Culligan®

*Culligan*
*Gold Series™*
*Automatic*
*Water Conditioner*
*Owners Guide*


## THANK YOU

## AND WELCOME TO YOUR NEW WORLD OF BETTER LIVING WITH CULLIGAN WATER.

The Culligan Gold Series™ Water Softeners are tested and certified by WQA and UL against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) as verified and substantiated by test data.

NSF/ANSI 44
Water Softener
81WN

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

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

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

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

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

# Table of Contents

Performance Data Sheets are included in this manual for various Culligan Gold Series™ Softener models. Refer to the Performance Data Sheet for your specific softener, as there are slight differences between the models. The softener warranty is located on page 32 of this Owner's Guide.

# Specifications

**Culligan Gold Series™ Water Conditioners with Aqua-Sensor® Device or Soft-Minder® Meter**

| | 9" Model | 10" Model | 12" Model | 14" Model |
|---|---|---|---|---|
| Control Valve | 1" 5-cycle Reinforced Thermoplastic | 1" 5-cycle Reinforced Thermoplastic | 1" 5-cycle Reinforced Thermoplastic | 1" 5-cycle Reinforced Thermoplastic |
| Overall Conditioner Height | 54 in | 60 in | 58 in | 71 in |
| Media Tank Design | Quadra-Hull | Quadra-Hull | Quadra-Hull | Quadra-Hull |
| Media Tank Dimensions (Dia x Ht) | 9 x 48 in | 10 x 54 in | 12 x 52 in | 14 x 65 in |
| Salt Storage Tank Dimensions (Dia x Ht) | 16 x 43 in | 18 x 43 in | 18 x 43 in | 24 x 42 in |
| Exchange Media, Type and Quantity | Cullex® Media, 1.0 ft3 | Cullex® Media, 1.5 ft3 | Cullex® Media, 2.0 ft3 | Cullex® Media, 3.0 ft3 |
| Underbedding, Type and Quantity | Cullsan® Underbedding, 12 lb | Cullsan® Underbedding, 15 lb | Cullsan® Underbedding, 16 lb | Cullsan® Underbedding, 25 lb |
| Exchange Capacity | 19,500 gr @ 4.0 lb | 28,900 gr @ 6.0 lb | 32,600 gr @ 7.0 lb | 52,200 gr @ 12.0 lb |
| @ Salt Dosage Per Recharge | 28,600 gr @ 8.0 lb | 38,900 gr @ 12.0 lb | 61,600 gr @ 18.0 lb | 76,500 gr @ 24.0 lb |
| | 33,200 gr @ 12.0 lb | 46,800 gr @ 18.0 lb | 71,700 gr @ 30.0 lb | 92,600 gr @ 36.0 lb |
| Efficiency at rated salt dosage[1,6] | 4,890 gr/lb @ 4 lb salt dosage | 4,800 gr/lb @ 6 lb salt dosage | 4,660 gr/lb @ 7 lb salt dosage | 4,350 gr/lb @ 12 lb salt dosage |
| Freeboard to Media[2] | 14.5 in | 14.5 in | 16 in | 25 in |
| Freeboard to Underbedding[3] | 44.5 in | 47.5 in | 46 in | 59 in |
| Salt Storage Capacity | 250 lb or 375 lb | 375 lb | 375 lb | 600 lb |
| Rated Service Flow @ Pressure Drop | 9.0 gpm @ 13 psi | 9.6 gpm @ 15 psi | 10.0 gpm @ 14 psi | 10.8 gpm @ 15 psi |
| Total Hardness, Maximum | 75 gpg | 99 gpg | 99 gpg | 99 gpg |
| Total Iron, Maximum | 5 ppm | 5 ppm | 5 ppm | 5 ppm |
| Hardness to Iron Ratio, Minimum | 8 gpg to 1 ppm | 8 gpg to 1 ppm | 8 gpg to 1 ppm | 8 gpg to 1 ppm |
| Operating Pressure | 20-125 psi | 20-125 psi | 20-125 psi | 20-125 psi |
| Operating Pressure (Canada) | 20-90 psi | 20-90 psi | 20-90 psi | 20-90 psi |
| Operating Temperature | 33-120°F | 33-120°F | 33-120°F | 33-120°F |
| Electrical Requirements | 24V/60 Hz | 24V/60 Hz | 24V/60 Hz | 24V/60 Hz |
| Electrical Power Consumption, Min/Max | 3 Watts/35 Watts | 3 Watts/35 Watts | 3 Watts/35 Watts | 3 Watts/35 Watts |
| Drain Flow, Maximum[4] | 1.6 gpm | 1.6 gpm | 2.6 gpm | 6.6 gpm |
| Recharge Time, Average[5] | 68 min | 57 min | 52 min | 66 min |
| Recharge Water Consumption, Average[5] | 35 gal | 46 gal | 51 gal | 176 gal |

1 The efficiency rated dosage is only valid at the 4 lb. salt dosage for the 9" model, 6 lb. salt dosage for the 10" model, 7 lb. salt dosage for 12" model and 12 lb. salt dosage for 14" model and is efficiency rated according to NSF/ANSI Standard 44.

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

3 Measured from top of underbedding to top of inlet fitting.

4 Backwash at 120 psi (830 kPa).

5 10 minute backwash, 4 lb. (1.8 kg) 9" model, 6 lb. (2.7 kg) 10" model, 7 lb. 12" model or 12 lb. 14" model salt dosage at 30 psi (204 kPa).

# Introduction

*IT'S ALL SO EASY, SO ECONOMICAL, SO EFFICIENT, SO ENJOYABLE!*

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

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

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

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

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

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

**SAVES WATER-HEATING ENERGY, HELPS WATER-USING APPLIANCES**
Soft water reduces the formation of rock-like hard water scale which encrusts water heaters, hot water pipes, shower heads, and water-using appliances. This scale can cause premature maintenance and failure.

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

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


# Introduction (cont.)

**WATER FOR LAWNS AND HOUSEHOLD PLANTS**
If possible, lawn sprinkling faucets should be supplied with hard water primarily because it is uneconomical to soften so much water.

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

# How Your Water Conditioner Works

*Why Water Gets Hard And How It's Softened*

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

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

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

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

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

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

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

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

Hardness sample kits are available through your local Culligan dealer.


# The Culligan Process

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

A. The exclusive Culligan control valve automatically performs a variety of tasks that are necessary for the proper operation of your water conditioner. These tasks, commonly referred to as cycles or operating positions, are:

SERVICE, REGENERATION, AND BRINE REFILL.

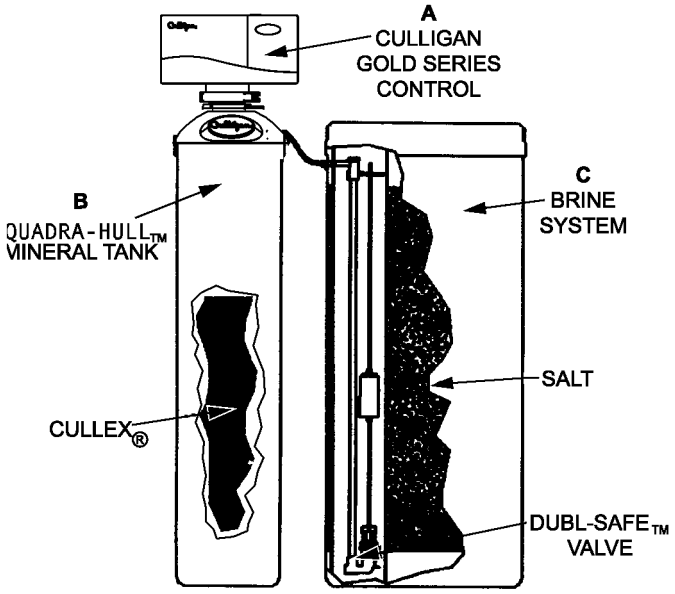
1. SERVICE: While the control valve is in the "Service cycle", hard water is directed down through the column of Cullex® resin where hardness minerals are removed from the water. The softened water is then directed into your household plumbing lines. The ability of the Cullex resin to remove hardness minerals needs to be periodically replenished; this is referred to as . . .
2. REGENERATION: While the control valve is in the "Regeneration cycle", water is first directed up through the column of Cullex resin to flush accumulated sediment out of the resin and down the drain. Then, the regenerant brine solution is slowly drawn from the bottom of the salt storage tank of the Brine System and is directed down through the column of Cullex resin, restoring the ability of the resin to remove hardness minerals from your water supply. Once completed, the regeneration cycle is followed by . . .
3. BRINE REFILL: While the control valve is in the "Brine Refill cycle", a predetermined amount of water is directed to the salt storage tank of the Brine System so that additional salt can be dissolved to provide the brine solution that will be needed for the next regeneration cycle.

B. The exclusive Quadra-Hull™ Mineral Tank contains the Cullex resin column, Cullsan® underbedding, and an outlet manifold. Note: The Mineral Tank of Aqua-Sensor® models also contains a mineral sensor device that determines when the Cullex resin needs regeneration. The number of gallons of hard water that can be softened by the Cullex resin column before it needs regeneration is called the "capacity" of the resin column, and depends upon the amount of hardness minerals in each gallon of water (expressed as grains per gallon) and upon the amount of regenerant brine solution (expressed as pounds of salt) passed through the resin column during regeneration.

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

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

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



# Familiarization

## Modes of Operation

**Water Meter Mode**

In water meter mode, the controller keeps track of the quantity of water that has flowed through the resin bed. Based on the influent water hardness and the hardness capacity of the resin bed, a service life expectancy in the quantity of softened water is calculated and programmed into the control. When the set point is reached, regeneration is triggered. In delay regeneration mode, if the predict mode is turned on, the average daily water usage will be compared to the remaining capacity at the regeneration delay time to predict if another day's water usage can occur before requiring regeneration. If enough capacity is not present then the regeneration will occur at that time. If the predict mode is not selected the regeneration will start at time of regeneration. In immediate mode the regeneration starts when the capacity is exhausted. If time clock backup is set and the capacity has not been exhausted but the days since last regen is greater than time clock backup setting the softener will immediately regenerate.

**Aqua-Sensor Mode**

The Aqua-Sensor is a conductivity probe that senses when a hardness front passes through the resin bed. It functions independently of the influent water hardness so therefore, is useful in conditions when the influent water hardness varies throughout the year. It provides for the most efficient mode of operation. In addition to sensing when a resin bed is exhausted, it can also be used to determine when the brine solution is rinsed from the resin bed during the Brine Draw / Slow Rinse cycle triggering the control to move to fast rinse. This patented feature provides water savings by optimizing the amount of rinse water required to completely rinse out the resin bed.

**Manual Regeneration**

Pressing and holding the regen button for 5 seconds will initiate an immediate regeneration. The beeper is to give one beep at the start of manual regeneration (when the motor starts to turn). In delay mode, pressing and releasing the regen button will light the regen icon for regeneration to occur at the set delay time. Pressing and releasing the regen button again will turn off the regen icon.

**Predict Mode**

The Predict Mode is used in the flow meter mode to determine the optimum regeneration point. Before the regeneration starts, the control will compare the remaining capacity value with the average daily water use. If the average daily water usage is less than the reserve capacity, the controller will wait 24 more hours before regeneration. If the reserve capacity is less than the average daily water usage, the control will initiate regeneration. This works in delay mode only. At any time, if the total capacity value is reached, the control will initiate an immediate regeneration.

**Efficiency Mode**

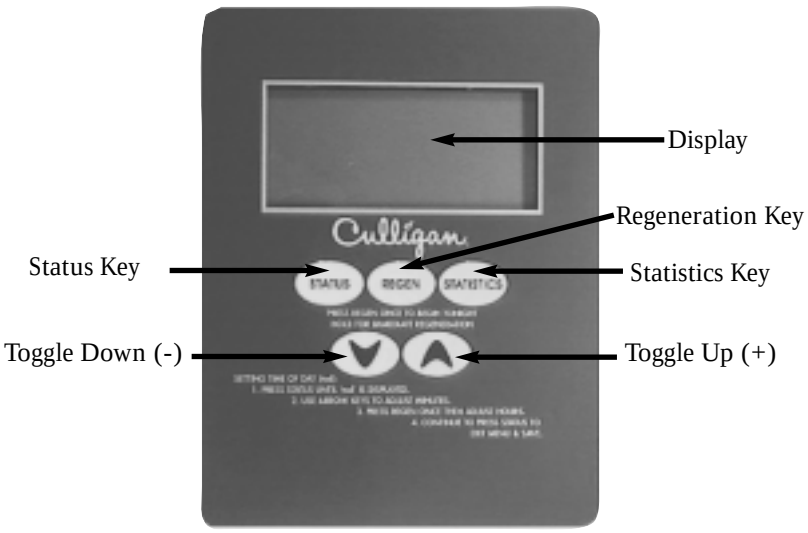
Water softeners historically use an optimum time range to control the Regeneration cycle steps, with a minimum and maximum time required to perform each step dependent on the salt being used, the hardness total and iron level. Culligan typically uses the maximum time range to insure effective Regeneration. However, if the iron content of the water to be softened is zero, and the hardness level is less than 20 gpg, Culligan has developed a new set of regeneration times geared to reducing salt and water usage. These times are defined under a new operating mode coined "Efficiency Mode". Compared to the present time values used, these new regeneration times and salt dosages are considerably less.

## Power Loss

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

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

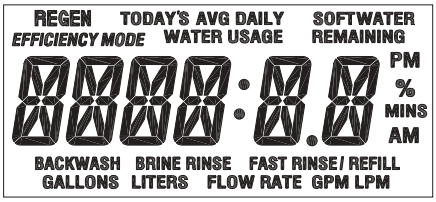
If you live in an area where power outages occur with a regular frequency, a battery backup option is available for ensuring that the time of day is properly maintained. Contact your Culligan Dealer for more information.



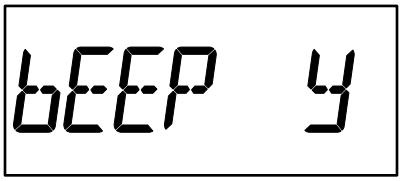

| | |
|---|---|
| Display | Back lit LCD display. |
| Status Key | Depress to enter and move through the programming steps. |
| Regeneration Key | Press and hold the key for five (5) seconds to initiate an immediate regeneration. When pressed during programming the time of day or time of regeneration, this key will allow the user to toggle between the hours and minutes setting of timing program segments. |
| Statistics Key | Each time depressed, the Statistics key will display statistical information such as flow rate or time of day. |
| Toggle Down Key (-) | In the programming mode this key will move the user through the programming function in a descending mode. If depressed for greater than three seconds, the rate at which the display scrolls through data will increase. |
| Toggle Up Key (+) | In the programming mode this key will move the user through the programming function in an ascending mode. If depressed for greater than five seconds, the rate at which the display scrolls through the data will increase. This key will also allow the user to manually step through the cycles of regeneration. |

# Programming

The Culligan® AccuSoft® Plus circuit board controls all of the softener functions. These settings are programmed at the time of installation. The following is a list of all the microprocessor functions, in the event that any of the settings need to be adjusted.

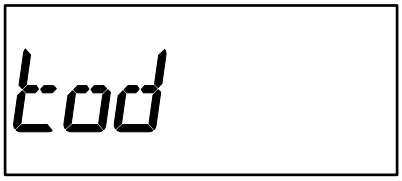



1. **Beeper Setting** - This setting is used to turn the beeper on or off for each key press actuation. The display will show "bEEP X" where X is either "Y" or "N". The "Y" or "N" will be toggled with the "+" and "-" keys. Setting the Beep option to "N" will only disable the beeper for key press actuation. The beeper will still be active for error and alarm codes.




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

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




   After "tod" is displayed, "12:00 PM" will display (or the current set time if already programmed) and the minutes will flash. The minutes are adjusted with the "+" or "-" key until the correct value is displayed.

   Press the "Regen" key to flash the hours. Adjust with the "+" or "-" key until the correct time is displayed.


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

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


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


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

4. R**egeneration Interval** - This setting is active in meter or Aqua-Sensor mode if the time clock backup DIPswitch # 10 is set to on. The display will show "REGEN" icon and "dAYS" as well as the numbers to change. Adjust the value with the "+" or "-" keys.


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

5. Hardness Setting (flow meter only) - This setting is used to set the hardness (grains) of the influent water supply. The display will only appear if a flow meter is connected to the circuit board. The display will first show "Hard" for two seconds and then display the Hardness default (or the previously programmed value). Adjust the value with the "+" or "-" keys.



   (These settings will not get saved to EEPROM until the 'status' key is pressed while at the 'dEFLtS' programming step)

6. **Iron Setting** (flow meter only) - This setting is used to set the iron level (PPM) of the influent water supply. The display will show "Iron" in the left most digits and the iron default setting (or the previously programmed value) in the far right digit. The display will only appear if a flow meter is connected to the circuit board. Adjust the value with the "+" or "-" keys.


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

7. **Salt Type** (flow meter only) - This setting is used to select the regeneration salt type (Sodium Chloride or Potassium Chloride). The display will show "SALt" for 2 seconds. Then display the default 'NACL'. Pushing the "+" or "-" keys will change to 'KCL'.




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

8. **Efficiency Mode** (flow meter only) - Efficiency mode will only be active if the conditions as explained in *Familiarization* section are met (Not available if DIP switch #6 or DIP switch #9 are on). The "EFFICIENCY MODE" Icon will be displayed with a default of "YES". Toggle between "YES" and "NO" with the "+" or "-" key.


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

9. **Tank Sizes** (flow meter only) - This setting is used to determine what size tank the control is connected to. The display will first show "GOLD" for two seconds and then display the tank size default. Adjust the tank size with the "+" or "-" keys.



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

10. **Defaults** (flow meter only) - This setting allows the control to automatically determine what the values shall be for salt dosage, cycle times, batch capacity, and total capacity based on the "temporarily stored" values above. The display will first show "dEFLtS" for two seconds and then display "YES" or "NO", with "YES" being the default. "YES" and "NO" are toggled with the "+" or "-" keys.


**If 'YES' is chosen,** then pressing the "STATUS" key will let the control automatically lookup, calculate, and save the values for salt dosage, cycle times, batch capacity, and total capacity, and proceed to the next item in the programming menu.


**If 'NO' is chosen,** then the programmer will have the ability to set each value as desired for salt dosage, cycle times, batch capacity, and total capacity. (Choosing "NO" will cancel Efficiency Mode if it was active prior to this step)

11. **View** - This setting is used to allow the programmer to view the calculated and looked up values for salt dosage, cycle times, batch capacity, and total capacity. These values may only be viewed and can't be changed at this time. This 'View' programming item is only available in the menu if 'dEFLtS' was set to 'YES'. The display will show "VIEW N". The "Y" or "N" will be toggled with the "+" and "-" keys. The default for this item shall always be "N" and does not get saved in EEPROM. The programmer must always toggle to "Y" in order to view these items.


If "Y" is chosen, then pressing the "STATUS" key will display the value for salt dosage; repeated presses of the status key will display cycle times, batch capacity, and total capacity.

Pressing the "STATUS" key after viewing "Maxcap" will exit the programming menu.

If "N" is chosen, then pressing the "STATUS" key will exit the programming menu.

12. **Salt Dosage** - This setting is used to set the salt dosage. The display will first show "dOSAGE" for two seconds and then display the default (or previously programmed value). Adjust the salt dosage with the "+" or "-" keys.


*Note: This Setting appears during Aqua-Sensor Programming.*

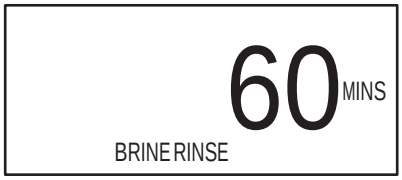
Pressing the "STATUS" key will save the setting and move to the next programming step.

13. **Backwash Time** - This setting is used to program the backwash. The time of the cycle is kept in minutes. The display will show the "BACKWASH" and "MINS" icons and the cycle time in the right most digits. Adjust the value with the "+" or "-" keys.


*Note: This Setting appears during Aqua-Sensor Programming.*

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

14. **Brine Drain/Slow Rinse** - This setting is used to set the time in minutes for brine drain/slow rinse cycle. The display will show the "BRINE RINSE" and "MINS" icons and the cycle time in the right most digits. Adjust the value with the "+" or "-" keys.




*Note: This Setting appears during Aqua-Sensor Programming.*

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

15. **Batch Set Point** - This setting is used to set the trip point for regeneration when in flow meter operation. It will only appear if a flow meter is connected, and 'dEFLtS' set to 'NO'. The programmed setting displays the actual set point to trigger regeneration. The display will show the "REGEN" icon and "BAtch" for two seconds and then display the "REGEN" and "GALLONS" icons and the setting numbers to adjust. Adjust the value with the "+" or "-" keys.



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


16. **Total Capacity Set Point (Max Capacity) -** This setting is used to program a value that corresponds to the maximum capacity that can be expected from a unit before it is completely exhausted. If the unit reaches this set point an immediate regeneration will occur even if the control is set to delay mode. This setting will only appear if a flow meter is connected to the circuit board and the 'dEFLtS' set to 'NO'. Adjust the value with the "+" or "-" keys. The display will show the "REGEN" icon and "MAXCAP" for two seconds and then display the "REGEN" and "GALLONS" icons and the setting numbers to adjust.

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



17. **Additional Features -** The Culligan Gold Series Softener electronics are packed with features that expand the water softening experience. The statistics button allows you to view four separate gages: **Capacity Remaining, Water Used Today, Average Water Usage,** and **Current Flow Rate.** To view each item, press the statistics button, to step to the next item, press the button again. These screens will time-out after 5 seconds if no button is pushed.

### Programming Mode Timeout

If no key activity occurs for a period of 180 seconds (3 minutes) while in programming mode, the mode will time out, exit the programming mode and return to time of day display. Any setting that wasn't saved by pressing the 'status' key prior to the control timing out will revert back to the original value.

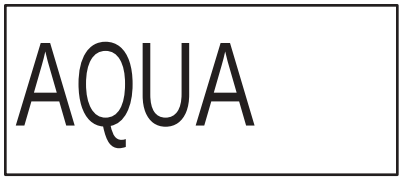
# Statistic Functions

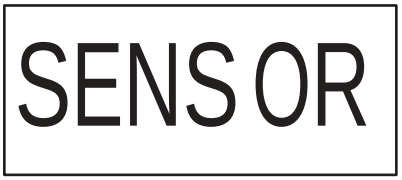
## Statistic Functions

The statistical functions are reached by pressing the "Statistics" key. Repetitive presses of the "Statistics" key will cycle through the standard statistics mode until cycled back to time of day display.

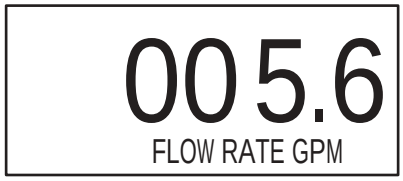
Once either of the statistics menus is entered the information shown for each display is outlined below:

- **Aqua Sensor** - This display will only show when in aqua sensor mode (no meter attached). The display will alternate between 'aqua' and 'sensor' every second until the 'statistics' key is pressed or until the function times out.



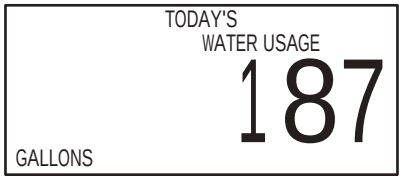

- **Flow Rate** - This display will only show if the flow meter is attached to the control. The display shall show the current flow rate of the water passing through the control. The display will show the "FLOW RATE" and "GPM" icons and the current flow rate passing through the flow meter for as long as the "-" key or "Statistics" key is not pressed.



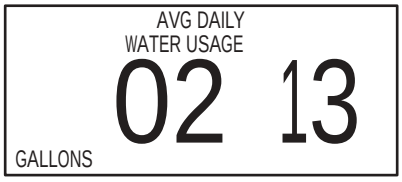

  This display shall never time out, as opposed to the rest of standard statistics (10 minutes).

- **Capacity Remaining (%)(standard statistics)** - This display will only show if the flow meter is attached to the control. The display shows the percent capacity remaining before regeneration will be triggered. The display will show the "SOFTWATER", "REMAINING" and "%" icons. This display shall never time out, as opposed to the rest of standard statistics (10 minutes).


- **Today's Water Usage** - This display will only show if the flow meter is attached to the control. The display will show the accumulated flow of water for the current day. The value is to start totalizing at 12:00 AM and reset to 0 at 11:59:59 PM. The display will show the "TODAY'S", "WATER USAGE" and "GALLONS" icons and the total days flow.




- **Average Daily Water Usage** - This display will only show if the flow meter is attached to the control. The display will show a running 7-day average of daily water usage. The display will show the "AVG DAILY", "WATER USAGE" and "GALLONS" icons and the averaged flow value.




# Salt Supply, Usage and Service

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

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

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

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

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

If purified salt products are used, the salt storage compartment will require less frequent clean-out, but you must check more frequently for “bridging”.

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

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

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

# 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 salt storage tank or timer cover.

**2** Use only mild soap and warm water when cleaning the exterior of the conditioner. Never use harsh, abrasive cleaning compounds or those which contain acid, such as vinegar, bleach and similar products.

**3** **Important: Protect your water conditioner and the entire drainline from freezing temperatures. DANGER: If your unit should freeze, do not attempt to disassemble it. Call your Culligan Dealer.**

**4** **Important: Culligan water softeners are sold for use on potable water, only. If at any time the water becomes contaminated, such as during a "boil water" situation, the operation of the water softener should be discontinued until it is verified that the water is again potable. To do this, push the red knob on the back of the water softener against the barrel of the bypass valve. Then, call your Culligan dealer to have your system sanitized before it is placed back into service.**

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

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

If you have further questions, please call your local independently operated Culligan dealer. He or she will be glad to be of assistance to you. For your nearest Culligan dealer, call (800) 285-5442.

## Recommended Preventative Maintenance Inspection Schedule

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

| Component | Suggested Inspection Frequency | Reason for Maintenance |
|---|---|---|
| Entire System | At Start-up, after infrequent use (idle for one week or more) or every 3 - 6 months 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. |
| Brine eductor nozzle and throat | Every 12 months or every time service is performed on the system. | Build up of sediment, iron and/or other foreign materials (found in some water supplies but not necessarily all) could negatively affect system performance.Monitor item for normal or unexpected wear. |
| Softening Media (Cullex) | Every 2 - 3 years | Chlorinated water supplies can breakdown and destroy softening media. Softening media may also perform poorly if subjected to other materials (sediment, iron, alum, etc.) found in some water supplies (but not necessarily all). |
| Softening Media (Cullex) | As needed | Regular use of Culligan softener media or Culligan Iron-Eater to ensure softening efficiency. |


# To Clean Out the Salt Storage Tank

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

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

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

# Things to Check Before You Call For Service

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

**IMPORTANT**
If any of the following conditions is found, the water conditioner should be manually recharged according to instructions on page 10 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 and then plug in.

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

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

**BYPASS VALVES**
Check to see if they are in the proper position. Cul-Flo-Valv® Bypass, if used, should be in the "Push for Service" position. If hand valves are used, see that inlet and outlet valve are opened and that the bypass valve is closed.

**NO WATER**
If you aren't getting any water flow at all, make sure your water supply is working. Open a tap ahead of the conditioner (outside tap) to see if you have any water pressure. If you have water pressure, check the bypass valve. If it is in the Service position, put it into the bypass and call your Culligan dealer for service.

**INCREASED USAGE**
Guests, family additions, new water-using appliances, etc., all will result in more water usage and will require more capacity from your conditioner. You can reprogram your recharging schedule by following the directions on pages 12 - 16. Call your Culligan dealer for advice and save a service call.

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

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

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

The best way to check and eliminate a salt bridging problem is to take a broom handle or similar instrument and make a mark 34 inches from the end. Then carefully begin to probe down through the salt with the instrument. Should an obstruction be found before the mark on your instrument reaches the rim of the salt storage tank, a salt bridge is likely to have formed. Continue to probe and break the salt bridge completely. *Caution! Do not force the implement past the mark as damage to the horizontal salt plate may occur.*

# Error Codes

The *Accusoft Plus* microprocessor is equipped with an advanced error detection system. During all operating modes the softener's electronics are performing self-diagnostics to ensure that the unit is operating correctly. There may be times, however, when something may occur that could cause the unit to improperly operate. In those instances the microprocessor will identify the exact problem and alert the user with an error code. Shown below is a description of the error codes.

| Display | Error Desc. | Mode of Detection | Clearing Error/Alarm |
|---|---|---|---|
| ERR 1 | Motor Failure to Start | If the valve fails to reach the desired state within 70 seconds of driving the motor. The control will attempt to start the motor 3 times for 70 seconds each time with a 60 second off period between each attempt. | Press and hold 'STATUS' key for 10 seconds. |
| ERR 2 | Motor Failure to Stop | If the control detects changes in the Cam inputs when the motor is not supposed to be turning. | Press and hold 'STATUS' key for 10 seconds. |
| ERR 3 | Incorrect Cycle Position | The control expects to be in a different position than that indicated by the Cam switch closures. | Press and hold 'STATUS' key for 10 seconds. |
| ERR 4 | Dips # 3 & 4 (Control Selection) Do Not Match the Valve Detected | - If dips#3&4 are set for 'Platinum' and 4-cycle valve is detected.<br>- If dips#3&4 are set for 'Gold' or 'Europe' and 5-cycle valve is detected. | Press and hold 'STATUS' key for 10 seconds. |
| ALAR M 1 | Auto Rinse Out Failure (See section 6.12) | If brine rinse time was not cut short by Auto Rinse Out and lasted 99 minutes. Alarm occurs after regen is complete. | Press and hold the 'REGEN' key for 10 seconds while in Service Statistics Mode at the 'Last Slow Rinse Time' display OR the alarm clears automatically if the next brine rinse cycle is successfully cut short by Auto Rinse Out. |

To reset an error, press and hold for 10 seconds the **status** button. The unit will beep and check to see if indeed the error has been fixed. If the error was not fixed, the board will re-display the error code. If the error code does not reset please contact your local Culligan Dealer. For additional troubleshooting or service needs, please contact your local Culligan Dealer.

## When and how to bypass your water conditioner

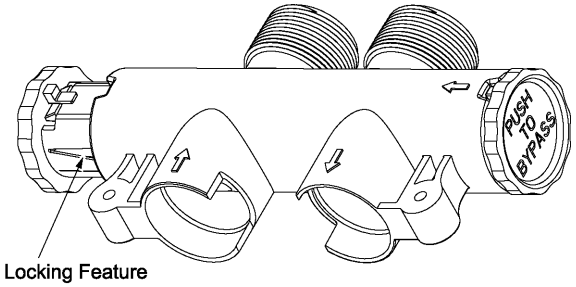
Normally, all water except outside lines passes through the water conditioner. There are times when the water conditioner should be bypassed, using the push-button Cul-Flo-Valv® Bypass, or a 3-way bypass valve. You should bypass:

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

**PUSH-BUTTON BYPASS**

In the back of Culligan water conditioners is a push-button Cul-Flo-Valv Bypass. To bypass unit, simply push the red knob (marked "Push to Bypass") against the bypass valve body. To return to soft water service, reverse the procedure - push the blue knob (marked "Push for Service") against the bypass valve body.

The service knob (blue) has a locking feature, which must be depressed in order to shift.



# Performance Data Sheet

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

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

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

PRODUCT: Culligan Gold Series™ 9" Water Softener with Soft-Minder® Meter

TESTING CONDITIONS & RESULTS:

| | |
|---|---|
| Flow Rate: 9.0 gpm | Capacity: 19,500 grains @ 4.0 lb. salt |
| Pressure: 30 - 40 psi | 28,600 grains @ 8.0 lb. salt |
| Acidity: Non-Corrosive | 33,200 grains @ 12.0 lb. salt |
| Temperature: 68° (20°C) | Efficiency Rated Dosage†: 4,890 gr/lb |
| pH: 7.6 | |

SOFTENER SPECIFICATIONS:
Maximum Flow Rate: 9.0 gpm (34 Lpm)
Pressure Drop at Maximum Flow Rate: 13 psi (90 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)
Maximum Drain Flow Rate: 1.6 gpm (6.1 Lpm)
Working Pressure Range: 20 - 120 psi (140 - 860 kPa)
Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

NSF/ANSI 44
Water Softener
81WN

The Culligan Gold Series 9" Water Softeners are tested and certified by WQA and UL against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) as verified and substantiated by test data.

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

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

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

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

† The efficiency rated dosage is only valid at the 4 lb salt dosage for 9" models.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____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One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

PRODUCT: Culligan Gold Series™ 9" Water Softener with Aqua-Sensor® Sensing Device

TESTING CONDITIONS & RESULTS:

Flow Rate: 9.0 gpm
Pressure: 30 - 40 psi
Acidity: Non-Corrosive
Temperature: 68° (20°C)
pH: 7.6

Capacity: 19,500 grains @ 4.0 lb. salt
28,600 grains @ 8.0 lb. salt
33,200 grains @ 12.0 lb. salt
Efficiency Rated Dosage†: 4,890 gr/lb

SOFTENER SPECIFICATIONS:
Maximum Flow Rate: 9.0 gpm (34 Lpm)
Pressure Drop at Maximum Flow Rate: 13 psi (90 kPa)
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MANUFACTURER: Culligan International Company,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

PRODUCT: Culligan Gold Series™ 10" Water Softener with Soft-Minder® Meter

TESTING CONDITIONS & RESULTS:

| | |
|---|---|
| Flow Rate: 9.6 gpm | Capacity: 28,900 grains @ 6.0 lb. salt |
| Pressure: 30 - 40 psi | 38,900 grains @ 12.0 lb. salt |
| Acidity: Non-Corrosive | 46,800 grains @ 18.0 lb. salt |
| Temperature: 68° (20°C) | Efficiency Rated Dosage†: 4,810 gr/lb |
| pH: 7.6 | |

SOFTENER SPECIFICATIONS:
Maximum Flow Rate: 9.6 gpm (36 Lpm)
Pressure Drop at Maximum Flow Rate: 15 psi (104 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)
Maximum Drain Flow Rate: 1.6 gpm (6.1 Lpm)
Working Pressure Range: 20 - 120 psi (140 - 860 kPa)
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pH: 7.6

Capacity: 28,900 grains @ 6.0 lb. salt
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46,800 grains @ 18.0 lb. salt
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MANUFACTURER: Culligan International Company,
One Culligan Parkway, Northbrook, IL 60062-6209 USA
(847) 205-6000

PRODUCT: Culligan Gold Series™ 12" Water Softener with Soft-Minder® Meter

TESTING CONDITIONS & RESULTS:

| | |
|---|---|
| Flow Rate: 10.0 gpm | Capacity: 32,600 grains @ 7.0 lb. salt |
| Pressure: 30 - 40 psi | 61,600 grains @ 18.0 lb. salt |
| Acidity: Non-Corrosive | 71,700 grains @ 30.0 lb. salt |
| Temperature: 68° (20°C) | Efficiency Rated Dosage†: 4,660 gr/lb |
| pH: 7.6 | |

SOFTENER SPECIFICATIONS:
Maximum Flow Rate: 10.0 gpm (38 Lpm)
Pressure Drop at Maximum Flow Rate: 14 psi (104 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)
Maximum Drain Flow Rate: 2.6 gpm (9.8 Lpm)
Working Pressure Range: 20 - 120 psi (140 - 860 kPa)
Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

NSF/ANSI 44
Water Softener
81WN

The Culligan Gold Series 12" Water Softeners are tested and certified by WQA and UL against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) as verified and substantiated by test data.

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

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

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

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

† The efficiency rated dosage is only valid at the 7 lb salt dosage for 12" models.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____


# Performance Data Sheet

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

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

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

PRODUCT: Culligan Gold Series™ 12" Water Softener with Aqua-Sensor® Sensing Device

TESTING CONDITIONS & RESULTS:

| | |
|---|---|
| Flow Rate: 10.0 gpm | Capacity: 32,600 grains @ 7.0 lb. salt |
| Pressure: 30 - 40 psi | 61,600 grains @ 18.0 lb. salt |
| Acidity: Non-Corrosive | 71,700 grains @ 30.0 lb. salt |
| Temperature: 68° (20°C) | Efficiency Rated Dosage†: 4,660 gr/lb |
| pH: 7.6 | |

SOFTENER SPECIFICATIONS:
Maximum Flow Rate: 10.0 gpm (38 Lpm)
Pressure Drop at Maximum Flow Rate: 14 psi (104 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)
Maximum Drain Flow Rate: 2.6 gpm (9.8 Lpm)
Working Pressure Range: 20 - 120 psi (140 - 860 kPa)
Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

NSF/ANSI 44
Water Softener
81WN

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

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† The efficiency rated dosage is only valid at the 7 lb salt dosage for 12" models.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____

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

PRODUCT: Culligan Gold Series™ 14" Water Softener with Soft-Minder® Meter

TESTING CONDITIONS & RESULTS:

Flow Rate: 10.8 gpm
Pressure: 30 - 40 psi
Acidity: Non-Corrosive
Temperature: 68° (20°C)
pH: 7.6

Capacity: 52,200 grains @ 12.0 lb. salt
76,500 grains @ 24.0 lb. salt
92,600 grains @ 36.0 lb. salt
Efficiency Rated Dosage†: 4,350 gr/lb

SOFTENER SPECIFICATIONS:
Maximum Flow Rate: 10.8 gpm (40 Lpm)
Pressure Drop at Maximum Flow Rate: 15 psi (104 kPa)
Operating Temperature Range: 33 - 120°F (1 - 50°C)
Maximum Drain Flow Rate: 6.6 gpm (1251 Lpm)
Working Pressure Range: 20 - 120 psi (140 - 860 kPa)
Operating Pressure Range (Canada): 20 - 90 psi (140 - 620 kPa)

NSF/ANSI 44
Water Softener
81WN

The Culligan Gold Series 14" Water Softeners are tested and certified by WQA and UL against NSF/ANSI Standard 44 for the effective reduction of hardness (calcium and magnesium) as verified and substantiated by test data.

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

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

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

† The efficiency rated dosage is only valid at the 12 lb salt dosage for 14" models.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____


# Performance Data Sheet

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

PRODUCT: Culligan Gold Series™ 14" Water Softener with Aqua-Sensor® Sensing Device

TESTING CONDITIONS & RESULTS:

| | |
|---|---|
| Flow Rate: 10.8 gpm | Capacity: 52,200 grains @ 12.0 lb. salt |
| Pressure: 30 - 40 psi | 76,500 grains @ 24.0 lb. salt |
| Acidity: Non-Corrosive | 92,600 grains @ 36.0 lb. salt |
| Temperature: 68° (20°C) | Efficiency Rated Dosage†: 4,350 gr/lb |
| pH: 7.6 | |

SOFTENER SPECIFICATIONS:
Maximum Flow Rate: 10.8 gpm (40 Lpm)
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Operating Temperature Range: 33 - 120°F (1 - 50°C)
Maximum Drain Flow Rate: 6.6 gpm (1251 Lpm)
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NOTICE: This softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

† The efficiency rated dosage is only valid at the 12 lb salt dosage for 14" models.

Buyer Signature _____ Date _____

Seller Signature _____ Date _____

# Records and Data

## Important Data on Your Water Conditioner

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

**IDENTIFICATION**

Model Name _____ Catalog No. _____
Control Model No. _____ Control Serial No. _____
Date of Installation _____ Tank Serial No. _____

**SETTINGS**

Salt Setting _____ lbs.
Time of Recharge: _____ a.m. _____ p.m.

Upon Demand
☐ (Aqua-Sensor® Models)

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

Total Capacity _____ gallons (Soft-Minder® Models)

Number of people in household
_____

Tank Size _____ inches

**WATER ANALYSIS**

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

_____

_____


# Culligan Limited Warranty

## CULLIGAN GOLD SERIES™ AUTOMATIC WATER CONDITIONERS

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

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

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

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

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

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

**CULLIGAN INTERNATIONAL COMPANY**
**One Culligan Parkway**
**Northbrook, Illinois 60062**

# With Culligan You Get More Than a Quality Product

## You Get Your Water Expert, The Culligan Man

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

## The Culligan Promise

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

# This page contains materials and DCO information.
# IT DOES NOT PRINT AS PART OF THE DOCUMENT!

**Materials & Description:** **Gold Series Owners Guide PN 01017062**

**Size:** **11” x 17” Booklet, folded down to 8 1/2” x 11”**

**Color:** **Black Ink; 2 Sided**

**Stock:** **20# White**

**Coating:**

**Other:** **Bookletmaker, Saddle Stitch (2 Staples)**

**3 Hole Drill**

| LET | CHANGE | BY | APRVD | DCO | DATE |
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