



AUTOMATED SYSTEM
PROGRAMMING GUIDE
AND OTHER SUPPORT DOCUMENTS.

AquaLink All Button



1. REVIEW PUMP PROGRAM AND TEMP SETTINGS

How to review items:

1. Press the MENU button. Use the FORWARD and BACK buttons to move to the REVIEW Menu and press ENTER. The AquaLink RS display will read PROGRAMS <- ->* .
2. Advance through the list of items to review. Choose PROGRAMS if you want to review programming, TEMP SET if you want to review the temperature settings for the pool and spa,

2. CANCEL FILTER PUMP PROGRAM (IF NOT FROM 10AM TO 5PM).

How to cancel a program:

1. Press the CANCEL button. Use the FORWARD and BACK buttons to advance to PROGRAMS <->* and press ENTER. The AquaLink RS display will read SELECT DEVICE TO BE CANCELED.
2. Press the equipment button for which you want a program to be canceled, and press ENTER.
3. *If there is only one program*, press ENTER. The program will be canceled.
4. If there is more than one program, the AquaLink RS display will tell you how many programs there are (for example, if there are three programs, the AquaLink RS display will read 3 PROGRAMS EXIST).
5. The AquaLink RS display will read CANCEL ALL <->* . Use the FORWARD and BACK arrow buttons to toggle between CANCEL ALL, and CANCEL SOME. Press ENTER when the selection you want is displayed.

3. SET PUMP PROGRAM (10AM TO 5PM)AND TEMP SETTINGS (85°+)

How to set automatic on and off times:

1. Press the MENU button. Use the FORWARD and BACK buttons to advance to the PROGRAM Menu and press ENTER. The AquaLink RS display will read SELECT EQUIPMENT TO PROGRAM.
2. Press the button of the equipment you want to program (e.g., FILTER PUMP).
3. You are now in a menu of choices. You may choose ON ALL DAYS, ON WEEKDAYS, ON WEEKENDS, or you may choose a specific day of the week. Use the FORWARD and BACK arrow keys to move to the choice you want, then press ENTER.
4. The display now reads ON HR 1 PM <- ->*. Use the FORWARD and BACK arrow keys to move to the hour that you want the equipment to turn on, and press ENTER when that hour is displayed.
5. Repeat this process to set the ON MINUTE, OFF HOUR, and OFF MINUTE. When you are finished, the AquaLink RS Display will review a summary of your program(s).

4. PUSH SOLAR BUTTON

* A COMMON 10K SENSOR WILL WORK FINE

AquaLink RS One Touch



1. ENABLE SOLAR

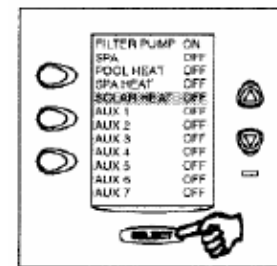
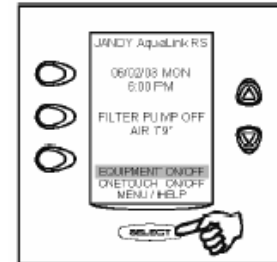
How to use Equipment On/Off:

Highlight EQUIPMENT ON/OFF and press SELECT. To highlight an item, use the UP/DOWN arrow keys. Use the SELECT button to turn the equipment on or off. Return to the main menu by using the BACK button, or use the UP/DOWN arrow keys to highlight another device.

How to use Solar Heat:

Highlight SOLAR HEAT and press SELECT. Use the SELECT button to turn SOLAR HEAT on or off.

If a solar sensor is not installed, EXTRA AUX replaces SOLAR HEAT and may be used to control an auxiliary (see "Auxiliary Equipment" to turn on or off EXTRA AUX).



2. SET POOL TEMP. TO 85° OR HIGHER

How to set pool/spa temperatures:

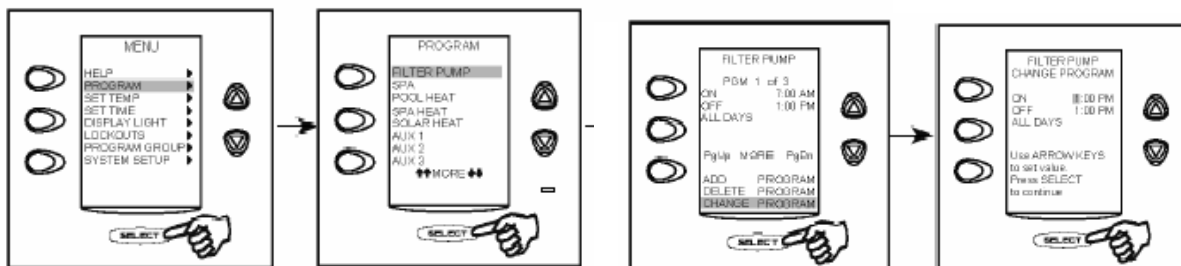
Highlight MENU/HELP and press SELECT, highlight SET TEMP and press SELECT. Inside the SET TEMP menu, use the UP/DOWN arrow keys to highlight either POOL (TEMP1) or SPA (TEMP2) and press SELECT. Use the UP/DOWN arrow keys to increase or decrease the temperature and press SELECT to apply.

3. PROGRAM FILTER PUMP FROM 10AM TO 5PM

How to set automatic on and off times:

Highlight MENU/HELP and press SELECT, highlight PROGRAM and press SELECT. While in the PROGRAM menu, highlight the piece of equipment and press SELECT, highlight ADD PROGRAM and press SELECT, enter the ON/OFF times and the day(s) by using the UP/DOWN arrow buttons to set values and the SELECT button to continue. When the days have been selected, the screen will change to show the piece of equipment selected, number of programs, on/off times, day(s) selected, a prompt to PAGE UP and PAGE DOWN to scroll between programs (if more than one), and the chance to add, delete, or change any of the settings to a program. Use the BACK button to go to the previous screen.

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Compool

Cp3800



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1. SELECT “SOLAR ONLY” AS YOUR HEAT SOURCE FO THE POOL.

Located behind the left door of the Control Panel is the Temperature Control area. Heating choices are selected using the following keys.

Heat Source key

To select heating method, press the Heat Source key through the different heating options.

- **Solar Only** - Heat with solar only.
- **Solar Priority**- Heat with solar when available, otherwise switch to gas heater.
- **Heater** - Heat with gas heater and solar when available.
- **Off** - No heating.



2. SET DISIRED POOL TEMP. TO 85° OR HIGHER.

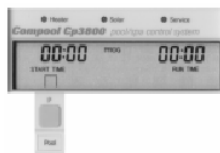
Temperature keys

To adjust the pool or spa temperature settings, press the appropriate Temperature key once. SET TEMP will be displayed. Press the Temperature keys to adjust desired water temperature. After 5 seconds, the display will automatically return to its original condition.

3. PROGRAM FILTER PUMP TO OPERATE FROM 10AM TO 5PM.

To program Pool filtration

1. Press the Program key.
2. Press the Pool key.
3. Press the Hours/Minutes key to set the START TIME.
4. Press the Enter key.
5. Press the Hours/Minutes key to set the RUN TIME.
6. Press the Program key to end.

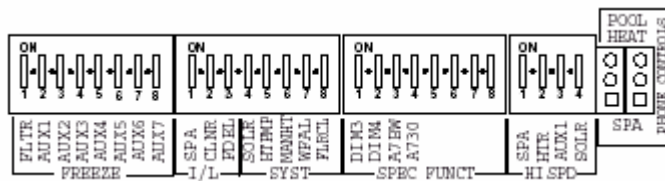


*** CONFIGURATION SWITCHES MUST BE SET AT THE OUTDOOR SERVICE CENTER TO ACTIVATE THE SOLAR FUNCTION.**

1. At the Power Center circuit board, connect sensor wires to the SOL SENS screw terminals. Pay attention to color-coding of wires.
2. Turn on SYST SOLR configuration switch located at the bottom of the Power Center circuit board.
3. Connect solar Valve Actuator cord into AUX VLV socket at the Power Center circuit board.

If a solar booster pump is being used, install relay kit (model RLY-LX) into Power Center. Plug control wire of relay into SOL PMP relay socket.

Configuration Switches



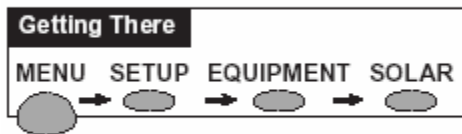
*** A COMPOOL LINEAR SENSOR MUST BE USED (GREEN AND RED WIRES).**

IntelliTouch



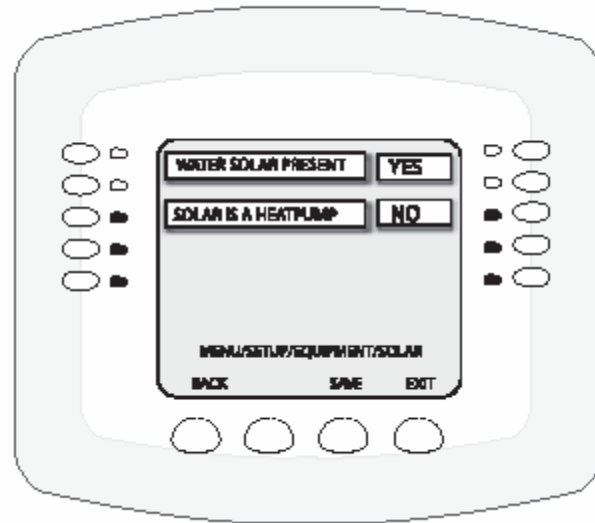
1. ENABLE SOLAR FUNCTION.

To set up the solar equipment

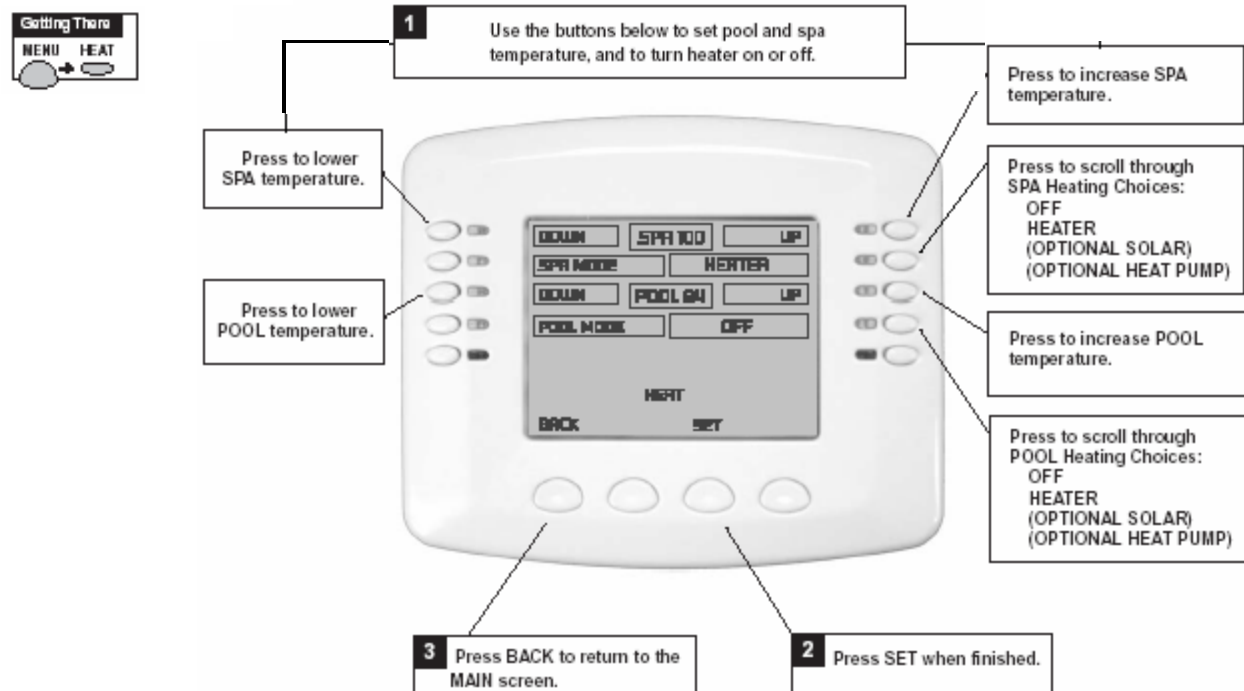


Go to the Solar screen.

1. Press the button next to the **Water Solar Present** label to change it to Yes.
2. If a heat pump is being used instead of a solar heating system, press the second button to change it to Yes.
3. When you are done, press the **Save** button.



2. ACCESS THE “HEAT” MENU TO SET TEMP. AND ACTIVATE SOLAR.



- 3. PROGRAM FILTER TO RUN FROM 10AM TO 5PM
- 4. SET POOL TEMP. TO 85° OR HIGHER.

Programming your Equipment

Getting There

MENU → PROGRAM → POOL (or any other equipment)

Program Indicator-
In this example the pool filtration is being programmed.

Multiple Programs-
After putting in the first program, pressing this button again takes you to a possible second program (2/1). In this example 2/1, the 2 indicates the number of the new program which is about to be created. The 1 indicates the current number of actual programs.

Up to 99 total programs may be entered.

- 1** Set START Time with HOURS and MINUTES buttons.
- 2** Set STOP Time with HOURS and MINUTES buttons.
- 3** If desired, you can set the program to operate on selected days. To do this, press the DAY key, and all the days of the week appear.
- 4** Press SAVE when finished.
- 5** Press BACK to choose another piece of equipment to program.

* YOU MAY HAVE TO CONFIGURE A VALVE ACTUATOR FOR SOLAR.

Configuring Valve Actuators to be controlled by AUX or FEATURE Circuit



About Configuring Auxiliary Valve Actuators.

The IntelliTouch system can drive two auxiliary valve actuators for applications such as solar heating and water features. With the addition of the Valve Module circuit board (P/N 520285), installed in the load center, the system will accommodate up to three additional actuators.

It is always best to first assign names to the AUX or FEATURE circuits before configuring the valve actuators. That way, when you arrive at step 2 of this process, you can easily find the control circuit you wish to match up to each particular valve actuator.

Auxiliary valve actuators can be controlled by any AUX circuit or FEATURE circuit. Please note that the i5 models do not include FEATURE circuits and must thus use the AUX circuits for controlling valve actuators.

By using FEATURE circuits to control valve actuators, you can conserve your AUX circuits for high voltage relays for controlling pumps and lights.

1 Select the button beside the valve actuator you wish to configure.

2 Keep pressing the button until you find the circuit name which you would like to use to control that particular valve actuator. As you scroll through the possibilities, you will find all the circuits which you have assigned names to, whether they are AUX circuits, or FEATURE circuits.

3 Press SAVE when finished.

VALVE A: Resides on personality board. Used for solar heating or auxiliary valve actuator control. If solar heating has been set up and is NOT configured as a heat pump, Valve A is automatically configured as solar valve actuator.

VALVE B: Resides on personality board. Can be configured to be controlled by any circuit.

VALVES C, D, E: Reside on optional Valve Module board, which plugs into personality board. Can be configured to be controlled by any circuit.

VALVE A	USED BY SOLAR
VALVE B	FOUNTAIN
VALVE C	(UNUSED)
VALVE D	(UNUSED)
VALVE E	(UNUSED)
MENU/SETUP/ADV/VALVES/PC #1	
BACK	SAVE EXIT

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1. USE THE CONFIGURATION MENU TO ASSIGN SOLAR FUNCTION TO VALVE 3

Configuration Menu

The Aqua Logic MUST BE CONFIGURED before attempting to operate. Configuration information is entered at the keypad and “tells” the Aqua Logic what equipment is connected and how each should be controlled.

Accessing the Configuration Menu

Configuring the Aqua Logic requires that you navigate through the Configuration Menu and input various information.

To access the Configuration Menu

Configuration Menu-Locked	Press repeatedly until “Configuration Menu” is displayed Press BOTH buttons SIMULTANEOUSLY for 5 seconds to unlock
Configuration Menu-Unlocked	Move to configuration menu items
Valve3 Config. + to view/change	Push to access Valve3 options Move to previous/next configuration menu item
Valve3 Name Waterfall	Rotates between all available names Move to next menu item
Valve3 Function Solar	Rotates between Timeclock, Manual On/Off, Solar (default), Countdown and In-Floor Cleaner Move to next menu item

Valve3 Name

The Aqua Logic allows you to assign any one of a number of names (eg “Cleaner Valve, Waterfall valve, Solar Valve, etc) to each of the valve output control function. This will make the Aqua Logic much more user friendly to the homeowner when they want to turn various valves on or off or program the timeclocks. A sheet of small name labels is included with the Aqua Logic main unit and each remote display/keypad so that the “Valve3” (and “Valve4”) pushbutton can be labeled the same as the name that you have assigned.

Solar Config. + to view/change	Push to access solar options Move to previous/next configuration menu
Solar Disabled	Toggle between Enabled and Disabled (default) Solar Move to next menu item
<i>if “Solar” is enabled</i> Solar-Extend Disabled	Toggle between Enabled and Disabled (default) Solar Extend Move to next menu item
<i>if “Solar” is enabled</i> Solar Priority Disabled	Toggle between Enabled and Disabled (default) Solar Extend Move to next menu item

Solar

If the solar control logic is “Enabled”, several additional steps must be taken to ensure proper operation of the solar system. If the solar is operated by a valve, then either the Valve3 or Valve4 output must be setup for solar logic (page 19). If the solar is operated by a pump, then either the AUX1 or AUX2 relay must be set up for solar logic (page 18). Also, the “solar” temperature sensor must be installed. This sensor is typically mounted near the collector array and is used to sense whether sufficient solar heat is available.

If solar is “Enabled”, the valve or solar pump relay will turn on when the water temperature is less than the desired temperature setting AND the solar sensor is hotter than the water. The desired temperature is in the “Settings Menu”. If applicable, the homeowner will be prompted to enter separate pool and spa desired temperature settings. Depending on the position of the pool/spa suction valve, the proper temperature setting will be used.

Solar Extend

If “Enabled”, the filter extend logic keeps the filter pump running beyond the normal turn-off time if solar heat is still available. When solar heat is no longer available, both the solar valve/pump and filter pump will turn off simultaneously. Solar extend will NOT cause the filter pump to turn on, it will only delay the turn off time when solar is operating.






Solar Priority

If both “Solar Control” and “Heater Control” are enabled, the Solar Priority feature will keep the conventional heater off whenever solar heat is available. This provides the most cost effective way of heating the pool. When solar heat is not available, the conventional heater will operate normally.

2. SET FILTER PUMP TO RUN FROM 10AM TO 5PM.

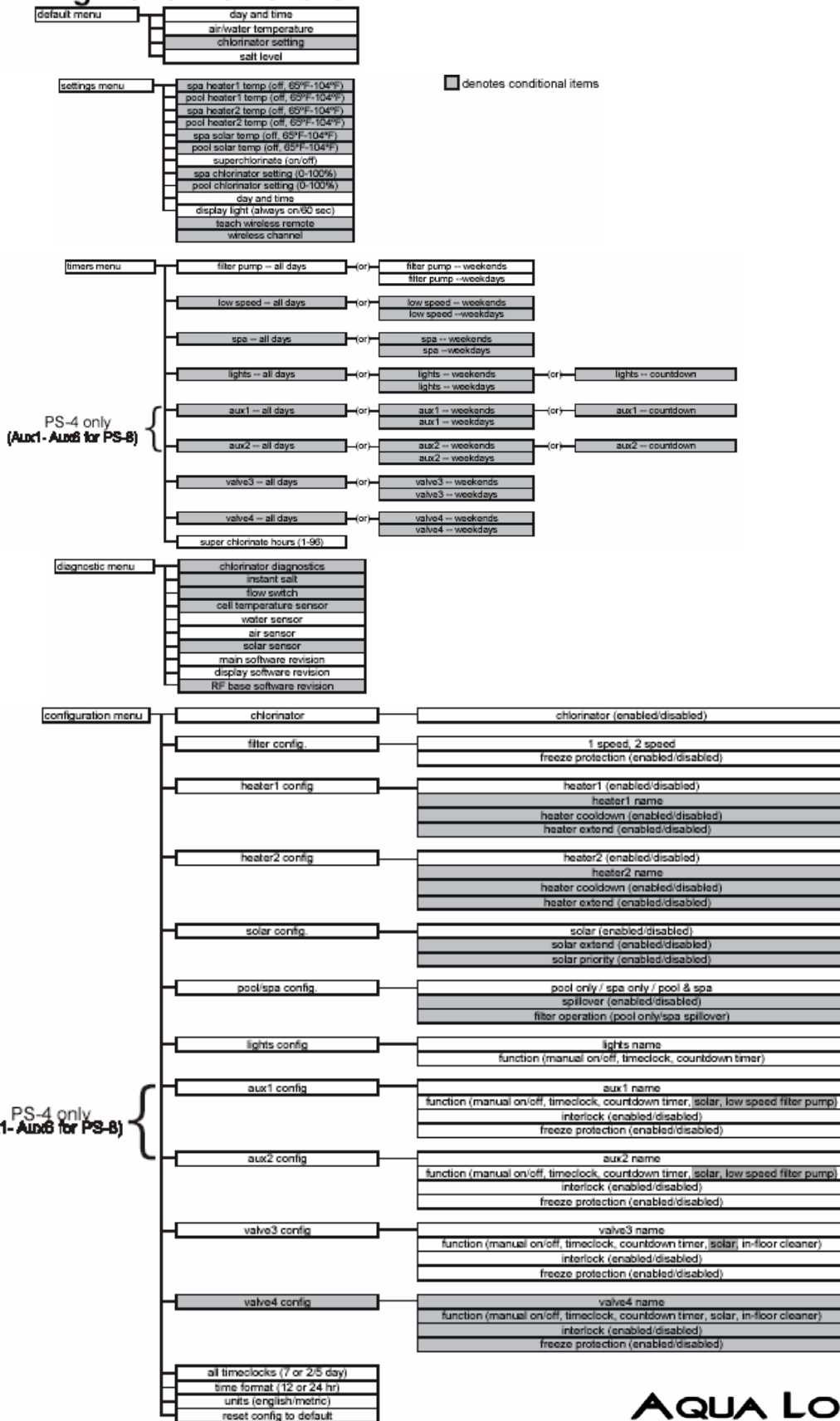
3. SET SOLAR TEMP TO 85° OR HIGHER.

There are 4 steps to programming any function:

1.  Press the “MENU” button to get to the desired menu. Multiple pushes of the button will rotate through all 5 menus and return to the starting point.
2.  Press either key to scroll through the various items in the selected menu. Multiple pushes of the button will rotate through all menu items and return to the starting point. Only menu items that are applicable to your pool will appear. (Example: if you don't have a spa, then no spa related menu items will appear).
3.  Once a menu item has been selected above, the current setting/selection will appear (flashing) on the display. Use the “+” and/or “-” keys to change this selection. Sometimes “+” and “-” will adjust a value up or down (example: heater temperature setting or timeclock on/off time) or, in other cases the “+” and “-” may toggle between 2 options (example: turning superchlorination ON or OFF).
4.   After you have adjusted the item to the desired value, simply move on to the next menu item to “lock in” your new setting. The Aqua Logic memory will maintain the setting, even if power is removed for an extended period.

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Programming Menu Flowchart



PolarisSol1000



USE THE REMOTE CONTROL TO...

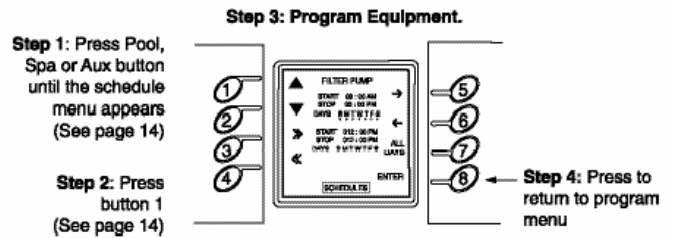
1. PROGRAM THE FILTER PUMP FROM 10AM TO 5PM.
2. SET POOL TEMP. TO 85° OR HIGHER.
3. ENABLE SOLAR.

POOL BUTTON

The pool button activates the menu for the pool functions. The functions include the pool temperature, pump, heater, lights, mode activation, cleaner and solar. Once the pool menu has been entered, press the buttons corresponding to the applicable functions to switch the function on and off. Refer to the scheduling instructions on page 126 for programming details. The pool temperature can be adjusted from 68 through 104-degrees.

Example: To set the pool filter pump to run from 9:00am to 3:00pm for a 6-hour daily filter cycle:

1. Press and hold the Pool, Spa, or Aux button to access the program menu.
2. Press button 1 of the program menu to select the schedule option.
3. The filter pump schedule will appear first. Press button 1 until the start time hour changes from 12 to 9. Verify that AM is selected.
4. Press button 5 twice to advance the cursor past the minutes to the STOP time hour.
5. Press button 1 until the hour changes to 3 and PM is selected.
6. Press button 7 to select the entire week. Flags will appear under each day of the week. The flags indicate which days of the week the schedule will activate. If no flags are indicated, the schedule will not activate that day.
7. Press button 5 or 6 to scroll through the week days and press button 1 to deselect the desired day. Press button 1 again to reselect the highlighted selection.
8. Press buttons 3 or 4 to scroll through the available equipment schedules and repeat steps 1-7 for desired equipment.
9. When finished, press button 8 to return to the program menu.



*** A COMMON 10K SENSOR WILL WORK FINE**

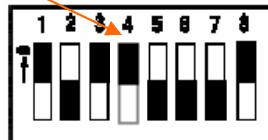
* THE OUTDOOR SERVICE CENTER HAS A DIP SWITCH THAT MUST BE TURNED ON BEFORE THE SOLAR CAN BE ACTIVATED.

1. Run the valve actuator wires back to the low voltage compartment of the command center, through the low voltage raceway, and plug the solar valve actuator into the socket labeled AUX VALVE 7.
2. Turn Dip Switch 4 in Bank 1 to the ON position.
3. If there is a booster pump on the Solar system, the booster pump should be wired to Auxiliary 3 and Dip Switch 5 in Bank 1 should be turned on.

DIP Switch 4: (ON = Solar, OFF = No Solar)

If there is solar heat on the pool/spa, turn this switch ON. <SOLAR> will appear as a choice from the Pool menu.

DIP Switch 5: (ON = Solar with Booster Pump, OFF = Solar without Booster Pump)



The ON position is shown with the black area facing upward.

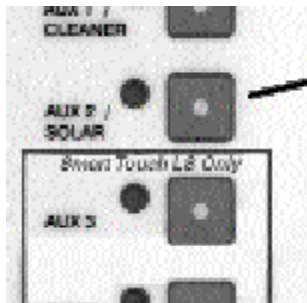
Smart Touch



Aux 2 / Solar

The Aux 2 circuit can be used as a standard auxiliary or as a Solar heating pump or Solar valve actuator. If your installer has the #2 Dip switch turned to the Solar position the logic circuits and lockouts will be turned on. You must have Innovative Pool Products 4 wire Digital Solar Temperature Sensor to operate the solar collectors automatically. Do Not Use a 2 wire thermistor type sensor or damage to the system will result. To Enable the Solar Heater turn on the Aux 2 /Solar function, it's LED will flash until conditions are met for Solar Heating to begin. These conditions are. Filter Pump must be running and the Smart Touch must be reading the Water Temperature. The Water Temperature of either the Pool or Spa must be lower than the Pool or Spa Temperature Set Point. The Solar Temperature Sensor must sense that there is sufficient heat available to activate the Solar Heater (at least 4 degrees higher than the water temperature).

Solar Heater Lockout- If the Solar system is enabled it will require that the filter pump run for five minutes to assure that the filter pump has properly primed. During this period the Solar LED will flash.

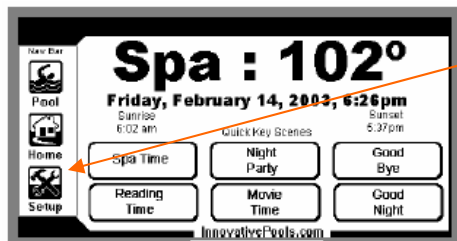


Aux 2 / Solar Switch

Controls Aux 2 or the Solar Heater. Factory setting is for a standard Aux. If DIP switch #2 is changed the solar logic is enabled. Solar Heater will not operate if in the Spa Mode. LED is flashed when Solar Heater is ON.

Temperature Up and Down

Adjusts temp. Pressing up or down arrow will display the current set point of either the pool or spa (depending on what mode your in). Holding the switch will adjust the set point up or down.

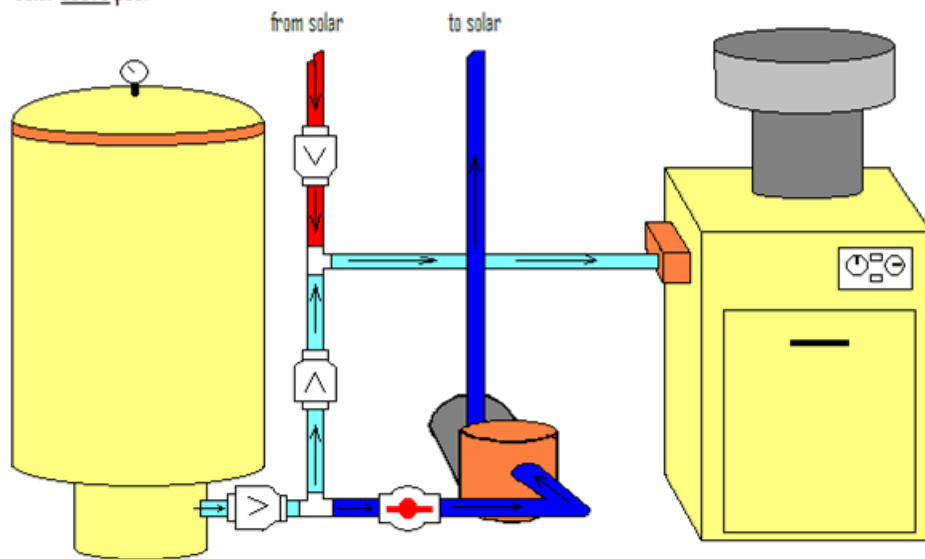


Press Setup from the Nav Bar and you will go to the Setup Menu where all of the programming takes place.



BOOSTER PUMP PLUMBING

solar above pool



Parts needed:

2'x12' CPVC nipple

8ft. "Whip kit" (8ft. of 1/2" flex conduit, 8ft. of 12awg. various color wires and seal tite connectors)

Plasto Joint Stick

Compool and/or Aqualink relay

2" gate valve

3 - check valves

2 - tees

BOOSTER PUMP PLUMBING

(solar below pool)

