IntelliTouch Owner's Manual
Set-Up and Programming

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

⚠ WARNING
Before installing this product, read and follow all warning notices and instructions which are included. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions.

Important Notice	
	Attention Installer. This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

Pentair *Pool Products*®
Because reliability matters most

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IMPORTANT SAFETY PRECAUTIONS

⚠ WARNING
To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

⚠ WARNING
Water temperature in excess of 100 degrees Fahrenheit may be hazardous to your health. Prolonged immersion in hot water may induce hyperthermia. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above normal body temperature of 98.6° F / 37° C. The symptoms of hyperthermia include drowsiness, lethargy, dizziness, fainting, 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 leave the spa; 4) physical inability to exit the spa; 5) fetal damage in pregnant women; 6) unconsciousness resulting in danger of drowning.

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

⚠ WARNING
Control System is intended to control heaters with built-in high limit circuits **ONLY**. Failure to do so may cause property damage or personal injury.

⚠ CAUTION
Except for listed spa-side remote controls, install a minimum of five (5) feet from the inside wall of the pool and spa. Canadian installations require a minimum of three (3) meters from pool water.

Important Notice
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: — Reorient or relocate the receiving antenna. — Increase the separation between the equipment and receiver. — Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. — Consult the dealer or an experienced radio/TV technician for help. Modifications not expressly approved by the party responsible for FCC compliance could void the user's authority to operate the equipment.

IMPORTANT SAFETY PRECAUTIONS, (CONT'D.)

1. All work must be performed by a licensed electrician, and must conform to all national, state, and local codes.

2. Install to provide drainage of compartment for electrical components.

3. If this device is used to control underwater lighting fixtures, a ground-fault interrupter (GFCI) must be provided for these fixtures. Conductors on the load side of the ground-fault circuit-interrupter shall *not* occupy conduit, junction boxes or enclosures containing other conductors unless such conductors are also protected by a ground-fault circuit-interrupter. Refer to local codes for details.

4. A terminal bar stamped ⏚ is located inside the supply terminal box. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying this equipment (no smaller than 12 AWG or 3.3mm). The bonding lug(s) provided on this unit are intended to connect a minimum of one No. 8 AWG for US installation and two No. 6 AWG for Canadian installations solid copper conductor between this unit and any metal equipment, metal enclosures or electrical equipment, metal water pipe, or conduit within 5 feet (1.5m) of the unit.

5. The electrical supply for this product must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with Section 422-20 of the National Electrical Code, ANSI/NFPA 70.1987. The disconnecting means must be readily accessible to the tub occupant but installed at least 10 ft. (3.05 m) from the inside wall of the pool.

6. Minimum supply conductor and circuit ampacity 125 Amps.

❖ ── ❖

INTRODUCTION

Welcome to the IntelliTouch Pool/Spa Control System by Pentair Pool Products!

IntelliTouch is the smart system that makes pool and spa ownership even more relaxing and fun. With its intelligent electronic circuitry and simple programmability, IntelliTouch makes operating and maintaining your pool and spa incredibly easy and absolutely worry free. With IntelliTouch in control, your pool and spa will operate with peak efficiency and economy-automatically. That's convenience with an intelligent touch. All you have to do is relax, and let IntelliTouch do the rest!

Before learning how the system works, take a walk and familiarize yourself with the following components of an IntelliTouch system.

WHAT YOU WILL FIND WITH INTELLITOUCH

In The Home

Conveniently located in a weather-protected location in the home you will find the Indoor Control Panel. This is your primary means of controlling the IntelliTouch system. It consists of an easy-to-read LCD display, 10 status LED's, 10 side buttons, and 5 lower buttons. This manual is dedicated for the operation of your pool, spa, and other equipment from this device.

Around The Pool

Located near your spa you may have a spa-side controller.

This device may be one or more of the following:

Model iS4 with four buttons and a single LED lamp.

Model iS10 with five buttons with a top-row/bottom-row toggle button, status LED's, temperature display and adjustment.

At The Equipment Pad

Near the pump, filter, and other equipment will be located a large metal box known as the Load Center. This is where high voltage from the house is distributed to the various pool equipment. This is also where the Indoor Control Panel interfaces with the other equipment. There should not be much need for anyone other than your service person to interface with this unit.

Mounted atop the valves you may also find motorized valve actuators used to change the flow of water through the plumbing. There may also be temperature sensors and cabling to the heater. Again there should be no need for anyone other than your service person to interface with these units.

USING THIS MANUAL

This manual will guide you through the use of your IntelliTouch control panel. Most of these pages describe the advanced set-up functions that will only need to be performed once. For your convenience, the most commonly used features are in the front of this manual.

At the top of each page is a "Getting There" text box that shows which screen selections and button pushes will bring you to the screen shown.

Then step-by-step instructions are given in numbered boxes. Follow the detailed instructions in each box in numerical order. In some cases an introduction is provided in a text box above the image. Be sure to read this first. There may also be more detailed instructions below not covered by the numbered boxes.

Special hints may be found in the upper right corner indicated by the smiling exclamation point.

GETTING STARTED

On page 6 you will find a photo of a typical Main Screen with detailed descriptions of the display features. The most commonly used functions should be displayed on this screen.

Screen selections that may be turned on *or* off usually indicate their status by the adjacent LED turning on or off. To activate, simply press the button to the left or right of the selection.

Screen selections that send you to another screen, adjust a set point (such as NEXT or PREV), or turn something on ONLY without the ability to turn off show their status by always having the adjacent LED on.

Screen items that display information only and can't be changed or selected have no adjacent lit LED. Pressing buttons to the left or right of the screen item has no effect, (even if you hear a beep).

Additionally, on the LCD (screen) the path name to the screen is shown in the line of text above the bottom row of buttons (screen selections).

Pressing BACK sends you to the previous screen.

Pressing EXIT sends you to the MAIN screen.

IntelliTouch Main Screen
Indoor Control Panel or MobileTouch

Pool or Lo-Temp Mode- Turns on Filter Pump and fires heater, (if heater is enabled). Shared equipment systems (i5, i7+3, i9+3): rotates valves to pool position. Single body systems (i5S, i9+3S): sets pool or spa to Lo-Temperature settings.

Heater Enabled Indicator- Flickers when heater is on.

Flame Icon- Shows when Heater is On.

Spa or Hi-Temp Mode- Turns on Filter Pump and fires heater. Shared equipment systems (i5, i7+3, i9+3): rotates valves to spa position. Single body systems (i5S, i9+3S): sets pool or spa to High-Temperature settings.

Auxiliary Buttons- Operate various equipment such as lighting, automatic pool cleaners, jet pumps and fountains.

At-a-Glance Indicator- Shows when pool or spa mode is on, along with water temperature and thermostat setting.

Day / Time

Air Temperature

Display- Takes you to other display screens for additional control circuits.

Menu Button- Takes you to various screens for programming and customizing your system.

(M) **Main Screen-** Up to ten buttons can be configured to control various equipment.

(1) **Display 1-4** Shows the circuits which are controlling the load center at the equipment pad. If more than one load center is installed, the Display button will take you to up to three additional load centers.

Heat Button- Takes you to the heating menu for selecting temperature and heating modes.

(M) **Main Screen Indicator**
(1) **Display 1 Screen**
(F) **Feature Circuit Screen**

Lights- Takes you to custom lighting effects with S*Am*, *SAL*, and Fiber*works* colored lighting.

(F) **Feature Circuits-** Additional circuits for controlling valve actuators for water features, spa spillway, and 2-speed pump and macro circuits.

Screen display:

SPA ◊	POOL
SPA LIGHT	CLEANER
SPA PARTY	POOL LIGHT
AIR BLOWER	WATERFALL
FOUNTAIN	LION'S HEAD

SPA 82°F
SET TEMP 37°F

MON 4:32AM
AIR TEMP 82°F

MENU   HEAT   LIGHTS DISPLAY

NOTE: To shut down a Safety Delay, see page 54.
To Enable or Disable Spa-side Remotes, see page 55.

Heating Your Pool and Spa

1 Use the buttons below to set pool and spa temperature, and to turn heater on or off.

Press to increase SPA temperature.

Press to lower SPA temperature.

Press to scroll through SPA Heating Choices:
   OFF
   HEATER
   (OPTIONAL SOLAR)
   (OPTIONAL HEAT PUMP)

Press to lower POOL temperature.

DOWN	SPA 100	UP
SPA MODE	HEATER	
DOWN	POOL 84	UP
POOL MODE	OFF	

HEAT

BACK   SET

Press to increase POOL temperature.

Press to scroll through POOL Heating Choices:
   OFF
   HEATER
   (OPTIONAL SOLAR)
   (OPTIONAL HEAT PUMP)

3 Press BACK to return to the MAIN screen.

2 Press SET when finished.

NOTE: For single body systems (i5S, i9+3S) spa and pool are replaced with Hi-Temp and Lo-Temp settings.

Operating the Lighting Options in the Manual Mode

Getting There

LIGHTS

COLOR SET- Allows any combination of up to six S*Am*, *SAL* and/or Fiber*works* lighting circuits to be preset to specific colors.

COLOR SWIM- Allows any combination of up to six S*Am*, *SAL* and/or Fiber*works* lighting circuits to be preset to transition through colors in sequence, giving the appearance of the colors swimming across the water. The delay in sequencing each light can be adjusted to make the colors swim at different speeds.

Requires use of at least two SAm and/or SAL and/or Fiberworks Lighting products controlled by separate AUX circuits.

NOTE: For these special effects to function, they must first be set up in CONFIGURE LIGHT OPTIONS.

1 Shows the Status of each light circuit. Allows lights to be individually turned ON/OFF.
Up to six light auxiliaries may be independently operated from this screen. Lights that are part of the "Swimming Colors" may be turned off without affecting other lights.

Turns COLOR SWIM ON.

Note: Pressing the button again will not turn COLOR SWIM OFF. Use ALL OFF.

Turns COLOR SET ON.

Note: Pressing the button again will not turn COLOR SET OFF. Use ALL OFF.

SPA SAL
POOL SAM 1
POOL SAM 2
COLOR SWIM   COLOR SET
CONFIGURE LIGHT OPTIONS
LIGHTS
BACK   ALL ON   ALL OFF   SYNC

Turns all lights ON.

Turns all lights OFF.

Turns all S*Am*, *SAL* and Fiber*works* lights ON and Synchronizes lights.

OPERATING MOBILETOUCH CONTROLLER

⚠WARNING
Do not plug in recharging transformer within five (5) feet of the pool and spa. Canadian installations require a minimum of (3) meters from pool water. Do not recharge outdoors.

⚠CAUTION
The hand-held unit is NOT intended to be submersible. Remove unit immediately if dropped in water.

⚠CAUTION
Do not leave in direct sunlight for extended periods of time. If screen darkens, place in shade for five minutes or until screen returns to normal before using. Do not adjust contrast. Screen will become too light to see when screen cools.

The range of the unit may be up to 300 feet. The unit may be used all day at full power with a complete battery charge (4-5 hours). With a charge time of 10-15 minutes on a dead battery, usage may be up to an hour. Charge the hand-held unit by plugging into wall using the recharging transformer (included).
When unplugged, turn unit on by depressing button at middle-top of unit (next to antenna). It is best to set the unit to turn off in 5 minutes, (see). **NOTE:** The battery is NOT field replaceable. Return unit to Manufacturer for Factory Service.

Antenna Jack

ON/OFF Button

Power Jack
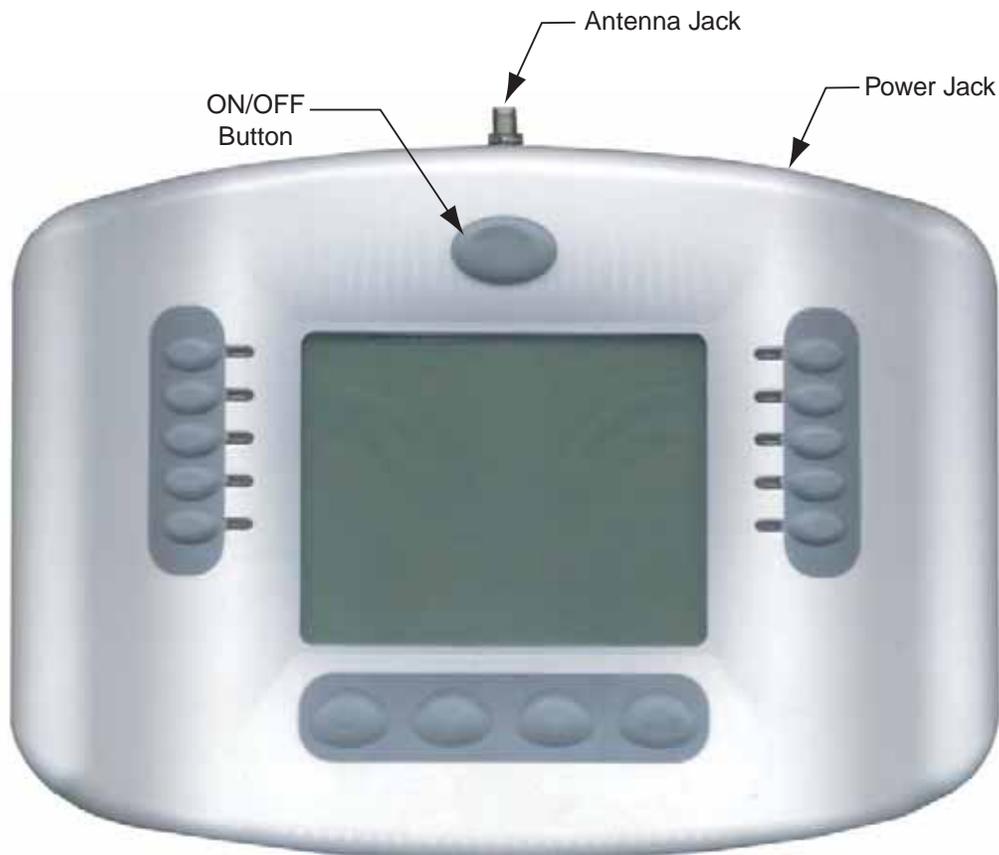
OPERATING iS10 CONTROLLER

The iS10 spa-side remote is listed to UL 1563 for use with the IntelliTouch Pool and   Spa Control System. Each iS10 allows control of up to ten functions from the spa as well as spa temperature adjustment. As many as four iS10's may be installed in an i7+3, i9+3, i9+3S, and i10+3D systems. Only one iS10 is supported by the i5 and i5S systems.

Spa-side Remote Features and Operation

Five in-line buttons control up to ten system functions numbered one through five from left to right as shown (if the system allows). Each circuit function is identified by a label above or below the buttons.
A "peanut-shaped" middle button toggles between which row of circuit functions will be activated when one of the five in-line buttons are pressed. An LED indicator light above and below the toggle button indicates which row (Top or Bottom) is active. When one of the in-line buttons is pressed, an adjacent LED indicator light will light telling you the circuit has been activated. The default circuits activated by each button are shown below.

Spa temperature is displayed in the area shown. Spa temperature may be adjusted up or down by pressing the appropriate arrow button. The temperature display will blink while being changed. After setting the desired temperature, the display will return to steady and show the actual temperature as it meets the set point. The temperature set by the iS10 is only temporary. When the Spa mode is turned OFF, the temperature set at the Indoor Control Panel will resume the next time the Spa mode is activated. The Spa Mode will automatically turn off after 24 hours.

TOP ROW INDICATOR LIGHT — TOP ROW TOGGLE BUTTON
TEMPERATURE DISPLAY — FUNCTION INDICATOR LIGHT

102

TEMPERATURE DOWN — IN-LINE BUTTON "5"
TEMPERATURE UP — IN-LINE BUTTON "4"
BOTTOM ROW TOGGLE BUTTON — IN-LINE BUTTON "3"
BOTTOM ROW INDICATOR LIGHT — IN-LINE BUTTON "2"
IN-LINE BUTTON "1"
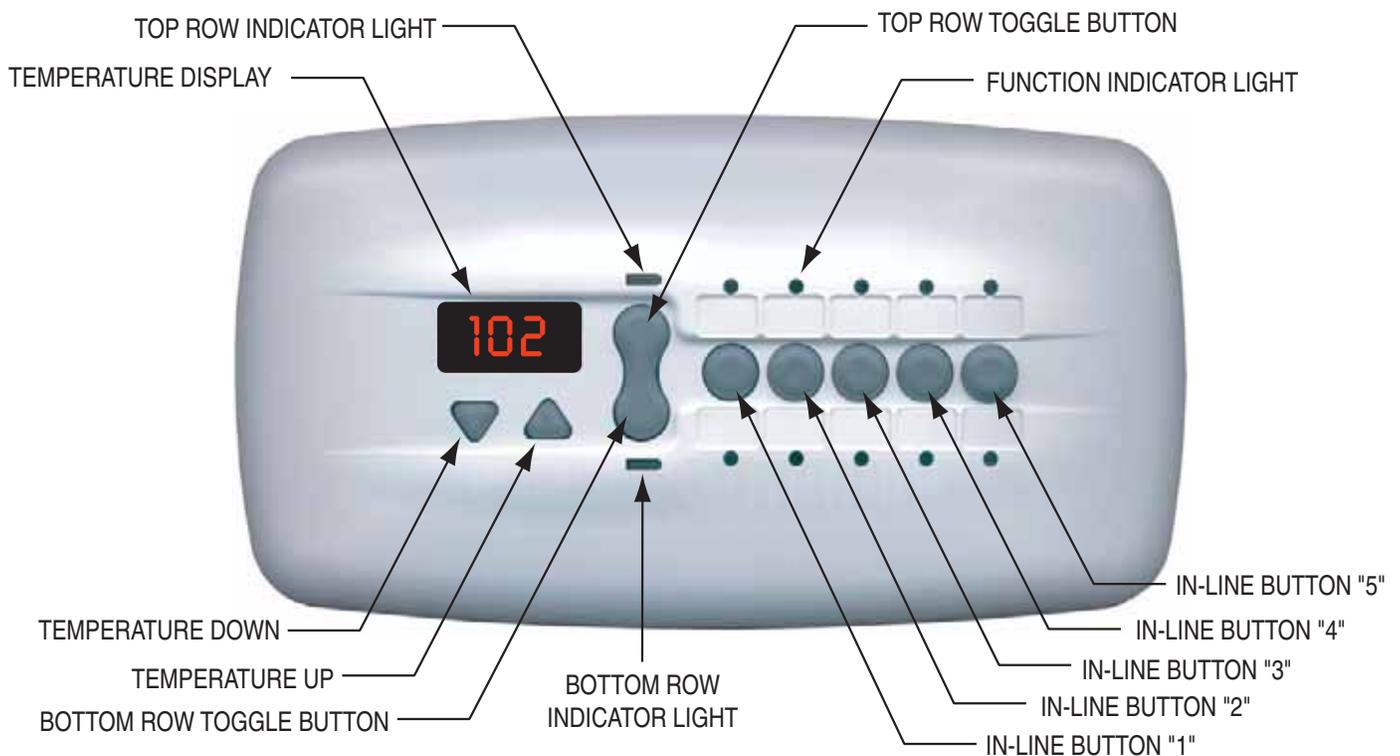
Default IntelliTouch Settings

	TOP ROW	BOTTOM ROW
BUTTON 1 i5, i7+3, i9+3, i10+3D	SPA	POOL
i5S, i9+3S	HI-TEMP	LO-TEMP
2	AUX 1	AUX 5
3	AUX 2	AUX 6
4	AUX 3	AUX 7
5	AUX 4	AUX 8

iS4 BASIC OPERATION

The iS4 spa-side remote is a double-insulated, waterproof device which is ETL and UL listed (to UL 1563) for installation at the water's edge. It is typically installed at the tile-line of the spa wall, or in the deck within arm's reach of a spa occupant. The iS4 may be used to provide remote switching of up to four control circuits from the spa location. It is typically used for activating spa circulation and any three auxiliary pieces of equipment (such as lights, jet pump, air blower, etc.). The red LED status light glows steady when in Spa mode and flashes while spa is heating. To disable or enable the spa side remote, see page 55.

L.E.D. LAMP

1   2   3   4

L.E.D. LAMP

4   3   2   1
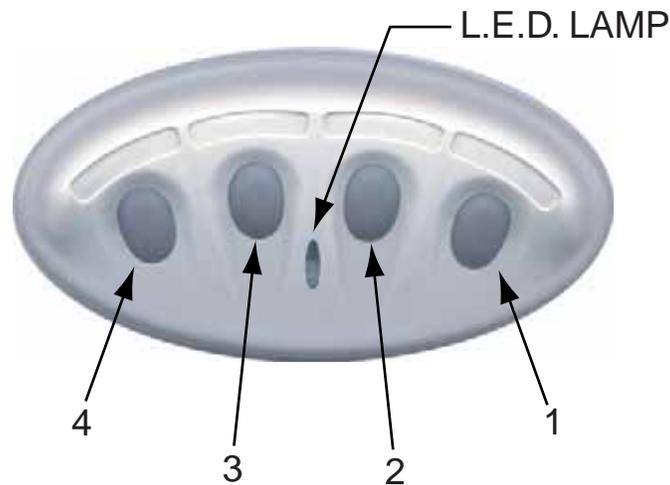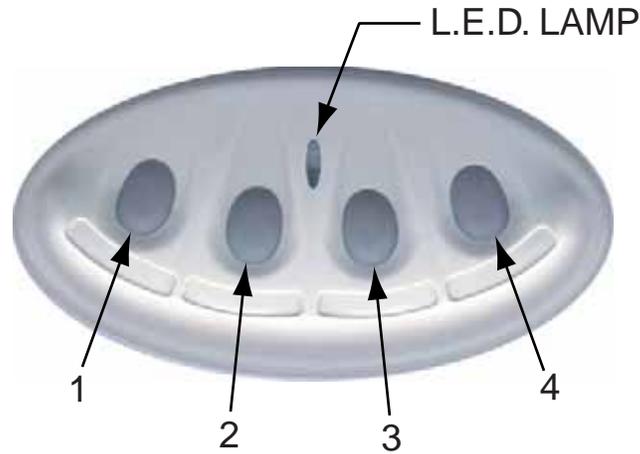
THE OUTDOOR CONTROL PANELS

Located inside each IntelliTouch Load Center near the equipment pad are the Outdoor Control Panels. These control panels allow local override control of other control panels usually for pool service but also for equipment set-up. Depending on the system installed there will be several horizontal buttons, indicator lights (LED's), and a reset button. Be sure the High Voltage Cover Panel is in place over the bottom edge of the control panel.

⚠WARNING
IF THE HIGH VOLTAGE COVER PANEL IS NOT IN PLACE, BE SURE THE POWER TO THE UNIT IS TURNED OFF.

⚠CAUTION
DO NOT OPERATE ANY OF THESE CONTROLS BEFORE READING THESE INSTRUCTIONS.

The Outdoor Control Panel may be safely folded downward to access the rear circuit board while operating. To plug in any low voltage devices, a cable must be fed up the Low Voltage Raceway on the left. The power should be turned off and the High Voltage Cover Panel removed to facilitate feeding the cable.

Shared Equipment Systems i5, i7+3, i9+3

System Control
Three LED indicator lights on the far left indicate the current mode of operation.
By pressing the button adjacent to these lights you may toggle through the various modes.
AUTO mode enables all remote controls (Indoor Control Panel, spa-side remotes, radio frequency remotes, etc. Spa-side remotes may still be disabled by the Indoor Control Panel or MobileTouch).
SERVICE mode allows auxiliaries to be operated directly from the Outdoor Control Panel while disabling all other remotes.

Low Voltage Circuit Breakers
To the far right are 3 Amp circuit breakers to protect low voltage circuits.
Check these as part of any troubleshooting activity.
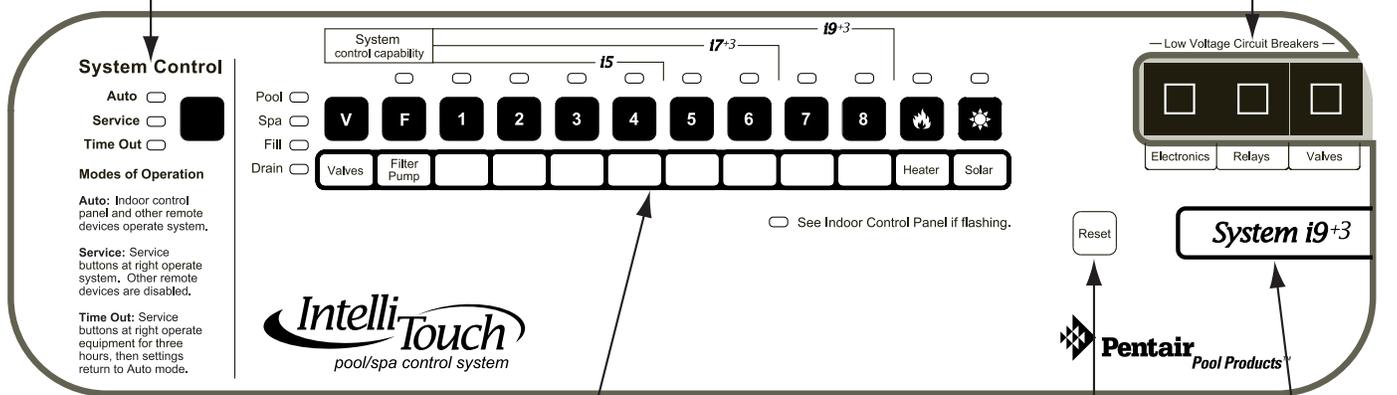
System Control Capability Buttons
In **SERVICE** mode, hitting any of the horizontal buttons will activate the corresponding circuit.
Some of the buttons are specially dedicated to certain functions described below.

> **V:** This button will turn valves so that only the pool water is circulated through the system, only the spa water is circulated through the system, the spa will be filled with pool water, or the spa will be emptied of water into the pool. When the system is set to SERVICE mode the actuators will turn to Pool Mode. NOTE: a spillway effect may be simulated by setting valves to Fill. Be sure a spillway has been built into the spa.

> **F:** This button will activate the filter pump. If your pump has been wired for two speed operation, the first time this is pressed will put the pump in LOW speed and pressing again will put it in HIGH speed. A third press will turn it off. This button also has further capability during system set-up and configuration.

> **Heater (Flame):** This will automatically turn the heater on. NOTE: This does not activate a pump. Heaters should not be activated without running a pump and normally will not run if water flow is not detected. The heater will continue heating the water until the heater's high limit temperature sensor is triggered (approximately 106° F).

> **Solar (Sun):** Two things happen when this is activated. (1) The solar relay is turned on to activate a booster pump if installed. (2) Valves will be turned to divert water through solar heating panels ONLY IF the system has been told the solar heating is present through the Indoor Control Panel.

Reset
Pressing this button will restart the Outdoor Control Panel. Wait until the System Control indicator light has settled on Auto mode and the Valve indicator light has settled on Pool mode before resuming normal operation. DO NOT press any other buttons at this time or you may trigger the Advanced Set-up and Configuration functions.

System Identification Label:
System i5, System i7+3, System i9+3: Mother System

Single Body Systems i5S, i9+3S

Operation same as i5, i9+3 except no valve controls.
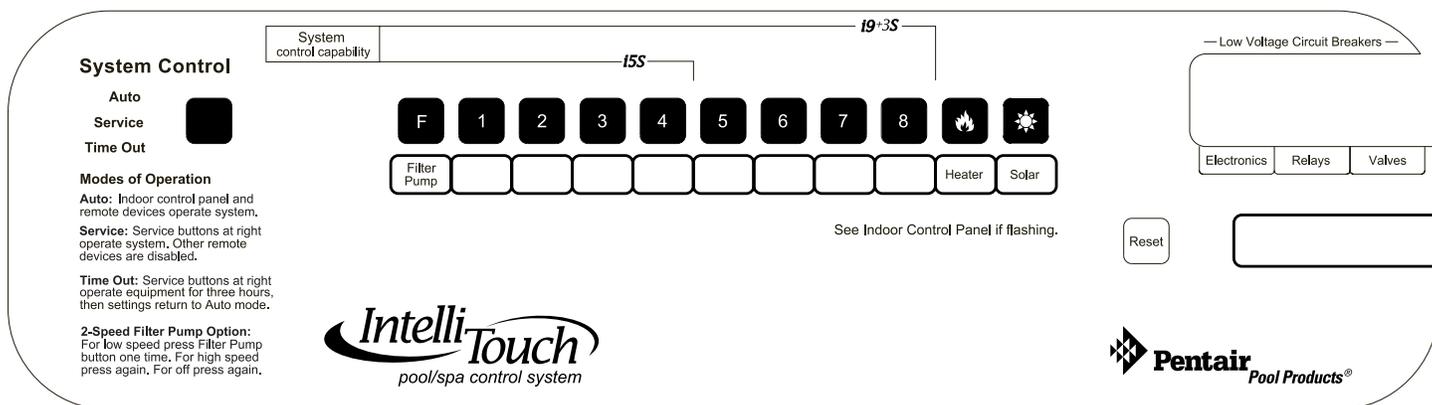
Dual Body Dual Equipment System i10+3D

Operation same as i9+3 except **S** and **P** buttons operate independent filter pumps and the **Heater** and **Solar** buttons operate independent heating systems.
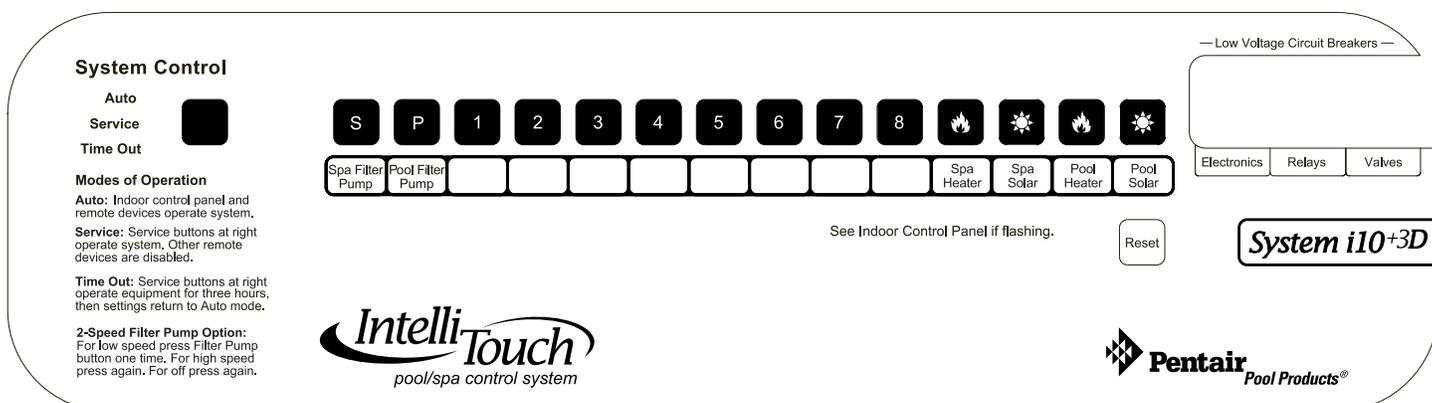
Expansion Centers i5x, i10x

Expansion Centers provide additional valve and auxiliary circuits. They are designed to operate with base systems: i9+3, i9+3S, i10+3D. Auxiliary Control Capability Buttons operate the same way as all other system Control Capability Buttons.

IntelliTouch
pool/spa control system
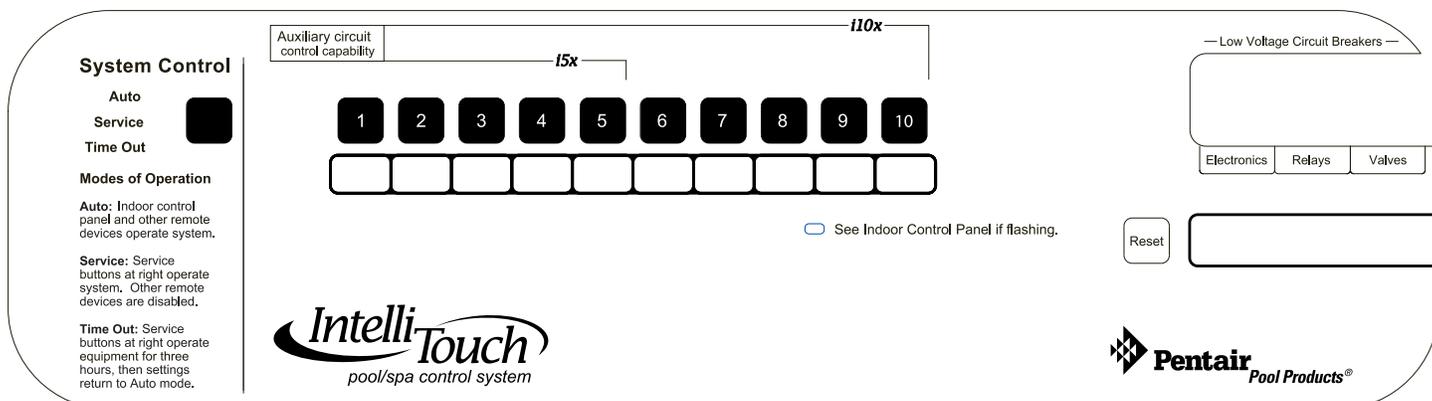
Start-Up and Configuration

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS
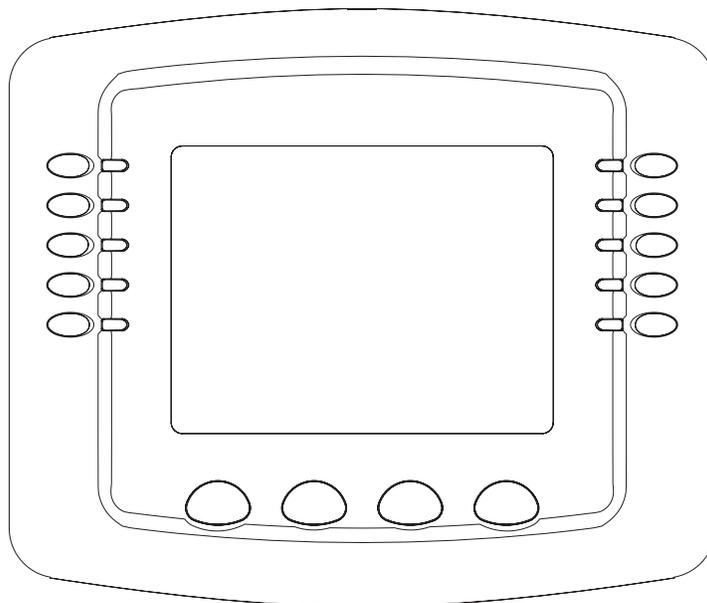
House Address

When using radio frequency (RF) devices, also known as wireless, such as the Virtual Cable™ or MobileTouch™ there is the possibility of interference with neighbor's units. Therefore, the Outdoor Control Panel has the capability to generate and lock on its own signal known as the House Address to prevent confusion with other systems.

This is also highly recommended when installing multiple Indoor Control Panels with different environmental settings (brightness, loudness, etc.), multiple iS10 spa-side remotes, and Expansion Centers. Part of this process is performed at the mother system Outdoor Control Panel. Another part of this process is required to be performed locally at the controller. Please locate the relevant sections of this manual before starting the House Address procedure. (See pages 18, 19 and 20.)


NOTE

All controllers are set to work with the factory default House Address. Adding wireless devices and multiple controllers requires that a new House Address be set. Thus ALL controllers during new installation or as an addition to an existing installation must be locked on the new House Address before they will operate any circuits. To reset the factory default House Address, see the Erase the Outdoor Control Panel Memory section.

Setting and Sending the House Address

1. To lock on a House Address press the "**RESET**" button.
2. The three System Control indicator lights will light for about ten seconds.
3. WHILE THEY ARE LIT, press the following button:

SYSTEM	BUTTON
i5, i7+3, i9+3	F
i5S, i9+3S	F
i10+3D	P

4. The System Control and System Control Capability LED's will cycle in order indicating that it is searching for a House Address (approx. 30 seconds).
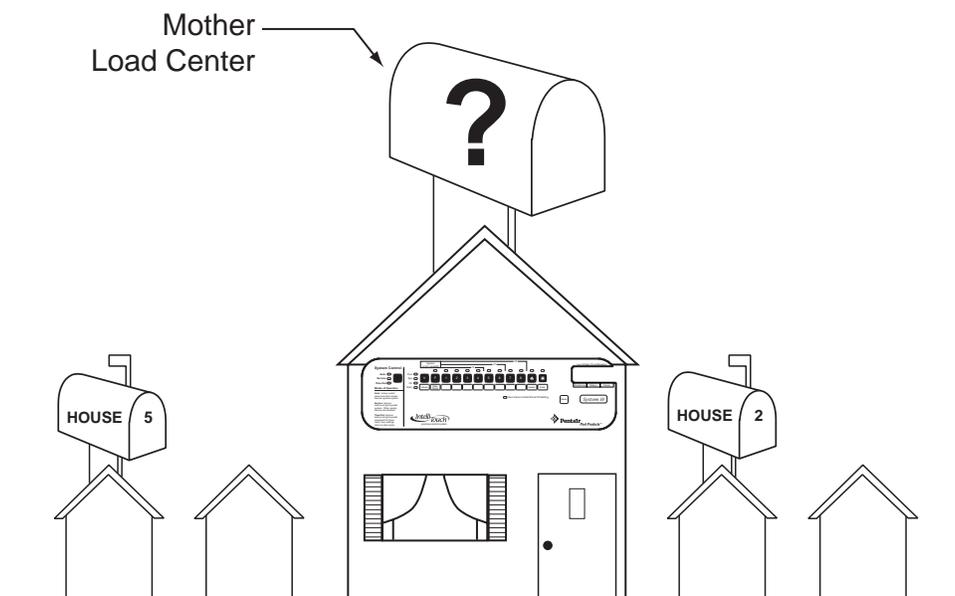
5. The System Control lights will begin flashing when a House Address has been found and is being sent to the system controllers. The controllers (Indoor Control Panels, MobileTouch, iS10's, Expansion Centers) must then be set to lock on the House Address according to the relevant section of this manual. This is done locally at the controller.
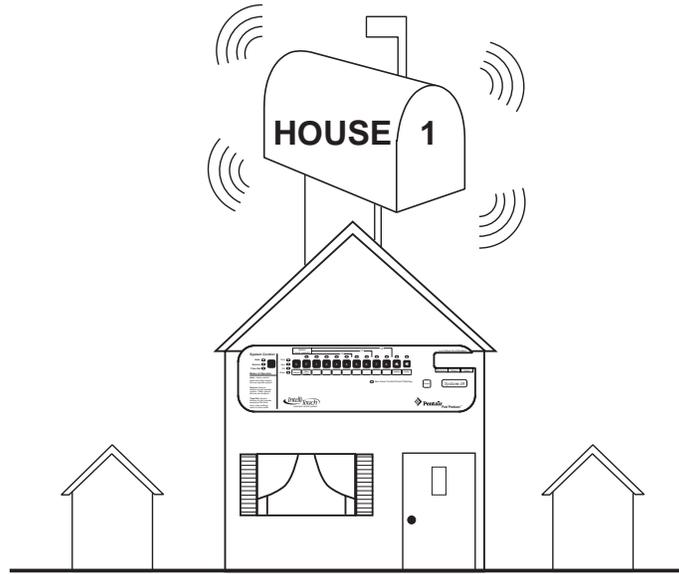
6. When all controllers have locked on the House Address, press "**RESET**" on the Outdoor Control Panel and wait until the system has returned to Auto and Pool modes before resuming normal operation.

NOTE: Chain represents software connection, (not actual wire).

All Systems

i5, i5S

i7+3
i9+3
i9+3S
i10+3D

EXPANSION CENTERS

i9+3, i9+3S, i10+3D

Using the Hidden Service Screens

Getting There

MENU   SETUP   ADVANCED

➡ ➡ ➡ ➡ ➡ ➡

CIRCUIT NAMES
CIRCUIT FUNCTIONS
CONFIGURE VALUES
SPA, RF, & PHONE REMOTES
CALIBRATE

MENU/SETUP/ADV

BACK   EXIT
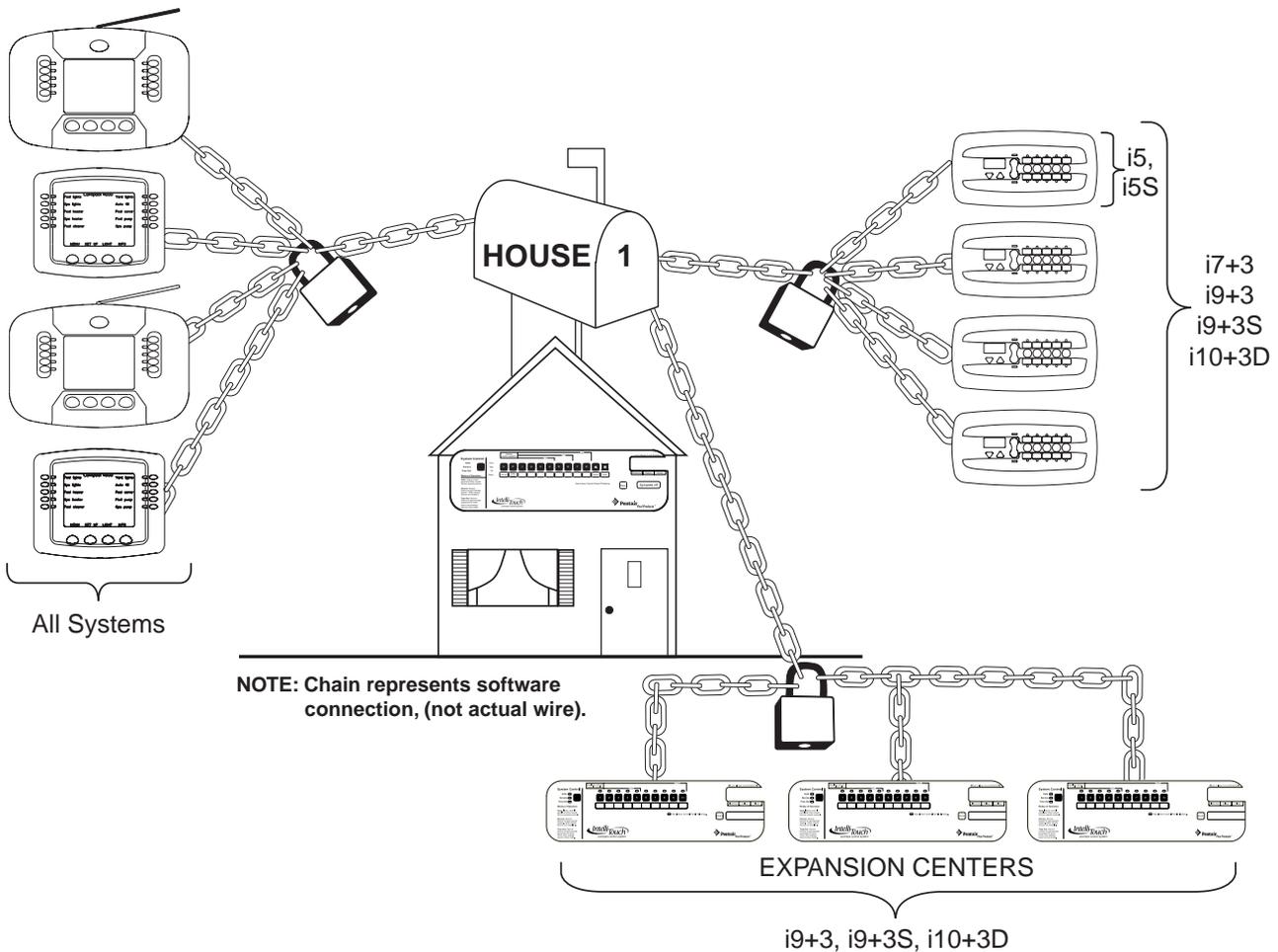
CAUTION:

OPERATIONS INCLUDED ON THIS PAGE CAN RESULT IN MAJOR CHANGES OR DELETIONS OF INFORMATION.

Secret Step

To enter the Hidden Service Screens, press these two buttons at the same time. If they are not pressed at exactly the same time this step will have to be repeated.

SYSTEM VERSION INFO
GET IMAGE FROM OUTDOOR
SEND IMAGE TO OUTDOOR
LOCK ON ADDRESS
ERASE EEPROM - ALL!!

MENU/SERVICE PERSONNEL

BACK   EXIT

SYSTEM VERSION INFO
Gives information only on the software version of the Indoor Control Panel and Universal Outdoor Controller.

GET IMAGE FROM OUTDOOR
Allows the Indoor Control Panel to automatically download all setup information which has been programmed into the Universal Outdoor Controller. It is a useful function when replacing or adding an additional Indoor Control Panel.

SEND IMAGE TO OUTDOOR
Allows Universal Outdoor Controller to automatically download information stored in Indoor Control Panel. This is a useful function for pool builders who would like to save time setting up the system by transferring data stored in their own Indoor Panel. It also provides for easy setup up if a new Universal Outdoor Controller is installed.

ERASE EEPROM - ALL!!
Pressing this button leads to the next screen, used for completely erasing all programs and set-ups. This resets microprocessor to factory settings.

LOCK ON ADDRESS
Used for setting up MobileTouch radio remote controller so that interference from other radio remote controls will not effect system. Also used to assign addresses to multiple Indoor Control Panels. See pages 16 and 17.

1ST PANEL
2ND PANEL
3RD PANEL
4TH PANEL

SELECT PANEL NUMBER

CANCEL

SELECT CONTROL PANEL ORDER
Any combination of up to four Indoor Control Panels and / or MobileTouch Controllers may be selected. Do not duplicate Control Panel order between Controllers.

ADDING PANELS TO AN EXISTING SYSTEM/ SENDING THE HOUSE ADDRESS ONLY

Before performing the following ask the following question:

Is there a MobileTouch, more than one Indoor Control Panel, more than one iS10, already installed on the system?

If the answer is **NO**, then it is possible that system still has the factory default House Address. It is highly recommended that you go back and perform all the above steps under Setting and Sending the House Address.

If the answer is **YES**, then a new House Address SHOULD NOT need to be set. It should already be there. Instead, the current House Address may be sent out to all controllers and then locked onto by the NEW controller. This saves time since the other controllers do not need to be reset.

NOTE

Be sure when you lock on the new controller you do not use a panel address or iS10 address already being used by an existing controller.

TO SEND THE HOUSE ADDRESS:

SYSTEM	BUTTON
i5, i7+3, i9+3	V
i5S, i9+3S	1
i10+3D	S

1. Press "**RESET**" on the mother system Outdoor Control Panel.

2. While the System Control indicator lights are lit, press the following button:

3. The System Control lights will begin flashing. The controllers (Indoor Control Panels, MobileTouch, iS10's, Expansion Centers) must then be set to lock on the house address according to their relevant sections of this manual. This is done locally at the controller.

4. When all controllers have locked on the House Address, press "**RESET**" on the Outdoor Control Panel and wait until the system has returned to Auto and Pool modes before resuming normal operation.

ORDERING OF EXPANSION CENTERS

Up to three additional Expansion Centers (i5x or i10x) may be added to base systems: i9+3, i9+3S, i10+3D. However, before they may be activated, the system must be told in which order to look at each Expansion Center.

1. First, the base system must be told to send out the House Address, (see Sending the House Address Only). The System Control indicator lights should now be flashing on the base system.

2. At each Expansion Center, press RESET then "**1**" for one second. The System Control indicator lights on the Expansion Center should now be flashing.

3. Three lights should appear over buttons **2**, **3**, and **4**. Press "**2**" if this is the second load center, "**3**" if this is the third load center, and "**4**" if this is the fourth load center. (The first load center is the base system.) These numbers will also correspond with the numbered display screens on the Indoor Control Panel and Mobi. Do NOT set more than one Expansion Center to the same number.

4. The indicator light should be blinking above the number selected. Press RESET on the Expansion Center and the base system. Wait until system has returned to Auto mode before resuming normal operation.

ORDERING OF iS10 CONTROLLERS (LOCK ON ADDRESS)

Spa-side Set-up and configuration

If the House Address has not been changed (see above) and only one iS10 is installed you may skip to the next section. No special set-up is required at the spa-side. If more than one iS10 is installed (or there are any wireless devices or multiple control panels) then each remote must be numbered by the system before operation. Follow these steps to configure multiple remotes:

1. First, go to the Outdoor Control Panel and enter the Send House Address mode. See above.

2. While the Outdoor Control Panel is in Send House Address mode, press the Bottom Row middle toggle button and the "**1**" button at the same time. Do this on all iS10 spa-side remotes.

3. The temperature display should now read "SHA" for "Set House Address" and four indicator lights will appear adjacent to the in-line buttons.

4. On the iS10 to be the first controller, press the "**1**" button. The temperature display should now read "IS1". On the iS10 to be the second controller, press the "**2**" button. The temperature display should now read "IS2". Repeat this for up to four spa-side remotes pressing "**3**" and then "**4**".

5. Press "**RESET**" on the Outdoor Control Panel. The indicator lights on the spa-side remotes will start to blink. Wait until they stop blinking before resuming normal operation.

ERASING OUTDOOR CONTROL PANEL MEMORY

If during set-up, it becomes desirable to return all programmed settings at the Outdoor Control Panel to the factory default settings press "**RESET**". The three System Control indicator lights will light for about ten seconds.

 WHILE THEY ARE LIT, press the following button:

The System Control indicator lights will flash OFF for a second then back on completing a normal restart. Wait until the system has returned to Auto and Pool modes before resuming normal operation.

SYSTEM	BUTTON
i5, i7+3, i9+3, i5S, i9+3S, i10+3D	5
i5x, i10x	7

NOTE

This will reset the Outdoor Control Panel to the factory default House Address. The House Address Setting and Sending procedure will have to repeated and all controllers locked onto the new House Address (if there are multiple panel controllers or iS10's).

CONFIGURING A SYSTEM FOR OPERATION

1. To facilitate the configuration of the system at start-up, worksheets have been provided to help plan the system. Make copies of each worksheet appropriate for your system and use a unique one for each load center. Circle the load center number on the top. Each worksheet is divided into a Hardwired Connections and a Programmable Settings sections. The Hardwired Connections section represents which relays, actuators, and heater have been plugged into the Personality PCB. As can be seen on the worksheet, some connections are mandatory for each system. The Programmable Settings section represents what functionality the circuit will have and is set from any Indoor Control Panel and/or MobileTouch independent of the Hardwired Connection.

2. In the left-most column, write-in temporary circuit names based on the capabilities you want the system to have. For example: Spillway, Solar Heating, Cherub Fountain, etc. Eventually circuit names will be given to each of these capabilities. Although duplicate names are allowed it is best to keep each one unique. Be sure to write the circuit name on the worksheet that will have the hardwired connection.

3. Mark on the worksheet which Hardwired Connections (relay or valves) will be activated by the circuit. It may be helpful to fill this out at the Load Center where the circuits and associated equipment may be quickly verified. Remember the following rules to assist in making marks:

    a. Assign no more than one relay connection to any auxiliary circuit (shown on Display 1 through 4) EXCEPT for 2-Speed or Feature Circuits.

    b. Feature Circuits may have multiple relay connections if set-up as a Macro.

    c. Feature Circuits may have multiple valves assigned to them and 2-Speed without being set-up as a Macro and with no other relay connection.

    d. Valves A-E may be assigned to the same auxiliary circuit as a relay connection.

    e. If one valve is to be turned on by more than one circuit, then it is suggested to assign a Feature Circuit to just that valve. That valve and any combination of relay connections may be activated with Macros.

    f. If SOLAR relay connection is checked and SOLAR is **NOT** a heat pump, also check Valve A. Valve A may not then be used with any other circuit. Valve A and the SOLAR relay are activated when solar heating is enabled.

4. Mark Programmable Settings for each circuit. Mark what special Circuit Functions, if any, each circuit will have. Circuit Functions may be assigned to any number of circuits. For a detailed description of Circuit Functions, see Page 38. If Spillway is checked, the Intake and Return valves will turn to divert all the pool intake water to be returned to the spa. If Floor Cleaner is checked, then one or more valves must also be checked to run the floor cleaner multi-port valves. If no special function will be assigned check GENERIC.

5. Write-in any automatically timed programs you want for a circuit. Up to 99 timed programs may be assigned to any circuit, but only three are presented on the worksheet. Indicate start times, stop times, countdown time (called "EGG TIMER"), days to be active, and if a color changing light whether or not it should change colors when turned on (SMART START).

6. Finally, indicate what circuits you want to appear on the Main Screen and what circuits you want activated by what buttons on a spa-side remote. The top buttons of the Main Screen are dedicated for Spa and Pool modes, however the lower buttons numbered downward may be configured to display any circuit. **NOTE:** Deliver this worksheet to the homeowner for future reference.

7. The following steps may all be accomplished at any Indoor Control Panel or MobileTouch controller. System Preferences (sound, brightness, etc.) may be set at any time. Instructions are included at the end of this list (Step 16).

8. Create and assign circuit names and create custom names (Pages 30 - 32).

    Based on the temporary circuit names from the worksheet, create and assign circuit names to the auxiliary connections. On the Assign Circuit Screen, auxiliary circuit names are assigned through Displays 1 through 4. Displays 1 through 4 correspond to the load center to which they are wired: mother system or load center 2-4. Note the original names presented, AUX 1 through 10, correspond to the plug-in location of the relay on the Outdoor Control Panel. Feature circuits are assigned on the Feature Circuit screen. The library of available circuit names is included at the end of this manual. Up to 20 additional names may be custom created (Page 31) prior to assigning names. If the circuit is to be a Macro, then skip to Step 12.

9. Configure Valves (Page 33).

    Assign which circuits will activate which valves. If more than one circuit must operate the same valve, then one Feature Circuit may be created and configured to activate valve. Then create Feature Circuits for all other circuits and use the Macro function to activate the valve along with any relay connections.

10. Assign Equipment Operation (Pages 34 - 37).

    Tell the system what special equipment the system may have.

    Is solar heating available? Is solar being used for a heat pump?

    What circuits will turn 2-Speed pumps to High Speed?

    Do you want to delay turning off the filter pump for 10 minutes when the heater is turned off?

    Do you want the spa to heat whenever the Spa button is pressed?

11. Assign Circuit Function (Page 38).

    Moving across your worksheet to the Programmable Settings, assign circuit functions to all circuits that are not marked GENERIC. Nothing needs to be done if the circuit is GENERIC (simple ON/OFF when the button is pushed).

12. Create Macros from Feature Circuits (Pages 39 and 40).

    Now that all the simple circuits are defined, it is time to have fun by combining circuits (Auxiliaries and Features) to maximize the system capability. Feature circuits that are assigned as Macros may also have all the same Circuit Functions and Equipment capabilities as any other circuit. Simply repeat the above steps using the Feature Circuit name.

13. Circuit Programs (Pages 41 - 43).

    Set times for automatic circuit activation. Each system may have up to 99 total programs. All user created programs are active all the time; so check that there are not conflicting automated times.

14. Configure the Light Screen (Page 44).

    A unique screen enables special control of pool and yard lighting capability, especially color changing lights from Pentair Pool Products.

15. Configure Main Screen, Spa-side remotes (Pages 45 - 49).

    Set which circuits will be operated by which button on each remote. Once you are satisfied all buttons operate properly, place labels on remote controls.

16. Set the Interactive Environment (Pages 50 - 53).

    Set time, date, clock, sound levels, indicator and screen brightness levels, and temperature scale preference. Calibrate the temperature sensors if necessary.

WORKSHEET FOR SHARED EQUIPMENT SYSTEMS
i5, i7+3, i9+3
Sheet 1 of 2

LOAD CENTER:
(circle one)
- Mother
- Two
- Three
- Four

These connections correspond to Control Panel
Display 1 for the mother system,
Display 2 for the 2nd Load Center,
Display 3 for the 3rd Load Center,
Display 4 for the 4th Load Center

Create Custom Names At:
MENU/SETUP/ADV/
CUSTOM/EDIT

Assign Circuit Names At:
MENU/SETUP/ADV/
AUX NAMES/DISPLAY 1-4 OR
FEATURE
NOTE: POOL and SPA may be renamed but they always activate the circuits indicated

Configure At:
MENU/SETUP/EQUIP
NOTE: If SOLAR is checked also check VALVE A, unless SOLAR is a Heat Pump

Configure At:
MENU/SETUP/ADV/
VALVES/PC#1

Assign Circuit Functions At:
MENU/SETUP/ADV/FUNC/
"Circuit Name"
NOTE: Use DISPLAY to toggle through Display 1-4 and Feature Circuits
NOTE: If MASTER CLNR is checked FLTR PMP will also turn on; If DIMMER is checked also assign an AUX; If SPILLWAY is checked, RETURN VLV operates; If FLOOR CLNR is checked also assign VALVE A or B

Configure At:
MENU/SETUP/ADV/
REMOTES/IS4'S

Configure At:
MENU/SETUP/ADV/
REMOTES/IS10'S

CIRCUIT NAME

Section	Circuit	Checked
HARDWIRED CONNECTIONS — RELAY CONNECTIONS	SPA (may be renamed)	X
	POOL (may be renamed)	X
	FLTR PMP	X X
	AUX1	
	AUX2	
	AUX3	
	AUX4	
	AUX5	
	AUX6	
	AUX7	
	AUX8	
	AUX 9	
	AUX 10	
	SOLAR	
	2 SPEED	
	SPA	
	ELEC HTR	
VALVES	INTAKE VLV	X X
	RETURN VLV	X X
	VALVE A	
	VALVE B	
OPT. VALVE MOD.	VALVE C	
	VALVE D	
	VALVE E	
CIRCUIT FUNCTIONS	GENERIC	
	MASTER CLNR	
	LIGHT	
	DIMMER	
	SAM LIGHT	
	SAL LIGHT	
	PHOTON GEN	
	COLOR WHEEL	
	VALVE	
	SPILLWAY	
	FLOOR CLNR	

PROGRAMMABLE SETTINGS

SPA-SIDE REMOTES

iS4 #1 BUTTON: 1, 2, 3, 4
iS4 #2 BUTTON: 1, 2, 3, 4

iS10 BUTTON — CIRCLE ONE: #1 #2 #3 #4
- TOP ROW: 1, 2, 3, 4, 5
- BOTTOM ROW: 1, 2, 3, 4, 5

LOAD CENTER:
(circle one)
Mother
Two
Three
Four

CIRCUIT NAME
POOL (may be renamed)
SPA (may be renamed)

Create Custom Names At:
MENU/SETUP/ADV/
CUSTOM/EDIT

Program At:
MENU/PROGRAM

Configure At:
MENU/SETUP/ADV/
CIRCUIT NAMES/
MAIN SCREEN CONFIG

PROGRAMMABLE SETTINGS

PROGRAM (UP TO 99)

1/ TOTAL
- START TIME OR EGGTIMER (Y/N)
- STOP TIME OR EGGTIMER TIME
- DAYS
- SMART START (Y/N)

2/ TOTAL
- START TIME OR EGGTIMER (Y/N)
- STOP TIME OR EGGTIMER TIME
- DAYS
- SMART START (Y/N)

3/ TOTAL
- START TIME OR EGGTIMER (Y/N)
- STOP TIME OR EGGTIMER TIME
- DAYS
- SMART START (Y/N)

MAIN SCREEN CONFIG

LEFT		RIGHT	
#1 SPA		#1 POOL	
2		2	
3		3	
4		4	
5		5	

WORKSHEET FOR SINGLE BODY SYSTEMS
i5S, i9+3S
Sheet 1 of 2

LOAD CENTER: (circle one)
Mother
Two
Three
Four

PROGRAMMABLE SETTINGS

Section	Instructions	Items
HARDWIRED CONNECTIONS — RELAY CONNECTIONS	Create Custom Names At: **MENU/SETUP/ADV/ CUSTOM/EDIT** — Assign Circuit Names At: **MENU/SETUP/ADV/ AUX NAMES/DISPLAY 1-4 OR FEATURE** NOTE: HI-TEMP and LO-TEMP may be renamed but they always activate the circuits indicated — Configure At: **MENU/SETUP/EQUIP** NOTE: If SOLAR is checked, check VALVE A unless SOLAR is a Heat Pump	CIRCUIT NAME — HI-TEMP (may be renamed) [X], LO-TEMP (may be renamed) [X], FLTR PMP [X X], AUX1, AUX2, AUX3, AUX4, AUX5, AUX6, AUX7, AUX8, AUX 9, AUX 10, SOLAR, 2 SPEED, ELEC HTR
VALVES	Configure At: **MENU/SETUP/ADV/ VALVES/PC#1**	VALVE A, VALVE B, VALVE C (OPT. VALVE MOD.), VALVE D, VALVE E
CIRCUIT FUNCTIONS	Assign Circuit Functions At: **MENU/SETUP/ADV/FUNC/ "Circuit Name"** NOTE: Use DISPLAY to toggle through Display 1-4 and Feature Circuits NOTE: If MASTER CLNR is checked FLTR PMP will also turn on; If DIMMER is checked also assign an AUX; If SPILLWAY is checked, RETURN VLV operates; If FLOOR CLNR is checked also assign VALVE A or B	GENERIC, MASTER CLNR, LIGHT, DIMMER, SAM LIGHT, SAL LIGHT, PHOTON GEN, COLOR WHEEL, VALVE, SPILLWAY, FLOOR CLNR
SPA-SIDE REMOTES	Configure At: **MENU/SETUP/ADV/ REMOTES/IS4'S**	iS4 #1 BUTTON (1,2,3,4); iS4 #2 BUTTON (1,2,3,4)
iS10 BUTTON — CIRCLE ONE: #1 #2 #3 #4	Configure At: **MENU/SETUP/ADV/ REMOTES/IS10'S**	TOP ROW (1,2,3,4,5); BOTTOM ROW (1,2,3,4,5)

These connections correspond to Control Panel
Display 1 for the mother system,
Display 2 for the 2nd Load Center,
Display 3 for the 3rd Load Center,
Display 4 for the 4th Load Center

WORKSHEET FOR SINGLE BODY SYSTEMS
i5S, i9+3S
Sheet 2 of 2

LOAD CENTER:
(circle one)
Mother
Two
Three
Four

CIRCUIT NAME
HI-TEMP (may be renamed)
LO-TEMP (may be renamed)

Create Custom Names At:
MENU/SETUP/ADV/ CUSTOM/EDIT

PROGRAMMABLE SETTINGS

PROGRAM (UP TO 99)

1/ TOTAL
- START TIME OR EGGTIMER (Y/N)
- STOP TIME OR EGGTIMER TIME
- DAYS
- SMART START (Y/N)

2/ TOTAL
- START TIME OR EGGTIMER (Y/N)
- STOP TIME OR EGGTIMER TIME
- DAYS
- SMART START (Y/N)

3/ TOTAL
- START TIME OR EGGTIMER (Y/N)
- STOP TIME OR EGGTIMER TIME
- DAYS
- SMART START (Y/N)

Program At:
MENU/PROGRAM

MAIN SCREEN CONFIG

	LEFT	RIGHT
#1 HI-TEMP	2 3 4 5	
#1 LO-TEMP		2 3 4 5

Configure At:
MENU/SETUP/ADV/ CIRCUIT NAMES/
MAIN SCREEN CONFIG

LOAD CENTER:
(circle one)
Mother
Two
Three
Four

CIRCUIT NAME

Create Custom Names At:
**MENU/SETUP/ADV/
CUSTOM/EDIT**

These connections correspond to Control Panel
Display 1 for the mother system,
Display 2 for the 2nd Load Center,
Display 3 for the 3rd Load Center,
Display 4 for the 4th Load Center

Assign Circuit Names At:
**MENU/SETUP/ADV/
AUX NAMES/DISPLAY 1-4
OR FEATURE**
NOTE: POOL and SPA may
be renamed but they always
activate the circuits indicated

Configure At:
MENU/SETUP/EQUIP
NOTE: If SOLAR is checked
also check VALVE A, unless
SOLAR is a Heat Pump

Configure At:
**MENU/SETUP/ADV/
VALVES/PC#1**

Assign Circuit Functions At:
**MENU/SETUP/ADV/FUNC/
"Circuit Name"**
NOTE: Use DISPLAY to
toggle through Display 1-4
and Feature Circuits
NOTE: If MASTER CLNR is
checked FLTR PMP will also
turn on; If DIMMER is
checked also assign an AUX;
If SPILLWAY is checked,
RETURN VLV operates; If
FLOOR CLNR is checked
also assign VALVE A or B

Configure At:
**MENU/SETUP/ADV/
REMOTES/IS4'S**

Configure At:
**MENU/SETUP/ADV/
REMOTES/IS10'S**

HARDWIRED CONNECTIONS

RELAY CONNECTIONS
- SPA (may be renamed) — SPA PUMP [X]
- POOL (may be renamed) — POOL PUMP [X]
- AUX1
- AUX2
- AUX3
- AUX4
- AUX5
- AUX6
- AUX7
- AUX8
- AUX 9
- AUX 10
- POOL SOLAR
- POOL 2 SPD
- POOL ELEC HTR
- SPA SOLAR
- SPA 2 SPD
- SPA ELEC HTR

VALVE
- VALVE A
- VALVE B
- VALVE C
- VALVE D — OPT. VALVE MOD.
- VALVE E

PROGRAMMABLE SETTINGS

CIRCUIT FUNCTIONS
- GENERIC
- MASTER CLNR
- LIGHT
- DIMMER
- SAM LIGHT
- SAL LIGHT
- PHOTON GEN
- COLOR WHEEL
- VALVE
- SPILLWAY
- FLOOR CLNR

SPA-SIDE REMOTES

IS4 #1 BUTTON: 1 2 3 4
IS4 #2 BUTTON: 1 2 3 4

IS10 BUTTON
CIRCLE ONE: #1 #2 #3 #4
TOP ROW: 1 2 3 4 5
BOTTOM ROW: 1 2 3 4 5

WORKSHEET FOR DUAL EQUIPMENT SYSTEMS
i10+3D
Sheet 2 of 2

LOAD CENTER:
(circle one)
Mother
Two
Three
Four

CIRCUIT NAME
POOL (may be renamed)
SPA (may be renamed)

Create Custom Names At:
MENU/SETUP/ADV/
CUSTOM/EDIT

PROGRAMMABLE SETTINGS
PROGRAM (UP TO 99)

1/ TOTAL
- START TIME OR EGGTIMER (Y/N)
- STOP TIME OR EGGTIMER TIME
- DAYS
- SMART START (Y/N)

2/ TOTAL
- START TIME OR EGGTIMER (Y/N)
- STOP TIME OR EGGTIMER TIME
- DAYS
- SMART START (Y/N)

3/ TOTAL
- START TIME OR EGGTIMER (Y/N)
- STOP TIME OR EGGTIMER TIME
- DAYS
- SMART START (Y/N)

Program At:
MENU/PROGRAM

MAIN SCREEN CONFIG

	LEFT	RIGHT
#1 SPA	2 3 4 5	
#1 POOL	2 3 4 5	

Configure At:
MENU/SETUP/ADV/
CIRCUIT NAMES/
MAIN SCREEN CONFIG

UPDATING SYSTEM CONFIGURATION INFORMATION

System information relating to circuit configuration, operation and display is retained at the Outdoor Control Panel. System information relating to user interface settings and ordering of controllers is retained locally at the controller. All system information is backed up and updated to all components overnight. However, a controller may force an update through the hidden service screen (Page 18).

Assigning Circuit Names to Display 1 (or Displays 2, 3 and 4)

1   Press the button beside the circuit you wish to assign a circuit name. An arrow will point to the circuit being changed. The "C" indicates it is a custom circuit name.

3   Repeat the same process for all the buttons you wish to assign names to.

Screen display:

SPA	POOL
SPA LIGHT	CLEANER
JETS	POOL LIGHT
AIR BLOWER	WATERFALL
FOUNTAIN	C→LION'S HEAD

MENU/SETUP/ADV/AUX NAMES

BACK   SAVE   DOWN   UP

4   Press SAVE when finished.

2   Use the UP / DOWN buttons to scroll through the list of possible names. If you cannot find a name to match your circuit, you can create your own custom name by going back to the screen titled CREATE CUSTOM NAMES.

About Display 1 - 4

Display 1 refers to the filter pump, pool and spa modes, and all the high-voltage auxiliary circuits contained in the load center at your equipment pad.

For large systems, a second load center can be added, which controls up to 10 more auxiliary circuits. When this second load center is added, Display 2 will appear as an option for assigning names to additional auxiliary circuits.

For extremely large systems, a third and fourth load center can be added, which will activate Displays 3 and 4.

Creating your own Custom Names for Auxiliary Circuits

1 Find the first letter of the the name, using the Finder buttons below.

Cursor   Space maker   Finder

Cursor LEFT

A-Z

Finder UP

Finder LEFT

Delete / Backspace

Cursor RIGHT

Z - A

Finder DOWN

Finder RIGHT

LION'S HEAD

ABCDEFGHIJKLMNOPQ
RSTUVWXYZ0123456
789←→.·&,?!@||/*%
*";:=_'#$[]{}~[]><

DEL/BKSPC   SELECT

MENU/SETUP/ADV/CUSTOM/EDIT

BACK   SAVE   CLEAR   EXIT

2 Press SELECT when you have found your letter. Then move on to the next letter.

3 Press SAVE when finished.

About Custom Names

There are nearly 100 circuit names stored in the IntelliTouch software. If you cannot find one to fit your application you have the ability to create up to 20 custom names.

The method of creating custom names is to choose one of the 20 USERNAMES and change it from "USER NAME-01 thru -20" to your name of choice. Like the example above, USER NAME-01 could be changed to LION'S HEAD.

After Custom Names are created and SAVED, the next step is to go back to ASSIGN CIRCUIT NAMES to assign your custom name to a circuit (see previous page).

Assigning Circuit Names to Feature Circuits *(not available for models i5 or i5s).*

About Feature Circuits

Feature Circuits provide control capability for pieces of equipment which are not controlled by AUX Circuits. In general, AUX circuits are used for high voltage equipment like pumps and lights, whereas Feature Circuits are used for low voltage equipment like valve actuators. However, Feature Circuits can go beyond this definition, and be used in other creative ways. For example, to create a Macro circuit in which several other circuits can be turned on or off with the same button, you would start by choosing a name for your Macro and assigning that name to a Feature circuit.

Valve Actuators: Feature Circuits may be assigned for controlling up to five valve actuators per system (requires Valve Module when over 2).

2-Speed Pump: A Feature Circuit may be assigned as a way to turn a 2-speed Filter Pump to high speed.

Spa Spillway: A Feature Circuit may be assigned to activate the Spa Spillway effect, where in a pool/spa combination, all the pool water can be diverted to the spa and then spill back to pool.

Macro: Feature Circuits are used to create Macros, where several other circuits can be turned on or off by one button.

1 **Press the button beside the circuit you wish to assign a name.**

3 **Repeat the same process for all the buttons you wish to assign names to.**

2 **Use the UP / DOWN buttons to scroll through the list of possible names. If you cannot find a name to match your circuit, you can create your own custom name by going back to the screen titled CREATE CUSTOM NAMES.**

4 **Press SAVE when finished.**

Configuring Valve Actuators to be controlled by AUX or FEATURE Circuits

About Configuring Auxiliary Valve Actuators.

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

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

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

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

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

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

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

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

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

```
VALVE A      USED BY SOLAR
VALVE B      FOUNTAIN
VALVE C      (UNUSED)
VALVE D      (UNUSED)
VALVE E      (UNUSED)

MENU/SETUP/ADV/VALVES/PC #1

BACK          SAVE    EXIT
```

3 Press SAVE when finished.

NOTE: If Expansion Centers are a part of the system, before this screen, you must select which Power/Load Center you wish to configure. Power Center number matches display number (1 through 4).

Setting Up Solar Control

1 First install solar temperature sensor, then press button so YES appears.

```
WATER SOLAR PRESENT    YES
SOLAR IS A HEATPUMP    NO



     MENU/SETUP/EQUIPMENT/SOLAR
BACK              SAVE    EXIT
```
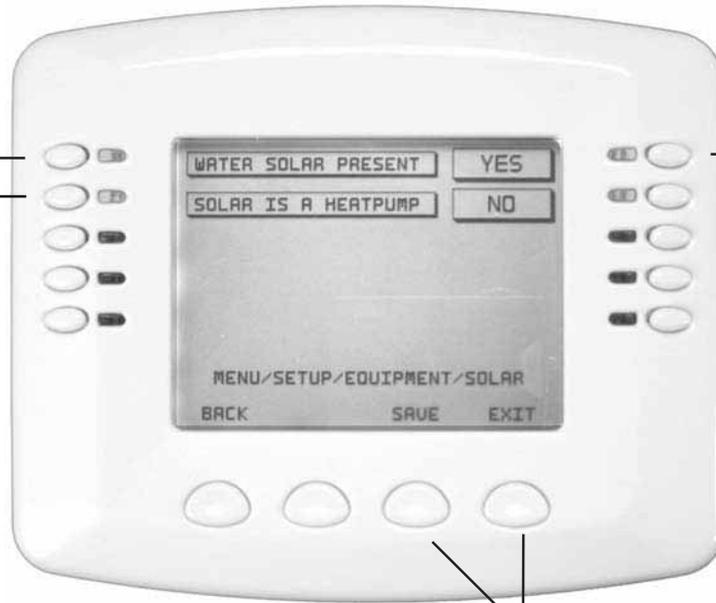
Heat Pump Control instead of Solar.

If a heat pump is being used in place of a solar heating system, press this button as well as the top button. If Solar is set to heat pump, Valve A is free for other circuits.

2 Press SAVE when finished, and EXIT to return to main menu.

About Installing Solar Heating

To tell the IntelliTouch if there is a Solar system:

First, install solar sensor at collectors and run wires to load center. If heat pump is configured, install Solar sensor outside Load Center. At the load center, connect wires to **SOLAR** screw terminals according to wiring diagram. Plug solar valve actuator cable into 3-pin socket marked **VLV A**. If solar booster pump is being installed, connect pump to a power relay and plug low voltage cable from relay into 2-pin socket marked **SOLAR**.

Press the button to the right of **SOLAR**.

Press either the top left or right button to toggle between **YES** and **NO**.

Press the button under **SAVE**.

```
POOL SOLAR PRESENT    YES
SOLAR IS A HEATPUMP   NO
SPA SOLAR PRESENT     NO


   MENU/SETUP/EQUIPMENT/SOLAR
BACK            SAVE   EXIT
```

i10+3D

Press YES for each body of water with Solar Heating.

Setting up a 2-Speed Pump
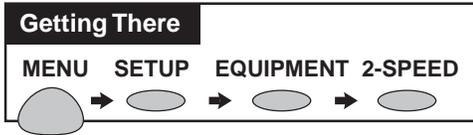
1 Equipment circuits displayed on this screen will automatically switch a 2-speed filter pump to high speed when these circuits are on. In this example, the FILTER PUMP will switch to high speed whenever the JETS or CLEANER is on. To add another circuit for switching filter pump to high speed, press the button next to any of the NONE indicators, and then scroll through your choices in step 2. HINT: You can use a FEATURE circuit as one of the circuits which can switch the pump to high speed (except i5 and i5S).

```
JETS      →   CLEANER
NONE          NONE
NONE          NONE
NONE          NONE


MENU/SETUP/EQUIP/2-SPEED PUMP
BACK    SAVE    DOWN    UP
```

3 Press SAVE when you have selected all the circuits that will switch the filter pump to high speed.

2 Use UP/DOWN keys to scroll through various circuits. After you have found the desired circuit, you can add another circuit by repeating step 1, or go to step 3.

NOTE: With Dual Equipment System i10+3D, the left column controls the spa pump and the right column controls the pool pump.

Setting up a Cool-down cycle for the Heater

About the Heater Cool-Down Delay
If you have a heater or other equipment that requires that the filter pump stay on for ten minutes after the equipment goes OFF, you must let the IntelliTouch know:
Press the button to the left of **FILTER DELAY**.
On the next window, press the top right button to toggle between YES & NO.
Press the button below SAVE.

1 Press the YES button to establish a 10 minute cool down cycle whenever the system shuts off.

MASTER SPA/POOL   YES

MENU/SETUP/EQUIP/FILTER DELAY
BACK   SAVE   EXIT

2 Press SAVE when finished.

Setting up Automatic Spa Heating when the Spa is turned on Manually.

Getting There

MENU → SETUP → EQUIPMENT → MANUAL HEAT
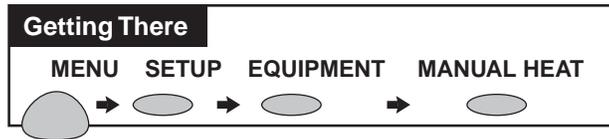
About the Spa Manual Heat Option
If this option is selected, your spa will begin to heat whenever it is manually turned on, (by pressing the SPA button), even if the heater is set to OFF in the HEAT screen. Your spa will also begin to heat when turned on by the spa-side remote, wireless remote, or telephone remote. This feature allows you to program your spa to filter daily with the heater set to off, and then be ready to heat whenever the SPA button is pressed manually. When using the telephone remote control option, it is necessary to have this feature activated, so that when you call your system to turn on the spa, the heater will also be activated automatically.

1 Press the YES button to automatically begin spa heating whenever the spa is turned on manually.

```
SPA MANUAL HEAT          YES



MENU/SETUP/EQUIP/MANUAL HEAT
BACK    SAVE         EXIT
```

2 Press SAVE when finished.

Assigning Circuit Functions

This button appears only when you have FEATURE circuits or multiple DISPLAYS.
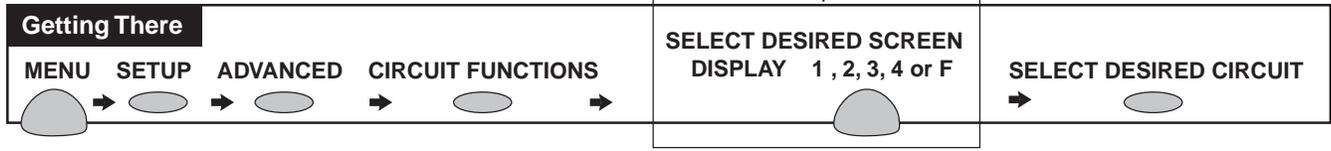
About Circuit Functions

Circuit Functions let you assign special logic to the circuits. For example, when setting up an automatic pool cleaner pump, you would assign the circuit function MASTER CLEANER. With this "Cleaner" logic the cleaner pump would not run with-out the filter pump being on first, and, the cleaner pump would automatically shut off whenever the spa is turned on.

1 **This is your desired circuit you wish to assign the function logic to. This circuit is selected from the previous screen.**

2 **Select the type of logic needed for your circuit. Below is a description of the various types of functions.**

GENERIC- No special logic. Simple on/off control of a circuit with all the programmable capabilities.

MASTER CLEANER- Used for automatic pool cleaner pumps or cleaner valve actuator.
1. Forces filter pump on 5 minutes before cleaner.
2. Turns cleaner off when spa is on.
3. For solar heating, turns cleaner off for 5 minutes whenever solar heating begins.

LIGHT- Allows special lighting features to operate, such as ALL lights on or ALL off.

DIMMER- Activates light dimming capability. Requires special dimming relay to be installed.

SAM LIGHT- Allows special color lighting programs to be activated on other screens when used with S*Am* pool lights. For example COLOR SWIM, COLOR SET and COLOR SYNC.

SAL LIGHT- Allows special color lighting programs to be activated on other screens when used with *SAL* spa lights. For example, COLOR SWIM, COLOR SET and COLOR SYNC.

PHOTON GENERATOR- Allows Pentair Fiber*works* fiber optic bulb to be operated by COLOR SET or COLOR SWIM programs in conjunction with S*Am* and *SAL* lighting.

COLOR WHEEL- For Pentair Fiber*works*, allows COLOR SET or COLOR SWIM programs to be activated on other screens.

VALVE- For future use.

SPILLWAY- For pool/spa combinations where the spa is raised above the pool. This feature rotates the return valve so that your filter pump pulls water from the pool, and returns it all to the spa, creating a waterfall. Automatic pool cleaners are turned off when this function is on.

FLOOR CLEANER- For in-floor cleaning systems with 2 main valves which need to alternate every 20 minutes. This feature allows a motorized 3-way valve to rotate every 20 minutes during pool filtration cycle.

```
            CLEANER
[PREV] [MASTER CLEANER] [NEXT]
[ON WITH FREEZE]      NO

    MENU/SETUP/ADV/FUNC/CLEANER
BACK            SAVE      EXIT
```

3 **Select YES if circuit is to have freeze protection. If you select YES, the circuit will turn on if air temperature drops to 35˚ F. Other points to consider:**

POOL- If selected, the filter pump will have freeze protection.

MASTER CLEANER- Freeze protection is generally not needed for pool cleaner pumps since they get water flow from the filter pump. Just make sure POOL has freeze protection.

SPA- If selected, the filter pump will run and the pool/spa valves will switch between pool and spa at 15 minute intervals throughout the freeze condition.

4 **Press SAVE when finished.**

2-Steps to Creating a Macro Circuit

Step 1: Assigning a Name to Your Macro.
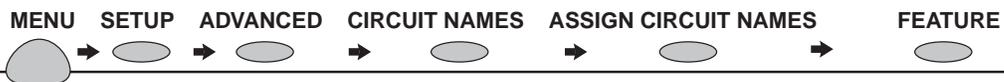
About Macros

   Macros give you the ability to combine various circuits (buttons) together so they can be operated by a single button. For example, you could create a Macro which would give you one button that turns on your spa, spa light, fountain, fountain light, and patio lights. You can assign a name to your Macro from the list of IntelliTouch names, or you can create your own custom name, like SPA PARTY for our example here. A Macro also has the capability to turn a circuit off. So in our SPA PARTY example, if there was a spa fountain which should not be on when the spa is on (because it could put cold water in the spa)

it can be set up in the Macro to automatically turn off when the SPA PARTY turns on. An OFF Macro can also be used to turn any number of lights off with one button.

   Within the IntelliTouch system, Macros fall under the Feature Circuits category. There is a limit of 10 feature circuits in the system, which is normally ample for operating motorized valves, a 2-speed filter pump, a spa spillway, and a few Macros.

   To create a Macro, first assign it a name in the Feature Circuits screen. Then go to the Circuit Macros screen and set up your Macro as you desire.

1 Press the button beside the circuit you wish to function as the Macro circuit.

Screen display:
- SPILLWAY — NONE
- SPA PARTY ←c — NONE
- NONE — NONE
- NONE — NONE
- NONE — NONE

MENU/SETUP/ADV/AUX NAMES
BACK   SAVE   DOWN   UP

2 Use the UP / DOWN buttons to scroll through the list of possible names. If you cannot find an appropriate name for your Macro, you can create your own custom name by going back to the screen titled **CREATE CUSTOM NAMES**.

3 Press SAVE when finished.

Step 2: Locate Your Feature Circuit from Step 1 in the Circuit Macros Screen.
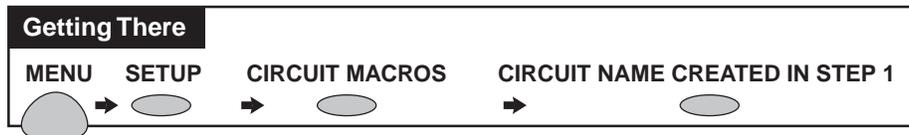
Getting There

MENU   SETUP   CIRCUIT MACROS   CIRCUIT NAME CREATED IN STEP 1

1 Press the button beside the circuit you wish to function as the Macro circuit.

```
SPILLWAY
SPA PARTY

        MENU/SETUP/MACROS/SELECT
BACK                          EXIT
```

2 Select any of the 10 circuits on this screen which you would like to be included in your Macro. Observe the following:

To have the circuit turn ON:
Press the button ONE time. The indictor lamp will turn on and stay on solid green.

To have the circuit turn OFF:
Press the button TWO times. The indictor lamp will turn on and start to flash on green.

To have the circuit be unaffected by your Macro:
The indicator lamp should be OFF.

```
SPA            POOL
SPA LIGHT      CLEANER
JETS           POOL LIGHT
AIR BLOWER     WATERFALL
FOUNTAIN       LION'S HEAD
LED=ACTION: ON=ON. BLINK=OFF. OFF=UNUSED
MENU/SETUP/MACROS/SPA PARTY
BACK    SAVE    DISPLAY   EXIT
```

4 Press SAVE then EXIT when finished.

3 If your system has more circuits than the 10 shown on Display 1, you can add any of these circuits to your Macro by pressing DISPLAY. The screen will change to either DISPLAY 2, if your system has 2 load centers, (indicated by a circled 2 in middle of the screen), or to the FEATURE Screen (indicated by a circled F).

At each screen you may add circuits to your Macro as in step 1.

NOTE: It is possible for a Macro Circuit to turn on another Macro Circuit. Be careful the Sub Macro Circuit does not turn something off that you want on or vice versa.

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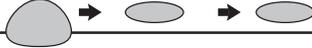
Program Indicator- In this example the pool filtration is being programmed.

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

Up to 99 total programs may be entered.

POOL	1/1
HOURS	🗓 8:00AM	MINS
HOURS	⊕ 5:00PM	MINS
DAYS	EVERY DAY

MENU/PROGRAM/POOL

BACK   SAVE   CLEAR

1 Set START Time with HOURS and MINUTES buttons.

2 Set STOP Time with HOURS and MINUTES buttons.

5 Press BACK to choose another piece of equipment to program.

4 Press SAVE when finished.

3 If desired, you can set the program to operate on selected days. To do this, press the DAY key, and all the days of the week appear. Select the days of operation by pressing the button next to your desired days. The LED indicators will illuminate next to the days you choose.

SUNDAY	MONDAY
TUESDAY	WEDNESDAY
THURSDAY	FRIDAY
SATURDAY	

MENU/PROGRAM/POOL

SAVE

Programming the Egg Timer Function
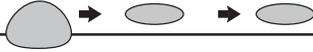
About the Egg Timer Function

Say whenever you turn your spa on, you would like it to automatically turn off in 2 hours. The Egg Timer circuit gives you a way to set an automatic shut-off. The time period can be anywhere from 1 minute to 24 hours.

This is a also a useful function for turning off lighting and spa therapy jets. For example, a jet pump can be set to turn off in 15 minutes, even when turned on by the spa-side remote control. All Egg Timer circuits are factory-set to 12 hours, even though the display reads 0:00.

1 Locate EGG TIMER function by pressing the HOURS button. EGG TIMER will appear after 11:00 PM.

```
SPA                    1/0
HOURS    EGG TIMER    MINS
HOURS    H 2:00       MINS
DAYS        ALWAYS

        MENU/PROGRAM/SPA

BACK          SAVE    CLEAR
```

2 Set desired RUN TIME with HOURS and MINUTES buttons. It may be set from 1 minute, up to 24 hours. There is also a DON'T STOP option, which means that the circuit will run continuously until turned off manually.

Please note that in the event of a power failure, the Egg Timer or Don't Stop feature will not turn the circuit back on.

For running the filter pump continuously during new pool start up, it is recommended to use the Service Mode at the Outdoor Control Panel, which will automatically restart the filter pump in the event of a power failure.

4 Press BACK to choose another piece of equipment to program.

3 Press SAVE when finished.

Programming the Once Only Function
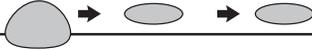
About the Once-Only Function

Say you would like to come home and have your spa ready and waiting for you. The Once-Only function lets you program a circuit to turn on at a particular time on a one-time basis. In the spa example, you could come home to a heated spa, and after you have finished, the Once-Only program automatically erases itself. The circuit must be turned off manually OR wait for the 12 hour automatic shutoff. However, the 12 hour factory shutoff setting can be reset by entering an Egg Timer program. See "Programming the Egg Timer Function".

1 Locate the ONCE ONLY function by pressing HOURS button. ONCE ONLY will appear on the screen after 11:00 PM.

2 Set START Time with HOURS and MINUTES buttons. The STOP Time will be 12 hours later, or can be turned off manually. The 12-hour shut off can be changed to any length of time by entering another program using the Egg Timer program.

```
SPA                    1/O
HOURS    🕐 8:00PM    MINS
HOURS    ONCE ONLY    MINS
DAYS       EVERY DAY

        MENU/PROGRAM/SPA
BACK              SAVE   CLEAR
```

3 In this program, EVERYDAY means TODAY ONLY. However, if the Start Time is set to an hour which has already passed, then the program will be executed the following day. Another day of the week may be chosen by pressing the Day button. Only one day should be selected. If more than one day is selected, the program will choose the closest day following the current day.

5 Press BACK to choose another piece of equipment to program.

4 Press SAVE when finished.

Configuring Lighting Options. Color Set and Color Swim

Requires use of at least two SAm and/or SAL and/or Fiberworks Lighting products controlled by separate AUX circuits.

Getting There

LIGHTS ➡ CONFIGURE LIGHT OPTIONS ➡ SELECT ANY BUTTON LABELED "NONE"

Lights that you do not want to be part of "Swimming Colors" should not be configured on this screen.

BEFORE PROCEEDING, make sure the AUX circuits which control your lighting have been ASSIGNED NAMES. Then verify that S*Am* and *SAL* lights have been set up in CIRCUIT FUNCTIONS as S*Am* and *SAL* lights. If Fiber*works* lighting is incorporated, it also has to be set up as a PHOTON GENERATOR for the circuit controlling the light bulb, and COLOR WHEEL for the circuit controlling the color wheel. (see page 37.)

Up to six light auxiliaries may be independently operated from the LIGHTS SCREEN.

COLOR SET- Allows any combination of up to six S*Am*, *SAL* and/or Fiber*works* lighting circuits to be preset to specific colors.

COLOR SWIM- Allows any combination of up to six S*Am, SAL* and/or Fiber*works* lighting circuits to be preset to transition through colors in sequence, giving the appearance of the colors swimming across the water. The delay in sequencing each light can be adjusted to make the colors swim at different speeds.

Although the same screen (shown below) is used to program COLOR SET and COLOR SWIM, these two special effects operate independently of each other.

1 Press either button to scroll through the possible light circuits which can be set up for COLOR SET and COLOR SWIM. Stop at the circuit you wish to set up. Note: The possible circuit names are derived from previous set up steps done in ASSIGNING CIRCUIT NAMES and setting CIRCUIT FUNCTIONS. If no possibilities exist, go back to pages 30 & 38, as outlined in the box above.

For COLOR SET

For COLOR SWIM

PREV	SPA SAL	NEXT
PREV	MAGENTA	NEXT
PREV	1ST POSITION	NEXT
PREV	DELAY 2 SECS	NEXT

LIGHTS/CONFIG/SPA SAL

BACK   EXIT

2 Scroll through the color choices until you find the color of your choice.

3 Set the position of the first light in the sequence. For example, to make the colors swim right to left, make your right most light POSITION 1. You may need to go back to Step 1 and scroll through your lights to find the right most light, and set it as POSITION 1.

4 Set the DELAY for the interval between lights. Try 5 seconds for all lights and watch the effect. Play with the time for setting different moods and effects.

5 Press SAVE.
You will return to the CONFIGURE LIGHT OPTIONS selection screen where you can program the next light option. Repeat Step 1 to set the light which will be POSITION 2 for COLOR SWIM, and a new color choice for COLOR SET.
Press SAVE.
Repeat this process until all desired lights have set colors, positions and delays.

Configuring the Main Screen

About Configuring the Main Screen

IntelliTouch user panels can display up to ten circuits on one screen. For larger systems where there are more than ten circuits, additional circuits can be found by pressing the DISPLAY button. DISPLAY 1 represents the filter pump and AUX circuits in the Load Center.

DISPLAY F- represents any FEATURE circuits which may have been set up to control valve actuators, 2-speed pumps, or macro (combination) functions. If applicable, DISPLAYS 2, 3, and 4 represent additional load centers which have been added to the system to increase the number of AUX circuits.

Normally the Main screen shows the ten circuits found on DISPLAY 1. However, if there is a circuit, or circuits, on the FEATURE screen or DISPLAYS 2, 3 or 4 which would be more conveniently operated from the MAIN screen, it is possible to reconfigure the MAIN screen so this circuit(s) appears. In doing so, you will need to replace one of the existing MAIN screen circuits with the new circuit. The replaced circuit will disappear from the MAIN screen, but can be operated or programmed by going to DISPLAY 1.

1 Press the button beside the circuit you wish to reconfigure.

3 Repeat the same process for all the buttons you wish to assign names to.

4 Press SAVE when finished.

2 Use the UP / DOWN buttons to scroll through the list of assigned names. Notice that the first names to appear are from DISPLAY 1, (then DISPLAY 2-4, if additional load centers have been installed), and then the FEATURE circuits.

Screen display:

SPA   POOL
SPA LIGHT   CLEANER
JETS   POOL LIGHT
AIR BLOWER   WATERFALL
FOUNTAIN   c→ LION'S HEAD

MENU/SETUP/ADV/ MAIN DISPLAY

BACK   SAVE   DOWN   UP

Configuring the Buttons of the 10-Function iS10 Spa-side Remote to control your desired functions
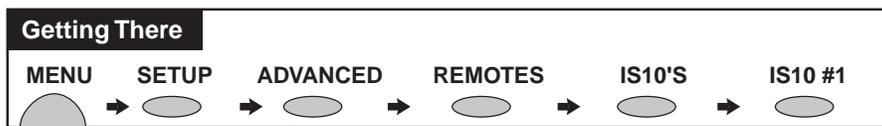
Getting There

MENU → SETUP → ADVANCED → REMOTES → IS10'S → IS10 #1

Hint: Before configuring the spa-side remote, assign names to the AUX circuits and / or FEATURE circuits, see pages 30 and 32.

Top Row Buttons 1-5

Bottom Row Buttons 5-10
(not available on i5 or i5S)

1 To configure the first button on your Spa-side Remote, press the top left button. The arrow indicates which button you are working on.

4 Configure Bottom Row buttons in the same way you did Top Row buttons.

SPA	← 1	POOL
SPA LIGHT	2	CLEANER
JETS	3	POOL LIGHT
AIR BLOWER	4	WATERFALL
FOUNTAIN	5	LION'S HEAD

TOP ROW   BOTTOM ROW

MENU/SETUP/ADV/REM/SEL/IS10 #1

BACK   SAVE   DOWN   UP

3 To configure the other four buttons on your Spa-side Remote, repeat the process using the next three buttons.

5 Press SAVE when complete. You will be returned to the iS10 selection screen. If you have more than one iS10 to configure, then select iS10 # 2. Repeat process until all iS10's are configured.

2 Use the DOWN / UP buttons to scroll through the circuit names and find the circuit you would like to assign to the Spa-side button you are working on.

Configuring the Buttons of the 4-Function Spa-side Remote to control your desired functions

Getting There

MENU → SETUP → ADVANCED → REMOTES → IS4'S

Hint: Before configuring the spa-side remote assign names to the AUX circuits and / or FEATURE circuits, see pages 30 and 32.

Two 4-Function Spa-side Remotes must be wired separately to operate independently.

One 4-Function Spa-side Remote.

Two 4-Function Spa-side Remotes.
(not available on i5 or i5S)

1 To configure the first button on your Spa-side Remote, press the top left button. The arrow indicates which button you are working on.

4 If there are two Spa-side Remotes, configure the second one the same way as the first.

```
     SPA       1    NONE
  SPA LIGHT  ← 2    NONE
    NONE      3    NONE
    NONE      4    NONE
    IS4 #1         IS4 #2

  MENU/SETUP/ADV/REMOTES/IS4'S
  BACK    SAVE    DOWN     UP
```

3 To configure the other three buttons on your Spa-side Remote, repeat the process using the next three buttons.

5 Press SAVE when finished.

2 Use the DOWN / UP buttons to scroll through the circuit names and find the circuit you would like to assign to the Spa-side button you are working on.

L.E.D. LAMP

1 2 3 4

L.E.D. LAMP

4 3 2 1
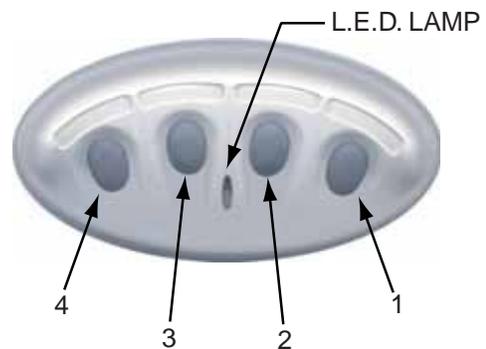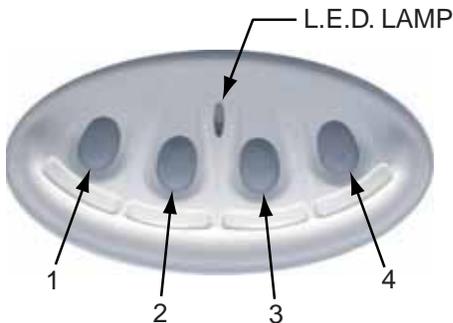
Configuring the Buttons of the 4-Function QuickTouch Wireless Hand-held Remote to control your desired functions

Getting There

MENU → SETUP → ADVANCED → REMOTES → CONFIGURE QT WIRELESS

Hint: Before configuring the wireless remote, assign names to the AUX circuits and / or FEATURE circuits, see pages 30 and 32.

1 **To configure the first button on your wireless remote, press the top button at right. The arrow indicates which button your are working on. Hint: The first button of the wireless remote is labeled SPA, so configure this button for the spa mode, as shown in the photo.**

```
        SPA        ← 1
      SPA LIGHT      2
        JETS         3
      AIR BLOWER     4


  MENU/SETUP/ADV/REM/QT REMOTE
  BACK     SAVE     DOWN     UP
```

3 **To configure the other three buttons on your wireless remote, repeat the process using the next three buttons at right.**

2 **Use the DOWN / UP buttons to scroll through the circuit names and find the function you would like to assign to the spa-side button you are working on.**

Setting up the Remote Control by Telephone Module to control your desired function.

Preparation: The telephone remote control module, model TELSPA, should be installed inside the load center, plugged into the universal outdoor board, and be connected to your regular phone line.

1 Press button so that arrow appears to left of box. If this feature has not been previously set up, the word **NONE** will appear in the box. In this example SPA has been chosen.

SPA ←

MENU/SETUP/ADU/REM/MOD-PHONE

BACK   SAVE   DOWN   UP

2 Use the DOWN / UP buttons to scroll through the circuit names and find the function you would like to assign to the telephone remote. Choose the function you will use most often. For example, SPA allows you to call your IntelliTouch and turn on the Spa filtration and heating with one command.

IMPORTANT: If you choose SPA as the function to be remotely controlled by telephone, you must also set up the Spa for MANUAL HEAT, see page 37. This allows the heater to always turn on whenever the Spa is turned on with the telephone remote.

3 Press SAVE when complete, you will be returned to the REMOTES selection screen, at which point you can press EXIT to return to the main screen.

Setting User Preferences for LCD screen

Use keys for adjustment of Contrast, L.E.D. brightness, and Backlight brightness.

BACKLIGHT	ALWAYS ON
DOWN	CONTRAST	UP
LED BRIGHTNESS	100%
BACKLIGHT BRIGHTNESS	100%
USER INTERFACE SETTINGS	

MENU/SETUP/PREFERENCES

BACK   EXIT

1 Back Light Choices-
1. Always ON.
2. Turns OFF automatically, five minutes after last use.
3. Turns OFF automatically and screen goes completely blank, five minutes after last use.

2 Contrast Adjustment-
Sharpens or softens screen. Also brightens.

3 Brightness of 10 L.E.D. Indicator lights next to buttons.

4 Brightness of L.C.D. backlight.

5 User Interface Settings. See below.

Setting User Interface Settings for Beeper and Key Repeat

BEEPER LEVEL	OFF
KEY REPEAT DELAY	1/2
KEY REPEAT RATE	15 PS

MENU/SETUP/PREFS/INTERFACE

BACK   EXIT

1 Press button to turn Beeper On or Off.

2 Key Repeat Delay-
This function is not normally adjusted by the user. It adjusts the amount of time a key/button has to be held down before it starts auto-repeating.
Factory setting is 1/2 second.

3 Key Repeat Rate-
This function is not normally adjusted by the user. It adjusts number of times per second the key/button repeats once it is held down. The range is 5, 10, 15, or 20 keys repeats per second. Factory setting is 15 repeats per second.

Setting the System Clock

Getting There

MENU → SETUP → CLOCK
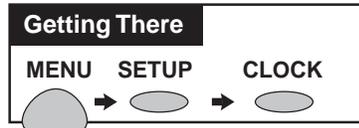
1 Enter Hours, Minutes, Day, Date, and Year. Set Daylight Savings to Auto or Manual.

HOURS	9:30PM	MINS
DAY	TUE 3	DATE
MONTH	JAN 2003	YEAR
DAYLIGHT SAVINGS		AUTO
ACC. OFF. (SEC/MO)		0

MENU/SETUP/CLOCK

BACK   SET   EXIT

Time Accuracy Adjustment- If clock does not keep accurate time, use buttons to speed up or slow down. Right button adds five seconds per month. Left button subtracts five seconds per month.

2 Press SET when finished, and EXIT to return to main menu.

Time of Day- Enter hours using the top left button and minutes using the top right button.

Day / Date- Enter day of week using the button to the left of **DAY** and the date using the button to the right of **DATE.**

Month / Year- Enter Month using the button to the left of **MONTH** and the year using the button to the right of **YEAR.**

Daylight Savings- Use left or right hand button to tell system if you want the system to automatically (**AUTO**) keep track of the semi annual time changes. If you do not live in an area that observes daylight savings time, choose **MANUAL**.

Clock Adjustment- If the internal system clock loses time during the month, you can use the **ACC. OFF. (SEC/MO)** setting to assign how many seconds per month to automatically adjust it back to the correct time. Use the left button to subtract seconds and the right button to add seconds in 5 second increments.

Setting up the Temperature Display in Fahrenheit or Celsius

Getting There

MENU   SETUP   EQUIPMENT   DEGREES C/F
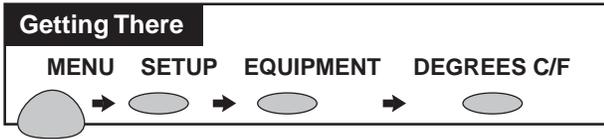
1   **Press the button to change the temperature display from Fahrenheit to Celsius or vice versa.**

```
DEGREES DISPLAYED IN    F



     MENU/SETUP/EQUIP/DEGREES C/F
BACK              SAVE    EXIT
```
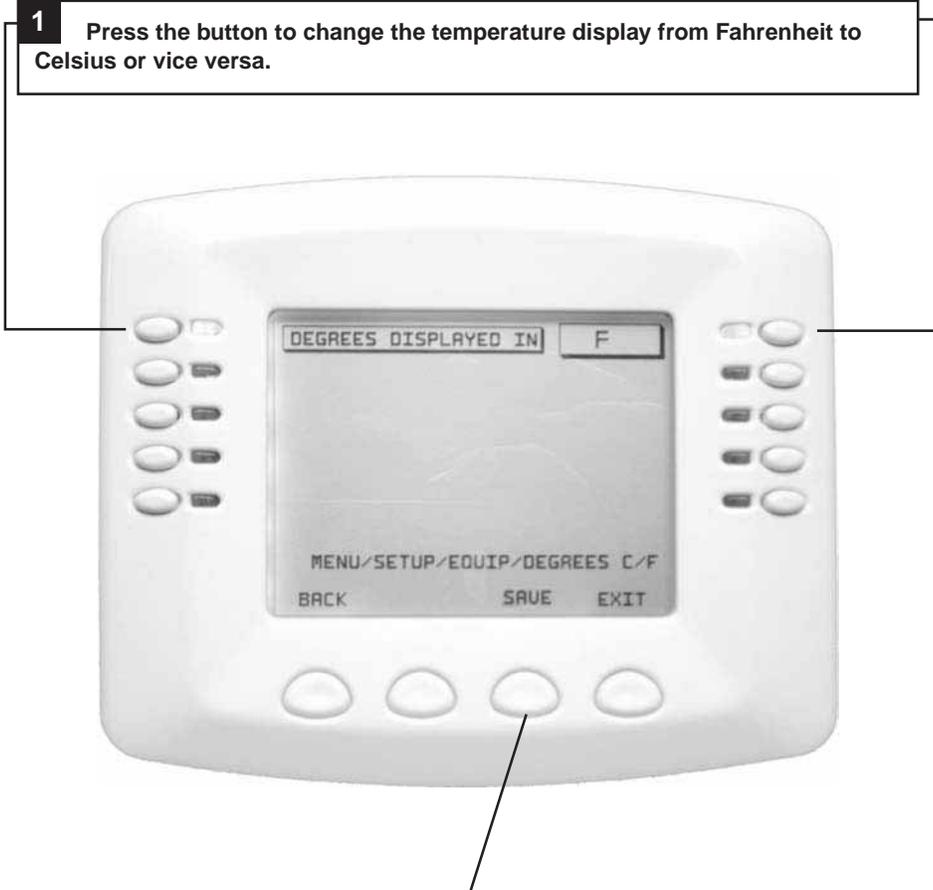
2   **Press SAVE when finished.**

Calibrating the Temperature Sensors

Getting There

MENU → SETUP → ADVANCED → CALIBRATE

About Temperature Sensors
The IntelliTouch system incorporates two 10K Ohm Temperature Sensors for water and ambient air temperature. A third sensor can be added when using the solar heating control option.

IntelliTouch temperature sensors generally should be accurate without having to calibrate them. However, water temperature readings may be affected by long plumbing runs, and the sensors can be recalibrated to account for this.

Display screen:
```
[DOWN]  WATER TEMP  86°  [UP]
[DOWN]  AIR TEMP    86°  [UP]

    MENU/SETUP/ADV/CALIBRATE
BACK                    EXIT
```

1 Water Temperature Sensor-
A. Turn Filter Pump ON in pool mode.
B. Place an accurate thermometer in pool and spa and obtain pool and spa temperatures.
C. Use buttons to adjust calibration to match thermometer.

2 Air Temperature Sensor-
A. Make sure air sensor is not exposed to direct sun during calibration. Sensor is normally located at the equipment pad, just below the IntelliTouch power center or load center.
B. Place an accurate thermometer near air sensor and obtain an air temperature reading.
C. Use buttons to adjust calibration to match thermometer.

Canceling the Safety Delays for Service Purposes
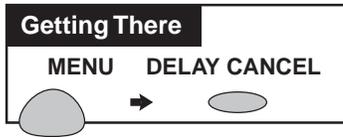
About Canceling Delay Circuits on a One-Time Basis.

For convenience, on a one-time basis, the DELAY CANCEL button will cancel the following safety delays which can be set up in the intelliTouch system. Please note there is generally not a need to cancel any of these delays except for servicing or testing the system.

Heater Cool-Down Delay Cancel: Shuts Filter Pump off immediately.

2-Speed Filter Pump 5-minute START on HIGH SPEED Delay Cancel: Shifts pump to low speed.

Automatic Pool Cleaner START Delay: Starts Cleaner Pump immediately, without normal delay in which the filter pump first runs for 5 minutes.

Automatic Pool Cleaner-SOLAR Delay: Allows Cleaner Pump to run even though solar delay has shut it off for 5 minutes.

About the Heater Cool-down Cycle and Delay Cancel.

Some heaters require a cool-down cycle before being turned off. This can be accomplished with a SET UP procedure in the IntelliTouch system which runs the filter pump an additional ten minutes to dissipate residual heat built up inside the heater combustion chamber. The DELAY CANCEL feature is mainly for use by service technicians when they want to shut the filter pump off immediately, and know the heater has not been running.

Heaters manufactured by Pentair Pool Products do not require this cool-down period and do not need the delay to be set up.

PROGRAM

SETUP

DELAY CANCEL

SPA SIDE REMOTE ENABLED

MENU

BACK

1 Press DELAY CANCEL to cancel the delay.

2 Press BACK when finished.

Spa-side Remote Disable / Enable
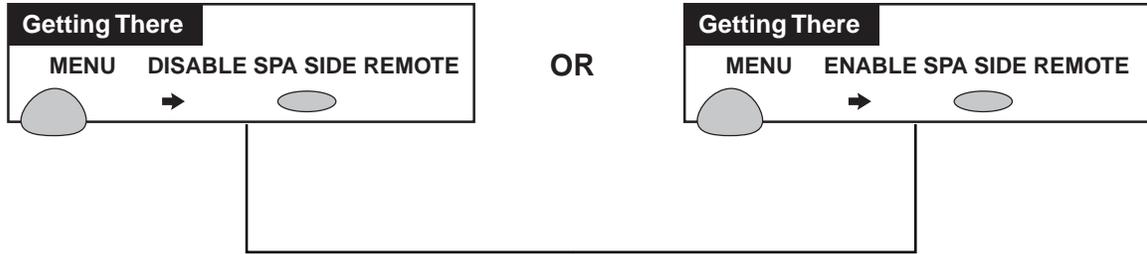
About the Spa-side Remote Disable / Enable.

This is a handy function for families with young children. It gives you a very easy way to turn off the Spa-side Remote control so it cannot affect the system.

You can enable and disable the Spa-side Remote with the same button. Each time the button is pressed it toggles to either DISABLED or ENABLED.

PROGRAM

SETUP

DELAY CANCEL

SPA SIDE REMOTE ENABLED

MENU

BACK

1 **To Disable: Press SPA SIDE REMOTE ENABLED. Screen will immediately respond and display SPA SIDE REMOTE DISABLED. Remote is now off.**

To Enable: Press SPA SIDE REMOTE DISABLED. Screen will immediately respond and display SPA SIDE REMOTE ENABLED. Remote is now on.

2 **Press BACK when finished.**

GLOSSARY OF TERMS

Expansion Kit: Personality Kit that is dedicated to add additional auxiliaries to an existing Personality Kit; requires a Load Center Foundation for each Expansion Kit.

Feature Circuits: programmable circuits that may control relays and/or valve actuators.

High Voltage Compartment: large lower right compartment of Load Center for all high voltage wiring including circuit breakers, relays, and GFCI.

Indoor Control Panel: fourteen button controller with LCD (liquid crystal display) mounted indoors on the wall to control IntelliTouch Systems.

iS4: four function spa-side remote; may be spa wall or deck mounted.

iS10: up to ten function spa-side remote with temperature changing capability; may be spa wall or deck mounted.

Load Center: unit for distributing power for controlling IntelliTouch systems that includes Load Center Foundation, Personality Kit, and circuit breakers.

Load Center Foundation: metal case with relays, transformer, and breakers to be installed prior to Personality Kit installation; common to all Personality Kits.

Low Voltage Compartment: top most compartment of Load Center for all low voltage wiring.

Low Voltage Raceway: vertical space in left side of Load Center for low voltage cabling.

MobileTouch Controller: wireless controller for the IntelliTouch systems with all the functionality of the Indoor Control Panel.

Mud Box: enclosure to provide mounting features for iS10 spa-side remote that is cast into gunite, concrete, or other spa wall/deck construction.

Outdoor Control Panel: control panel with flexible hinge installed in upper portion of Load Center to control IntelliTouch systems.

Personality Board/PCB: circuit board on Outdoor Control Panel that defines system capabilities; outermost circuit board on Outdoor Control Panel.

Personality Kit: set of parts to define the capability of a system; may include: Outdoor Control Panel, temperature sensors, actuators, control panel (Indoor or MobileTouch), additional relays, actuators.

Power Center: same as Load Center except without the circuit breakers.

Relay Circuits: circuits to control relays on Personality Board along top edge from the middle to the right of the PCB.

PCB: printed circuit board.

GLOSSARY OF TERMS, (cont'd.)

Terminal Connector: removable connector that may attach to PCB with multiple sockets (anywhere from 2 to 12) to receive wires from controllers and sensors; wires held by screw terminals; multiple wires of a small enough gage (usually 22 AWG) may be coupled to a single socket of a terminal connector.

Transceiver: special printed circuit board that can send and receive radio frequency (wireless) transmissions.

Virtual Cable Accessory Kit: set of parts to give wireless capability to an Indoor Control Panel; replaces the need to run cable from equipment pad to the home.

SAVE THESE INSTRUCTIONS.

LIST OF CIRCUIT NAMES IN THE INTELLITOUCH SOFTWARE

AERATOR
AIR BLOWER
AUX 1
AUX 2
AUX 3
AUX 4
AUX 5
AUX 6
AUX 7
AUX 8
AUX 9
AUX 10
BACKWASH
BACK LIGHT
BBQ LIGHT
BEACH LIGHT
BENCH
BLOWER
BOOSTER PUMP
BUG LIGHT
CABANA LTS
CHEM. FEEDER
CHLORINATOR
CLEANER
COLOR WHEEL
DECK LIGHT
DRAIN LINE
DRIVE LIGHT
EDGE PUMP
ENTRY LIGHT
FAN
FIBER OPTIC
FIBERWORKS
FILL LINE
FLOOR CLNR
FOGGER
FOUNTAIN
FOUNTAIN 1
FOUNTAIN 2
FOUNTAIN 3
FOUNTAINS
FRONT LIGHT
GARDEN LTS
GAZEBO LTS
HIGH SPEED
HIGH TEMP
HOUSE LIGHT
JETS

LIGHTS
LOW SPEED
LOW TEMP
MALIBU LTS
MIST
MOTOR VALVE
MUSIC
(NOT USED)
OZONATOR
PATH LIGHTS
PATIO LTS
PERIMETER L
PG2000
POND LIGHT
POND PUMP
POOL
POOL HIGH
POOL LIGHT
POOL LOW
POOL SAM
POOL SAM 1
POOL SAM 2
POOL SAM 3
SECURITY LT
SLIDE
SOLAR
SPA
SPA HIGH
SPA LIGHT
SPA LOW
SPA SAL
SPA SAM
SPA WTRFLL
SPILLWAY
SPRINKLERS
STREAM
STATUE LT
SWIM JETS
WTR FEATURE
WTR FEAT LT
WATERFALL
WATERFALL 1
WATERFALL 2
WATERFALL 3
WHIRLPOOL
WTRFL LGHT
YARD LIGHT

USER NAME 01 _____
USER NAME 02 _____
USER NAME 03 _____
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NOTES

For questions, repairs, replacement parts, or information on possible Authorized Service Centers within your vicinity call:

Pentair Pool Products ~ 800-831-7133

Or visit us on the Internet at www.pentairpool.com

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