Spas...bring 'em on!

Y Series™

whatever the spa, this is your control system

Future compatibility
Easy care and maintenance
Fits all, and we mean all, spas

Distributed By

GECKO®
www.geckoalliance.com

ALLIED Innovations
7215 Bermuda Road Las Vegas, NV 89119
Toll Free: 800-237-9937 Fax: 866-909-7278
www.alliedinnovations.com

Creating products. Building relationships.

Y Series™

This product is the simplest, most flexible solution when it comes to supporting even the most complex array of spa add-ons and options.

The Y Series offers the kind of simplicity that makes for a genuine top-of-its-class product. It is the natural choice for anyone who wants an easy-to-understand multi-application solution.

With the Gecko Y Series you don't have to wonder about compatibility; instead, there's just the comforting certainty that when you invest in the Y Series, all spa configurations are supported.

What's more, the Y Series also takes into account future compatibility, so you can enjoy peace of mind knowing that you can enjoy the Y Series for years to come.

Compatible with:

in.k600 static main keypad
LCD display, 11 keys
3-00-7250 / BDLK6005OP

in.k4 main keypad
LCD display, 8 keys

in.k8 main keypad
LCD display, 8 keys

in.k35 main keypad
LED display, 6 keys
3-00-7249 / BDLK353OP

in.k19 main keypad
LED display, 4 keys
3-00-7222 / 0607-007027

in.k450 main keypad
LCD display, 7 keys
3-00-7248 / BDLK4503OP

in.k200 main keypad
LED display, 4 keys
3-00-7247 / BDLK2002OP

in.k800 main keypad
LCD display, 10 keys

in.k500 main keypad
Color LCD display, 7 keys

in.k300 main keypad
LCD display, 4 keys

Total flexibility, total compatibility, total satisfaction.

Gecko's new Y Series Spa Control System matches any spa available. If it's a spa, the Y Series will adapt to it. This durable, efficient new controller gives you everything you need in a spa control system while taking flexibility to a whole new level.

Gecko Y Series

1. **System designed to accept future technologies**
   The Y Series will remain state-of-the-art for many years to come. It's an investment for today, and the future.

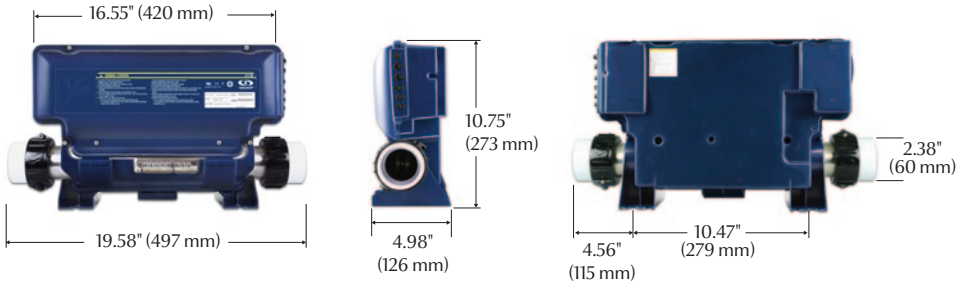
2. **AMP connectors/quick connectors**
   AMP connector and quick connect versions of the Y Series packs are both available.

3. **Single platform covering low to high-end spas**
   From simple entry level hot tubs to complex swim spa systems, the Y Series meets all requirements.

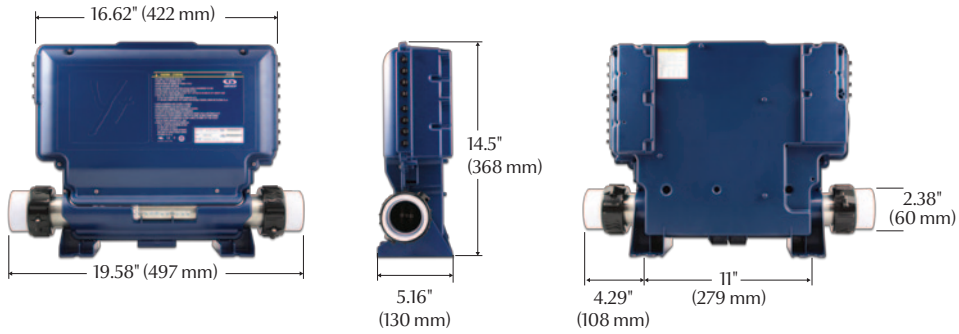
4. **Field-serviceable parts**
   The Y Series provides easy access to the control board for all maintenance and replacement requirements. Keypad auto detection options are also featured.

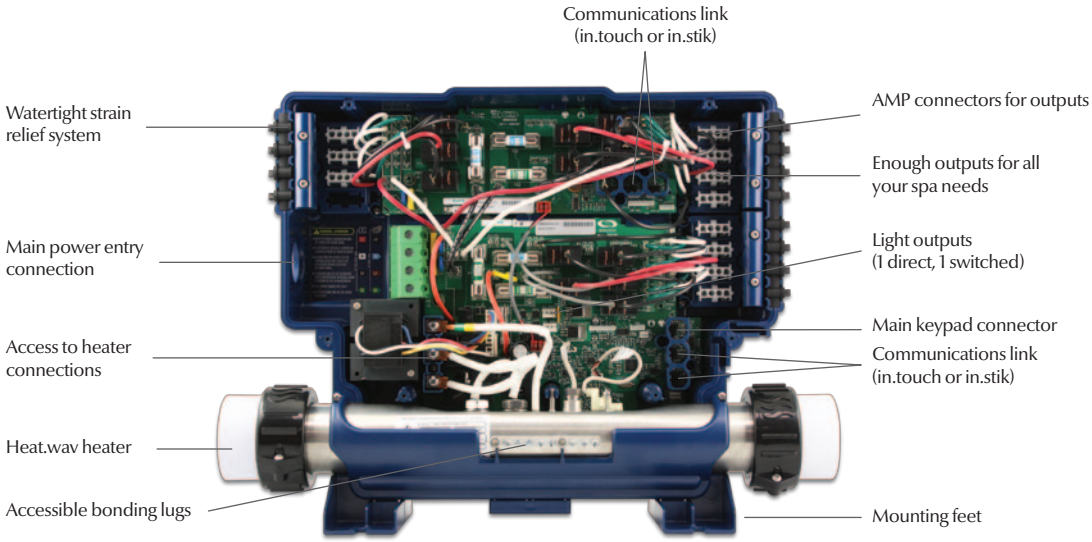
The bottom line? The Y Series will fit each and every spa produced today and well into the future. With the Y Series: you're ready.

in.ye dimensions:



in.yt dimensions:





in.seal
watertight protection

The in.seal provides extra level of protection against water infiltration. Connectors and power box are designed to be watertight and no water can be in direct contact with electrical components.

in.flo
solid state monitoring

The in.flo is an all-electronic dry-fire protection that is built-in the heat.wav heater. The in.flo eliminates the burden of adjustments, calibrations and failures associated to usual water flow sensors.

in.t.cip
water temp. algorithm

The Y Series also monitors water temperature through in.t.cip, our breakthrough software algorithm that calculates optimal time to start pumps and get water temperature readings.

in.stik
software auto-uploader

The in.stik is a pen drive software auto-uploader with an in.link connector.
The in.stik connects to the spa control system and contains software to program or configure itself.
The data upload and update occurs automatically.

in.touch
you're always in touch with your relaxation

All Y Series packs support the in.touch WiFi interface, allowing you to use your favorite iOS device to communicate with your spa.

North American Models

General specifications:

Environmental:

- Operating temperature:
  32°F (0°C) to 136°F (58°C)**
- Storage temperature:
  -13°F (-25°C) to 185°F (85°C)
- Humidity: up to 85% RH, non condensing
- IPx5 level of waterproofing

** Certain current limits may apply. Please talk to your customer service representative for more information.

Mechanical:

in.ye

- Weight: up to 9.7 lb (4.4 kg)
- Dimensions: (W x H x D)
  19.598" x 10.75" x 2.875" (497 x 273 x 126 mm)

in.yt

- Weight: up to 12 lb (5.45 kg)
- Dimensions: (W x H x D)
  19.58" x 14.5" x 5.1" (497 x 368 x 130 mm)

UL/CSA Standards:

- UL 1563 Sixth Ed.
- UL File: E182156
- CSA No. 22.2 - 218.1-M89

Y Series UL/CSA electrical specifications

Input rating:	120/240 V nominal (+5/-10%)
	60 Hz nominal +1.5 / -1.0 Hz
	(2 lines required with neutral) 48 A Max,
or (in.ye-3 only):	120 V nominal only (+5/-10%)
	(single line with neutral) 16 A Max

Heat.wav rating:

Voltage:	120 or 240 V, 60 Hz
Wattage:	4 kW at 240 V, 1 kW at 120 V (optional 5.5 kW et 240V)
Flow rate:	Minimum of 18 GPM (68.1 LPM) is required

Device	Voltage	Maximum current	ye-3 *1	ye-5	yt-7 *7	yt-12 *8
Pump 1 (2-spd)	120 or 240 V	15 FLA/60 LRA (inrush)	●	●	●	●
Pump 2 (2-spd)	120 or 240 V	15 FLA/60 LRA (inrush)	●*2	●*4	●	●
Pump 3 (2-spd)	120 or 240 V	15 FLA/60 LRA (inrush)		●*5	●	●
Pump 4 (2-spd)	120 or 240 V	15 FLA/60 LRA (inrush)				●
Pump 5 (1-spd)	120 or 240 V	15 FLA/60 LRA (inrush)				●
O3/CP	120 or 240 V	6 FLA/10 A	●*3	●		●
A1	120 or 240 V	15 FLA/60 LRA (inrush)				●
Blower	120 or 240 V	15 FLA/60 LRA (inrush)				●
CP	120 or 240 V	6 FLA/10 A			●	●
O3	120 or 240 V	6 FLA/10 A			●	●
Direct out 1	120 or 240 V	10 A (always on)		●*6	●	●
Direct out 2	120 or 240 V	10 A (always on)			●	●

*1 This model can be converted to a dedicated 120 V model.

*2 Pump #2 can only be installed if Pump #1 is a single-speed pump.

*3 Total of Pump #1-low (or Pumps #2) and O3/ CP cannot exceed 15 FLA.

*4 Total of Pump #2 and Pump #3 cannot exceed 22 FLA.

*5 Pump #3 can only be installed if Pump #2 is a single-speed pump.

*6 Total of Pump #1-low,O3/ CP, and Direct #1 cannot exceed 15 FLA.

*7 If CP is used, Pump 3 must be 1-speed
Total of pump 1-low, O3 and Di1 must not exceed 15 FLA
Total of P3, CP, and Di2 must not exceed 15 FLA

*8 If A1 is used, Pump 4 must be 1-speed
Total of O3 and Di1 must not exceed 15 FLA
Total of P3, CP, and Di2 must not exceed 15 FLA
Total of P5, and B must not exceed 15 FLA
Total of P4, and A1 must not exceed 20 FLA

Quick Start Card

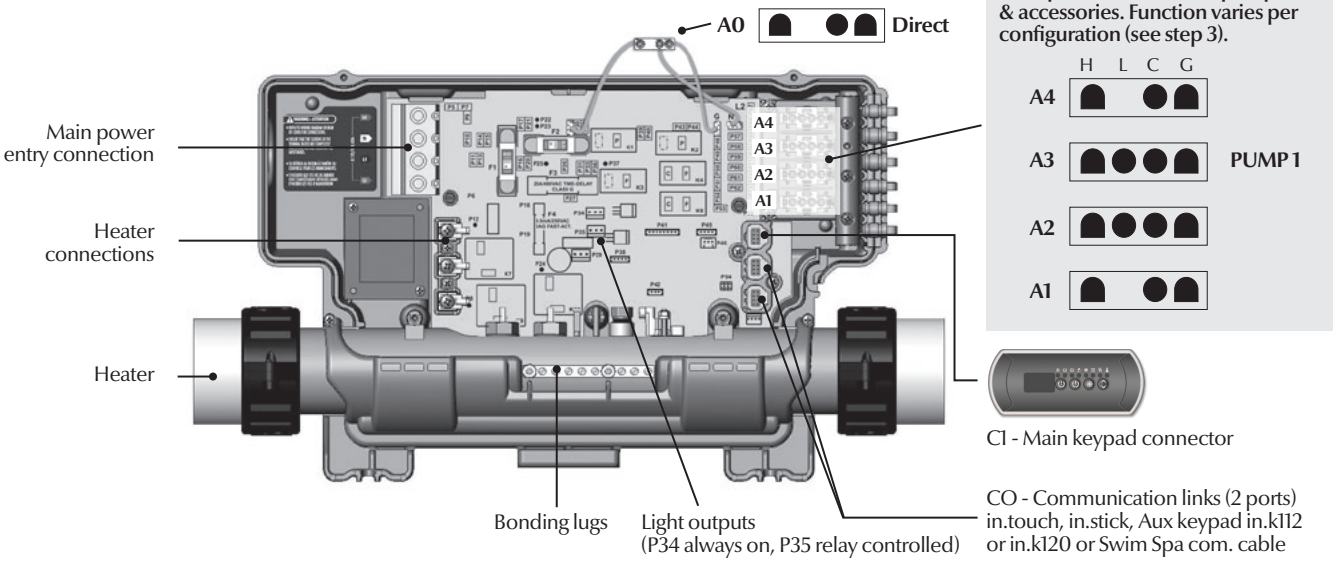
in.ye-5™

whatever the spa, this is your control system

North American version

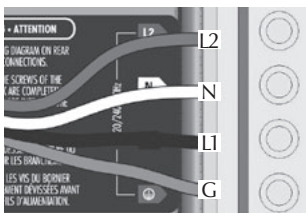
This Quick Start Card is intended for users of the North American version of the in.ye.

1- Connect all outputs & keypads



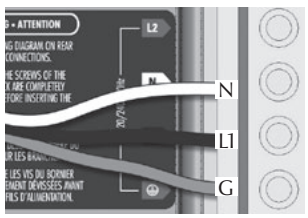
2- Connect the main power

2.a- Electrical wiring



For 240 V (4 wires)

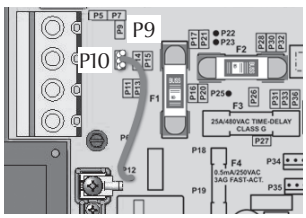
Connect wiring of the electrical service box GFCI. Neutral wire is mandatory.



For 120 V (*3 wires)

* If connected to a 3 wire system, any 240 V components will not work.

2.b- Heater & pump/accessories voltage

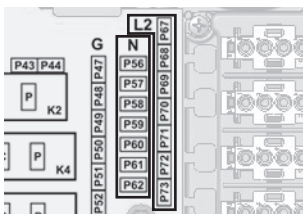


Heater voltage

Verify BROWN common wire connection to tab:

P9 - 240 V (default)

P10 - 120 V



Pumps & accessories voltage

Verify each WHITE common wire connection to tab:

N - 120 V (default)

L2 - 240 V pump/acc.

WARNING

All connections must be made by a qualified electrician in accordance with the national electrical code and any state, provincial or local electrical code in effect at the time of the installation. This product must always be connected to circuit protected by a Ground Fault Circuit Interrupter (GFCI).

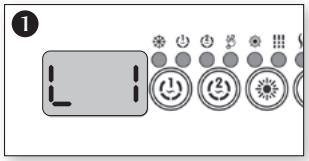
3- Select spa configuration

Information between ( ) indicates which AMP connector to use. See **Step 1** for connector position. **Software #200, rev. 003**

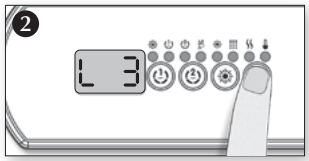
Config. #	Pump 1	Pump 2	Pump 3	Pump 4	Pump 5	Blower	Circ. Pump (CP)	Ozone[1]	Filter Cycle (Daily)	Heater Pump
1	2 sp (A3)							(A1)	2 x 2 hours with PIL	Pump 1
2	2 sp (A3)						(A1)	(A4)	2 x 6 hours with CP	CP
3	2 sp (A3)	1 sp (A2)						(A1)	2 x 2 hours with PIL	Pump 1
4	2 sp (A3)	1 sp (A2)					(A1)	(A4)	2 x 6 hours with CP	CP
5	2 sp (A3)					(A4)		(A1)	2 x 2 hours with PIL	Pump 1
6	2 sp (A3)					(A4)	(A1)	(A2)	2 x 6 hours with CP	CP
7	2 sp (A3)	1 sp (A2)				(A4)		(A1)	2 x 2 hours with PIL	Pump 1
8	2 sp (A3)	1 sp (A2)				(A4)	(A1)		2 x 6 hours with CP	CP
9	2 sp (A3)	2 sp (A2)						(A1)	2 x 2 hours with PIL	Pump 1
10	2 sp (A3)	2 sp (A2)					(A1)		2 x 6 hours with CP	CP
11	2 sp (A3)	2 sp (A2)				(A1)			2 x 2 hours with PIL	Pump 1
12	2 sp (A3)	2 sp (A2)				(A1)	(A0)[2]		2 purges , CP always on	CP
13	2 sp (A3)	1 sp (A2)	1sp (A4)					(A1)	2 x 2 hours with PIL	Pump 1
14	2 sp (A3)	1 sp (A2)	1sp (A4)				(A1)		2 x 6 hours with CP	CP
15	2 sp (A3)	1 sp (A2)	1sp (A4)			(A1)			2 x 2 hours with PIL	Pump 1
16	2 sp (A3)	1 sp (A2)	1sp (A4)			(A1)	(A0)[2]		2 purges , CP always on	CP
17	2 sp (A3)	2 sp (A2)	1sp (A1)						2 x 2 hours with PIL	Pump 1
18	1 sp (A3)						(A1)	(A4)	2 x 6 hours with CP	CP
19	1 sp (A3)	1 sp (A2)					(A1)	(A4)	2 x 6 hours with CP	CP
20	1 sp (A3)	1 sp (A2)	1 sp (A4)				(A1)	(P43 tab)[3]	2 x 6 hours with CP	CP
21	1 sp (A3)	1 sp (A2)	1 sp (A4)	1 sp (A1)			(A0)[2]	(P43 tab)[3]	2 purges, CP always on	CP
22	1 sp (A3)	1 sp (A2)	1 sp (A4)	1 sp (A1)	1 sp (P43 tab)[3]		(A0)[2]		2 purges, CP always on	CP
Swim Spa										
51 (Master)	1 sp (A3)	1 sp (A2)					(A4)	(A1)	2 x 6 hours with CP	CP
51 (Slave)			1 sp (A3)	1 sp (A2)		(A4)				
52 (Master)	2 sp (A3)	1 sp (A2)						(A1)	2 x 2 hours with PIL	Pump 1
52 (Slave)			1 sp (A3)	1 sp (A2)		(A4)				
53 (Master)	1 sp (A3)	1 sp (A2)					(A4)	(A1)	2 x 6 hours with CP	CP
53 (Slave)			1 sp (A3)	1 sp (A2)	1 sp (A1)	(A4)				
54 (Master)	2 sp (A3)	1 sp (A2)						(A1)	2 x 2 hours with PIL	Pump 1
54 (Slave)			1 sp (A3)	1 sp (A2)	1 sp (A1)	(A4)				

Note 1: When the Ozonator is not controlled by a relay, it can be tied to Pump 1 Low speed or Circ. Pump using cable AMP 9920-401369.
Note 2: Circ. pump is connected to a Direct fused outlet. Pump will always be on and may overheat if oversized pump is used.
Note 3: This accessory does not have its own AMP connector. Rewire A0 if not used or order extra AMP connector 9920-401346 (Black wire to P43 tab on the board, Green to any G tabs and white to any N tabs for 120 V accessory or any L2 tabs for 240 V).

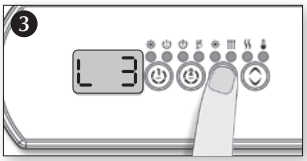
4- Enter selection



At first startup the keypad display will show **L1** or **LL1**.



Use the **Up/Down** key to choose the new low level configuration number (consult the chart above).

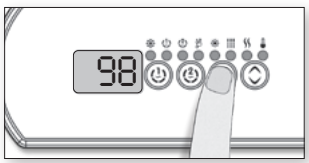


Press the **Program** key to confirm the selection.

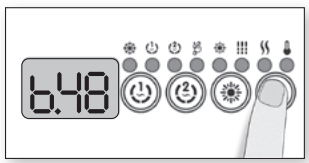
Note: To re-enter the low level selection menu, hold the Pump 1 key for 30 seconds.

Note: If the keypad in use does not have the **Program** key use the **Filter** or **Light** key instead.

5- Select breaker



Press and hold the **Program** key for 20 seconds until you access the breaker setting menu.



Use the **Up/Down** key to select the breaker value. The value can be modified from 10 to 48 A.

Default breaker value is **48 A.** Power management will make sure never to exceed this rating.

Breaker setting for GFCI used.

GFCI	b
60 A	48 A
50 A	40 A
40 A	32 A
30 A	24 A
20 A	16 A
15 A	12 A

The values displayed by the system correspond to **80%** of the maximum amperage capacity of the GFCI.

Press the **Program** key to set breaker rating.

Note: If the keypad in use does not have the **Program** key use the **Filter** or **Light** key instead.

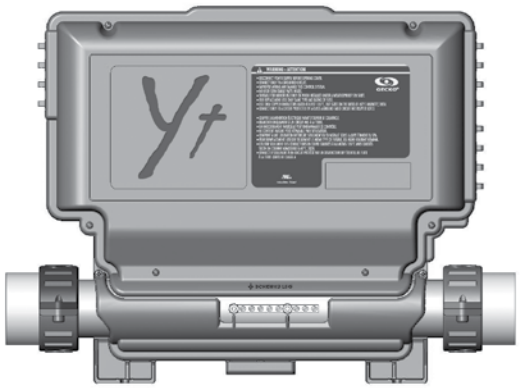
For complete TechBook or more information, see our website: www.geckoalliance.com

© Groupe Gecko Alliance Inc., 2014
All trademarks or registered trademarks are the property of their respective owners.

Printed in Canada

9919-101192-D
Rev. 02-2014

Quick Start Card



in.yt-7™

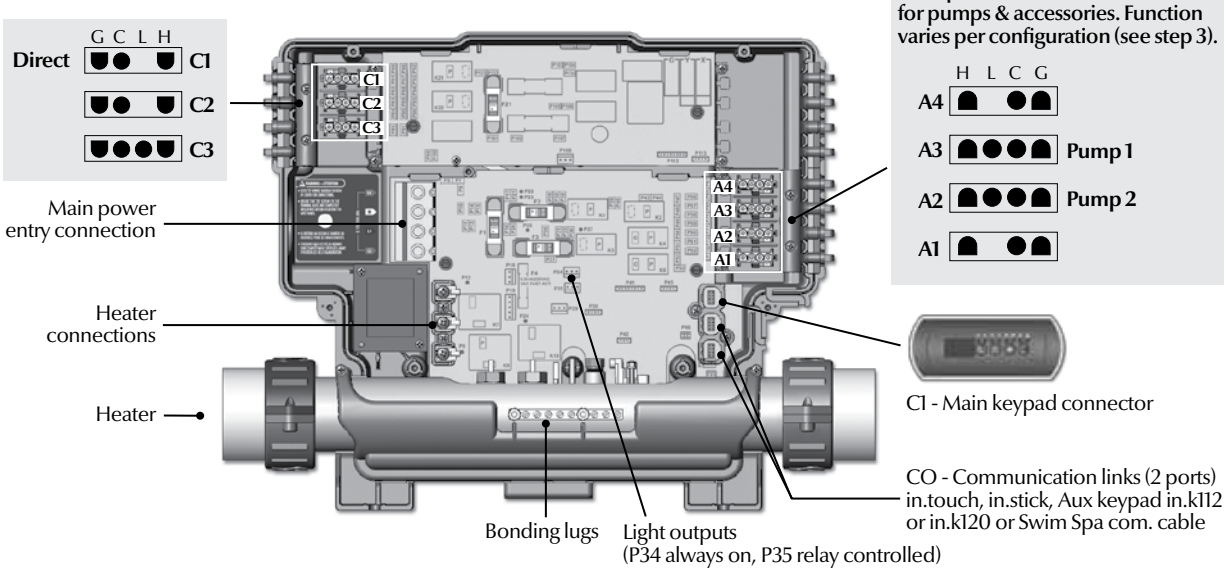
whatever the spa, this is your control system

North American version

This Quick Start Card is intended for users of the North American version of the in.yt.

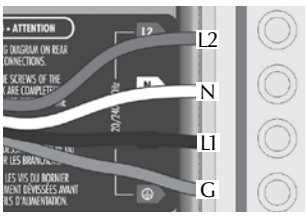
1- Connect all outputs & keypads

Configurations may change. Refer to low level table and wiring diagram for connection locations.



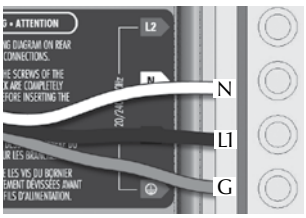
2- Connect the main power

2.a- Electrical wiring



For 240 V (4 wires)

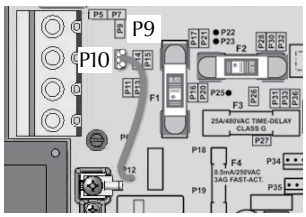
Connect wiring of the electrical service box GFCI. Neutral wire is mandatory.



For 120 V (*3 wires)

* If connected to a 3 wire system, any 240 V components will not work.

2.b- Heater & pump/accessories voltage

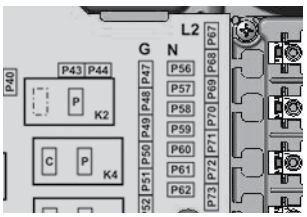


Heater voltage

Verify BROWN common wire connection to tab:

P9 - 240 V (default)

P10 - 120 V



Pumps & accessories voltage

Verify each WHITE common wire connection to tab:

N - 120 V (default)

L2 - 240 V pump/acc.

WARNING

All connections must be made by a qualified electrician in accordance with the national electrical code and any state, provincial or local electrical code in effect at the time of the installation. This product must always be connected to circuit protected by a Ground Fault Circuit Interrupter (GFCI).

3- Select spa configuration

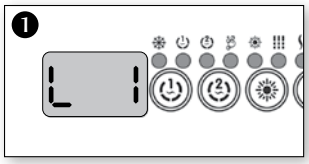
Information between ( ) indicates which AMP connector to use. See **Step 1** for connector position.

Software #249, rev. 001

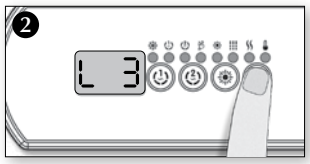
Config. #	Pump 1	Pump 2	Pump 3	Pump 4	Pump 5	Blower	Circ. Pump (CP)	Ozone[1]	120 V Light	Filter Cycle (Daily)	Heater Pump
1	1sp (A3)	1sp (A2)	1sp (C3)				(C2)	(A1)		2 x 6 hours with CP	CP
2	1sp (A3)	1sp (A2)	1sp (C3)			(A4)	(C2)	(A1)		2 x 6 hours with CP	CP
3	1sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)			(C2)	(A1)		2 x 6 hours with CP	CP
4	1sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)		(A1)	(C2)	(K2-P tab)[2]		2 x 6 hours with CP	CP
5	1sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)	1sp (A1)		(C2)	(K2-P tab)[2]		2 x 6 hours with CP	CP
6	1sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)	1sp (A1)	(K2-P tab)[2]	(C2)			2 x 6 hours with CP	CP
7	2sp (A3)	1sp (A2)	1sp (C3)					(A1)		2 x 2 hours with P1L	Pump 1
8	2sp (A3)	1sp (A2)	1sp (C3)			(A4)		(A1)		2 x 2 hours with P1L	Pump 1
9	2sp (A3)	1sp (A2)	1sp (C3)				(C2)	(A1)		2 x 6 hours with CP	CP
10	2sp (A3)	1sp (A2)	1sp (C3)			(A4)	(C2)	(A1)		2 x 6 hours with CP	CP
11	2sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)				(A1)		2 x 2 hours with P1L	Pump 1
12	2sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)		(C2)		(A1)		2 x 2 hours with P1L	Pump 1
13	2sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)			(C2)	(A1)		2 x 6 hours with CP	CP
14	2sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)		(A1)	(C2)			2 x 6 hours with CP	CP
15	2sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)	1sp (A1)			(C2)		2 x 2 hours with P1L	Pump 1
16	2sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)	1sp (A1)	(C2)				2 x 2 hours with P1L	Pump 1
17	2sp (A3)	1sp (A2)	1sp (C3)	1sp (A4)	1sp (A1)		(C2)			2 x 6 hours with CP	CP
18	2sp (A3)	2sp (A2)	1sp (C3)					(A1)		2 x 2 hours with P1L	Pump 1
19	2sp (A3)	2sp (A2)	1sp (C3)			(C2)		(A1)		2 x 2 hours with P1L	Pump 1
20	2sp (A3)	2sp (A2)	1sp (C3)				(C2)	(A1)		2 x 6 hours with CP	CP
21	2sp (A3)	2sp (A2)	1sp (C3)			(A1)	(C2)			2 x 6 hours with CP	CP
22	2sp (A3)	2sp (A2)	2sp (C3)					(A1)		2 x 2 hours with P1L	Pump 1
23	2sp (A3)	2sp (A2)	2sp (C3)			(A1)				2 x 2 hours with P1L	Pump 1
24	2sp (A3)	2sp (A2)	2sp (C3)				(A1)			2 x 6 hours with CP	CP
25	2sp (A3)	1sp (A2)						(A1)	(A4)	2 x 2 hours with P1L	Pump 1
26	2sp (A3)	1sp (A2)				(C3)		(A1)	(A4)	2 x 2 hours with P1L	Pump 1
27	2sp (A3)	1sp (A2)					(C2)	(A1)	(A4)	2 x 6 hours with CP	CP
28	2sp (A3)	1sp (A2)				(C3)	(C2)	(A1)	(A4)	2 x 6 hours with CP	CP
29	2sp (A3)	2sp (A2)						(A1)	(C2)	2 x 2 hours with P1L	Pump 1
30	2sp (A3)	2sp (A2)				(C3)		(A1)	(C2)	2 x 2 hours with P1L	Pump 1

Note 1: When the Ozonator is not controlled by a relay, it can be tied to Pump 1 Low speed or Circ. Pump using AMP cable 9920-401369.
Note 2: This accessory does not have its own AMP connector. Wire an extra AMP connector 9920-401346 (not supplied) as follow: Black wire to P43 tab on the board, Green to any G tabs and white to any N tabs for 120 V accessory or any L2 tabs for 240 V.

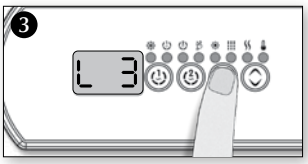
4- Enter selection



At first startup the keypad display will show **L 1** or **LL 1**.



Use the **Up/Down** key to choose the new low level configuration number (consult the chart above).

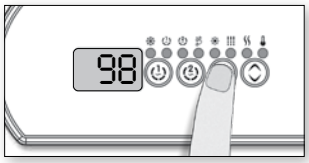


Press the **Program** key to confirm the selection.

Note: To re-enter the low level selection menu, hold the Pump 1 key for 30 seconds.

Note: If the keypad in use does not have the **Program** key use the **Filter** or **Light** key instead.

5- Select breaker



Press and hold the **Program** key for 20 seconds until you access the breaker setting menu.

Use the **Up/Down** key to select the breaker value. The value can be modified from 10 to 48 A.

Default breaker value is **48 A**. Power management will make sure never to exceed this rating.

Breaker setting for GFCI used.

GFCI	b
60 A	48 A
50 A	40 A
40 A	32 A
30 A	24 A
20 A	16 A
15 A	12 A

The values displayed by the system correspond to **80%** of the maximum amperage capacity of the GFCI.

Press the **Program** key to set breaker rating.

Note: If the keypad in use does not have the **Program** key use the **Filter** or **Light** key instead.

For complete TechBook or more information, see our website: www.geckoalliance.com

© Groupe Gecko Alliance Inc., 2014
All trademarks or registered trademarks are the property of their respective owners.

Printed in Canada

9919-101204
Rev. 03-2014

Water temperature regulation

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.

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.

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 "Smart Winter Mode" indicator lights up when the Smart Winter Mode is on.

Cooldown

While performing this task, the heater is not allowed to turn on and its icon flashes.

Troubleshooting

Hr
An internal hardware error has been detected in in.xe.
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.xe 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.

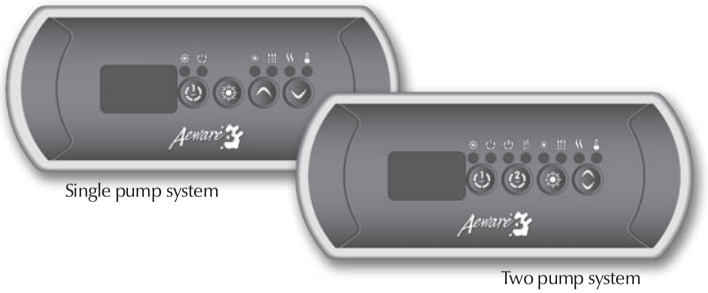
OH
The water temperature in the spa has reached 108°F (42°C). Do not enter the water! Remove the spa cover and allow the water to cool down to a lower temperature. Call your dealer or service supplier if problem persists.

www.geckoalliance.com

GECKO

in.k200

series of compact full-function keypads
for in.xe spa systems

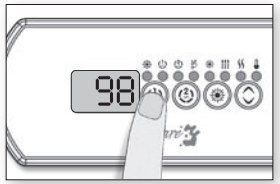


Single pump system

Two pump system

The Quick Reference Card provides a quick overview of your spa's main functions and the operations accessible with your digital control pad.

Spa functions

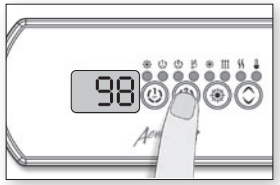


Key 1

Press **Key 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 a predetermined period of time, unless pump has been manually deactivated first.

The "Pump 1" indicator lights up when Pump 1 is on. With dual-speed pump, indicator will flash when Pump 1 is on at low speed.



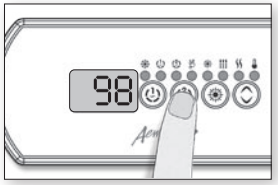
Key 2 (2 Pump (or single pump/blower)

(Single-speed pump/blower)
Press **Key 2** key to turn Pump 2 or Blower on. Press a second time to turn pump or blower off.

(Dual-speed pump)
Press **Key 2** key to turn Pump 2 on at low speed. Press a second time to turn pump to high speed. A third time turns pump off.

A built-in timer automatically turns pump off after a predetermined period of time, unless it has been manually deactivated first.

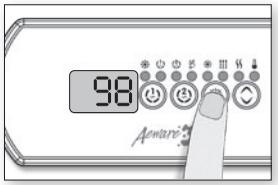
The "Pump 2" indicator lights up when Pump 2 is on. With dual-speed pump, indicator will flash when Pump 2 is on at low speed.



Key 2 (2-Pump/ Blower System)

Press **Key 2** to turn Pump 2 on at high speed. Pressing a second time turns blower on. A third press turns Pump 2 off but leaves blower on. A final press turns blower off. A built-in timer automatically turns Pump 2/blower off after a predetermined period of time, unless Pump 2/blower has been manually deactivated first.

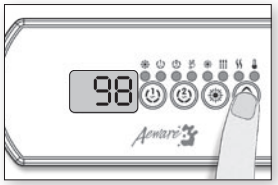
The "Pump 2" indicator lights up when Pump 2/blower is on.



Light key

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

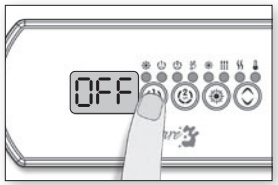
The "Light" indicator lights up when light is on.



Up/Down keys

Use **Up** or **Down** key to set desired water temperature. The temperature setting will be displayed for 5 seconds to confirm your new selection.

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

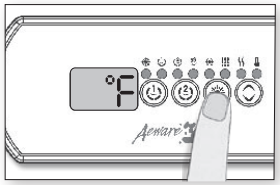


Off Mode

This mode allows you to stop all outputs for 30 minutes to perform a quick spa maintenance.

Press and hold **Key 1** key for 5 secs to activate the Off mode. Quick press **Key 1** key to reactivate the system before the expiration of the 30-minute delay.

While the Off mode is engaged, the display will toggle between **OFF** and the water temperature.



Setting the temperature display units

Quick press **Light** key again.
The display will show either °**F** or °**C**.

Use **Up** or **Down** key to change units.
Press **Light** key a last time to go back to normal mode.

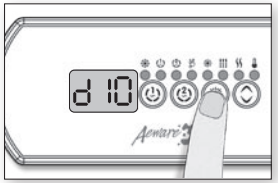
°**F** = Fahrenheit
°**C** = Celsius

Programming the purge / filter cycles

Programming filter cycles

Depending on system configuration the system performs either purge cycles or filter cycles.

To program the filter cycles, you must enter these parameters: duration and frequency. During a filter cycle, pumps & blower run at high speed for one minute to purge the plumbing. Pump 1 or CP then runs at low speed for the remaining of the cycle.

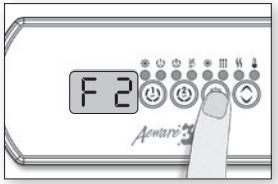


Setting filter cycle duration

Press and hold **Light** key until the display shows **dxx**, with "xx" representing the duration in hours. (Default: 2 hours).

Use **Up** or **Down** key to change setting.
0 = no filtration
24 = continuous filtration

Note: it's not recommended to set this to "0".



Filter cycle frequency

Press **Light** key again. The display will show **Fx**, with "x" representing the number of filter cycles per day (up to 4). (Default: twice a day).

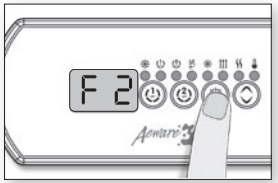
Use **Up** or **Down** key to change setting.

When the desired setting is displayed, press **Light** key to confirm. A filter cycle will start immediately.

The "Filter" indicator lights up when a filter cycle is on.

Programming purge cycles

To program the purge cycles, you must select the frequency. During a purge cycle, all pumps and the blower run for one minute. To set purge cycles:



Purge cycle frequency

Press and hold **Light** key until the display shows **Fx**, with "x" representing the number of purge cycles per day (up to 4).

Use **Up** or **Down** key to change setting.

When the desired setting is displayed, press **Light** key to confirm. A purge cycle will start immediately.

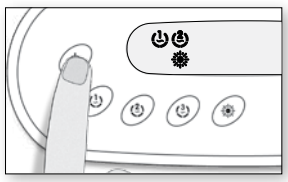
The "Filter" indicator lights up when a purge cycle is on.

Quick Reference Card
in.k450 keypads for in.xe spa systems

in.k450
Compact full-function keypads for in.xe spa systems

The Quick Reference Card provides a quick overview of your spa's main functions and the operations accessible with your digital control pad. This QRC depicts a generic overlay, custom versions may vary.

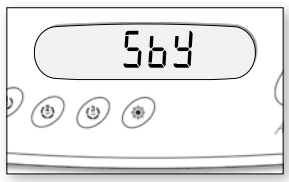
Spa Functions



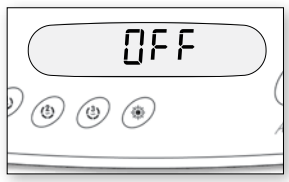
On/Off key

Depending on the spa manufacturer, this key may have one or a combination of the following functions: Standby and/or On/Off and/or Economy mode.

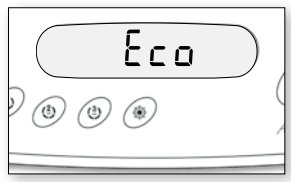
- The first mode activates/deactivates via a short press on the key.
- The second mode, if present, activates via a long press of 3 to 6 seconds and deactivates via a short press on the key.
- The third mode, if present, activates via a long press of 6 to 9 seconds and deactivates via a short press on the key.



Standby Mode: This mode allows you to stop all outputs and automatic functions with the exception of the heat request for 30 minutes. When active, the display will toggle between the "Sby" message, the clock and the water temperature. In order to restart the system before the expiration of the 30 minutes delay, make a short press on the **On/Off** key. The spa light will flash a few seconds before the end of the 30 minutes to warn you the system is about to resume its normal operation. When the system resumes its normal operation the display shows "On" for 3 seconds.

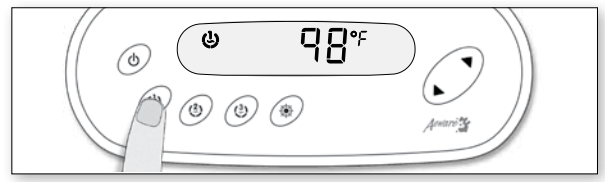


On/Off Mode: This mode allows you to stop all outputs including all automatic functions such as filter cycle, heat request and smart winter mode purge for 30 minutes to perform quick spa maintenance. When active, the display will toggle between the "OFF" message, the clock and the water temperature. In order to restart the system before the expiration of the 30 minutes delay, make a short press on the **On/Off** key. The spa light will flash a few seconds before the end of the 30 minutes to warn you the system is about to resume its normal operation.



When the system resumes its normal operation the display shows "On" for 3 seconds.

Manual Economy Mode: This mode allows you to save some energy by regulating the water temperature 20°F (11°C) below the actual set point. When active, the display will toggle between the "Eco" message, the clock and the water temperature. Make a short press on the **On/Off** key to exit the manual economy mode. When the system exits the economy mode the display shows "noE" for 3 seconds.



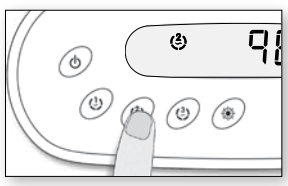
Pump 1/Off key

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.

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

The "Pump 1" indicator lights up when Pump 1 is on. With dual-speed pump, indicator will flash when pump 1 is on at low speed.

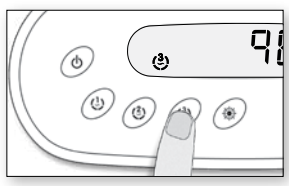
* *If single speed pump: press Pump key to turn pump on. Press Pump key again to turn pump off.*



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*). A third time turns pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.

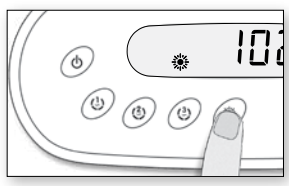
The "Pump 2" indicator lights up when Pump 2 is on. With dual-speed pump, indicator will flash when pump 2 is on at low speed.



Blower key

Press **Blower** key to turn Blower on. Press a second time to turn Blower off. A built-in timer automatically turns blower off after 20 minutes, unless blower has been manually deactivated first.

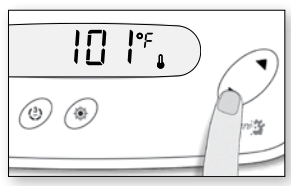
The "Blower" indicator lights up when blower is on.



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.

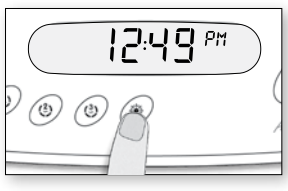


Up/Down keys

Use **Up** or **Down** key to set desired water temperature. The temperature setting will be displayed for 2 seconds to confirm your new selection.

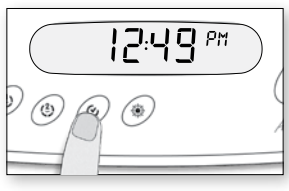
The "Set Point" icon indicates that the display shows the desired temperature, NOT the current water temperature!

Programming Steps



Program menu

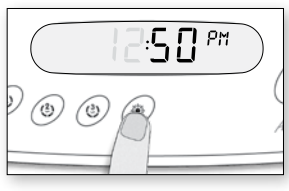
Depending on the keypad configuration, the program menu will be accessible via either the Program key (check mark) or the Light key. A long press of 5 seconds will allow you to enter the program menu. In the program menu, the following parameters can be set: the clock, the filter cycles or the purge cycles, the economy mode and the temperature units. While you are in the program menu, use the Up or Down keys to adjust the parameters and use the **Program or 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 key press for 10 seconds, the system will exit the program menu without saving the changes.



Setting the clock

Enter the program menu by holding down the **Program or Light** key for 5 seconds. The display will show the current clock setting, the minutes will be on solid and the hours will flash.

Depending on factory settings your system may be set to a 24-hour military notation or a regular 12-hour notation.



Setting the hour: Use the **Up** or **Down** keys to adjust the hours (AM/PM). Press the **Program or Light** key to jump to the next parameter, the minutes.

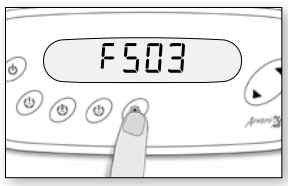
Setting the minutes: Use the **Up** or **Down** keys to adjust the minutes. Press the **Program or Light** key to jump to the next parameter, the filter or purge start time (**FS**).

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**).

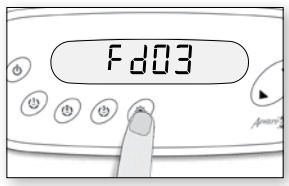
A filter cycle consists of starting all the pumps and blower in high speed for 1 minute (purge step) then, the pump associated with the filter will run in low speed for the remaining duration of the filter cycle (clean step).

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.



Setting filter cycle start time

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

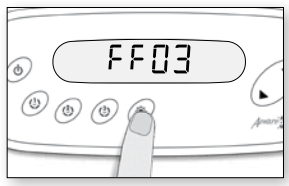


Setting filter cycle duration

The display will show **Fdxx**, "xx" representing the duration in hour of the filter cycle. Use the **Up** or **Down** key to adjust the duration. Use the **Program or Light key** to jump to the next parameter, filter frequency (**FF**).

0 = no filtration
24 = continuous filtration

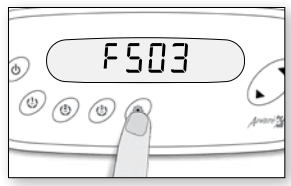
It's not recommended to set this to "0".



Setting filter cycle frequency

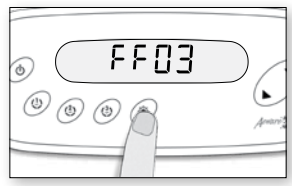
The display will show **FFxx**, "xx" representing the number of filter cycles per day. Use the **Up** or **Down** key to adjust the frequency. Use the **Program or Light** key to jump to the next parameter, economy mode (**EP**).

The "Filter cycle" indicator lights up when filter is on. Flash when suspended.



Setting the purge cycle start time

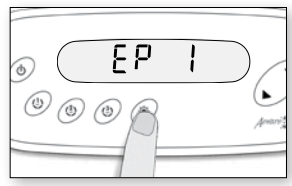
The display will show **FSxx**, "xx" representing the starting hour of the purge cycle. Use the **Up** or **Down** key to adjust the hours. Use the **Program or Light** key jump to the next parameter, purge frequency (**FF**).



Setting purge cycle frequency

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

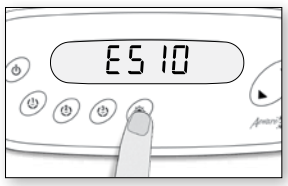
The "Purge cycle" indicator lights up when purge is on. Flash when suspended.



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.

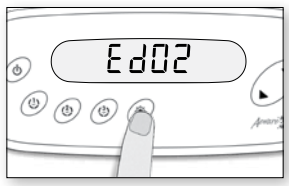
The display will show **EPx**, "x" representing the state of the programmed economy (0 = disable, 1 = enable). Use the up or down key to set the program economy to enable or disable. Use the **Program or Light** key to jump to the next parameter, economy start time (**ES**).



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 **Program or Light** key to jump to the next parameter, economy duration (**Ed**).

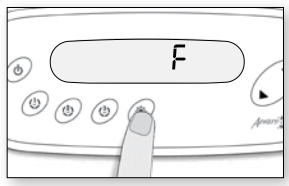
When the Economy mode is ON, the display will toggle between the "Eco" message and the water temperature.



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 **Program or Light** key to jump to the next parameter, temperature unit.

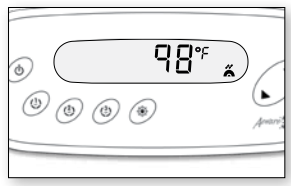
0 = no economy
24 = continuous economy



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 **Program or Light** key to save all the parameters.



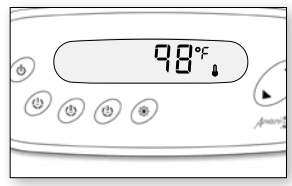
Smart Winter Mode

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 a freeze condition 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, this prolongs its useful life. The heater icon flashes during this time.



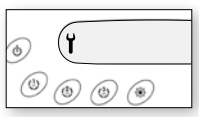
Water temperature regulation

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. 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.

Indicator flashes when taking water temperature reading.

Troubleshooting section



Should an error occur, the display will show a wrench icon (on the left of the screen) and one of the following error messages will toggle with the clock and the water temperature.

in.xe error codes	Description
	Hr **An internal hardware error has been detected in in.xe.** 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.xe 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.

Quick Reference Card

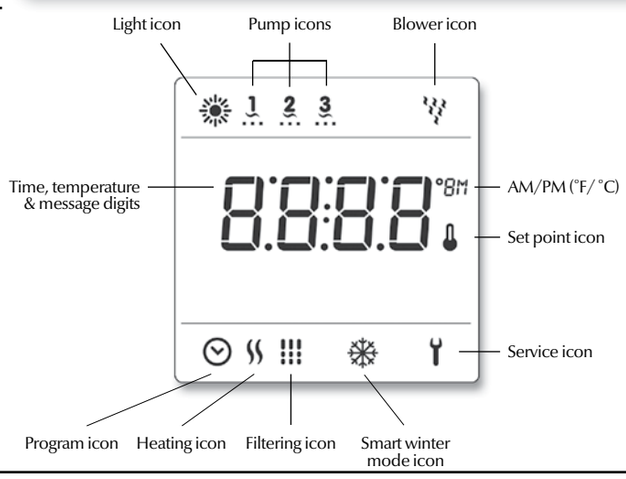
Please consult your spa user manual for complete info on the features of your spa system.

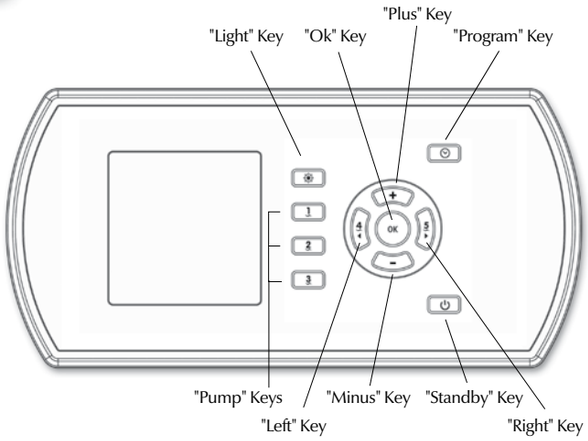
in.k600™ with in.xe™

Compact full-function keypads for in.xe™ spa systems

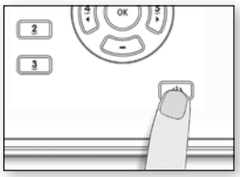
Aeware's® advanced in.k600™ keypad features a low profile with a large LCD display, streamlined interface and raised keys that let users easily control all in.xe™ functions and programming directly from spa side, creating a true and unique user experience.

Function Description





Spa Functions



On/Off key

Depending on the spa manufacturer, this key may have one or a combination of the following functions: Standby and/ or On/Off and/or Economy mode.

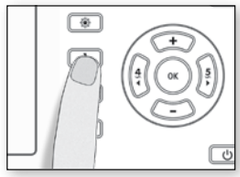
- The first mode activates/ deactivates via a short press on the key.
- The second mode, if present, activates via a long press of 3 to 6 seconds and deactivates via a short press on the key.
- The third mode, if present, activates via a long press of 6 to 9 seconds and deactivates via a short press on the key.

Standby Mode:
This mode allows you to stop all outputs and automatic functions with the exception of the heat request for 30 minutes. When active, the display will toggle between the "Sby" message, the clock and the water temperature. In order to restart the system before the expira-tion of the 30 minutes delay, make a short press on the **On/Off key**. The spa light will flash a few seconds before the end of the 30 minutes to warn you the system is about to resume its normal operation. When the system resumes its normal operation the display shows "On" for 3 seconds.

On/Off Mode:
This mode allows you to stop all outputs including all automatic functions such as filter cycle, heat request and smart winter mode purge for 30 minutes to perform quick spa main-tenance. When active, the display will toggle

between the "OFF" message, the clock and the water temperature. In order to restart the system before the expiration of the 30 minutes delay, make a short press on the **On/Off key**. The spa light will flash a few seconds before the end of the 30 minutes to warn you the system is about to resume its normal operation. When the system resumes its normal operation the display shows "On" for 3 seconds.

Manual Economy Mode:
This mode allows you to save some energy by regulating the water temperature 20°F (11°C) below the actual set point. When active, the display will toggle between the "Eco" message, the clock and the water temperature. Make a short press on the **On/Off key** to exit the manual economy mode. When the system exits the economy mode the display shows "noE" for 3 seconds.

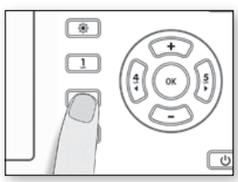


Pump 1/Off key 1

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. An integrated timer automatically turns pump, unless pump has been manually deactivated first.

A long press of 5 seconds will enable the Off mode. This mode allows you to stop all outputs including all automatic functions such as filter cycle, heat request and smart winter mode purge for 30 minutes to perform quick spa maintenance. When the Off mode is active, the display will toggle between the "OFF" message, the clock and the water temperature. Press either, Pump 1, Pump 2, Blower or On/Off key to restart the system before the expira-tion of the 30 minutes delay. The spa light will flash a few seconds before the end of the 30 minutes to warn you the system is about to resume its normal operation. When the system resumes its normal operation, the display shows "On" for 3 seconds. The "Pump 1" indicator lights up when Pump 1 is on. With dual-speed pump, indicator will flash when pump 1 is on at low speed.

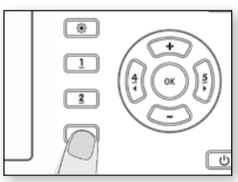
If single speed pump: press Pump key to turn pump on. Press Pump key again to turn pump off.



Pump 2 key 2

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. An integrated timer automatically turns pump off, unless pump has been manually deactivated first.

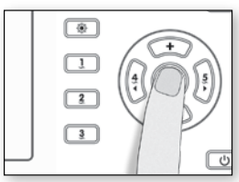
The "Pump 2" indicator lights up when Pump 2 is on. With dual-speed pump, indicator will flash when pump 2 is on at low speed.



Blower key 3

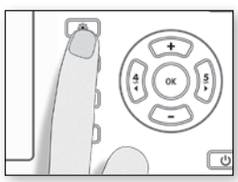
Press **Blower** key to turn Blower on. Press a second time to turn Blower off. An integrated timer automatically turns blower off, unless blower has been manually deactivated first.

The "Blower" indicator lights up when blower is on.



Integrated timer OK

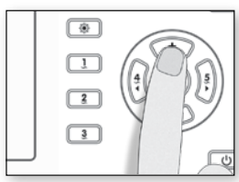
This button allows you to change the duration of the integrated timer that automatically shuts off the pumps and blower. Press OK and **dxx** will appear on the screen, with "xx" representing the duration of he timer in minutes. Use the +/- buttons to adjust the time, between 10 and 60 minutes by increments of 5 minutes. Press OK again or wait 5 seconds to save the new duration.



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.

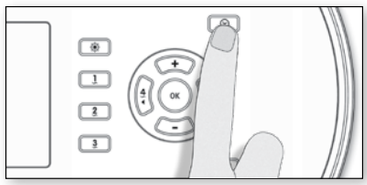


+/− Keys

Use (+) or (-) key to set desired water temperature.
The temperature setting will be displayed for 5 seconds to confirm your new selection.

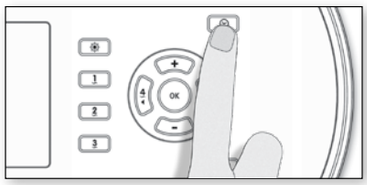
The "Set Point" icon indicates that the display shows the desired temperature, NOT the current water temperature!

Programming steps



Program menu

Depending on the keypad configuration, the program menu will be accessible via the Program key (check mark). A long press of 5 seconds will allow you to enter the program menu. In the program menu, the following parameters can be set: the clock, the filter cycles or the purge cycles, the economy mode and the temperature units. While you are in the program menu, use the **Up** or **Down** keys to adjust the parameters and use the **Program** or **OK** key to jump to the next parameter. The changes will be saved after the confirmation of the last parameter only. If there is no key press for 10 seconds, the system will exit the program menu without saving the changes.



Setting the clock

Enter the program menu by holding down the Program key for 5 seconds. The display will show the current clock setting, the minutes will be on solid and the hours will flash. Depending on factory settings your system may be set to a 24-hour military notation or a regular 12-hour notation.

Setting the hour: Use the **Up** or **Down** keys to adjust the hours (AM/PM). Press the **Program** or **OK** key to jump to the next parameter, the minutes.

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

Setting filter cycle start time

The display will show **FSxx**, "xx" representing the starting hour of the filter.

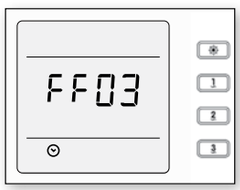
Use the **Up** or **Down** key to adjust the hours. Use the **Program** or **OK** key to jump to the next parameter, filter duration (**Fd**).

Setting filter cycle duration

The display will show **Fdxx**, "xx" representing the duration in hour of the filter cycle. Use the **Up** or **Down** key to adjust the duration. Use the **Program** or **OK** key to jump to the next parameter, filter frequency (**FF**).

0 = no filtration
24 = continuous filtration

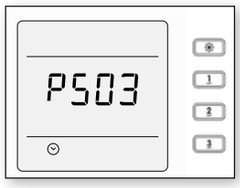
It's not recommended to set this to "0".



Filter cycle frequency

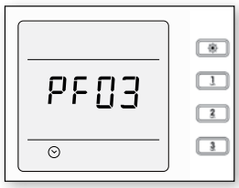
The display will show **FFxx**, "xx" representing the number of filter cycles per day. Use the **Up** or **Down** key to adjust the frequency. Use the **Program** or **OK** key to jump to the next parameter, economy mode (**EP**).

The "Filter cycle" indicator lights up when filter is on. Flash when suspended



Setting the purge cycle start time

The display will show **PSxx**, "xx" representing the starting hour of the purge cycle. Use the **Up** or **Down** key to adjust the hours. Use the **Program** or **OK** key jump to the next parameter, purge frequency (**PF**).



Setting purge cycle frequency

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

The "Purge cycle" indicator lights up when purge is on. Flash 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 = disable, 1 = enable). Use the **Up** or **Down** key to set the program economy to enable or disable. Use the **Program** or **OK** key to jump to the next parameter, economy start time (**ES**).

Setting Economy start time

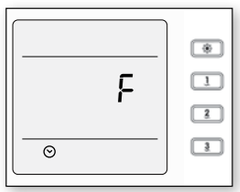
The display will show **ESxx**, "xx" representing the hour at which the economy mode will become active. Use the **Up** or **Down** key to adjust the hour. Use the **Program** or **OK** key to jump to the next parameter, economy duration (**Ed**).

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

Setting Economy duration

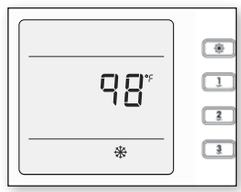
Setting economy duration. The display will show **Edxx**, "xx"representing the duration in hour of the economy mode. Use the **Up** or **Down** key to adjust the hour. Use the **Program** or **OK** key to jump to the next parameter, temperature unit.

0 = no economy
24 = continuous economy



Setting temperature unit

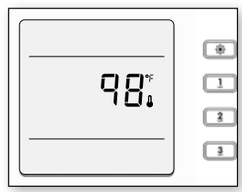
Water temperature can be displayed in either Fahrenheit (°F) or Celsius (°C). The display will show F or C. Use the **Up** or **Down** key to change the setting. Use the **Program** or **OK** key to save all the parameters.



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 a freeze condition is detected and flashes when the purge is active.



Water temperature regulation

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. After verifying pump activation and taking a water temperature reading

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, this prolongs its useful life. The heater icon flashes during this time.

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. Indicator flashes when taking water temperature reading.

Troubleshooting section

in.xe™ error codes	Description
Hr	**An internal hardware error has been detected.** Note the error message and contact dealer or service supplier for Tech Support.
AOH	**Temperature inside the spa skirt is too high, causing the internal temperature inthe Spa Pack to increase above normal limits.** Open skirt and wait until error clears. If error persist, note the error message and contact dealer or service supplier for Tech Support
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. If problem persists, Note the error message and contact dealer or service supplier for Tech Support.
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. If problem persists, note the error message and contact dealer or service supplier for Tech Support.
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.** Note the error message and contact dealer or service supplier for Tech Support.