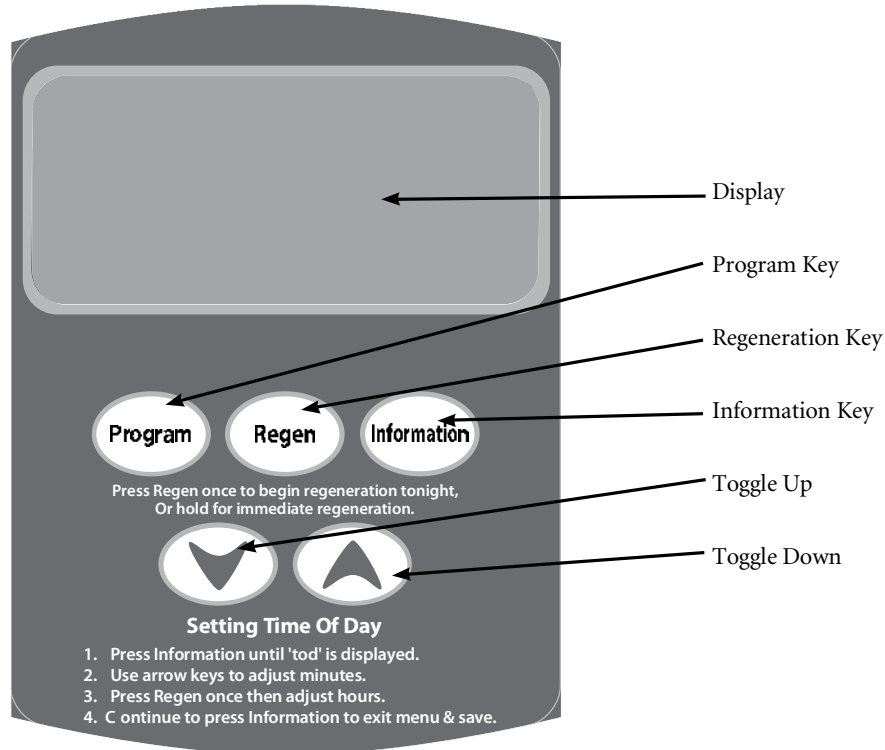## Programming

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.
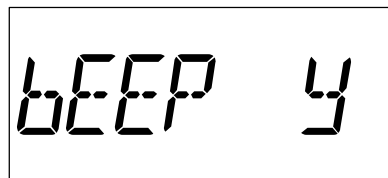
Display

Program Key

Regeneration Key

Information Key

Toggle Up

Toggle Down

Program   **Regen**   **Information**

Press Regen once to begin regeneration tonight,
Or hold for immediate regeneration.

Setting Time Of Day
1. Press Information until 'tod' is displayed.
2. Use arrow keys to adjust minutes.
3. Press Regen once then adjust hours.
4. Continue to press Information to exit menu & save.

Display	Back lit LCD display.
Program Key	Depress to enter and move through the programming steps.
Regeneration Key	Press and hold the key for three (3) seconds to initiate an immediate regeneration.
	When pressed during programming the time of day, this key will allow the user to toggle between the hours and minutes setting of timing program segments.
Information Key	Each time depressed, the Information key will display statistical information such a flow rate, time of day. Use with the Toggle Down key to display other statistical information.
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 three 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.

The Culligan® AccuSoft® Plus circuit board controls all 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.

A further description of each programming setting and the corresponding display is outlined below. For a display that has an icon that is displayed solid for the 2 second time period prior to bringing up the settings, the settings menu can be reached prior to the two second time out by pressing the "Up" or "Down" key.

- **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 "Up" and "Down" 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.
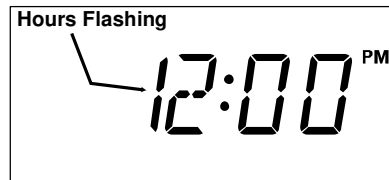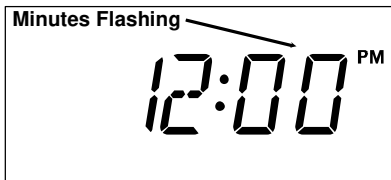
  Pressing the "Program" key will save the setting and move to the next programming step.

  ```
  bEEP  Y
  ```

- **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 "Up" or "Down" key until the correct value is displayed.

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

  ```
  tod
  ```

  Minutes Flashing
  ```
  12:00 PM
  ```
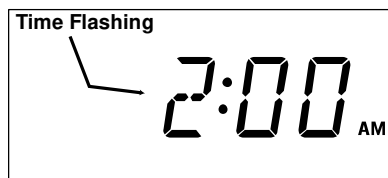
  Hours Flashing
  ```
  12:00 PM
  ```

  Pressing the "Program" key will save setting and move to the next programming step. Pressing "Regen" will move back to the minutes adjust.

- **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 "Up" or "Down" keys.
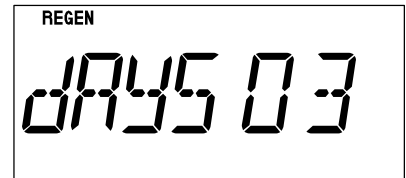
  Pressing the "Program" key will save the setting and move to the next programming step.

  ```
  tor
  ```
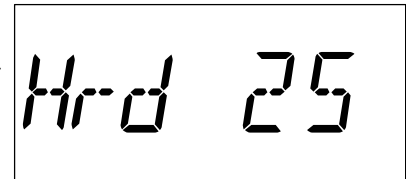
  Time Flashing
  ```
  2:00 AM
  ```

- **Regeneration Interval -** This setting is used to set the days between regeneration in time clock mode. It is also active in meter or Aqua-Sensor® mode if the time clock backup DIP switch # 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 "Up" or "Down" keys.

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

  ```
  REGEN
  dAYS 03
  ```

- **Hardness Setting -** This setting is used to set the hardness (grains) of the influent water supply. For English Units 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 "Up" or "Down" keys.

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

  ```
  Hrd 25
  ```

- **Iron Setting (flow meter only) -** This setting is used to set the iron level 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 and the control is set to Gold. If the iron level is set to "Y", the Efficiency Mode is inactive. Adjust the value with the "Up" or "Down" keys.

  Pressing the "Program" key will temporarily store the setting and move to the next programming step. (This setting will not get saved to EEPROM until the 'Program' key is pressed while at the 'View' programming step)
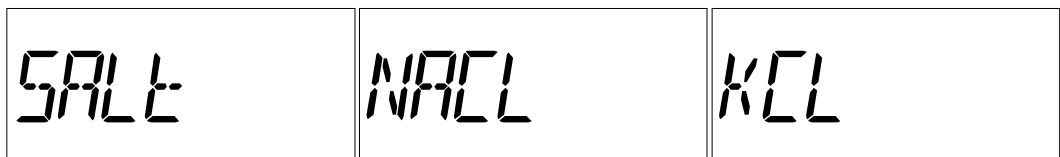
  ```
  IRON   N
  ```

- **Pressure Setting -** This setting is used to set the influent water pressure. The display will show "LowP" in the left most digits and the pressure default setting in the far right digit. If the pressure is less than 40 psi, chose "Y". By choosing "Y" the brine rinse time will be extended. Adjust the value with the "Up" or "Down" keys.

  Pressing the "Program" key will temporarily store the setting and move to the next programming step.
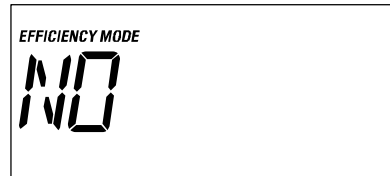
  ```
  LowP   N
  ```

- **Salt Type (flow meter only) -** This setting is used to select the regeneration salt type (softener mode only). This display will only appear if dips# 3 & 4 are set to Gold, Platinum, or Other. The display will show "SALt" for 2 seconds. Then display the default 'NACL'. Pushing the "Up" or "Down" keys will change to 'KCL'.

  ```
  SALt        NACL        KCL
  ```

  Pressing the "Program" key will temporarily store the setting and move to the next programming step. (This setting will not get saved to EEPROM until the 'program' key is pressed while at the 'View' programming step)
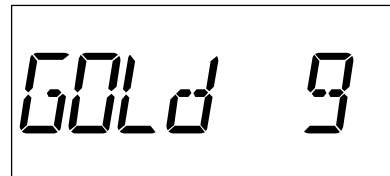
- **Efficiency Mode (flow meter only) -** Efficiency mode will only be active if the conditions as explained earlier are met (Not available if DIP switch #6 or DIP switch #9 are on). The "EFFICIENCY MODE" Icon will be displayed with a default of "YES". Toggle between "YES" and "NO" with the "Up" or "Down" key.
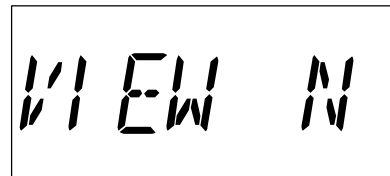
  EFFICIENCY MODE
  NO

  Pressing the "Program" key will temporarily store the setting and move to the next programming step. (This setting will not get saved to EEPROM until the 'program' key is pressed while at the 'View' programming step).

- **Gold Tank Sizes (Meter / AS / TC) -** This setting is used to determine what size tank the control is connected to. It will only appear if DIP Switch 3 is set to Gold. The display will first show "GOLD" with the tank size default (or the previously programmed value). Adjust the tank size with the "Up" or "Down" keys.

  GOLd 9

  Pressing the "Program" key will temporarily store the setting and move to the next programming step. (This setting will not get saved to EEPROM until the 'Program' key is pressed while at the 'View' programming step)

- **View -** This setting is used to allow the programmer to view the calculated values for salt dosage, cycle times, batch capacity, and total capacity. These values may be changed at this time. The display will show "VIEW N". The "Y" or "N" will be toggled with the "Up" and "Down" 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. Pressing the "Information " key at this menu will re-calculate outputs based on saved inputs.

  VIEW N

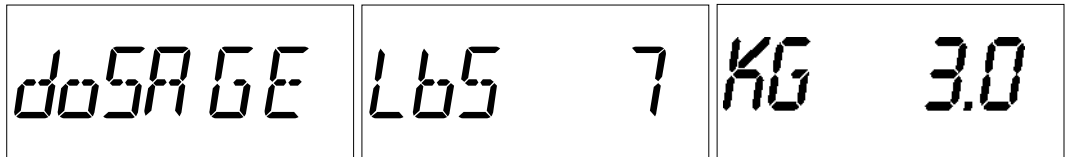| doSAGE	10 MINS BACKWASH	60 MINS BRINE RINSE	10 MINS FAST RINSE/REFILL	REGEN MAxCAP	REGEN bAtch	SAVE N
LbS 7				9999 99 GALLONS	REGEN 000870 GALLONS	

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

  Pressing the "Program" key after viewing "Batch" will exit the programming menu..

  If "VIEW N" is chosen, then pressing the "Program" key will exit the programming menu. If any values were changed from calculated values, then "SAVE" prompt appears. If "SAVE N" is chosen, the calculated values go back in. The user must choose "SAVE Y" to save custom values.
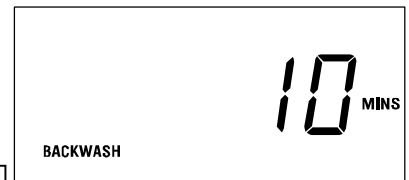
- **Salt Dosage** - This setting is used to set the salt dosage. It will only be accessible to be set if dips # 3 & 4 are set to Gold and 'View' was set to 'Yes'. The display will first show "dOSAGE" for two seconds and then display the default (or previously programmed value). The proper units (lbs or kg) will appear according to dip # 7 setting (English/Metric). Adjust the salt dosage with the "Up" or "Down" keys.

doSAGE	LbS 7	KG 3.0

> **Note:** This setting also appears during Aqua-Sensor® Programming.

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

- **Cycle 1 Time** - This setting is used to program the cycle 1 time that is usually 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 "Up" or "Down" keys.

10 MINS
BACKWASH

> **Note:** This setting also appears during Aqua-Sensor® Programming.

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

- **Cycle 2 Time** - This setting is used to set the time in minutes for cycle 2. This cycle is brine draw / slow rinse for softeners. The display will show the "BRINE RINSE" and "MINS" icons and the cycle time in the right most digits. Adjust the value with the "Up" or "Down" keys.

60 MINS
BRINE RINSE

> **Note:** This setting also appears during Aqua-Sensor® Programming.

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

- **Cycle 3 Time** - This cycle is the Fast Rinse/Refill for softeners. The display will show the "Fast Rinse/Refill" and "Mins" icons and the cycle time in the far right digits.
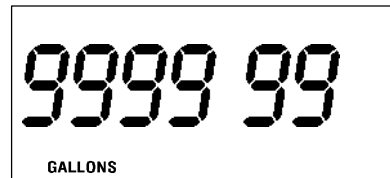
10 MINS
FAST RINSE/ REFILL

> **Note:** This setting This setting CAN NOT be adjusted!
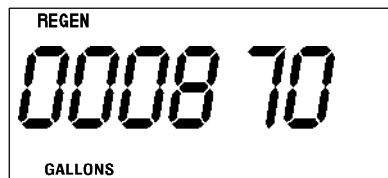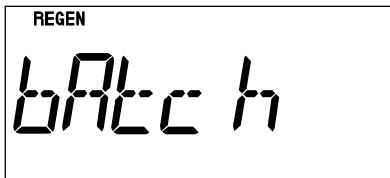
Pressing the "Program" key will move to the next programming step.

- **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. This setting will only appear if a flow meter is connected to the circuit board. Adjust the value with the "Up" or "Down" keys. The display will show the "REGEN" icon and "MAXCAP" for two seconds and then display the "REGEN" and "GALLONS" or "LITERS" (depending on DIP switch # 7 setting) icons and the setting numbers to adjust.

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

- **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. 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" or "LITERS" (depending on dip # 7 setting) icons and the setting numbers to adjust. Adjust the value with the "Up" or "Down" keys.

  Pressing the "Program" key will save the setting and exit the programming menu.

- **Save** - This setting is used to save customized outputs. Selecting "Y" saves customized settings; selecting "N" recalculates outputs based on current inputs (This option does not appear if outputs are unchanged.).

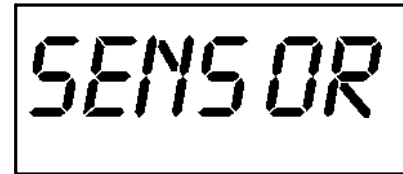 Pressing the "Program" key will move to the next programming step.

Statistic Functions

The statistical functions are reached by pressing the "Information" key. Repetitive presses of the "Statistics" key will cycle through the standard statistics mode until cycled back to time of day display.
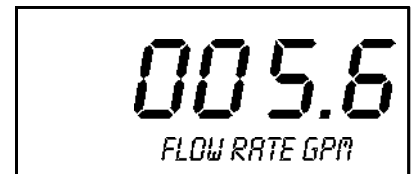
Once either of the Information menus is entered the information shown for each display is outlined below:

- **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 'Information' key is pressed or until the function times out.
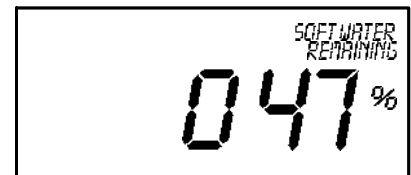
$$AQUA \qquad SENSOR$$

- **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 "Information" key is not pressed.
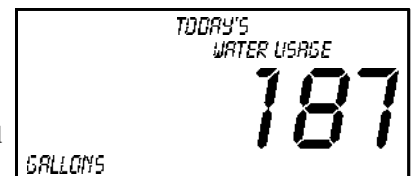
  This display shall never time out, as opposed to the rest of standard statistics (10 minutes).

$$005.6$$
FLOW RATE GPM

- **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).

SOFTWATER REMAINING
$$047\%$$

- **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.

TODAY'S WATER USAGE
$$187$$
GALLONS

- **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.

AVG DAILY WATER USAGE
$$02\ 13$$
GALLONS