

# Culligan®

**Culligan®  
High  
Efficiency  
Sulfur-Clear  
Water Filter  
Owners  
Guide**





## Attention Culligan Customer

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

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



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

### NOTE:

This system is not intended for use where water is microbiologically unsafe or with water of unknown quality.



**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.



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

This equipment complies with Part 15 of the FCC rules. Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



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



**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.



**CAUTION!** Children should be instructed not to play with this appliance.



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

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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

### Read this Manual First

Before you operate the Culligan High Efficiency Sulfur-Clear Water Filter, read this manual to become familiar with the device and its capabilities.

### Safe Practices

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

Notice (or Note) is used to emphasize installation, operation or maintenance information which is important, but does not present any hazard. For example,

**NOTICE** The nipple must extend no more than 1 inch above the cover plate.

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



**CAUTION!** Disassembly while under water pressure can result in flooding.

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



**WARNING!** Electrical shock hazard! Unplug the unit before removing the timer mechanism or cover plates!

The CAUTION and WARNING paragraphs are not meant to cover all possible conditions and situations that may occur. Understand 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.

Be sure to check and follow the applicable plumbing codes and ordinances when installing this equipment. Local codes may prohibit the discharge of sanitizing or descaling solutions to drain. An extra solution tank should be used to neutralize the solution before discharging to drain.

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

**NOTE:** The Culligan High Efficiency Sulfur-Clear Water Filter is not intended for use with water that is microbiologically unsafe or of unknown quality without adequate disinfection either before or after the system.

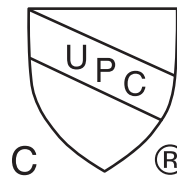
**NOTE:** Check with your public works department for applicable local plumbing and sanitation codes. Follow local codes if they differ from the standards used in this manual. To ensure proper and efficient operation of the Culligan High Efficiency Sulfur-Clear Water Filter to your full satisfaction, carefully follow the instructions in this manual.



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

The Culligan High Efficiency Sulfur-Cleer™ 10" fiberglass and Quadra Hull filters have been tested and certified by WQA against NSF/ANSI Standard 372, CSA B483.1, and NSF/ANSI Standard 42 for the effective reduction of iron up to 1,000 gallons, and NSF/ANSI Standard 42 for the effective reduction of hydrogen sulfide as verified and substantiated by test data.

The Culligan High Efficiency Sulfur-Cleer™ 10" fiberglass and Quadra Hull filters have been certified by IAPMO R&T against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 42 for the effective reduction of iron up to 1,000 gallons and NSF/ANSI Standard 42 for the reduction of hydrogen sulfide as verified and substantiated by test data.



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

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

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

Thank You



## Specifications

	<b>10" Fiberglass</b>	<b>10" Quadrahull</b>
Control Valve	HE Control Valve	HE Control Valve
Timer	Electronic	Electronic
Overall Conditioner Height	69"	69"
Media Tank Dimensions (D x H)	10x54 in.	10x54 in.
Filter Media Type	1.5 ft <sup>3</sup> Catalytic Carbon	1.5 ft <sup>3</sup> Catalytic Carbon
Underbedding	Cullsan, 20 lbs.	Cullsan, 20 lbs.
Capacity <sup>1</sup>	1000 gallons	1000 gallons
Freeboard <sup>2</sup>	18 in	18 in
Max. Clear Water (Soluble) Iron	10 ppm	10 ppm
Max. Hydrogen Sulfide	8 ppm	8 ppm
Minimum Alkalinity	100 ppm	100 ppm
pH	7.0–8.5	7.0–8.5
Service Flow @ Pressure Drop (Clean Bed) Normal <sup>3</sup>	5 gpm @ 4 psi	5 gpm @ 4 psi
Maximum		
Operating Pressure	20–60 psi/138–414 kPa	20–60 psi/138–414 kPa
Operating Temperature	33–120° F/1–49°C	33–120° F/1–49°C
Electrical Requirements	120 Volts/60 Hz	120 Volts/60 Hz
Power Consumption, Continuous/ Maximum	6 Watts/240 Watts	6 Watts/240 Watts
Drain Flow, Maximum	5.5 gpm	5.5 gpm
Backwash Regeneration Time	1–99 minutes	1–99 minutes
Education	1–99 minutes	1–99 minutes
Fast Rinse	1–99 minutes	1–99 minutes

<sup>1</sup>Capacity based on 5 gpm (10" unit) and 10 mg/L of dissolved iron.

<sup>2</sup>Measured from top of media bed to top of surface of tank threads (backwashed and drained).

<sup>3</sup>Max flow rates and pressure drop characteristics have not been certified by the Water Quality Association.

For the purposes of plumbing sizing, only the service flow rate and corresponding pressure drop may be used.



## Introduction

Culligan® High Efficiency Sulfur-Clear™ 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.

In order for the water treatment system to continue to provide high quality water, you must develop a thorough understanding of the system and its operation. Review this manual before making any attempt to install, operate, or service the system. Installation or maintenance done on this system by an untrained service person can cause major damage to equipment or property damage.



**CAUTION!** The Sulfur-Clear system must be supplied with cold water only.

### Step 1

#### Aeration Operation Service Cycle

In the service cycle, raw water enters the inlet port of the medium tank and is directed through the inlet strainer. The oxidation process begins when the water passes through the inlet strainer and cascades through a head of air. This air/ water contact oxidizes the iron and/or hydrogen sulfide in the water. The water is then filtered through the media. It then passes through the outlet of the aeration tank to the inlet of the filter.

#### Filter Tank Operation Service Cycle

Upon system demand for filtered water, the water is directed downward through the media toward the lower manifold. Oxidized iron particles are trapped by the filter bed as the water passes through. Filtered water enters the lower manifold and travels up the manifold to the outlet port on the filter valve.

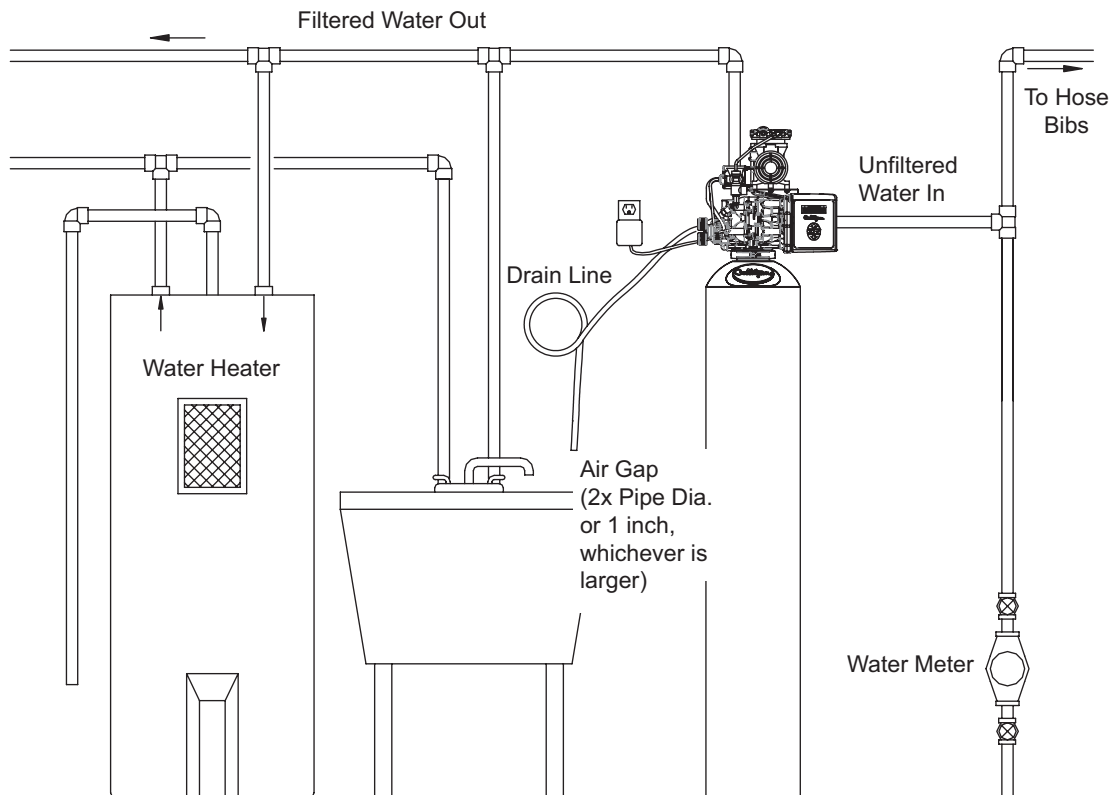


Figure 1. Sulfur-Clear operating configuration.



## Step 2

### Aeration Operation Air Recharge Cycle

When energized, the air pump sends air through the solenoid valve into one end of the shuttle valve. Once air pressure in the shuttle valve is greater than the water supply pressure at the other end of the shuttle valve, the piston shifts to the open position. In the open position, the bleed-off port discharges excess water and old air to the drain port through a flow restrictor. Simultaneously, the air inlet port opens to provide a direct connection between the air pump and the top of the aeration tank. The air pump runs for a preset period of time recharging the head of air in the aeration tank.

### Air Recharge Shut Off

The timer turns power off to the air pump and the solenoid valve at the end of the recharge cycle. The solenoid valve then closes the port between the air pump and the shuttle valve. The port between the shuttle valve and the atmosphere opens and releases air pressure. This allows water pressure to shift the piston to the closed position. With the piston in the closed position, the air recharge inlet port is closed and direct communication between the bleed off tube and the drain port is also closed.

### Timer Operation

A timer controls the air recharge cycle and how frequently it occurs. The timer simultaneously energizes the air pump and the solenoid valve. After a preset amount of time, the timer shuts off the air pump and de-energizes the solenoid valve.

### Solenoid Valve Operation

The solenoid valve is a three-way valve having ports that connect to the air pump, shuttle valve and the atmosphere. In the service cycle, the solenoid valve is de-energized and closes the port to the air pump, providing a positive shutoff to the pump. This prevents water from backing up into the air pump and damaging the pump. In the air recharge cycle, the solenoid valve closes the port to the atmosphere and opens the port from the air pump.

### Shuttle Valve Operation

In the service position, water pressure holds the shuttle valve piston in the closed position, trapping the airhead in the aeration tank and closes the air recharge inlet port and drain port. During air recharge cycle, air pressure is greater than the water pressure and forces the shuttle valve piston in the open piston. The shuttle valve has an internal pressure relief valve that will relieve pressure (greater than 100 psi) that may build up in the aeration tank. This precautionary function protects components from failure due to excessive pressure.

## Step 3

### Filter Tank Operation—Backwash Cycle

Reversing the flow of water through the filter bed and backwashing dirty water to the drain cleans the filter bed. Raw water enters the filter control valve through the inlet port and is directed down the distributor tube and out the lower distributor at the bottom of the tank, flowing upward through the multimedia filter bed toward the top of the tank into the control valve. Water is then directed through a specific flow restrictor and out the drain port to be discharged to drain.

## Step 4

### Filter Tank Operation—Rinse Cycle

The rinse cycle packs the clean filter bed. Raw water enters the control valve through the inlet port and is directed downward through the filter bed into the bottom distributor, up the distributor tube into the control valve. Water is then directed through a specific flow restrictor and out the drain port to be discharged to drain.





## Operating Conditions

The concentration limits listed below reflect the minimum or maximum individual limit that each contaminant was tested for separately without any interference of other contaminants in the influent water.

In reality, however, we know that these contaminants may be present in combination which may limit the filter's ability to remove these contaminants in higher concentrations. In some cases, individual sellers of this equipment have had success removing higher concentrations of contaminants—iron, for example—above the limitations we have listed. If you are considering the installation of this system for the reduction/removal of iron and/or hydrogen sulfide beyond the printed operating conditions below, we recommend that you consult Culligan for proper application. Installation of this system under these circumstances may void part(s) and/or all of the system warranty.

## Compressor

The compressor does not operate during the recharge cycle.

## General Instructions

The success of the installation will depend, to a great extent, on advanced planning and preparation. Careful attention to the location of the unit, accessibility to electrical and drain facilities, and the availability of the proper tools will ensure a professional-looking installation. Of utmost importance is the assurance that the filter has been properly applied and meets all specifications.

Observe all state and plumbing codes, electrical codes and drain restrictions.

The system and installation must comply with all state and local laws and regulations.

Most codes require an anti-siphon device or air-gap.

<b>NOTE:</b>	<b>For installations in Massachusetts, the Commonwealth of Massachusetts Plumbing Code 248 CMR shall be adhered to. Consult with your licensed plumber for installation of this system.</b>
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**pH**—The pH level of the influent water must be 7.0–8.5.

**Iron**—This system is rated for a maximum of 10 ppm of ferrous (clear water) iron. Consult the factory if iron bacteria is present.

**Organic Matter (Tannins)**—The presence of organic matter such as tannins will interfere with the oxidation process of converting the dissolved element, such as iron or manganese, to a non-soluble precipitate or solid substance, allowing it to be filtered out. The Sulfur-Clear™ is not designed to remove organic bound iron.

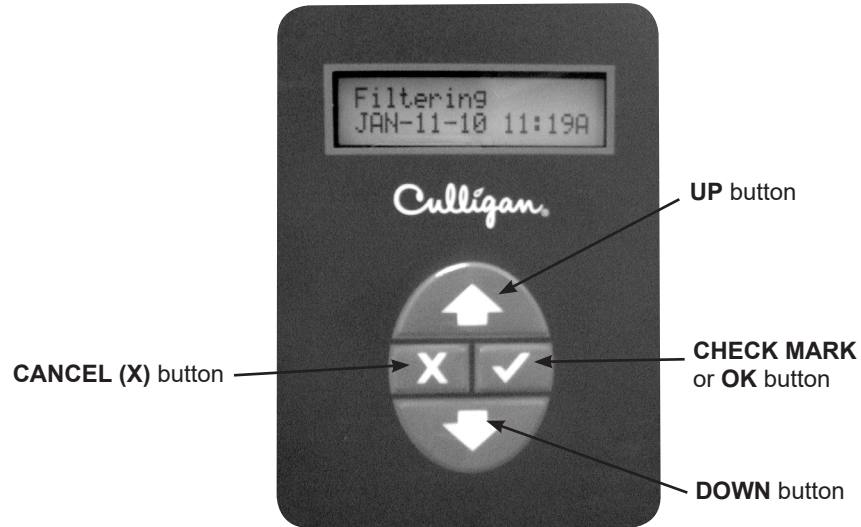
**Alkalinity**—A minimum alkalinity of 100 ppm is required for efficient removal of iron and hydrogen sulfide.

**Hydrogen Sulfide**—Often referred to as the rotten egg smell, hydrogen sulfide will be reduced significantly on water supplies less than 8 ppm as tested by Culligan. Consult the factory if hydrogen sulfide concentrations are greater than 8 ppm.

<b>NOTE:</b>	<b>Waste connection on drain outlets shall be designed and constructed to provide for connection to the sanitary waste system through an air gap of two pipe diameters or 25.4 mm (1 in.), whichever is larger.</b>
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## Navigating the Menus and Keypad



**UP ARROW** button: scrolls up the menu



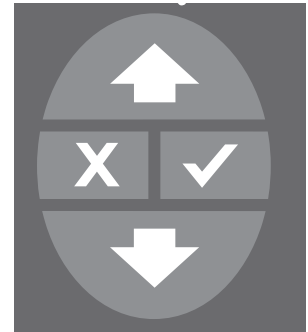
**DOWN ARROW** button: scrolls down the menu



**CHECK MARK** button: selects the highlighted option, opens a new screen, or accepts a changed setting



**CANCEL** or **X** button: returns to the previous screen or cancels a changed setting





Controller



Remote

**NOTE:**

Hold down the  or  to quickly scroll through the setting without repeatedly pressing the button.



## Information

The following information can be displayed at the control valve or remote display. These settings are read-only. Press or to scroll through the settings. Press to view the previous setting.

Screen Display	Range	Setting Description
FILTERING JAN-01-19 11:19A	N/A	1. From the <b>HOME</b> screen, press  to view the main menu.
>1) INFORMATION 2) MANUAL MODE	1-6	2. The screen displays the main menu. Press  to select <b>1) INFORMATION</b> .
FILTER LIFE LEFT 50000 GAL	0- 50,000	3. The screen displays the <b>FILTER LIFE LEFT</b> in gallons. Press  to select the next information screen.
FILTER LIFE LEFT 100 DAYS	0-100	4. The screen displays the <b>FILTER LIFE LEFT</b> in days. Press  to see the next information screen.
REMAIN CAPACITY 700 GAL	0-no limit	5. The screen displays the filtering capacity remaining, measured in gallons (liters), before initiating reconditioning. Press  to see the next information screen.
CURRENT FLOWRATE 10.0 GPM	0-no limit	6. The screen displays the current flow rate, measured in gallons (liters) per minute. Press  to see the next information screen.
TODAY'S USAGE 100 GAL	0-no limit	7. The screen displays today's water usage, measured in gallons (liters). Press  to see the next information screen.
AVERAGE DAILY 300 GAL	0-no limit	8. The screen displays average water usage for this configuration. Press  to see the next information screen.
NEXT REGEN ON JAN-03	N/A	9. The screen displays the date of the next regeneration, based on average daily water usage. Press  to see the next information screen.



Screen Display	Range	Setting Description
TOTAL WATER USED 1000 GAL	0–no limit	10. The screen the total water used for this configuration. Whole numbers are displayed above 100 gallons. Press  to see the next information screen.
DEALER ID		11. The screen displays the local dealer’s ID number as entered during the First Time Setup. Press  to see the next information screen.
EXT FILT CAP REM 20000 GAL	0–no limit	12. If an external filter is used, the screen displays the remaining capacity of the filter. When the remaining capacity reaches zero, the system triggers the External Filter Alarm. Press  to return to the main menu.
>1) INFORMATION 2) MANUAL MODE		13. The screen displays the main menu. Press  to exit to the home screen.
FILTERING JAN-01-19 11:19A		14. The screen displays the home screen.



## Setting the Date and Time

To update the date and time on the HE Filter, follow this procedure.

Screen Display	Range	Setting Description
FILTERING JAN-01-19 11:19A	N/A	15. Start at the <b>HOME SCREEN</b> . Press  to advance to the <b>MAIN MENU SCREEN</b> .
2) MANUAL MODE >3) SET DATE/TIME	N/A	16. Press  to scroll to <b>3) SET DATE/TIME</b> . 17. Press  to display the date and time settings.
<b>Set Month</b>		
SET MONTH JAN	Jan-Dec	18. The screen displays the month setting. Press  to display the next setting, or press  to change the month setting.
SET MONTH >JAN	Jan-Dec	19. The screen displays a cursor next to the month. Press  to display the next value (for example, changing January to February).
SET MONTH >FEB	Jan-Dec	20. Press  to display the next value (for example, changing January to February).
SET MONTH FEB		21. Press  to accept the new value. The screen displays the month without the cursor and advances to the Day setting.
<b>Set Day</b>		
SET DAY >2	1-30	1. Press  to advance to the next setting if the day is correct, or press  to change the day setting. Press  to display the next value (for example, change 1 to 2). 2. Press  to accept the new value. The screen displays the day without the cursor and advances to the Year setting.
<b>Set Year</b>		
SET YEAR >2019	2009-30	1. Press  to advance to the next setting if the year is correct, or press  to change the year setting. Press  to display the next value (for example, change 2018 to 2019). 2. Press  to accept the new value. The screen displays the year without the cursor and advances to the Clock Type setting.



Screen Display	Range	Setting Description
<b>Set Clock Type</b>		
CLOCK TYPE >12 HR	12 or 24	<p>Press <input type="button" value="↓"/> to advance to the next setting if the clock type is correct, or press <input checked="" type="checkbox"/> and then <input type="button" value="↑"/> to change the clock type setting (leave at default setting, 12 hour).</p> <p>Press <input checked="" type="checkbox"/> to accept the new value. The screen displays the clock type without the cursor and advances to the Set Hour setting.</p>
<b>Set Hour</b>		
SET HOUR >10AM	12PM– 11AM	<p>Press <input type="button" value="↓"/> to advance to the next setting if the hour is correct, or press <input checked="" type="checkbox"/> and then <input type="button" value="↑"/> to change the hour (in this example, from 12PM to 10AM).</p> <p>Press <input checked="" type="checkbox"/> to accept the new value. The screen displays the hour setting without the cursor and advances to the Set Minutes setting.</p>
<b>Set Minutes</b>		
SET MINUTES >20	0–60	<p>Press <input type="button" value="↓"/> to advance to the next setting if the clock type is correct, or press <input checked="" type="checkbox"/> and then <input type="button" value="↑"/> to change the minutes (in this example, from 0 to 20).</p> <p>Press <input checked="" type="checkbox"/> to accept the new value. The screen displays the minutes without the cursor and advances to the Daylight Savings setting.</p>
<b>Set Daylight Savings Time</b>		
DAYLIGHT SAVINGS >YES	Yes No	<p>Press <input type="button" value="↓"/> to advance to the next setting if the daylight savings time setting is correct, or press <input checked="" type="checkbox"/> and then <input type="button" value="↑"/> to change the setting.</p> <p>Press <input checked="" type="checkbox"/> to accept the new value. The screen displays the daylight savings setting without the cursor.</p>
<b>Return to the Home Screen</b>		
FILTERING JAN-01-19 11:19A		<p>Press <input checked="" type="checkbox"/> until the screen displays the <b>HOME SCREEN</b> and saves the settings.</p>



## Care and Cleaning of Your Water Conditioner

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

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

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

5. Reset the time, if required, after any interruption of electrical power to keep the unit on its normal schedule.
6. Should service, adjustment or trouble-shooting information be needed which is not covered in the Use and Care Guide, call your Culligan Dealer.

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

### Recommended Preventative Maintenance Inspection Schedule

The Culligan High Efficiency Sulfur-Cleer water filter has been designed to provide a good, consistent service life. Routinely inspecting the system may help avoid potentially costly breakdowns related to circumstances outside of the control of the dealer and/or user. The filter is for problem water use and routine maintenance is required. Contact your local Culligan dealer to perform routine maintenance.

Component	Suggested Inspection Frequency	Reason for Maintenance
Entire System	At Start-up, after infrequent use (idle for one week or more) or every 3–6 months if on a private water supply.	On private supplies, the appearance of off-tastes and odors, particularly if musty or “rotten egg” (caused by harmless sulfate-reducing bacteria) may indicate a need for the system to be sanitized.
Backwash Flow Controller	Every 12 months or every time service is performed on the system.	Build up of sediment, iron and/or other foreign materials (found in some water supplies but not necessarily all) could negatively affect system performance. Monitor item for normal or unexpected wear.
Media	As needed.	Sulfur-Cleer—Media may need to be reconditioned or replaced depending on water characteristics.



## Preventive Maintenance

### Maintenance Inspection

This Culligan Sulfur-Clear™ water filter has been designed to provide a good, consistent service life. Because of the nature of problem water, we recommend that the local Culligan dealer provide regular maintenance/service contracts for the proper operation of your systems. The water filter service begins with a multi-point inspection of your water filter system in an effort to uncover any and all problems that may exist. Listed below is a recommended list of maintenance items to be inspected at a minimum of once a year (or more frequently depending on the raw water quality).

Test Water	Feed	Product
Hardness		
Iron		
Hydrogen Sulfide		
Chlorine		
TDS		
Other		
Comments:		
<b>Bypass Valve</b>		
Bypass in Service or Bypass?		
Condition of Bypass Valve		
Operation OK?		
<b>Control Valve</b>		
Condition of Eductor (Sulfur-Clear)		
Condition of Solution Valve (Sulfur-Clear)		
Condition of Pistons		
Condition of Solenoid Valve		
Condition of Motor:		
Condition of Flow Control		
Condition of Optical Sensor		
Condition of Check Valve		
Condition of Compressor	Output PSI	
Control Settings	Before	After
Check /reset Time of Day		
Check Time of Regeneration		
Setting ON time (seconds), OFF time (gallons or minutes)		
Backwash (minutes)		
Chemical Draw/Slow Rinse (minutes)		
Fast Rinse (minutes)		
Cycle control	Test Cycle	OK?
	Backwash	
	Chemical Draw	
	Slow rinse	
	Fast rinse	
<b>Media Tank</b>		
Freeboard inches:		
Media Condition		





## Regeneration

There are several conditions that will cause the control to trip a regeneration. The screen displays **REGEN TONITE** when the control has signaled for a regeneration. **REGENERATING** is displayed while the control is in regeneration. The following are conditions that will call for regeneration:

1. When the Soft-Minder® meter has recorded the passage of a predetermined number of gallons.
2. At the preset time, when the number of days without a regeneration is equal to the regeneration interval (timeclock backup) setting.
3. At the preset time, when Regen Tonite is selected. The screen displays Regen Tonite.
4. Immediately, when the Regen Now is selected. The screen displays Regenerating.
5. Immediately, if power to the unit has been off for more than three (3) hours and time of day has been restored.
6. At the preset time based on Day-of-Week Regeneration setting.

Follow either procedure to bypass the filter or to initiate a manual regeneration or automatically bypass the filter at the control valve or the remote display.

### Delayed Regeneration

Screen Display	Range	Changing the Setting
FILTERING JAN-01-19 12:01P	N/A	1. At the <b>HOME SCREEN</b> , press <input checked="" type="checkbox"/> and hold for at least three seconds, then release the button.
REGEN TONITE JAN-01-19 12:01P	Regen Tonite	2. The first line of the display will toggle between <b>FILTERING</b> and <b>REGEN TONITE</b> .
REGEN OFF JAN-01-19 12:01P	Regen Off	3. To cancel a delayed regeneration, press and hold the <input checked="" type="checkbox"/> for three (3) seconds, then release the button. The screen displays <b>REGEN OFF</b> .

### Immediate Regeneration

Screen Display	Range	Changing the Setting
FILTERING JAN-01-19 12:01P	N/A	1. At the <b>HOME SCREEN</b> , press <input checked="" type="checkbox"/> and hold for at least ten (10) seconds, then release the button.
REGEN NOW JAN-01-19 12:01P	Regen Now	2. The first line of the screen displays <b>REGEN NOW</b> . The filter will initiate an immediate regeneration.
REGENERATING JAN-01-19 12:01P	N/A	3. The first line of the screen displays <b>REGENERATING</b> .



## Standard Manual Regeneration

Screen Display	Range	Changing the Setting
Filtering JAN-01-19 12:01P	N/A	1. This is the <b>HOME SCREEN</b> . Press any button except <b>X</b> to advance to the <b>MAIN MENU SCREEN</b> .
1) INFORMATION >2) MANUAL MODE	1-6	2. Press <b>↓</b> to <b>2)MANUAL MODE</b> then press <b>✓</b> . The screen displays the Manual Mode settings.
MANUAL MODE >REGEN NOW	Regen Off Regen Now Regen Tonite Bypass	3. Press <b>✓</b> and <b>↑</b> or <b>↓</b> to change the setting. 4. The default is <b>REGEN NOW</b> . Press the <b>✓</b> to select this option to begin regeneration immediately. 5. If the screen displays <b>REGEN OFF</b> then the filter will not regenerate. 6. If the screen displays <b>REGEN TONITE</b> then the filter will regenerate that night at 2:00 a.m. (or at the preset regeneration time). The screen displays two status messages: <b>FILTERING</b> and <b>REGEN TONITE</b> . 7. If the screen displays <b>BYPASS</b> then for a specified time the filter will be bypassed. Press <b>✓</b> to select the total time the filter is to be in the bypass state.
MANUAL BYPASS >OFF	Off 30 (min) 60 90 120 180 Manual Bypass	8. Press <b>✓</b> and <b>↑</b> or <b>↓</b> to select the total time the filter is to be in the bypass state. 9. Press <b>✓</b> to accept this setting. The screen displays the Manual Mode menu.
1) INFORMATION >2) MANUAL MODE		10. Press <b>X</b> until the screen displays the <b>HOME SCREEN</b> and saves the settings.



## When and How to Bypass Your Water Filter

Normally, all water except outside lines passes through the water filter. There are times when the water filter 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 filter, and you do not want to waste filtered water on lawn sprinkling or other outside uses.
2. If you are going away on vacation and do not want the unit to recharge.

### Bypass Valve

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

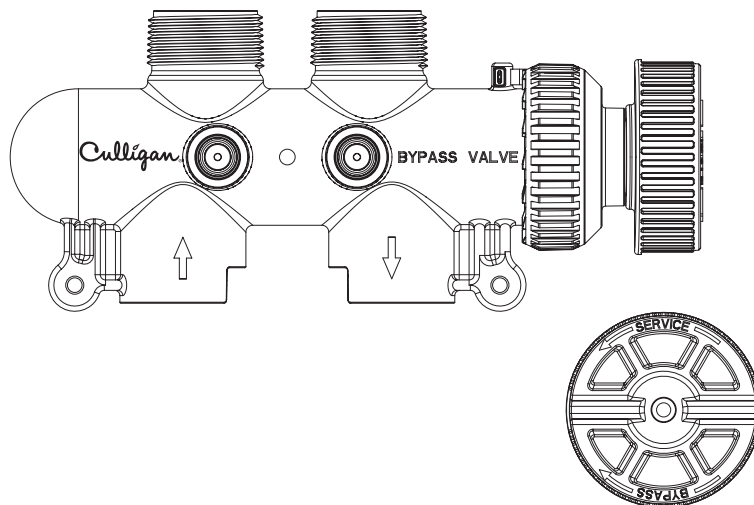


Figure 2. Bypass valve.

### Bypassed

To BYPASS, turn the blue knob clockwise (see directional arrow on end of knob) until the knob stops as shown in Figure 2. **DO NOT OVERTIGHTEN!**

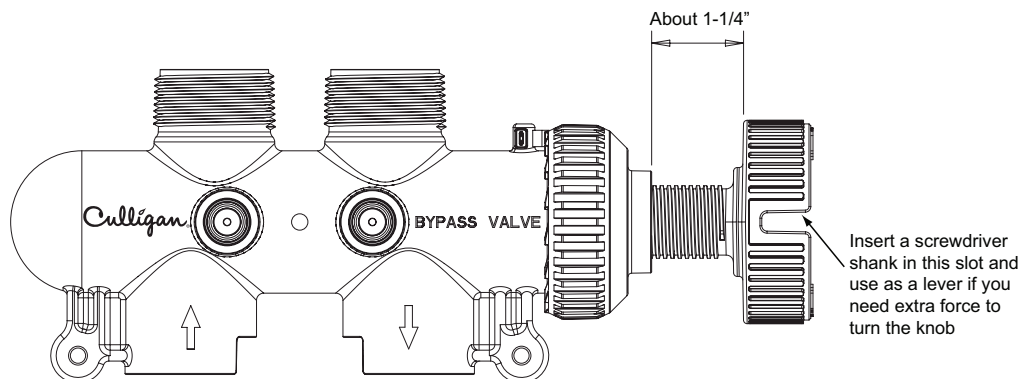


Figure 3. Service valve.

### Filtered 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 3. **DO NOT OVERTIGHTEN!**



## Things to Check Before You Call for Service

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

### Important

If any of the following conditions is found, the water filter should be manually reconditioned according to instructions on [page 18](#) after you have corrected the problem.

### Power Supply

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

### Blown Fuse

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

### Power Failure

Any interruption in your power supply or time change—such as daylight savings—will disrupt your filter's reconditioning schedule by causing the timer to run off schedule. Reset the timer to the proper time of day.

### Bypass Valves

Check to see if they are in the proper position. Cul-Flo-Valv® Bypass, if used, should be in the "Service" position (see [page 19](#)). 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 filter (outside tap) to see if you have any water pressure. If you have water pressure, check the bypass valve. If it is in the Service position, put it into the bypass and call your Culligan dealer for service.

### Increased Usage


Guests, family additions, new water-using appliances, etc., all will result in more water usage and will require more capacity from your filter. You can reprogram your reconditioning schedule by following the directions on [page 17](#). Call your Culligan dealer for advice and save a service call.




## Error Codes

The HE controller display, as well as the Remote Display (if connected), may display the following errors.



PROBLEM FOUND  
APR-01-19 10:01A

1. When the HE Controller identifies an error, it is programmed to attempt to correct the error without user input. If the problem persists, the **HOME SCREEN** displays **PROBLEM FOUND**. Press  to display the first error present.

REPLACE FILTER  
MEDIA

2. Press  to display any additional errors present.

-->CLEAR ERRORS

3. Press  and  to view action: **CLEAR ERRORS, GO TO MENU,** or **EXIT**. If you select **CLEAR ERRORS**, the controller checks the error status and attempts to clear the error. If the error still exists, the home screen displays **PROBLEM FOUND**. If the error no longer exists the screen displays **SYSTEM OK**.

-->GO TO MENU

4. Contact your local Culligan dealer



## Performance Data Sheet

### High Efficiency 10" Sulfur-Clear Water Filter

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 West Higgins Road, Suite 1100, Rosemont, IL 60018 USA  
 (847) 430-2800  
[www.culligan.com](http://www.culligan.com)

**Product:** Culligan High Efficiency 10" Fiberglass and Quadrahull Sulfur-Clear Water Filter

**Testing Conditions & Results:**

Capacity:	1,000 gallons	Pressure:	20–60 psi
pH:	7.0–8.5	Temperature:	33–120°F (1 - 49°C)
Service Flow:	5.0 gpm @ 4.0 psi		

**Operating Conditions:**

Operating Temperature Range:	33–120°F (1 - 49°C)
Water Pressure Range (inc. Canada):	20–60 psi (138–400 kPa)
Electrical Characteristics:	120V/60 Hz, 45 Watts, 175 Watt Cont./245 Watt Max.

**Substance Reduction**

This system has been tested according to NSF/ANSI 42 for the reduction of the substances listed below.

Model	Substance	USEPA SDWA MCL	Percent Reduction	Avg Test Influent Concentration Level	Avg Test Effluent Concentration Level
10" Fiberglass	Hydrogen Sulfide	0.3 mg/L	98.9	8.2 mg/L	0.091 mg/L
	Iron		98.7	10.4 mg/L	0.14 mg/L
10" Quadrahull	Hydrogen Sulfide	0.3 mg/L	98.9	8.2 mg/L	0.091 mg/L
	Iron		98.7	10.4 mg/L	0.14 mg/L

The Culligan High Efficiency Sulfur-Clear™ 10" fiberglass and Quadra Hull filters have been tested and certified by WQA against NSF/ANSI Standard 372, CSA B483.1, and NSF/ANSI Standard 42 for the effective reduction of iron up to 1,000 gallons, and NSF/ANSI Standard 42 for the effective reduction of hydrogen sulfide as verified and substantiated by test data.

The Culligan High Efficiency Sulfur-Clear™ 10" fiberglass and Quadra Hull filters have been certified by IAPMO R&T against NSF/ANSI 372, CSA B483.1, and NSF/ANSI Standard 42 for the effective reduction of iron up to 1,000 gallons and NSF/ANSI Standard 42 for the reduction of hydrogen sulfide as verified and substantiated by test data.

The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system as specified in NSF/ANSI 42.

Testing was performed under laboratory conditions, actual results may vary.

Performance Indicator: If water flow decreases or a noticeable odor returns, the filter should be reconditioned. If conditions do not improve, contact your local Culligan dealer. He can determine if your filter requires servicing.

Regeneration Frequency: Regeneration frequency will vary depending upon water conditions.

Refer to your Installation and Operation Instructions, Parts List and Printed Warranties for more specific product information. To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan Man. Performance may vary based on local water conditions. The substances reduced by this product are not necessarily in your water.





## Important Data on Your Water Filter

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

### Identification

Model Name \_\_\_\_\_ Catalog No. \_\_\_\_\_

Control Model No. \_\_\_\_\_ Control Serial No. \_\_\_\_\_

Date of Installation \_\_\_\_\_ Tank Serial No. \_\_\_\_\_

### Settings

Time of Recharge: \_\_\_\_\_ a.m. / \_\_\_\_\_ p.m.

Regeneration Interval: \_\_\_\_\_ days

Number of people in household: \_\_\_\_\_

Tank Size: \_\_\_\_\_ inches

### Water Analysis

Total Hardness: \_\_\_\_\_ (gpg)

Total Iron: \_\_\_\_\_ (ppm)

pH (acidity): \_\_\_\_\_

Other: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Records and Data



## Culligan Limited Warranty

### Culligan High Efficiency® Automatic Water Filters

You have just purchased one of the finest water filters made. As an expression of our confidence in Culligan International Company products, your water filter 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>	<b>The entire filter</b>
<b>For a period of FIVE YEARS</b>	<b>Soft-Minder® meter, if so equipped Remote display or modem</b>
<b>For a period of TEN YEARS</b>	<b>The High Efficiency® Plus circuit board, The control valve body, excluding internal parts The fiberglass conditioner tank</b>
<b>For the LIFETIME of the original consumer purchaser</b>	<b>The Quadra-Hull® conditioner tank</b>

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

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

Our product performance specifications are furnished with each water filtering 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 West Higgins Road, Suite 1100,  
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## Notes

