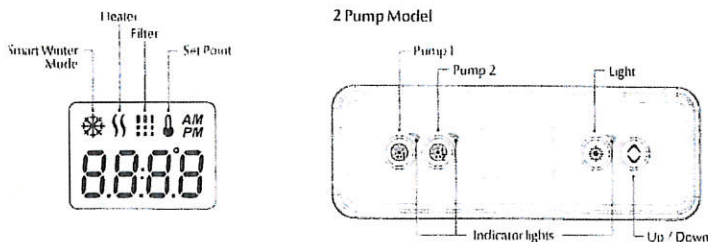


CONTROL GUIDE, 300

WARNING: READ ALL INSTRUCTIONS BEFORE USING THE SPA. PDC Spas, PDC International assumes no responsibility for personal injury or property damage sustained by or through the use of this product. When installing and using this equipment basic safety precautions should always be taken to reduce risk of electrical shock, ensure safe usage, and safeguard the user's health.



Description



Spa Functions



Off Mode

Pressing Pump 1 for 5 seconds will enable the Off mode. This mode allows you to stop all outputs including automatic functions such as filter cycle, heat request and smart winter mode for 30 minutes to perform quick spa maintenance. When Off mode is active, the display will toggle between the "OFF" message, the clock and the water temperature. The spa light will flash for a few seconds before the end of the 30 minutes to warn you that the system is about to resume its normal operation. Press Pump 1 or Pump 2 (if available) to restart the system before the expiration of the 30 minute delay. When the system resumes its normal operation, the display shows "On" for 3 seconds.



Pump 1

Press Pump 1 key to turn Pump 1 on at low speed. Press a second time to turn pump to high speed (with a dual-speed pump*). A third time turns pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first. The "Pump 1" indicator lights up when Pump 1 is on. With a dual-speed pump, the indicator will flash when pump 1 is on at low speed.



Pump 2 key

Not available on all models. Press Pump 2 key to turn Pump 2 on at low speed. Press a second time to turn pump to high speed (with a dual-speed pump*). A third time turns pump off after 20 minutes, unless pump has been manually deactivated first. The "Pump 2" indicator lights up when Pump 2 is on. With a dual-speed pump, the indicator will flash when pump 2 is on at low speed.



Light key

Press Light key to turn light on. A second press turns light off. A built-in timer automatically turns light off after 2 hours, unless it has been manually deactivated first. The "Light" indicator lights up when light is on.



Up/Down keys

Use Up or Down key to set desired water temperature. The temperature setting will be displayed for 2 seconds to confirm your new selection. 2 pump spas have a combined Up/Down key. Hold the button to increase the parameter and release the button to stop. Hold the button again to decrease the parameter.

The "Set Point" icon indicates that the display shows the desired temperature, NOT the current water temperature!

* If single speed pump: press Pump key to turn pump on. Press Pump key again to turn pump off.

Programming Steps



Program menu

The program menu is accessible by holding down the Light key for 5 seconds. In the program menu the following parameters can be set: clock, the filter or purge cycles, economy mode and temperature units. While you are in the program menu, use the Up or Down key to adjust the parameters and use the Light key to jump to the next parameter. The changes will be saved after the confirmation of

the last parameter only. If there is no action taken for 10 seconds, the system will exit the program menu without saving any changes.



Setting the clock

Enter the program menu by holding down the Light key for 5 seconds. The display will show the current clock setting with the hour flashing.

Depending on factory settings your system may be set to 24-hour time or 12-hour time.

Setting the hour: Use the Up or Down keys to adjust the hours. Press the Light key to jump to the next parameter, the minutes.

Setting the minutes: Use the Up or Down keys to adjust the minutes. Press the Light key to jump to the next parameter, the filter or purge start time (FS).

Programming the filter/purge cycles

Depending on system configuration your spa will perform either a filter or a purge cycle. The filter cycle menu consists of the following parameters: the start time (FS), the duration (Fd) and the frequency (FF). The purge cycle menu consists of the following parameters: the start time (FS) and the frequency (FF).

A filter cycle consists of starting all the pumps and blower in high speed for 1 minute (purge step) then, the pump associated with the filter will run in low speed for the remaining duration of the filter cycle (clean step).

A purge cycle is used when the spa is equipped with a 24 hour circulation pump which provides a continuous clean step. It consists of starting all the pumps and blower in high speed for 1 minute.

CONTROL GUIDE, 300 (CONT'D)



Setting filter or purge cycle start time

The display will show FSxx, "xx" representing the starting hour of the cycle. Use the Up or Down key to adjust the hours. Use the Light key to jump to the next parameter, filter duration (Fd).



Setting filter cycle duration

(not available on purge systems)
The display will show Fdxx, "xx" representing the duration in hours of the filter cycle. Use the Up or Down key to adjust the duration. Use the Light key to jump to the next parameter, filter or purge frequency (Ff).

U = no filtration
24 = continuous filtration
It is not recommended to set this to "0".



Setting filter or purge cycle frequency

The display will show Ffxx, "xx" representing the number of cycles per day. Use the Up or Down key to adjust the frequency. Use the Light key to jump to the next parameter, economy mode (EP).

The "filter cycle" indicator lights up when filter is on and flashes when suspended.



Setting economy mode

This mode allows you to lower the temperature set point of the spa by 20 °F (11 °C) during a certain period of the day.

The display will show EPx, "x" representing the state of the programmed economy (0 = disabled, 1 = enabled). Use the arrow keys to enable or disable economy mode. Use the Light key to jump to the next parameter, economy start time (ES).



Setting economy start time

The display will show ESxx, "xx" representing the hour at which the economy mode will become active. Use the Up or Down key to adjust the hour. Use the Light key to jump to the next parameter, economy duration (Ed).

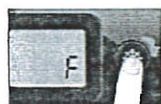
When the Economy mode is ON, the display will toggle between the "Eco" message, the time, and the water temperature.



Setting economy duration

The display will show Edxx, "xx" representing the duration in hour of the economy mode. Use the Up or Down key to adjust the hour. Use the Light key to jump to the next parameter, temperature unit.

24 = continuous economy



Setting temperature unit

Water temperature can be displayed in either Fahrenheit (°F) or Celsius (°C). The display will show F or C.

Use the Up or Down key to change the setting. Use the Light key to save all the parameters.



Smart Winter Mode

Our Smart Winter Mode protects your system from the cold by turning pumps on several times a day to prevent water from freezing in pipes.

The "SWM" indicator lights up when freezing is detected and flashes when the purge is active.

Cooldown

After heating the spa water to the desired Set Point, the heater is turned off, but its associated pump (Pump 1 low-speed or CP) remains on for a predetermined period of time to ensure adequate cooling of the heating element, prolonging its useful life.

Water temperature regulation

Every 15 to 90 minutes the pump will run to ensure accurate water temperature readings as well as avoid heater activation in dry conditions. After verifying pump activation and taking a water temperature reading if required, the system automatically turns the heater on to reach and maintain water temperature at Set Point.

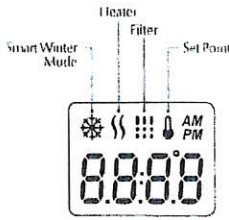
Indicator flashes when taking water temperature reading

Troubleshooting section

Should an error occur, the display will show one of the following error messages toggled with the clock and the water temperature.

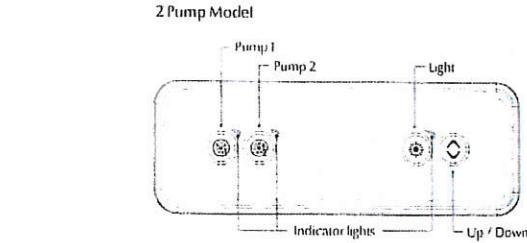
in.xx error codes	Description
	Hr An internal hardware error has been detected in the in.xx. Contact dealer or service supplier.
	HL The system has shut the heater down because the temperature at the heater has reached 119°F (48°C). Do not enter the water! Remove the spa cover and allow the water to cool down, then shut power off and power your spa up again to reset the system.
	AOH Temperature inside the spa skirt is too high, causing the internal temperature in the in.xx to increase above normal limits. Open skirt and wait until error clears.
	FLO The system does not detect any water flow while the primary pump is running. Check and open water valves. Check for water level. Clean filter. If the problem persists, call your dealer or service supplier.
	Prr A problem is detected with the temperature probe. Call your dealer or service supplier.
	OH The water temperature in the spa has reached 108°F (42°C). Do not enter the water! Remove the spa cover and allow the water to cool down to a lower temperature. Call your dealer or service supplier if problem persists.

CONTROL GUIDE, 300 (CONT'D)



In a regulation cycle, the system first generates water flow through the heater housing and the plumbing, in order to ensure accurate water temperature readings as well as avoiding heater activation in dry conditions.

The system verifies periodically that all parameters are within normal range.



valid, blanks (- -) will be displayed until normal readings have been successfully found.

After verifying pump activation and taking a water temperature reading if required, the system automatically turns the heater on to reach and maintain water temperature at Set Point. The *Heater* indicator lights up when the heater is on. It flashes when there is a request for more heat but the heater has not yet started.

Our Smart Winter Mode protects your system from the cold by turning pumps on several times a day to prevent water from freezing in pipes. The *Smart Winter Mode* indicator lights up when the Smart Winter Mode is on.

After heating the spa water to the desired Set Point, the heater is turned off, but its associated pump (Pump 1 low-speed or CP) remains on for a certain amount of time to ensure adequate cooling of the heating element, prolonging its life.

The *Heater* icon flashes during this time.

Typical settings

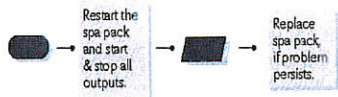
Adjustable Regulating Set Point:	59°F (15°C) to 104°F (40°C)
Factory Default Set Point:	Typical 95°F (35°C) / Max 100°F (38°C)
Filter Cycle Duration:	0 to 24 hrs / Factory set at 2hrs
Filter Cycle Frequency:	1 to 4 times a day / Factory set at 2
Filter Cycle Start:	00:00 to 23:59 / Factory set at 12:00
Pump Runtime:	1 to 255 min. / Factory set at 20 min.
Light Timeout:	1 to 255 min. / Factory set at 120 min.

Hr error message / flow chart & step-by-step

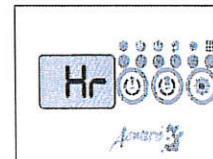


An internal hardware error has been detected

Flow chart



Step-by-Step



- Restart the spa pack and start & stop all pumps and blower.
- If error reappears, replace the spa pack.

CONTROL GUIDE, 300 (CONT'D)

Prr error message / flow chart & step-by-step

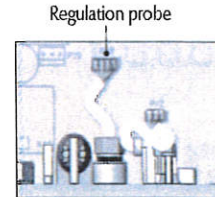


Regulation probe issue

Flow chart



Step-by-Step



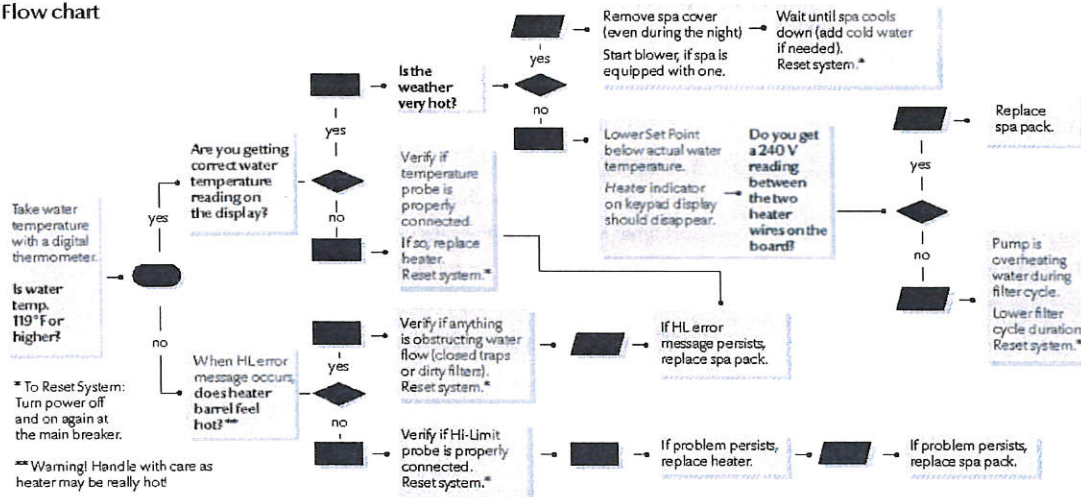
- Verify if regulation probe (located above the heater) is properly connected.
- Replace heater if problem persists.
- Replace spa pack, if problem persists.

HL error message / flow chart & step-by-step

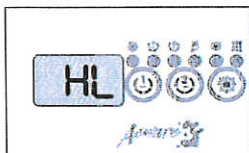


The system has shut down because the temperature at the heater has reached 119°F (48°C).

Flow chart



Step-by-Step



HL
Water temperature at the heater has reached 119°F

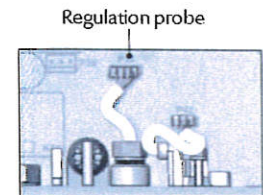
1. Measure the temperature with a DIGITAL thermometer and compare its reading with temp. on the display. Make sure the temp. reading is lower than 119°F.

2. If reading is below 119°F:

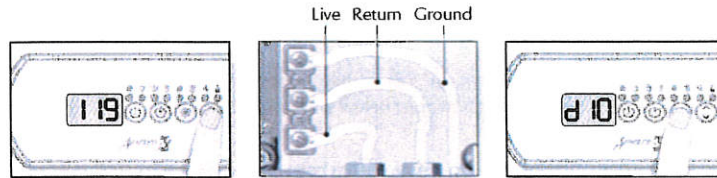
- Carefully check if heater barrel feels hot. If it's hot, verify if anything is obstructing water flow (closed valves or dirty filter).
- Shut power off and power the spa up again to reset the system.
- If HL error persists, replace heater.
- If HL error persists, replace spa pack.

3. If reading is 119°F or higher:

- Verify if the Temp. & High Limit probes are properly connected.
- Shut power off and power the spa up again to reset the system.
- If problem persists, replace heater.
- If problem persists, replace spa pack.



CONTROL GUIDE, 300 (CONT'D)



If weather is very hot:

1. Remove spa cover (even during the night). Start blower if spa is equipped with one. Wait until spa cools down (add cold water if necessary).

- Shut power off and power the spa up again to reset the system.

If hot weather is not a factor:

2. Lower Set Point below current water temperature.
The *Heater* indicator should disappear from keypad display.

3. With a voltmeter, read voltage between the live and ground heater terminals.

4. If you do read 240 V, replace spa pack.
5. If you do not read 240 V, pump may be overheating water during filter cycle.

Shorten filter cycle duration.

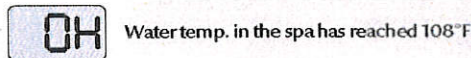
To shorten filter cycle duration:

6. Press and hold the **Light** key for 5 seconds. Display will show a value that represents the filter cycle duration in hours.

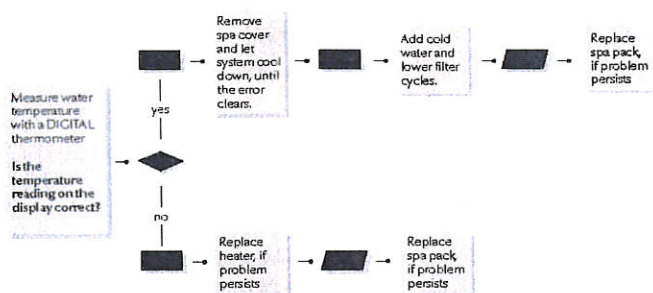
7. Use the **Down** arrow key to lower the number of hours.
0 = no filtration
12 = continuous filtration

When the desired setting is displayed, press **Light** key again. The filter cycle will start immediately.

OH error message / flow chart & step-by-step



Flow chart



Step-by-Step



- Measure water temperature with a DIGITAL thermometer and compare its reading with temp. on the display. If temp. reading is different, replace heater.
- Remove spa cover and let spa cool down.
- Add cold water and lower filter cycles.
- If problem persists replace spa pack.

CONTROL GUIDE, 300 (CONT'D)



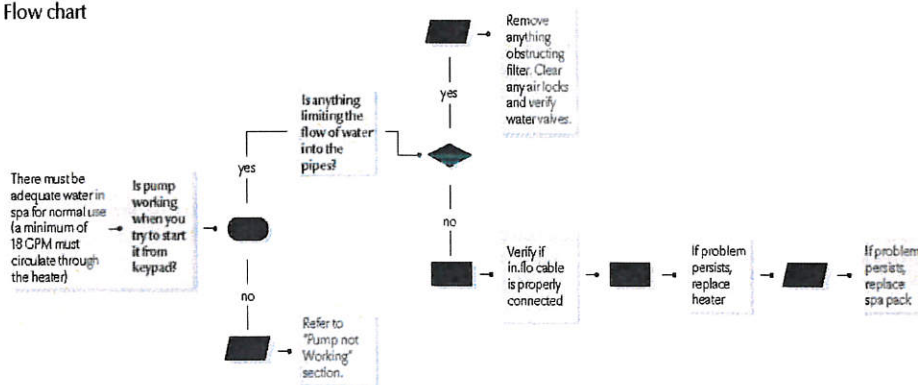
FLO & UPL error message / flow chart & step-by-step



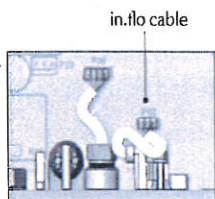
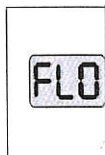
The system did not detect any water flow while the primary pump was running. Follow the troubleshooting flow chart below to identify the problem:

Make sure that the low-level programming has been properly set, with or without circulation pump (depending on your system configuration).

Flow chart

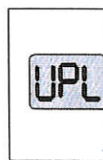


Step-by-Step



No low-level configuration software in system!

Step-by-Step



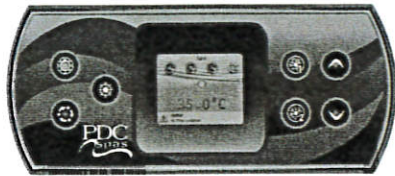
FLO
Primary pump is activated, but the system doesn't detect any water flow

- Make sure water valves are open and that water level is high enough.
- Check and remove anything obstructing the filter.
- Make sure there are no air locks (or that no object obstructs the passage of water in the heater channel). Pumps may make strange noises. Follow air lock procedure to clear them.
- Make sure that the pump associated to the heater (primary pump) is running.
- Make sure the in.flo cable (located above the heater) is properly connected.
- If problem persists replace heater.
- If the problem is not solved replace the spa pack.

- New low-level configuration software needs to be downloaded into the spa system; without it the system will not be operable.
- Contact our toll free line for technical support (1-800-784-3256).
Note: this line is dedicated to assist authorized service technicians and dealers only.

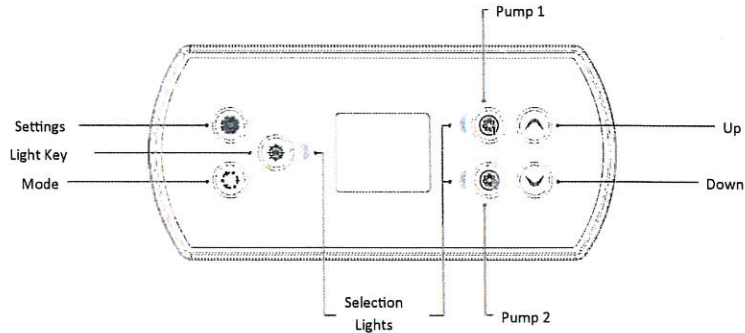
CONTROL GUIDE, 500

WARNING: READ ALL INSTRUCTIONS BEFORE USING THE SPA. PDC Spas, PDC International assumes no responsibility for personal injury or property damage sustained by or through the use of this product. When installing and using this equipment basic safety precautions should always be taken to reduce risk of electrical shock, ensure safe usage, and safeguard the user's health.



In.K 500 Series Control

Standard control for SE Series spa models



Power

Press any button to turn the keypad on. After 30 minutes without activity it will automatically shut off.

Main Screen

The main screen gives you access to your accessories and water temperature. At the bottom of the screen you will see any error or maintenance messages that are present.



Start or Stop Accessories

To start or stop an accessory, press the associated button. Icons will become animated when their accessory is turned on, and inanimate when turned off. Icons on the screen will reflect the speed or state of the devices running on your spa. When an accessory has more than two states, press the button until it reaches the desired state.



Pump 1 key

Press **Pump 1** key to turn Pump 1 on at low speed. Press second time to turn pump to high speed (with a dual speed pump). A third time turns pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.



Pump 2 key

Press **Pump 2** key to turn Pump 2 on at low speed. Press a second time to turn pump to high speed (with a dual speed pump). Pressing third time turns pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.



Light key

Press **Light** key to turn light on / light off. A built-in timer automatically turns light off after 2 hours, unless it has been manually deactivated first.



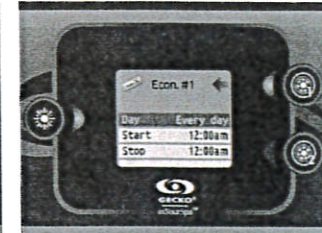
Water Temperature

Temperature shown at screen top gives actual water temperature. Use the Up/Down button to set desired temperature. The set point will appear in blue at the bottom. After 3 seconds without any change to the set temperature value, keypad will resume normal display.



Settings

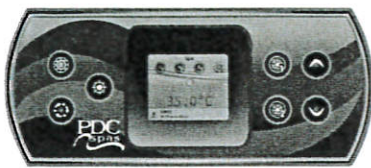
In this section you will find: Water Care, Audio (if installed), Maintenance, Date and Time, Keypad, Wi-Fi Config*, Restore*, About. *Reserved for qualified electricians and installers. Use arrow keys to move up and down, the light key to select. Press the settings key to go to home page.



Modifying Schedules

Use the **Arrow** keys to scroll through the selections. To see or modify a category use the lit button on the right (key 1) to open selected menu. Use the arrow keys to choose a schedule to modify, the Light key to move between parameters. Once you have set the schedule use Key 1 to go back. In the water care option you will see the setting.

CONTROL GUIDE, 500 (CONT'D)



**In.K 500 Series
Control**
Standard control for
SE Series Spa Units



Water Care

To set up your desired filtration and heating settings press the **Light key**. A checkmark will appear on the selected icon to confirm.

In energy saving mode the set point will be reduced by 20 degrees F, which means that the heating system will not be engaged unless the temperature falls to 20 degrees below the spa's set temperature.

Water care modes

Away:

In this mode the spa will always be in economy; the set point will be reduced by 20° F and filtration will be reduced.

Beginner:

The spa will never be in economy mode, and will run a normal 8 hours of filtration a day.

Energy Savings:

The spa will be in economy mode during the peak hours of the day and resume normal mode on the weekend.

Super Energy Savings:

The spa will always be in economy mode during peak hours, every day of the week.

Weekender:

The spa will be in economy mode from Monday to Friday, and will run normally on the weekend.



Audio

The audio selection in the settings menu gives you the option to disconnect or unpair your Bluetooth enabled device.

It is also possible to select source to use a device connected by auxiliary cable or Bluetooth wireless connection.



Maintenance

From the settings page you can access the following options:

Maintenance reminders

Standby



Maintenance Reminders

This will remind you of things like rinsing your spa or cleaning the filter. Each task has its own duration. The maintenance reminder menu will allow you to verify the time left before requirement and reset once complete.



Standby

This allows you to service your spa, the pumps will stop automatically for 30 minutes and automatically start back up after that duration. The screen will alert you when standby mode is enabled.



Date and Time

Use the arrows to choose the setting that you would like to adjust and select it by pressing the Light key. Use the Arrow buttons to change the parameters and the Light key to move between parameters. Pressing Key 1 will take you back to the



Keypad Settings

Use the Arrow keys to move to the setting that you wish to change. Use the Light key to modify the selection.

The display orientation can be changed by selecting the contextual options using



Topside Rim Light

Selecting this will turn on or off the topside rim light.



About

This selection shows information such as the software number and the revision numbers on the different components of your system.

CONTROL GUIDE, 1000 SERIES

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In.K 1000 Series Control



All-on or all-off key
(one touch activation
of last used setting)

mode selection
wheel (settings and
accessories)



direct to function
selection wheel
(settings and
additional options)

on-screen
system message
and reminder

interactive display icons
(main spa functions)

Main screen

The main screen gives you access to your accessories and water temperature. At the bottom of the screen you will see any error or maintenance messages that are present.



Power

Touch the screen to turn on the keypad. After 30 minutes without activity it will shut off. Then follow the instructions on the screen to access the main screen.

Keypad functions



Start or stop accessories

To start or stop an accessory, touch the associated icon. Icons will become animated when their accessory is turned on, and animation will stop when turned off. Icons on the screen will reflect the speed or state of the devices running on your spa. When an accessory has more than two speeds press the button until it reaches desired speed.



Notifications

A notification area at the top right-hand side of the screen shows the state of certain accessories installed in the spa.

Notification icons

in.touch: (optional)



- Indicates that the in.touch module is detected and connected to a Wi-Fi network.



- A red cross indicates that the in.touch module is detected but isn't connected to a Wi-Fi network. For more information about the in.touch, refer to the Wi-Fi section.

in.stream 2: (optional)



- Indicates that the in.stream 2 module is detected and connected.



- A grey icon indicates the in.stream 2 module is detected but is off.

CONTROL GUIDE, 1000 SERIES (CONT'D)



Keypad functions



Water Temperature

The temperature shown at the bottom of the screen gives the actual water temperature. Use the Up and Down icon to set the desired temperature. The set point will appear in blue. After 3 seconds without any change to the set temperature value, the current water temperature will reappear.

When the set value is lower than the current temperature Cooling to xx.x will appear in the message center below. When the set value is higher than the current temp, Heating to xx.x will be indicated instead. Normally there is a short delay before the heating starts, during which Heating Suspended is indicated.



Home Page

From the home page you will find the following options:

- *in.stream 2 (optional)*
- *settings*

To select an option, slide the left wheel until the desired icon menu is shown in the middle of the screen.



Settings

From the home page you will find the following options:

- *Water Care*
- *Maintenance*
- *Date & Time*
- *Keypad*
- *Electrical Config*
- *Wi-Fi*
- *About*

To select an option, slide the right wheel until the desired icon menu is shown in the middle screen or press on the menu name.



Water care

The Water Care section will help you set up your ideal filtration and heating settings. Choose between Away from Home, Beginner, Energy Savings, Super Energy and Weekender, depending on your need. Touch the Water care name to choose your setting. A green checkmark will appear on the selected icon to confirm your choice. In Economy mode, the set point will be reduced by 20°F*, which means that the heating system will not be engaged unless the temperature falls to 20°F below the spa's set temperature.

The filtration schedule shown on the screen will apply to the main filtration pump; pump 1.

Water care modes



Away:

In this mode the spa will always be in economy; the set point will be reduced by 20° F*.



Beginner:

The spa will never be in economy mode and will be filtering according to the pack's low level configuration.



Energy Savings:

The spa will be in economy mode during the peak day hours and resume normal mode on the weekend*.



Super Energy Savings:

The spa will always be in economy mode during peak hours, every day of the week*.



Weekender:

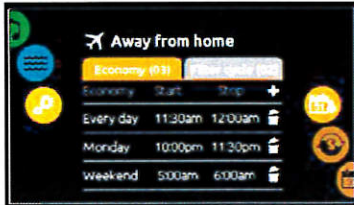
The spa will be in economy mode from Monday to Friday, and will run normally on the weekend*.

*Filtration will be reduced when the economy mode is active.

CONTROL GUIDE, 1000 SERIES (CONT'D)



Keypad functions

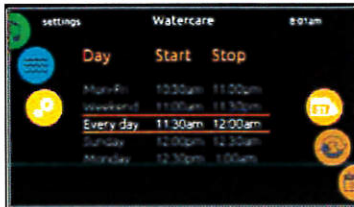


Modifying Schedules

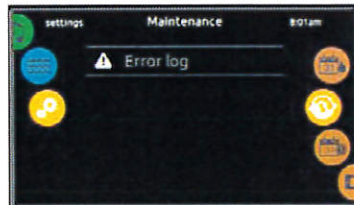
To modify a Water Care category, touch the pen at the right end of the desired watercare to open the selected Water Care menu.

You can add schedules by touching the « + » symbol. To delete a schedule, touch the garbage can icon at the right end of the desired line.

Touch the Economy tab to change the economy setting and filter cycle tab for the filtration settings (or schedules).



You can modify the programmed schedules by selecting one and adjusting the schedule. You have several possibilities for the schedule (Mon-Fri, weekend, every day, or single days). The schedules will be repeated every week. The time and duration are set in 30 minute increments. Once you have set the schedule, use the calendar icon to go back. Ensure that you have selected the desired Water Care option in the main Water Care menu.

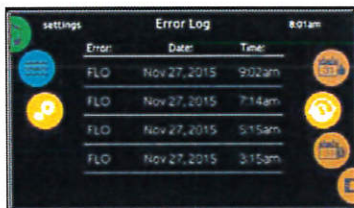


Maintenance

From the Maintenance you can access the following options:

- Error log

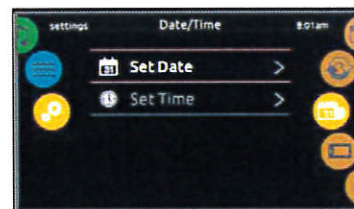
To access the desired option simply touch the desired name.



Error Log

In this section you can see errors that have been archived by the system. Drag the list Up and Down to move through the list. Errors are archived chronologically, from the most recent to the oldest (top to bottom). The Error log page shows the error code, the date of the error, and the time. A screen will appear with more information on the selected error.

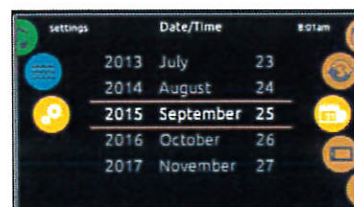
For more information, see the Error messages section.



Date and time

Here you can adjust the time or the date.

Simply touch the option you want to change



Set date

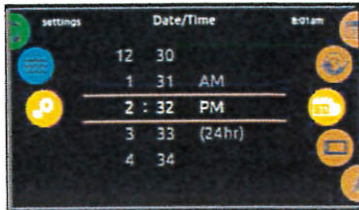
Here you can adjust the year, month and date.

Simply scroll up and down the column you want to change, and select the desired value. When done, touch the calendar icon at the right of the screen.

CONTROL GUIDE, 1000 SERIES (CONT'D)



Keypad functions



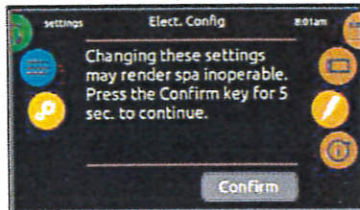
Set Time

Here you can change the hour, minute and time format. Simply scroll up and down the column you want to change, and select the desired value. When done, touch the calendar icon at the right of the screen.



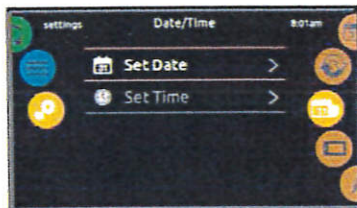
Keypad Settings

Here you can adjust the Temperature Units, Day/Night contrast, and Display orientation and language. Simply touch the option you want to change.



Electrical Configuration

Please do not make changes in this section unless you are a qualified electrician. In this section you can change the low-level configuration, as well as modify the number of phases and the input current.



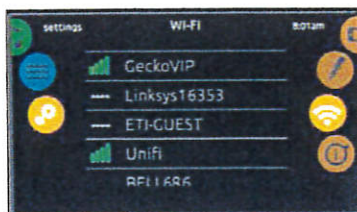
About

This section shows information about the in.k1000 software number, and the revision numbers of the different components of your system.



Set date

Here you can adjust the year, month and date.



WiFi (optional)

This menu allows you to connect your in.touch module to a Wi-Fi network or to change its network. To connect your in.touch module to a wireless network, slide the left wheel until the desired icon menu is show in the middle screen or press on the menu name. After a few seconds the available networks will appear on

the screen, as well as their signal strength. Slide Up or Down the list to select your network. If the Wi-Fi network is password protected enter it when prompted. Use Enter to validate the password. If no password is required the in.touch will connect automatically. Once the in.touch module is connected to a Wi-Fi network a green check mark will appear in the Wi-Fi menu, and the network name will appear in the Settings menu.

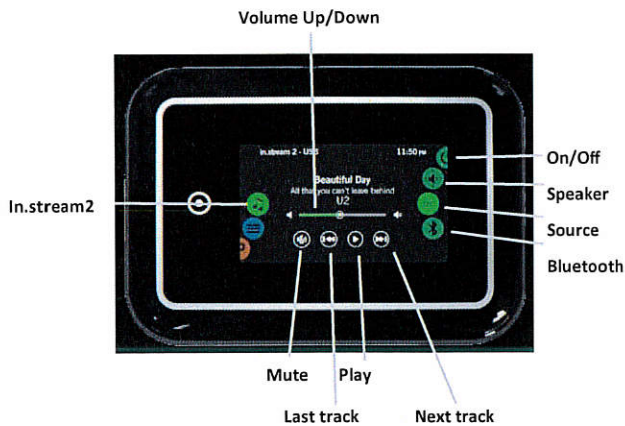
CONTROL GUIDE, 1000 SERIES (CONT'D)

Keypad functions



in.stream 2 functions (optional)

This menu is available only if the in.stream was selected in the audio configuration menu.



Press the Mode key to access your in.stream.

If you are using a device with Bluetooth, it must be connected for functions to work. Please note that the Play/Pause and Change Track functions apply to devices using Bluetooth technology only, and will not work when AUX is selected as the source.

Turning power On/Off

Go to ON/OFF Sub Menu to turn the in.stream on or off.

Selecting the source

In the Source Sub menu, the following sources are available: Bluetooth, FM, USB, AUX. Simply select the desired one.

Play/Pause audio

Press the Play/Pause button to start or pause the audio.

Adjusting the volume

Slide the volume icon or touch the mute button to mute or unmute.

Changing tracks

Use the Last Track and Next Track keys to change tracks.

Disconnect or Unpair Bluetooth

These options can be found under the Bluetooth Sub menu.

Speaker

In the Speaker Sub menu; adjust the Balance, Fade and Sub Woofer by sliding the appropriate slider.

Error Messages

The list below shows the different error messages that can appear on the home screen.

CODE	MESSAGE
HL	High Limit circuit has tripped!
FLO	No Flow condition for more than 2 hours
HR	A hardware error was detected (Relay stuck)
OH	Spa temperature is too high
Pr	Temp probes or detection circuit are defective
AOH	Elevated internal temperature
FLC	The pressure switch is closed
SP in	Input voltage issue
RH NC	Comm. error between in.xm2 - in.therm
RH ID	in.xm2 and in.therm incompatible
SC ER	Error detected during the learning mode
F1	in.xm2 Fuse # 1 is blown
F2	in.xm2 Fuse # 2 is blown
F3	in.xm2 Fuse # 3 is blown
ER1	SwimSpa config. : slave unit is missing
Hr	Hardware error was detected (Thermal fuse)
UPL	The spa pack does not have valid software. Please insert valid in.stick to reprogram spa pack.
CFLO	No Flow condition
HIBr	Add fresh water to the spa
HiBr	Add fresh water to the spa
LoBr	Add BromiCharge to spa water
NoBr	Add BromiCharge to spa water
Comm	Verify cable connections
Supp	Connect power cord to 240 V source

CONTROL GUIDE, WATERWAY NEO 2100

WARNING: READ ALL INSTRUCTIONS BEFORE USING THE SPA. PDC Spas, PDC International assumes no responsibility for personal injury or property damage sustained by or through the use of this product. When installing and using this equipment basic safety precautions should always be taken to reduce risk of electrical shock, ensure safe usage, and safeguard the user's health.



SYNERGY™

Synergy Series Swim Spas & Hot Tub Zone for all Dual-Zone models.



UP ARROW & DOWN ARROW KEY

These keys adjust the temperature and navigate through the menu screens.

MENU KEY

This key will allow you to enter the menu.

RETURN KEY

The return key will take you back to the previous screen

LIGHT KEY

This key turns the light on / off.

JETS 1 KEY

The first press of this key will turn pump 1 on to low speed. Pressing this key a second time will activate high speed (If the spa is heating or in a filter cycle low speed will already be on. The first press of the key will turn on high speed and pump will not be able to be turned off if the spa is calling for heat).

JETS 2 KEY

This key turns pump 2 on or off.

JETS 3 KEY

This key turns pump 3 on or off.

Below are icons that will be displayed on control screen depending on the component or option selected.

Selection Icons

1 FILTER CYCLE 1

E ENERGY SAVING HEAT MODE

3 OZONE ON

2 FILTER CYCLE 2

V VACATION HEAT MODE

J JET ON LOW SPEED

3 FILTER CYCLE 3

C CLEANER CYCLE

J JET ON HIGH SPEED

4 FILTER CYCLE 4

P POLLING CYCLE

A SPECIAL TEMP SELECT

L LIGHT ON

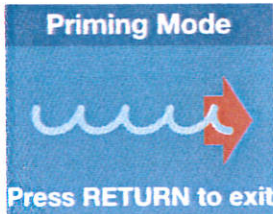
L TEMPERATURE LOCK

H HEATER ON

L PANEL LOCK

CONTROL GUIDE, WATERWAY NEO 2100

SYNERGY™



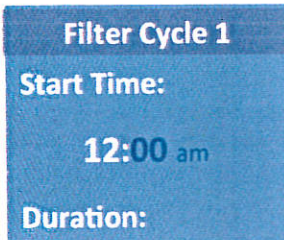
Priming Mode

When power is ON, the system will enter a priming mode with priming screen display on the panel. In this mode, all devices such as JETS, BLOWER or LIGHT are operable. JETS can be turned on and off to prime the pump. System will exit priming mode and go to MAIN display when RETURN button is pushed, or after 4 minutes of inactivity.



Setting the Time and Date

To set the time press the menu button. Use the down arrow until Date-Time is highlighted then press menu again. The hour will be highlighted first, use the up or down arrow key to change the hour to the correct hour. Press the menu key again to highlight the minutes and again, use the arrow key to change to the correct minute. Press the menu key again to highlight the month, then use the up or down arrow key to change to the correct month. Press the menu key again to highlight the day, then use the up or down arrow key to change to the correct date of the current month. Press the menu key again to highlight the year, then use the up or down arrow key to change to the correct year. Press the menu key again to highlight the day of the week, then use the up or down arrow key to change to the correct day of the week. Once the time and date are correct, press the return key to return to the menu and, again, to return to the main screen.



Setting the Filter Cycle

To set the filter cycle press the menu button. Use the down arrow until Filter Cycles is highlighted. There are 4 programmable filter cycles. A minimum of 8 hours is needed for the ozonator to be effective. Use of all 4 filter cycles is not needed but it will allow you greater control of the filter time each day. Once Filter Cycles is selected in the main menu screen, Filter Cycle 1 is highlighted press the menu key to enter Filter Cycle 1. The start time hour will be highlighted use the up or down arrow key to adjust to the desired hour. Press the menu key again to move to minutes, again, use the up or down arrow key to adjust to the desired minute. Press the menu key again to move to am/pm use the up or down arrow key to select the desired selection. Press the menu key again to set the number of hours of duration using the up or down arrow keys. The duration is the amount of hours the spa will filter during Filter Cycle 1. Press the menu key again to set the minutes of duration using the up or down arrow keys. Press the return key to return to the filter cycles menu. If desired, repeat above directions to program more filter cycles. When finished, press return to go back to the menu and return again to go back to the main screen.



Setting Temperature

To change water set temperature, use UP and DOWN buttons to set the desired temperature. The screen will display "SET TEMP" with the current set temperature. After 5 seconds without any change to the set temperature, the screen will reverse back to the MAIN screen with current water temperature display. Changing set temperature will make the heater and pump turn on to get accurate water temperature and determine if water needs to be heated.

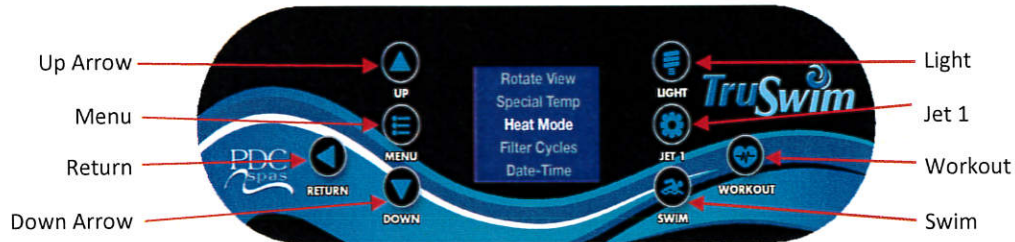
Panel Timeout

If user is in Setting Menus and no button is pushed within 15 seconds, the screen will timeout, current screen setting will be lost and panel reverts back to MAIN screen.

In MAIN screen, if no button is pushed within 60 minutes, all LED and LCD lights will turn off and panel goes to sleep. Any button pushed in this time will wake the panel up, LED and LCD lights will turn back on and panel will poll for water temperature.

CONTROL GUIDE, WATERWAY NEO 2100

WARNING: Read all instructions before using the spa. PDC Spas, PDC International assumes no responsibility for personal injury or property damage sustained by or through the use of this product. When installing and using this equipment basic safety precautions should always be taken to reduce risk of electrical shock, ensure safe usage, and safeguard the user's health.



UP ARROW & DOWN ARROW KEY

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This key will allow you to enter the menu.

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This key turns the light on / off.

JETS 1 KEY

The first press of this key will turn pump 1 on to low speed. Pressing this key a second time will activate high speed (if the spa is heating or in a filter cycle low speed will already be on. The first press of the key will turn on high speed and pump will not be able to be turned off if the spa is calling for heat).

SWIM KEY



















This key turns the TruSwim propulsion system on and off.

WORKOUT KEY

This key turns the pre-programmed workout on or off.

Below are icons that will be displayed on control screen depending on the component or option selected.

Selection Icons

 1 FILTER CYCLE 1	 E ENERGY SAVING HEAT MODE	 3 OZONE ON
 2 FILTER CYCLE 2	 V VACATION HEAT MODE	 J1 JET ON LOW SPEED
 3 FILTER CYCLE 3	 C CLEANER CYCLE	 J2 JET ON HIGH SPEED
 4 FILTER CYCLE 4	 P POLLING CYCLE	 A SPECIAL TEMP SELECT
 LIGHT ON	 TEMPERATURE LOCK	 WORKOUT
 HEATER ON	 PANEL LOCK	 SWIM

CONTROL GUIDE, WATERWAY NEO 2100

TruSwim™

PDC
spas



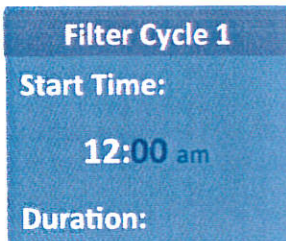
Priming Mode

When power is ON, the system will enter a priming mode with priming screen display on the panel. In this mode, all devices such as JETS, BLOWER or LIGHT are operable. JETS can be turned on and off to prime the pump. System will exit priming mode and go to MAIN display when RETURN button is pushed, or after 4 minutes of inactivity.



Setting the Time and Date

To set the time press the menu button. Use the down arrow until Date-Time is highlighted then press menu again. The hour will be highlighted first, use the up or down arrow key to change the hour to the correct hour. Press the menu key again to highlight the minutes and again, use the arrow key to change to the correct minute. Press the menu key again to highlight the month, then use the up or down arrow key to change to the correct month. Press the menu key again to highlight the day, then use the up or down arrow key to change to the correct date of the current month. Press the menu key again to highlight the year, then use the up or down arrow key to change to the correct year. Press the menu key again to highlight the day of the week, then use the up or down arrow key to change to the correct day of the week. Once the time and date are correct, press the return key to return to the menu and, again, to return to the main screen.



Setting the Filter Cycle

To set the filter cycle press the menu button. Use the down arrow until Filter Cycles is highlighted. There are 4 programmable filter cycles. A minimum of 8 hours is needed for the ozonator to be effective. Use of all 4 filter cycles is not needed but it will allow you greater control of the filter time each day. Once Filter Cycles is selected in the main menu screen, Filter Cycle 1 is highlighted press the menu key to enter Filter Cycle 1. The start time hour will be highlighted use the up or down arrow key to adjust to the desired hour. Press the menu key again to move to minutes, again, use the up or down arrow key to adjust to the desired minute. Press the menu key again to move to am/pm use the up or down arrow key to select the desired selection. Press the menu key again to set the number of hours of duration using the up or down arrow keys. The duration is the amount of hours the spa will filter during Filter Cycle 1. Press the menu key again to set the minutes of duration using the up or down arrow keys. Press the return key to return to the filter cycles menu. If desired, repeat above directions to program more filter cycles. When finished, press return to go back to the menu and return again to go back to the main screen.



Setting Temperature

To change water set temperature, use UP and DOWN buttons to set the desired temperature. The screen will display "SET TEMP" with the current set temperature. After 5 seconds without any change to the set temperature, the screen will reverse back to the MAIN screen with current water temperature display. Changing set temperature will make the heater and pump turn on to get accurate water temperature and determine if water needs to be heated.

Panel Timeout

If user is in Setting Menus and no button is pushed within 15 seconds, the screen will timeout, current screen setting will be lost and panel reverts back to MAIN screen.

In MAIN screen, if no button is pushed within 60 minutes, all LED and LCD lights will turn off and panel goes to sleep. Any button pushed in this time will wake the panel up, LED and LCD lights will turn back on and panel will poll for water temperature.

CONTROL GUIDE, WATERWAY NEO 2100

Swim Button



1. Press the SWIM button to turn the pump ON—the blue SWIM icon on the LCD screen turns ON at low speed, and JET 2 at high speed.



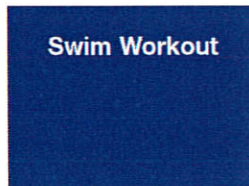
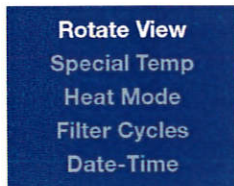
2. Then press UP or DOWN button to select your desired SPEED % between 5% and 100%. The duration is preset to 20 minutes.



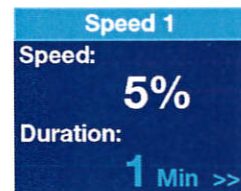
3. Press the SWIM button again to turn OFF the pump (the pump will continue to run until re-setting to 5% then turns off) the blue SWIM icon on the LCD screen turns off.



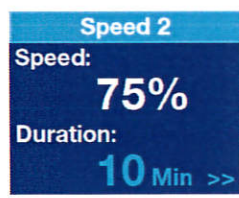
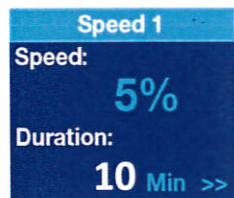
Workout Button



1. To program the SWIM WORKOUT; press the MENU button; then up button and select SWIM WORKOUT by pressing the MENU button to get to the SPEED 1 setting.



2. Press the UP or DOWN button to select the SPEED % (between 5% and 100%) for SPEED 1; then press the MENU button to select DURATION in minutes up to 10 minutes; then press the MENU button twice to get to SPEED 2.



3. Press the UP or DOWN button to select the SPEED % for SPEED 2, then press the MENU button to select DURATION in minutes up to 10 minutes, then press MENU button twice to get to SPEED 3.



4. Press the UP or DOWN button to select the SPEED % for SPEED 3; then press the MENU button to select DURATION in minutes, up to 10 minutes, then press the MENU button twice to get out of SPEED 4. Repeat this step for up to 10 settings.

5. Press the UP or DOWN button to select the speed for SPEED 4; then press the MENU button to select DURATION in minutes, up to 10 minutes; then press the RETURN button twice to get out of the SWIM WORKOUT screen.



6. Press the SWIM WORKOUT button to turn ON the pump, the red SWIM icon on the LCD screen turns ON. The WORKOUT feature will activate to cycle each of the SPEED setting and specific DURATION setting for WORKOUT. If you need to increase or decrease pump speed manually, press the UP or DOWN button to your desired SPEED % in each cycle.



7. Press the SWIM WORKOUT button again at any time to turn OFF the pump—the red SWIM icon on the LCD screen turns OFF.

At the end of the programmed workout, the red icon on the LCD screen and pump turn off.

CONTROL GUIDE, WATERWAY NEO 2100



Setting Screens

Rotate View: rotate the view 180°, the UP and DOWN button also swap when rotated. With ROTATE VIEW highlighted press MENU to enter ROTATE VIEW setting. Use UP/DOWN to select the desired setting and RETURN to exit and confirm the setting.

Special Temp: to temporarily heat spa to 105°F or 106°F once, and return to previous temperature setting. With SPECIAL TEMP highlighted press MENU to enter SPECIAL TEMP setting. Use UP/DOWN to select the desired setting and RETURN to exit and confirm the setting.

Heat Mode: select STANDARD heating mode for most users or ENERGY SAVING mode (reduces polling water temperature) or VACATION mode (set temp set to 50°F). With HEAT MODE highlighted press MENU to enter HEAT mode setting. Use UP/DOWN to select the desired setting and RETURN to exit and confirm the setting.

Filter Cycles: set up filter cycle start time, duration and date for filtering the spa. For FILTER CYCLE 1 and 2, if duration is set to zero the system will do a purge cycle at the start time setting. With FILTER CYCLE highlighted press MENU to enter FILTER CYCLE 1,2,3, or 4 setting. Select a FILTER CYCLE and press MENU again to enter TIME/DURATION setting screen. In this screen, press MENU to move between HOURS, MINUTES and DAYS setting; UP/DOWN to change values, RETURN to exit and confirm setting.

Date-Time: set up date and time for spa. With DATE-TIME highlighted press MENU to enter DATE-TIME setting. In his screen, pressing MENU will move and highlight various fields that can change the setting; UP/DOWN to change the values and RETURN to exit and confirm the setting.

Degree F/C: displays spa temperature in Celsius or Fahrenheit. This option is only available for 60HZ countries and automatically displays Celsius for 50HZ. With DEGREE F/C highlighted press MENU to enter DEGREE F/C setting. Use UP/DOWN to select the desired setting and RETURN to exit and confirm.

Time Display: display spa time in AM/PM or 24 hours time. With TIME DISPLAY highlighted press MENU to enter TIME DISPLAY setting. Use UP/DOWN to select the desired setting and RETURN to exit and confirm setting.

Devices Timeout: allows changes to timeout setting for various devices. LIGHT can set to a max of 4 hrs; PUMP in high speed and BLOWER set to a maximum of 1 hr and PUMP in low speed set to a maximum of 2 hrs. With DEVICES TIMEOUT highlighted press MENU to enter and select various devices setting. Use UP/DOWN to select the desired time setting, RETURN to confirm.

Panel Lock: locks all panel buttons except MENU button. With PANEL LOCK highlighted press MENU to enter PANEL LOCK setting. Use UP/DOWN to select the desired setting and RETURN to exit and confirm.

Temp Lock: locks TEMPERATURE setting with UP/DOWN buttons. With TEMP LOCK highlighted press MENU to enter TEMP LOCK setting. Use UP/DOWN to select the desired setting and RETURN to exit and confirm.

Service Mode: *only available for authorized technicians*

Demo Mode: to demonstrate all device capabilities of the spa. With DEMO MODE highlighted press MENU to enter MODE setting. Use UP/DOWN to select the desired setting and RETURN to exit and confirm.

General Information: displays general information of the spa. With GENERAL INFORMATION highlighted press MENU to enter GENERAL INFORMATION menu. Use UP/DOWN to view different pages and information and RETURN to exit and confirm.

Languages: to select various languages for spa display. With LANGUAGES highlighted press MENU to enter and select a specific language. Use UP/DOWN to select the desired setting and RETURN to exit and confirm.

Serenity Mode: to turn off all outputs and provide a quiet time setting. With SERENITY MODE highlighted press MENU to enter and select a specific time. Use UP/DOWN to select the desire time setting. Press MENU again to navigate to EXIT/START. Select the desired option and RETURN to exit and confirm setting.

Energy Interval: *only available on non-circ systems.* With ENERGY INTERVAL highlighted press MENU to enter ENERGY INTERVAL setting. Use UP/DOWN to select the desired minutes setting and RETURN to exit and confirm.

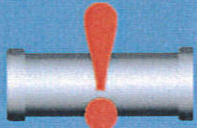

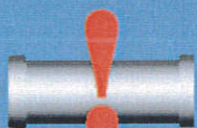

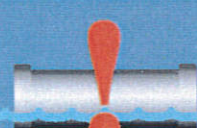







Silent Time: *only available on non-circ systems.* Set up time for no polling. With SILENT TIME highlighted press MENU to enter SILENT TIME setting. In this screen, pressing MENU will move and highlight various fields that can change the setting; UP/DOWN to change the values and RETURN to exit and confirm setting.

Cleaner Cycle: *only available on non-circ systems.* To turn on filtration after using the spa for short cleaning period. With CLEANER CYCLE highlight press MENU to enter and select a specific duration. Use UP/DOWN to select the desired time setting. Press MENU again to navigate to EXIT/START/ Select the desired option and RETURN to exit and confirm.

CONTROL GUIDE, WATERWAY NEO 2100

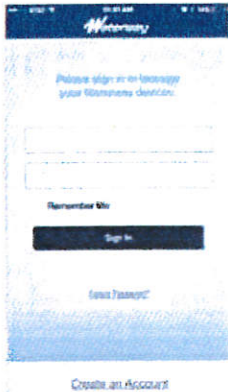
TruSwim™ SYNERGY™

Error Codes

<p>Plumbing Error</p>  <p>Press RETURN to clear</p>	<p>Error caused when SENSOR 1 and SENSOR 2 have been plugged in incorrectly. Swap the SENSOR 1 and SENSOR 2 plug in controller to correct this problem.</p>	<p>Clean filter. Check SENSOR 1 connection. Clean filter, check jets in "on" position and <u>valve open.</u></p>	<p>Sensor 1 open</p>  <p>Press RETURN to clear</p>
<p>Insufficient Flow</p>  <p>Press RETURN to clear</p>	<p>Error caused by no water flow through heater or no water in heater. Check to be sure there is enough water flow through heater.</p>	<p>Clean filter. Check SENSOR 1 connection or replace SENSOR 1. Clean filter, check jets in "on" position and <u>valve open.</u></p>	<p>Sensor 1 short</p>  <p>Press RETURN to clear</p>
<p>Low Flow</p>  <p>Press RETURN to clear</p>	<p>Check to be sure there is enough water flow through heater.</p>	<p>Clean filter. Check SENSOR 2 connection. Clean filter, check jets in "on" position and <u>valve open.</u></p>	<p>Sensor 2 open</p>  <p>Press RETURN to clear</p>
<p>Water Overheat</p>  <p>Press RETURN to clear</p>	<p>Wait for water temperature to cool down.</p>	<p>Check SENSOR 2 connection or replace SENSOR 2.</p>	<p>Sensor 2 short</p>  <p>Press RETURN to clear</p>
<p>Heater Overheat</p>  <p>Press RETURN to clear</p>	<p>Wait for water temperature to cool down. Check to be sure there is enough water flow through heater.</p>	<p>Clean filter. Check SENSOR 3 connection.</p>	<p>Sensor 3 open</p>  <p>Press RETURN to clear</p>
<p>Potential Freeze</p>  <p>Press RETURN to clear</p>	<p>Error caused when SENSOR 1,2, or 3 detects low temperature. All JETS and BLOWERS will turn on automatically to protect plumbing from freezing. JETS and BLOWERS will shut down when all 3 SENSORS reach a desired temperature.</p>	<p>Check SENSOR 3 connection or replace SENSOR 3.</p>	<p>Sensor 3 short</p>  <p>Press RETURN to clear</p>

WI-FI GUIDE, WATERWAY NEO 2100

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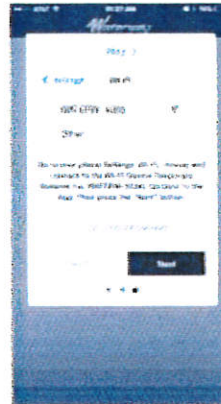


1

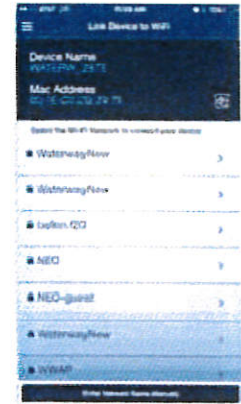
1. Download and install the app from App Store or Google Store.
2. Click on Create an Account.



2

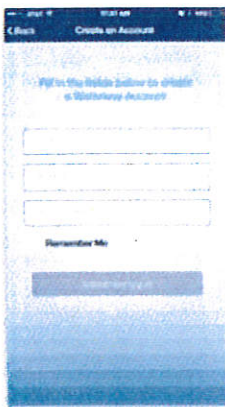


7



8

7. Go back to the App, press Next.
8. Select your home network from the list (If your network name is not on the listed, it can be entered manually).

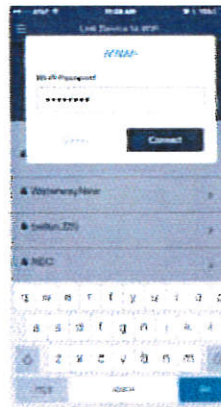


3

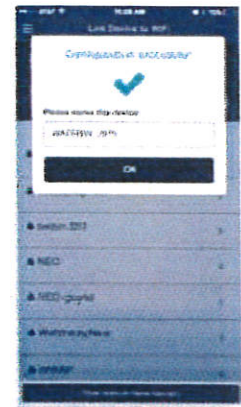
3. Enter your email address, password, confirm and submit.



4



9



10

9. Enter your home network password and press Connect.
10. Then the device will configure and connect to your home Wi-Fi network and the web, press OK.



5

5. Make sure your spa control pack is powered on and press Next.



6

6. Go to your phone setting, Wi-Fi, and connect to the Waterway Wi-Fi device temporary network.



11

11. Click on configured Waterway Wi-Fi device, i.e. WATERW-2975.



12

12. Set the temp, heating, light operation. To access the App menu press ON in top left corner.