	30 - 40 psi		38,900 grains @ 12.0 lb. salt
Acidity:	Non-Corrosive		46,800 grains @ 18.0 lb. salt
Temperature:	68° (20°C)	pH:	7.6



SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 9.6 gpm (36 Lpm)
Pressure Drop at Maximum Flow Rate: 15 psi (104 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)
Maximum Drain Flow Rate: 1.6 gpm (6.1 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	14.41 gpm	35 + 5 (psig)
Radium 226/228	5 pCi/L	7.5 + 0.5	14.41 gpm	35 + 5 (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 Water Softeners are tested and certified by WQA against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) 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.

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MANUFACTURER: Culligan International Company,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

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

TESTING CONDITIONS & RESULTS:

Flow Rate:	9.6 gpm	Capacity:	28,900 grains @ 6.0 lb. salt
Pressure:	30 - 40 psi		38,900 grains @ 12.0 lb. salt
Acidity:	Non-Corrosive		46,800 grains @ 18.0 lb. salt
Temperature:	68°F (20°C)	Efficiency Rated Dosage**:	4,814 gr./lb.
pH:	7.6		



SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 9.6 gpm (36 Lpm)	Pressure Drop at Maximum Flow Rate: 15 psi (104 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)	Maximum Drain Flow Rate: 1.6 gpm (6.1 Lpm)
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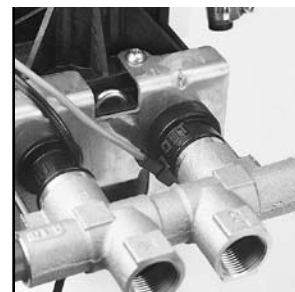
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NOTICE: This softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

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

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Seller Signature _____ Date _____



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MANUFACTURER: Culligan International Company,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

PRODUCT: Culligan Medallist Plus Series® 60 Water Softener with Time Clock

TESTING CONDITIONS & RESULTS:

Flow Rate:	10.0 gpm	Capacity:	32,600 grains @ 7.0 lb. salt
Pressure:	30 - 40 psi		61,600 grains @ 18.0 lb. salt
Acidity:	Non-Corrosive		71,700 grains @ 30.0 lb. salt
Temperature:	68° (20°C)	pH:	7.6



SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 10.0 gpm (38 Lpm)
Pressure Drop at Maximum Flow Rate: 14 psi (97 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)
Maximum Drain Flow Rate: 2.6 gpm (9.8 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	15.18 gpm	35 + 5 (psig)
Radium 226/228	5 pCi/L	7.5 + 0.5	15.18 gpm	35 + 5 (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 Water Softeners are tested and certified by WQA against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) 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 _____



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,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

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

TESTING CONDITIONS & RESULTS:

Flow Rate:	10.0 gpm	Capacity:	32,600 grains @ 7.0 lb. salt
Pressure:	30 - 40 psi		61,600 grains @ 18.0 lb. salt
Acidity:	Non-Corrosive		71,700 grains @ 30.0 lb. salt
Temperature:	68°F (20°C)	Efficiency Rated Dosage**:	4,664 gr./lb.
pH:	7.6		



SOFTENER SPECIFICATIONS:

Maximum Flow Rate: 10.0 gpm (38 Lpm)	Pressure Drop at Maximum Flow Rate: 14 psi (97 kPa)
Operating Temperature Range: 33-120°F (1-50°C)	Maximum Drain Flow Rate: 2.6 gpm (9.8 Lpm)
Operating Pressure 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	15.18 gpm	35 + 5 (psig)
Radium 226/228	5 pCi/L	7.5 + 0.5	15.18 gpm	35 + 5 (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 Water Softeners are tested and certified by WQA against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) 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.

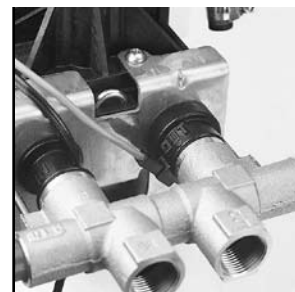
Culligan water softeners are designed to work with any salt of good quality, although it is recommended that you ask your local Culligan Man for his suggestion on the best type and grade of salt to use in this softener.

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 7.0 lb. salt dosage.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____



California Certifications

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

02 - 1477

Date Issued: May 23, 2002

Trademark/Model Designation

The Medallist Automatic Water Conditioner 8" Time Clock

The Medallist Automatic Water Conditioner 8" Softminder

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: not applicable

Rated Service Flow: 5.9 gpm

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

Trademark/Model Designation

Culligan Medallist Plus 30 Time Clock

Culligan Medallist Plus 30 Soft Minder

Manufacturer: Culligan International

Replacement Elements

None

None

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

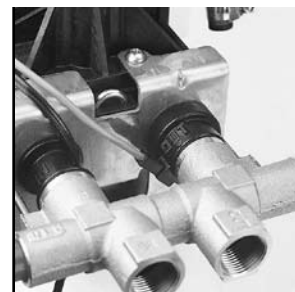
None

Rated Service Capacity: N/A

Rated Service Flow: 9.0 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.



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

04 - 1619

Date Issued: July 21, 2004

**California
Certifications
(cont.)**

Trademark/Model Designation

Culligan Medallist Plus 45 Soft Minder

Culligan Medallist Plus 45 Time Clock

Manufacturer: Culligan International

Replacement Elements

None

None

The water treatment device(s) listed on this certificate have met the testing requirements pursuant to Se 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

Trademark/Model Designation

Medallist Plus 60 Softminder

Medallist Plus 60 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

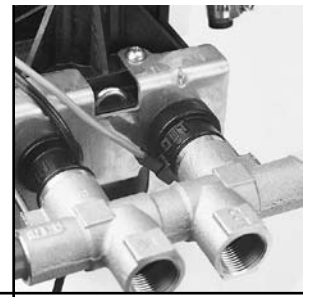
None

Rated Service Capacity: N/A

Rated Service Flow: 10 gpm

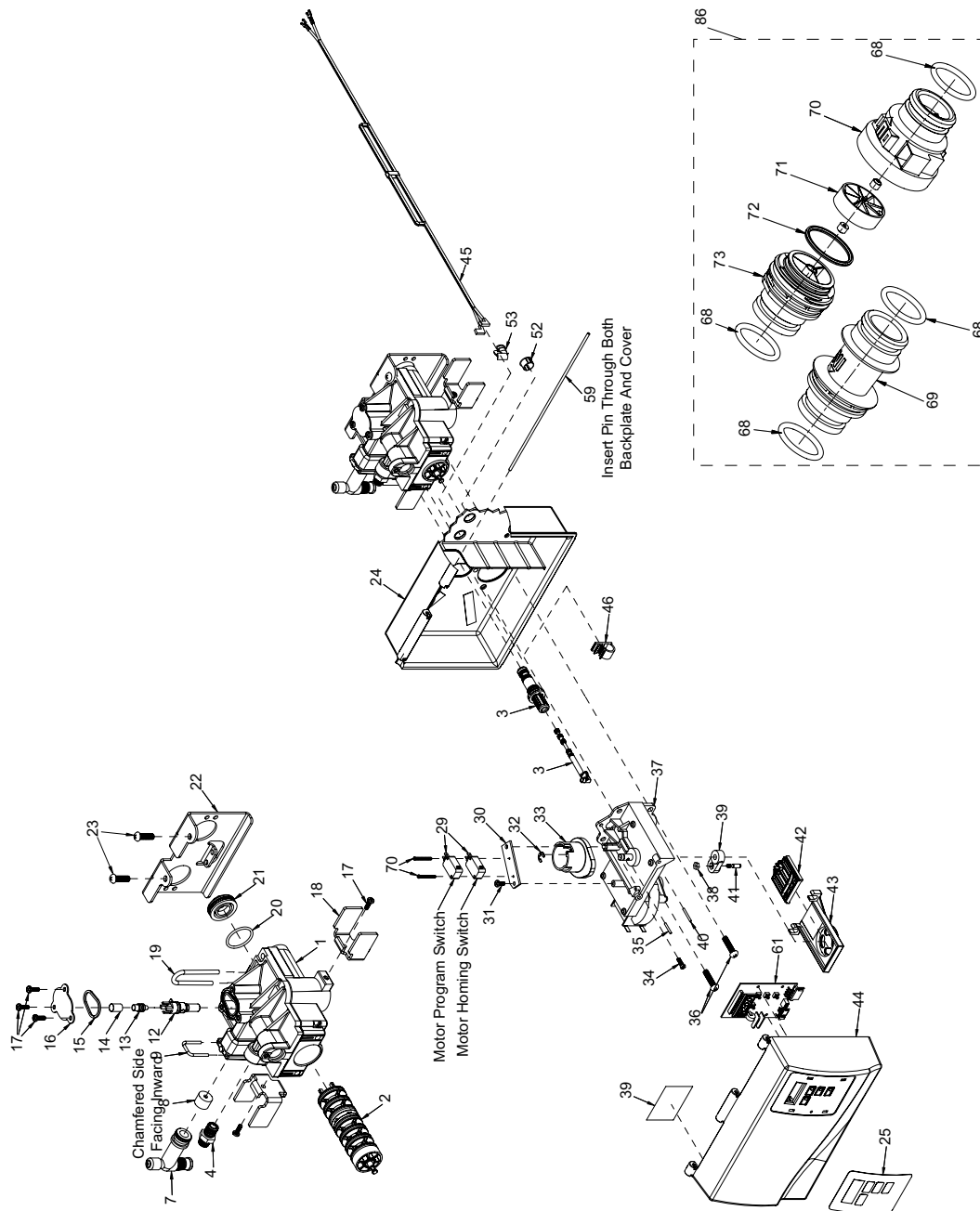
Conditions of Certification:

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



3/4" Medallist Control

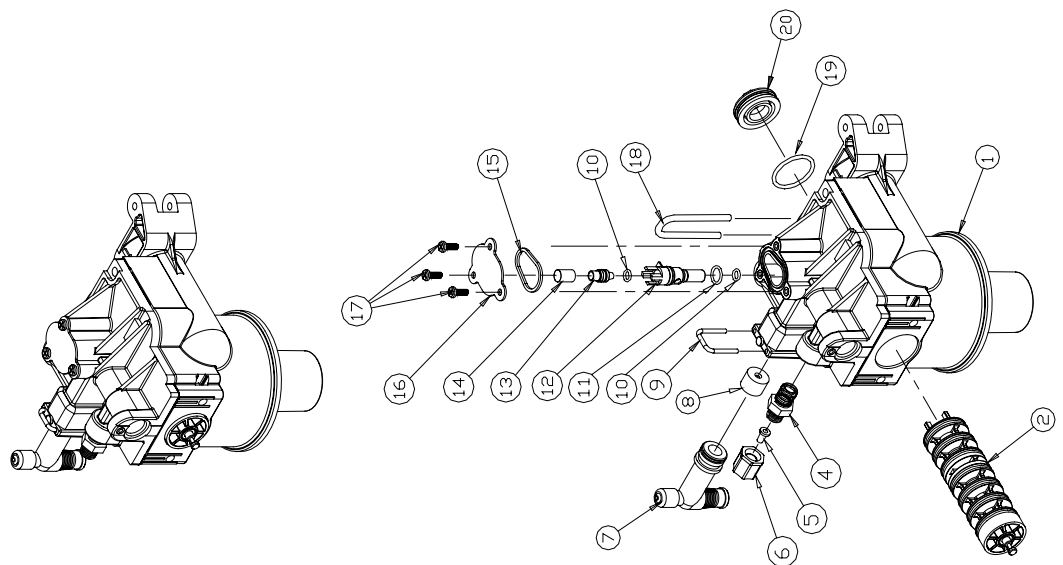
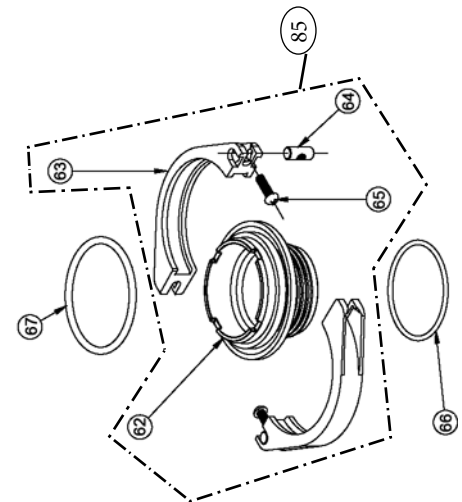
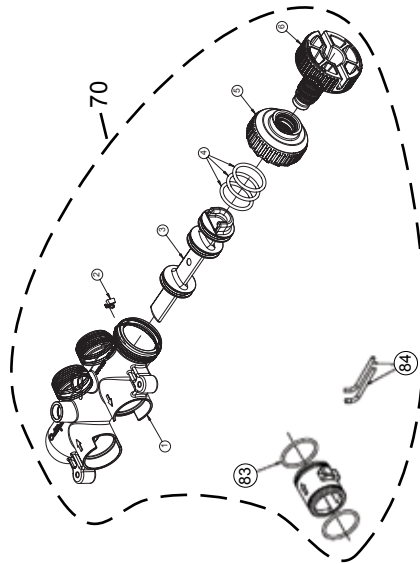
Parts List

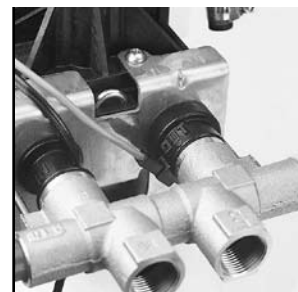




Parts List (cont.)

Medallist Plus Control





Parts List (cont.)

Item No.	Part No.	Description
—	01014042	Control Valve Assembly 3/4" - Medallist
—	01016328	Control Valve Assembly 1" - Medallist w/10" Tanks
—	01016343	Control Valve Body - 1" Medallist w/ 12" Tanks
1	00449865	Control Valve Body - 3/4" Medallist
1	01013976	Control Valve Body - 1" Medallist
‡ 2	01013083	Seal Pack Assembly
‡ 3	01013606	Eductor Sleeve and Eductor Piston Assembly
‡*	P0447986	O-Ring, Eductor Sleeve, Small O-Ring (25/Kit)
‡*	P0308407	O-Ring, Eductor Sleeve, Large O-Ring (25/Kit)
‡*	P0448750	Screen, Eductor Sleeve (10/Kit)
‡*	P0447987	O-Ring, Eductor Piston (10/Kit)
4	P0443291	Connector Brine Line (25/Kit)
5	P0303192	Insert, PP, 0.312" (25/Kit)
6	P0303193	Nut, PP, 0.312" (25/Kit)
7	01017758	Drain Elbow Assembly w/ O-Ring
8	P0331634	Backwash Restrictor, #1, 8" Tanks (10/Kit)
	P0331635	Backwash Restrictor, #2, 10" Tanks (10/Kit)
	P0331635	Backwash Restrictor, #3, 12" Tanks (10/Kit)
9	P0447387	Retainer, Drain Elbow (25/Kit)
‡ 10	P0308438	O-Ring, Eductor Nozzle and Throat (10/Kit)
‡ 11	P0308437	O-Ring, Eductor Throat (25/Kit)
‡ 12	00401248	Eductor Throat w/O-Rings
‡ 13	00446038	Eductor Nozzle - Blue, 8" and 10" Tanks
	00446039	Eductor Nozzle - Beige, 10" and 12" Tanks
14	P0445269	Eductor Screen (10/Kit)
‡ 15	00445797	Gasket
16	00401022	Eductor Port Cover
17	P0448687	Screw (25/Kit)
18	01005130	Bracket
19	00448128	Retainer, Rear Body Plug
‡ 20	P0444914	O-Ring, Rear Seal (10/Kit)
21	00448126	Rear Body Plug
22	01004689	Cul-Flo Bracket
23	P0318383	Screw (10/Kit)
24	01017530	Back Plate
25	01882288	Timer Label

Item No.	Part No.	Description
26	P0448686	Screw (25/Kit)
‡ 29	01003244	Switch
30	00401040	Switch Bracket
31	P0318455	Screw (25/Kit)
32	P1013043	Retaining E-Ring (10/Kit)
33	01013031	Cam
34	P1001784	Screw (25/Kit)
35	00445246	Roll Pin
36	P0318452	Screw (25/Kit)
37	01014179	Drive Motor & Bracket Assembly 24V/60Hz
38	00318354	Nut
39	00445221	Bellcrank
40	00443559	Roll Pin
41	01012649	Follower
42	01012648	Yoke
43	01012647	Bracket
44	01017531	Cover
	01014787	Power Cord
52	01006498	Plug, Snap-In
53	P1000372	Strain Relief (25/Kit)
59	01014038	Hinge, Circuit Board Plate
60	P0441410	Screw
61	01014172	Circuit Board
62	01013958	Tank Adapter
63	01013959	Tank Clamp
64	01013669	Clamp Pin
65	P0318383	Screw
66	00440052	O-Ring
67	01014848	O-Ring
68	P0308427	O-Ring
83	P1009099	O-Ring
84	01009075	Assembly Pins
85	01014153	Adapter Assembly (Including Items 68, 69, 70 & 71)
*	01016528	Circuit Board - 12" Tanks
*	01012956	Wall Mount Transformer
86	01012905	Flow Meter Assembly - 3/4" Control
87	01011188	Flow Meter Assembly - 1" Control
*	01012844	Flow Meter Wire Harness
*	01014734	Harness (Motor & Switches to Circuit Board)
*	P0451701	Hose Clamp, Drain (25/Kit)
*	01013839	Back-up Battery
88	01018760	1 1/4" Bypass Assembly

‡ Recommended Spare Parts

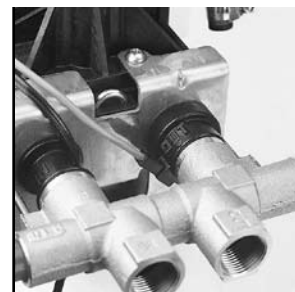
* Not Illustrated



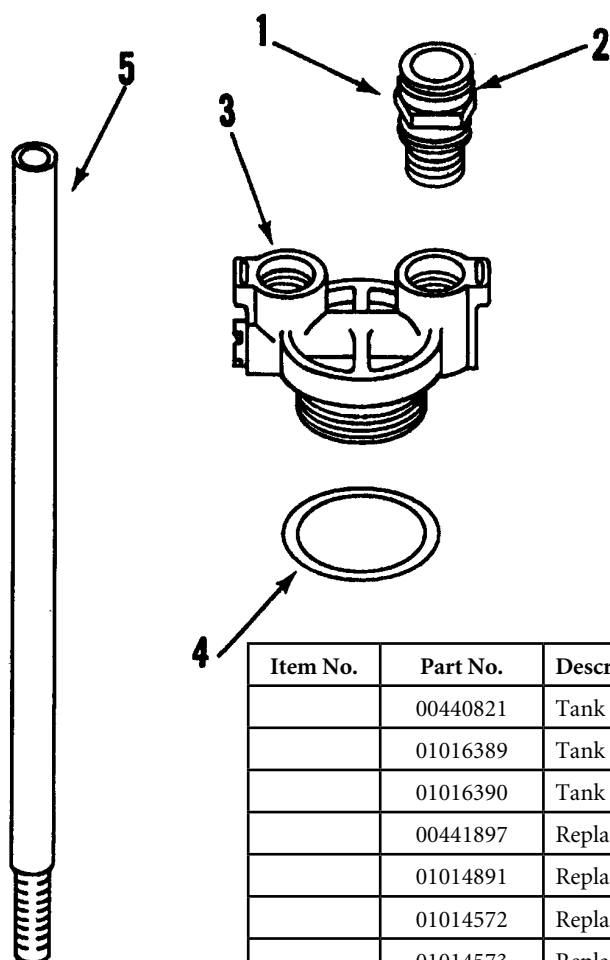
Parts List (cont.)

Service Parts Kits

Item No.	Part No.	Description
	01-0162-67	Power Valve Seal Rebuild Kit
2		Seal Pack
3		Eductor Sleeve w/ O-Rings
3		Brine Piston w/ O-Rings
	01-0162-66	PV Eductor Rebuild Kit
12		Light Brown Eductor w/ O-Ring
13		Blue Restrictor w/ O-Ring
13		Beige Restrictor w/ O-Ring
14		Eductor Screen
15		Eductor Port Gasket
7		Black Flow Control (1.2 gpm)
7		Brown Flow Control (2.0 gpm)
7		Green Flow Control (3.5 gpm)
8		Drain Elbow Assembly w/ O-Ring
	01-0162-69	Power Valve Drive & Seal Rebuild Kit
2		Seal Pack
3		Eductor Sleeve w/ O-Rings
3		Brine Piston w/ O-Rings
43		Scotch Yoke Bracket
42		Scotch Yoke
38,39,40,41		Bell Crank & Follower Assembly
44		Screw (2 each)
33		E-Ring
34		Cam
	01-0141-79	Drive Motor Kit
36		Motor
39		Bell Crank
38		Nut
41		Follower
40		Roll Pin
35		Roll Pin
32		Switch Bracket
31		Screw (2 each)



Conditioner Tank



Parts List

Item No.	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
1	00443282	Coupling (less O-rings)
2	P0333957	O-ring (4 required)
3	00444808	Adapter
4	00440052	O-ring
5	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

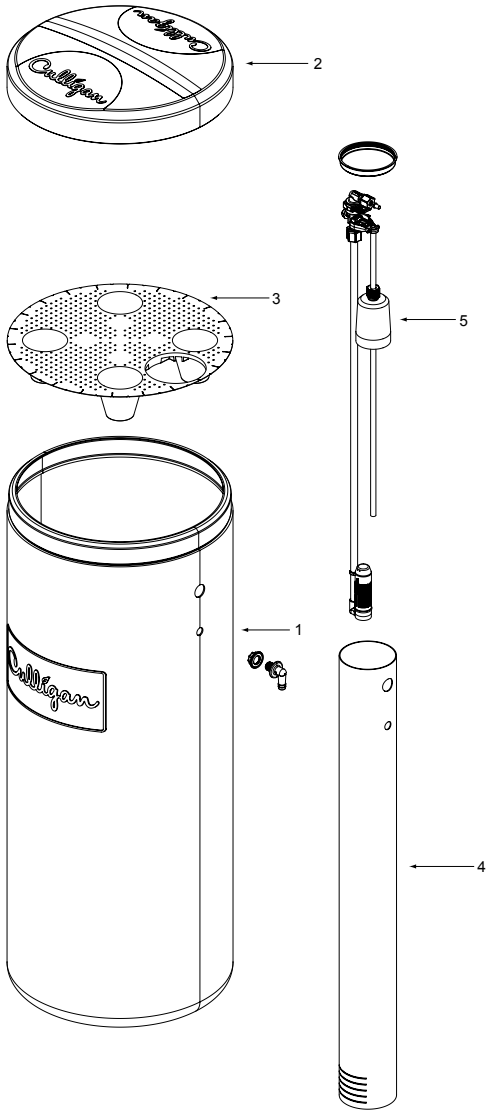
* Not Illustrated

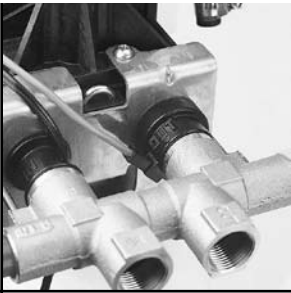


Parts List

16" and 18" Brine Systems

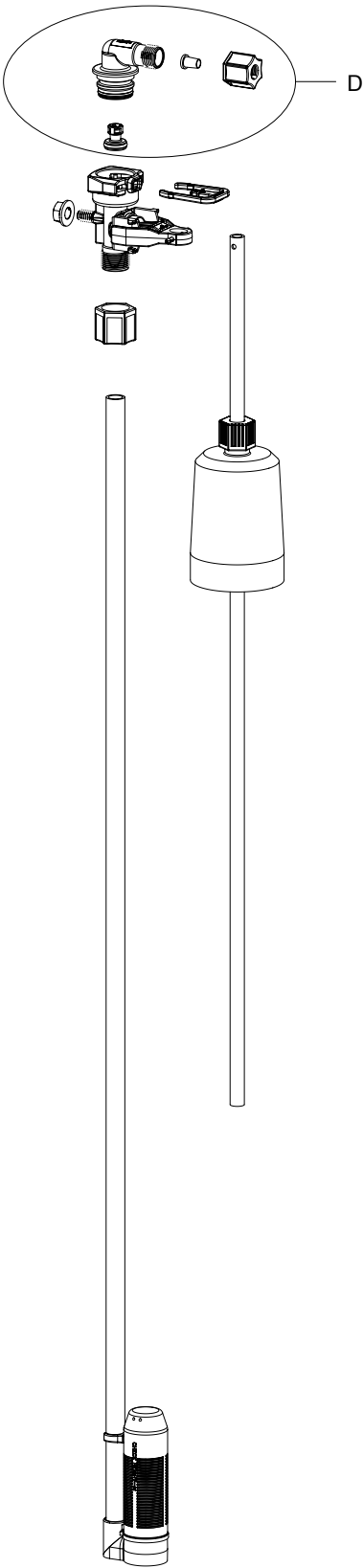
Item No.	Part No.	Description
-	01-0187-05	Brine System, 250 lb
-	01-0187-15	Brine System, 375 lb
1	01-0187-09	Replacement Tank, 250 lb
	01-0187-16	Replacement Tank, 375 lb
2	01-0187-04	Cover, 250 lb
	01-0187-17	Cover, 375 lb
3	01-0187-07	Salt Plate, 250 lb
	01-0187-13	Salt Plate, 375 lb
4	01-0187-07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





Brine Valve

Item No.	Part No.	Description
-	01-0187-06	Brine Valve
1	01-0187-10	BLFC Elbow - 0.45 gpm
	01-0187-11	BLFC Elbow - 0.8 gpm



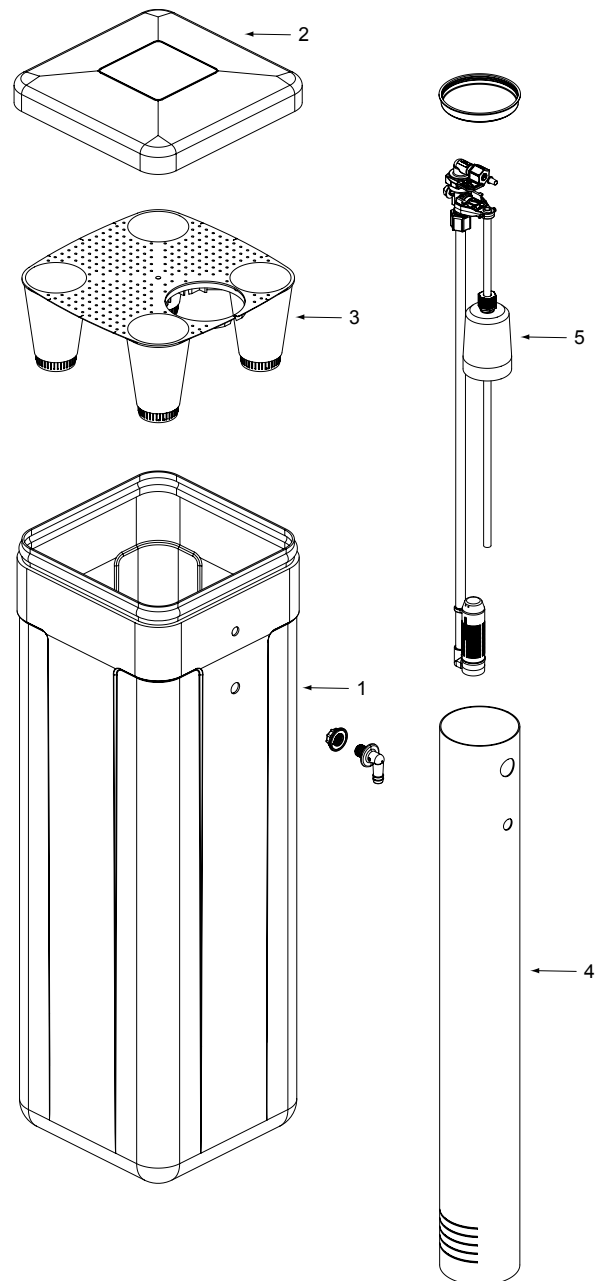
Parts List

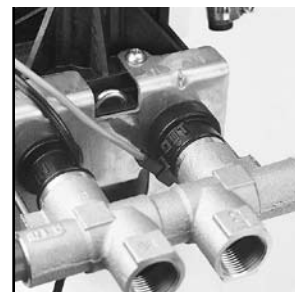


Parts List

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





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 _____

Records and Data



Culligan Limited Warranty

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 original consumer purchaser	The Culex® resin

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.**

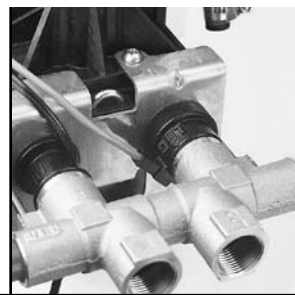
Some states do not allow the exclusion of implied warranties or limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Similarly, some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply 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

**One Culligan Parkway
Northbrook, Illinois 60062**

(847) 205-6000

www.culligan.com



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.

**With Culligan
You Get More
Than A Quality
Product**