ACC Spa Packs - <u>OPERATING INSTRUCTIONS</u>

Top Side Control Panel

Aspen Spas may come equipped with 1 of 3 different Top Side Control Panels. Although they all look different, they function and control your spa exactly the same. Below are the 3 Control options:

XL 3020   KP 2020   KP 1000

<u>Smartouch Digital Spa Pack - User Manual</u>
Your Aspen Spa will be equipped with either a Smartouch 1000 or Smartouch 2000. Both Spa Packs operate your spa the same and are programmed the same, with the 2000 able to handle more feature and options. Below you will find how to operate your controls, set programming and general error codes. For more detail, visit ACC on the web www.acc-spas.com.

IN A HURRY – READ THIS
SmarTouch Digital comes to you with universal set of default settings. If you choose to keep these settings, then you only need to remember 2 things: how to set the spa temperature and to press the SET key whenever you are done using the spa.

SETTING THE TEMPERATURE

Press and hold for 2 seconds the UP (TEMP) arrow key.
Controller will display current spa temperature. Use the UP or DOWN arrow keys to select desired temperature.
**To enter the new temperature press the SET key.
The controller will lock-in the new temperature, but display current spa temp.

IMPORTANT: Always turn down the heat <u>before</u> you drain your spa.

Note: Once you select the TEMP or TIME and the SET key is not pressed within 30 seconds, the controller reverts to the previous setting and the change will not take effect.

The SET Key
After using the spa, press the SET key to tell the micro controller you are done using the spa. It will then take over the spa's management and start up the "Clean Up" cycle on your spa.

SETTING TIME-OF-DAY
Press and hold for 2 sec. the DOWN (Time) arrow key.
Controller will display 12:00 noon. Use the arrow keys to set the correct time of day.
After every selection "Hours" and "Minutes" press the SET key.

USER TIMER (Jet Buttons)
Each spa has a built-in timer. A 20 minutes elapsed-time clock switches off any active function. That function can be re-started immediately for continued use.

SPA SIDE CONTROL FUNCTIONS

JETS 1   The primary pump is dual speed. Press once to activate the low jets. Press again for high jets. A third depression turns the jets OFF, if the heater is off.
JETS 2   The secondary pump can be either a dual speed or single speed pump. For a dual speed pump, functions are the same as above. For a single speed pump, press once to activate the high jets. Press again to turn the jets off.
AUX   Your spa may contain a third pump OR air blower system. Press once to activate the high jets or blower. Press again to turn off.
LIGHT   Your spa is equipped with a light system. Press the light button once to turn lights on. Press again to turn light off. If you turn the lights off and immediately turn back on, your lights will change to the next light program. Repeating will continue to take you through the different options. By turning the lights off and waiting 15 seconds before reactivating, you will return to the previous light sequence.

*Note – For In-Spa viewing of the temperature display: Press the Set & Up Arrow keys together at the same time.

SELF-DAIGNOSTIC CODES   Error code explanation

COLD   Water temperature below 40 F.
OH   Water Temperature above 108 F.
SESH   Temperature sensor shorted.
SEOP   Temperature sensor open or disconnected.
HLer   Overheat condition or overheat sensor is disconnected.
PSOL   Pressure-switch open with low speed jets ON.

PSOH   Pressure-switch open with high speed jets ON.
PSOC   Pressure-switch open with circulating pump ON.

PSOL or PSOH error codes = NO OR LOW WATER PRESSURE

- A pressure switch protects the heater element when the water level drops below the recommended level or there isn't enough water flow across the heater.
- In a new installation, or when the spa is drained and refilled, a small volume of air can get trapped in the plumbing and in the heater-housing, lowering the pressure, disabling the pressure-switch, consequently shutting down the heater.
- Dirty and clogged filters can also restrict the water flow through the heater, disabling the pressure-switch as well.

PROGRAMMING

SmarTouch Digital comes with factory settings. Programming the SmartTouch controller is optional. The following options are necessary only if you have certain requirements or you need to increase the filtration and heating cycles.

Parameter Programming is a means by which the spa owner / user can change the various timing elements and calibrate temperature. The process is simple and intuitive. Only 3 keys are used: UP, DOWN, and SET. To program one or more parameters follow this outlined procedure:

1. Press SET and DOWN keys together. The first message in the menu, FP1 will be displayed.
2. Use the UP & DOWN keys to scroll thru the messages in the menu.
3. Press the SET key to display the current value associated with the current message.
4. Use the UP or DOWN keys to increase or decrease the value.
5. Press SET to lock in the new value and return to the menu.
6. If another item needs programming, go to number 2 above.
7. To Save changes, scroll to message SEND and press SET.
8. To discard changes and restore previous values, scroll to message CANC and press SET.

The menu of the parameters is circular. Scrolling is from first to last or from last to first.

When in programming mode, please note that this mode will be cancelled if there is no key activity for a period of 60 consecutive seconds. Programming mode is aborted and all changes will be restored to previous values.

Below is an example of how to program a filtration period. When in programming mode, you may program as many parameters as needed.

SETTING FILTRATION PERIODS –   FP1, FP2, FP3, FP4

BEFORE YOU START THIS PROCEDURE, PLEASE MAKE SURE YOU SET THE CORRECT TIME-OF-DAY.

Note the a.m. LED light.

1. Press SET & DOWN arrow keys together <u>at the same time</u>.
2. Code "FP1" is displayed. (Filter Period #1)
3. Press the SET key.
4. Enter the desired start time to begin the First Filtration Period FD1. Enter the hour and press SET. Enter the minutes then press SET.
5. Press the UP arrow and go to code "FP1d" (Filter Period #1 Duration)
6. Press the SET key. Enter the number of hours or the duration of the First Filtration Period in minutes. Maximum is 4 hours (240 minutes), then press SET.
7. Repeat above procedure for FP2, FP3, and FP4.
8. Press the UP arrow (ignore the rest of the codes) and go to code **SEND**.
9. Press SET to save new values and exit.

Note: If power to the spa is turned off or interrupted, programming is not affected BUT the Time-Of-Day must be Re-Entered.

PARAMETER MENU LIST

Press momentarily the SET and DOWN ARROW keys <u>at the same time</u> to access the following options.

FILTERING

      FP1, FP2, FP3, FP4   Start time of Filtration Periods 1, 2, 3, 4.

      FP1d, FP2d, FP3d, FP4d   Duration in minutes of filtration cycles.

Note: Keep the value of any time to 0 to keep it from running. Filtration timers must be programmed first one first. If the FP1d (first) timer has a duration of 0, Auto Filtration will be in effect and all 4 programmed timers will be disabled.

SIL   **Silence Period**
        This is a period which nothing will run. It overrides all filtrations, the economy cycle, and temperature sampling, except if the temperature drops below 40 degrees.

SIL   Start time of the silence period.

SILd   Duration in hours the Silence Timer Runs. Only a user may override the silence timer.

CLDN   **Cool Down Cycle**
Cool down cycle in seconds. Whenever the heater is turned off, the pump keeps running the extra seconds to even the temperature of the heater element and the surrounding water to prevent scale build up and premature heater failure.

CLDN   Minimum 30 sec.   Default 60 sec.   Maximum 180 sec.

ECL   **Economy Cycle Length**
Economy cycle length is the time in minutes to specify the intervals between spa temperature sampling when the spa is not in use. During this period the spa is in economy mode. Temperature is sampled at the end of the period. Press any key to cancel this mode. Note: In severe cold weather conditions, set ECL to 60 minutes.

ECL   Minimum 60 min.   Default 180 min.   Maximum   240 min.

CHCL   **Channel Clear**
Channel Clear is the time in seconds to clear the air channel and/or the secondary pump(s) plumbing if the spa has not been used for a period of 24 hours. This prevents water stagnation in the plumbing.

CHCL   Minimum 0 sec.   Default 60 sec.   Maximum 180 sec.

UTO   **User Time Out**
User time out is the time in minutes from starting any device, after which all devices will be turned off, and the spa put in "not in use mode".
If you should leave the spa with a pump or light running, it will be turned off after the specified time.

UTO   Minimum 10 min.   Default 20 min.   Maximum 60 min.

PUF   **POST USE FILTRATION**
Post Use Filtration is the time in minutes the spa will filter your water after you exit the spa. When you have finished using the spa, which is when it needs filtration the most. Press the SET key to turn off all functions and start filtering. This cycle is performed only once and after pressing the SET key. This is in addition to the standard filtration cycles. Pressing any other device key will cancel this function.

PUF   Minimum 60 min.   Default 120 min.   Maximum 180 min.

CALB   CALIBRATE THE TEMPERATURE READING
             This is not a time element. It is one of the distinctive features of the
             Smartouch Control System. The number is internal and indicative
             of what the processor sees as temperature. It is used to calibrate the
             temperature reading. Increase this value by 1 to decrease the
             displayed temperature by ½ degree. Decrease this number by 1 to
             increase displayed temperature by ½ degree. For example the
             controller is displaying a temperature 2 degrees lower than real
             temperature, increase the number by 4 to get a correct reading.
             The total range of this parameter is 10 degrees Fahrenheit. Before
             doing a calibration please read warning note on the next page.

CALB   Minimum 198   Default 208   Maximum 218

SEND   This menu message has no numerical value. Pressing SET while it is
             displayed records and saves all changes made to all parameters.

CANC   This menu message also has no valve. Pressing SET while it is
             displayed discards all changes made to all parameters and restores
             last saved or previous values.

WARNING   The recommended maximum temperature of a spa is 100
             degrees Fahrenheit. The absolute maximum beyond which no
             person should ever be exposed to is 104 degrees Fahrenheit.