

Smart Touch

LE, 620 and 840

Integrated Automation system Owners Manual

By INNOVATIVE POOL PRODUCTS LLC



For more information look us up on the web at

www.InnovativePools.com

Safety Instructions

1. Read and Follow All Instructions

2. DANGER - to reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

3. Prolonged immersion in hot water may induce hyperthermia. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6 degrees F. The symptoms include dizziness, fainting, drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include:

- 1) Unawareness of impending danger;
- 2) Failure to perceive heat;
- 3) Failure to recognize the need to exit the spa;
- 4) Physical inability to exit the spa;
- 5) Fetal damage in pregnant women;
- 6) Unconsciousness resulting in a danger of drowning.

WARNING - The use of alcohol, drugs or medication can greatly increase the risk of fatal hyperthermia in hot tubs and spas.

4. Keep Power Center door closed.

5. PLEASE SAVE THESE INSTRUCTIONS.

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www.InnovativePools.com**

SMART TOUCH SYSTEM OVERVIEW

The Smart Touch system consists of the following:

- 1.) The Power Center can be either a Sub Panel Power Center or a Standard Power Center (without Sub Panel.)
- 2.) Water Temperature Sensor.
- 3.) Air Temperature Sensor (For TouchScreen models)
- 4.) Two Valve Actuators. (For Pool / Spa units)
- 5.) An indoor controller that is either.
 - a.) Decora Spa Control used with the LE and Smart Touch 620 models.
 - b.) Smart Touch TouchScreen used on Smart Touch 620 and 840 models. (The Touch Screen can be either hard wired to the PowerCenter, or can use our Power Line Carrier option and simply plug the controller in to a 120 volt receptacle.)

Regardless of the controller used the Power Center operates the same on all models. The Power Center is available in a two auxiliary version (LE) four auxiliary (Smart Touch 6 or 620) and a six auxiliary version (Smart Touch 840)

Standard Power Line Carrier (PLC) or X-10 Controls

The Smart Touch System can be controlled by other Home Automation systems by using standard X-10 Commands. If you are using a Smart Touch 620 or 840 (TouchScreen) you may wish to shut off the reception of X-10 signals. See Standard X-10 Control in this manual. The House Code of the Smart Touch controller is set by your installer. This is done at the DIP switches in the Power Center.

The Standard X-10 Controls will operate the following functions.

Smart Touch LE			Smart Touch 620 and 840
X-10 Unit Code			
Unit 1	Open	Normal use is for Light Dimming Module	Open
Unit 2	Open	Normal use is for Light Dimming Module	Open
Unit 3	Spa		Spa
Unit 4	Aux 1	Can be used for Cleaner / 2 speed pump	Aux 1
Unit 5	Aux 2	Can be used for Solar Heater	Aux 2
Unit 6	Spa Overflow	(Suction from Pool return to Spa)	Aux 3
Unit 7	Filter		Aux 4
Unit 8	Heat Boost	(2 minute heater boost)	Aux 5
Unit 9			Aux 6
Unit 10			Spa Overflow
Unit 11			Filter Pump
Unit 12			Heat Boost
Unit 13	Solar Cool		Solar Cool
Unit 14	Pool Heat Enable		Pool Heat Enable
Unit 15	Spa Heat Enable		Spa Heat Enable
Unit 16	Lifeguard		Lifeguard

Smart Touch Power Center Control Panel

The Smart Touch control panel allows local control (at pool equipment) of all functions of the SmartTouch system. Each function has an LED next to the switch to give the operator feedback on the status of the system. **The temperature is displayed after the filter pump has been running for 1 minute. While the filter pump is off the display will show 3 lines (- - -).** The temperature set points for the pool and spa temperature can be adjusted at the pool control center. The entire front panel display (except the Lifeguard reset) is disabled while in the Auto Mode. The Power Center controls are only active when in the Service Mode and Manual Mode. While in the Service Mode the Smart Touch system will not respond to commands from the TouchScreen or standard PLC commands. The Smart Touch system will automatically revert from the Service Mode back to the Auto Mode after 3 hours. The TouchScreen will display a message that you are in the Service Mode until the screen is cleared. The Manual Mode will allow the operator to use both the front panel switched and the TouchScreen and PLC commands. The Manual Mode will not revert to the Auto Mode.

Temperature Display

Displays pool and spa water temperature. After the filter pump has run for 1 min. the display will show pool water temp when in the pool mode and spa water temp while in spa mode. The display will also show temp. set points when adjusting the temp.

Temperature Up and Down

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

Mode Switch

Changes the mode to allow local control. The Service Mode will revert to Auto Mode after 3 hours. The Manual Mode allows local control. Local Control is disabled while in Auto Mode.

Valve Switch

Changes the position of Valve Actuators.

Filter Pump Switch

Turns on Filter Pump. When LED flashes the filter pump is in the heater cool down cycle.

Spa Mode Switch

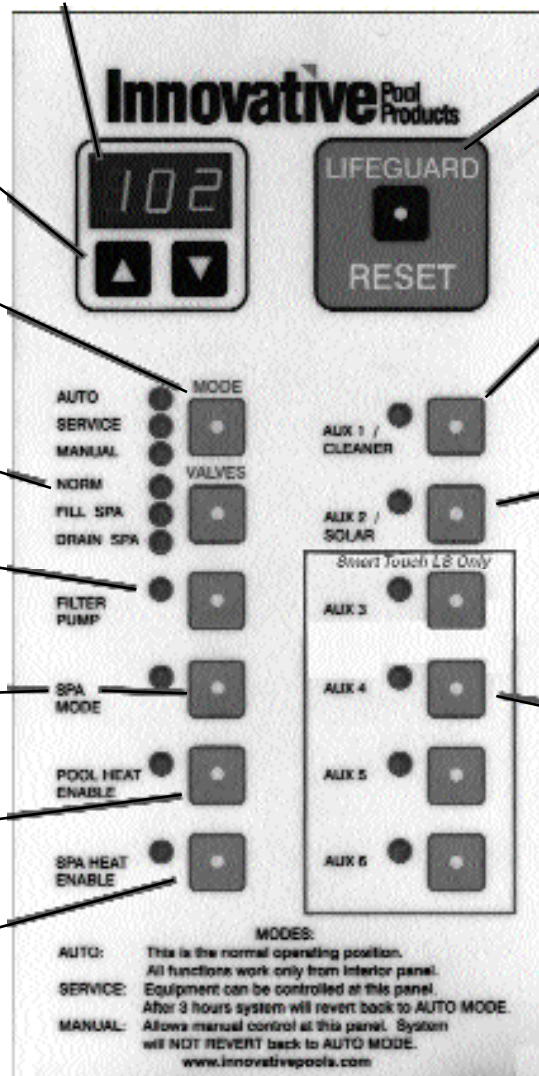
Controls Spa Function. Filter Pump, Suction and Return Valves and switches to spa set point.

Pool Heater Switch

Enables Pool Heater, LED flashes when heater is firing.

Spa Heater Switch

Enables Spa Heater, LED flashes when heater is firing.



Lifeguard Reset Switch

Resets the optional LIFEGUARD safety alarm system. Push switch to turn off sirens.

Aux 1 / Clnr Switch

Controls Aux 1 or the Pool Cleaner or a 2 speed filter pump. Factory setting is for a standard Aux.. If DIP switch #1 is changed the cleaner logic is enabled. Cleaner will not operate if in the Spa Mode, enables "prime cycle". LED flashes when cleaning is suspended.

Aux 2 / Solar Switch

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

Auxiliary Switches

Controls for Aux 3 through 6 on Smart Touch LS. Auxiliary switches on Smart Touch adds controls for Aux 7 through 13 using PLC modules. These modules are available on our web site. www.innovativepools.com

Figure 1

The Smart Touch Power Center

TEMPERATURE DISPLAY

The Temperature Display on the Power Center uses a temperature sensor installed in the pool plumbing at the Pool Equipment area. The display will only read the temperature of the water that flows past the sensor. The temperature will be displayed if the Filter Pump has been pumping for one minute. Below the temperature display there are **up** and **down** adjustment arrows.

ADJUSTING THE TEMPERATURE FROM THE POWER CENTER (outside at pool equipment)

IMPORTANT: The Smart Touch system becomes your pool and spa thermostat. Normally you must leave the Pool Heater turned on and the thermostats on the heater turned all the way up. However See Your Heater Manufacturers Instructions for using their equipment with (2 wire) Control Systems.

The Smart Touch system has two temperature set points, one for pool which is factory set to 80 degrees F, and one for Spa which is factory set for 100 degrees F. You may adjust the temperature set point at the Power Center by pressing the up or down arrow buttons. If you are in the POOL mode you may adjust the Pool Temp., to adjust the Spa set point you must be in the Spa Mode. While in the proper mode, press either the up or down arrow. The first temperature displayed is the current set point. Adjust the temperature up or down as desired.

- 1.) Press MODE button to change from Auto to either Manual or Service Mode. This allows the exterior controls to function.
- 2.) With filter pump running (for 1 minute) the temperature should be displayed in the window. If the control is in the Pool Mode you will be able to set the Pool temp. If the controller is in the Spa Mode you will be able to set the Spa temperature.
- 3.) Press either the up or down arrow buttons in the temperature window. The first temperature that appears in the current set point.
- 4.) Adjust the set point to the desired temperature. The display will adjust, after you have adjusted to the desired temperature the display will return to the actual water temperature.

Temperature Adjustment from Touch Screen:

From the Touch Screen you can set the desired set point of either the pool or spa.

- 1.) Press the **SETUP icon in the Navbar**
- 2.) Press either **Set Pool Temperature** or **Set Spa Temperature**.
- 3.) Using the numbered keys press in the desired set point and Press Enter.

If setting the SPA TEMP. you must use 3 digits. The Smart Touch will accept either a 0 or a 1. Use the 0 if you desire a temperature less than 100 degrees. For Example to set heater to 98 degrees press 098 Enter.

MODE SWITCH

The Mode Switch allows you to control the connected pool equipment from the power center.

Auto: The Auto Mode allows the Smart Touch to be controlled by the indoor controller, whether it is X-10 controlled, or controlled by the Smart Touch TouchScreen. This is the Normal Mode for your system.

Manual: The Manual Mode will allow control either remotely (from inside the house) or local control at the Power Center. You may leave you system in this Mode if you like.

Service: The Service mode allows LOCAL CONTROL at the pool equipment ONLY, the system will revert to the Auto mode after 3 hours. Your Smart Touch system will track all commands that it receives but it will not act on them until it reverts back to the Auto Mode. When you change to this Mode your TouchScreen will display a message letting you know that you are in the Service Mode, and the system will revert back to the **Auto Mode** in three hours.

FILTER PUMP

On the Decora Series Smart Touch controllers the Filter Pump daily filtering cycle is controlled by the Time Clock in the Power Center. The Filter Timer is an Electronic 7 day programmable timer with rechargeable battery backup. This timer is only available on the Smart Touch Decora Series controls. On the Smart Touch 620 and 840 controls filter pump programming is performed on the TouchScreen. See Page (UNKNOWN) for timer programming instructions.

From The Power Center

The Filter button turns on and off the main filtration pump to begin circulation to the pool. This Filter pump also activates if the spa is turned on, or if the pool cleaner is turned on. The main filtration pump circulates the pool or spa water through the filter and heater. The Filter pump must be on if you want to display the pool temperature, or if you want to heat the pool or spa.

HEATER ENABLE SWITCHES

The Smart Touch system has separate Pool Heater Enable and Spa Heater Enable switches. To heat the pool during daily filtering, enable the heater by changing to the Manual Mode and pressing the Pool Heat Enable button. The LED next to the button should be lit. When the heater is firing the LED will flash. Set the Spa Heater Enable if you would like to heat the spa while in the Spa Mode.

Aux 1 /Clnr

The Aux 1 circuit can be set up as either a standard auxiliary or as a Pool Cleaner pump or valve actuator. The Pool Cleaner option is also used to control the low speed of a 2 speed pump. If your installer has the #1 Dip switch turned to the Cleaner position the logic circuits and lockouts will be turned on. With Aux 1 set to the Cleaner position a five minute delay and Filter Pump interconnect is enabled as well as a Spa Mode lockout. In other words, if the Filter pump and Cleaner are off and the Cleaner is turned on, the Aux 1 / Clnr LED will flash in the standby mode and the Filter Pump will turn on for a 5 minute prime cycle. After the prime cycle the Aux 1 / Clnr circuit will activate. If the Aux1 / Clnr circuit is on and the Spa Mode is turned on the Aux 1 /Clnr circuit will go into the standby mode and it's LED will flash.

Aux 2 / Solar

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

AUX 3 and 4 Smart Touch 6 or Greater, AUX 5 and 6 available on Smart Touch 840 Only.

These auxiliaries can be used for any motor load up to 240 volts 3 horse power.

LOCKOUTS AND DELAYS (FLASHING LED'S)

When a function is in a delay mode or a lockout the LED for that function will flash.

Heater Cool down Delay - When the system is heating (water is circulating to the spa) and the Spa button is pressed, the system will return to the Pool Mode for five minutes, and will continue to circulate the water. This delay allows water to cool the heater down by circulating water through it, preventing equipment damage.

Heater Startup - The heater will only fire if the Smart Touch is reading the water temperature (e.g. filter pump is on and has been circulating for 1 min.) to the corresponding body of water (e.g. spa for spa heater) and the actual water temperature is below the temperature you set. If these conditions are not met, the heater can be enabled (ready to fire), but will not fire. When the heater is enabled, the LED next to the button will be red. When it is firing, the LED will flash red.

Cleaner Lockout - The pool cleaner will only activate if the system is in pool mode (i.e. water circulating to pool). The pool cleaner requires that water is circulating to the pool in order for it to operate. Return to pool mode to activate the cleaner.

Spa Overflow Lockout - The Spa Overflow feature automatically turns on the Filter Pump and turns the return valve actuator to Spa. This will suck water from the Pool and Return all the water to the Spa. If you have a raised spa this will create a pleasing water feature. The Spa Overflow will automatically cancel if the Spa Mode is activated.

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

FREEZE PROTECTION:

Freeze protection is intended to protect equipment and plumbing for short periods of freezing only. The Smart Touch does this by circulating water so that it won't freeze inside of equipment or plumbing. Freeze Protection does not guarantee that equipment will not be damaged by extended periods of freezing temperatures. Or extremely low temperatures. In these conditions, the pool and spa should be shut down completely (i.e. drained of water and closed for the winter) until warmer weather exists. Innovative Pool Products does not warranty any equipment that is damaged by freezing conditions. (FIND SEE PROGRAMMING DEVICES ON THE TOUCHSCREEN FOR ENHANCED FREEZE PROTECTION)

LIFEGUARD (option)

THE LIFEGUARD SYSTEM IS DESIGNED AS AN ADDED LAYER OF PROTECTION FOR SMALL CHILDREN TO ALERT YOU IF THEY ENTER THE POOL AREA. NO SYSTEM OF THIS NATURE CAN REPLACE THE WATCHFUL EYE OF A RESPONSIBLE ADULT. PLEASE WATCH CHILDREN CAREFULLY AROUND YOUR SWIMMING POOL.

The Lifeguard system is a Child Alert system built in to the Smart Touch system. This Option can be added by your installer. The Lifeguard system consists of the following.

1. One pair of high quality Optex infrared beam sensors.
2. One hard wired siren for the pool equipment area.
3. One plug in Alarm / Chime.

The Optex infrared beams are sold in pairs and up to four pairs of beams can be used to completely surround the pool area.

The Lifeguard system has two modes:

The ALERT mode will sound the interior Chime every time the infrared beams are tripped. The ALERT mode will not activate the exterior siren. The ALERT mode is active when the Lifeguard icon is Off.

The ALARM mode is activated as a default, when the system is first powered up the Lifeguard will be in the ALARM mode even if the icon is OFF. Turn the Lifeguard ON and the icon will appear. The ALARM mode will sound a loud alarm from the interior Chime/Siren as well as sound the outside siren. The siren will sound for 10 seconds and be silent for five seconds and will alternate until it is reset out at the pool equipment Power Center Lifeguard Reset button. The siren will automatically reset after four minutes and remain active. If the Alarm is sounding you will see the LED on the touch screen in the upper right corner flashing. You may turn off the siren by turning off the Lifeguard from the touch screen, but you must wait until the LED stops flashing. You have five seconds to get the signal through until the alarm signal resumes. If you turn the Lifeguard OFF from the touch screen during an alarm you will have deactivated the exterior siren and turned the interior Chime/Siren back to the Chime mode. This chime will continue to sound for four minutes. **YOU MUST GO CHECK THE POOL AREA TO SEE THAT IT IS SAFE AND ALL CHILDREN ARE ACCOUNTED FOR AND RESET THE LIFEGUARD FROM THE POWER CENTER BOARD AT THE POOL EQUIPMENT.**

Typical Lifeguard System Installation

using 1 pair of beams an infrared beam can be set up from fence to fence to let you know when a child is on his way to the pool. You can install up to 4 pairs of beam emitters to completely surround the swimming pool area.



Infrared Beams



Indoor Siren / Chime

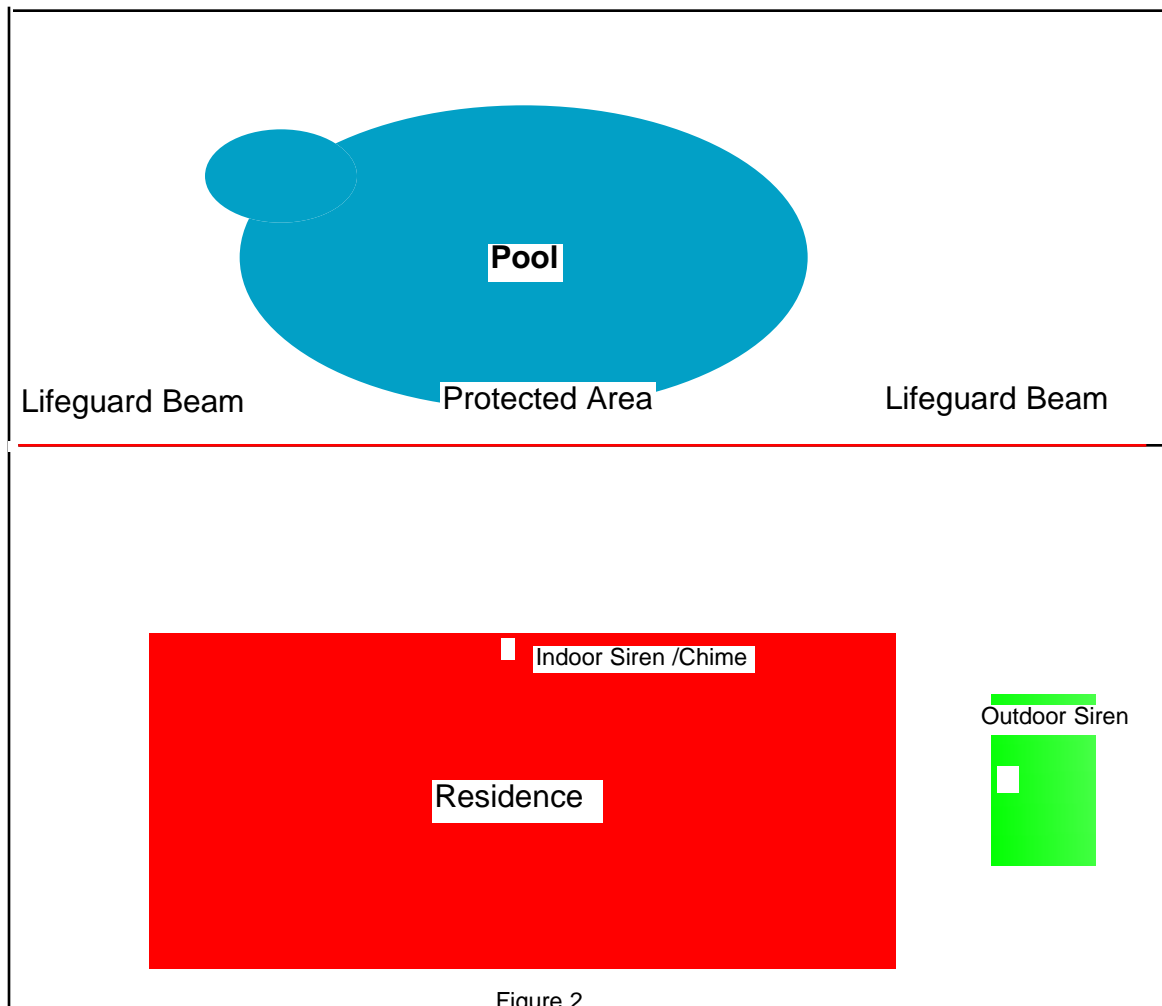
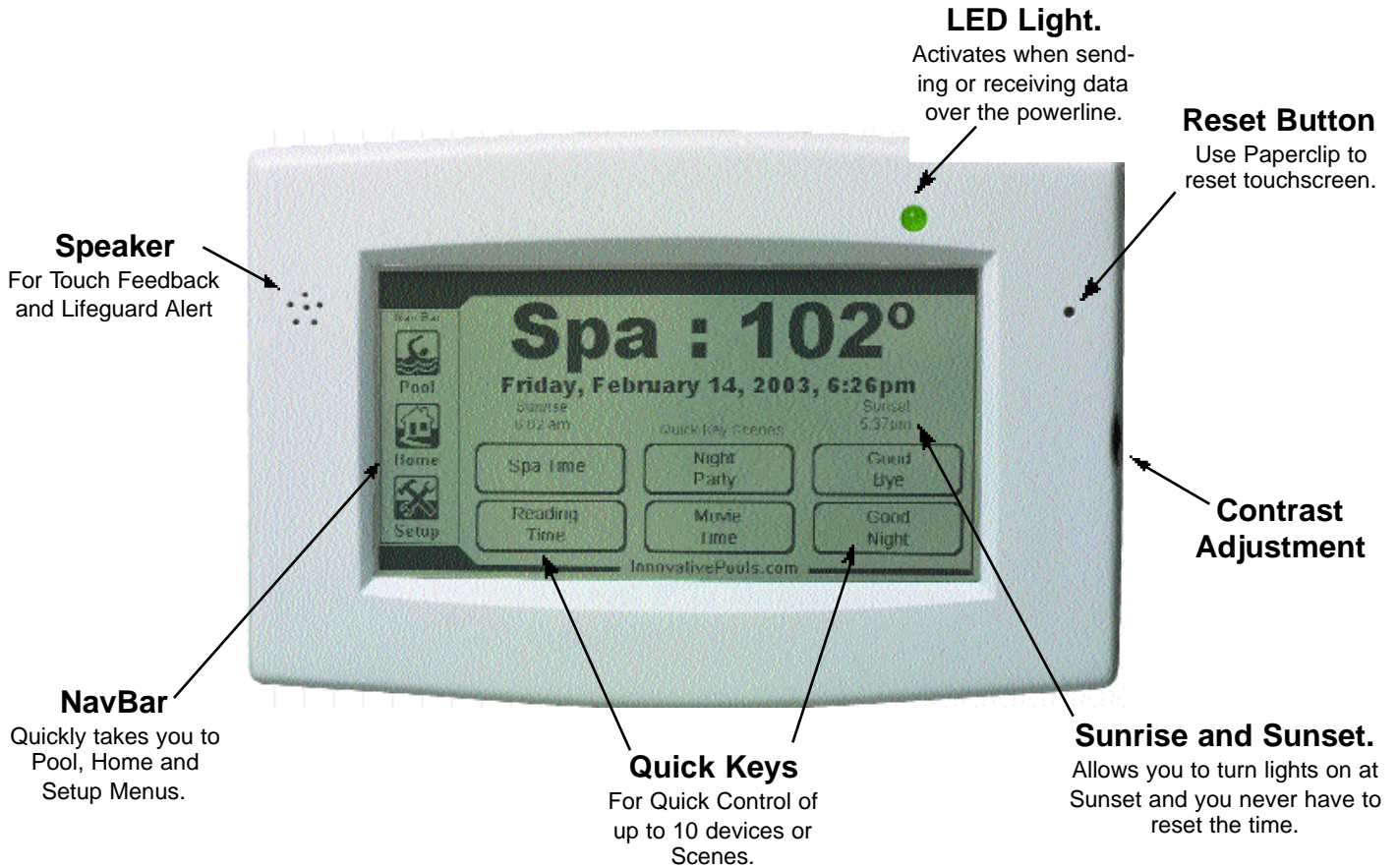
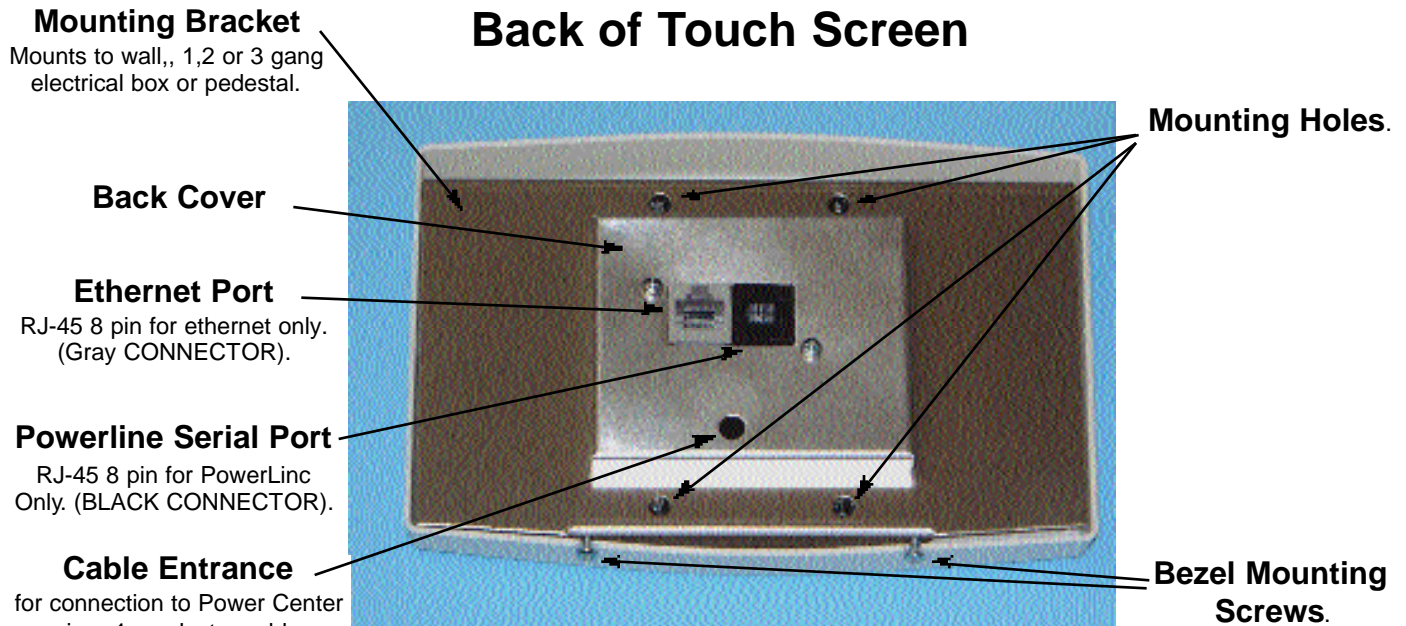


Figure 2

The Smart Touch Touch Screen



Back of Touch Screen



Do Not Plug your PowerLinc into your Ethernet Port

TouchScreen

Getting Started

The Touch Screen for the Smart Touch system is very durable, but it can become scratched if you use a sharp or abrasive object on the screen. In the upper right corner of the screen you will notice an LED. This LED has two purposes.

1.) It will help you see the screen in the dark. Touching the screen will activate the back light of the screen for one minute.

2.) The LED flashes during communication with the pool control board. (During initialization there will be about 10 seconds of activity on the line before the screen is ready to use.)

Pressing the screen

You will find that the most accurate way to press the touch screen is with the back of your finger nail.

Starting Your TouchScreen

When you start up your TouchScreen a splash screen comes up letting you know that the Linux Operating System is loading. This procedure takes about one minute. Followed by a graphic decompression sequence and a short time of restoring all of the data from flash memory.

In Total the startup take about 5 minutes.



Figure 3

Screen Calibration

At your initial start up you must calibrate your TouchScreen. This is normally done at the factory before the unit ships. To recalibrate the touch screen in the field, press and hold the left side of the screen for about six seconds. This calibration method asks you to touch the center of the target as it moves from the upper left to the lower right. It is best to use something with a precise point like a stylus or a retractable ball point pen (WITH THE PEN RETRACTED) and touch the exact center of the target. The TouchScreen will use these points as a guide to know where you are touching the screen. If at any time you think the the TouchScreen is not calibrated correctly press and hold any spot on the screen for five seconds and the TouchScreen will take you back to the calibration process.

If you accidentally press the screen in the wrong place during this calibration process your calibration will be incorrect. The screen will not interpret your touch correctly. Press and hold anywhere on the screen for five seconds and re-calibrate.

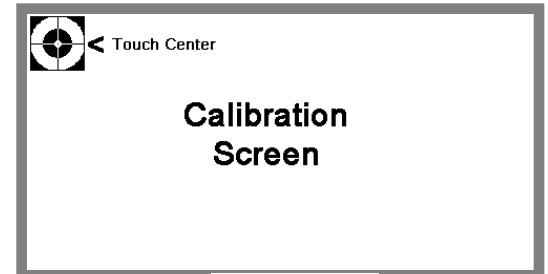


Figure 4

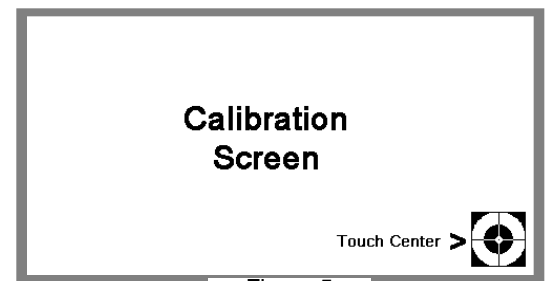


Figure 5

Main Screen

After your screen starts up it will display your main screen. It will look something like Figure 6. However if this is the first time your system has been started you may not have the correct time, date and labels.

See Figure 7 for a layout of the main screen.



Touch Screen Overview

The main screen of your Smart Touch TouchScreen gives you important information about your pool at one glance. This is the default screen that your TouchScreen will return to if you have not touched the screen within the last two minutes. From this screen you can see the temperature of the pool or spa, (if the filter pump is running) the day, date, time, Sunrise and Sunset times as well as navigating through the Nav Bar or launching Quick Key macros.

Company Name can be customized in the Setup - Preferences menu. You can even put the name and phone number of your pool service company here.

Displays air temperature at the pool equipment.

The Nav Bar allows you quick and easy access to Pool, Home and Setup Screens. If you are in the Pool Menu and you hit the Pool icon in the Nav Bar you quickly return the the Main Screen.

Quick Tap the Bottom Left corner of the screen three times and you return to the calibration mode.

Displays the Pool or Spa Temperature, Day, Date, Time and Sunrise / Sunset times.

Up to six Quick Key macros can launch up to ten pool and home functions with the touch of a Quick Key button. Each Quick Key can be custom labeled and programmed. See page 21.

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

Control all aspects of your Pool Equipment from the Pool Menu. Each device can be programmed and labeled from the Setup Menu. Black Buttons are ON White Buttons are OFF.

Home Control Menus for 20 Home Control devices on a Smart Touch 620 and up to 40 Home Controls on a Smart Touch 840. Each device can be individually programmed and labeled.

Connecting your Touch Screen to the Pool Equipment

Normally the person who installed your Smart Touch will connect it to the pool equipment. There are two ways that this connection can be made.

Hardwired:

Normally if your Touch Screen is mounted to the wall it will be connected to the Smart Touch Power Center at the Pool Equipment via a low voltage 4 wire connection.

Power Line:

One of the advantages to the Smart Touch system is that the Touch Screen can use a PowerLinc to communicate to your Smart Touch Power Center over your existing electrical wiring. This is done by sending a low voltage digital signal over your existing wiring system. This signal travels over all of the wiring in your home allowing you to control virtually any electrical device in your home without the need of expensive control wiring. If your Touch Screen is a Pedestal Mounted Touch Screen it is probably communicating over the Power Line via a PowerLinc.



PowerLinc

When the powerline is used as control wiring it is important for the installer to make sure that your Smart Touch system is on a different "House Code" than any other two way power line carrier devices on the same utility company transformer. Your Smart Touch system is unique in that there is a setup sequence that checks the power line to map out any "House Codes" that are currently being used by other Pool Control systems or Home Automation Systems that use a two way power line protocol.

Normally there will not be a problem with communication over the power line to your pool and all of your home automation equipment. However if you notice that your Touch Screen seems to be having difficulty communicating with your pool and home devices, you should check your powerline for other systems that may have been added, (neighbors pool). Please see page 13 for details.

Keys to a successful Home Automation System.

Use only high quality Power Line devices from Innovative Pool Products. We carry quality components from various manufacturers on our Web Site at InnovativePools.com.

Have your system planned in advance by a properly licensed electrician who is familiar with Power Line Carrier Home Automation Systems and has the proper test equipment to verify signal strength and noise issues.

Install a Coupler Repeater in your main electrical panel as well as remote breaker panels.

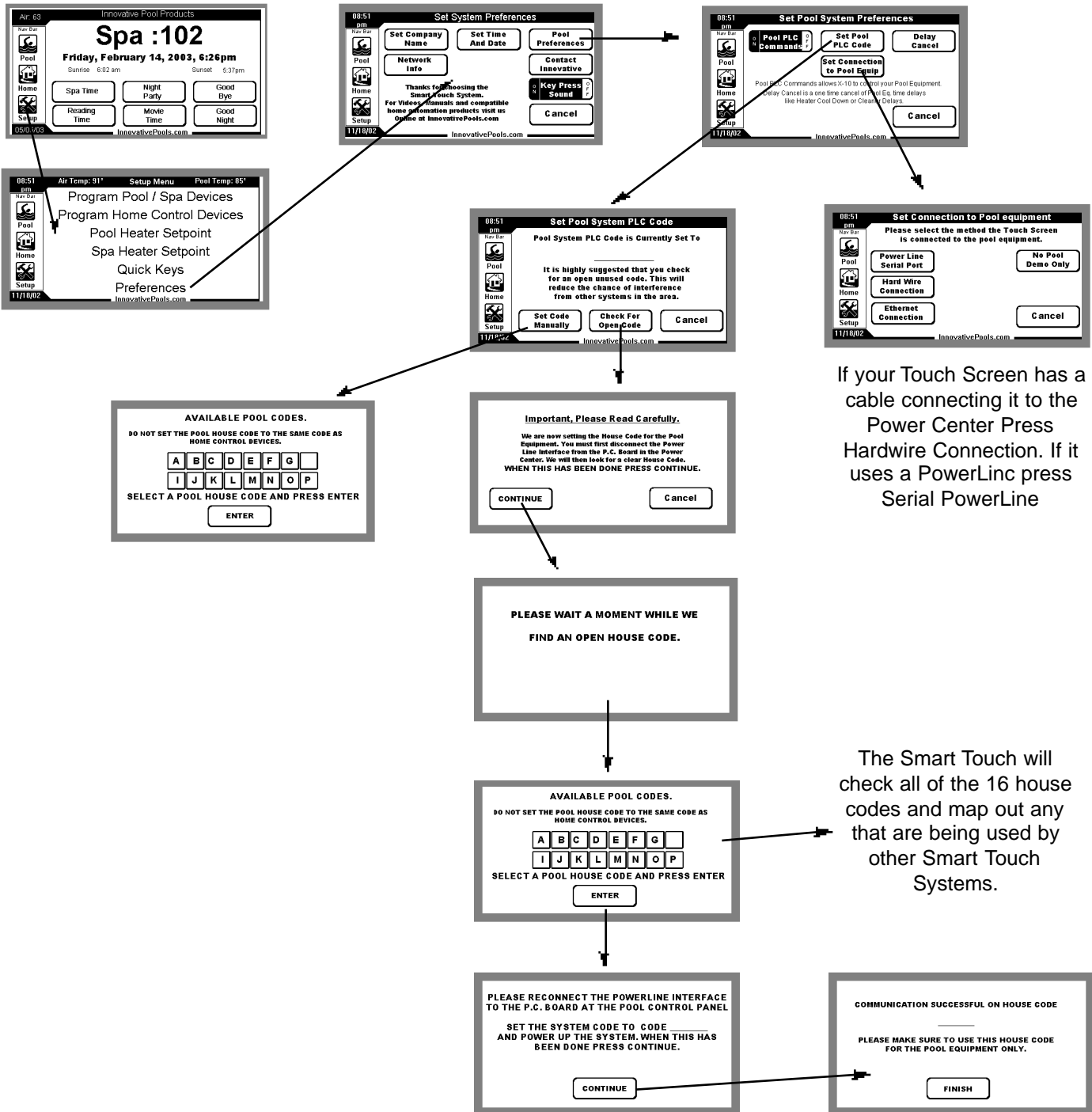
Filter any noisy (electrically noisy) devices as well as any devices that attenuate power line carrier signals.

Use BoosterLincs to Boost signal strength to low signal areas.

Power Line Carrier is the most economical method of achieving an Integrated Pool, Home and Lighting automation system. In order to achieve professional results that you will be happy with for years, avoid using low cost low quality components commonly sold in electronic stores and home centers. These devices are usually of much lower quality.

Setting the connection to the Pool Equipment and the Pool PLC Code

The Smart Touch system is capable of checking for other Pool Control and Home Automation



If your Touch Screen has a cable connecting it to the Power Center Press Hardwire Connection. If it uses a PowerLinc press Serial PowerLine

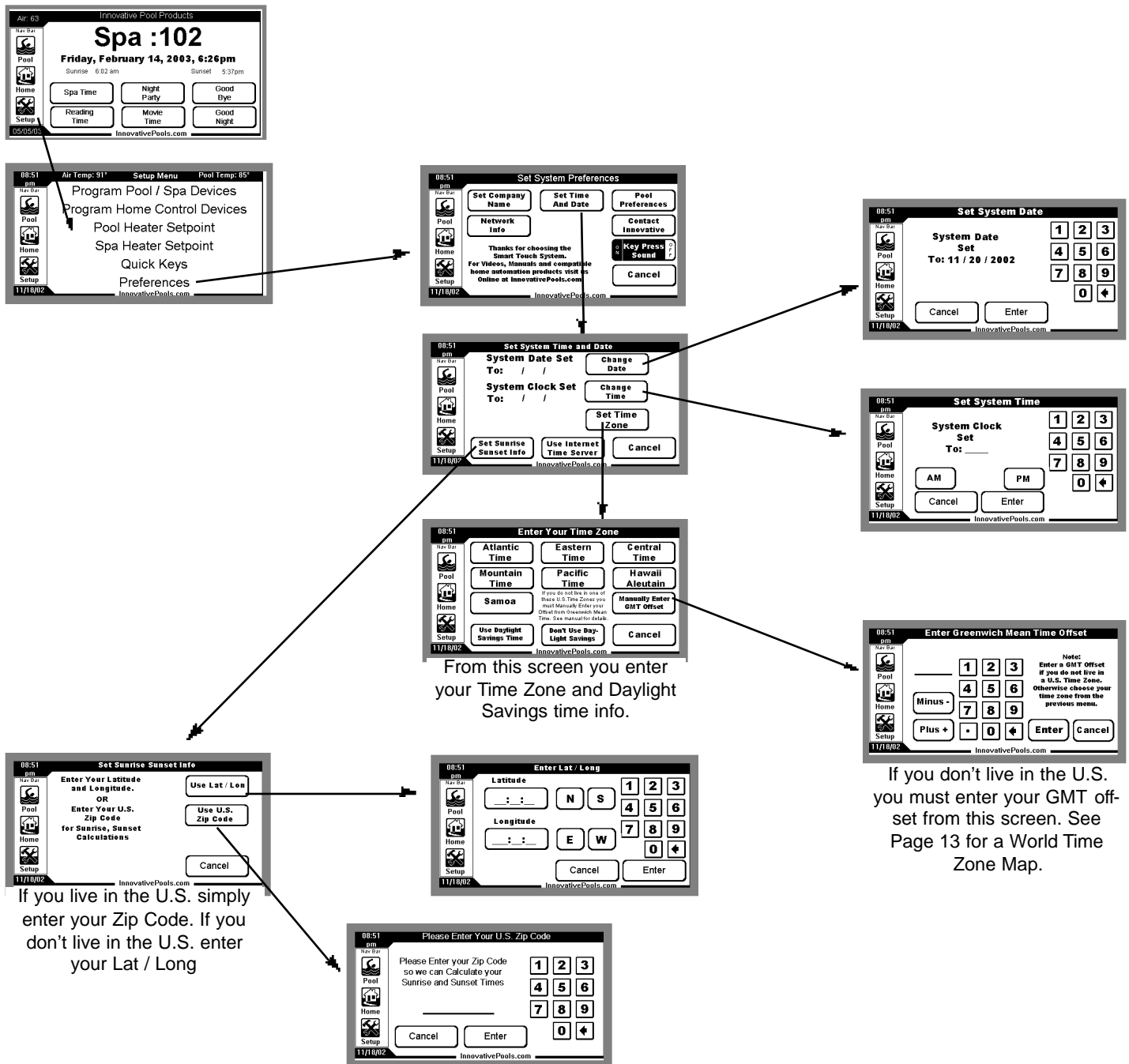
The Smart Touch will check all of the 16 house codes and map out any that are being used by other Smart Touch Systems.

Setting the Time, Date and Location

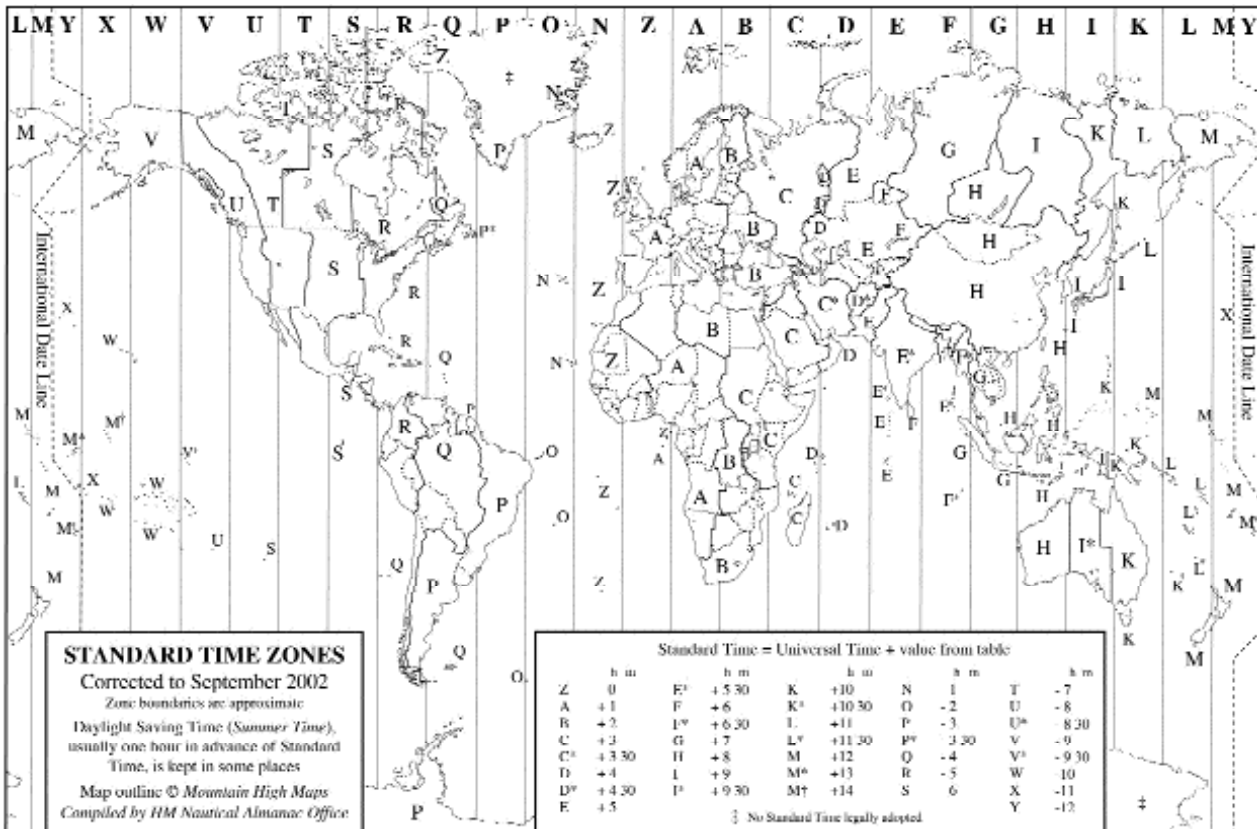
For the Smart Touch system to operate properly you must enter the following date, time and location information. This will allow the TouchScreen to program devices by time of day seven days a week, as well as program items to turn on or off at Sunrise and Sunset. The Smart Touch TouchScreen will save all information during a power failure and will even keep time while disconnected from the power source for several days.

From any Menu press **Setup > Preferences > Set Time And Date.**

The TouchScreen needs to know the current time and date, as well as what part of the world you are in (U.S. Zip Code or Latitude and Longitude if not in the U.S.A.), whether you use Daylight Savings time in your area, and your time zone. If you do not reside in a U.S. time zone you will need to enter your Latitude and Longitude and your GMT Offset. This information will be used to calculate your Sunrise and Sunset times.



World Time Zone Map



Why We Need This Information

Your Smart Touch TouchScreen is capable of controlling every electrical device in your home. With traditional control systems you must change the clock twice a year if you are in an area that uses Daylight Savings time. If you want a traditional system to control outdoor lighting, you must either change the programmed time for these lights to turn on several times a year, or live with the fact that your outdoor lighting will turn on several hours early (while it is still light) or late, (several hours after it gets dark) during the course of a year.

With Smart Touch this changes everything. We use the information that you input to calculate Sunrise and Sunset. This allows you to program your outside lights to turn on at Sunset and turn off whenever you like, either a time, say 11:00 pm or Sunrise. Your TouchScreen will then take care of everything. You will never have to reprogram again. Your Smart Touch automatically recalculates Sunrise and Sunset times every day, Smart Touch will also automatically change time for Daylight Savings Time and keep an accurate clock time. If your Smart Touch system is portable you may unplug it and move around your home. Your Smart Touch TouchScreen will keep time and will not lose your programming.

Energy Saving Tips:

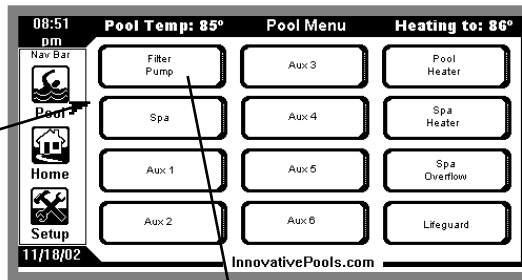
Tip #1 Program your Filter Pump to turn on at Sunrise and run until 9:00 am and on again at 4:00pm and run until sunset. As the days get longer your filter time gets longer. During Winter months when you do not need to filter you pool as much the filtering time automatically shortens.

Tip #2. Program your backyard landscape lighting to turn on Friday, Saturday and Sunday night at Sunset and off when you go to bed.

Tip #3 Program a Good Night Quick Key that shuts down all unnecessary lighting, since you won't be awake to enjoy it.

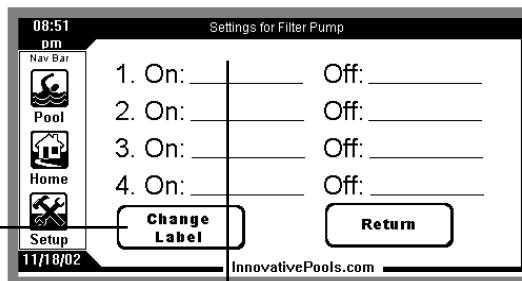
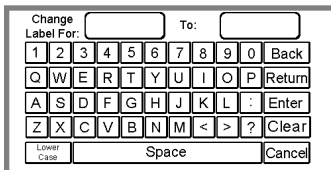
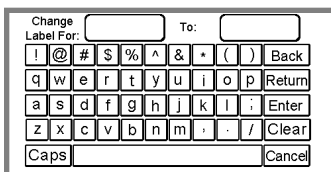
Programming Pool Equipment

Press Setup > Program Pool and Spa Devices

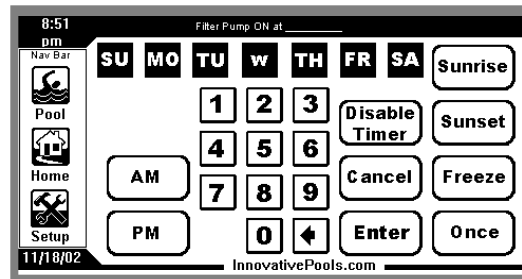


Select the device from this menu that you would like to program. Notice that the labels are generic. You will custom label these devices as you program them. You may want to make a list of what equipment is connect to Aux 1 - 6 to refer to.

Change the device label with both upper and lower case keyboards. Start by hitting Clear to erase the current label.



This screen shows all of the On / Off times for the device you selected. All programming is visible at once. Press an On or Off time slot to program it. The Label at the top helps you to remember what your programming. You may also customize the label from this screen.



For Sunrise and Sunset triggers function, you must enter your Sunrise and Sunset information. (Zip Code, Time Zone and Daylight Savings Time) For Freeze to function you must have an Air Temp Sensor.

Each device for Pool Menu and Home Control Menus can be programmed for up to four On and four Off times per day. These On and Off triggers can be either a time of day, Sunrise, Sunset, Freeze (will use 35 degrees at the Air Temp. Sensor for Freeze Activation) and Once. The Timer screen defaults to All days (Black Day Buttons) de-select the days you do not want the program to run. For Example: If you would like your Pool Heater to only heat the pool Friday - Sunday, you will program an On time for 9:00 am on Friday by setting a 9:00 am on time and de-selecting every day but Friday. De-selected days are White Buttons with Black Letters. Then Set and Off time for Sunday at 6:00 pm. The result is that the heater will be enabled every Friday at 9:00 am and then disabled every Sunday at 6:00 pm. If you just want to do this for the coming weekend, not every weekend you will press the Once button after you enter the time and the program will automatically erase itself after it executes. To erase a program press Disable Timer. When you have finished, press enter. Repeat this for each On and Off trigger you wish to program.

Programming Home Control Devices

What Can You Do With Home Controls?

The Smart Touch 620 and Smart Touch 840 are capable of controlling up to 20 or 40 home control devices respectively. These devices must be compatible with the X-10 powerline communications protocol. This protocol is supported by many 3rd party manufacturers of lighting and home control products. Manufacturers of most home automation systems either support the X-10 protocol directly or manufacture a bridge device that allows their systems to communicate with X-10 compatible PLC products. If a particular system or manufacturer does not have a bridge and is not compatible with this protocol, but can output RS 232, you can purchase an RS 232 to PLC PowerLine from Innovative Pool Products.

Keys to a successful Home Automation System.

Use only high quality Power Line devices from Innovative Pool Products. We carry quality components from various manufacturers on our Web Site at InnovativePools.com.

Have your system planned in advance by a properly licensed electrician who is familiar with Power Line Carrier Home Automation Systems and has the proper test equipment to verify signal strength and noise issues.

Install a Coupler Repeater in your main electrical panel as well as remote breaker panels. If more than one coupler repeater is used make sure that the units do not repeat repeated signals.

Filter any noisy (electrically noisy) devices as well as any devices that attenuate power line carrier signals.

Home Automation and the Smart Touch System.

The Smart Touch System's home automation functions require the use of 3rd party automation products, some of these products are available on our web site at www.InnovativePools.com. These devices can automate your entire lighting system in your home without having to re-wire your house. With the Smart Touch system you can achieve scene lighting, audio, video, HVAC (Heating, Ventilating and Air Conditioning) as well as security automation functions. For example: With one button press from your SpaTemp inside your spa you can start a Quick Key Macro that turns on the Pool Lights, Dims the Spa Light to 32%, turns the spa temperature to the setting you like, dims the lighting inside your house, activates your Home Audio System and turns on your backyard speakers. This requires additional home automation products that can be found on our web site. We also suggest that you hire a professional home automation company for professional results.

It is highly suggested that you use high quality components with your Smart Touch System. There are many manufacturers of high quality control devices that use this protocol, among them are ACT or Advanced Control Technologies, Leviton, Lightolier and PCS or Powerline Control Systems. Innovative Pool Products offers High Quality Control Products on our web site at www.InnovativePools.com.

Please make sure to use quality products if you would like a quality outcome.

Home Controls can be simple, usually there is nothing required more than replacing a light switch with a Powerline Carrier Switch. However in some electrical wiring environments certain devices can create interference or absorb (attenuate) the signal that is transmitted by our controls. In these cases you may need the assistance of a professional that is trained and experienced in Powerline Carrier home controls. Please check our web site for an installer in your area.

Programming the TouchScreen to operate the Home Control devices.

Programming your Home Control Devices follows the same procedure as programming Pool Control Devices. The only differences are that you must also set a Device Address for that device and program its module for the same address. Different Manufacturers have different methods of programming device addresses and scene capability. Follow the manufacturers instructions for setting the module to the correct address etc.

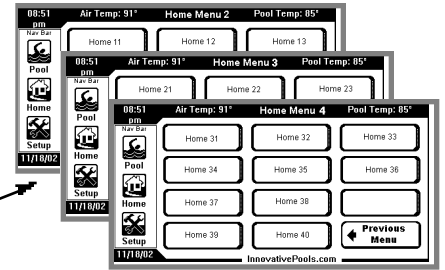
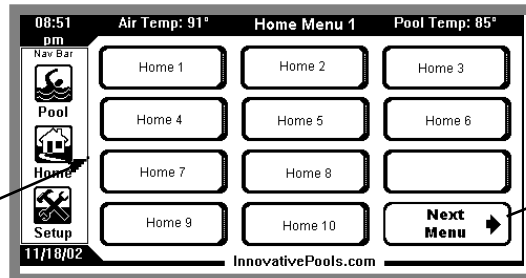
Write down all of the devices you have installed that are X-10 Compatible including each devices primary address and a label or name for that device. DO NOT SET ANY HOME CONTROLS TO THE SAME HOUSE CODE AS THE POOL EQUIPMENT.

Example:	Label	House Code	Unit Code
	Family Room Lights	B	1
	Family Room Lamp	B	2
	Breakfast Nook Light	B	3

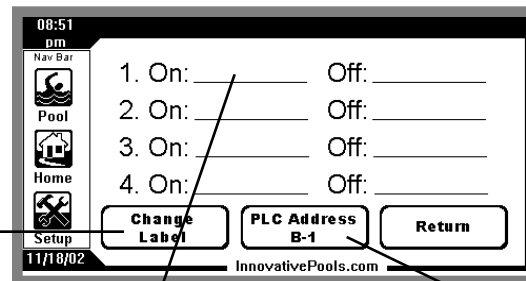
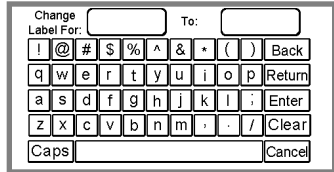
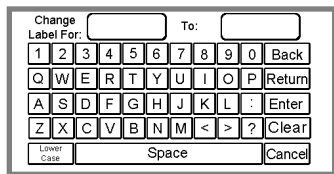
Keep a copy of this list as a road map to setting up your TouchScreen and for future reference.

Programming Home Automation Equipment

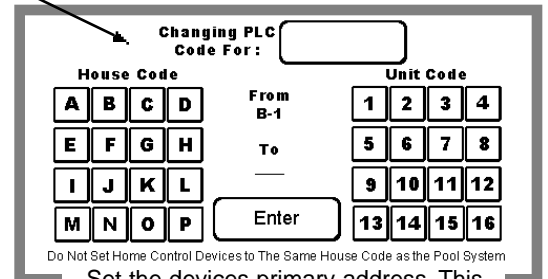
Press Setup Icon, then press Program Home Control Devices.



Select the device you would like to program from the Home Control Menus. With the ability to control up to 40 devices, it is a good idea to take notes on the devices you have installed, as well as their addresses. You will need to label them and set their addresses on the TouchScreen. Make sure to set up all of your devices before you program Quick Key Macros.

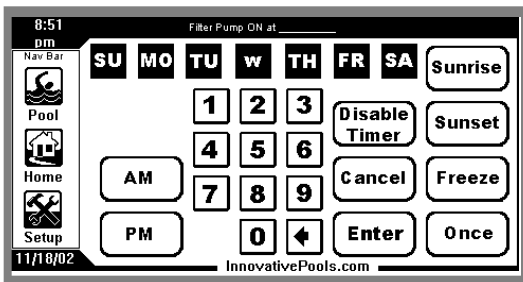


Program up to four On and four Off triggers per device.



Do Not Set Home Control Devices to The Same House Code as the Pool System

Set the devices primary address. This must correspond to the address programmed into the device.



Enter a time or program by Sunrise / Sunset. Freeze will turn an item ON if the Air Temp Sensor reads 35 degrees or below. If you program an Off trigger for Freeze it will turn a device off when the temperature drops below 35 degrees.

Each Home Control device can be programmed for up to four On and four Off times per day. These On and Off triggers can be either a time of day, Sunrise, Sunset, Freeze (will use 35 degrees at the Air Temp. Sensor for Freeze Activation) and Once. The Timer screen defaults to All days (Black Day Buttons) de-select the days you do not want the program to run. For Example: If you would like your Landscape lighting on every Friday - Sunday, you will program an On time for Sunset on Friday Saturday and Sunday by de-selecting every day but Friday, Saturday and Sunday. De-selected days are White Buttons with Black Letters. Then Set and Off time for Friday, Saturday and Sunday at 11:00 pm. Repeat this for each On and Off trigger you wish to program. To erase a program press Disable Timer. When you have finished, press enter.

Setting Pool and Spa Temperature

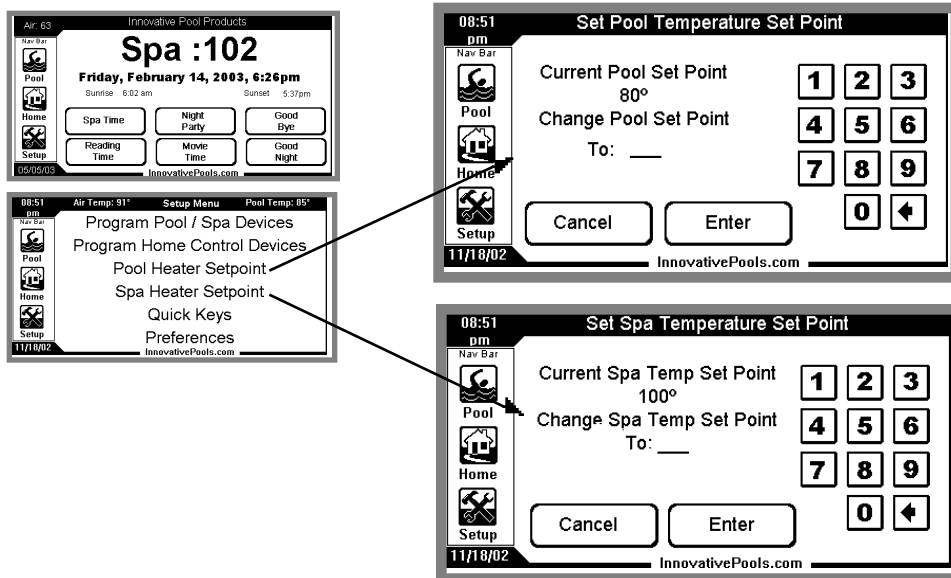
The Smart Touch system has a temperature set point for the Pool temperature and a separate set point for the Spa temperature. These set points are factory set to 80 degrees F for the Pool and 100 degrees F for the Spa.

To reset the Temperature from the Main Menu.

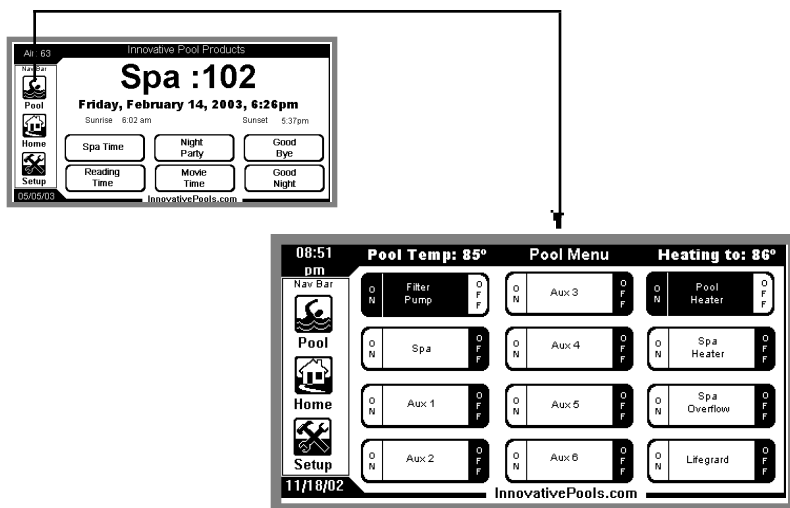
1. Press Setup in the Nav Bar.
2. Press **Pool Heater Setpoint** or **Spa Heater Setpoint**.
3. Enter the desired set point and press enter.

The temperature set point is now set, however the heater will not fire unless the following conditions are met.

- A. The Filter Pump has been pumping water for at least one minute.
- B. The water temperature is being displayed in at the Smart Touch Power Center.
- C. The Pool Heater is enabled if in the Pool Mode or the Spa Heater is enabled if in the Spa Mode.
- D. The temperature of the water is less than the temperature set point.



The Temperature Setting Screens show what the current Set Point is for either the Pool or Spa. If you do not wish to change the set point simply press Cancel. If you would like to change the Set Point simply type in the desired set point from the numeric key pad. The Pool Temperature is a 2 digit set point and the Spa Temperature is a 3 digit Set Point. To enter a Spa Set Point of 98 degrees you must press 098 and then hit Enter. The maximum Pool Set Point is 99 degrees, the maximum Spa Set Point is 104 degrees.



Note:

You can set the Set Points without Enabling the Heater to fire. The Heater is Enabled for the Pool and Spa separately from the Pool Menu. In the figure to the Left the Pool Heater is Enabled and will fire the Pool Heater whenever the pool is filtering. The Heater will continue to fire until the desired set point is reached or until the normal filtering cycle is complete. If the desired temperature is not reached, you may have to increase your filtering time. Normally you will probably want to leave your Spa Heater Enabled so you only have to press the Spa Button to Activate the filter pump, change the valves to the Spa Mode and heat the Spa to the desired temperature. Both the Pool Heater and Spa Heater are fully programmable.

Home Automation And Controlling items over the Power Line

Controlling devices over the existing wiring is done by sending a low voltage signal on the existing wiring at the cross over point. It is not radio frequency which is subject to atmospheric interference.

The advantages of using the existing power lines as a control wiring are:

Every thing that we control is electrical, so the control wiring is already there with the power wiring. This eliminates the cost of expensive control wiring.

Existing switches and outlets can be replaced with Power Line Carrier Switches and outlets allowing you to use the switches as you normally would or by remote control.

The Keys to a successful Home Automation System are:

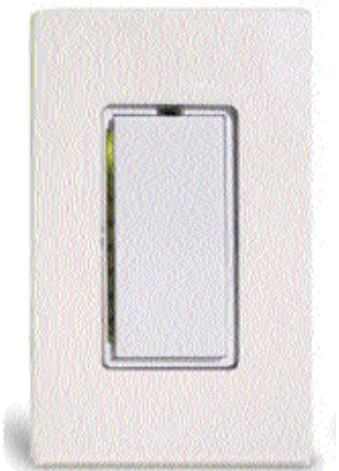
Use only high quality Power Line devices from Innovative Pool Products. We carry quality components from various manufacturers on our Web Site at InnovativePools.com.

Have your system planned in advance by a properly licensed electrician who is familiar with Power Line Carrier Home Automation Systems and has the proper test equipment to verify signal strength and noise issues.

Install a Coupler Repeater in your main electrical panel as well as remote breaker panels. If more than one coupler repeater is used make sure that the units do not repeat repeated signals.

Filter any noisy (electrically noisy) devices as well as any devices that attenuate power line carrier signals.

Use a BoosterLinc to Boost the signal when signal strength is low.



SwitchLinc

High Quality 2 way scene capable switch offers up to 64 programmable scenes. With soft start, resume dim and pre set



FilterLinc

Simple plug in filter to stop noise and signal attenuation.



LampLinc

High Quality 2 way scene capable lamp module. With soft start, resume dim and pre



BoosterLinc

Simple plug in booster to Co-Generate low power signals.

**QUICK KEY
Macro Planner
IMPORTANT:**

BEFORE YOU BEGIN TO SET UP YOUR QUICK KEY MACROS YOU MUST FIRST ENTER THE HOUSE CODE OF YOPU POOL SYSTEM. THEN LABEL ALL OF YOUR POOL AND HOME CONTROLS AND SET ALL THE ADDRESSES OF YOUR HOME CONTROLS.

EXAMPLE

House Code of Pool System H

Quick Key #1 Name Party Time

PLC Trigger H-1 On

To trigger this macro from the SpaTemp or a Decora Spa Control, the PLC trigger must be the same house code as the pool control units 1 and 2 On or OFF. Set a Button to L-1 and the SpaTemp will send a unit code 1 On and Off on the pool system house code. L-2 sends a unit 2 On and Off.

Is there a Home Auxiliary set up to trigger and Program times for this Macro? Yes Home 32 Party Time

If you set one of your Home Auxiliaries to act as a Macro Trigger you will be able to program macro times and Link one macro to another.

Is this macro linked to another Macro via this Auxiliary? No

Devices for Macro: Pool devices do not allow dim levels.

Is there a time delay set for this macro? No 5 min 10 min 15 min

	Device State	Dim Level	Notes
Device 1 <u> Spa </u>	<u> ON </u>	<u> </u>	<u> </u>
Device 2 <u> Spa Heater </u>	<u> ON </u>	<u> </u>	<u> </u>
Device 3 <u> Waterfall </u>	<u> ON </u>	<u> </u>	<u> </u>
Device 4 <u> Landscape Lights </u>	<u> ON </u>	<u> </u>	<u> </u>
Device 5 <u> Pool Lights </u>	<u> ON </u>	<u> </u>	<u> Turning pool lights On / OFF / On starts </u>
Device 6 <u> Pool Lights </u>	<u> OFF </u>	<u> </u>	<u> the color wheel </u>
Device 7 <u> Pool Lights </u>	<u> ON </u>	<u> </u>	<u> </u>
Device 8 <u> Spa Light </u>	<u> ON </u>	<u> 29% </u>	<u> Sets SwitchLinc to 29% (must use pre set dim) </u>
Device 9 <u> Party Lighting Scene </u>	<u> M-1 ON </u>	<u> </u>	<u> Sets 15 SwitchLincs to desired state and dimlevel </u>
Device 10 <u> </u>	<u> </u>	<u> </u>	<u> </u>

House Code of Pool System

Quick Key #1 Name

PLC Trigger

To trigger this macro from the SpaTemp or a Decora Spa Control, the PLC trigger must be the same house code as the pool control units 1 and 2 On or OFF. Set a Button to L-1 and the SpaTemp will send a unit code 1 On and Off on the pool system house code. L-2 sends a unit 2 On and Off.

Is there a Home Auxiliary set up to trigger and Program times for this Macro?

If you set one of your Home Auxiliaries to act as a Macro Trigger you will be able to program macro times and Link one macro to another.

Is this macro linked to another Macro via this Auxiliary?

Devices for Macro: Pool devices do not allow dim levels.

Is there a time delay set for this macro? 5 min 10 min 15 min

	Device State	Dim Level	Notes
Device 1 <u> </u>	<u> </u>	<u> </u>	<u> </u>
Device 2 <u> </u>	<u> </u>	<u> </u>	<u> </u>
Device 3 <u> </u>	<u> </u>	<u> </u>	<u> </u>
Device 4 <u> </u>	<u> </u>	<u> </u>	<u> </u>
Device 5 <u> </u>	<u> </u>	<u> </u>	<u> </u>
Device 6 <u> </u>	<u> </u>	<u> </u>	<u> </u>
Device 7 <u> </u>	<u> </u>	<u> </u>	<u> </u>
Device 8 <u> </u>	<u> </u>	<u> </u>	<u> </u>
Device 9 <u> </u>	<u> </u>	<u> </u>	<u> </u>
Device 10 <u> </u>	<u> </u>	<u> </u>	<u> </u>

Quick Key Macro Set Up

House Code of Pool System _____

Quick Key #2 Name _____

PLC Trigger _____

To trigger this macro from the SpaTemp or a Decora Spa Control, the PLC trigger must be the same house code as the pool control units 1 and 2 On or OFF. Set a Button to L-1 and the SpaTemp will send a unit code 1 On and Off on the pool system house code. L-2 sends a unit 2 On and Off.

Is there a Home Auxiliary set up to trigger and Program times for this Macro? _____

If you set one of your Home Auxiliaries to act as a Macro Trigger you will be able to program macro times and Link one macro to another.

Is this macro linked to another Macro via this Auxiliary? _____

Devices for Macro: Pool devices do not allow dim levels.

Is there a time delay set for this macro? 5 min _____ 10 min _____ 15 min _____

	Device State	Dim Level	Notes
Device 1 _____	_____	_____	_____
Device 2 _____	_____	_____	_____
Device 3 _____	_____	_____	_____
Device 4 _____	_____	_____	_____
Device 5 _____	_____	_____	_____
Device 6 _____	_____	_____	_____
Device 7 _____	_____	_____	_____
Device 8 _____	_____	_____	_____
Device 9 _____	_____	_____	_____
Device 10 _____	_____	_____	_____

House Code of Pool System _____

Quick Key #3 Name _____

PLC Trigger _____

To trigger this macro from the SpaTemp or a Decora Spa Control, the PLC trigger must be the same house code as the pool control units 1 and 2 On or OFF. Set a Button to L-1 and the SpaTemp will send a unit code 1 On and Off on the pool system house code. L-2 sends a unit 2 On and Off.

Is there a Home Auxiliary set up to trigger and Program times for this Macro? _____

If you set one of your Home Auxiliaries to act as a Macro Trigger you will be able to program macro times and Link one macro to another.

Is this macro linked to another Macro via this Auxiliary? _____

Devices for Macro: Pool devices do not allow dim levels.

Is there a time delay set for this macro? 5 min _____ 10 min _____ 15 min _____

	Device State	Dim Level	Notes
Device 1 _____	_____	_____	_____
Device 2 _____	_____	_____	_____
Device 3 _____	_____	_____	_____
Device 4 _____	_____	_____	_____
Device 5 _____	_____	_____	_____
Device 6 _____	_____	_____	_____
Device 7 _____	_____	_____	_____
Device 8 _____	_____	_____	_____
Device 9 _____	_____	_____	_____
Device 10 _____	_____	_____	_____

Quick Key Macro Set Up

House Code of Pool System _____

Quick Key #4 Name _____

PLC Trigger _____

To trigger this macro from the SpaTemp or a Decora Spa Control, the PLC trigger must be the same house code as the pool control units 1 and 2 On or OFF. Set a Button to L-1 and the SpaTemp will send a unit code 1 On and Off on the pool system house code. L-2 sends a unit 2 On and Off.

Is there a Home Auxiliary set up to trigger and Program times for this Macro? _____

If you set one of your Home Auxiliaries to act as a Macro Trigger you will be able to program macro times and Link one macro to another.

Is this macro linked to another Macro via this Auxiliary? _____

Devices for Macro: Pool devices do not allow dim levels.

Is there a time delay set for this macro? 5 min _____ 10 min _____ 15 min _____

	Device State	Dim Level	Notes
Device 1 _____	_____	_____	_____
Device 2 _____	_____	_____	_____
Device 3 _____	_____	_____	_____
Device 4 _____	_____	_____	_____
Device 5 _____	_____	_____	_____
Device 6 _____	_____	_____	_____
Device 7 _____	_____	_____	_____
Device 8 _____	_____	_____	_____
Device 9 _____	_____	_____	_____
Device 10 _____	_____	_____	_____

House Code of Pool System _____

Quick Key #5 Name _____

PLC Trigger _____

To trigger this macro from the SpaTemp or a Decora Spa Control, the PLC trigger must be the same house code as the pool control units 1 and 2 On or OFF. Set a Button to L-1 and the SpaTemp will send a unit code 1 On and Off on the pool system house code. L-2 sends a unit 2 On and Off.

Is there a Home Auxiliary set up to trigger and Program times for this Macro? _____

If you set one of your Home Auxiliaries to act as a Macro Trigger you will be able to program macro times and Link one macro to another.

Is this macro linked to another Macro via this Auxiliary? _____

Devices for Macro: Pool devices do not allow dim levels.

Is there a time delay set for this macro? 5 min _____ 10 min _____ 15 min _____

	Device State	Dim Level	Notes
Device 1 _____	_____	_____	_____
Device 2 _____	_____	_____	_____
Device 3 _____	_____	_____	_____
Device 4 _____	_____	_____	_____
Device 5 _____	_____	_____	_____
Device 6 _____	_____	_____	_____
Device 7 _____	_____	_____	_____
Device 8 _____	_____	_____	_____
Device 9 _____	_____	_____	_____
Device 10 _____	_____	_____	_____

Quick Key Macro Set Up

House Code of Pool System _____

Quick Key #6 Name _____

PLC Trigger _____

To trigger this macro from the SpaTemp or a Decora Spa Control, the PLC trigger must be the same house code as the pool control units 1 and 2 On or OFF. Set a Button to L-1 and the SpaTemp will send a unit code 1 On and Off on the pool system house code. L-2 sends a unit 2 On and Off.

Is there a Home Auxiliary set up to trigger and Program times for this Macro? _____

If you set one of your Home Auxiliaries to act as a Macro Trigger you will be able to program macro times and Link one macro to another.

Is this macro linked to another Macro via this Auxiliary? _____

Devices for Macro: Pool devices do not allow dim levels.

Is there a time delay set for this macro? 5 min _____ 10 min _____ 15 min _____

Device	Device State	Dim Level	Notes
Device 1 _____	_____	_____	_____
Device 2 _____	_____	_____	_____
Device 3 _____	_____	_____	_____
Device 4 _____	_____	_____	_____
Device 5 _____	_____	_____	_____
Device 6 _____	_____	_____	_____
Device 7 _____	_____	_____	_____
Device 8 _____	_____	_____	_____
Device 9 _____	_____	_____	_____
Device 10 _____	_____	_____	_____

Before you set up your Quick Keys

Before you set up your Quick Key Macros you should set up your pool controls and their labels as well as your home control devices set their PLC addresses and label them. It will be very difficult to keep track of your Quick Key programming if this is not done. Sit down and take a few minutes to plan how you want these functions to work.

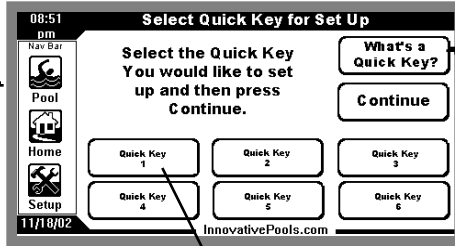
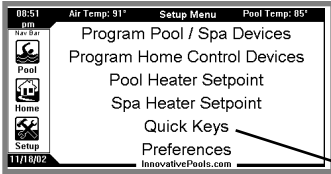
Each Quick Key Macro can control up to ten individual functions comprised of either pool functions, home functions or any combination of pool and home functions. A Quick Key Macro can either be triggered by pressing its "button" on the TouchScreen or you can set an X-10 trigger that the TouchScreen will hear and respond by running the Macro. In addition you can link one macro to another using an X-10 trigger. You can also set up delays that allow you to trigger a certain Quick Key Macro and the TouchScreen will wait 5, 10 or 15 minutes after the trigger to run the macro. This is helpful for a Goof Night Macro that will wait 5 minutes to allow you to get to bed before shutting off lighting.

Since a PLC command can be used to trigger a Quick Key Macro you can program your SpaTemp to trigger up to 4 Quick Key Macros using L-1 and L-2 on the SpaTemp. You can also trigger these macros using any other X-10 compatible controller anywhere in your home.

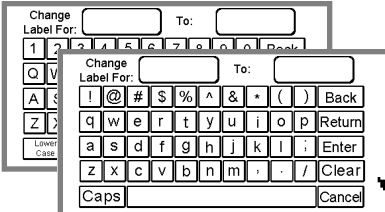
Quick Key Macro Chart

Follow the step by step instructions on this screen.

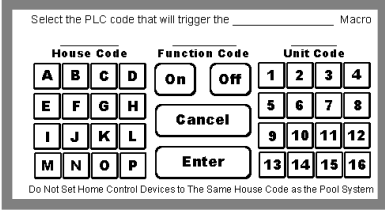
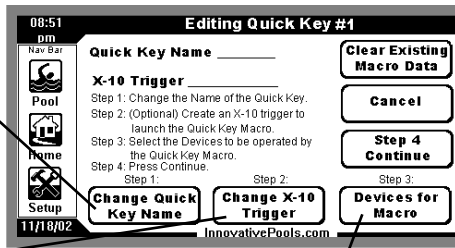
1. Label your Quick Key.
2. Set a PLC or X-10 trigger (If Desired).
3. Select your devices to be controlled.
4. Set the state of each device. (On, Off, Dim level)



Your Main Screen has 6 Quick Keys that can be used to launch a "Macro" which is a series of commands. From one Quick Key you can launch a "Party Time" macro that can change the On / Off state, Temperature Set Point of Pool and Spa, or Dim Level of a Dimmable Light Module. All from the touch of a Quick Key.



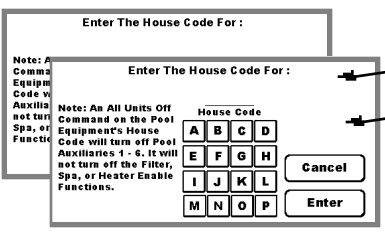
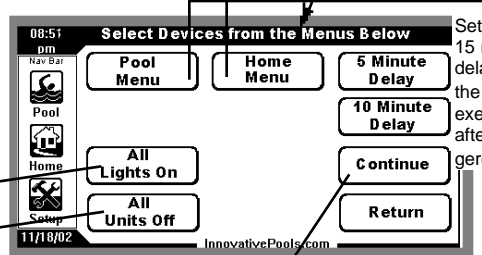
Keyboard for Labeling Quick Key. (Pick a descriptive name)



From this screen you can navigate to all of the pool or home control devices you want to function using this Quick Key. You can also choose ALL LIGHTS ON, ALL LIGHTS OFF or ALL UNITS OFF for a certain house code. If you would like a time delay on this Quick Key you can choose 5 minutes, 10 Minutes or both for 15 minutes of delay before the macro will run after it is triggered.

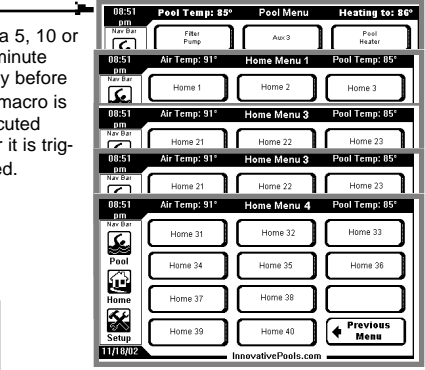
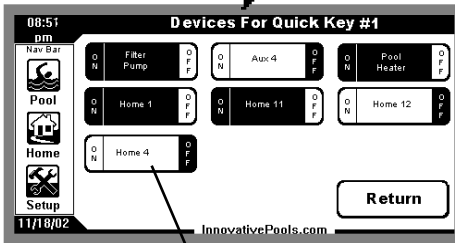
Pick up to 10 items from any Pool or Home Menu to be activated by this Quick Key Macro

You don't have to set a PLC trigger for your Quick Key Macro, but it will allow you to trigger this Quick Key by your SpaTemp or any other device that can transmit X-10 compatible codes. This is very powerful for use with our PhoneLink



You can send one code that will turn ALL LIGHTS ON, ALL LIGHTS OFF or ALL UNITS OFF on one house code. These screens allow you to choose a house code for these commands.

The Devices screen displays all of the devices you will operate from the Quick Key Macro. To make changes to the device list press Return and add additional devices, or press Return to go back a screen and Clear Existing Macro Data and start over. When you have selected all of the functions that you would like the QUICK KEY MACRO to perform, you must select the state (ON, OFF, Pre Set Dim level or .temperature) you would like for each device. Pool Devices are simply ON or OFF. All of the Home Control devices will give you the option to choose On / Off or a specific Pre Set Dim Level. You should know what type of equipment you have installed. Only higher quality lighting modules will respond to pre set dim commands. If you program a non pre set dim capable home control device to a pre set dim command, **NOTHING WILL HAPPEN.** Pre Set dim commands will also allow you to control certain HVAC thermostats.



Amazing Tip: Use your SpaTemp to activate a Quick Key Macro.

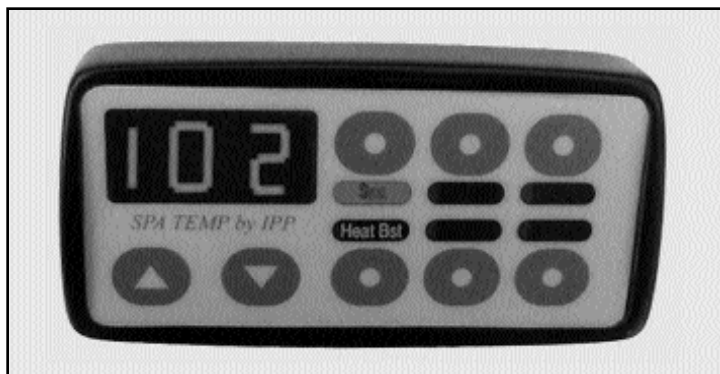
One very powerful feature of the Smart Touch system is its ability to send Power Line Carrier commands from the SpaTemp. For example, you can set one of the buttons of your SpaTemp to either L-1 or L-2 (Light 1 or Light 2). L-1 will send a PLC code with the same House Code as the Smart Touch system Unit code 1, ON and OFF. If your Smart Touch is on House Code D the it will send D-1 ON and D-1 OFF. This will allow one button in your spa to activate up to 2 Quick Key Macros with up to 10 PLC codes each. This means you can be sitting in your spa and activate a macro that sets up a scene on your lighting system while it activated your audio system, turns on your CD player and turns on your outdoor speakers, while it also sets up your pool lighting and waterfeature just the way you like it.

Set Device	Device Address	Dim Level
Quick Key	B-1	%
Choose Pre Set Dim Level and Press Enter		
	0%	3%
	6%	10%
	13%	18%
	19%	23%
	26%	29%
	32%	35%
	38%	42%
	45%	48%
	52%	55%
	58%	61%
	65%	68%
	71%	74%
	77%	81%
	84%	87%
	90%	94%
	97%	100%
	ON	OFF
	ENTER	CANCEL

SpaTemp

Optional Spa Side Control

The **SpaTemp** spa side control is back lit for good night time visibility and is fully programmable from spa side. It displays temperature and the status of the Spa Function and up to 5 additional functions. It also allows you to change the heater set point. Programming the auxiliary functions is a snap, so this unit is capable of controlling your entire system. The **SpaTemp** comes with peel and stick labels that can be placed over the LED indicator for a backlit label that can easily be seen in the dark.



Programming Instructions

The **SpaTemp** comes from the factory with the following settings. Top Left button is always spa. Top Center is Aux 1, Top Right is Aux 2, Bottom left is Heat Boost, Bottom Center is PLC code 1 for Pool Lights on light dimming module, Bottom Right is PLC code 2 for Spa Light on light dimming module.

To change from the factory settings

- 1.) Press both the up and down arrows at the same time. The Display will read PRO
- 2.) Press the button you would like to change and it's LED will begin to flash.
- 3.) Press the up or down arrows until you reach the desired device that you wish to control from that button.
- 4.) When you have selected the device from the list you may either press another button to program on the SpaTemp and program it or.
- 5.) When you are finished press both the up and down arrow buttons at the same time. The Display will read **dun**. For Done. *Sorry but it's only a 3 digit display.*

List of items that can be controlled.

Aux 1 through **Aux 6**.

L1 and **L2** which send a PLC code to optional light dimming modules for pool and spa lights. You can use the L-1 and L-2 items to launch Quick Key macros from inside the spa.

PHE or Pool Heat Enable

SHE or Spa Heat Enable

Hb or Heat Boost. This fires the heater for 2 minutes to take the spa above the spa set point if desired.

FP for Filter Pump

Display

The display will read the temperature of either the pool when in the pool mode or the spa when in spa mode. The display will read 3 dashed lines. - - -. Until the filter pump has ran for 1 minute.

Heater On Indicator.

The 3 digit LED display will light the left decimal point when the heater is actually firing.

Example: if the temp is 98 and the heater is not firing the display reads 98 If the heater is firing the display reads .98 a 100 degree readout will read 100 if the heater is not firing or 1.00 if the heater is firing.

Decora Spa Control

DSC-1H and Decora Pedestal



Hardwired Decora Switch



Decora Pedestal

Programming Instructions

The **DSC-1** comes from the factory with the following settings. From top to bottom on the right side is Spa, Spa Heater Enable, Aux 1, Aux 2, and Aux 3 or Spa Overflow.

To change from the factory settings

- 1.) Press both the up and down arrows at the same time. The Display will read PRO
- 2.) Press the button you would like to change and it's LED will begin to flash.
- 3.) Press the up or down arrows until you reach the desired device that you wish to control from that button.
- 4.) When you have selected the device from the list you may either press another button to program on the DSC-1 and program it or.
- 5.) When you are finished press both the up and down arrow buttons at the same time. The Display will read **dun.** For Done. *Sorry but it's only a 3 digit display.*

List of items that can be controlled.

Aux 1 through Aux 6. (Depending on the size of your Smart Touch system)

L1 and **L2** which send a PLC code to optional light dimming modules for pool and spa lights. (If your Decora touch screen.)

PHE or Pool Heat Enable

SHE or Spa Heat Enable

Hb or Heat Boost. This fires the heater for 2 minutes to take the spa above the spa set point if desired.

FP for Filter Pump

Display

The display will read the temperature of either the pool when in the pool mode or the spa when in spa mode. The display will read 3 dashed lines. - - -. Until the filter pump has ran for 1 minute.

Heater On Indicator.

The 3 digit LED display will light the left decimal point when the heater is actually firing.

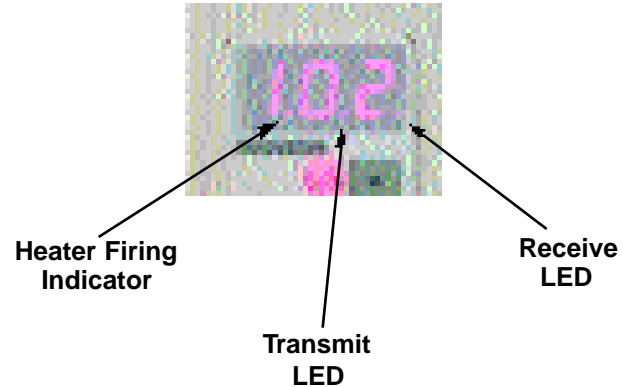
Example: if the temp is 98 and the heater is not firing the display reads 98 If the heater is firing the display reads .98 a 100 degree readout will read 100 if the heater is not firing or 1.00 if the heater is firing.

Thank You for choosing the Smart Touch system. We are sure you will be happy with it. Please fill out and send in your registration card. This helps our Technical support staff know exactly what system configuration and software your system is using and can help matters very much during Technical Support calls. You can also register your Smart Touch system online at www.innovativepools.com.

Using your Decora Switch over the Power Line



Decora Pedestal



Your Decora Pedestal uses your existing electrical wiring to communicate with your Smart Touch Power Center at the pool equipment. This method of communication allows only one signal to travel over the house wiring at a time. When you press a button on the Decora Pedestal it sends a signal to the Power Center and the Power Center answers back acknowledging the command. **YOU MUST WAIT FOR THIS REPLY FROM THE SMART TOUCH POWER CENTER BEFORE SENDING YOUR NEXT COMMAND.** When you send a command the transmit LED will flash. When you receive the reply the receive LED will flash. **PLEASE WAIT FOR THE RECEIVE LED TO QUIT FLASHING BEFORE SENDING YOUR NEXT COMMAND.**

Setting Your House Code

There are 16 unique "House Codes" or addresses that your Smart Touch System can be installed to communicate over. The Decora Pedestals "House Code" must match the "House Code of the Smart Touch Power Center. Your Installer should have set these to devices to the same "House Code" during installation and Labeled which house code you are using on the label on the Power Center door. The exterior House Code is a letter code A-P. This corresponds to a NUMBER code on the Decora Pedestal. A=H 1, B=H 2, C=H 3,....H=H 8 ... P= H16 and so forth. To set your House Code on the Decora Pedestal Press the UP and DOWN arrows at the same time. Your Display will read **PRO**, press the SPA button and your Decora Pedestal will read **H** for House Code and then a number. For example **H 2** would be House Code B. Press the UP or Down arrow until the desired House Code is displayed on the LED display, then press the UP and DOWN arrows at the same time. The display will say **DUN** and the Decora will transmit an initialization code. If the Power Center is on the same House Code and in the Auto or Manual mode the Power Center will send a data stream for about 12 seconds to update the Decora's status. During this time the receive LED will flash.

Please remember, do not send commands while the receive light is flashing. Send commands one at a time and wait for the Power Center to reply.