

# Culligan<sup>®</sup>

## OWNERS GUIDE

### Aquasential Salt Free Conditioner

Models from 2021





# Analytical Laboratory Services

Water Testing Made Easy.

Culligan's Analytical Laboratory provides its customers with quality water analysis using EPA approved methods. Our Analytical Laboratory is certified by the State of Illinois EPA, to be compliant with the National Environmental Laboratory Accreditation Conference (NELAC) standards. In addition to Illinois chemical certification, our Analytical Laboratory is certified to perform coliform and E. coli testing.

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## STANDARD WATER TESTING

For sizing systems and general chemical water characteristics.

## WELL WATER TESTING

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- Expanded
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## SPECIAL WATER TESTING

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- Microbiology
- Membrane

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You could give your people

*Culligan Water™*

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# About This Manual

## This manual:

- Familiarizes the operator with the equipment
- Explains installation and setup procedures
- Provides basic programming information
- Explains the various modes of operation
- Gives specifications and troubleshooting 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!**

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.

**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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# Thank You!

## Welcome To Your New World of Better Living with Culligan Water.

Congratulations on selecting the Aquasential Salt Free Conditioner. 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.

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

The Culligan® Aquasential Salt Free Conditioner 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 troubleshooting 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.

**The Culligan Aquasential Salt Free Conditioner 9x16" Condo Unit; Aquasential Salt Free Conditioner 9x16" Standard Home; Aquasential Salt Free Conditioner 9x36" Large Home; Aquasential Salt Free Conditioner 9x42" Twin Premium Home; Aquasential Salt Free Conditioner 14x65" Light Commercial systems are certified by WQA to NSF/ANSI 372 for lead free compliance and to CSA B483.1 for material safety and structural integrity. Not certified for contaminant reductions.**



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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 Salt Free Conditioner

### System Operating and Regulatory Specifications

The Culligan Aquasential Salt Free Conditioner is approved for low lead as defined by NSF 372 and CSA B483.1 for material safety and structural integrity. In order to meet regulatory condition, some operational parameters must be followed. They include:

1. Culligan recommends following the IAPMO Uniform Plumbing code section 806.2 by installing a Pressure Regulating Valve if the water pressure is greater than 80 psi. Operating on pressures above the UPC for extended periods of time can increase the service frequency and failure of replacement parts. On a private water system, make sure the minimum pressure (when the pump starts) is greater than 20 psi (140 kPa).
2. Operating temperature between 33° and 120°F or 1°–49°C.
3. Clear (non-turbid) water supplies (Less than 5 NTU).
4. A minimum of a 10 minute rinse of system with CullACT media (using non-Culligan branded media or different amounts voids WQA certification).

Table 1. System Loading & Performance Information.

Name	CullACT Media Loading (L)	Pre-filter	Max Flow Rating (gpm)
Aquasential Salt Free Conditioner 9x16" Condo Unit	2.0	Not Included	8
Aquasential Salt Free Conditioner 9x16" Standard Home	3.0	Not Included	10
Aquasential Salt Free Conditioner 9x36" Large Home	4.0	5 micron sediment filter*	15
Aquasential Salt Free Conditioner 9x42" Premium Home with Carbon Filter	4.5	9x42 carbon filter*	15
Aquasential Salt Free Conditioner 14x65" Light Commercial	7.5	Not Included	20

\*Included with System

### Ideal Water Conditions

Table 2. Ideal Water Conditions.

Flow Direction	Upflow - All Salt-Free Conditioners <sup>1</sup>
Low Temperature (through system)	41° F
Max Temperature (through water heater)	176° F
pH range	6.5 - 8.5
Max hardness (gpg)	75
Max iron (ppm)	0.3
Max manganese (ppm)	0.05
Max free chlorine (ppm)	3
Max copper (ppm)	1.3
Oil	None
Hydrogen sulfide	None

<sup>1</sup>Activated Carbon Filter Tank included with Twin Premium Home system operates as a Downflow filter.

**NOTE!** Install systems in new residences/facilities with copper pipe after six weeks of water use.

# Application

## Water Quality

The Culligan Aquasential Salt Free Conditioner uses Culligan's CullACT media to help reduce scale build up in hot water heaters and pipes and on household surfaces and appliances. The Aquasential Salt Free Conditioner is an alternative technology to traditional ion-exchange water softeners that use salt. Unlike a water softener, the Aquasential Salt Free Conditioner will not remove hardness minerals from the water.

The CullACT media serves as a catalyst to change the physical structure of the hardness minerals in water that can cause scaling. This process is known as Template Assisted Crystallization (TAC) and it changes the chemical structure of hardness minerals to a crystallized micro-structure that is resistant to scale formation. The result is that the water contains the same amount of minerals, but in a form that is much less likely to cause scaling. Because the mineral content of the water remains unchanged, water spots can still be present on fixtures and glassware but they will be much easier to wipe off and remove after being treated by the Culligan Aquasential Salt Free Conditioner.

## Frequently Asked Questions

- 1. Q: Can I test my water for hardness minerals to determine if my Aquasential Salt Free Conditioner is working correctly?**  
A: No. Since Aquasential Salt Free Conditioners do not remove hardness the test results will be the same.
- 2. Q: How do I know if my Aquasential Salt Free Conditioner is working properly?**  
A: After installation you should notice that water spots on shower walls and fixtures are easier to wipe off.
- 3. Q: Will my water taste different after Aquasential Salt Free Conditioning?**  
A: No. The Aquasential Salt Free Conditioner will not change the taste of the water. If your system includes an Activated Carbon Filter and your water contains chlorine you will notice an improvement in taste and the elimination of odors associated with chlorine.
- 4. Q: Is there any maintenance to be done to my Aquasential Salt Free Conditioner?**  
A: No regular maintenance needs to be done to the Aquasential Salt Free Conditioner. If your system includes a cartridge type pre-filter the cartridge should be changed when water pressure is reduced or at least every six months.
- 5. Q: What is the expected service life of the CullACT media used in the Aquasential Salt Free Conditioner?**  
A: The CullACT media life expectancy is 3 to 5 years for most water supplies when all application guidelines are followed.
- 6. Q: What indicates the CullACT media is near the end of its service life?**  
A: When it becomes more difficult to clean water spots from shower walls and fixtures it is most likely time for media replacement. Call your local Culligan dealer for service.

# When & How to Bypass Your Water System

## When and How to Bypass Your Water Conditioner

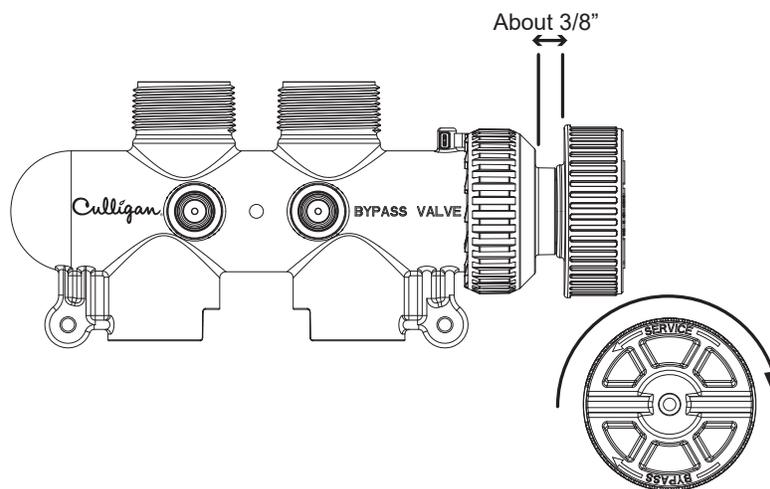
Normally, all water except outside lines passes through the water conditioner. There are times when the water conditioner should be bypassed, using the Cul-Flo-Valv® Bypass, or a three-way bypass valve. You should bypass:

1. If lines to outside faucets do not bypass the water conditioner, and you do not want to waste conditioned water on lawn sprinkling or other outside uses.
2. If you are going away on vacation.

### Bypass Valve

In the back of Culligan water conditioner is a Cul-Flo-Valv® Bypass valve. To bypass the unit, turn the blue knob clockwise. To return to conditioned water service, turn the blue knob counter-clockwise.

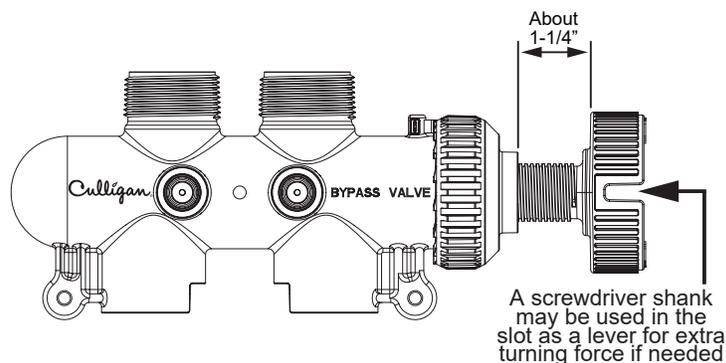
Figure 1. Bypass Position



### Bypassed

To BYPASS, turn the blue knob clockwise (see directional arrow on end of knob) until the knob stops as shown in [Figure 1](#). DO NOT OVERTIGHTEN!

Figure 2. Service Position



### Conditioned Water

To return to SERVICE, turn the blue knob counter-clockwise (see directional arrow on end of knob) until the knob stops as shown in [Figure 2](#). DO NOT OVERTIGHTEN!

# Things to Check Before You Call For Service

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

## Bypass Valves

Check to see if they are in the proper position. Cul-Flo-Valv® Bypass, if used, should be in the ["Service Position"](#) (handle stem screwed out) 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.

## If You Have A Cartridge Filter Installed

If your system has a cartridge type filter installed prior to the Aquasential Salt Free Conditioner make sure the cartridge is not clogged as this can be the cause of low water pressure. Replace the filter cartridge with a new one and check to see if water pressure returns.

## Increased Usage

Guests, family additions, new water-using appliances, etc, will all result in more water usage and will require more capacity from your system. Call your Culligan dealer for advice and save a service call.

# Care and Cleaning of Your Water System

These simple precautions, if followed, will help assure continued trouble-free service and keep your Culligan Water system looking like new for years.

- 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.
- **Important:** Protect your water system and the entire drainline from freezing temperatures.



**WARNING!**

**If your unit should freeze, do not attempt to disassemble it. Call your Culligan Dealer.**

- **Important:** Culligan water systems are sold for use with potable water, only. If at any time the water becomes contaminated, such as during a “boil water” situation, the operation of the water system should be discontinued until it is verified that the water is again potable. To do this, turn the knob on the bypass valve to the bypass position. Then, call your Culligan dealer to have your system sanitized before it is placed back into service.
- Should service, adjustment, or trouble-shooting information be needed which is not covered in this Owners Guide, call your Culligan Dealer.

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

# Records and Data

## Important Information about your Culligan Water 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.

Addition information may also be found by visiting: [www.culligan.com](http://www.culligan.com)

## System and Dealer Identification

System Name \_\_\_\_\_ Model Name: \_\_\_\_\_

In & Out Head Serial #: \_\_\_\_\_ Tank Dimensions (W" x H"): \_\_\_\_\_

Date of Installation: \_\_\_\_\_ Tank Serial # \_\_\_\_\_

Culligan Dealer: \_\_\_\_\_ City/Town: \_\_\_\_\_

Dealer Phone # \_\_\_\_\_ State: \_\_\_\_\_

## Recommended Service

Recommended Owner Service Interval for Cartridge Filter (if applicable):

3 month: \_\_\_\_\_ 6 month: \_\_\_\_\_ 9 month: \_\_\_\_\_ 12 month: \_\_\_\_\_

Recommended Dealer Service:

\_\_\_\_\_ Evaluate Condition of CullACT Media

\_\_\_\_\_ Replace CullACT Media Every 3-5 Years or as Necessary

\_\_\_\_\_ Replace Cullar D+ Activated Carbon Media Every 3-5 Years or as Necessary

## 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 (H<sub>2</sub>S) \_\_\_\_\_ mg/l

Iron \_\_\_\_\_ mg/l

Chlorine \_\_\_\_\_ mg/l

Other \_\_\_\_\_

Other \_\_\_\_\_

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

# Culligan Limited Warranty

## Culligan Aquasential Salt Free 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:

<b>For a period of ONE YEAR</b>	The entire conditioner
<b>For a period of FIVE YEARS</b>	In/Out Head
<b>For a period of TEN YEARS</b>	Fiberglass tank

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 written 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.

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