

INTELLICENTER® CONTROL SYSTEM

USER'S GUIDE



IMPORTANT SAFETY INSTRUCTIONS READ AND FOLLOW ALL INSTRUCTIONS SAVE THESE INSTRUCTIONS

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IMPORTANT SAFETY INSTRUCTIONS



IMPORTANT NOTICE:

Attention Installer: This guide contains important information about the installation, operation and safe use of this underwater pool and spa light. This Guide should be given to the owner and/or operator of this equipment.

Attention User: This manual contains important information that will help you in operating and maintaining this product. Please retain it for future reference.

AWARNING Before installing or using this equipment, read and follow all warning notices and instructions in this Guide. Failure to follow warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions. Please refer to www.pentair.com for more information related to this products.

WARNING

SERIOUS BODILY INJURY OR DEATH CAN RESULT IF THIS LIGHT IS NOT INSTALLED AND USED CORRECTLY.

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION! THIS **▲** WARNING PRODUCT REQUIRES HIGH VOLTAGE WHICH CAN SHOCK. BURN, OR CAUSE DEATH.

Before servicing this equipment always disconnect power to all **WARNING** pool equipment at circuit breaker. Failure to do so could result in death or serious injury to service person, pool users or others due to electric shock.

This equipment must be installed by a licensed or certified electrician **A** WARNING or a qualified pool professional in accordance with the National

Electrical Code (NEC), NFPA 70 or the Canadian Electrical Code (CEC), CSA C22.1. All applicable local installation codes and ordinances must also be adhered to.

Improper installation will create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock, and may also cause damage to property.

▲ WARNING Most states and local codes regulate the construction, installation, and operation of public pools and spas, and the construction of residential

pools and spas. It is important to comply with these codes, many of which directly regulate the installation and use of this product. Consult your local building and health codes for more information.

ANSI - American National Standards Institute

ASME - American Society of Mechanical Engineers

CSA - Canadian Standards Association

IAPMO - International Association of Plumbing and Mechanical Officials

UL - Underwriters Laboratory

IMPORTANT SAFETY INSTRUCTIONS

FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. See instructions if interference to radio or television reception is suspected. Radio and Television Interference

This computer equipment generates, uses, and can radiate radio-frequency energy. If it is not installed and used properly—that is, in strict accordance with Pentair instructions—it may cause interference with radio and television reception. This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. You can determine whether your computer system is causing interference by turning it off. If the interference stops, it was probably caused by the computer or one of the peripheral devices. If your computer system does cause interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the computer to one side or the other of the television or radio.
- Move the computer farther away from the television or radio.
- Plug the computer into an outlet that's on a different circuit from the television or radio.
- Make certain the computer and the television or radio are on circuits controlled by different circuit breakers or fuses.

If necessary, consult Pentair Technical Support 1.800.731.3773 or consult an experienced radio/television technician for additional suggestions. Important:

Changes or modifications to this product not authorized by Pentair could void the EMC compliance and negate your authority to operate the product. This product was tested for EMC compliance.

IMPORTANT SAFETY INSTRUCTIONS

Wireless Radio Use

This device is restricted to indoor use due to its operation in the 5.15 to 5.25 GHz frequency range to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

Exposure to Radio Frequency Energy

The radiated output power of this device is well below the FCC radio frequency exposure limits. However, this device should be operated with a minimum distance of at least 20 cm between its antennas and a person's body, and the antennas used with this transmitter must not be co-located or operated in conjunction with any other antenna or transmitter subject to the conditions of the FCC Grant.

Industry Canada Statement

Complies with the Canadian ICES-003 Class B specifications. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. This device complies with RSS 210 of Industry Canada.

Disposal and Recycling Information

This product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

California: The coin cell battery in your remote contains perchlorates. Special handling and disposal may be required. Refer to www.dtsc.ca.gov/hazardouswaste/perchlorate.

OVERVIEW

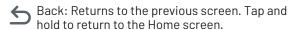
IntelliCenter offers full control of your pool and spa equipment from anywhere inside or outside your home via your smartphone or other mobile devices. It is a scalable system that can be used alongside other popular home automation systems.

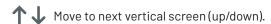
- 4" x 3" color touchscreen.
- Day Time and Night Time screen modes
- Up to 100 programmable schedules/ programs for easy system scheduling
- 32 Feature Circuits: Allows additional speeds/programs for a variable speed pump or for an actuator to be assigned without using an existing auxiliary circuit.
- 16 Groups: Assign groups of lights and AUX circuits to allow control by a single button
- Supports up to 16 IntelliFlo® Pumps
- Supports up to four Spa Command[®] or iS10, two iS4, or one QuickTouch[®] II wireless remotes.
- Supports up to two Indoor Control Panels
- Valves: Intake/Return plus A and B valve circuits. Expandable up to 10 valves (shared equipment).
- Indoor Control Panel, Wireless Handheld Remote, Outdoor Control Panel
- Supports RS-485 connected heaters
- 39 Auxiliary Circuits (up to three Expansion Enclosures)
- Spa Manual Heat Function

- Support for two Bodies of Water
- Supports multiple heater connection capability (starting from software release v1.047)
- Over-The-Air Software Updates (starting from software release v1.047)
- Spa Side Control Enable/Disable
- Solar Heating Option/Support
- 16 Heat Pump Support
- · Heat Pump Cooling Support
- Assignable and Customizable Circuit Names
- Special Circuit Types/Function
- Two Speed Pump Support
- Sensor Calibration
- · Password Protection
- USB port compatible with standard flash drives
- · Optional WiFi Connectivity

Navigation

The system navigation screen icons are described as follows:





Select or add an item. Cancel/Close a screen.

Delete an item.

Select and save an item.

Home screen is Locked (passcode protected).
Requires password to access the Home screen.

Edit an item.

Pleip information. Tap the Help icon to display the contextual on-screen help information.

Green: System status is good (OK)

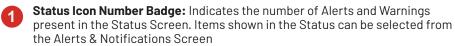
Blue: System Status Information.

Orange: Warning status condition.

Red: Alert status condition. Note: Badges are displayed on the Home screen Status icon.

Navigation (Continued)





Note: To select or hide Status Badge icons, see Settings > Alerts and Notifications, on page 45.

Home Screen Pool and Spa Status Badges:



Green Badge. A Green (Schedule) badge displayed on the on the Home screen Pool/Spa icon indicates that a programmed schedule is active.

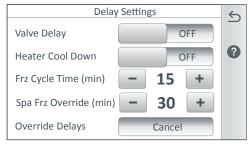
78° ♦84° Yellow Badge (Pool/Spa filter pump turned on): A Yellow Badge indicates a delay is in progress. Delays: Heat Cool-Down (pump), Valve Rotation Delay, Pump Priming. Note: For Shared Equipment Systems, when the pool or spa pump is turned on, the Yellow badge displays on the pool or spa icon; not on both at the same time. See page 44 to hide/show Yellow and Blue Badges.



Blue Badge (Pool/Spa pump turned on): A Blue Badge indicates that the Pool/Spa pump has been turned on manually.

Using Override Delays (see page 88):

- Go to Delays and tap Override Delays.
- Override Delays will cancel all active delays. If a Schedule is running, a Green Badge will display. If the pool/spa pump is manually enabled (ON/OFF), a Blue badge will display.



78°



78°

Badge Color Changing Sequence:

The color badges shown on left indicate No heater (Off) installed.

Yellow to Green: A schedule has started running.

Yellow to Blue: Pool/Spa pump has been manually turned ON. Blue will stay on until pool/spa pump is manually turned off. Blue Badge will stay on for the Egg Timer duration. If the Egg Timer is set to **Don't Stop** the circuit will run until manually switched off.

Home Screen Connection Indicators

IntelliCenter Control Panel and Wireless Remote icons are displayed in the top right of the Home screen.



Padlock: Indicates the Home screen is passcode protected.



Pentair logo: Indicates connection to **intellicenter2.com** server, see page 85.





Battery indicator and Wireless Signal Strength Icon: Displays on the Wireless Remote.



Green/Yellow/Red Dot: These connection icons display on the Expansion Panel(s), Indoor Control Panel and Wireless Remotes. Green indicates synchronizing with the main Outdoor Control Panel. Red indicates no connection with the Outdoor Control Panel.



Ethernet Icon: $\uparrow \downarrow$ indicates an active Internet connection. $\uparrow // \downarrow$ indicates no Internet connection.

Home Screen Display Icons and Day/Night Theme

For optimal viewing, the color touch screen contrast can be set for daylight, or night time viewing.

To change the Day/Night Theme: From the Home screen, tap Settings > General > Day/Night Themes. Select Day Theme, Night Theme or Transition Type (Manual or Auto).

Change the screen time out delay: If you require the screen to stay on longer and not turn off while setting up system configurations; from the Home screen, tap Settings > General > Backlight, and change the Dim Display and Turn Off Display settings to the desired time in minutes.

Manual Control of Equipment and Functions

The Home screen displays the current pool and spa operating status. The example below shows IntelliCenter model i5PS. Tap an icon to access its control screen to manually control pool and spa equipment. The Home screen displays the installed equipment as configured from the Settings screen.

Configuring Heaters (Heater, MasterTemp, and Max-E-Therm) "Gas" Heater

One heater may be assigned to each body of water in a Dual or Shared Body configuration. The pool or spa may have any "configured" heater assigned to it. It is assigned on the Pool/Spa screen by selecting "Heat Mode". Multiple heat modes per heater type. For example, UltraTemp Only and UltraTemp Preferred. Only one "Gas" heater maybe configured in this system per body. If you define a "Gas" heater for the Pool you may not define a "MasterTemp" for the Pool. Any heater that uses the Solar sensor may only be assigned once. A Solar Heater may not be defined as a Heat Pump or UltraTemp. A Hybrid heaters may be defined as one heater associated with Pool or Spa. For more information, see page 73.



Pool/Spa System Configurations

Systems with multiple pools and/or spas (up to two bodies of water total).

Depending on the Personality Card installed in the IntelliCenter load center (see page 96) a system can be configured as follows:

Single Body (model i5, i8, i10): One set of equipment for a single body of water (pool or spa).

Shared Equipment (i5PS, i8PS, i10PS): One body of water with shared equipment (same pump, heater and filter).

Dual Equipment (i10D): Two separate equipment sets for two separate bodies of water (pool/pool and spa/spa (only one pool or spa icon with draw).

The Home screen displays each additional body of water under the main Pool and Spaicon. Up to two bodies maximum of water can be displayed.





Lower Drawers: An i10D model system can be configured as Pool, Pool or Spa, Spa. Using the lower draws on/off button, each body of water can be turned on or off. Note: The Home screen shown on the left are passcode protected, see Passcode Protect below for more information.

Tap the On/Off slide button icon to manually control the pool or spa filter pump and heater for the selected body of water. Tap the Up/Down arrow to display more pools and/or spas. The current settings are displayed above the pool and spa the icon.

Note: To configure the pool and spa systems, see Settings > Advanced System Configuration > Installation Setup > Body Configuration, see page 53.

Passcode Protect

When a screen or individual screen item is Passcode protected a *lock icon* is displayed. To access the protected screen or item, tap on the icon and enter the four digit Passcode.



Tap number key pad to enter the four digit Passcode to access the Passcode protected screen.

Note: To setup Passcodes, see Settings > Security on page 45.

Control System Menu Tree

HOME SCREEN

- Pool Screen
- Spa Screen
- **Features** (Individual/Groups)
- **Lights** (Individual/Groups)
- Schedules (Weekly, One Time Only, Schedule)
- Usage
- Chemistry (Chemical Controller / SCG)
- Status
- Settings: Refer below for Settings menu.

SETTINGS MENU

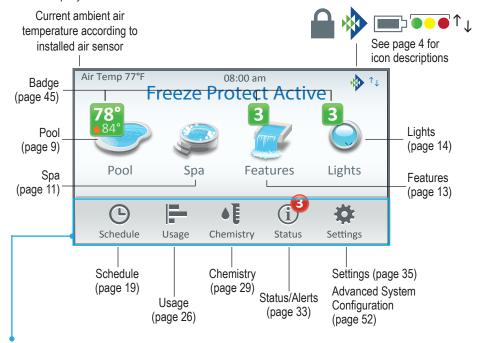
- Service Mode
- Vacation Mode
- Support
- **General:** Location, Date & Time, Temperature Units, Features and Lights List Order, General List Order, Backlight, Temperature Sensor Calibration, Day/Night Themes, Manual Operation Priority, Manual Heat, Chemistry Readings, Badge Colors.
- **Alerts and Notifications:** Choose which system status, alerts and warnings badges to display on the Home screen Status icon.
- Security (Password Protect)
- Pentair User Portal (www.intellicenter2.com)
- **Groups:** Configure groups of AUX circuits, Light circuits and Feature circuits.
- Reboot This Panel
- Advanced System Configuration: Refer below for Advanced System Configuration menu.

ADVANCED SYSTEM CONFIGURATION MENU:

- Installation Setup: Body Configuration, Circuits, Pumps, Heaters, Valves, Chemistry, Pool/Spa Cover
- Remotes Setup: iS4, QuickTouch II, iS10, SpaCommand
- **Network and WiFi Setup:** Configure Ethernet, Connect to a Wireless Network, Internet Connection Test, Reboot Wireless Device.
- Wireless Remote Setup: Configure the Address and Panel # for a wireless remote.
- Delays: Valve Delay, Heater Cool Down, Freeze Cycle Time, Spa Freeze Override, Override Delays.
- **System:** System Information, Detected Hardware, System Diagnostic Information, Firmware Update, Factory Diagnostics.
- Import/Export: Import System Configuration, Export System Configuration.
- Restore Factory Defaults: Restore system to factory configuration.
- **Wizard:** Step-by-step system configuration. Refer to *Setup Wizard Navigation, page* 36 for more information.

Home Screen

The Control Panel Home Screen displays the current ambient air temperature, and the current system time. Green badges displayed above the Pool and Spa icons show the current water temperature and heater set point temperature. Green badges displayed above the Features and Lights icon show the number of active features and lights that have been manually switched on. The Pentair logo (www.intellicenter2.com connection), Ethernet connection, Wireless Remote signal, and battery strength may also be displayed.



Schedule: Setup your daily pool/spa operations. "Vacation" is displayed when operating in Vacation mode.

Usage: Historical usage data.

Chemistry: Chemical Controllers and Salt Chlorine Generators. To display pH and ORP readings on Home Screen Chemistry Icon, see page 45. The chemical controller can be configured as stand-alone or to control a salt chlorine generator.

Status: View the current pool/spa status/alerts.

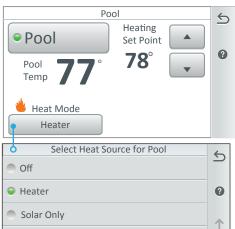
Settings: Setup and configure equipment.

Pool

Tap the Home screen Pool icon to display the Pool Pump control settings screen. From this screen tap the Pool Pump button to activate the pool pump. A Blue badge displayed on the Pool icon indicates the Pool/Spa pump button has been manually turned on. The Blue badge displays until the pump button is turned off. The badge displays the current pool water temperature. If there is a heat source active, a flame icon is displayed with the pool water set point temperature. Note: For more information about screen badges, see page 3.



Pool Badge Icons: A Flame icon (heat source active) is displayed with the current heat set point temperature. A **Snow Flake icon** indicates the Heat Pump or Solar Heat (if enabled) is in cooling mode. A **Sun icon** indicates solar heat is active. Select the heat source from the Select Heat Source screen.



Heat Pump Only: Only uses Heat Pump during calls for heating.

Hybrid - Gas Only Mode: Only uses Gas Heater during calls for heating.

Hybrid - Hybrid Mode: Automatically switches between heater and heat pump

based on conditions.

Hybrid - Dual Mode: Heat Pump and Gas Heater will run in tandem to provides the fastest possible heat ups.

Heat Mode indicators:



Heat Source Nocturnal Solar
Active Cool Down Heat Source

Pool Pump On/Off Button: Tap this button to turn the Pool Pump on to activate the heater. Tap the Heat Mode button to select a heat source. Note: When the heater is turned it will activate the pool/spa pump when the Heating Set Point is above or at the current water temperature reading.

Note: Change the Pool or Spa button name, see page 55.

Heating Set Point: Use the Up/Down button to increase or decrease the heat set point temperature.

Pool Temperature: Displays the current pool water temperature in Fahrenheit or Celsius.

Heat Mode Button: Select the available heat source type: Off (no heat source), Gas, Solar, Heat Pump, MasterTemp, Max-E-Therm, UltraTemp or Hybrid.

Pool



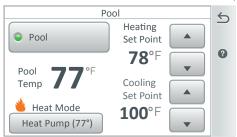
Pool Pump Button (Override Freeze Protect)





Freeze Protection Override: The pool pump can be manually turned on to override the Freeze protection. This also applies if a schedule is running. To assign freeze protection to a circuit. See page 59 for more information.

Schedules (Heat Source and Set Temperature) See page 20: See Schedules to schedule the pool/spa pump to turn on at a specific time to pre-heat the pool or spa water. From the Schedules Weekly or One Time Only option, select Heat Source and select a heat source, then set the Set Temperature settings.



Nocturnal Cooling Set Point Temperature control for Heat Pump or Solar: If using a heat pump, use the Cooling Set Point temperature or solar heat control buttons displayed on the Pool and/or Spa screen to adjust the nighttime temperature of the pool/spa water.

Note: For Solar, (77°F) indicates the Solar temperature sensor.



Don't Change Feature (Schedules Heat Source). See page 19

Solar Heater: Nocturnal (nighttime) feature provides automatic cooling during night time hours for pools that overheat in hot climates to circulate the warmer pool water to the collector panels when the collector temperature and the pool temperature is hotter than the high limit setting. This process cools the pool water over time. **This** feature is also used for Hybrid Heaters and Heat Pumps.

If the Heat Mode is set to Off, the Heating Set Point setting on the Pool screen is not displayed. Tap the Heat Mode button to display the Select Heat Source screen. The Home screen displays a Blue badge over the Pool icon with the current pool water temperature.





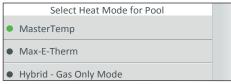
Spa

Tap the Home screen Spa icon to display the Spa Pump control settings screen. From this screen tap the Spa Pump button to activate the Spa heat source. A Blue badge displayed on the Spa icon indicates the Pool/Spa pump button has been manually turned on. The Blue badge displays until the pump button is turned off. The badge displays the current pool water temperature. If there is a heat source active, a flame icon is displayed with the pool water set point temperature source. Note: For more information about screen badges, see page 3.



Spa Badge Icons: A Flame icon indicates that the heat source has been called for. A Snow Flake icon indicates the UltraTemp (if heat and cool model) Heat Pump or Solar Heat (if enabled) is in cooling mode. A Sun icon indicates solar heat is active. Select the heat source from the Select Heat Source screen.





Heat Pump Only: Only uses Heat Pump during calls for heating.

Hybrid - Gas Only Mode: Only uses Gas Heater during calls for heating.

Hybrid - Hybrid Mode: Automatically switches between heater and heat pump based on conditions.

Hybrid - Dual Mode: Heat Pump and Gas Heater will run in tandem to provides the fastest possible heat ups.

Heat Mode indicators:



Spa Pump On/Off Button: Turn the Spa Pump on to activate the heater. Tap the Heat Mode button to select a heat source. See page 55 to change the spa button name.

Heating Set Point: Use the Up/Down button to increase or decrease the heat set point temperature.

Spa Manual Heat ON/OFF: When set to ON, overrides current heater settings and schedules to allow manual control of the spa heater settings (on/off and temperature settings), see page 12.

Heat Mode Button: Select the available heat source type: Off (no heat source), Heater, Solar Only, Solar Preferred, Heat Pump (Heat Pump Preferred), UltraTemp, MasterTemp & Max-E-Therm or Hybrid (see page 76).

Note: To add a heater, see page 72. To add a circuit go to Settings > Advanced System Configuration > Installation Setup > Circuits, see page 56.

Spa

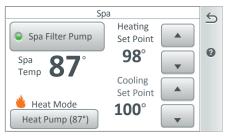


Spa Pump Button (Override Freeze Protect -See Delay Settings, page 88)





Spa Freeze Override Time: Override the spa pump circuit that has freeze protection active to run the pump and heat the spa during freezing temperatures. This also applies if a schedule is running. **Freeze Cycle Time:** Set the freeze protection time from 5 to 60 minutes to run the pump during freezing temperatures. Default time is 5 minutes. **See page 88 and 59.**



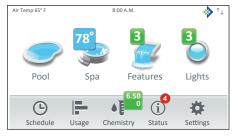
Spa Heater Button: Tap to access the Select Heat Mode screen. Tap the desired heat source (solar or conventional heaters). Note: Heat sources are configured from Settings > Advanced System Configuration > Installation Setup > Circuits, see page 56. Also see: Manual OP Priority: Manual ON/OFF circuit during a schedule. See page 44.

Spa Manual Heat ON/OFF: If the Heat Enabled (Default ON), feature is selected and the Spa pump button (or from the Spa-Side remote, or Wireless Controller) is turned on, the pump will turn on and the heater will begin to heat the spa (even if the heater is set to OFF). This feature allows you to program the pool pump to filter daily with the heater set to off, and then be ready to heat whenever the Spa button is pressed. **See page 53.**

Schedules (Heat Source and Set Temperature) See page 20: See Schedules to schedule the pool/spa pump to turn on at a specific time to pre-heat the pool or spa water. From the Schedules Weekly or One Time Only option, select "Heat Source" and select a heat source, then set the Set Temperature settings.

Note: The Heating Set Point setting on the Spa screen is not displayed if Off is selected on the Select Heat Source screen. Tap the Heat Mode button to display the Select Heat Source screen.





Features

Up to 32 individual or Groups of Feature Circuits can be assigned as a Generic circuit or a Spillway circuit. Tap Features on the Home screen to display the Feature circuits screen. From the Features screen you can manually turn on or off an individual Feature circuit or a group of Features circuits. To assign Feature Circuits, see page 57.



Green Number Badge: Displays the number of active feature circuits. Tap the Features icon on the Home screen to display the Feature circuits. To hide the Features number badge, see page 57.

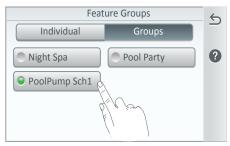
Features: Individual / Groups

Tap Individual or Groups to display the assigned Feature circuits buttons. Tap the circuit button to switch the individual circuit or a group of circuits on or off.

Feature Groups can include multiple circuits for multiple schedules. You can also set different pump speed using IntelliFlo Pump. Assign each feature circuit a different pump speed to manually control or schedule different pump speeds.

See Installation Setup on page 53, For more about Light Groups see page 49, 56. For Feature Groups see page 51.

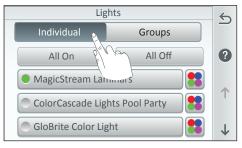






Lights (MagicStream®, IntelliBrite®, ColorCascade® and GloBrite®)

To access the Lights screen, tap the Lights icon on the Home screen. From the Lights screen you can manually turn on or off individual lights, groups of lights or all lights. Lights displayed in the Lights screen are configured from the Circuits screen, see page 56. Light circuits settings include Schedule Egg Timer and Freeze Protect options. Note: A Green number badge displayed on the Home screen Lights and Features icon, indicates the number of individual and/or groups of lights currently turned on. To hide the number badge on the Features icon, turn Visible in Features OFF.









All On/All Off Button: Tap the All On or All Off button to turn all light circuits On or Off.

Note: Up to 12 light circuits can be configured.

Lights (Individual/Groups Button):

Tap either of these buttons to toggle between the Individual and Groups screens.

Individual: Displays the assigned individual AUX Light circuits. Tap the light name button to turn the light ON or OFF.

Four Color Dots Edit Button: Tap edit button to display the Colors or Light Shows screen.

Light Shows: Tap one of the displayed Light Shows to switch the light show on or off.

✓ Check: Tap Check to save changes and return to the Lights screen.

X button: Tap to exit and return to the previous screen without saving changes.

MagicStream Laminar (Light Shows and Colors): Tap the Gears icon to access the HOLD, RECALL and THUMPER toggle features. Tap the Thumper button to activate the built-in solenoid Thumper to create a random wrinkle in the laminar's water stream and display a brilliant spot of light that moves along the stream's arc.

Lights (Fixed Color)



Change a Fixed Color: From the Lights screen, tap the Color Dots Edit Button to display the Colors (or Light Shows) screen. From the Colors screen, select one of the displayed color buttons (White, Blue, Red, Green and Magenta). Tap the Check button to return to the Lights screen. Tap the light name button to turn the color light on or off. Tap the Return arrow to return to the Home screen.



Individual Lights - Switch between fixed colors and light shows:

Color Dots Edit Button: Tap this button to display the Colors and Light Shows screen. To display a Light Show, tap one of the Light Show buttons.

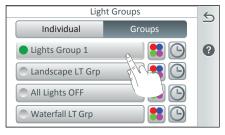


Lights (Groups)

From the Lights screen, tap the Groups button. To turn on or off a selected group of lights, tap the group of light name button. Light Groups displayed in the Lights screen are configured from the Settings > Advanced System Configuration > Installation Setup > Circuits > AUX Circuits screen. To add a group of lights, tap the Four Dots icon to display the Groups screen. Note: Light Groups can be created from the Lights screen (see page 14), Installation Setup (see page 53), Groups (see page 48), and displayed in the Features screen (see page 58).



Tap the Edit Pencil icon to display the Light Settings screen. Tap Light in Group or Group Settings to change the light Fixed Color and Light Shows in a selected group of lights.

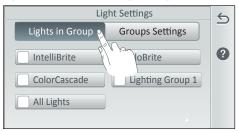




Continue to the next page.

Lights (Groups) Continued

Lights (Groups - Change a Light Color or Light Show)



Change a Light Color: The Lights in the Group screen display the lights in the selected group (Fixed Color). To change the color of the selected light in the group, tap the light button and choose the desired color. Tap check to return to the previous screen.



All Lights Same Color (ON/OFF): From the Lights Settings screen, tap the All Lights Same Color ON/OFF button.

ON: All lights in the group are set to the same color.

OFF: Each individual fixed color light can display a different color.

Tap **Light in Group** to view the selected Lighting Mode.



Change a Light Mode from Fixed Color to Light Show: From the Light Settings screen, Tap the Groups Settings button, tap the Lighting Mode button (Fixed Color) and select Light Show. Select one of the Light Shows. Tap the Check to return to the Light Settings screen.

Select a Different Light Show: Tap the Lighting Mode button and select one of the Light Shows. Tap Check to return to the previous screen.







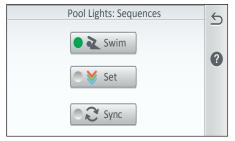
Lights (Groups) Continued

The Light Groups Sync, Swim and Set SAm feature are configured from Settings > Groups. For more information about creating light groups, see page 49. From the Groups screen, light groups can be added, and each light color and delay (0 to 60 seconds) from the Groups screen. Select the group of lights to change. Tap Color Settings. Set the delays between the lights from 0 to 60 sec.









Groups: Tap the Clock icon to display the Swim, Set and Sync light features.

Lights in Groups: Displays the light circuit name and color. Note: All light will display the same color if **All Light Same Color** is enabled (ON) from the Group Settings screen. To display different fixed colors for each light, select **All Light Same Color** (OFF).



Swim (SAm Color Swim effect): Tap this momentary button to activate (Green light on) an effect of moving colors across the pool. From the Swim Settings Delays screen set a delay between the lights so that the first light syncs and starts rotating, then the second light starts rotating after that, and the third light rotates after that with a delay between the lights.



Color Set: Tap this momentary button to activate (Green light on) to set the default color for each light then stop the light on one of the selected eight colors.



Sync (SAm Color Swim effect): Tap this momentary button to synchronize (Green light on) all IntelliBrite lights in the group. The Light in the group will go to the beginning of the SAm rotation. After 21 seconds the lights will start rotating each time the button is tapped.

Note: This feature also works for individual legacy SAm lights).

To change the light color or the light delay (from 0 to 60): Tap **Settings > Groups**. Select the group of lights to change. Tap **Color Settings**. Set the delays between the lights from 0 to 60 sec.

Lights (GloBrite® White and Dimmer Light)

From the Lights screen you can manually turn on or off *individual* or *Groups* of *GloBrite* or *Dimmer lights*. Lights displayed in the Lights screen are configured from the Circuits screen. To access the Lights screen, tap the Lights icon on the Home screen. Tap the light name to manually switch the light circuit on or off (Green light indicates the light is on). Note: A Green number badge displayed on the Home screen Lights and Features icon, indicates the number of individual and/or groups of lights currently turned on. To hide the number badge on the Features icon, turn Visible in Features OFF. See page 56.

Configure a GloBrite White Light and Dimmer Light: Go to Settings > Advanced System Configuration > Installation Setup > Circuits, page 56 and 60. Select AUX Circuits, select the light AUX circuit, tap Circuit Function and select GloBrite White or Dimmer.

Dimming Lights (50%, 75%, 100%)

Lights that have dimming functionality can be dimmed from the Lights screen. Only incandescent tungsten filament lights may be dimmed. IntelliBrite, fiber-optic, or halogen lights cannot be dimmed. The feature circuit must be assigned a **Dimmer** circuit function.

Note: Feature Circuits can turn on light dimming circuits, but lights cannot be dimmed using this feature. The dimming level must be changed for each light dimming circuit.

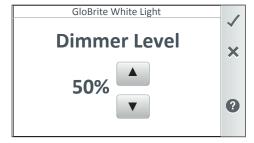
GloBrite White & Dimmer ON/OFF Button: On the Lights screen, tap the **Individual button** to display the assigned light circuits. Tap the GloBrite White light or the Dimmer Generic Light button to switch the light on or off. Tap Return Arrow to return to the Home screen.





GloBrite & Dimmer Edit Button: Tap this edit button to display the Dimmer level screen.

To assign a GloBrite White Light or Dimmer circuit, go to Settings > Advanced System Configuration > Installation Setup > Circuits, page 56 and 60.



GloBrite White Light Dimmer Level: Use the Up/Down arrow button to increase or decrease the brightness levels of the light. Brightness levels are from 50%, 75% and 100% increments.

Schedule

To access the Schedule screen, from Home screen tap Schedule: Select either a **Weekly**, or **One Time Only** schedule. From the Schedule screen you can add, delete, edit, enable and disable schedules. Tap the Add button (+) to add a schedule. To delete a program, tap the program from the list. Tap the Trash Can icon to delete the program from the list.

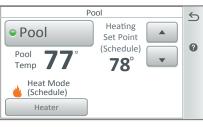




From the Schedule screen you can program On and Off times for circuits (AUX - auxiliary and Feature circuits). Circuits can be scheduled set to turn On or Off all days, weekends, weekdays, or any specific day of the week. Each 24 hour period, equipment (lights, heater, spa jets, filter pump) can be programmed for multiple On/Off times. You can also schedule which heat mode to use and also change the heat set point if necessary. The Schedule screen lists each scheduled circuit(s) start and stop time, and days to run.

One Time Only Timer: This schedule will switch equipment on for the specified amount of time. You can set the desired One Time Only schedule to run the pump for the specified time only.

Heater Cool Down: Default enabled. Provides a two minute-delay in turning off the circulation pump after heater has completed its firing cycle to allow the heater to cool down. See page 72 for more information.





Don't Change (Schedule): If Don't Change is selected as the heat source, when a schedule is active you will have the option to select a Heat Mode source from the Pool or Spa screen, which will be used every time the schedule is active. **See Schedules 20**.

Heat Mode (Schedule) Options: Don't Change (use for Schedules only), OFF, Heater, Solar Only, Solar Preferred, Heat Pump Only, Heat Pump Preferred or Hybrid.

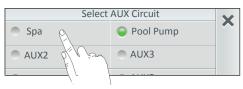
To create a heat source go to Settings > Advanced System Configuration > Installation Setup > Heaters, See page 72 for more information.

Schedule - Weekly Program

Weekly Program: This feature allows a circuit or group of circuits to switch on and off at a specific time and day. Circuits can be scheduled to turn On or Off everyday, weekends, weekdays, or any specific day of the week. Each 24 hour period, equipment (lights, heater, spa jets, filter pump) can be programmed for multiple On/Off times. You can also schedule which heat mode to use and also change the heat set point if necessary.











Add a Program: From Home screen tap Schedule > Add Schedule > Weekly to add a new schedule.

Note: If the system is in Vacation Schedule mode, the Home screen Schedule icon will change to Vacation text, see page 38.

Delete Program: Tap the Trash Can icon and select the schedules to delete from the list, then tap Check and the Yes button to delete.

Weekly: Tap Weekly to display the available AUX (auxiliary) circuit, Feature circuits and Groups (circuits and Feature circuits) as defined in the Circuits screen, see page 56.

Everyday: Tap Everyday and select the days of the week, Weekdays, Weekends, Every Day, or No Days to run the schedule. Tap **Check** to save and return to the previous screen.

Circuits: Tap Circuit and select a circuit from the assigned circuits list.

Note: Heat Source and Set Temperature options only display for Pool and Spa circuits. Use these options to schedule your pool/spa heater to heat the water at a specified time.

Heat Source Options: Don't Change (use for Schedules only), OFF, Heater, Solar Only, Solar Preferred, Heat Pump Only, Heat Pump Preferred or Hybrid. To assign circuits see Settings > Advanced System Configuration > Installation Setup > Circuits and Feature

Circuits, see page 56.

Start Time (Manual): Set the start time (am/pm) for the Weekly schedule.

Schedule - Weekly



Select Stop Time

Manual Sunrise Sunset

9:00 AM Bh 00m

A A





Duration: Start time duration: Time left after the start time is established (e.g. 1:00 AM to 9:00 AM). The system clock calculates the duration between the start and stop time which is 8 hours. 24 Hrs. duration is display when the Start/Stop time is set to 8 AM to 8 PM. Note: To offset Sunrise/Sunset start time, see page 24.

Stop Time (Manual): Set the stop time (am/pm) for the Weekly schedule.

Duration: Stop time duration: Time left after the start time is established (e.g. 1:00 AM to 9:00 AM). The system clock calculates the duration between the start and stop time which is 8 hours. 24 Hrs. duration is display when the Start/Stop time is set to 8 AM to 8 PM. **Note:** To offset Sunrise/Sunset stop time, see page 24.

Heat Source: Select: Don't Change (use for Schedules only), OFF, Heater, Solar Only, Solar Preferred, Heat Pump Only, Heat Pump Preferred or Hybrid. To create a heat source go to Settings > Advanced System Configuration > Installation Setup > Heaters, page 72 for more information.

Set Temperature: Tap the Plus or Minus (+/-) button to set the Heat Source set point temperature from (40°F to 104°F). Note: This feature does not display when using **Don't Change**.

Don't Change Heat Source: Don't Change is only used when a schedule is running. The heater source selected from the Pool or Spa screen will be used every time the schedule is active.

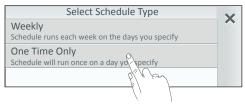
See Pool screen on page 9.

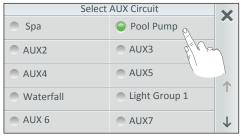
Manual OP Priority (Default ON): If this feature is set to ON, a circuit can be manually switched OFF and switched ON within a scheduled program and will continue to run for a maximum of 12 hours or whatever that circuit Egg Timer is set to, after which the scheduled program will resume if the schedule has not ended before the Egg Timer has expired. See Settings > General page 44 for more information.

Schedule - One Time Only

One Time Only: This feature will automatically schedule a circuit or a group of circuits to switch on and off at a specific start and stop time and day, for one time only. The circuit or group of circuits must be turned off manually or wait for the 12 hour automatic shut-off. However, the 12 hour factory shut off time can be changed by setting a new run time in the Egg Timer. See Egg Timer feature in the Circuits settings (Settings > Advanced System Configuration > Installation Setup > Circuits, see page 53). For example, you could set up the program to pre-heat your spa ready for your arrival. After the scheduled One Time Only program is completed, it is automatically erased. If the heater and pump already are on a schedule and the equipment is off, the One Time Only timer will switch it on for the scheduled time that has been set.







Add a Program: From Home screen tap Schedule > Add Schedule > One Time Only to add a new schedule.

Note: If the system is in Vacation Schedule mode, the Home screen Schedule icon will change to a Vacation text, see page 25.

Delete Program: Tap the Trash Can icon and select the schedules to delete from the list, then tap Check and the Yes button to delete.

One Time Only: Tap One Time Only to display the available AUX (auxiliary) circuit, Feature circuits and Groups (circuits and Feature circuits) as defined in the Circuits screen (see page 56).

Circuits: Tap Circuit and select a circuit from the assigned circuits list.

Note: Heat Source and Set Temperature options only display for Pool an Spa

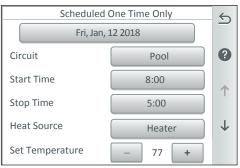
options only display for Pool an Spa circuits. Use these options to schedule your pool/spa heater to heat the water at a specified time.

Note: To assign circuits see Settings > Advanced System configuration >Installation Setup > Circuits and Feature Circuits, see page 57.

Manual OP Priority (Default ON): If this feature is set to ON, a circuit can be manually switched OFF and switched ON within a scheduled program and will continue to run for a maximum of 12 hours or whatever that circuit Egg Timer is set to, after which the scheduled program will resume if the schedule has not ended before the Egg Timer has expired. See Settings > General page 44 for more information.

Schedule - One Time Only (Continued)





Start Time (Manual): Set the start time for the Weekly schedule.



Start time duration: Time left after the start time is established (e.g. 1:00 AM to 9:00 AM). The system clock calculates the duration between the start and stop time which is 8 hours. 24 Hrs. duration is display when the Start/Stop time is set to 8 AM to 8 PM. Note: To offset Sunrise and Sunset start time.



Stop Time (Manual): Set the stop time (am/pm) for the Weekly schedule see page 24.

Scheduled One Time Only

Fri, Jan, 12 2018

Circuit
Pool
Start Time
8:00

Stop Time
5:00

Heat Source
Heater

Set Temperature

77 +

Stop Time Duration: Time left after the start time is established (e.g. 1:00 AM to 9:00 AM). The system clock calculates the duration between the start and stop time which is 8 hours. 24 Hrs. duration is display when the Start/Stop time is set to 8 AM to 8 PM. Note: To offset Sunrise and Sunset start time, see page 24.

Don't Change Heat Source: Only used when a schedule is running. The selected Heat Source will be used each time the schedule is active. See page 9.

Heat Source: Select: Don't Change (use for Schedules only), OFF, Heater, Solar Only, Solar Preferred, Heat Pump Only, Heat Pump Preferred or Hybrid. To create a heat source go to Settings > Advanced System Configuration > Installation Setup > Heaters, See page 72 for more information.

Set Temperature: Tap the plus or minus button to set the Heat Source set point temperature from 40°F to 104°F.

Schedule - Offset the Sunrise/Sunset Time

Sunrise & Sunset Start & Stop Time: The Sunrise and Sunset times are based on the system date and time established from the area and location (zip code and time zone setting) of the system, see Setting > General > Location > Date & Time. See page 40 for details.

The onboard clock can be manually set or synchronize from the Internet clock. If you select to use the Internet clock your computer clock should connected to the your Internet domain to synchronize automatically with a network time server, then the IntelliCenter Control System clock will be in sync with your computer time. Be sure your computer has a continuous Internet connection to maintain automatic clock synchronization.

Sunrise Start Time (Hours/Minutes): The schedule start time set by the IntelliCenter Control System clock in sync with your computer Internet time. **Before/After Offset:** Select Before to adjust the Sunrise start or stop time for a schedule.

Sunrise Stop Time (Hours/Minutes): The schedule stop time set by the IntelliCenter Control System clock in sync with your computer Internet time. **Before/After Offset:** Before to adjust the Sunrise start or stop time for a schedule.

Using the Sunset Offset Setting

The following example describes how to offset the schedule Sunset time two hours before the actual sunset time. This allows you to schedule the heater/pump circuit to start heating the spa before sunset.



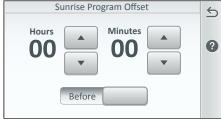
Start/Stop Time Screen: Set the start and stop time for the program.

Manual: Select Start time duration (AM/ PM).

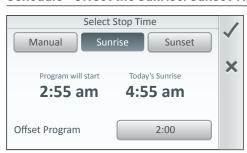
Sunrise/Sunset: The Sunrise and Sunset times are based on the system time established from the area and location (zip code and time zone setting) of the system. See page 40 for details.

Sunrise/Sunset Offset Program: The Sunrise and Sunset Offset time can be adjusted up to a maximum of 6 hours.





Schedule - Offset the Sunrise/Sunset Time





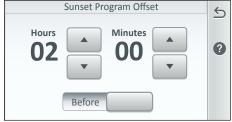
Start/Stop Time Screen: Set

the

start and stop time for the program. Manual: Select Start time duration (AM/ PM).

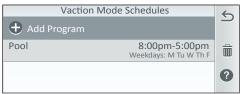
Sunrise: The Sunrise and Sunset times are based on the system time established from the area and location (zip code and time zone setting) of the system. See page 40.

Sunrise Offset Program: The Sunrise and Sunset Offset time can be adjusted up to a maximum of 6 hours.



Vacation Mode Schedules - One Time Only





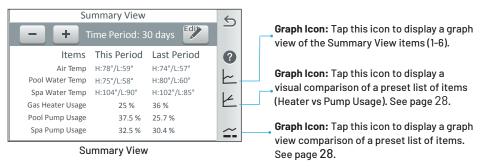
Vacation Schedules: When the system is in Vacation Mode, you can setup a Weekly or One Time Only schedule while on vacation the same way as you would for a non-vacation schedule.

Note: When in Vacation Mode, the Schedule icon is replaced with the Vacation icon which is displayed on the Home screen to indicate the system is in Vacation Mode

Usage (Summary View)

To access the Usage screen, tap the Usage icon on the Home screen. The Historical Usage data is saved when using the IntelliCenter Control Panel or Wireless Remote.





Summary View

Usage Screen: Displays up to six months of system historical usage data. Tap the **Minus (-)** or **Plus (+)** button to select the desired Time Period to view the items.

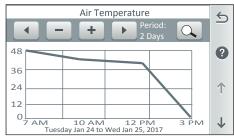
Usage items: You can select up to six items to display on the Summary View screen. Up to 6 months of historical usage date can be stored on intellicenter2.com.

Edit Pencil icon: Tap the Edit Pencil button to access the **Edit Summary View** screen (see next page). From the Edit Summary View screen you can arrange the usage items listing order (1-6) or select other system items to display.

Summary View: Minus and Plus Buttons: Tap the Minus (-) or Plus (+) button to select the desired Time Period to view the items.

This Period, Last Period: This Period displays the current system usage date compared to the Last Period date selected. The current time period is displayed on the bottom of the screen.

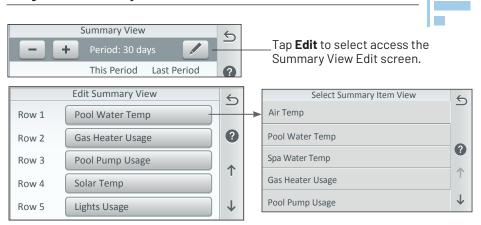
Graph View Icon (first graph icon right side of the screen)



Tap the first Graph icon on the Summary View screen to access a graph view of the displayed Usage Items (1-6).

Note: See Settings > Advanced System Configuration > Import/Export to export status logs to a USB device, page 90.

Usage (Edit Summary View)

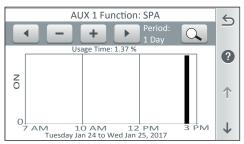


Change the Summary Usage List Order (1-6): To change the Summary Usage List order, tap on any Row number item name (1-6), then from the next screen select the new item to display on that Row (Edit Summary View). Tap Return to return to the previous screen to view the updated list order.

Note: See Settings > Advanced System Configuration > Import/Export to export status logs to a USB device, page 90.

Select Summary View Item: Displays the Usage Items: Air Temp, Pool Water Temp, Spa Water Temp, Solar Temp, Gas Heater, Heat Pump, UltraTemp, Pool Pump, Spa Pump, Dual Speed Pump, IntelliFlo (VS, VSF, VF), pH Data, ORP Data, pH Feed Time, ORP Feed Time). Tap on an item to corresponding to the select row (1 through 6). Tap Return to return to the previous screen.

Edit Summary View (AUX circuits usage)



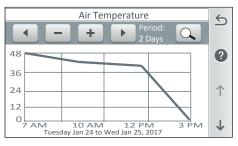
This Graph view displays a detailed view of the historical usage data items. Tap the Graph icon to access the view graph usage screen. On the second screen, each usage is displayed on a graph. For more information.

Usage History Summary View screen: (Tap the Graph Icon (lower right side of the screen):

- Minus or + Plus Button: Tap the to select the desired Time Period to view the items. The Time Period selection range is one day, two days, one week, one month, three months or six months.

Left and Right Buttons: Use these buttons to scroll through a selected item details. **Magnifying Glass Button:** Tap the magnifying glass button the to display the highest usage data for the selected item. Tap the button again to display the lowest usage data.

Graph View Icon (second graph icon) Compare Preset Item List



Tap the first Graph icon on the Summary View screen to view the preset item comparison list. See list below. Tap the Down arrow to scroll through the graph items.

- Minus or + Plus Button: Tap to select the desired Time Period.

Left and Right Buttons: Use these buttons to scroll through a selected item details.

Magnifying Glass Button: Tap the magnifying glass button the to display the highest usage data for the selected item. Tap the button again to display the lowest usage data.

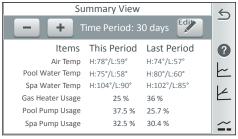
Usage Graph Comparison Items (Heater vs Pump)

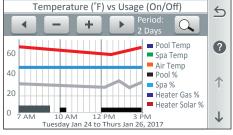
Pool vs Spa Water Temp Air vs Pool Water Temp Air vs Spa Water Temp Air vs Solar Water Temp Pool Water Temp. vs Gas Heater Spa Water Temp. vs Gas Heater pH vs ORP Feed time pH vs ORP Feed time pH vs ORP Data pH vs ORP Feed time

Pool Water Temp vs Solar Heater Spa Water Temp vs Solar Heater Pool Water Temp vs Heat Pump Spa Water Temp vs Heat Pump Pool Water Temp vs UltraTemp Heater Spa Water Temp vs UltraTemp Heater Pool Water Temp vs Hybrid Heater Spa Water Temp vs Hybrid Heater Spa Water Temp vs Hybrid Heater pH vs ORP Data pH vs ORP Feed Time pH vs Feed Time / ORP vs Feed Time

Usage (Graph) Comparison Items

This Graph displays a detailed usage view of the preset items for a selected time period (up to six months). To access the compare graph, tap the lower Graph icon on the Summary View screen.





Magnifying Glass Button: Tap the magnifying glass button the to display the highest usage data for the selected item. Tap the button again to display the lowest usage data.

Up and Down Arrows: Use the Up or Down arrow to scroll through the preset usage items. The preset usage items are: Pool Water Temp, Spa Water Temp, Air Temp, Pool %, Spa %, Gas Heater %, Solar Heat %. After scrolling to the last item, continue to tap the Up/Down button to return to the Summary View. **Also, tap the Down arrow (right side of graph screen) to display system configured AUX circuits usage data.**

Chemistry (IntelliChlor - pH Measurement)

To view the Chemistry Summary screen tap the Chemistry icon on the Home screen. Tap the UP arrow on the screen to display the next page and view Pool and Spa chlorine outputs. If an IntelliChlor SCG is installed, tap the Up arrow on the screen to display the IntelliChlor SCG screen. To add an IntelliChem and/or IntelliChlor device to the system, see Advanced System configuration > Installation Setup > Chemistry, on page 79.

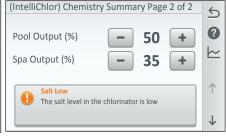
To display pH and ORP readings on home screen Chemistry Icon, see page 45.

pH Value

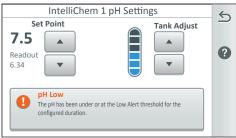
pH value is the measurement of the acidity (0 to 7) or alkalinity (7 to 14) of the pool water. The pH low and high alarm set point values are preset at the factory to 6.7 and 7.9. For a pool, the advised ideal pH is between 7.2 - 7.8 (a pool professional should regularly check the water for metal presence, cyanuric acid levels (less than 30 ppm ideal) and TDS (total dissolved solids). To maintain accurate pH pool water measurements, regular maintenance of the pH probe is advisable. pH probe calibration is necessary before the summer season.

IntelliChem Chemistry Controller Screen: Tap Up arrow to view Page 2 of 2.





Tap **pH** to select the pH setting screen.



ph Reading/Set Point/Tank: Displays the current pH level reading. Tap the Set Point Up/Down button to adjust the pH set point value. The adjustable range is from 7.2 to 7.6 in increments of 0.1. The default pH set point value is 7.5.

Tank: Tap the tank segment (1-6) to match the amount of muriatic acid currently in the canister. The canister can hold a maximum of 3-1/2 gals. of muriatic acid.

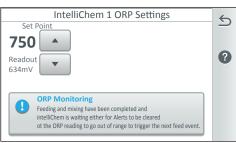
The Tank indicator (1-6 segment) is a visual representation of the amount of muriatic acid currently in the external canister. Tap the Up or Down button to match the amount of muriatic acid in the canister.

Chemistry (ORP Measurement)

Oxidation-Reduction Potential (ORP) is the concentration level of disinfectant (chlorine, bromine, active oxygen) present in the pool water. It is advised to keep this measurement between 400 mV and 800 mV. To maintain accurate ORP pool water levels, regular maintenance of the ORP probe is advisable. ORP probe calibration is necessary before the summer season.



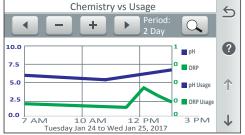
Tap **ORP** to select the ORP setting screen.



ORP Reading/Set Point: Displays the current ORP level reading. Tap the **Set Point Up/Down button** to adjust the ORP set point value. The adjustable range is from 400 to 800 in increments of 10. The default ORP set point value is 700.

IntelliChem ORP Control Chlorination: The IntelliChem Controller will constantly measure ORP and will increase or decrease chlorine production based on a preset setpoint that you have determined. The system will automatically monitor ORP and produce the correct amount of chlorine to maintain the preset level. If the ORP level is manually set, the amount of chlorine produced is based on this setting.

ORP Setpoint: The setpoint for the ORP level is measured in mV. 700mV is the default value. The lintelliChem Controller monitors the ORP and produces the proper amount of chlorine to maintain this setpoint.

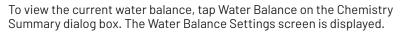


Usage (Graph) pH & ORP Comparison:

Tap the Graph icon on the right of the Chemistry Summary screen to display a detailed view of the pH and ORP usage for a selected time period (up to six months).

Note: Use the Up/Down arrow to scroll through the graph.

Chemistry (Water Balance)





Water Balance Summary

The Water Balance Setting screen displays the current water balance and salt levels. The Calcium Hardness, Alkalinity and Cyanuric Acid values can also be adjusted based on manual water tests to allow the water balance number to be calculated.

A Saturation Index value of 0 indicates the water is chemically in balance. If the Index is a minus (-) value, corrosive tendencies are indicated. If the Index is a plus (+) value, scale-forming tendencies are indicated. A Saturation Index value between +0.5 to -0.5 is considered satisfactory in a swimming pool.



Tap **Water Balance** to select the pH setting screen.

Water Balance Settings: Tap - / + button to adjust settings.





Recommended Pool Chemistry:

pH: 7.2 - 7.8

Combined Chlorine (Chloramines): None

Chlorine: 1.0 - 4.0 ppm

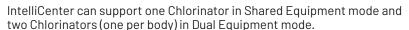
Cyanuric Acid: Less than 50 ppm Total Alkalinity: 80 - 120 ppm Calcium Hardness: 200 - 400 ppm Salt: 2600 - 4500 ppm (ideal 3600 ppm)

Metals: None Nitrates: None

Phosphates: Less than 125 ppb

Total Dissolved Solids: 3000 - 6000 ppm

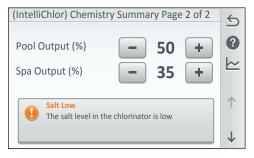
Chemistry (IntelliChlor® Salt Chlorine Generator)





To view the (IntelliChlor) Chemistry Summary screen tap the Chemistry icon on the Home screen. Tap the Up arrow on the screen to display the next page to view the Pool Output and Spa Output chlorine percentage values for the IntelliChlor SCG.

To install an IntelliChlor SCG, see page 79.





Tap **Settings** to display the Chlorinator Settings. Select the Body of water using an IntelliChlor SCG.

Pool Output: Displays the pool chlorination output level from 0 to 100%. Tap the left or right arrow to increase or decrease the pool chlorination output level.

Spa Output: Displays the spa chlorination output level from 0 to 100%. Tap the left or right arrow to increase or decrease the spa chlorination output level.

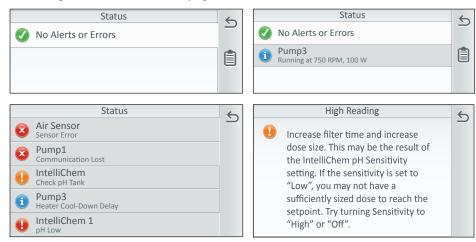
Salt Level: Displays how much salt parts per million is in the water. The color (Green, Orange or Red) of the status bar indicates the condition of the water. Corresponding information is displayed under the status bar.

Status

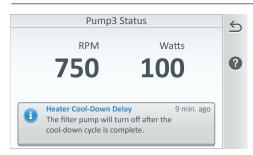
The Status screen displays the current system status, warnings and alerts. The Status feature is OFF by default. If set to ON, system warnings and alerts will be reported and logged and indicated by a Red number badge displayed on the Status icon located on the Home screen. *General* status conditions will not be reported or logged. The system water and air sensors are constantly monitored for errors. If a sensor error is detected, the displayed error is listed as shown below. To view the Status screen, tap the Status on the Home screen. See Settings > Alerts and Notification for Alerts show in Status (on Home Screen), page 45.

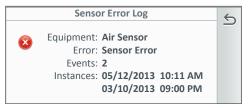
The Status screen displays the current status delays and alerts for the system. If a system error occurs, a Red number badge is displayed on the Status icon located on the Home screen. You can cancel delays that were configured for the pool cleaner or pump.

Note: See Settings > Advanced System Configuration > Import/Export to export status logs to a USB device. See page 90.



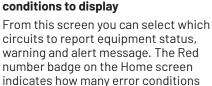
Status





Selecting which Error conditions to display

have occurred.



Warning and Alerts Indicators

Red: Indicates a warning condition such as a low voltage conditions, system power loss etc. Warning messages are automatically logged for viewing.

Orange: Indicates a system caution alert, such as a chemical feeding error or pump communication lost. Alert messages are automatically logged for viewing.

Blue: Indicates a system status condition, such as a heater cooldown delay. Status messages are not automatically logged unless selected from the Status Selection screen.

Connecting Multiple Heaters: MasterTemp & Max-E-Therm (Status Screen, see page 33)

All MasterTemp and Max-E-Therm notifications are displayed in the Status screen. (Press the Status button on the Main screen - see page 8). See below for the complete list of notifications.

Status Notifications for connected heaters (MasterTemp and Max-E-Therm)

Water Pressure Switch
High Limit Switch
Air Flow Switch
Auto Gas Shutoff Switch
Ignition Control Error
Stack Flue Sensor Error Alarm
Stack Flue Sensor Open Alarm
Stack Flue Sensor Short Alarm

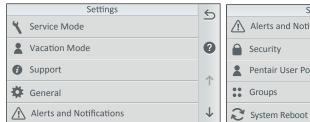
Water Sensor Open Alarm
Water Sensor Short Alarm
Air Flow Fault Alarm
Flame No Call For Heat Alarm
Ignition Lockout Alarm
Weak Flame Alarm
Communication Lost

Select Alerts & Warnings shown in Status screen (See page 45) for Connected Heaters: MasterTemp and Max-E-Therm (1-13): Select 13 status conditions: Water Pressure, Stack Flu Sensor alarm, High Water Temp., Lost Communication and more. Hybrid Heater (22/22): Select 22 status conditions: Air flow switch, temperature status, condensate filter, freeze and more.

Settings



Access the Settings options to configure and setup the IntelliCenter. See Settings > Advanced System Configuration > Installation Setup, see page 52.





Service Mode: Auto, Service, Timer. For maintenance or service purposes. See page 37.

Vacation Mode: Setup vacation schedule (weekly or one time only), and duration (start and stop date). See page 38.

Support: Pool service, support contact information is saved here. Add contact phone number, E-mail, URL information. See page 39.

General: Touchscreen, Location, Date and Time, Units, Features and Lights List Order, Backlight, Temperature Sensor Calibration, Day / Night Themes, Manual Operation Priority, Chemistry Readings Badge. See page 40.

Alerts and Notifications: Setup alerts/warnings and pool/spa equipment status information to display (Green Badge) and specific status information in the Home screen Status screen. **See page 45.**

Security: Enable passcode protection for the IntelliCenter. Setup system Admin and Guest passcode. **See page 45.**

Pentair User Portal: Login or Create New Account (enter contacts e-mail address, property name, password). The system will attempt to connect to the account e-mail address (via the Internet). **See page 47.**

Groups: Add LIGHTS and CIRCUITS Groups of circuits for one touch button On/ OFF control. Group circuits are displayed in Features, Lights screens on the Home screen. See page 48.

System Reboot: Tap System Reboot to restart the system (Outdoor, Indoor Control Panel and Wireless Remote). To cancel system reboot, tap Cancel before four seconds. **See page 51.**

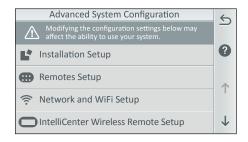
Advanced System Configuration Options: Go to Settings > Advanced System Configuration, see page 52.

Settings



Advanced System Configuration Options: To access the Advanced System Configuration options, **go to Settings > Advanced System Configuration**,

page 52.



Installation Setup: Configure the IntelliCenter system. Body Configuration (page 53). Circuits (page 56), Pumps (page 62), Heaters (see page 72), Valves (page 77), Chemistry (page 79).

Remotes Setup: Add Spa-Side Remote: Select Spa Command, iS4, iS10, or OuickTouch Spa-Side Remote. See page 81.

Network and Wireless Setup: Configure Ethernet, Connect to a Wireless Network, Internet Connection Test, and Reboot Wireless Device. See page 85.

IntelliCenter Wireless Remote Setup: Set up the wireless remote. See page 87.

Delay Settings: Valve Delay ON/OFF, Heater Cool Down ON/OFF, Freeze Cycle Time, Spa Freeze Override and Override Delays. See page 88.

System: System Information, Detected Hardware, Firmware update. See page 89.

Import / Export: Import System Configuration, Export System Configuration, Export Status Logs. See page 90.

Restore Factory Defaults: Overwrite the current system configuration with the default factory settings. Follow the screen prompts. See page 92.

Setup Wizard: Configure the system using the step-by-step setup wizard assistant. See page 95.

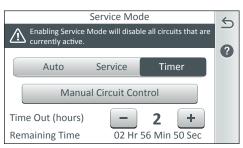
Service Mode











Tap Manual Circuit Control and choose the circuits to enable. Note: Circuits selected in the Service Manual Circuit Control screen are retained in the Timer Manual Circuit Control screen.

Service Mode: Service and Timer mode is used for pool/spa maintenance or service purposes to manually control and test system equipment. During Service mode, the Outdoor Panel, Indoor Control Panel and Wireless Remote Home screen will display SERVICE MODE. All system auxiliary circuits will be disabled once Service or Timer is selected. When AUTO is selected, normal operation will resume and the system will not be in service mode.

Note: If the panel is passcode protected, enter the four digit assigned passcode, see page 45 for details.

Auto: When Auto is selected it indicates that the system is operating normally and not in Service or Timer mode.

Service: When Service is selected, all system auxiliary circuits will turn OFF. To enable auxiliary circuits select Manual Circuit Control and choose the system auxiliary circuits to turn on/off.

Manual Circuit Control: Choose the auxiliary circuits to allow manual control for shared equipment or dual equipment). Tap the circuit name to turn the circuit on/off. Note: For shared equipment, only one valve can be activated at a time.

Timer: Use the Timer mode to leave the system in service mode up to 24 hours and automatically return to Auto mode (normal system operation) after the maximum hours set has elapsed. Set the count-down timer from 1 to 24 hours for selected circuits to remain in service mode.

Vacation Mode

If you are planning a vacation and want to create a pump/filter daily schedule while on vacation, you can setup a start and stop date to run a daily pool/spa filter schedule. When you return from vacation the system will continue with the previous standard schedule.





Vacation Mode: ON: Turn on Vacation Mode (manually enabled, no end date and time). OFF: Turn off Vacation Mode. Note: Previous vacation schedules will remain in memory and can be enabled again for future use.

Schedules: Set up a Weekly or One Time Only schedule for the duration of the vacation time. See Schedules on page 20. Note: To indicate the system is in Vacation Mode, the Schedule icon displayed on the Home screen is temporally replaced with the Vacation icon. Tap Vacation to see the current vacation schedules. See Home Screen on page 8.

Duration: ON: Set Start & Stop date for duration of schedule(s). **OFF:** Duration for vacation schedules is disabled (no Start & Stop date has been established).



Vacation Start Date: Set the vacation start month, day and year. The number days before the vacation start date are shown on the screen.



Vacation Stop Date: Set the vacation end month, day and year. The number days before the vacation stop date are shown on the screen.

Support

The Support screen displays customer support contact information. Enter the pool service company contact information and the pool sales contact information. Also, you can upload a scanned image of a company business card or a company logo to display with the contact information.



Support screen: Displays contact name and Phone Number. Tap the Contact Name to display name, phone, E-mail and URL information.

Tap + to add a contact.

Delete a Contact: Tap the Trash Bin, tap the contact to delete, then tap Check and Yes to delete contact.



Support screen: Displays contact name, phone, E-mail and URL information.



To Add a Contact: Tap **+** on the Support screen to Enter Contact Name. Tap **Checkmark** to save contact name or X to exit without saving the information.

To edit contact information: Tap the contact name on the Support screen. Tap Edit to access the contact information. Edit the Name, Phone, E-mail and URL information. Tap the Return to return to the Support screen.



Import Logo: To load an image (JPG, GIF and PNG), insert USB device into USB port on IntelliCenter® Control System Outdoor Control Panel, Indoor Control Panel, or Wireless Remote and Tap OK. Follow the screen instructions.

General

Location - page 40

Date & Time - page 40

Units - page 41

Features and Lights List Order - page 41

Backlight - page 42

Temperature Sensor Calibration - page 43

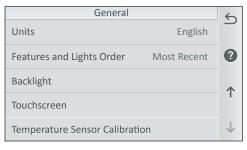
Day / Night Themes - page 44
Manual Operation Priority - page 44
Manual Heat - page 44
Chemistry Readings Badge - page 44

Show Badge Colors - page 44

Location (General)

Location		\leftarrow
Zip Code	Brooklyn, NY	_
11220	United States	?
Latitude	40.649	U
Y Coordinate	40.64°	
Longitude	-74.02°	
Y Coordinate	-/4.02	
Time Zone	UTC-5	
Eastern Time (US & Canada)	010-5	

Note: If you do not enter a Zip Code, you have to manually enter the Longitude/Latitude coordinates for your location.



Location: The US Zip code, Latitude, and Longitude coordinates and Time Zone information will automatically populate via a Broadband Internet connection. You can also enter the information manually.

To enter information manually, tap the Location then Zip Code to enter your Zip code for your location. Tap Check to save. The US Zip code information will automatically populate the Latitude and Longitude coordinates and Time Zone via a Broadband Internet connection.

Time Zone (UTC): Use the - and + button to set your time zone if no Internet connect is available. UTC-05:00 (Brooklyn New York) is a time offset that subtracts five hours from Coordinated Universal Time (UTC). In North America, it is observed in the Eastern Time Zone during standard time, and in the Central Time Zone during the other eight months (see Daylight saving time). The western Caribbean uses it year round.

Note: Time and date synchronization for all systems may take a few minutes.

Date & Time (General)



Date & Time: The displayed date and time on the General screen is synchronized with the Internet connection time. If needed. Tap Date & Time to manually change the IntelliCenter Control System clocks, including the Outdoor, Indoor, and Wireless Remotes. If the PC time and date do not match the time and date displayed on the Home screen, you need to reset the PC time and date to the time and date set in IntelliCenter Control System.

Date & Time (Continued) (General)



Mode: Manual: Date and time is manually entered. **Internet:** Date and time retrieved

Clock Mode: Select either a 12-hour or 24-hour clock.

from the Internet.

system time, am/pm. If the system is connected to the Internet, resetting the system date will override the Internet time.

Time Set: Manually set IntelliCenter

Date Set: Manually set IntelliCenter system date. If the system is connected to the Internet, resetting the system date will override the Internet date.

Offset (min/month): Sets the month offset from 0 to 120 (e.g. leap years).

Daylight Savings: Set to 0N will adjust the time automatically for the region you are located in. Offset (min/month): Sets the month offset from 0 to 120 (e.g. leap years).

Units (General)



Units: Sets the system units of measure to English or Metric.

Features & Lights Order (General)

Use this feature to define the order of the circuits displayed on the Features and Lights screens. For example, the order of the named circuits can be displayed alphabetically (up and down) or left to right.





List Order (User Define): Tap List Order and select the list order: Alphabetically (Default): Sort in ascending name order.

Most Recent: Sorted in descending from most recently used.

Most Frequent: Sorted in descending from most frequently used.

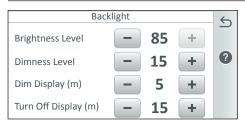
Custom Order: User defined order.

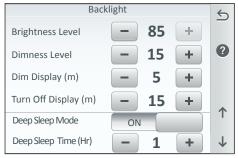
Grid Display: Select Left to Right (Default) or Top to Bottom.

Set Grid Flow: Select Left to Right or Top to Bottom.

Reset: Tap Clear Order Lists to reset the List order and Grid Display to default settings.

Backlight (General)





Back Light: Brightness Level: Adjust the screen brightness level from 33 to 100%.

Dimness Level: Adjust the contrast level from 10 to 100%.

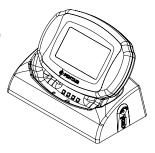
Dim Display (min): While in other screens, sets the time to return to the Home screen (from 0 to 240 minutes (20 hrs).

Turn Off Display (min): Set the time to turn off the screen from 0 to 240 minutes (20 hrs). Note: The time set to turn off the screen also affects the start time of the Deep Sleep feature, see below for more information. Also see Day/Night Theme Selection Settings > Advanced System Configuration > General > Day/Night Theme, page 44.

Wireless Remote only:

Battery Conservation Mode (Deep Sleep): Tap Deep Sleep Mode to turn on this feature. The default setting is ON. This feature allows you to save the battery life while the Wireless Remote is in its cradle.

Deep Sleep (Hr): Deep Sleep time can be set from 1 to 3 hours (Default 3 hrs). Select when you want the device to go to sleep to conserve battery life.



Example: While device is of its cradle: Go to Settings >

General> Backlight. Tap On to turn on Deep Sleep. The default setting is (ON). The Deep Sleep time is set for three hours. The device will go in to Deep Sleep after the screen goes black which will start **after** current time set in the **Turn Off Display** feature. The device is now in save battery mode. The device is still responsive up to an hour, so you can still use the device. This will stop Deep Sleep mode, then the Backlight settings are in effect.

General List Order

Any screen where there is a list can be displayed alphabetically or based on the system definition (default).

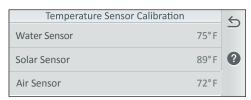


Select List Order: Sort Alphabetically, Most Recent, Most Frequent or Custom Order.

Temperature Sensor Calibration (General)

Temperature Sensor Calibration: Lists the installed sensors. The current sensor temperature is displayed. Tap sensor name bar to access Sensor Calibration screen.

Sensor Calibration: Adjust the sensor temperature value. Use Up/Down arrow to Increase or decrease temperature value compared to actual reading. Tap Check mark to save setting. Tap X to exit without saving setting.



Temperature Sensor Calibration Procedure: Before you start, you need an accurate all weather thermometer. Calibrate the air sensor in the shade. The Home screen displays the Pool, Spa Water Temp and Air Temp setting. Calibrate the Spa and Pool temperatures the same way as described below for Water and Air temperature sensor. Be sure the air temperature sensor is located in the shade for accurate readings. To calibrate the air, pool and spa sensors:

- 1. First, tap the Pool or Spa button on the Temperature Sensor Calibration screen to switch on the spa or pool filter pump.
- 2. Tap Pool Sensor to start the pool calibration.
- 3. Place the thermometer in the spa or pool. Take an accurate temperature reading. When calibrating the air sensor, place the thermometer next to the air sensor. The sensor is normally located near or under the Load Center or Power Center enclosure, not inside the enclosure. Take an accurate temperature reading in the shade.
- 4. On the Calibrate Sensors screen, use the Up or Down buttons to raise or lower the Air, Pool and Spa temperature to match the corresponding thermometer temperature reading.
- 5. Press the OK Calibration button when done.

Day / Night Theme Selection (General)



Day/Night Theme Selection:

Select either Day or Night screen contrast levels.

Day: In Day mode the LCD screen uses a white background for normal day light viewing.

Night: Select Night mode for low light conditions. This mode uses a black back ground with white text.

Transition Type:

- Manual: Allows you to manually select either Day or Night Theme modes.
- Auto: This option will automatically transition between Day and Night screen mode based on the 24 hour system clock.

Manual Operation Priority (General)

Manual OP Priority: ON: This feature allows for a circuit to be manually switched OFF and switched ON within a scheduled program, the circuit will continue to run for a maximum of 12 hours or whatever that circuit Egg Timer is set to (see page 56), after which the scheduled program will resume. This feature will turn off any scheduled program to allow manual pump override.

The Default setting is OFF.

Manual Heat (General)

Manual Heat: ON (Default OFF): If a GAS heater is configured for the Spa, but the Heat Source is set to OFF in the Spa screen, enabling this option will result in the heater being temporarily enabled whenever the body is manually turned on. For more information, see 9 and 12.

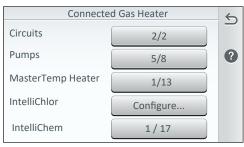
Show/Hide Chemistry Readings Badges (General)

Show Chemistry Readings Badges (ON/OFF): Change this setting to ON or OFF to show or hide the pH and OPR readings badge (if an IntelliChem Controller is being used). The Default setting is OFF.

Show Badge Colors (ON/OFF) (General)

Badge Colors (ON/OFF): Change this setting to ON or OFF to show or hide the Pool and Spa color badges (Yellow (Delays), Blue (manual enabled filter pump circuits). **The Default setting is ON.** The badges are displayed on the Home screen Pool and Spa icons.

Alerts & Warnings (Status - Settings)



Alerts & Warnings Shown in Status:

Displays a Badge icon on the Status Home screen icon for selected items show on this screen. **See page 33**.

Configure: Tap **Configure** to display selectable items. From the Select Shown in Status screen, tap on items or **Select ALL** items to shown on the Home screen Status icon. If Configure is displayed on the option button, Alerts & Warnings Status Badge will not be displayed.

Circuits (2/2): Select 2 status conditions: Valves delay and heater cool down.

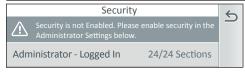
Pumps (8/8): Select up to 8 common pump and filter warnings and alarms.

Connected Heater: MasterTemp and Max-E-Therm (1-13): Select 13 status conditions: Water Pressure, Stack Flu Sensor alarm, High Water Temp., Lost Communication and more. Hybrid Heater (22/22): Select 22 status conditions: Air flow switch, temperature status, condensate filter, freeze and more.

Chemistry IntelliChlor (6/6): Select up to six common SCG warnings and alarms.

Chemistry IntelliChlor (6/6): Select up to six common SCG warnings and alarms. **Chemistry IntelliChem(17/17):** Select up to 17 common Chemical Controller related warnings, errors, alarms and more.

Security (Settings)





Enable Security (ON): (Admin only): Tap Administrator then tap **ON** to Enable Security. Enter a Passcode for the Administrator. To log out the Administrator, tap Administrator and Yes.



Log Out Administrator (Yes - No Passcode required): Tap Log Out Administrator to log out of the system and return to the Home screen.

Enable Administrator Security (ON/OFF): Tap ON to Enable Administrator Security. Tap OFF to disable Administrator Security (no Administrator or Guest passcode required to access the system).

Enable Guest: ON: The Administrator assigns a **Guest** access to the system without a passcode. From the Security screen, tap **Guest**, then tap **Can Access** and select the system Sections that the Guest has access to.

Passcode (**):** Displays the current 4-digit admin passcode. Tap the Passcode button to change the Passcode.

Timeout (min): Tap the **plus** or **minus** button to set the screen elapse time (1-10 minutes) before a screen message is displayed for the passcode. **Note:** A padlock icon displayed on the Home screen (top right) indicates there is an Administrator logged in (passcode assigned to the system).

Security (Settings)







Security: This screen shows the Administrator is logged in, and lists Guests assigned by the Administrator and their allowable system Sections. 0/24 Sections indicates no access to the system.

Administrator Log out: Tap Administrator to enable or disable the system security. To log out the Administrator, tap Yes.

User List: Tap a name to display the User Security Settings screen: Change the user name, passcode, access to sections and timeout setting.

Add New User (Admin only): Tap Add New User, enter the new user's name. Select up to 24 sections that the user has access to. Up to 10 users can be assigned access to the sections. Tap Check to save the name and return to the previous screen. Note: Tap Guest to access the Guest Security Settings screen to allow the Guest to access 0 to 24 system settings.

Delete Guests: Tap the Trash icon and select the Guest(s) to delete from the Security screen.

Can Access: Tap this button and select the system sections that the guest has access to.

Select All: Tap Select All to select all of the system functions listed, or select individual selections. Tap Check to save selections. Tap X to exit without saving changes.

Deselect All: Tap Deselect to deselect all of the system functions selections in the list.

Passcode (****): Displays the current 4-digit Guest passcode. Tap the Passcode button to change the Passcode. **Timeout (min):** Tap **plus or minus** button to set the screen elapse time (1-10 minutes) before a screen message is displayed for the passcode.

A padlock icon displayed on the Home screen (top right) indicates there is an Administrator logged in (passcode assigned to the system).

If the incorrect Passcode is entered multiple times, the Access Denied screen is displayed. This screen will time out for 60 seconds. After 60 seconds has elapsed, tap OK to enter the correct Passcode.

Pentair User Portal (Settings)



Web and Mobile Interface:

Tap to access the Web and Mobile Interface screen. The default setting for Web Interface is ON. This enables the Web App and Mobile Interface which allows local network and Internet communications to your home network. To disable Web based and mobile interface, set to OFF.

Add New Account: Enter the owner's information, Email Address, Property Name, Password. The system will attempt to connect to the owner's account Email address (via the Internet) to www.intellicenter2.com.

Connecting to your pool using the Web App: Go to www.intellicenter2.com and sign in using the pool owner's user email address. Select your pool listed on the Installations screen to display the Home screen.

Login to Existing Account (www.intellicenter2.com): Enter email address and password. The system will attempt to connect to the owner's account Email address via the Internet connection.

Update Owner Information: Edit owner information: Property Name, Name of Owner, Address, City, State, Zip Code, County, Time Zone, Phone number, Email. Location information is populated when entered in General > Location, Date & Time. **See page 40**.

View Connection Information: View server connection information: Last messages received, total number of server connects.

Add a new Account

- Tap Enable Web & Mobile Interface. Change the toggle to ON and tap the Return arrow. Tap Add New Account. Tap Property Name and enter the name of the property, and tap the Checkmark. Tap Email and enter the users E-mail address, and tap the Checkmark. Tap the Checkmark to go to the next screen.
- 2. The users E-mail address should be shown on the first button. If it is not shown, tap the button and add it as described in the steps above. Tap Enter Password and enter a Password, then tap the checkmark. Note: The password should have a least one uppercase letter. Tap the Re-Enter Password button and retype the password, and tap the Checkmark. Tap the Checkmark to complete the process. Once the account setup is complete, return to the home screen and wait for the Pentair logo to appear.

Egg Timer

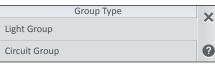
Groups (Circuits) (Settings > Groups)

The Groups feature allows multiple Light circuits and AUX circuits to be grouped together and assigned to one ON/OFF button that is displayed on the Home screen Lights Groups screen. Up to 40 groups of light circuits and AUX circuits can be assigned.

To access the Add Group (GROUPS) page: Tap Settings > Groups or tap the 4-Dots on the AUX Circuits page.



12hr. 0min.



+Add Group (Circuits): Tap Add Group, and select either Circuits Group.

Circuits (Group Settings):

Group Name: Tap the name button to access the keyboard. Enter a name for the group of circuits.

Configure Circuits: Tap Configure Circuits to access the available circuits. Note: The circuits displayed depend on the model of the Personality Card installed. Light circuits (AUX circuits)

are assigned in the AUX circuits screen.

Egg Timer: Tap the Egg Timer button to display the Hours and Minutes button. Tap the Hours and Minutes button to select a manual timeout for the circuit. The Egg Time is a specified time delay for the circuit, once it is turned on manually. **Don't Stop:** Tap the Hours button until 23 hours is displayed, then tap the button again to display **Do Not Stop.** The Do Not Stop feature will continuously run the circuit until the it is manually turned off.

From the AUX Circuits (4 Dots Icon), you can also create a group of light circuits and AUX Circuits. Go to Advanced System Configuration > Installation Setup > Circuits > AUX Circuit (page 56) and Feature Circuits (page 58).



Configure Circuits: Tap Configure Circuits to access the circuits in the selected group. Tap the name of the circuit to access the settings for the circuit.

Note: The circuits displayed depend on the

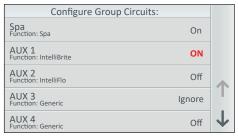
Note: The circuits displayed depend on the model of the Personality Card installed. Light circuits (AUX circuits) are assigned in the AUX circuits screen.

Each Circuit within a circuit group can be configured as **ON**, **OFF or IGNORE**. If On, Off or Ignore is indicated in **ORANGE** for a circuit, this indicates a possible schedule time overlap could occur. In this case, the last schedule created will take effect.

Groups (Circuits) Continued







A group of AUX Circuits or Light Circuits can be switched ON/OFF from one button in the Features/Groups screen, and the Lights/Groups screen.

Included Circuits: Yes/No: Include or exclude this circuit in

the selected Circuit Group.

ON: When the Circuit Group turns ON, the individual circuits will be set to the state in which it's configured (ON)

state in which it's configured (ON).
OFF: Turns the circuit OFF in the group.
IGNORE: The Circuit Group is included in the group regardless of the On/Off state.
Return: Return to the previous page.

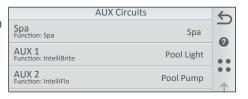
Example 1: If AUX1 in the circuit group is currently running on schedule, and AUX 1 in the circuit group is set to OFF, then AUX 1 would turn OFF during the duration of the Circuit Group being active.

Example 2: If AUX1 in the circuit group is currently running on schedule, AUX1 in the group is set to OFF, if the amount of time the group has run is less that the total time of the schedule, then when the group is turned OFF, AUX1 will turn back ON.

Example 3: A possible circuit schedule time overlap could conflict if more than one Circuit Group has AUX1 set to is ON, In this case, the last schedule to go ON has priority and will take effective. The AUX circuit in conflict is indicated in ORANGE for the individual circuits in both circuits groups.

Groups (Lights) (Settings)

Use the Light Groups feature to group multiple light circuits together and assign them to one ON/OFF button on the **Home screen Features Groups screen**. Groups of circuits are displayed on the Lights screen (page 14), and Lights Groups (page 16).



To access the Add Group (GROUPS) page: Tap Settings > Groups or tap the 4-Dots on the AUX Circuits page. +Add Group (Lights): Tap Add Group, and select the Lights Group and enter a name for the light group. Tap Check to save and continue to the Lights Group Settings page. Tap the group name in the Groups list.

A group of light circuits or AUX circuits can be turned ON/OFF from one button in the Features (Circuits), Lights (circuits) screen on the Home screen. See page 14.

Groups (Lights) (Settings) Continued







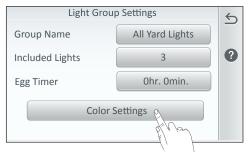
Included Lights: Tap the Included Lights button to access the available light AUX circuits. The displayed light circuits depend on the model of the Personality Card installed. AUX circuits are assigned in the AUX circuits screen. For more information, see, Advanced System Configuration > Installation Setup > Circuits > AUX Circuit - OCP 0 or Feature Circuits, see page 56.

Egg Timer: Tap the Egg Timer button to display the Hours and Minutes button. Tap the Hours and Minutes button to select a manual time-out from 0 to 23 hrs. 59 mins. for the circuit. The Egg Time is a specified time delay (hrs/mins) for the circuit, once it is turned on.

Dont Stop: Tap the Hours button until 23 hours is displayed, then tap the button again to display **Do Not Stop**. The Do Not Stop feature will continuously run the circuit until the it is manually turned off.

Nested Groups: If necessary, you can create a Group of circuits within another Group of circuits, as long as they are from the same group of Lights, or AUX Circuits.

Delete Groups: Tap the Trash icon; check the desired Groups to delete. Tap Yes to delete.



Select Circuit to Edit \leftarrow Delay 0s Beach Light White 2 Delay 15s **Back Yard Light** Light Green Delay 25s Pool Light Green 1 Delay 35s Pool Light 2 Cyan Delay 55s Spa Light Blue

Color Settings: Tap this button to display the assigned light circuits and the current delay time and selected light color.

The Color Swim feature synchronizes any IntelliBrite or Landscape color lights. The color swim effect starts from the first light, then the color change is delayed across to the adjacent lights creating a wave delay effect. For more information about light features, see Circuit Function in Advanced System configuration > Installation Setup > AUX Circuits > AUX Settings (Circuit Function). See page 56.

Groups (Feature Circuits (Generic or Spillway) (Settings)





Select Circuit to Edit: Tap any of the lights displayed to change the current light color and delay time (from 0 to 60 seconds). Color options are: White, Light Green Green, Cyan, Blue, Lavender, Magenta and Light Magenta.

Color Name: The name of the light is assigned in the circuits screen. See **See** page 56.

Color: Tap the Color button to display the Select Swim Color screen. Select a different color for the light from the list.

Delays(s): Tap the - /+ button to set the delay for the light from 0 to 60 seconds.

Delete Circuits: Tap Feature Circuits, tap the Trash icon, select the circuit(s) to delete, then tap X to delete the circuit(s) and exit to the previous screen.

Feature Circuits Overview

Up to 32 individual Feature Circuits can be configured to combine various circuits together to a single ON/OFF button to turn on or off at one time. For example, you can create a Feature Circuit to turn on the spa, spa light, fountain, and fountain light, and patio lights all from one button in the Feature screen (Home screen). Feature Circuits can be setup to control equipment which is not controlled by an AUX circuit such as pumps and lights. Use Feature Circuits to control multiple valve actuators, a dual speed pump (turn on high speed), or a spa spillway effect (in a pool spa combination, all of the pool water can be diverted to the spa then spill back into the pool). To create a Feature Circuit, first assign the Feature Circuit a name, then assign the circuit a function (Circuit Function).

Restore Factory Defaults: Use this feature to overwrite the system configuration with the default factory settings. Follow the screen prompts.

Guest Security Settings: Displays the guest user(s) that have been assigned a passcode and access to system sections (0 to 24).

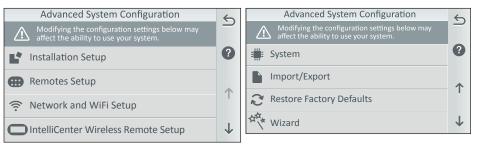
Tap 0 /24 Selections to access the next screen to allow the Guest to access 0 to 24 system settings.

System Reboot (Settings)

Tap the System Reboot button to reset the system. Immediately after tapping System Reboot a message is displayed to confirm that you wish to reset the system. If you want to stop the system reset, there is a five second delay in which you can cancel the system reset.

Advanced System Configuration (Settings)

The Advanced System Configuration settings may affect pool and spa operation. Before making changes be sure you have the latest system settings backed up to a memory stick, see Settings > Advanced System Configuration > System. See page 89 for details.



Installation Setup: Configure the IntelliCenter system. Body Configuration (page 53). Circuits (page 56), Pumps (page 62), Heaters (page 72), Valves (page 77), Chemistry (page 79).

Remotes Setup: Add Spa-Side Remote: Select Spa Command, iS4, iS10, or QuickTouch Spa-Side Remote. See page 81.

Network and Wireless Setup: Configure wireless network (SSID, Ethernet). Wireless Remote Setup: Configure Ethernet, Connect to a Wireless Network, Test Internet Connection and Reboot Wireless Device. See page 85.

IntelliCenter Wireless Remote Setup: Set up a wireless remote. See page 87.

Delays: Valve delay settings, Heater Cool Down ON/OFF, Freeze cycle time, Spa Freeze override settings. See page 88.

System: System Information, Detected Hardware, Firmware update. Seepage 89.

Import / Export: Import System Configuration, Export System Configuration, Export Status Logs, Export Historical Data, Export Debug Data. See page 90.

Restore Factory Defaults: Overwrite the current system configuration with the default factory settings. Follow the screen prompts. See page 92.

Setup Wizard: Configure the system using the step-by-step setup wizard assistant. See page **93**.

Advanced System Configuration (Installation Setup)

Installation Setup: From the Installation Setup screen you can setup pool/spa equipment for the each body of water (pool/spa).





Circuits: Setup the system auxiliary circuits (AUX), see page 56.

Pumps: Setup circuits for pumps, see page 62.

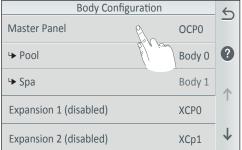
Heaters: Setup circuits for heaters and heat source, see page 72.

Valves: Setup circuits for system valves, see page 77.

Chemistry: Enable Chemical Controller or Salt Chlorine Generator, see page 79.

Pool Cover: Setup Pool Cover circuit settings, see page 80.

Body Configuration: Configure IntelliCenter Personality Cards, (Main Panel (OCPO), Expansion enclosures 1, 2, and 3), and the body of water capacity for the pool and spa.



Master Panel (Panel Identification) (OCP 0): Tap Master Panel to display the Panel Identification screen.

Expansion 1, 2, and 3 (see page 55):

A maximum number of three expansion enclosures can be connected via RS-485 to the Master Panel (Main Control Board). See page 110 for more information about IntelliCenter configurations.



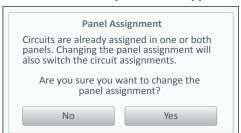
Panel Identification (Master Panel):

Panel Name: Tap Panel Name and enter the panel name for the main Master Panel. Tap Check to save.

Panel Assignment: Tap Panel Assignment to reassign circuits to another panel. Tap Check to save.

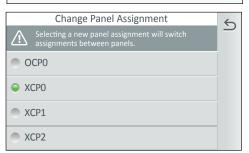
Advanced System Configuration (Installation Setup)

Panel Identification (Master Panel) (Continued)



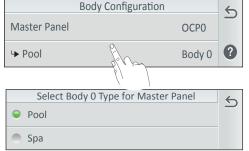
Panel Assignment: Tap Yes to change the panel assignment.

Show Identifier in Other Panels: Tap to select other installed panel to display in other panel screen. Tap Check to save.



Change Panel Assignment: To change the panel assignment, tap on the panel name. Tap Check to save and return to the previous screen.

Pool (Body 0) - For Pool and Spa combination (shared equipment).



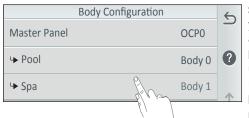
Pool (Body 0 Settings): From this screen you can reassign the body type/*, name and capacity.

Body Type: Reassign the body type. Choose either Pool or Spa. Tap Return to return to the previous screen.

Body Name: Enter the body name.

Body capacity: Enter the capacity of the body of water from 1,000 - 150,000 gallons.

Spa (Body 1) - For Pool and Spa combination (shared equipment).



Select Body 1 Type for Master Panel

Pool

Spa

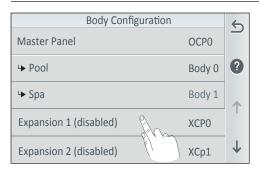
Spa (Body 1 Settings): From this screen you can reassign the body type, name and capacity.

Body Type: Reassign the body type. Choose either Pool or Spa. Tap Return to return to the previous screen.

Body Name: Enter the body name.

Body capacity: Enter the capacity of the body of water from 1000 - 40,000 gallons (US gallons/liters).

Installation [Body Configuration]



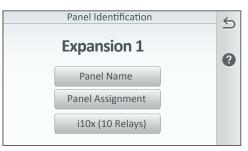


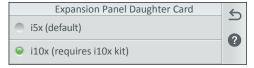


Expansion 2 (disabled)

(XCP0): For Pool and Spa combination (shared equipment).

Expansion 3 (disabled) (XCP0): For Pool and Spa combination (shared equipment).





Panel Identification (Expansion 1, 2, and 3):

Panel Name: Tap Panel Name and enter the panel name for the Expansion 1 enclosure. Tap Check to save.

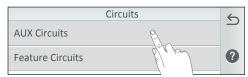
Panel Assignment: Tap Panel Assignment to Disable or Enable the Expansion Panel. Tap Check to save.

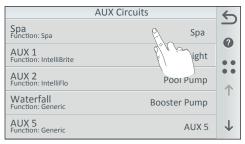
Expansion Panel Daughter card - i10x (10 Relays): This button displays the Daughter Card attached to the main Personality Card (if available) installed in Expansion enclosure number 1. Tap this button to enable an additional Daughter Card connected to the main Personality board (in this example i10x (10 Relays). Tap the Expansion Panel Daughter Card button to enable the card (Green light on).

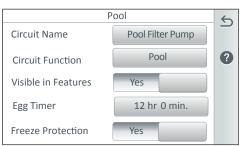
See page 110 for more information about IntelliCenter system configurations.

Circuits









AUX Circuits: Tap AUX Circuits to display the available AUX circuits to assign a function.

Create individual (AUX) Circuits or Group of Circuits (4 Dots Icon): Tap this icon on right side of the screen to create Groups of circuits. Note: For more about Groups (in Settings), see page 48.

Circuit Name: Select one of the displayed circuit names and tap Check to save. For a complete list of Circuit Names see page 61. To customize a circuit name, tap on the keyboard icon on the right side of the screen and enter the new name.

Circuit Function: Assign the circuit function. For a complete list of Circuit Functions, see page 60.

Visible in Features (Lights and Generic Circuits only): Select ON to display this circuit in the Home, Features screen, see page 8.

Freeze Protection: Assign freeze protection for this circuit. **See page** 59 for details.

Egg Timer: Tap the Egg Timer button to display the Hours and Minutes button. Tap the Hours and Minutes button to select a manual timeout for the circuit. The Egg Time is a specified time delay (hrs/mins) for the circuit, once it is turned on manually. **Don't Stop:** Tap the Hours button until 23 hours is displayed, then tap the button again to display **Do Not Stop.** The Do Not Stop feature will continuously run the circuit until the it is manually turned off.

Feature Circuits

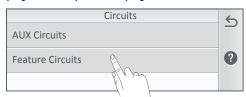


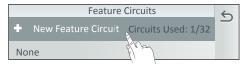
Up to 32 individual Feature Circuits can be assigned as Generic circuits or Spillway (Pool/Spa) circuits. A Feature Circuit can be assigned to activate the Spa Spillway effect, where in a pool/spa combination, pool water is diverted to the spa then spilled back into the pool. Feature Circuits can be setup to control equipment which is not controlled by an AUX circuit such as pumps and lights.

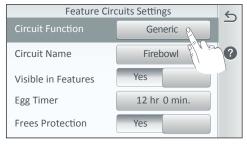
Use Feature Circuits to control multiple valve actuators, a Dual Speed pump (turn on high speed), or a spa spillway effect (in a pool spa combination, all of the pool water can be diverted to the spa then spill back into the pool).

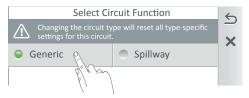
Home Screen Features Green Badge: Displays the number of active feature circuits. To display circuits in the Features screen, see **Settings > Advanced System Configuration > Installation Setup > Circuits > Feature Circuits > Feature Circuit Settings (Visible in Features (Y/N) option).**

Feature Circuits (Generic or Spillway): From the Home screen, tap Settings > Advanced System Configuration > Installation Setup > Circuits > Feature Circuits.See page 56 and previous page for details.









+ New Feature Circuit (Generic or Spillway): Tap New Feature Circuit to create a new Feature Circuit (up to 32 total). Select the Feature Circuit Name, from the displayed list or tap the Keyboard icon and enter a custom name.

Circuit Function: Tap **Generic** and select either **Generic** or **Spillway** for the circuit function. Tap Check to return to the previous screen.

Circuit Name: Displays the assigned circuit name. To change the circuit name, tap the name button.

Visible in Features: Select ON or OFF to display the Feature Circuit in the Feature screen (Home screen).

Egg Timer: Set time duration of 0 to 12 hours.

Don't Stop: Tap the Hours Up button until 23 Hours displays, tap once again to display **DO NOT STOP.** Once the circuit is switched on, it will remain on until it is switched off.

Note: The Egg Timer sets a specified time delay (hrs/mins) for the circuit to function once it is turned on.

Freeze Protection: Assign freeze protection for the circuit. See page 59.

Using Feature Circuits

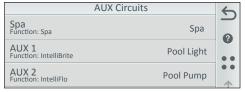


Create A Feature Circuit (Lights/Circuits): From Settings > Advanced System Configuration > Installation Setup > Circuits > Feature Circuits > Add Group (Four Dots Icon you can create a group of Lights or AUX auxiliary Circuits. These Groups of lights and auxiliary circuits are displayed in the Features > Groups screen. You can also create groups of auxiliary and light circuits in the GROUPS screen (see page 48), which will be displayed in the Features > Groups screen.

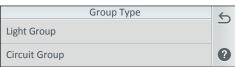
From the Feature Circuit screen you can create a group of circuits for Lights or Circuits (see page 56). For example, you could create a Feature Circuit assigned to one button to turn on your spa, spa light, fountain, fountain light, and patio lights. A Feature Circuit also has the capability to switch a circuit off. You could also create your own custom name, for example, SPA PARTY could be used if there was a spa fountain which should not be on when spa is on (because it could put cold water in the spa) it can be set up in the Feature Circuit to automatically switch off when Spa Party is switched on. A Feature Circuit can also be used to switch off any number of lights with one button.

Note: A Feature Circuit may not be assigned to light dimmers although they can turn on light dimming circuits.

Feature Circuits (Create a Group of Lights or Circuits)



(4 Dots Icon): Tap the 4 Dots icon on right side of the screen to display the Add Group screen. Note: For more about creating groups of circuits, see page Groups on page 48.



Select either the **Light** or **Circuit Group**. Enter a name form the group of lights or circuits.



Select Included Circuits: Tap Included Circuits (or Lights) and select the available AUX circuits and Features Circuits to be assigned to this group of circuits.

Color Settings (Delays): Adjust the AUX delay time (1-59 seconds) between lights.

Egg Timer: Tap the Egg Timer button to display the Hours and Minutes button. Tap the Hours and Minutes button to select a manual time-out for the circuit. The Egg Time is a specified time delay (hrs/mins) for the circuit, once it is turned on manually. **Don't Stop:** Tap the Hours button until 23 hours is displayed, then tap the button again to display **Do Not Stop.** The Do Not Stop feature will continuously run the circuit until the it is manually turned off.

Feature Circuits



Feature Circuit: A total of 32 Feature Circuits can be assigned to Circuit and Light circuits. A Feature Circuit is assigned special logic to the and can control equipment that is not controlled by AUX circuits. Typically, AUX circuits are used for high voltage equipment like pumps and lights. Feature Circuits are used for low voltage equipment like valve actuators and pump speeds or pump speeds.

For example, an automatic pool cleaner pump, would assign the circuit function *Master Cleaner*. With this cleaner logic the cleaner pump would not run without the filter pump being on first, and, the cleaner pump would automatically shut off whenever the spa is switched on. The cleaner will go on after the five minute delay. Also, the automatic cleaner pump will turn off when the spa and/or solar is turned on. Be careful not to duplicate circuit names with these circuits. A Feature Circuit can be assigned to switch a two-speed Filter Pump from high speed to low speed.

Note: Individual and group circuit buttons only display on the Home Lights screen.

Valve Actuators and Feature Circuits: Feature Circuits can be assigned to control up to five (5) valve actuators per load center. To control a total of eight (8) actuators requires the installation of the optional Valve Modules (see page 110) which includes six (6) additional actuators outputs (C, D, E, F, G, H) per panel enclosure. Note: When using solar heat, note that for shared equipment pool and spa combination, valve A is always used for solar. For dual body dual equipment, valve A is always the pool and valve B is always the spa.

Freeze Protection: Freeze Protection ON, switches on all circuits during, if the outdoor air temperature sensor detects the temperature is getting close to freezing (36°F). The system cycles through all circuits that have been assigned freeze protection, and runs the circuits to stop the pipes from freezing. This is especially important if there is a pool and spa combination. If freeze protection is set to both the spa and pool circuits, the filter pump switches on and the pool and spa valves alternate to keep the water moving in both the pool and spa. This process continues until the freeze condition is over.

Note: Freeze protection is activated when the air temperature drops to 36°F. If the spa is running a schedule or operated manually, this will override freeze protection. During freeze protection, FREEZE PROTECT ACTIVE is displayed on the Home screen.

The main pool filter circulation pump is freeze protected as long as FREEZE PROTECTION is set to ON. For all other equipment, Freeze Protect must also be specified on the individual device manager screen. Some devices default to freeze protect.

Heater Operation During Freeze Protection: The heater will not activate during a Freeze Protection period unless it is manually turned on.

Circuit Functions



Generic	No special Logic. Simple On/Off control of a circuit with all the programmable capabilities.
Spillway	For pool/spa combinations where the spa is raised above the pool. This setting moves the return valve so that the filter pump pulls the water from the pool and returns it to the spa, creating a water fall effect. Automatic pool cleaners are turned off when this feature is turned on.
Master Cleaner	Works with automatic pool cleaner pumps or cleaner valve actuator Forces the filter pump on 5 minutes before the cleaner Turns the cleaner off when the spa is on Turns the cleaner off for 5 minutes when the solar heating begins.
Chem Relay	Assign a dedicated relay for the IntelliChem Controller.
Light	Allows special lighting features to work, such as ALL lights on or ALL lights off.
IntelliBrite	Activates the colors of an IntelliBrite LED light.
GloBrite	Activates a GloBrite Color Light with IntelliBrite LED capabilities.
GloBrite White	Activates a GloBrite White LED light with dimmer capabilities.
MagicStream (IntelliBrite)	Activates a MagicStream laminar water feature with IntelliBrite LED capabilities.
Dimmer	Light with dimmer capabilities. Dimming relay must be installed.
Color Cascade	Activates a ColorCascade water feature with IntelliBrite LED capabilities.
Master Cleaner 2	Works with automatic pool cleaner pumps or cleaner valve actuator Forces the filter pump on 5 minutes before the cleaner Turns the cleaner off when the spa is on Turns the cleaner off for 5 minutes when the solar heating begins.

Circuit Names

DECK JET

FOUNTAIN

FOUNTAIN 1

FOUNTAIN 2

LmJ

None JETS HIGH
AIR BLOWER JETS LOW
AIR BLOWER 1 JETS MEDIUM
AIR BLOWER 2 LAMINAR LIGHT
AUX Extra LAMINARS
BACK LIGHT LANDSCAPE LIGHT

BACKWASH LIGHTS
BB0 LIGHT LOW SPEED

BEACH LIGHT LOW TEMPERATURE
BOOSTER PUMP MAGICSTREAM BUBBLER

BUBBLER MIST
CABANA LIGHT MUSIC
CAVE LIGHT NOT USED
CAVE WATERFALL OZONATOR
CHEM. FEEDER PATH LIGHTS
CHLORINATOR PATIO LIGHT
CLEANER PERIMETER LIGHT
COLORCASCADE

POOL HIGH

RAIN EFFECT

SECURITY LIGHT

SHEER DESCENT

COLORWHEEL POOL

DECK JETS POOL LIGHT **DECK LIGHT** POOL LIGHT 1 DRIVE LIGHT POOL LIGHT 2 **FDGF PUMP ENTRY LIGHT** POOL LIGHT 3 FAN POOL LIGHTS FILL LINE POOL LOW FIRE BOWL POOL PUMP FIRE BOWLS POOL SAM FIRE FEATURE 1 POOL SAM 1 FIRE FEATURE 2 POOL SAM 2 FIRE FEATURE 3 POOL SAM 3 FLOOR CLEANER

FOUNTAIN 3 SLIDE
FOUNTAIN LIGHT SPA
FOUNTAINS SPA HIGH
FRONT LIGHT SPA LIGHT
GARDEN LIGHT SPA LOW
GAZEBO LIGHT SPA SAL
HIGH SPEED SPA SAM

HIGH TEMPERATURE
IN-FLOOR CLEANER
INFINITY EDGE
JETS
SIA GAIT
SPA WATERFALL
SPILLWAY
SPRINKLERS

STATUE LIGHT STREAM SWIM JETS ULTRAVIOLET

UV

WATER FEATURE
WATER FEATURE 1
WATER FEATURE 2
WATER FEATURE 3
WATER FEATURE LIGHT
WATER FEATURE LIGHT 1
WATER FEATURE LIGHT 2
WATER FEATURE LIGHT 3

WATERFALL
WATERFALL 1
WATERFALL 2
WATERFALL 3
WATERFALL LIGHT
WHIRLPOOL
YARD LIGHT

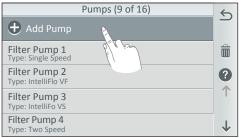
Pumps

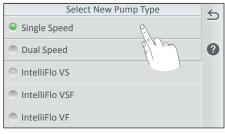
pump.

Single Speed Pump



+ Add Pump: Tap + Add Pump to access the Select New Pump Type screen to setup the pump settings.







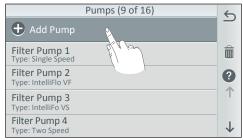
Single Speed Pump Settings: From the Single Speed Pump Settings screen you can change the pump type, name and assign the pump to a body of water (pool, spa, or pool/spa. For information about priming the pump, see page 70.

Operating a Single Speed Filter Pump: To manually turn the filter pump on or off, tap the Pool Filter Pump button on the second Pool screen (on Home screen). If the heater is on and active, and Heater Cool down feature is enabled; when you tap Pool Filter Pump button to turn off the filter, only the heater will turn off and the pool filter pump will automatically turn off after 5 minutes of heater cool down period. You can override the heater cool down period by taping the button again to turn off the filter

Pumps (Dual Speed)



+ Add Pump: Tap + Add Pump to access the pump type screen and select Dual Speed.





Dual Speed Pump Settings: Pump Type, Pump Name, Body, and High/Low Speed Circuits. For information about priming the pump, see page 70.

Pump Type: To change the pump type, tap Pump Type button to access the pump type screen. Select the pump for the list. Tap Check to save the new pump type and return to the previous screen.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Check to save the name and return to the previous screen.

Body: Assign the pump to a body of water (pool, spa, or pool/spa (shared equipment).

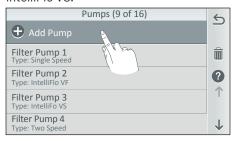
High Speed Circuits: Select a circuit for the high speed. You can choose up to eight (8) high speed circuits. Tap the High Speed Circuits button. Tap Add Circuit and select an AUX circuit to assign the high speed to. Tap Check to save the circuit and return to the previous screen.

Operating a Dual Speed Pump: To manually turn a dual speed filter pump on or off, tap the Pool Filter Pump button on the second Pool screen (on Home screen). When the pump is off, tap the Filter Pump button to turn on the high speed of the filter pump. Tap the button again switch to low speed operation. Note the pump will run the high speed to prime and establish normal water flow if the pump has been off for more than 30 seconds. If the heater is on and active, and Heater Cool down feature is enabled; when you tap Pool Filter Pump button to turn off the filter, only the heater will turn off and the pool filter pump will automatically turn off after 5 minutes of heater cool down period. You can override the heater cool down period by taping the button again to turn off the filter pump.

Pumps (IntelliFlo VS)



+ Add Pump: Tap + Add Pump to access the pump type screen and select IntelliFlo VS.





IntelliFlo VS Settings: Pump Type, Name, Address, Min. Speed, Max. Speed, Step Size, Priming Time, and Priming Speed. **For information about priming the pump**, **see page 70**.

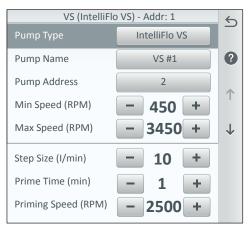
Pump Type: To change the pump type, tap Pump Type button to access the pump type screen. Select the pump for the list. Tap Check to save the new pump type and return to the previous screen.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Check to save the name and return to the previous screen.

Pump Address: Assign the pump address from 1-16.

Minimum Speed (RPM): This is the minimum pump speed but still generating sufficient flow in the pool. The system will not run lower than 450 RPM. The lower you can establish this flow rate the better the energy savings. **Note: Other equipment may require higher pump speed to operate.**

Maximum Speed (RPM): This is generally the pump speed required for backwashing the pool filter. The pump will not allow a higher speed of 3450 to prevent damage to the pool system hydraulics.



Step Size: The pump speed step size can be set from 10-250 RPM.

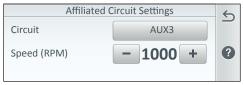
Priming Time (min): The system priming time can be set from 0-5 minutes.

Priming Speed (RPM): The system priming speed can be set from 450-3450 RPM.

Pumps (IntelliFlo VS)



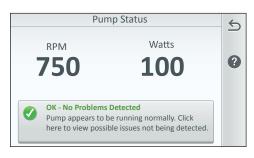
Speed Circuits: Assign the speeds to the circuits you wish to use. Tap Speed Circuits and tap Add Circuits to assign a new AUX circuit. To change the pump speed of a listed circuits, tap the AUX name to change the assigned RPM setting. Tap Return to save the setting and return to the previous screen.



Affiliated Circuit Settings:

Circuit: The assign circuit to control the pump speed.

Speed (RPM): Assign pump speed from 450 to 3450 for the selected circuit.



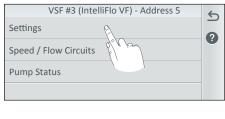
Pump Status: Shows the current power usage in Watts, speed, in revolutions per minute (RPM) while the pump is operating. Tap Return to return to the previous screen. Also see: Tap Status on the Home screen to display the current pump status and error condition.

Pumps (IntelliFlo VSF)

O+

+ Add Pump: Tap + Add Pump to access the pump type screen and select IntelliFlo VSF.





IntelliFlo VSF Settings: Pump Type, Name, Address, Min. Speed, Max. Speed, Min. Flow, Max. Flow, and Step Size. **For information about priming the pump, see page 70.**

Pump Type: To change the pump type (function), tap Pump Type button to access the pump type screen. Select the pump for the list. Tap Check to save the new pump type and return to the previous screen.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Check to save the name and return to the previous screen.

Pump Address: Assign the pump address from 1-16.

Minimum Flow (GPM): This is the minimum flow rate speed but still generating sufficient flow in the pool. The IntelliCenter will not run lower than 20 GPM. The lower you can establish this flow rate the better the energy savings.

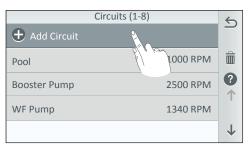
VSF (IntelliFlo VSF) - Addr: 2		Ĵ
Pump Type	IntelliFlo VSF	
Pump Name	VSF	?
Pump Address	2	•
Min Speed (RPM)	- 450 +	1
Max Speed (RPM)	- 3450 +	1
Min flow (GPM)	- 20 +	
Max Flow (GPM)	- 134 +	
Step Size (RPM)	- 100 +	
Step Size (GPM)	- 1 +	

Maximum Flow (GPM): This is generally the flow rate required for backwashing the pool filter. The pump will not allow a higher flow rate of 140 GPM to prevent damage to the pool system hydraulics.

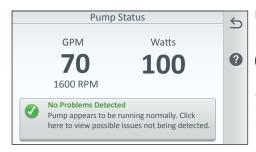
Step Size (RPM): The pump speed step size can be set from 10-250 RPM.

Step Size (GPM): The pump flow rate step size can be set from 1-10 GPM.

Pumps (IntelliFlo VSF)







Speed Circuits: Assign the speeds to the circuits you wish to use. Tap Speed Circuits and tap Add Circuits to assign a new AUX circuit. To change the pump speed, tap the AUX name to change the assigned RPM setting. Tap Return to save the setting and return to the previous screen.

Affiliated Circuit Settings:

Circuit: The assign circuit to control the pump speed.

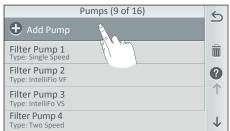
Flow (GPM): Assign pump flow rate from 20-140 for the selected circuit. **Speed (RPM):** Assign pump speed from 450 to 3450 for the selected circuit.

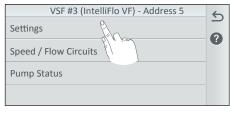
Pump Status: Shows the current power usage in Watts, flow rate in gallons per minute (GPM) or revolutions per minute (RPM) while the pump is operating. Tap Return to return to the previous screen. Also see: Tap Status on the Home screen to display the current pump status and error condition.

Pumps (IntelliFlo VF)



+ Add Pump: Tap + Add Pump to access the pump type screen and select IntelliFlo VF.





IntelliFlo VF Settings: Pump Type, Pump Name, Pump Address, Min. Flow, Max. Flow, and Step Size. For information about priming the pump, see page 70.

Pump Type: To change the pump type (function), tap Pump Type button to access the pump type screen. Select the pump for the list. Tap Check to save the new pump type and return to the previous screen.

Pump Name: Tap the Pump Name button and enter the name of the pump. Tap Check to save the name and return to the previous screen.

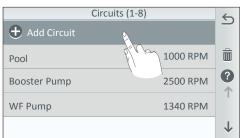
Pump Address: Assign the pump address from 1-16.

VF #3 (IntelliFlo VF) - Address 7		→
Pump Type	IntelliFo VF	
Pump Name	Filter Pump 2	?
Pump Address	2	
Min Flow (GPM)	- 15 +	1
Max Flow (GPM)	- 130 +	'
Step Size (GPM)	- 1 +	1

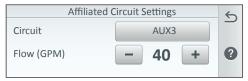
Minimum Flow (GPM): The pump's minimum flow rate can be set from 15-130. This is the minimum flow rate speed but still generating sufficient flow in the pool. The IntelliCenter will not run lower than 15 GPM. The lower you can establish this flow rate the better the energy savings.

Maximum Flow (GPM): The pump's maximum flow rate can be set from 15-130 GPM. This is generally the flow rate required for backwashing the pool filter. The pump will not allow a higher flow rate of 130 in order to prevent damage to the pool system. **Step Size (GPM):** The pump flow rate step size can be set from 1-10 GPM.

Pumps (IntelliFlo VF)



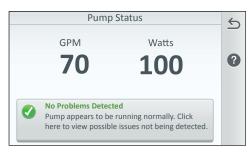
Speed Circuits: Assign the speeds to the circuits you wish to use. Tap Speed Circuits and tap Add Circuits to assign a new AUX circuit. To change the pump speed of a listed circuits, tap the AUX name to change the assigned RPM setting. Tap Return to save the setting and return to the previous screen.



Affiliated Circuit Settings:

Circuit: The assign circuit to control the pump speed.

Flow (GPM): Assign pump flow rate from 15 to 130 for the selected circuit.



Pump Status: Shows the current power usage in Watts, and flow rate in gallons per minute (GPM) while the pump is operating. Tap Return to save the setting and return to the previous screen. Also see: Tap Status on the Home screen to display the current pump status and error condition.

IntelliFlo Pump Alarms and Warnings

IntelliFlo pumps display all alarms and warnings on the control panel display. When an alarm or warning condition exists, the corresponding light will be lit on the display.

In the event of an alarm: The alarm light will illuminate and all control panel buttons will be disabled until the alarm is cleared. Pressing the Reset button will clear the alarm once the fault condition has been resolved.

In the event of a warning: The warning light will illuminate, but the pump will continue to run. The speed, flow or pressure limit that is causing the warning must be adjusted in order to correct the warning.

Power Out/OFF

The incoming supply voltage is less than required. The drive faults to protect itself from over current. The drive contains capacitors that keep it powered up long enough to save the current run parameters. If power is restored during this process, approximately 20 seconds, the drive will not restart until completed.

Continue to next page.

IntelliFlo Pump Alarms and Warnings (Continued)



Priming the IntelliFlo pump:

For more information about troubleshooting, refer to your pump manual.

Priming the Pump for the first time or after a service: First release all pressure from filter, pump, and piping system. The pump will prime itself when the suction and discharge valves are opened if the water source is higher than pump. If this is not the case, unscrew and remove pump's lid cover, fill the basket and pump with water. Do not lubricate the lid cover 0-ring. The 0-ring contains a permanent internal lubricant.

- Turn the pump lid clamp and lid in a counterclockwise direction until it stops and remove them.
- 2. Fill the pump strainer pot with water.
- Reinstall the pump clamp and lid onto the strainer pot. The pump is now ready to prime.
- 4. Make sure all electrical connections are clean and tight.
- 5. Open the air release valve on the filter, and stand clear of the filter.
- 6. Switch the IntelliFlo pump on at the circuit breaker. Ensure that the green power light is on.
- 7. Press the Speed 1 button to select the pump speed of 750 RPM.
- 8. Press the Start button to start the pump. Use the Up/Down button to increase the speed as necessary to prime the pump.
- 9. When water comes out of the air release valve, close the valve. The system should now be circulating water back to the pool without air bubbles showing in either the hair and lint pot or at the pool return fittings.
- 10. Use the Up/Down button to adjust the operating speed as desired.

Priming Failure: If the pump is not primed within the "Max Priming Time" it will stop and generate a "Priming Alarm" for 10 minutes, then attempt to prime again. The "Max Priming Time" is set in the pump's priming menu. If the pump cannot prime within five attempts it will generate a permanent alarm that must be manually reset.

Overheat: If the drive temperature exceeds 130° F (54.4°C), the pump will reduce speed until the over temperature condition clears.

Thermal Mode: The motor will run at the preset RPM until the drive internal temperature increases above the minimum. The pump's internal thermal protection is disabled when connected to an automation system. Thermal protection is provided by selecting Freeze Protection ON in the pump circuit option in the IntelliCenter menu (see page 62). To re-enable the internal thermal protection, the power to the drive must be cycled off then back on.

Over Current: Indicates that the drive is overloaded or the motor has an electrical problem. The drive will restart 20 seconds after the over current condition clears.

Over Voltage: Indicates excessive supply voltage or an external water source is causing the pump and motor to rotate thereby generating an excessive voltage on the drives internal DC buss. The drive will restart 20 seconds after the over voltage condition clears.

IntelliFlo Pump Alarms and Warnings (Continued)



Internal Error: Indicates that the self-monitoring motor control software has encountered an error. Clear the alarm and restart the pump. If this alarm persists, contact Pentair Technical Service at 1-800-831-7133.

Speed Limit (Warning): The pump has detected that it has met the maximum allowed speed set in the Min/Max menu. The pump will continue to run, but it will not achieve the desired speed.

Pressure Limit (Warning): The pump has detected that it has met the maximum system pressure set in the Min/Max pump menu (and IntelliCenter menu, see page 62). The pump will continue to run, but it is not achieving the desired flow rate or speed because of the pressure limit. The feature is enabled by default while running a program at a constant flow rate, but must be enabled manually to monitor maximum pressure while running a constant speed program.

Flow Limit (Warning): The pump has detected that it has met the maximum flow rate set in the Min/Max menu. The pump will continue to run, but it is not achieving the desired speed because it is running at the maximum flow rate. The Maximum Flow can be set in the Max/Min menu. This feature must be enabled in the Min/Max menu to be active while running a speed program.

• **Freeze Protection:** When set to ON, the pump motor will run at a user defined speed.

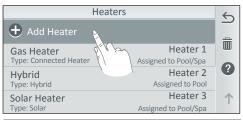
Note: The IntelliFlo pump's internal anti-freeze protection is disabled when connected to the automation control system. To re-enable the IntelliFlo pump's internal freeze protection, the power to the drive must be cycled off then back on. When active FREEZE PROTECT ACTIVE is displayed on the Home screen.

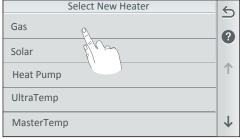
- **Blocked system:** Detects a blocked suction line. This alarm resets automatically after 30 seconds and the pump restarts.
- System service soon: Alerts the operator that the pump discharge pressure has reached the Clean Filter Pressure as setup in the Filter Menu. The filter status will be displayed as 100%. The green warning LED will be on until a backwash cycle is operated. The IntelliFlo pump will automatically reduce speed as necessary to not exceed the Clean Filter Pressure.

Note: The IntelliFlo VS pump alarm and warnings are indicated by flashing LEDs on the pump's control panel. For example, if a "Drive Temperature" warning occurs, the LED will blink two times, then Off, then blink two times. This sequence is repeated until the condition is cleared.

- **Warning condition:** If a warning condition occurs the pump will continue to run but at a reduced speed. The Green LED displays a sequence of blinks to indicate which alarm or warning has occurred.
- Alarm condition: If an alarm condition occurs the pump will stop running. The red LED flashes continuously to indicate the presence of an alarm. The alarm LEDs will reset when the condition clears.

Heaters (Gas) Add a Heater







Add Heater: Up to three heaters can be assigned. Only one gas heater for each body of water. For shared equipment; one gas heater (pool/spa).

Select Add Heater: Select: Gas, Solar, Heat Pump, UltraTemp, MasterTemp, Max-E-Therm and Hybrid (see page 76).

Gas Heater Settings: Heater Type: Displays the Heater Type selected.

Heater Name: Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen.

Affiliated Body: Assign the heater to a body of water: Pool, Spa or Pool/Spa (shared equipment).

Cool Down Delay (min): The Cool Down Delay can be set from 0 to 10 minutes (5 min. default). After the heater is turned off, this feature keeps the pump on to circulate water through the heater to avoid corrosion.

HEATER OFF: Pool/Spa System without a Heat Source: If the pool/spa system does not have a heat source installed, the Home screen and Pool and Spa screens will not display the Heating Set Point buttons. The Pool/Spa badge (Yellow, Blue, Green) displays the current water temperature.

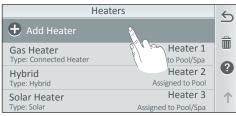


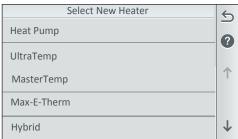


Heat Mode Off: No Heat Source Assigned.

HEATER CONNECTIONS: Note: iS5PS/i10D: Pool/Spa Heater Connections - It does not matter which body of water is connected to each heater connector. The heater on the main i5P board is for body 1(pool or spa), and the heater on the i10D board is for body 2 (pool or spa).

Heaters (MasterTemp & Max-E-Therm)







Add Heater: Tap Add Heater.
Select MasterTemp or Max-ETherm. Up to three heaters can be
assigned. Only one gas heater for each
body of water. For shared equipment;
one gas heater (pool/spa).

MasterTemp/Max-E- Therm Settings: Heater Type: Displays the Heater Type selected.

Heater Name: Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen.

Affiliated Body: Assign the heater to a body of water: Pool, Spa or Pool/Spa (shared equipment).

Heater Address: Select the heater address between 1-16.

Cool Down Delay (min): The gas heater Cool Down Delay (min) can be set from 0 to 10 minutes (5 min. default). After the heater is turned off, this feature keeps the pump on (up to 10 mins) to circulate water through the heater to avoid corrosion.

Connecting Multiple Heaters (RS-485 COM Port) (MasterTemp & Max-E-Therm):

MasterTemp or Max-E-Therm heaters can be wired to the IntelliCenter via a RS-485 connection. Up to 16 heaters can be connected. The default address of a heater is 1. If additional heaters are connected, each heater must have its own address. The address range is 1 to 16. The address for each heater is set from the heater's front LCD panel menus.

When a heater is being controlled via RS-485: The heater front panel buttons are inactive. Press a panel button to turn on the LCD display. "RS485 Control" is displayed. Heater Alarms/Errors are displayed on IntelliCenter's control panel(s) Status Home screen (see page 33). For more information, see page 5. The heater's 3-wire interface Fireman's switch is used to power the heater On/Off. The 3-wire interface must be disabled. To disable the 3-wire interface, place a shunt across pins 1 and 2 of JMP1 on the heater main circuit board. Note: The heater main circuit board is factory shipped with a shunt across pins 1 and 2 of JMP1.

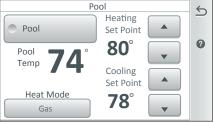
Note: For more information about connecting multiple heaters via RS-485, see the IntelliCenter Installation Guide (P/N 522989), and the MasterTemp (P/N 472592) and Max-E-Therm (P/N S794) Installation and User's Guide.

Solar (Nocturnal Heater Cool Down Delay)



For Solar and Heat Pumps: Use the Cooling Set Point temperature control buttons displayed on the Pool and/or Spa screen to adjust the nighttime temperature of the pool/spa water.





Heaters (Solar Heating)



Solar Heater Settings:

Heater Type: Displays the Heater Type selected.

Heater Name: Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen.

Affiliated Body: Assign the heater to a body of water: Pool, Spa or Pool/Spa.

Start Temp. Delta: The minimum temperature difference to start heating. The temperature range is adjustable from 3° - 9° . Factory default is 6.

Stop Temp. Delta: The temperature difference at which heating will stop. The temperature range is adjustable from 2° - 5° . Factory default is 3.

Solar Nocturnal Cooling ON/OFF: ON: Provides automatic nocturnal (nighttime) cooling during night time hours for pools that overheat in hot climates. When enabled, circulates pool water to the collector panels when the solar sensor temperature and the pool temperature is hotter than the high limit setting. This process cools the pool water over time. Circulation will stop when the solar sensor temperature is 3 degrees (default) less than the pool temperature or the pool temperature is cooler than the high limit setting. OFF: SOLAR nocturnal (nighttime) cooling disabled.

Note: Valves A & B and Solar Heating: For Single Body systems, Valve A is used for SOLAR if you choose the Solar Heater. For Dual Body systems, Valve B is used for SOLAR if you choose the Solar Heater.

Heaters (Solar Heating)

Solar Heating: Effective solar heat depends on the solar and water temperature and the start and stop differentials, When solar is available, then the system will rotate the 3-Way Valve and turn on the solar booster pump if applicable or increase the RPM if an IntelliFlo Pump is present. This allows the water to flow to the solar collectors. If a pressure cleaner pump is installed, the cleaner pump will turn off for 10 minutes every time solar turns 0N. The solar roof sensor must be 6° higher (based on Start/Stop Temp. Delta) than the water temperature. The pump must be 0N for a few minutes for operation. When the roof sensor and the water temperature are within 3° of each other (based on Start/Stop Temp. Delta), solar heat will switch off. The solar temperature start and stop differential settings are factory at 6° and 3° . These differential settings are adjustable. Refer to your solar service professional for the optimum setting. Changing the differentials could result in the system not working properly.

Heating: Heating will start when the Start differential condition is met and the water temperature is below the target temp. When these conditions are satisfied heating is turned ON. Example: Water Temperature is 75°F; The target temperature is 82°F. When the roof solar collectors temperature exceeds the water temperature by 6° Start Temp Delta (81°F), the solar valve rotates. If a solar booster pump is required, this pump will turn on.

Heaters (Heat Pump)



Heat Pump Settings:

Heater Type: Displays the Heater Type selected.

Heater Name: Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen. Affiliated Body: Assign the heater to a body of water: Pool, Spa or Pool/Spa.

Heaters (UltraTemp)



UltraTemp Settings:

Heater Type: Displays the Heater Type

selected.

Heater Name: Tap the heater name button to change the heater name. Enter the new name and tap Check to save the name and return to the previous screen. **Affiliated Body:** Assign the heater to a body of water: Pool, Spa or Pool/Spa.

Heater Address (1-16): Assign the UltraTemp heat pump address.

Cooling Enabled (UltraTemp only): On/Off: **On:** Provides cooling for pools that overheat in hot climates. When enabled, circulates pool water through the exchanger and draws heat from the water and expels it through the fan.

UltraTemp Heat and Cool Mode: Heat Mode Temp: This is the set temperature when in Heat Mode. **Cool Mode Temp:** This is the set temperature when in Cool Mode.

Heaters (Heat Pump & UltraTemp)

Heaters (ETi Hybrid Heater)



Hybrid Heater Settings:

Heater Type: Displays the Heater Type selected (Hybrid).

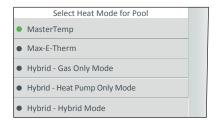
Heater Name (Hybrid): Tap the heater name button to change the heater name.

Affiliated Body: Assign the heater to a body of water: Pool, Spa or Pool/Spa.

Heater Address (1–16): Assign the Hybrid heater address.

Boost Temperature (From 5 to 10 degrees): Only active in Hybrid Mode. Use this feature if the unit is unable to heat incoming low temperature water to the active set point. When the difference between the actual incoming water temperature and the active set point exceeds a set amount, the gas heater will turn on to provide supplemental heat. The Boost Temp setting is the difference between incoming water temperature and the active set point which will activate the gas heater. Both the Pool Set Point and Spa Set Point have an individual Boost Temperature setting.

Eco-Time: Only active in Hybrid Mode. Use this feature if the unit is unable to heat incoming water to the active set point within a specific period of time, then the gas heater will turn on to provide supplemental heat. Eco-Time is the time the heat pump will attempt to heat to the active set point before the gas heater activates to provide supplemental heat. Both the Pool Set Point and Spa Set Point have an individual Eco-Time setting.



Heat Mode:

Heat Pump Only: Uses only the Heat Pump side during calls for heating.

Hybrid - Gas Only Mode: Use only the Gas Heater side during calls for heating.

Hybrid - Hybrid Mode: Uses Gas and/or Heat Pump depending on conditions during calls for heating, and will automatically switch between the two.

Hybrid - Dual Mode: Heat Pump and Gas Heater will run in tandem during calls for heating. Provides fastest possible heat ups.

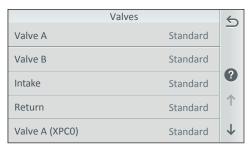
Installation [Valves]

Valve Actuators Circuit Assignments: IntelliCenter can control up to four automatic valve actuators (for shared equipment). An additional six valves can be added with Valve Expansion Cards. Two of the valve outputs are dedicated to the pool/spa intake (INTAKE) and return (RETURN) valves. Valve A or Valve B actuators are for general purpose use (solar, water-feature, in-floor cleaner, etc.). Note: For a Floor Cleaner to operate properly, the Floor Cleaner circuit must be assigned to Valve A (Shared Equipment) and to either Valve A or Valve B (Dual Equipment).

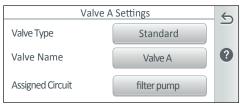
Valve A may not be used with any other circuit when Solar is selected as a heat source. Note: When using solar heat, note that for shared equipment pool and spa combination, Valve A is always used for solar. For dual body dual equipment, Valve A is for pool, and Valve B for spa.

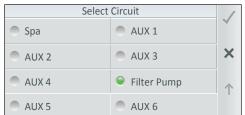
Also see Valve Delays: For Valve delay and Heater Cool Down settings and Freeze Cycle Time, **see Settings > Advanced System Configuration > Delays on page 88.**

For Pool and Spa Shared Equipment: Return valve actuator (pool), Spa Return. Intake Valve Actuator (Pool Drain/Skimmer, Vacuum Line, Spa Drain/Skimmer).



Valves A & B and Solar Heating: For Single Body systems, Valve A is used for SOLAR if you choose SOLAR heating. For Dual Body systems, Valve B is used for SOLAR if you choose SOLAR HEATER.





VALVE A Settings: Standard (2-Way/3-Way). For Single Body systems, Valve A is used for SOLAR if you choose SOLAR HEATER. Valve A is displayed if additional valve circuits are available.

Valve Name: Tap Valve A name to change the valve name.

Assigned Circuit: Assign the Pool circuit for VALVE A.

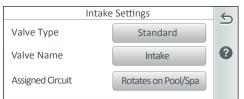
VALVE B Settings: Standard (2-Way/3-Way). For Single Body systems, Valve B is used for SOLAR if you choose SOLAR HEATER. Valve B is displayed if additional valve circuits are available.

Valve Name: Tap Valve B name to change the valve name.

Assign Circuit: Assign the Spa circuit for VALVE B.

Installation [Valves]

Valves: Intake and Return





Intake Settings:

Valve Type: Standard (2-Way/3-Way).

Valve Name: Intake (predefined function/name) cannot be changed.

Assigned Circuit: Assign to the intake line valve that rotates between the pool and spa to circulate water.



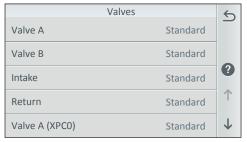
Return Settings:

Valve Type: Standard (2-Way/3-Way).

Valve Name: Return (predefined function/name) cannot be changed.

Assigned Circuit: Assign to the return line valve that rotates between the pool and spa to circulate water.

Optional Expansion Valve A(XPCO) / Valve B(XPCO)



Additional Valve Circuits: Optional Personality Card can provide additional valve circuits that will be displayed on the Valve screen as Valve A (XPCO) and Valve B (XPCO) depending on the system model. See page 110 for more about IntelliCenter models.

Configuring Valve Actuators (Controlled by AUX or Feature Circuit)

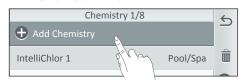
IntelliCenter can control two auxiliary valve actuators (A and B) for applications such as solar heating and water features. With the addition of the Valve Expansion Card, the system can accommodate up to six additional actuators (C, D, E, F, G, H) for a total of eight actuators.

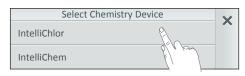
Before configuring auxiliary valve actuators, first assign names to the AUX or FEATURE circuits. Auxiliary valve actuators can be controlled by any AUX circuit or Feature circuit. By using FEATURE circuits to control valve actuators, you can conserve your AUX circuits for high voltage relays for controlling pumps and lights. You can also use a FEATURE CIRCUITS to couple valve actuators with AUX circuits for specific applications.

Chemistry [IntelliChlor SCG and IntelliChem Installation]

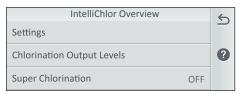
From the Chemistry screen you can configure one IntelliChlor SCG and one IntelliChem Controller.

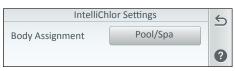


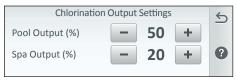














IntelliChem Settings		5
Address	1	
Body 1	Pool	?
Body 2	Spa	

Add IntelliChlor and/or IntelliChem: Tap Chemistry on the Home screen. Tap Add Chemistry. Select one IntelliChlor SCG and address up to four (4) IntelliChem Controllers on the Select Chemistry Device screen.

IntelliChlor SCG Settings: For dual body systems, each device is assigned to pool/spa. For single body systems, select either Body 1(pool), Body 2 (Spa).

Chlorination Output Levels: Set the Pool and Spa chlorine output levels. The system can only generate chlorine while the filter pump is operating. Set the percentage to produce chlorine. The Spa outputs 1/20 of the pool output when the Spa mode is switched on.

Note: If using the Filter Pump Relay select Filter Pump Relay and Tap Next. Choose either the Pool or Spa Relay and can set the chlorination output levels and turn Super Chlorination On/Off. Tap the Back arrow to return to the previous screen and Tap Next.

Super Chlorination (1 to 96 hrs.) (ON): Tap the Start Super Chlorination button to temporarily override the current chlorination output levels with super chlorination (100% output for the selected time, typically 24 hours).

IntelliChem Settings:

Address (1-4): Select an address from 1-4 for the IntelliChem Controller. Up to four controllers can be connected to the IntelliCenter.

Body Assignment: For dual body systems, the device is assigned to pool/spa. For single body systems, select either Body 1 (pool), Body 2 (Spa).

(*) Show/Hide IntelliChem Badge on Home Screen: Go to Settings > General > Chemistry Readings Badge to show pH and ORP readings (set to ON or OFF).

Installation (Pool and Spa Cover)

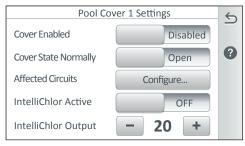


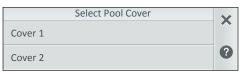
From the Installation Setup screen, tap Pool and Spa Cover to display the Pool and Spa Cover Select screen. IntelliCenter can support two covers, one for each body of water.

From the Pool/Spa Cover settings, select which circuits to switch OFF and ON when the pool or spa cover is closed or open.

Pool or Spa Cover Position: "OPEN" or "COVERED" is displayed to indicate the current position of the cover.

POOL COVER SETTINGS





Cover Enabled: Enable or Disable cover. **Cover State Normally:** Select either Closed or Open for the state that the pool or spa cover is usually in.

Affected Circuits: Select the circuits that will switch OFF/ON when the cover is closed or open. Tap Check to save and return to the Settings screen.

IntelliChlor Active (0-40): Select ON to switch the IntelliChlor SCG circuit OFF when the pool or spa cover is closed.

IntelliChlor Output: Set the IntelliChlor chlorine output from 0 to 50 % while the cover is closed.

iS4 Remote [Advanced System Configuration]





To configure a iS4 remote, tap + Add Remote and choose iS4 from the Select New Remote screen.

iS4 SETTINGS



Remote Type: Remote Type is assigned as iS10.

Remote Name: Enter a name and tap Check to save.

Affiliated Body: Select Spa or Pool and tap Return to save.

Affiliated Pump: Select the pump circuit assigned to the iS4 remote. Tap Check to save.

Enable Remote: Turn the remote ON or OFF.

Body: The remote is assigned to Spa. To reassign to a different body of water see page 53.

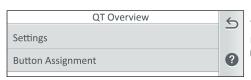
BUTTON ASSIGNMENTS (1-4)



Button Assignment: Tap Button 1, then the *Unassigned* button to choose a button function. Repeat for buttons 2-4 as necessary. The available AUX circuits displayed are assigned in the Circuits option screen (page 56).

QuickTouch (QT) Remote [Advanced System Configuration]





To configure a QuickTouch II remote, tap + Add Remote and choose QT from the Select New Remote screen.

QUICKTOUCH SETTINGS



Remote Type: Remote Type is assigned as OT.

Remote Name: Enter a name and tap Check to save.

Affiliated Body: Select Spa or Pool and tap Return to save.

Affiliated Pump: Select the pump circuit assigned to the QT remote. Tap Check to save.

Enable Remote: Turn the remote ON or OFF.

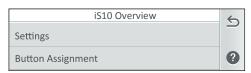
BUTTON ASSIGNMENTS (1-4)



Button Assignment: Tap Button 1, then the *Unassigned* button to choose a button function. Repeat for buttons 2-4 as necessary. The available AUX circuits displayed are assigned in the Circuits option screen (page 56).

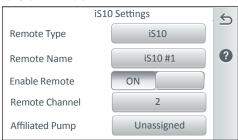
iS10 Remote [Advanced System Configuration]

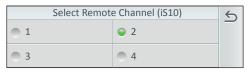




To configure a iS10 remote, tap + Add Remote and choose iS10 from the Select New Remote screen.

iS10 SETTINGS





Remote Type: Remote Type is assigned as iS10.

Remote Name: Enter a name and tap Check to save.

Enable Remote: Turn the remote ON or OFF

Remote Channel: Select a communication address (1, 2, 3 or 4). The assigned channel will be used to communicate to multiple remotes or to operate individual remotes separately.

Affiliated Pump: Select the pump circuit assigned to the QT remote. Tap Check to save.

Body: The remote is assigned to Spa. To reassign to a different body of water see page 53.

BUTTON ASSIGNMENTS (1-10)

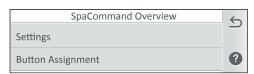


Button Assignment: Tap Button 1, then the *Unassigned* button to choose a button function. Repeat for buttons 2-10 as necessary. The available AUX circuits displayed are assigned in the Circuits option screen (*page 56*).

Address Mode ON/OFF: Enable or disable a Remote Channel (1-4).

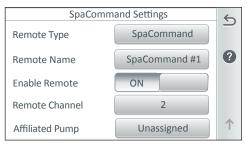
SpaCommand Remote [Advanced System Configuration]





To configure a SpaCommand remote, tap + Add Remote and choose SpaCommand from the Select New Remote screen.

SPACOMMAND SETTINGS



Select Remote Channel (SpaCommand)		4
◎ 1	2	
3	4	

Remote Type: Remote Type is assigned as SpaCommand.

Remote Name: Enter a name and tap Check to save.

Enable Remote: Turn the remote ON or

OFF.

Remote Channel: Select a communication address (1, 2, 3 or 4). The assigned channel will be used to communicate to multiple remotes or to operate individual remotes separately.

Affiliated Pump: Select the pump circuit assigned to the remote. Tap Check to save.

Body: The remote is assigned to Spa. To reassign to a different body of water see page 53.

BUTTON ASSIGNMENTS (1-10)



Button Assignment: Tap Button 1, then the *Unassigned* button to choose a button function. Repeat for buttons 2-10 as necessary. The available AUX circuits displayed are assigned in the Circuits option screen (*page 56*).

Address Mode ON/OFF: Enable or disable a Remote Channel (1-4).

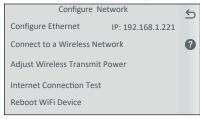
Network and WiFi Setup [Advanced System Configuration]



- At the IntelliCenter Home Screen, tap the Settings Icon () at the bottom right of the screen.
- Scroll to and tap Advanced System Configuration.
- 3. Scroll to and tap Network and WiFi Setup.



Network and WiFi Setup Home Screen



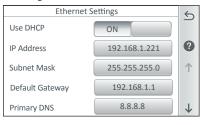
Configure Ethernet: Used to configure a 900 MHz Wireless Link Kit or direct Ethernet connection. Refer to *Configure Ethernet* below.

Connect to a Wireless Network: Used to configure a WiFi Bridge and Antenna connection. Refer to *Connect to a Wireless Network, page 86.*

Adjust Wireless Transmit Power: Wireless antenna transmit strength is no longer adjustable.

Internet Connection Test: Test the strength of the Internet connection between IntelliCenter and the paired WiFi router.

Configure Ethernet





Scan the QR code for a brief instructional video regarding configuring a 900 MHz Wireless Connection

Use DHCP:

- **ON (Default):** IntelliCenter automatically determines the IP address and automatically fills in the remaining information.
- **OFF:** Network information must be entered manually.

IP address: The IP Address assigned to IntelliCenter.

Subnet Mask: 255,255,255.0

Default Gateway: Obtained automatically if using DHCP. If not, it must be manually entered.

Primary DNS: Server should be provided by the Internet Service Provider.

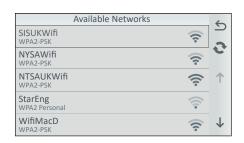
Secondary DNS: A primary DNS server should be configured for a zone, but you may have multiple secondary servers. Both primary and secondary servers provide the same data.

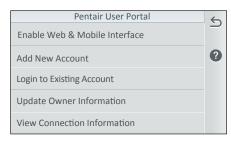
Network and WiFi Setup [Advanced System Configuration]



Connect to a Wireless Network

- At the Network and WiFi Setup Home screen, tap Connect to a Wireless Network.
- Select the desired network. If you do not see the network, tap the Refresh Icon ().
- 3. Enter the network password.
- Return to the Network and WiFi Setup Home Screen and tap Internet Connection Test.
- From the IntelliCenter Home Screen, tap the Settings Icon (*) at the bottom right.
- 6. Tap Pentair User Portal.
- 7. Tap Enable Web and Mobile Interface and toggle to ON.





Wireless Remote Setup [Advanced System Configuration]

The IntelliCenter Wireless Remote Kit (P/N 522036) includes a Wireless antenna which connects to an RS-485 port on the Outdoor Control Panel circuit board located in the load center.

Note: Modifications made at the Outdoor or Indoor Control Panels and Wireless Remote automatically synced.





Address: Display the current wireless channel being used. **For most operations address 15 is the default address.** If you should need to change the address, tap the Address button to access the Select Wireless Channel screen and select a different channel from 12 through 25. The unique wireless address communicates to the wireless transceiver located at the IntelliCenter load center.

Panel #: Tap this button to select which Wireless Panel to transmit from. Select either Wireless Panel #1 or Wireless Panel #2.

Update FW: Tap Update FW to update the firmware. Abort FW Update to abort the update.

Radio Firmware Mode: Displays the current firmware version of the wireless remote.

Note: The Wireless Remote signal strength and battery icon are displayed on the Home screen.

Delays [Advanced System Configuration]

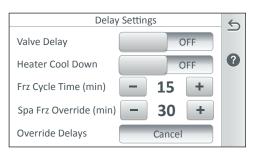
Delay Settings

Valve Delay ON or OFF (Pool/Spa):

ON: Pool/Spa pump is off (1 minute) during the delay for pool/spa valve rotation.

OFF: No valve delay for Pool/Spa rotation.

Heater Cool Down Delay ON or OFF (Cancel Delay): Some heaters require



a cool-down cycle before being turned off. This can be accomplished with a setup procedure in the IntelliCenter which runs the filter pump an additional 5 minutes to dissipate residual heat built up inside the heater combustion chamber. The delay feature is mainly for use by service technicians to shut the filter pump off immediately, and know the heater has not been running.

ON: Activate the pump during a heater cool down.

Pump on during heater cool-down: Select this option if you have a heater or other equipment that requires that the filter pump stay on for ten minutes after the equipment goes off.

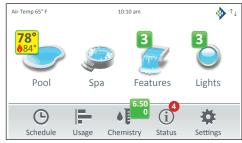
OFF: Heater cool down delay cancel: Shuts OFF the filter pump immediately.

Freeze Cycle Time (min): Set the freeze protection time from 5 to 60 minutes to run the pump during freezing temperatures. Default time is 5 minutes. When active, "FREEZE PROTECT ACTIVE" is displayed on the Home screen.

Spa Freeze Override Time (min): Set the Spa pump freeze override time from 0 to 240 (mins. - 4 hours). This feature overrides the spa pump circuit that has freeze protection active. This allows you run the pump and heat the spa during freezing temperatures. For more information about using the spa during freeze conditions, see page 12.

Override Delays: Tap this button to override (cancel) any system delays currently in progress. A Yellow badge displayed on the Home screen indicates a Valve delay is in progress.

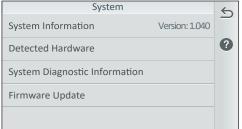
Delay Badge (Yellow): A Yellow badge displayed on the Home screen Pool/Spa icon indicates a Valve rotation (delay) is in progress.



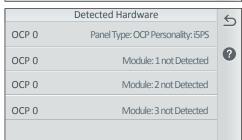
System [Advanced System Configuration]

System: Displays the system firmware version: Version 1.010. Tap System Information to display MAC Address, Serial Number, Manufacturer Date, Firmware Version, IP Address and Release Notes.

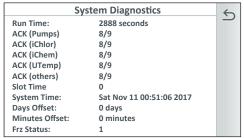
Release Note: Information about the current system firmware release.







Detected Hardware: Displays the IntelliCenter Panel Type OCP and Personality Card installed): Panel type, and model type (installed Personality Card(s), optional modules). Tap Detected Hardware, then OCP 0 information bar to display installed hardware information.



System Diagnostic Information:

Displays the IntelliCenter diagnostic information.



Check for Update: Tap this button to check for the latest firmware version.

Update from USB: Tap this button to display the **Select Firmware File for Update** screen. Using the Up/Down arrows, locate the Update file (.pfw). Tap the file name to begin the update.

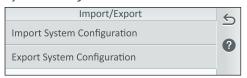
Update from Panel: Tap this button to update the update the current firmware to a newer or earlier version from a USB device installed in the Outdoor Control Panel, Indoor Control Panel, Wireless Remote.

Over-The-Air (OTA) Software Updates

(From software version 1.047) See page 106 for detail about automatic software updates.

Import/Export [Advanced System Configuration]

Import/Export System Setup Configuration: Use this feature to import or export a system configuration.



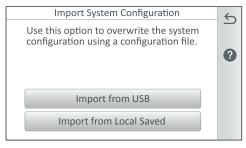
To access the Import/Export screen, tap Settings > Advanced System Configuration > Import/Export.

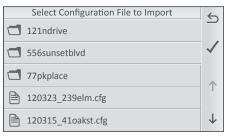
Note: Once a USB device is detected, a USB icon is displayed on the upper right corner of the screen.

Import System Configuration: Import from USB, or Import from Local Saved. This option will overwrite the system configuration using a configuration file. Navigate to the appropriate folder and select the Configuration file (.cfg) to import.

Import for USB: Insert a USB device into the USB Port on the front of the IntelliCenter Control Panel or the Wireless Remote. Tap **Import from USB** and navigate to the system configuration file .cfg). Follow the on screen instructions to import the system configuration files.

Import to Local: Tap **Import from Local** and follow on screen instructions.





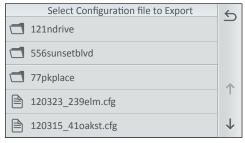


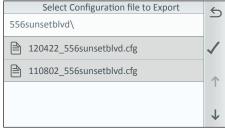
Import/Export [Advanced System Configuration]

Export System Configuration: Export from USB or local. Use this feature to export the system configuration file to a USB device. Select a location for the Configuration file (.cfg) and follow the screen prompts.



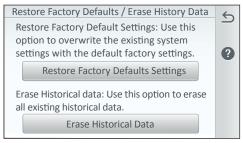






Restore Factory Defaults [Advanced System Configuration]

Restore Factory Defaults: Use this feature to overwrite the IntelliCenter configuration with the default factory configuration settings. Tap Settings > Advanced System Configuration > Restore Factory Defaults.



Restore Factory Default Settings:

Tap this button to display the next message screen.

YES: Proceed to overwrite the current system configuration with the factory default settings. *Note: ALL current settings will be lost*.

NO: Tap No to exit this screen and return to the previous screen.



Erase Historical Data:

Tap this button to display the next message screen.

YES: Proceed to erase all historical data.

NO: Tap No to exit this screen and return to the previous screen.

Expansion Panel: Restore Factory Default Settings:

Tap this button to display the next message screen.

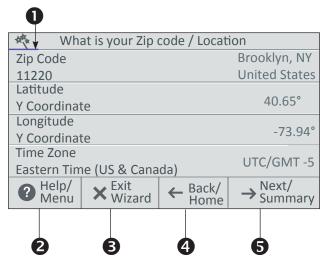
YES: Proceed to overwrite the current system configuration with the factory default settings. **Note:** Only Backlight, Times and Theme settings will be erased from this panel. All other settings will be automatically synced to the Outdoor Control Panel.

NO: Tap No to exit this screen and return to the previous screen.

About the Setup Wizard: The IntelliCenter Setup Wizard provides step-by-step screens to assist in setting up the pool/spa equipment. To complete the Setup Wizard can take about 10 minutes. If you are unsure how to configure a setting, skip that setting or tap and hold the Help button to display the MAIN MENU and select another item and continue with the setup. You can always skip a configuration and go back to the Wizard Setup later to change or edit a configuration setting. After the successful completion of the Configuration Wizard, you can edit any individual option and save the final configuration or exit without saving.

Setup Wizard Screen Navigation:

While in the Configuration Wizard, if a power outage occurs or the screen times out, the system will display the Home Screen. Any changes made in the Wizard up to that occurrence will be saved.



- PROGRESS BAR INDICATOR: The Blue Configuration Wizard progress bar indicates how many options have been completed.
- 2 HELP/MENU:

Help: Tap this button to display brief informative information for the current screen.

Menu: Tap hold and release to display the Wizard Setup Main Menu items. From this screen you can select which item to configure during the Wizard setup.

Continue to next page.

Setup Wizard Screen Navigation



Wizard Main Menu **Aux Circuits Feature Circuits** Valves **Pumps** Heaters Remotes Schedules Date/Time Chemistry Location Zip Import Export × Exit Wizard → Summary Page Start ← Back Page

Help Screen/Main Menu Button: From any Wizard Setup screen, tap Help/Menu to display the Help screen. Tap the Main Menu button to display the Wizard Main Menu.

Main Menu: Tap the Main Menu button in the top-right of the Help screen to display the Main Menu. Tap and hold the Help/Menu button on any Setup Wizard screen to display the Main Menu.

Start Page: Return to the Wizard

"Welcome" screen.

Exit Wizard: Display the Exit Wizard screen (see description below).

Back: Return to the previous screen.

Summary Page: Go to the Summary

screen.

3 EXIT WIZARD: Tap the Exit Wizard button to display the Exit Wizard screen:

NO: Remain in the Setup Wizard and return to previous Wizard screen and continue with the Setup Wizard configuration.

YES: Save any changes made up to this point, exit the Setup Wizard and return to the Advanced System.

DISCARD: Discard all changes and exit the Setup Wizard.



- **BACK/HOME:** Tap to return to the previous screen. Tap and hold and release to return to the Wizard Setup first "Welcome" screen.
- (5) NEXT/SUMMARY: Tap this button to proceed to the next Wizard Setup screen or item setting. Tap and hold and release to display the Summary screen (last Wizard Setup screen). Example: Before each Wizard configuration screen a YES/NO option screen is displayed. Tap YES then NEXT to enter the item configuration screen. Tap NO then NEXT to continue to the next option.

Initial System Power Up

First Time Setup: After all pool/spa equipment has been connected to IntelliCenter, apply power to the system at the main panel circuit breaker. Upon the initial system power up, the outdoor LCD control panel will display the PENTAIR END USER LICENSE AGREEMENT. After reading the agreement and tapping I Accept, the Home screen will display.

Setup Wizard (First Time Setup): To start the Setup Wizard for the first time, from the Home screen, tap **Settings > Advanced System Configuration > Wizard**.

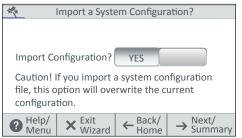


IntelliCenter Setup Wizard: The first Setup Wizard configuration screen, Displays the current system firmware version.

Help/Menu: Tap to display Help text. Tap and hold to display the MAIN MENU options.

Exit Wizard: Tap to exit the Setup Wizard and return to the Home screen.

Next: Tap Next to continue the Setup Wizard and display the Detected Hardware screen.



Import System Configuration:

Yes: Use this option to Import a system configuration file (.CFG) from a USB device plugged into the USB Port on the front of the IntelliCenter control panel. **Note:** This option will overwrite the

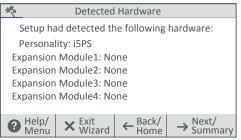
current system configuration.

No: Tap **No** then **Next** to continue with the Setup Wizard.

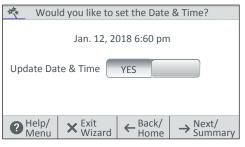
Continue to next page.

Import for USB: Insert a USB device into the USB Port on the IntelliCenter control panel. Tap **Import from USB** and navigate to the system configuration file (.CFG). Follow the on screen instructions to import the system configuration files plugged into the USB Port on the Outdoor or Indoor control panel.

Local or Copy from Remote: These options will overwrite the system configuration using a configuration file. Navigate to the appropriate folder and select the Configuration file (.cfg) to import. For more information, see page 90.







Detected Hardware: Displays the installed IntelliCenter personality card and Expansion Cards (if applicable).

Next: Tap Next to continue to the **Zip Code / Location settings screen.**

Back/Home: Tap Back to go to the previous screen. Tap hold and release to the first Wizard screen.

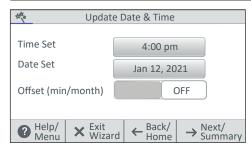
Exit Wizard: Tap this button to exit the Setup Wizard and display the exit options (No, Yes, Discard).

Update date & Time: Tap Yes and Next to update the system date and time.

Clock Mode: Select either 12 hour or 24 hour mode.

Daylight Saving Time: Select ON to automatically set the yearly daylight saving time for your location. Select NO to manually change the daylight savings time for your location.

Zip Code / Location Screen: After the IntelliCenter has verified the login information successfully, the Location screen is displayed. Tap any setting to update the location information. See page 40.

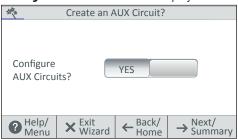


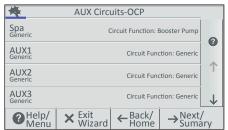
Time Set: Tap the Time Set button and set the current time for your location. Tap Check to save and return to the previous page.

Date Set: Tap the Date Set button and set the current date. Tap Check to save and return to the previous page.

Offset (min/month: Select ON to offset the current time (minutes) and month.

Configure AUX CIRCUITS: Setup system AUX circuits.





Create AUX Circuit: Tap Yes then **Next** to configure an AUX Circuits. Tap **No** then **Next** to continue to Configure Feature Circuits.

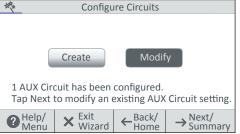
Select an AUX Circuit: Tap on an AUX Circuit name. From the next screen configure the AUX settings:

Circuit Function: Select the Circuit Function.

Circuit Name: Select a Circuit name from the pre-defined list of custom circuits names, then tap Check to save and return to the previous screen. **Note: For a complete list of Circuit Names see page 61.**

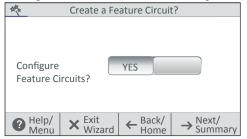
Visible in Features: Yes/No. Select Yes to display the selected circuits in the Feature screen on Home screen.

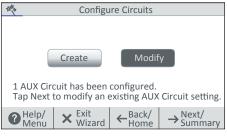
Egg Timer: Select ON to select a manual time-out of 0-12 hours for this circuit. The Egg Time is a specified time delay (hrs/mins) for the circuit, once it is turned on. **Freeze Protection:** Assign freeze protection for this circuit. **See page 56 for details.**



Create / Modify: Tap Next after the first AUX Circuit has been configured. The Configure Circuits screen is displayed. Select either Create or Modify to create a new circuit or modify an existing AUX Circuit. After you have configured all of the available AUX Circuits, tap Next to continue to Feature Circuits.

Configure Feature Circuit(s)?: Configure Feature circuits (a total of 32).





Create / Modify: Tap **Next** after the first AUX Circuit has been configured. The Configure Circuits screen is displayed. Select either **Create** or **Modify** to create a new circuit or modify an existing AUX Circuit. After you have configured all of the available AUX Circuits, tap **Next** to continue to Configure Valves.

Create Feature Circuit: Tap **Yes** then **Next** to configure Feature Circuits. Tap **No** then **Next** to continue to Configure Feature Circuits.

Select a Circuit Function: Tap on either Generic or Spillway for the circuit function. From the next screen configure the Feature Circuit settings:

Circuit Function: Select either Generic or Spillway. Tap Next to continue.

Circuit Name and Type: Select a Circuit name from the pre-defined list of custom circuits names, then tap Check to save and return to the previous screen. **Note:** For a complete list of Circuit Names see page 61.

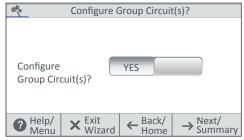
Visible in Features: Yes/No. Select Yes to display the selected circuits in the Feature screen on Home screen. **Tap Next to continue.**

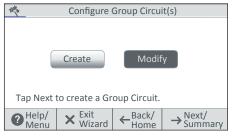
Egg Timer: Select ON to select a manual time-out of 0-12 hours for this circuit. The Egg Time is a specified time delay (hrs/mins) for the circuit, once it is turned on.

Freeze Protection: Assign freeze protection for this circuit. **See page 59 for** details.

Add Feature Circuit: Add more Feature Circuits. Tap Next to continue to Configure Group Circuit(s)?

Configure Group Circuit(s)? Configure Group Circuits.





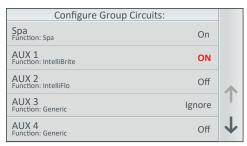
Configure Group Circuit(s)? Select YES or No to continue to Configure Valve(s). The Configure Group Circuit(s) page displays. Select either **Create** or **Modify** to create a new group of circuits or modify an existing group of circuits. After you have configured circuit groups, tap **Next** to continue to Configure Valves. Continue to next page.



Select Group Circuit Type: Select Circuit Group. Tap **Next** to display the Group Circuit Settings page.



Circuit Group Settings: Tap Group Name and enter a name for the circuit group. **Configure Circuits:** Tap to display the available circuits to include in this group.

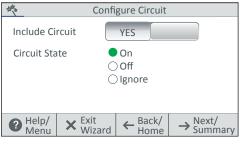


Configure Circuits: Tap the name of the circuit to include in this group.

Include Circuit: Select Yes (or No not to include this circuit in this group). The Circuit State ON/OFF/IGNORE displays. ON: Turn On this circuit in this group.

OFF: Turn OFF this circuit in this group IGNORE: Include this circuit in the group regardless of the On/Off state. No change to the state of this circuit in this group. If On, Off or Ignore is indicated in ORANGE for a circuit, this indicates a possible schedule time overlap could occur. In this case, the last schedule created will take effect. Tap a circuit name to change the current state.

Tap Next to return to the Configure Group Circuits page. Continue to add



Tap Next to display the Circuit Group Settings page.

circuits to this group as described

Tap Next to display the Groups page to add another group of circuits or add a LIGHTS circuits group. See next page for LIGHTS circuit groups.



Egg Timer: Tap the Egg Timer button to display the Hours and Minutes button. Tap the Hours and Minutes button to select a manual time-out for the circuit. The Egg Timer is a specified time delay (hrs/mins) for the circuit, once it is turned on manually. **Don't**

above.

Stop: Tap the Hours button until 23 hours is displayed, then tap the button again to display **Do Not Stop**. The Do Not Stop feature will continuously run the circuit until the it is manually turned off.





Select Group Circuit Type: Select Light Group. Tap **Next** to display the Group Circuit Settings page.

Light Circuit Group Settings: Tap Group **Name** and enter a name for the lights circuit group.

Configure Circuits: Tap to display the available circuits to include in this group.

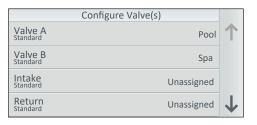
Configure Circuits: Tap the name of the circuit to include in this group.

Include Circuit: Select Yes (or No not to include this circuit in this group).
Tap Next to twice to continue to Configure Valve(s).

VALVES

Configure Valves: Tap Yes then Next to configure a new valve type. Tap No then Next to continue to Configure IntelliChlor SCG. See Valve Circuits on page 77.

Intake (standard), Return (standard): To change the valve name, tap Intake or Return. Tap Valve name, enter the new valve name then tap Check to save and return to the previous screen.



Valve A and Valve B: If the optional Valve Module installed, Valve A and Valve B are displayed. To change the valve name, and assign a circuit to Valve A and Valve B, tap Valve A or Valve B on this screen.

Valve Name: To change the valve name, tap Intake or Return. Tap Valve name, enter the new valve name then tap Check to save and return to the previous screen.

Assigned Circuit for Valve A or Valve B: Tap *unassigned*, and select an AUX circuit for the valve. Tap Check to return to the previous screen. Tap Valve name, enter the new valve name then tap Check to save and return to the previous screen.

PUMPS

Tap Yes then **Next** to configure a new pump (Tap **No** then **Next** to continue to Configure Heaters. **See Pump Settings on page 62.**

Create: Tap **Create** then **Next** to select a new pump type (Single Speed, Dual Speed, IntelliFlo VS, IntelliFlo VF and IntelliFlo VSF) and configure the selected pump settings.

Modify: Tap **Modify then Next** to display the list of configured pumps. Tap New Pump to add a pump. From this screen you can add or delete pumps from the list. When finished with setting up pump settings, tap **Next** to continue to the Configure Heaters screen.

PUMPS

Select a new pump type (Single Speed, Dual Speed, IntelliFlo VS, IntelliFlo VF and IntelliFlo VSF) and configure the selected pump settings. Tap Next to continue.

Settings: Pump Type: Displays the pump

model. Pump Name: Tap to

select a custom name for the pump.

Pump Address: Select the pump address

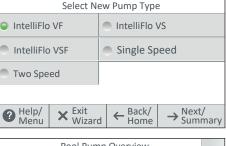
from 1-16.

Speed Circuits: Tap Speed Circuits to assign a new speed circuit. Tap New Speed Circuit and select an AUX Circuits. Circuit: Assigned circuit name (Pool).

Speed (RPM or GPM): Set speed from 450-1350 RPM.

IntelliFlo VF Settings: Tap Settings: Pump Type (select a different type of pump), Pump Name (enter a name for the pump), Pump Address (select an address

for the pump). Tap Back twice. Tap Flow Circuits.





Tap New Flow Circuits (to change the pump circuit). Flow (GPM): Tap the -/+ button to set the flow rate. Tap Next twice to add another pump or tap Next twice to configure a heater.

IntelliFlo VS Settings: Tap Settings: Pump Type (select a different type of pump), Pump Name (enter a name for the pump), Pump Address: select an address for the pump (1-16). Tap Back twice. Tap Speed Circuits.

Tap Speed Circuits. Tap New Speed Circuits (to change the pump circuit). Speed (RPM): Tap the -/+ button to set the pump speed (450-3450 RPM). Tap Next three times to configure a heater.

IntelliFlo VSF Settings: Tap Settings: Pump Type (select a different type of pump), Pump Name (enter a name for the pump), Pump Address (select an address for the pump). Tap Back twice. Tap Speed/Flow Circuits.

Tap New Speed/Flow Circuits (to change the pump circuit).

Type: GPM/RPM): Select either GPM or RPM. Tap the -/+ button to set the speed (RPM) or Flow Rate (GPM). Tap Next twice to add another pump or tap Next twice to configure a heater.

Single Speed Pump Settings: Pump Type (select a different type of pump), Pump Name, and Body (pool, spa or pool/spa). Tap Return then Next to continue and add another pump or tap No twice to configure a heater.

Two Speed Pump Settings: Tap Settings: Pump Type (select a different type of pump), Pump Name, Low Speed Circuit and High Speed Circuits. Select a circuit for the low speed and the high speed. You can choose up to (4) four high speed circuits.

HEATERS

Tap Yes then Next to configure a new heater (Tap No then Next to continue to Configure Pumps).

Create (Maximum of three heaters (pool/spa (shared equipment), pool only and spa only): Tap Create then Next to select a new heat source type (Gas, Solar, Heat Pump, UltraTemp MasterTemp, Max-E-Temp and Hybrid) and configure the selected heat source settings.

Heater Name: Enter a name for the heater.

Affiliated Body: Pool, Spa, or Pool and Spa.

Oprtional settings:

Heat Pump/UltraTemp: Set Start Temperature from 1-12.

Hybrid: Heater name, select the affiliated body (Pool, Spa, or Pool/Spa), Heater Address from 1-8, Eco-Time: (1-6). Boost Temp. (1-10 mins). See page 76.

Modify: Tap **Modify then Next** to display the list of configured heaters. Tap New Pump to add a heat source. From this screen you can add or delete a heat source from the list. When finished with setting up heater source settings, tap **Next** to continue to the Configure Remotes screen.

+ Add Heater: Tap Add Heater to display the available heaters. When finished configuring up the heater settings. Tap Next to continue to the Configure Remotes screen

REMOTES (SPA-SIDE)

QuickTouch Remote: See page 82 for more information.

- To setup a QuickTouch remote, select Yes. If there is no QuickTouch remote installed, select No and tap Next to continue.
- Remote Name: You can change the name of the remote and assign the remote's four buttons equipment functions to control.
- Enable Remote ON/OFF): To enable the remote select ON. Tap Next to continue.
- Button Assignments: Tap Configure. Tap Button 1, then tap the AUX circuit button for this circuit. Tap Back and repeat for buttons 2-4. When all buttons have been assigned, tap Return arrow until SpaCommand remote screen is displayed. Tap Next to continue.

SpaCommand Remote: To setup a SpaCommand remote, select Yes. If there is no SpaCommand remote installed, select No and tap Next to continue.

- Remote Name: If needed, you can change the name of the remote.
- Enable Remote (ON/OFF): To enable the remote select ON. Tap Next to continue.
- Remote Channel: Assign a channel from 1-4. Tap Return.
- Affected Pump: Select pump assigned to this remote.
- Button Assignments: Tap Configure. Tap Button 1, then tap the AUX circuit button for this circuit. Tap Back and repeat for buttons 2-9. When all buttons have been assigned, tap the Return arrow until SpaCommand remote screen is displayed. Tap Next to continue.

Setup Wizard [Advanced System Configuration]

REMOTES

iS10 Remote: To setup an iS10 remote, select Yes. If there is no iS10 remote installed, select No and tap Next to continue.

- Remote Name: If needed, you can change the name of the remote.
- Enable Remote (ON/OFF): To enable the remote select ON. Tap Next to continue.
- Remote Channel: Assign a channel from 1-4. Tap Return.
- Affected Pump: Select pump assigned to this remote.
- Button Assignments: Tap Configure. Tap Button 1, then tap the AUX circuit button for this circuit. Tap Back and repeat for buttons 2-9. When all buttons have been assigned, tap the Return arrow until SpaCommand remote screen is displayed. Tap Next to continue.

iS4 Remote: See page 81 for more information.

- To setup an iS4 remote, select Yes. If there is no iS4 remote installed, select No and tap Next to continue.
- Remote Name: If needed, you can change the name of the remote.
- Enable Remote ON/OFF): To enable the remote select ON. Tap Next to continue.
- Button Assignments: Tap Configure. Tap Button 1, then tap the AUX circuit button for this circuit. Tap Back and repeat for buttons 2-4. When all buttons have been assigned, tap Return arrow until SpaCommand remote screen is displayed. Tap Next to continue.

Chemical Controllers: IntelliChem Controller and IntelliChlor SCG

IntelliCenter supports one IntelliChlor SCG per body of water and up to four IntelliChem Controllers.

Settings: Body Assignment (Pool/Spa, Spa or Pool). **Body 1** is assigned Pool/Spa for shared equipment or choose pool or spa for single body systems, **Body 2** is assigned to Spa for shared equipment systems. This screen displays the body of water assigned to the device. See page 79.

Pool Output Levels: Set the Pool chlorine output levels from 0-100% (50% default).

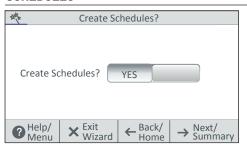
Spa Output Levels: Set the Spa chlorine output levels from 0-100% (20% default). Set the run time percentage to produce chlorine. The higher the percentage the more chlorine is produced.

Note: See page 79 for information about the IntelliChem Controller and IntelliChlor SCG.

IntelliChem Settings: Select the Channel (1-4) for the device. **Body 1** is assigned Pool/Spa for shared equipment or choose pool or spa for single body systems, **Body 2** is assigned to Spa for shared equipment systems. This screen displays the body of water assigned to the device.

Setup Wizard [Advanced System Configuration]

SCHEDULES



Schedules: See page 20 for more information.

- If Yes then Next to configure system schedules.
- If no schedules are required at this time, tap No then Next to continue to the Setup Wizard Summary screen.

Create / Modify: Tap Create then Next and select a circuit to schedule. Tap Modify to change an existing schedule. Select a **Weekly** or a **One Time Only** schedule.

Create a Weekly or Onle Time only Schedule: Select the circuit to schedule. Tap Next.

WEEKLY: Everyday (days of the week, Weekdays Every day, weekends and No days), selected circuit to schedule.

Start Time: Manual, Sunrise and Sunset: Tap the Up/Down arrow button to set the manual Start time. Tap Check to save and return to the previous screen. Tap Next to continue with setting up the Stop Time.

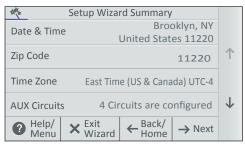
Stop Time: Tap the **Up/Down** arrow button to set the manual Stop time. Tap **Check** to save and return to the previous screen. Tap Next to continue with setting up the Stop Time.

Tap **Next** to continue to Weekly Schedule (**Heat Mode and Heating Temperature**): Heat Mode: Select Don't Change (use existing heater set point temp. for this schedule) or OFF (turn heater off for this schedule).

Heating Temp: Adjust the desired set point temperature for this schedule.

To exit the Schedules tap Next two times to display the Setup Wizard Summary screen: Date & Time, Zip code, Time Zone, AUX Circuits, Feature Circuits, Valves, Pumps, Heaters Remotes, IntelliChem, IntelliChlor and Schedules.

SETUP WIZARD SUMMARY



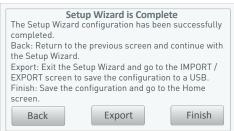
Setup Wizard Summary (Edit Screen):

From the Setup Summary screen you can review the changes you have made to the system. If modifications are necessary, tap the item and make the changes. If everything appears to be correct, press **Next** to proceed to the Setup Wizard "Finish" screen.

Continue to next page.

Setup Wizard [Advanced System Configuration]

Setup Wizard Complete



Export: Go to the Export System configuration screen. Tap Yes then Next, select a folder location, tap Check to save the export file. Tap OK to return to Wizard Complete screen. Tap No then Next to return to the Wizard Complete screen. Tap No IMPORT / EXPORT screen to save the configuration to a USB. **See page 90.**

Back: Return to the previous screen and

continue with the Setup Wizard.



Export System Configuration: Tap Export to USB flash drive to export the current system configuration.

Export to Local: Tap Export to Local to save the current system configuration.

Back: Return to the Create Schedule screen.

Finish: Save the configuration and go to the Home screen. "Rebooting the System" is displayed, then the Home screen is displayed. The Setup Wizard has been successfully completed.

Over-The-Air (OTA) Updates

IntelliCenter can receive firmware updates via WiFi. When available, firmware updates will automatically be downloaded to the Indoor and Outdoor Control Panel (OCP), Wireless Remote and Expansion panels in silent mode. Once this process has been completed, in background while the system is operating, all Sub-Panels will display a message dialog indicating a new software update is ready to install.

Note: For firmware versions before version 0.20, be sure to configure (enable) all system panels as described on page 110 to receive Over-The-Air (OTA) software updates.

Home Screen (Outdoor Control Panel) Master Panel: When n firmware update message dialog is displayed on the panels, it indicates that the firmware update has been downloaded to the system and is now ready to install. You can accept or reject the update:

- During the firmware download process to the Outdoor Control Panel (OCP) master panel, the download firmware version icon and the completion percentage is displayed (top right of OCP screen). After the download process has been competed the following dialog boxes are displayed.
- No: Do not accept the latest firmware update at this time. This update will not occur again and until the next time new a firmware version update is available.
- Yes: Accept and start the firmware update for all configured panels.

Note: If needed, see page 110 for panel configuration instructions. Note: Pumps and other equipment operating on schedules will momentary reset after the firmware update is completed.

Continue to next page.







Over-The-Air (OTA) Updates (Panel Mismatch)

- Manual Firmware Update Option (USB) Update Later: If you chose not to install
 the latest firmware update, you can copy it to a USB device from the outdoor panel
 and install it onto other panels that are mismatched and not yet updated.
- Firmware Updates from http://www.pentair.com/poolsoftwaredownloads

 If you chose not to install the latest firmware update when it was available, you
 can download the latest version from the link shown above, then copy it to a USB
 device from the outdoor panel and install it onto other Expansion panels that were
 not updated. Note: If needed, be sure to configure (enable) all system Sub-Panels.
 See "Configure Expansion Panel" below.





Mismatch Firmware detected (on Sub-Panels): If a Firmware update was unsuccessfully installed on a sub-panel, a MISMATCH message is displayed ("Version Mismatch Detected") on the panel that does not match the firmware version on the Outdoor Control Panel (OCP) master panel.

Note: If for example the wireless remote was asleep when a firmware update was attempted, the system will indicate there is a firmware mismatch between the main OCP and wireless remote.

Firmware Update Dialog Box (manual USB option): From this dialog box you can update the mismatched panel as follow:

- Download the latest firmware from http://www.pentair.com/poolsoftwaredownloads, then this update file to a USB device.
- Tap "Update from USB" to install the latest firmware onto the mismatched panel.
- Configure Expansion Panel: Use this option to configure a Sub-Panel that is not configured to accept OTA firmware updates.



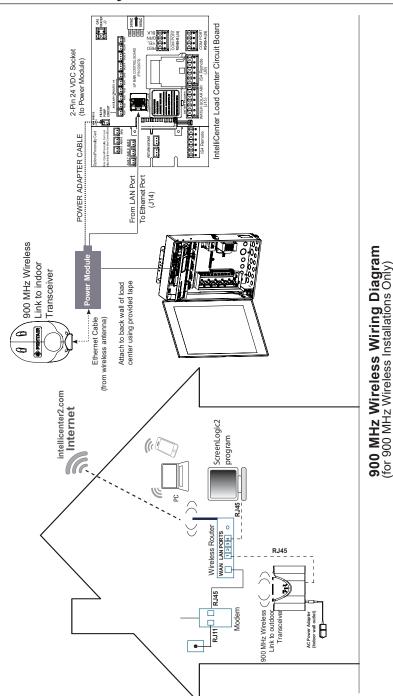


Enabling All System Panels (for software versions up to 1.047)

For software versions up to 1.047 the IntelliCenter can receive software updates via a wireless router connection. Software updates will automatically push to the indoor and outdoor control panel, wireless remotes and expansion panels while the system is operating.

To receive over-the-air software updates, configure all the system panels as described below:

- Configure the ICP on both OCP and ICP: From the Main Outdoor Control Panel Home screen, tap Settings > Advanced System Configuration > IntelliCenter Indoor Panel Setup > Indoor Panel #1 (Repeat if a second ICP (#2) is connected). Repeat this procedure again for the ICP, starting from the ICP Home Screen. Select Assign this Panel to Indoor Panel #1 (on the Indoor Panel Enable screen). If configuring a second ICP (#2), then select Assign this Panel to Indoor Panel #2.
- 2. Configure the WCP on both OCP and WCP: From the Main OCP Home screen, tap Settings > Advanced System Configuration > IntelliCenter Wireless Remote Setup. The Wireless Remote Setup screen is displayed. Tap Enable Panel (On). Use the Wireless Channel button to select an address (default is 15). Note: Be sure to match the same Channel # for the WCP and OCP. Repeat this procedure again for the WCP, starting from the WCP Home Screen. Note: If the wireless channel number is changed, be sure to change the Wireless Repeater channel to the same channel number.
- 3. Configure the XCP from the OCP Home Screen (#1, #2, or #3 if system has more than 1 XCP):
 - Tap Settings > Advanced System Configuration > Installation Setup > Body Configuration.
 - b. Select Expansion 1 (disabled) XCP1 (for XCP#1).
 - c. On the Panel Identification screen, select Enable/Disable and tap the Enable button.
 - d. Tap the Return button, then select i5x (5 Relays).
 - e. If the i10x kit is installed, select i10x on the Expansion Panel Daughter Card screen instead of i5x.
 - f. On the Expansion Panel Daughter Card screen, tap Return.
- 4. Configure Expansion Panels (XCP #1, #2, or #3):
 - a. Tap Settings > Advanced System Configuration > Installation Setup > Body Configuration. Repeat steps 3a to 3f above, except for 3c:
 - b. After selecting Enable/Disable select Assign this Panel to Expansion 1 (if this is XCP #1) and tap the Return button.
 - c. Repeat Steps 4a to 4b to configure XCP #2 and XCP #3
- 5. Once all the Panels are configured (enable), check that the system panels have the same firmware version and are fully functional.



INTELLICENTER® Control System User's Guide

Configurations and Models

PANEL: TYPE: CAPABILITY:

OCP0 i5P Capabilities: i5P

> Single body of water (Pool or Spa) Filter pump relay + 4 AUX relays

Valve A & B

Heater control (Gas & Electric)

Solar relay output 2-speed relay output Water, Air, Solar Sensor

Two COM ports Ethernet port iS4 port

OCP0 i5PS i5PS Capabilities:

Shared equipment (Pool and Spa)

Intake & Return valves

OCP0 i8P Capabilities: i8P

> Single body of water (Pool or Spa) Filter pump relay + 7 AUX relays

OCP0 i8PS i8PS Capabilities:

> Shared equipment (Pool and Spa) Filter pump relay+ 7 AUX relays

Intake & Return valves

i10P Capabilities: OCP0 i10P

> Single body of water (Pool or Spa) Filter pump relay+ 9 AUX relays

OCP0 i10PS i10PS Capabilities:

> Shared equipment (Pool and Spa) Filter pump relay+ 9 AUX relays Intake and Return valves

OCP0 i10D i10D Capabilities:

Dual Bodies of water with separate

Pumps, Filters and Heaters

1 OR 2 BODIES OF WATER:

OCP0: Main Circuit board - i5P capability

EXP1: Exp Motherboard - i5X or i10X EXP2: Exp Motherboard - i5X or i10X FXP3: Exp Motherboard - i5X or i10X

Error Messages and Codes (Standard Gas Heater)

Message	Note
5 Alarms in an hour	Indicates 5 faults have occurred in 1 hour. This fault will automatically reset in one hour or can be manually reset by pressing the ON/OFF button. Press the ON/OFF button to clear the alarm. Check heater over the next few minutes/hours to see if alarm appears again. This alarm most likely caused the five alarms in one hour.
Brownout	Check input voltage to the heater, supply voltage should be between 208 and 260 Volts or have technician inspect heater for bad transformer.
Communication Lost	This usually indicates that the communication cable between heater and the automation system has been disrupted in some manner. Check this wiring.
Defrost Temp Sensor Open	Call technician to verify condition and connection of defrost temp sensor and/or control board.
Defrost Temp Sensor Shorted	Call technician to verify condition and connection of defrost temp sensor and/or control board.
High Refrigerant	Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heater. If these troubleshooting steps do not resolve the problem, call technician.
High Water Temperature	Water temp is above 107°F [41.6°C]. Call technician to verify operation of thermistor and/or control board.
Low Ambient Temperature	Defrost cycle did not complete within allotted time or bad thermistor.
Low Refrigerant	Air and water temperatures may be too cold to operate the heater. Wait until temperatures warm up and check for proper operation. Also ensure the area around the heater is not blocking air flow to the air coil. Check fan for proper operation. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Flow	Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heater. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Temperature	Call technician to verify operation of thermistor and/or control board.
Pool and Spa remote inputs are both enabled	Pool and Spa remote inputs are simultaneously energized. Call technician to correct wiring error.
Water Temp Sensor Open	Verify connection to water temp sensor. Call technician to verify condition and connection of water temp sensor.
Water Temp Sensor Shorted	Verify connection to water temp sensor. Call technician to verify condition and connection of water temp sensor.

Error Messages and Codes (Solar Heater)

Message	Note
5 Alarms in an hour	Indicates 5 faults have occurred in 1 hour. This fault will automatically reset in one hour or can be manually reset by pressing the ON/OFF button. Press the ON/OFF button to clear the alarm. Check heater over the next few minutes/ hours to see if alarm appears again. This alarm most likely caused the five alarms in one hour.
Brownout	Check input voltage to the heater, supply voltage should be between 208 and 260 Volts or have technician inspect heater for bad transformer.
Communication Lost	This usually indicates that the communication cable between heater and the automation system has been disrupted in some manner. Check this wiring.
Defrost Temp Sensor Open	Call technician to verify condition and connection of defrost temp sensor and/ or control board.
Defrost Temp Sensor Shorted	Call technician to verify condition and connection of defrost temp sensor and/ or control board.
High Refrigerant	Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heater. If these troubleshooting steps do not resolve the problem, call technician.
High Water Temperature	Water temp is above 107°F [41.6°C]. Call technician to verify operation of thermistor and/or control board.
Low Ambient Temperature	Defrost cycle did not complete within allotted time or Bad thermistor.
Low Refrigerant	Air and water temperatures may be too cold to operate the heater. Wait until temperatures warm up and check for proper operation. Also ensure the area around the heater is not blocking air flow to the air coil. Check fan for proper operation. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Flow	Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heater. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Temperature	Call technician to verify operation of thermistor and/or control board.
Pool and Spa remote inputs are both enabled	Pool and Spa remote inputs are simultaneously energized. Call technician to correct wiring error.
Water Temp Sensor Open	Verify connection to water temp sensor. Call technician to verify condition and connection of water temp sensor.
Water Temp Sensor Shorted	Verify connection to water temp sensor. Call technician to verify condition and connection of water temp sensor.

Error Messages and Codes (Hybrid Heater)

Message	Note
5 Alarms in an hour	Indicates 5 faults have occurred in 1 hour. This fault will automatically reset in one hour or can be manually reset by pressing the ON/OFF button. Press the ON/OFF button to clear the alarm. Check Heater over the next few minutes/ hours to see if alarm appears again. This alarm most likely caused the five alarms in one hour.
Air Flow Switch	Call technician to troubleshoot heater. USE EXTREME CAUTION or call dealer or factory for advice before attempting to troubleshoot Electrical Box.
Automatic Gas Shut Off	Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If these troubleshooting steps do not resolve the problem, call technician.
Brownout	Check input voltage to the heater, supply voltage should be between 208 and 260 Volts or have technician inspect heater for bad transformer.
Communication Lost	This usually indicates that the communication cable between heater and the automation system has been disrupted in some manner. Check this wiring.
Condensate Filter	Condensate neutralizer cartridge's effective lifetime has expired. Heater run time has met service interval for condensate neutralizer cartridge. Check pH of gas heater condensate. Replace as necessary and reset alarm/counter.
Condensate Float Switch	Condensate float switch detects water in exhaust stack. Verify proper hose routing from heater base. Ensure there are no loops, kinks or elevated portions between hose exit and heater base. Correct as necessary. If checking the hose routing does not solve problem, call technician to troubleshoot.
Freeze Warning	Ambient air temperature is too low for gas heater operation. Shut down and properly winterize heater. If ambient air temp is not low, call technician to troubleshoot.
High Limit Switch	Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If these troubleshooting steps do not resolve the problem, call technician.
High Refrigerant	Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If equipped with an external bypass plumbing loop, ensure that the bypass valve is closed allowing water to flow through the heater. Check fan for proper operation. If these troubleshooting steps do not resolve the problem, call technician.
High Water Temperature	Water temp is above 107°F [41.6°C]. Call technician to verify operation of thermistor and/or control board.
ICM Fault	Call technician to troubleshoot heater.
Low Ambient Temperature	Defrost cycle did not complete within allotted time or Bad thermistor.

Error Messages and Codes (Hybrid Heater)(cont.)

Message	Note
Low Refrigerant	Air and water temperatures may be too cold to operate the heater. Wait until temperatures warm up and check for proper operation. Also ensure the area around the heater is not blocking air flow to the air coil. Check fan for proper operation. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Flow	Check to be sure that water circulation pump is on. If pump is on, verify flow rate is adequate. If these troubleshooting steps do not resolve the problem, call technician.
Low Water Temperature	Call technician to verify operation of thermistor and/or control board.
Stack Flue High Temp	Check exhaust vent for obstruction. Verify proper water flow to heater. If these troubleshooting steps do not resolve the problem, call technician.
Stack Flue Open/Short	Call technician to verify condition and connection of stack flue sensor and/or control board.
Suction Temperature Sensor Open/Short	Call technician to verify operation of defrost temp sensor and/or control board.
Thermal Fuse	Thermal fuse is open. Call technician to troubleshoot.
Water Temperature Sensor Open/Short	Call technician to verify operation of thermistor and/or control board.

Error Messages and Codes (MasterTemp and Max-E-Therm)

Message	Note
Water Pressure Switch	Insufficient water flow rate. Increase the water flow. Inspect the pump basket to remove debris. Eliminate other obstructions for water to flow.
High Limit Switch	Water outlet has exceed 135°F [57.2°C]. Verify water flow rate is above minimum. Service pump and filter to restore proper flow. Verify water inlet temperature is below 104°F [40°C]. Verify internal bypass valve, thermal governor and heat exchanger for blockage.
Air Flow Switch	Insufficient blower air flow. Verify blower operation. Check for any blockage in the blower intake, heat exchanger, and exhaust.
Auto Gas Shutoff Switch	Water outlet has exceed 135°F [57.2°C]. Verify water flow rate is above minimum. Service pump and filter to restore proper flow. Verify water inlet temperature is below 104°F [40°C]. Verify internal bypass valve, thermal governor and heat exchanger for blockage.
Ignition Control Error	Contact a service professional.
Stack Flu Sensor Error Alarm	Excessive stack flue temperature. Contact a service professional.
Stack Flu Sensor Open Alarm	Contact a service professional to verify condition of flue gas sensor.
Stack Flu Sensor Short Alarm	Contact a service professional to verify condition of flue gas sensor.
Water Sensor Open Alarm	Contact a service professional to verify condition of water sensor.
Water Sensor Short Alarm	Contact a service professional to verify condition of water sensor.
Air Flow Fault Alarm	Insufficient blower air flow. Verify blower operation. Check for any blockage in the blower intake, heat exchanger, and exhaust. Contact a service professional to verify condition of air flow switch.
Flame No Call For Heat Alarm	Contact a service professional.
Ignition Lockout Alarm	Contact a service professional.
Weak Flame Alarm	Flame strength is low. Contact a service professional.
Communication Lost	This usually indicates that the communication cable between heater and the automation system has been disrupted in some manner. Check this wiring.

Error Messages and Codes (IntelliChem)

Message	Note
Auto Calibration Failed	Calibration has failed. Ensure the circuit board is clean and dry.
Check ORP Container	ORP chemical tank is running low. It may be time to refill it.
Check pH Container	pH chemical tank is running low. It may be time to refill it.
Communication Lost	IntelliChem has lost communication with the outdoor control panel. Check that the filter pump relay is active and that the communication cable is wired properly.
Invalid Settings	Incompatible setting during pH setup
ORP Dose Limit	IntelliChem has several safeguards built into it to prevent too much chlorine from being dispensed into your pool. One of them is a daily maximum feed limit (usually in ounces). If this limit is reached, it will stop allowing chlorine from being dispensed. You may need to increase IntelliChem's daily ORP feed limit to prevent this alarm.
pH Dose Limit	IntelliChem has several safeguards built into it to prevent too much muriatic acid from being dispensed into your pool. One of them is a daily maximum feed limit (usually in ounces). If this limit is reached, it will stop allowing muriatic acid or CO ₂ from being dispensed. You may need to increase IntelliChem's daily pH feed limit to prevent this alarm.
pH Lockout	IntelliChem is not able to keep your pH level at a low enough level (usually below 7.8) to not have a suppressive effect on your ORP level. To prevent IntelliChem from adding too much chlorine, IntelliChem has stopped adding chlorine until your pH level is decreased. This usually happens when the pH tank has run out of muriatic acid or the CO_2 tank is empty.
pH Low	IntelliChem pH reading is below 7.2 (typical good range is 7.2 to 7.6). It's rare for pools to stay below the 7.2 pH level. You may need to add a pH up chemical to your pool if the level doesn't rise over time. Consult your pool professional for a recommended action.
pH High	pH is above the 7.6 pH level (typical good range is 7.2 to 7.6). This could be temporary as IntelliChem signals your muriatic acid or CO_2 feeder to add more to your pool to lower the pH level. If the pH level doesn't lower, this usually means that your acid or CO_2 tank may be empty. Otherwise, you may need to increase IntelliChem dose amount, lower the mixing time, or change the sensitivity to High.
No Flow	Flow switch has indicated there is no flow to the flow cell where the pH and ORP probes are located. This can be caused by a dirty/clogged pool filter or IntelliChem prefilter or too slow of a pump speed.
ORP High	ORP reading is above 750. If pool consistently measures above 750 ORP and a manual chlorine reading is above 3 ppm, decrease ORP set point to get your chlorine PPM into the desired 1-3 ppm range.
ORP Low	IntelliChem will alert when the ORP level is below 650. If your pool consistently measures below 650 and a chlorine PPM reading is below 1 ppm, you may consider increasing your ORP set point to get your chlorine PPM into the recommended 1-3 ppm range. Also note that ORP probes take at least an hour before the reading stabilizes. It is perfectly normal to start the day at a very low 400-600 ORP reading. Similarly, the probe will read on the high side in the late afternoon and evening hours.
Weak Flame Alarm	Flame strength is low. Contact a service professional.
Communication Lost	This usually indicates that the communication cable between heater and the automation system has been disrupted in some manner. Check this wiring.

Error Messages and Codes (IntelliChlor)

Message	Note
Clean & Inspect Cell	The Salt Chlorine Generator (SCG) has sensed buildup on its chlorine generating cell blades which is hampering its ability to make chlorine. This is a normal occurrence that happens over time. This calcium buildup can be eliminated by turning off your filter pump, removing your salt cell from the plumbing, and spraying a garden hose on the jet setting to remove the excess calcium buildup inside the cell. You can also do an acid wash according to instructions given in the SCG manual.
Cold Water Cutoff	SCG won't produced chlorine in water temperatures below 52°F [11.1°C]. When the water is this cold, you should manually add chlorine to your pool, if needed.
Communication Lost	Usually indicates that the communication cable between the SCG and IntelliCenter has been disrupted in some manner. Check the Cable.
Low Salt	SCG salt level reading is low. Optimum salt level is 3600 ppm. Add salt to pool until salt level reaches 3600 ppm. Refer to the SCG manual for estimates of how much salt to add.
Very Low Salt	SCG salt level reading is very low. Optimum salt level is 3600 ppm. Add salt to pool until salt level reaches 3600 ppm. Refer to the SCG manual for estimates of how much salt to add.

Error Messages and Codes (Variable Flow Pump)

Message	Note
Communication Lost	IntelliCenter is not able to communicate with the pump. Verify proper connection at both ends of the RS-485 communication cable.
Drive Over Temperature	The pump has sensed that it is getting too hot. Ensure that the back of the pump is clear of debris and dirt. In very hot climates it may help to shield the pump from direct sunlight.
Over Current	The pump has sensed that it is receiving too much current. Contact a service professional.
Over Voltage	The pump has sensed that it is receiving too much voltage. Contact a service professional.
Power Outage	The pump has sensed that a power outage occurred.
Priming Alarm	The pump is having trouble priming. Ensure that the water level of the pool is high enough to fill the skimmer basket. Also check to make sure your skimmer baskets and pump basket are not clogged with leaves or debris. Make sure to bleed air out of the top of your filter as the pump is priming or when running. Always exercise caution when your are working in close proximity to working pool pumps and filters that are under pressure.

Error Messages and Codes (Variable Speed Pump)

Message	Note
Over Current	The pump has sensed that it is receiving too much current. Contact a service professional.
Over Voltage	The pump has sensed that it is receiving too much voltage. Contact a service professional.
Power Outage	The pump has sensed that a power outage occurred.
Priming Alarm	The pump is having trouble priming. Ensure the water level of the pool is high enough to fill the skimmer basket. Also check to make sure your skimmer baskets and pump basket are not clogged with leaves or debris. Make sure to bleed air out of the top of your filter as the pump is priming or when running. Always exercise caution when your are working in close proximity to working pool pumps and filters that are under pressure.
Drive Temperature	The pump has sensed that it is getting too hot. Ensure the back of the pump is clear of debris and dirt. In very hot climates it may help to shield the pump from direct sunlight.

Glossary

Access Point: An Access Point (AP) is stand-alone wireless hub that allows any computer that has a wireless network adapter to communicate with another computer and to connect to the Internet.

Expansion Kit: A kit that includes additional auxiliaries to an existing Personality Kit. Requires a Load Center for each Expansion Kit.

Feature Circuits: Programmable circuits that can control non-high voltage circuits, and valve actuators.

Freeze Protection: A circuit with freeze protection circulates water in order to protect plumbing or filtration equipment from freezing in low temperatures. When freeze protection mode is active, "Freeze Protect Active" will display.

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

Host Computer: The computer that is directly connected to the Internet using a modem or network adapter.

Indoor Control Panel: Color touch LCD screen is wired to the Personality board in the Power/Load Center. The control panel can be wall mounted inside a house.

iS4: Four function Spa-Side remote. Can be spa wall or deck mounted.

iS10/SpaCommand: Up to ten function spa-side remote with temperature changing capability. Can be spa wall or deck mounted.

Internet Protocol (IP) address: The address of a computer that is attached to a network. Part of the address designates which network the computer is on, and the other part represents the host identification.

Load Center: Metal enclosure with power relays, transformer, and circuit breakers. The Load Center is installed before to Personality Kit installation. Used for distributing power for controlling IntelliTouch® Control Systems. Also known as the "sub-panel."

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

Low Voltage Raceway: Vertical space in the left side of Power/Load Center for low voltage cabling.

Wireless Controller: Wireless controller for IntelliCenter® Control Systems with all the functionality of the Indoor Control Panel.

Outdoor Control Panel: LCD color touch control panel with flexible hinge is installed in upper portion of Power/Load Center and connected to the main circuit board (iS5).

Glossary (continued)

Personality Board: The circuit board mounted on top of the Outdoor Control Panel motherboard. The Personality board defines the system capabilities.

Personality Kit: Set of parts to define the capability of a system; may include: Outdoor Control Panel, temperature sensors, actuators, and additional relays.

Power Center: Same as Load Center with the exception of the circuit breaker base.

Relay Circuits: The circuits that control the relays on the Personality Board. Connectors on top edge of the circuit board.

RF: Radio Frequency.

Screw Terminal Connector: Removable connector that may attach to circuit board 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 gauge (usually 22 AWG) may be coupled to a single socket of a terminal connector.

NOTES



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