



OWNERS GUIDE

Aquasential® Advantage Automatic Water Softeners

Models from 2026



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About This Manual

This Manual

- Familiarizes the operator with the equipment
- Provides basic programming information
- Explains the various modes of operation
- Gives specifications and safety information

Read this Manual First

Before you operate the Culligan unit, read this manual to become familiar with the device and its capabilities.

Installation or maintenance done on this system by an untrained service person can cause major damage to equipment or property damage. Not adhering to the recommended service/maintenance can cause damage to equipment or property damage.

Safety Instructions and Safety Definitions

NOTE

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

CAUTION



CAUTION!

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

WARNING



WARNING!

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

The **CAUTION** and **WARNING** paragraphs are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution, and careful attention are conditions which cannot be built into the equipment. These **MUST** be supplied by the personnel installing, operating, or maintaining the system.

NOTE! Be sure to check and follow the applicable plumbing codes and ordinances when installing this equipment.



WARNING!

Use protective clothing and proper face or eye protection equipment when handling chemicals or power tools.

Attention Culligan Customer

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.



WARNING!

Electrical shock hazard! Prior to servicing equipment, disconnect power supply to prevent electrical shock.

WARNING!

If incorrectly installed, operated, or maintained, this product can cause severe injury. Those who install, operate, or maintain this product should be trained in its proper use, warned of its dangers, and should read the entire manual before attempting to install, operate, or maintain this product. Failure to comply with any warning or caution that results in any damage will void the warranty.



CAUTION!

This system is to be supplied with cold water only.

CAUTION!

This product is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience or knowledge, unless they have been given supervision or instruction. Children should be instructed not to play with this appliance.

CAUTION!

If the power cord from the power supply to the unit looks or becomes damaged, the cord and power supply should be replaced by a Culligan Service Agent or similarly qualified person in order to avoid a hazard.

CAUTION!

To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

NOTE! This system is not intended for use with water that is microbiologically unsafe or of unknown quality without adequate disinfection either before or after the system.

Check with your public works department for applicable local plumbing and sanitation codes. Follow local codes if they differ from the standards used in this manual. To ensure proper and efficient operation of this Culligan product to your full satisfaction, carefully follow the instructions in this manual.

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Culligan International Company
9399 West Higgins Road, Suite 1100
Rosemont, Illinois 60018
1-847-430-2800
www.culligan.com

Thank You!

Welcome to Your New World of Better Living with Culligan Water

Congratulations on selecting the Culligan® Aquasential® Advantage Water Softener system. 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 minimum care and attention.

If this is your first experience having softened water in your home, you'll love the amazing difference it makes. We promise that you'll never want to be without softened water again.

The Culligan Aquasential Advantage Water Softener system is designed to meet the needs of applications for high quality water. This manual contains important information about the unit, including information needed for installation, operating, and maintenance procedures. A service section provides a guide for quick and accurate problem solving.

This manual is based on information available at the time it was finalized, approved, and published. Continuing design refinement could cause changes that may not be included in this publication.

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.

Aquasential Advantage Whole House Water Softeners 8", 9", Municipal 9", 10" S, 10", Municipal 10", and 12" Indoor models have been tested and certified by WQA to NSF/ANSI/CAN 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of calcium and magnesium (hardness) along with barium and radium 226/228.

Aquasential Advantage Whole House Water Softeners 8", 9", Municipal 9", 10", Municipal 10", and 12" Outdoor models have been tested and certified by WQA to NSF/ANSI/CAN 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of calcium and magnesium (hardness) along with barium and radium 226/228.



Wi-Fi/Bluetooth Module: ESP32-S3-WROOM-1

Contains FCC ID: 2AC7Z-ESPS3WROOM1 and ISED Certification No 21098-ESPS3WROOM1

The specific FCC ID and IC identification label is located on the exterior of the product.

This device complies with part 15 of the FCC Rules subject to the following two conditions: (1) This device may not cause harmful interference (2) This device must accept all interference received including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This device complies with Health Canada's Safety Code. The installer of this device should ensure that RF radiation is not emitted in excess of the Health Canada's requirement.

Cet appareil est conforme avec Santé Canada Code de sécurité 6. Le programme d'installation de cet appareil doit s'assurer que les rayonnements RF n'est pas émis au-delà de l'exigence de Santé Canada.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Les changements ou modifications non expressément approuvés par la partie responsable de la conformité pourraient annuler l'autorité de l'utilisateur à utiliser cet équipement.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Innovation, Science and Economic Development Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Innovation, Science and Economic Development Canada ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Innovation, Sciences et Développement économique Canada.

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Licensed plumbers know that standard industry procedures include only to hand tighten or use strap wrenches on plastic parts. Plastic piping systems must be installed, operated and maintained in accordance with accepted standards and procedures. Not adhering to the recommended service/maintenance can cause damage to equipment or property damage.

Specifications

Culligan Aquasential Advantage Series Water Softeners

	8"	9"
Control Valve Type	1" 5-cycle Power Valve Reinforced Thermoplastic	1" 5-cycle Power Valve Reinforced Thermoplastic
Installation Environment¹	Indoor / Outdoor	Indoor / Outdoor
Softener Height with Control Valve	52"	56"
Media Tank Type	Fiberglass-FRP	Fiberglass-FRP
Media Tank Dimensions (Diameter X Height)	8" x 44" (203 mm x 1118 mm)	9" x 48" (229 mm x 1219 mm)
Salt Storage Tank Specifications (Diameter X Height) / Capacity	11" x 11" x 38" / 160 lb (280 mm x 280 mm x 915 mm / 73 kg) 16" x 43" / 250 lb (407 mm x 1093 mm / 113 kg) 18" x 43" / 375 lb (458 mm x 1093 mm / 170 kg)	11" x 11" x 36" / 160 lb (280 mm x 280 mm x 915 mm / 73 kg) 16" x 43" / 250 lb (407 mm x 1093 mm / 113 kg) 18" x 43" / 375 lb (458 mm x 1093 mm / 170 kg)
Cation Resin, Type and Quantity	Cullex® 8% Resin, 0.72 ft³	Cullex 8% Resin, 1.0 ft³ or 10% Resin, 1.0 ft³
Underbedding, Type and Quantity	Cullsant® Underbedding, 6 lb	Cullsant Underbedding, 12 lb
Grains Exchange Capacity @ Salt Dosage Per Regeneration²	13,907 grains @ 3 lb salt level 23,606 grains @ 9 lb salt level 24,860 grains @ 12 lb salt level	19,290 grains @ 4 lb salt level 32,098 grains @ 13 lb salt level 35,385 grains @ 17 lb salt level
Efficiency at Rated Salt Dosage³	4,636 gr/lb @ 3 lb salt level	4,501 gr/lb @ 4 lb salt level
Freeboard to Media⁴	21.0" (521 mm)	14.5" (368 mm)
Freeboard to Underbedding⁵	42.0" (1067 mm)	44.5" (1130 mm)
Rated Service Flow @ Pressure Drop	7.9 GPM @ 14 psi (29.9 LPM @ 96.5 kPa)	9.0 GPM @ 15 psi (34 LPM @ 103.4 kPa)
Total Hardness, Maximum	75 GPG	75 GPG
Total Iron, Maximum (dissolved)⁷	5 ppm	5 ppm
Operating Pressure	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)
Operating Temperature	33 - 120°F (1 - 50°C)	33 - 120°F (1 - 50°C)
Electrical Requirements	24 VDC, 36 W	24 VDC, 36 W
Electrical Power Consumption, Min./Max.	3 W / 10 W	3 W / 10 W
Drain Flow, Maximum⁶	1.05 GPM (4.0 LPM)	2.0 GPM (7.6 LPM)
Recharge Time, Average	55 min	55 min
Recharge Water Consumption	25.2 gal (95.4 L)	37.2 gal (40.8 L)

¹ Culligan Outdoor rated power supply. For Outdoor use with a UL Listed Class 2 Direct Plug-in Power Unit only.

² Capacities and corresponding salt dosages pertain to low hardness waters. Capacities listed are per regeneration.

³ Efficiency rated according to NSF/ANSI Standard 44.

⁴ Measured from top of resin bed to top surface of tank threads.

⁵ Measured from top of underbedding to top surface of tanks threads.

⁶ Backwash at 120 psi (830 kPa).

⁷ Not certified by WQA for Iron reduction

Culligan Aquasential Advantage Series Water Softeners

	10" S	10"	12"
Control Valve Type	1" 5-cycle Power Valve Reinforced Thermoplastic	1" 5-cycle Power Valve Reinforced Thermoplastic	1" 5-cycle Power Valve Reinforced Thermoplastic
Installation Environment¹	Indoor	Indoor / Outdoor	Indoor / Outdoor
Softener Height with Control Valve	48"	62"	60"
Media Tank Type	Fiberglass-FRP	Fiberglass-FRP	Fiberglass-FRP
Media Tank Dimensions (Diameter X Height)	10" x 40" (254 mm x 1016 mm)	10" x 54" (254 mm x 1372 mm)	12" x 52" (305 mm x 1321 mm)
Salt Storage Tank Specifications (Diameter X Height) / Capacity	16" x 43" / 250 lb (407 mm x 1093 mm / 113 kg)	16" x 43" / 250 lb (407 mm x 1093 mm / 113 kg) 18" x 43" / 375 lb (458 mm x 1093 mm / 170 kg)	16" x 43" / 250 lb (407 mm x 1093 mm / 113 kg) 18" x 43" / 375 lb (458 mm x 1093 mm / 170 kg)
Cation Resin, Type and Quantity	Cullex 8% Resin, 1.0 ft ³	Cullex 8% Resin, 1.5 ft ³	Cullex 8% Resin, 2.0 ft ³
Underbedding, Type and Quantity	Cullsian Underbedding, 15 lb	Cullsian Underbedding, 15 lb	Cullsian Underbedding, 20 lb
Grains Exchange Capacity @ Salt Dosage Per Regeneration²	18,863 grains @ 4 lb salt level 31,388 grains @ 13 lb salt level 34,603 grains @ 17 lb salt level	29,664 grains @ 6 lb salt level 43,694 grains @ 12 lb salt level 47,763 grains @ 18 lb salt level	37,866 grains @ 8 lb salt level 55,815 grains @ 16 lb salt level 65,599 grains @ 24 lb salt level
Efficiency at Rated Salt Dosage³	4,401 gr/lb @ 4 lb salt level	4,944 gr/lb @ 6 lb salt level	4,733 gr/lb @ 8 lb salt level
Freeboard to Media⁴	13.0" (330 mm)	15.0" (381 mm)	16.0" (406 mm)
Freeboard to Underbedding⁵	35.0" (889 mm)	48.0" (1219 mm)	46.0" (1168 mm)
Rated Service Flow @ Pressure Drop	7.5 GPM @ 15 psi (28.4 LPM @ 103.4 kPa)	9.3 GPM @ 15 psi (35.2 LPM @ 103.4 kPa)	10.0 GPM @ 14 psi (37.85 LPM @ 96.5 kPa)
Total Hardness, Maximum	75 GPG	99 GPG	99 GPG
Total Iron, Maximum (dissolved)⁷	5 ppm	5 ppm	5 ppm
Operating Pressure	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)
Operating Temperature	33 - 120°F (1 - 50°C)	33 - 120°F (1 - 50°C)	33 - 120°F (1 - 50°C)
Electrical Requirements	24 VDC, 36 W	24 VDC, 36 W	24 VDC, 36 W
Electrical Power Consumption, Min./Max.	3 W / 10 W	3 W / 10 W	3 W / 10 W
Drain Flow, Maximum⁶	2.0 GPM (7.6 LPM)	2.26 GPM (8.6 LPM)	2.26 GPM (8.6 LPM)
Recharge Time, Average	55 min	67 min	55 min
Recharge Water Consumption	37.2 gal (140.8 L)	48.8 gal (184.7 L)	120 gal (454.2 L)

¹ Culligan Outdoor rated power supply. For Outdoor use with a UL Listed Class 2 Direct Plug-in Power Unit only.

² Capacities and corresponding salt dosages pertain to low hardness waters. Capacities listed are per regeneration.

³ Efficiency rated according to NSF/ANSI Standard 44.

⁴ Measured from top of resin bed to top surface of tank threads.

⁵ Measured from top of underbedding to top surface of tanks threads.

⁶ Backwash at 120 psi (830 kPa).

⁷ Not certified by WQA for Iron reduction.

Culligan Aquasential Advantage Series Water Softeners - Municipal

	Municipal 9" Municipal 9" Outdoor	Municipal 10" Municipal 10" Outdoor
Control Valve Type	1" 5-cycle Power Valve Reinforced Thermoplastic	1" 5-cycle Power Valve Reinforced Thermoplastic
Installation Environment¹	Indoor / Outdoor	Indoor / Outdoor
Softener Height w/ Control Valve	56"	62"
Media Tank Type	Fiberglass - FRP	Fiberglass - FRP
Media Tank Dimensions (Diameter x Height)	9" x 48" (229 mm x 1219 mm)	10" x 54" (254 mm x 1372 mm)
Salt Storage Tank Specifications (Diameter X Height) / Capacity	11" x 11" x 36" / 160 lb (280 mm x 280 mm x 915 mm / 73 kg) 16" x 43" / 250 lb (407 mm x 1093 mm / 113 kg) 18" x 43" / 375 lb (458 mm x 1093 mm / 170 kg)	16" x 43" / 250 lb 407 mm x 1093 mm / 113 kg 18" x 43" / 375 lb 458 mm x 1093 mm / 170 kg
Exchange Media, Type and Quantity	Cullex Media, 0.8 ft ³	Cullex Media, 1.0 ft ³
Carbon Media, Quantity	6 lb	8 lb
Underbedding, Type and Quantity	Cullsán Underbedding, 12 lb	Cullsán Underbedding, 15 lb
Grains Exchange Capacity @ Salt Dosage Per Regeneration¹	17,376 grains @ 4 lb salt level 23,297 grains @ 8 lb salt level 26,702 grains @ 12 lb salt level	21,720 grains @ 5 lb salt level 29,532 grains @ 10 lb salt level 33,623 grains @ 15.5 salt level
Efficiency at Rated Salt Dosage	4,197 gr/lb @ 4 lb salt level	4,187 gr/lb @ 5 lb salt level
Chlorine Taste and Odor Capacity	N/A	N/A
Freeboard to Media²	15.75"	19.5"
Freeboard to Underbedding³	44.5" (1130 mm)	48.0" (1219 mm)
Rated Service Flow @ Pressure Drop	7.8 GPM @ 8 psi (29.5 LPM @ 55.2 kPa)	8.2 GPM @ 8 psi (31.0 LPM @ 55.2 kPa)
Total Hardness, Maximum	15 GPG	15 GPG
Total Iron, Maximum	0 ppm	0 ppm
Color	Less Than 1	Less Than 1
Turbidity	Less Than 5 NTU	Less Than 5 NTU
TOC	Less Than 0.5 PPM	Less Than 0.5 PPM
Operating Pressure	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)
Operating Temperature	33 - 120°F (1 - 50°C)	33 - 120°F (1 - 50°C)
Electrical Requirements	24 VDC, 36 W	24 VDC, 36 W
Electrical Power Consumption, Min./ Max.	1.5 W / 21.6 W	1.5 W / 21.6 W
Drain Flow, Maximum⁶	2.26 GPM (8.6 LPM)	2.26 GPM (8.6 LPM)
Recharge Time, Average	83 min	83 min
Recharge Water Consumption	63 gal	63 gal

¹ The efficiency rated dosage is only valid at the stated salt dosage and is efficiency rated according to NSF/ANSI 44.

² Measured from top of media to top surface of tank threads (backwashed and drained).

³ Measured from top of underbedding to top surface of tank threads.

⁴ Backwash at 120 psi (830 kPa).

⁵ 10 minute backwash, 4 lb 9" model, 5 lb 10" model, 7 lb 12" model, or 10.7 lb 14" model.

Application and Operation

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 scum to coat the skin. Shaving is easier, smoother—either with a blade or electric shaver.

Bathing and Showering

You'll use far less soap with softened water. Use your soap sparingly—not as you did before soft water. Just a quick rinse removes all lather, leaving your skin pleasantly smooth and silky because 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, the soap can concentrate solely on washing. People usually find that they can reduce the amount of soap used substantially. If you normally use a cup per wash load with hard water, try using 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: 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. People usually find that they can reduce the amount of shampoo used substantially.

Dishes Are a Delight

Washed by hand or in a dishwasher—glassware, dishes, and silver wash cleaner and easier. Follow the dishwasher's manufacturer 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 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 and stay clean longer. You'll save on cleaning aids and time.

Saves Water-Heating Energy, Helps Water-Using Appliances

Soft water reduces the formation of rock-like hard water scale that 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.

Water for Lawns and Household Plants

If possible, lawn sprinkling faucets should be supplied with hard water, primarily because it is not economical to soften so much water.

Houseplants are much more sensitive than lawns with respect to water type because they receive no rainfall. There is little or no drainage of the soil as well. Preferably houseplants 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 houseplants. A build-up of sodium in the soil may interfere with efficient absorption of water by the plant root system. Contact your Culligan Dealer for additional information.

Culligan Municipal Softener

With the Culligan Municipal softener, you will experience all the above benefits in addition to the reduction of chlorine taste and odor for a fresh, clean taste and smell.

Why Water Gets Hard and How it is Softened

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

Water hardness is caused primarily by limestone dissolved from the earth by rainwater. 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 do have corrosive water. A softener cannot correct this problem. Your softener's written warranty disclaims liability for corrosion of plumbing lines, fixtures, or appliances. If you suspect corrosion, call your Culligan Dealer for options to control this problem.

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 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.

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 cleaning should be performed. Clean every six months or more often if iron appears in your softened water supply. Use resin bed cleaning compounds carefully and follow directions on the container.

NOTE! 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 softener consists of three basic components: (A) the Control Valve, (B) the Mineral Tank, and (C) the Brine System.

A. Control Valve

The exclusive Culligan Control Valve automatically performs a variety of tasks that are necessary for the proper operation of your water softener. 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 Regeneration.
2. **Regeneration:** When 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. The regenerant brine solution is then 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 Brine Refill.
3. **Brine Refill:** When 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 is needed for the next Regeneration cycle.

B. Mineral Tank

The Mineral Tank contains a Cullex resin column, Cullsan underbedding, and an outlet manifold. The Culligan Municipal also includes carbon media for chlorine taste and odor reduction.

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 takes into account the hardness of your water and the amount of softened water your household may reasonably expect to use each day, and 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. Brine System

The Brine System consists of a salt storage tank and hydraulic Dubl-Safe™ valve. The salt storage tank 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.

Because 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 can tell you how often salt must be added to the salt storage tank.



Menu Navigation

Controller Features

Figure 1. Keypad Overview

	Wi-Fi Button: Puts the system into Wi-Fi AP Mode to connect via Wi-Fi
	Check Mark (OK): Selects the highlighted option, opens a new screen, or accepts a changed setting
	Up Arrow: Scrolls up the menu
	Down Arrow: Scrolls down the menu
	Cancel (Exit): Returns to the previous screen or cancels a changed setting



CAUTION!

When viewing screens, the Down Arrow should be used. Using the Check Mark may default programmed settings.

CAUTION!

Pressing and holding the Wi-Fi button will turn AP mode on OR reset the credentials (if already connected to Wi-Fi).

NOTE! Hold down the Up or Down Arrow to quickly scroll through the settings.

Holding the Up Arrow from the Home screen will activate the Quick Keys for Bluetooth and Wi-Fi.

Regeneration

There are several conditions that will cause the control to initiate a Regeneration cycle:

- When the flow meter has recorded the passage of a predetermined number of gallons.
- At the preset time, when the number of days without a regeneration is equal to the Timeclock Backup setting.
- At the preset time, when Regen Tonight is selected.
- Immediately, when Regen Now is selected.
- Immediately, if power to the unit has been off for more than three hours and the time of day has been restored.
- At the preset time based on the “Day-of-Week” Regeneration setting.

Salt Supply

Salt is the mineral used to regenerate your water softener. A brine solution is automatically made up in the bottom of the salt storage tank. The Cullex resin beads in the mineral tank are flushed with the brine solution as a step in the regeneration process. Your Culligan water softener has been carefully designed to get the greatest amount of softening capacity from the salt it uses. Below is information about salt usage, types, and service.

NOTE! Sodium Information: Water softeners using sodium chloride for regeneration add sodium to the water. Those on sodium-restricted diets should consider the added sodium as part of their overall sodium intake.

Salt Economizer

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

What Type of Salt is Best

All Culligan water softeners are designed to use any water softener salt of good quality, including rock, pellet, solar, or "evaporated" types.

All rock salt, regardless of the source, contain insoluble materials which collect at the bottom of the salt storage tank and will require periodic clean-out. See "[Cleaning Out the Salt Storage Tank](#)". If purified salt products are used, the salt storage tank will require less frequent clean-out, but you must check more frequently for salt "bridging". See "[Salt Bridging](#)".

Regardless of what type of salt is used, we recommend Culligan Brand Salt as suggested by your Culligan dealer. Your Culligan dealer is the expert and can provide the best products for your Culligan water softener.

Automatic Salt Delivery Service

Your salt supply can be automatically replenished on a regular basis. Ask your Culligan Dealer for details about salt delivery service.

Whether you select automatic delivery service or pick up salt from your Culligan dealer, the salt received is high-quality and packaged according to rigid Culligan specifications. Using Culligan Brand Salt will help to ensure continued efficiency and trouble-free operation of your water softener.

Culligan Connect™

The Culligan Connect™ interface is an intuitive mobile app and is available on both iOS and Android. Users will see their daily and weekly usage patterns graphically represented and instantly updated each time they open the app.

Care and Cleaning

Following these simple precautions will help to ensure continued trouble-free operation and service.

- Do not place heavy objects on top of the salt storage tank or timer cover.
- Use only mild soap and warm water when cleaning the exterior of the softener. Never use harsh, abrasive cleaning compounds or those which contain acid, such as vinegar, bleach or similar products.
- **Important:** Protect your water softener and the entire drain line from freezing temperatures.



WARNING!

If your unit freezes, do not attempt to disassemble it. Call your Culligan Dealer for assistance.

- **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” advisory, the operation of the water softener should be discontinued until the water is verified as potable. To bypass the water softener, turn the bypass valve knob to the Bypass position. See ["Bypassing the System"](#). Call your Culligan dealer to sanitize your system before putting it back into service.
- Following the manufacturer's instructions regarding operation, maintenance, and replacement requirements (including replacement of filters, if applicable) is essential for Culligan products to perform as advertised.
- For service, adjustments, or troubleshooting information that is not found in this manual, contact your local Culligan dealer for assistance.
- For parts and service availability, contact your local Culligan Dealer. To locate your nearest Culligan dealer, call (800) 285-5442.

Cleaning Out the Salt Storage Tank

A periodic clean-out of the salt storage tank is necessary to keep your Culligan water softener at peak operating efficiency. Clean-out on a regular basis when the salt supply is low.

Tools Needed

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

Clean-Out Procedure

1. Remove the salt storage tank cover and the cap from the brine valve chamber.
2. Disconnect the brine line from the brine valve by holding the outer ring of the push fitting. Push the tubing in slightly before pulling it out.
3. Lift the brine valve out of the brine valve chamber and set aside in an upright position.
4. To save any clean, dry salt remaining in the tank, remove it and place in a clean container.
5. Using a scoop, dig out and discard as much remaining salt, water, and debris as possible.
6. Remove the brine valve chamber by removing the chamber retaining screw and nut.
7. Remove the salt plate at the bottom of the salt tank.
8. Lay the salt tank on its side. Direct a brisk stream of water (from a garden hose) inside the tank to rinse out all residue.
9. Using a household scrub brush and a mild soapy solution, clean the salt plate. This will complete the tank cleaning.
10. Stand the salt tank upright. Place the tank on a flat, smooth, solid surface.
11. Reinstall the salt plate.
12. Place the brine valve chamber into position. Reinsert the brine valve into the chamber. Affix the chamber with the retaining screw and nut. Reinsert the brine line fully. Reinstall the brine valve chamber cap.
13. Fill the salt storage tank with 4 to 6 inches of water.
14. Fill the tank with salt to within a few inches of the top. Reinstall the salt storage tank cover.

NOTE! If tastes and odors return frequently (even after sanitization), a continuous chlorination system may be needed. Contact your local Culligan Dealer for a water bacterial analysis. See [page 2](#) for more information.

Sanitizing

A water softener in daily use on a potable water supply generally requires no special attention other than keeping the salt tank filled. Occasionally, 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, if the appearance of off-tastes and odors (particularly if musty or “rotten egg” caused by harmless sulfate-reducing bacteria) is present.

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.

CAUTION!

Do not use this procedure if the softener salt contains iron control additives.

If the unit uses any compounds containing sodium hydrosulfite, sodium bisulfite, 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.

To sanitize the softener:

1. Remove the brine tank cover.
2. Pour 1/3 to 1/2 cup of unscented 6% household bleach (for each cubic foot of resin in the tank) directly into the brine chamber.
3. Manually start a regeneration. Allow the unit to complete the Regeneration cycle automatically.

NOTE! If tastes and odors return frequently, even after sanitization, a continuous chlorination system may be needed. Contact your local Culligan Dealer for a water bacterial analysis. See [page 2](#) for more information.

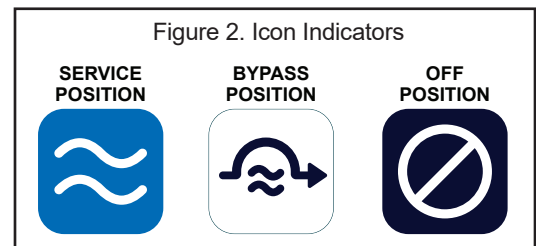
Bypassing the System

In the back of the Culligan water softener is a universal bypass valve. There are times when the water softener may require bypass using this valve. Below are a few examples:

- If softened water is fed to the outside lines, you can bypass the Culligan system to prevent softened water from being used to water the lawn or other outdoor vegetation.
- If you will be away for an extended period of time and do not want the unit to regenerate.
- If you notice any unexpected water on the floor, around your system, or continuous flow from the drain line (not during normal regeneration times), bypass the system and contact your local Culligan Dealer.
- In the event that your whole-home water shutoff fails, you can turn the universal bypass valve to the Off position and stop the water flow through your home (occurring after the Culligan system).

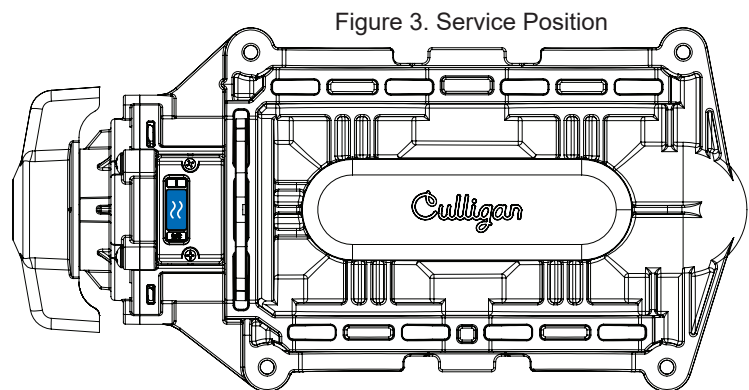
Bypass Valve Icon Indicators

There are three icons on the bypass valve to indicate the position of the valve: Service, Bypass, and Off (see [Figure 2](#)).



Service Position

In the Service position, the Service icon is visible (see [Figure 3](#)). Water flows through the bypass valve and softener, providing soft water.



Bypass Position

To bypass your Culligan system, rotate the gray handle counterclockwise until it stops. The Bypass icon will be visible (see [Figure 4](#)). Bypass will stop water flow through the Culligan system, but not disrupt water service to your home.

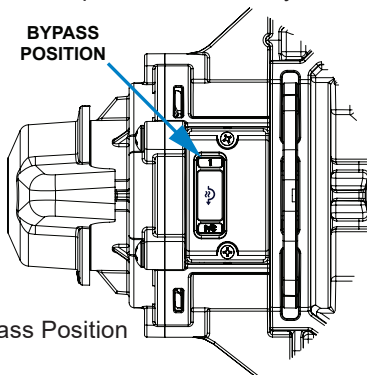


Figure 4. Bypass Position

Off Position

To turn the water off completely, rotate the gray handle clockwise until it stops. The Off icon will be visible (see [Figure 5](#)). Off will stop all water flow through the Culligan system and your entire home.

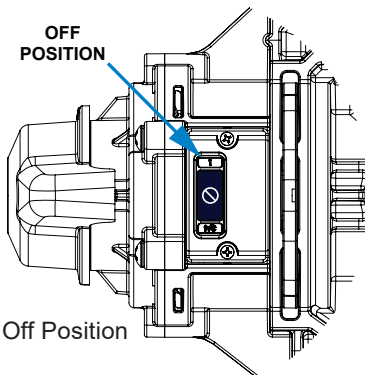


Figure 5. Off Position

Return to Service Position (Softened Water)

To return the Culligan system from Bypass to Service, rotate the gray handle clockwise (approximately 3/4 of a turn) until the Service icon is fully visible. To return the Culligan system from Off to Service, rotate the gray handle counter-clockwise until the Service icon is fully visible.

Things to Check Before Calling for Service

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

IMPORTANT: If any of the following conditions are found and corrected, the water softener should be manually regenerated according to the instructions under ["Regeneration"](#).

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. Plug in the transformer, then reset the softener to the correct time of day.

Tripped Circuit Breaker

Check the house circuit breaker panel. Reset a tripped circuit breaker.

Power Failure

Any interruption to your power supply or time change (such as Daylight Savings) will disrupt the softener's regeneration schedule by causing the timer to run off schedule. Reset the timer to the correct time of day.

Bypass Valve

Verify that the universal bypass valve is in the proper position. The bypass valve should be in the Service position for softened water (see [Figure 3](#)). If hand valves are used, the inlet and outlet valves should be open and the bypass valve closed.

No Water

If no water flow is present, make sure your water supply is working. Open a tap ahead of the softener (outside tap) to verify water pressure. If water pressure is present, check the bypass valve. If the bypass valve is in the Service position, turn it to the Bypass position and call your Culligan Dealer for service.

Increased Water Usage

Guests, family additions, new water-using appliances, etc., will result in more water usage and may require additional programming by your local Culligan dealer. Please contact your local Culligan dealer for assistance.

Salt Supply

Check the salt level in the salt storage tank. Refill as needed. Wait approximately 4 hours for the salt to dissolve before initiating a Regeneration cycle.

Salt Bridging

Salt bridging occurs when a space forms between the salt and the water underneath, preventing the salt from dissolving to make brine. When there is no brine, there is no softened 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 salt bridging is to take a broom handle or similar instrument and make a mark 34 inches from the end. 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 likely has formed. Continue to carefully probe and break the salt bridge completely.



CAUTION!

Do not force the instrument past the mark as damage to the horizontal salt plate may occur.

Troubleshooting

The Culligan Advantage 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 properly. There may be times, however, when something may occur that could cause the unit to operate improperly. In those instances, the microprocessor will identify the exact problem and alert the user with an ERROR or ALERT MESSAGE on the product display. If presented with an alert or error, contact your local Culligan dealer for assistance.

Performance Data Sheets

Culligan Aquasential Advantage Whole House Water Softeners 8" Indoor and 8" Outdoor

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.

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

Manufacturer: Culligan International Company
9399 W. Higgins Rd., Suite 1100
Rosemont, IL 60018 USA
(847) 430-2800
www.culligan.com

Product: Culligan Aquasential Advantage Whole House Water Softeners 8" Indoor and 8" Outdoor

Testing Conditions and Results

Flow Rate: 7.9 gpm @ 14 psi

Pressure: 30 - 40 psi

Acidity: Non-Corrosive

Temperature: 68 °F (20 °C)

Efficiency Rated Dosage**: 4,636 gr/lb

Capacity: 13,907 grains @ 3.0 lb salt

23,606 grains @ 9.0 lb salt

24,860 grains @ 12.0 lb salt

pH: 7.6

Softener Specifications

Service Flow Rate: 7.9 gpm (29.9 Lpm)

Operating Temperature Range: 33 - 120 °F (1 - 50 °C)

Working Pressure Range: 20 - 125 psi (140 - 860 kPa)

Pressure Drop at Maximum Flow Rate: 14 psi (96.5 kPa)

Maximum Drain Flow Rate: 1.05 gpm (4.0 Lpm)

Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

Substance Reduction

While testing was performed under standard laboratory conditions, actual performance may vary.

Name of Substance	USEPA Max. Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 ± 0.5	7.9 gpm	14 psig
Radium 226/228	5 pCi/L	7.5 ± 0.5	7.9 gpm	14 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.

The Culligan Aquasential Advantage Whole House Water Softeners 8" Indoor and 8" Outdoor have been tested and certified by WQA to NSF/ANSI/CAN 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium), barium, and radium 226/228, as verified and substantiated by test data. To maintain product certification and ensure uniform performance, the product is retested on a consistent basis.

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. This model is efficiency rated.

Refer to the Specifications, Familiarization and Warranty section of this Owner's Guide (P/N 01047922) for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan dealer. 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 dealer for his suggestion on the best type and grade of salt to use in this softener.

NOTE! 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 3.0 lb salt dosage.



Culligan Aquasential Advantage Whole House Water Softeners 9" Indoor and 9" Outdoor

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.

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

Manufacturer: Culligan International Company
9399 W. Higgins Rd., Suite 1100
Rosemont, IL 60018 USA
(847) 430-2800
www.culligan.com

Product: Culligan Aquasential Advantage Whole House Water Softeners 9" Indoor and 9" Outdoor

Testing Conditions and Results

Flow Rate: 9.0 gpm @ 15 psi

Pressure: 30 - 40 psi

Acidity: Non-Corrosive

Temperature: 68 °F (20 °C)

Efficiency Rated Dosage**: 4,501 gr/lb

Capacity: 19,290 grains @ 4.0 lb. salt

32,098 grains @ 13.0 lb. salt

35,385 grains @ 17.0 lb. salt

pH: 7.6

Softener Specifications

Service Flow Rate: 9.0 gpm (34.1 Lpm)

Operating Temperature Range: 33 - 120 °F (1 - 50 °C)

Working Pressure Range: 20 - 125 psi (140 - 860 kPa)

Pressure Drop at Maximum Flow Rate: 15 psi (103.4 kPa)

Maximum Drain Flow Rate: 2.0 gpm (7.6 Lpm)

Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

Substance Reduction

While testing was performed under standard laboratory conditions, actual performance may vary.

Name of Substance	USEPA Max. Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 ± 0.5	9.0 gpm	15 psig
Radium 226/228	5 pCi/L	7.5 ± 0.5	9.0 gpm	15 psig

This system is certified for barium and radium 226/228 reduction based on hardness reduction. It is recommended you test your water every 6 months to ensure the system is performing properly and that hardness, and therefore barium and radium 226/228, are being reduced.

The Culligan Aquasential Advantage Whole House Water Softeners 9" Indoor and 9" Outdoor have been tested and certified by WQA to NSF/ANSI/CAN 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium), barium, and radium 226/228, as verified and substantiated by test data. To maintain product certification and ensure uniform performance, the product is retested on a consistent basis.

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. This model is efficiency rated.

Refer to the Specifications, Familiarization and Warranty section of this Owner's Guide (P/N 01047922) for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan dealer. 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 dealer for his suggestion on the best type and grade of salt to use in this softener.

NOTE! 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.



Culligan Aquasential Advantage Whole House Water Softeners 10" Indoor and 10" Outdoor

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.

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

Manufacturer: Culligan International Company
9399 W. Higgins Rd., Suite 1100
Rosemont, IL 60018 USA
(847) 430-2800
www.culligan.com

Product: Culligan Aquasential Advantage Whole House Water Softeners 10" Indoor and 10" Outdoor

Testing Conditions and Results

Flow Rate: 9.3 gpm @ 15 psi

Pressure: 30 - 40 psi

Acidity: Non-Corrosive

Temperature: 68 °F (20 °C)

Efficiency Rated Dosage**: 4,944 gr/lb

Capacity: 29,664 grains @ 6.0 lb salt

43,694 grains @ 12.0 lb salt

47,763 grains @ 18.0 lb salt

pH: 7.6

Softener Specifications

Service Flow Rate: 9.3 gpm (35.2 Lpm)

Operating Temperature Range: 33 - 120 °F (1 - 50 °C)

Working Pressure Range: 20 - 125 psi (140 - 860 kPa)

Pressure Drop at Maximum Flow Rate: 15 psi (103 kPa)

Maximum Drain Flow Rate: 2.26 gpm (8.6 Lpm)

Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

Substance Reduction

While testing was performed under standard laboratory conditions, actual performance may vary.

Name of Substance	USEPA Max. Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 ± 0.5	9.3 gpm	15 psig
Radium 226/228	5 pCi/L	7.5 ± 0.5	9.3 gpm	15 psig

This system is certified for barium and radium 226/228 reduction based on hardness reduction. It is recommended you test your water every 6 months to ensure the system is performing properly and that hardness, and therefore barium and radium 226/228, are being reduced.

The Culligan Aquasential Advantage Whole House Water Softeners 10" Indoor and 10" Outdoor have been tested and certified by WQA to NSF/ANSI/CAN 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium), barium, and radium 226/228, as verified and substantiated by test data. To maintain product certification and ensure uniform performance, the product is retested on a consistent basis.

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. This model is efficiency rated.

Refer to the Specifications, Familiarization and Warranty section of this Owner's Guide (P/N 01047922) for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan dealer. 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 dealer for his suggestion on the best type and grade of salt to use in this softener.

NOTE! 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.



Culligan Aquasential Advantage Whole House Water Softeners 12" Indoor and 12" Outdoor

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.

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

Manufacturer: Culligan International Company
9399 W. Higgins Rd., Suite 1100
Rosemont, IL 60018 USA
(847) 430-2800
www.culligan.com

Product: Culligan Aquasential Advantage Whole House Water Softeners 12" Indoor and 12" Outdoor

Testing Conditions and Results

Flow Rate: 10.0 gpm @ 14 psi

Pressure: 30 - 40 psi

Acidity: Non-Corrosive

Temperature: 68 °F (20 °C)

Efficiency Rated Dosage**: 4,733 gr/lb

Capacity: 37,866 grains @ 8.0 lb salt

55,815 grains @ 16.0 lb salt

65,599 grains @ 24.0 lb salt

pH: 7.6

Softener Specifications

Service Flow Rate: 10.0 gpm (37.9 Lpm)

Operating Temperature Range: 33 - 120 °F (1 - 50 °C)

Working Pressure Range: 20 - 125 psi (140 - 860 kPa)

Pressure Drop at Maximum Flow Rate: 14 psi (97 kPa)

Maximum Drain Flow Rate: 3.96 gpm (15 Lpm)

Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

Substance Reduction

While testing was performed under standard laboratory conditions, actual performance may vary.

Name of Substance	USEPA Max. Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 ± 0.5	10.0 gpm	14 psig
Radium 226/228	5 pCi/L	7.5 ± 0.5	10.0 gpm	14 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.

The Culligan Aquasential Advantage Whole House Water Softeners 12" Indoor and 12" Outdoor have been tested and certified by WQA to NSF/ANSI/CAN 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium), barium, and radium 226/228, as verified and substantiated by test data. To maintain product certification and ensure uniform performance, the product is retested on a consistent basis.

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 (P/N 01047922) for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan dealer. 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 dealer for his suggestion on the best type and grade of salt to use in this softener.

NOTE! 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 8.0 lb salt dosage.



Culligan Aquasential Advantage Whole House Water Softener 10" S Indoor

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.

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

Manufacturer: Culligan International Company
9399 W. Higgins Rd., Suite 1100
Rosemont, IL 60018 USA
(847) 430-2800
www.culligan.com

Product: Culligan Aquasential Advantage Whole House Water Softener 10" S Indoor

Testing Conditions and Results

Flow Rate: 7.5 gpm @ 15 psi

Pressure: 30 - 40 psi

Acidity: Non-Corrosive

Temperature: 68 °F (20 °C)

Efficiency Rated Dosage**: 4,401 gr/lb

Capacity: 18,863 grains @ 4.0 lb salt

31,388 grains @ 13.0 lb salt

34,603 grains @ 17.0 lb salt

pH: 7.6

Softener Specifications

Service Flow Rate: 7.5 gpm (28.4 Lpm)

Operating Temperature Range: 33 - 120 °F (1 - 50 °C)

Working Pressure Range: 20 - 125 psi (140 - 860 kPa)

Pressure Drop at Maximum Flow Rate: 15 psi (103 kPa)

Maximum Drain Flow Rate: 2.0 gpm (7.6 Lpm)

Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

Substance Reduction

While testing was performed under standard laboratory conditions, actual performance may vary.

Name of Substance	USEPA Max. Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 ± 0.5	7.5 gpm	15 psig
Radium 226/228	5 pCi/L	7.5 ± 0.5	7.5 gpm	15 psig

This system is certified for barium and radium 226/228 reduction based on hardness reduction. It is recommended you test your water every 6 months to ensure the system is performing properly and that hardness, and therefore barium and radium 226/228, are being reduced.

The Culligan Aquasential Advantage Whole House Water Softener 10" S Indoor have been tested and certified by WQA to NSF/ANSI/CAN 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium), barium, and radium 226/228, as verified and substantiated by test data. To maintain product certification and ensure uniform performance, the product is retested on a consistent basis.

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 (P/N 01047922) for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan dealer. 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 dealer for his suggestion on the best type and grade of salt to use in this softener.

NOTE! 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.



Culligan Aquasential Advantage Whole House Water Softeners Municipal 9" Indoor and Municipal 9" Outdoor

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.

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

Manufacturer: Culligan International Company
9399 W. Higgins Rd., Suite 1100
Rosemont, IL 60018 USA
(847) 430-2800
www.culligan.com

Product: Culligan Aquasential Advantage Whole House Water Softeners Municipal 9" Indoor and Municipal 9" Outdoor

Testing Conditions and Results

Flow Rate: 7.8 gpm @ 8 psi
Pressure: 30 - 40 psi
Acidity: Non-Corrosive
Temperature: 68 °F (20 °C)
Efficiency Rated Dosage**: 4,197 gr/lb

Capacity: 17,376 grains @ 4.0 lb salt
23,297 grains @ 8.0 lb salt
26,702 grains @ 12.0 lb salt
pH: 7.6

Softener Specifications

Service Flow Rate: 7.8 gpm (29.5 Lpm)
Operating Temperature Range: 33 - 120 °F (1 - 50 °C)
Working Pressure Range: 20 - 125 psi (140 - 860 kPa)

Pressure Drop at Maximum Flow Rate: 8 psi (55.2 kPa)
Maximum Drain Flow Rate: 2.0 gpm (7.6 Lpm)
Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

Substance Reduction

While testing was performed under standard laboratory conditions, actual performance may vary.

Name of Substance	USEPA Max. Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 ± 0.5	7.8 gpm	8 psig
Radium 226/228	5 pCi/L	7.5 ± 0.5	7.8 gpm	8 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.

The Culligan Aquasential Advantage Whole House Water Softeners Municipal 9" Indoor and Municipal 9" Outdoor have been tested and certified by WQA to NSF/ANSI/CAN 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium), barium, and radium 226/228, as verified and substantiated by test data. To maintain product certification and ensure uniform performance, the product is retested on a consistent basis.

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 (P/N 01047922) for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan dealer. 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 dealer for his suggestion on the best type and grade of salt to use in this softener.

NOTE! 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.



Culligan Aquasential Advantage Whole House Water Softeners Municipal 10" Indoor and Municipal 10" Outdoor

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.

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

Manufacturer: Culligan International Company
9399 W. Higgins Rd., Suite 1100
Rosemont, IL 60018 USA
(847) 430-2800
www.culligan.com

Product: Culligan Aquasential Advantage Whole House Water Softeners Municipal 10" Indoor and Municipal 10" Outdoor

Testing Conditions and Results

Flow Rate: 8.2 gpm @ 8 psi

Pressure: 30 - 40 psi

Acidity: Non-Corrosive

Temperature: 68 °F (20 °C)

Efficiency Rated Dosage**: 4,187 gr/lb

Capacity: 21,720 grains @ 5.0 lb salt

29,532 grains @ 10.0 lb salt

33,623 grains @ 15.5 lb. salt

pH: 7.6

Softener Specifications

Service Flow Rate: 8.2 gpm (31.0 Lpm)

Operating Temperature Range: 33 - 120 °F (1 - 50 °C)

Working Pressure Range: 20 - 125 psi (140 - 860 kPa)

Pressure Drop at Maximum Flow Rate: 8 psi (55.2 kPa)

Maximum Drain Flow Rate: 2.26 gpm (8.6 Lpm)

Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

Substance Reduction

While testing was performed under standard laboratory conditions, actual performance may vary.

Name of Substance	USEPA Max. Contaminant Level	pH	Flow Rate	Pressure
Barium	2.0 mg/L	7.5 ± 0.5	8.2 gpm	8 psig
Radium 226/228	5 pCi/L	7.5 ± 0.5	8.2 gpm	8 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.

The Culligan Aquasential Advantage Whole House Water Softeners Municipal 10" Indoor and Municipal 10" Outdoor have been tested and certified by WQA to NSF/ANSI/CAN 372, CSA B483.1, and NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium), barium, and radium 226/228, as verified and substantiated by test data. To maintain product certification and ensure uniform performance, the product is retested on a consistent basis.

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. This model is efficiency rated.

Refer to the Specifications, Familiarization and Warranty section of this Owner's Guide (P/N 01047922) for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan dealer. 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 dealer for his suggestion on the best type and grade of salt to use in this softener.

NOTE! 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 5.0 lb salt dosage.



Records and Data

Important Information About Your Culligan Water Softening System

Please fill in the information below for future reference. If you have any questions regarding your Culligan water system, please contact the dealer that installed your system for assistance.

Additional information can be found at: www.culligan.com

System and Dealer Identification

System Name: _____

Model Name: _____

Control Valve Model #: _____

Control Valve Serial #: _____

Date of Installation: _____

Tank Serial #: _____

Culligan Dealer: _____

City/Town: _____

Dealer Phone #: _____

State: _____

System Settings

Time of Recharge: _____ AM/PM

Recommended Culligan Service Interval

Gallons Capacity Per Regeneration: _____

Annual: _____ Bi-Annual: _____

Day Override / Interval: _____

Owner Maintenance

Salt Tank Capacity: _____

_____ Check Salt Level

Wi-Fi Signal Strength: _____

_____ Replace Cartridge Filter(s)

_____ Add Resin Cleaner

Water Analysis

Hardness: _____ grains/gallon

Total Dissolved Solids - TDS: _____ mg/l

pH level (acidity): _____ S.U.

Alkalinity: _____ grains/gallon

Chloride: _____ mg/l

Manganese: _____ mg/l

Sodium: _____ mg/l

Hydrogen Sulfide (H₂S): _____ mg/l

NOTE! mg/l (milligrams per liter) and ppm (parts per million) are equivalent units of measurement 1 grain = 17.1 mg/l

Culligan Limited Warranty

Culligan Water Treatment System

You have just purchased one of the finest water softeners made. As an expression of our confidence in Culligan International Company products, your water softener 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 the LIFETIME of the original consumer purchaser	The Cullex® resin.
For a period of TEN YEARS	The control valve body, excluding internal parts. The softener tank. The salt storage tank, brine valve, and all its component parts.
For a period of FIVE YEARS	The Advantage circuit board or meter, if so equipped.
For a period of THREE YEARS	The outdoor Advantage enclosure and internal electrical components.
For a period of ONE YEAR	The entire softener.

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 treatment unit 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 written instructions, or by the use of accessories or components which do not meet Culligan specifications, is not covered by this warranty. Warranty is void if system is installed outside a building without being rated for outdoor use. Refer to the specifications section in the Installation and Operating manual for application parameters.

Our product performance specifications are furnished with each water treatment unit. TO THE EXTENT PERMITTED BY LAW, CULLIGAN DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE; TO THE EXTENT REQUIRED BY LAW, ANY SUCH IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE ONE-YEAR PERIOD SPECIFIED ABOVE FOR THE ENTIRE CONDITIONER. As a manufacturer, we do not know the characteristics of your water supply or the purpose for which you are purchasing a water conditioner. The quality of water supplies may vary seasonally or over a period of time, and your water usage rate may vary as well. Water characteristics can also differ considerably if your water conditioner is moved to a new location. For these reasons, we assume no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligations for us. Further, we assume no liability and extend no warranties, express or implied, for the use of this product with a non-potable water source. OUR OBLIGATIONS UNDER THIS WARRANTY ARE LIMITED TO THE REPAIR OR REPLACEMENT OF THE FAILED PARTS OF THE WATER CONDITIONER, AND WE ASSUME NO LIABILITY WHATSOEVER FOR DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, GENERAL, OR OTHER DAMAGES.

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

Culligan International Company

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

www.culligan.com