



Programming

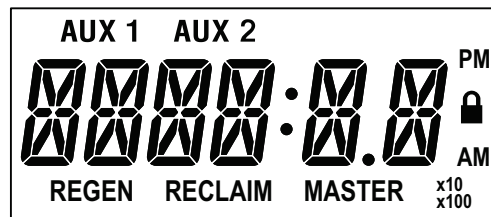
The circuit board controls all of the filter functions. These settings are programmed at the time of installation. The following is a list of all the microprocessor functions, in the event that any of the settings need to be adjusted.

Display Icons

The display is to be backlit and have the icons as shown.

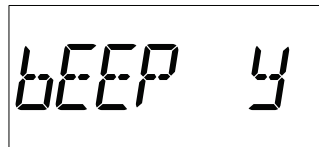
Custom LCD Display

Six standard 12-segment alpha-numeric characters, a decimal separating the first and second character, a colon separating the second and third character positions.



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 "+" or "-" key.

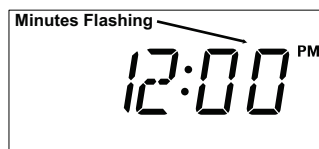
- Beeper Setting** - Beeper Setting – This setting is used to turn the beeper on or off for each key press actuation. The display will show "bEEP X" where X is either "Y" or "N". The "Y" or "N" will be toggled with the "+" and "-" keys. Pressing the "Status" key will move to the next programming step.



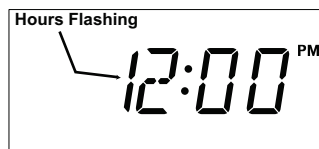
- Time of Day** - This setting is used to program the current time of day. When in this step, the display will first show "tod" for two seconds, then the time.



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



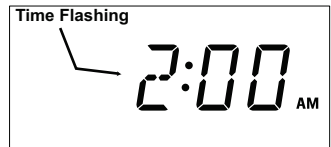


Programming (cont.)

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

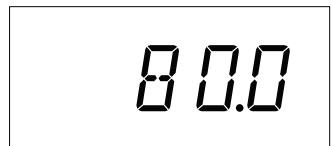
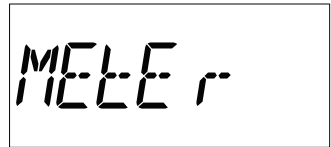
After "tor" is shown the display will then show the default of 2:00 AM (or the current programmed time of regeneration if already set). The time can be adjusted in 30 minute increments by pressing the "+" or "-" keys.

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



- Meter Factor (Use the default of 80 for meter factor. 80 is the proper setting for the standard Culligan 1" meter.)** - This setting is used to determine the number of pulses that are to be counted to represent a set volume of water (IE: gallon or liter). This factor will be used for all flow calculations. It will only appear if a flow meter is connected to the circuit board. The display will first show "meter" for two seconds and then display the meter factor default (or the previously programmed value). Adjust the value with the "+" or "-" keys.

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



- Regeneration Interval** - This setting is used to set the days between regenerations in time clock mode. It is also active in meter mode if the time clock backup DIPswitch # 6 is set to "on". The display will show "REGEN" icon with "dAYS" and the value to set. Adjust the value with the "+" or "-" keys.

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

For single unit time clock mode only (Meter not connected), the following optional "day of week" setting will be available to trigger a regeneration.

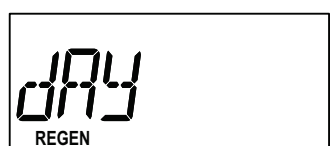
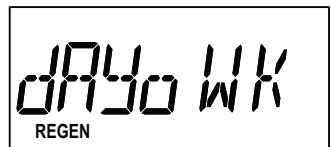
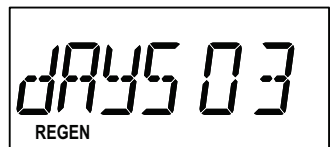
The display will show "dAYoWK" for 2 seconds followed by "NO". The "+" or "-" key will toggle "yes" or "no" (default is NO). A "yes" response will indicate that the control is to perform a regeneration on specific days of the week.

Pressing "STATUS" will save and advance to the next step. If "NO" was chosen, then the control will only initiate regenerations based upon the interval (in number of days) and the display will show "days 03", as shown above.

If "YES" was chosen, then the specific days of the week to regenerate will be selected as follows.

The display will show "dAY" for two seconds followed by "SUN N". The "regen" key toggles the days of the week and the "+" and "-" keys toggle "Y or N".

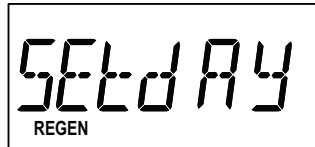
Pressing the "STATUS" key saves and advances to the next step.





Programming (cont.)

If any of the days were set to "yes", the display will show "SETDAY" followed by "SUN". This selects the current day of the week. The "+" or "-" key toggles through the days of the week and pressing the "STATUS" key saves the setting and advances to the next programming step.



If ALL of the days were set to "no", then "days 03" will appear as shown above and the regeneration interval will be set in number of days. Pressing the "STATUS" key saves the setting and advances to the next programming step.



NOTE:

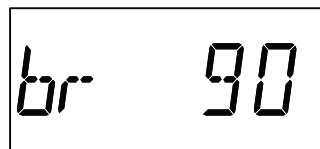
1. If any day of the week is set to "yes", the regeneration interval in number of days ("Days 03") will no longer appear when going through the programming menu at a later time. To go back from specific day of week regeneration to interval in number of days, choose "NO" at "dAYoWK".
2. If a DIPswitch is changed anytime after the control has been programmed to regenerate on any specific day, all settings will revert back to default; specific days to regenerate and current day will have to be reprogrammed.

- **Cycle 1 Time (Backwash)** - 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 "bw" in the left most digits and the cycle time in the right most digits. Adjust the value with the "+" or "-" keys. Use the default value of 10 minutes, or the appropriate time to allow the drain flow to be clear.



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

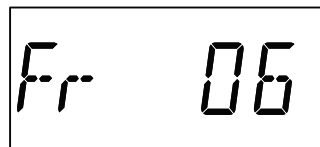
- **Cycle 2 Time (Brine Draw/Slow Rinse)** - This setting is used to set the time in minutes for cycle 2. This cycle is usually brine draw / slow rinse for softeners and a settling time for filters. The display will show "br" in the left most digits and the cycle time in the right most digits. Adjust the value with the "+" or "-" keys.



Adjust this cycle to 90 minutes if educting diluted bleach. Adjust this cycle to 2 minutes if not educting diluted bleach.

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

- **Cycle 3 Time (Fast Rinse/Refill)** - This setting is used to set the time in minutes for cycle 3. This cycle is usually fast rinse for softeners and filters. The display will show "Fr" followed by the cycle time for this step. Adjust the value with the "+" or "-" keys. Adjust the cycle time to 6 minutes.



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



Programming (cont.)

- Filter Media Life** - This setting is available only with flow meter attached. It enables or disables an alert code (*CHANGE MEDIA*) that indicates the end of life for the filter media. The display will show "LIFE" in the left most characters and toggle between "Y" and "N" in the right most character with the "+" and "-" keys. If "NO" is selected, the alarm is disabled and the 'Maximum Capacity' setting will be treated as it normally would by triggering an immediate regen. If "YES" is selected the alert is enabled and will sound when the 'Total Flow/Life of Unit' statistic = 'Maximum Capacity' setpoint, indicating that it is time to change the filter media.

CHANGE
MEDIA

LIFE N

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

- Maximum Capacity Set Point** - 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 with dip#4 is set to delay mode and "IMMED" set in the hidden menu. This setting will only appear if a flow meter is connected to the circuit board. Adjust the value with the "+" or "-" keys. The display will show the "REGEN" icon and "MAXCAP" for two seconds and then display the "REGEN" icon, and the setting numbers to adjust.

MAXCAP
REGEN

9999 99
REGEN

Pressing the "Status" 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 a regeneration when in flow meter operation. It will only appear if a flow meter is connected to the circuit board. The display will show the "REGEN" icon and "bAtch" for two seconds and then display the "REGEN" icon and the setting numbers to adjust. Adjust the value with the "+" or "-" keys.

bAtch
REGEN

0000 70
REGEN

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

- Maintenance Interval** - This setting is active only when dip #2 is on. It used to trigger a notice indicating that a maintenance inspection for the system should occur, after counting down the programmed number of days. The display will show "MAINT" for two seconds, followed by the value to adjust. Adjust the value with the "+" or "-" keys. After the programmed number of days has counted down, the Maintenance Alert shall appear on the display (*MAINT*) every 10 seconds, for 2 seconds at a time, and the beeper shall beep every 30 seconds.

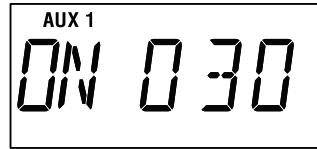
MAINT

365



Programming (cont.)

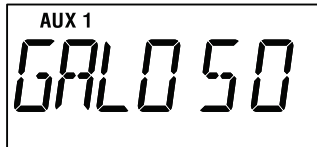
- **Auxiliary Output #1 "ON" Time** - This setting is used to control the "ON" time of the aux1 output which turns on the compressor and vent solenoid. The aux 1 output should act independently, however, it should never be activated during a regeneration. Upon power up or immediately after a regen, the "ON" time should start. The "ON" can also be started manually. The display will show the "AUX 1" icon with "ON" and the value to be set (unit of measure is seconds). Adjust the value with the "+" or "-" keys.



Whenever the output is energized, AUX 1 icon is to light and the led indicator on the front of the circuit board will flash

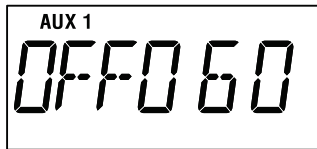
Pressing the "Status" key save the setting and will move to the next programming step.

- **Auxiliary Output #1 Gallons to Signal (Meter Mode only)** - This setting is used to control when the aux1 output (Compressor) "ON" time actually starts. Once the programmed number of gallons has flowed, the output will turn on for the programmed amount of "ON" time. Once the "ON" time expires and the output turns off, the gallon counter will reset. The display will show the "AUX 1" icon with "GAL" and the value to be set (unit of measure is in gallons). Adjust the value with the "+" or "-" keys.



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

- **Auxiliary Output #1 "OFF" Time** - Always available in Time Clock mode; Available in Meter Mode only with dip#3 on. This setting is used to control the interval of time, in minutes, between the compressor "ON" times. In meter mode, this setting will not appear unless dip #3 is on (Compressor Saver feature); should the meter not see any flow, this will act as a backup.



Note! The range is 1 – 9999; if the setting goes over 999, then the second "F" in the display will become a number.

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

- **Auxiliary Output #2 Contact Status / Cycle Number / Cycle Time** - This setting is used to control the aux 2 output. The aux 2 output is not used on the standard Sulfur-Clear™ product, so this menu can be skipped.

