



HI-FLOW™

SIDE MOUNTED BACKWASH VALVE

IMPORTANT SAFETY INSTRUCTIONS *READ AND FOLLOW ALL INSTRUCTIONS* SAVE THESE INSTRUCTIONS

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



IMPORTANT NOTICE!

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



DANGER The valve must be installed by a qualified serviceman in accordance with the National Electrical Code and all applicable local codes and ordinances.

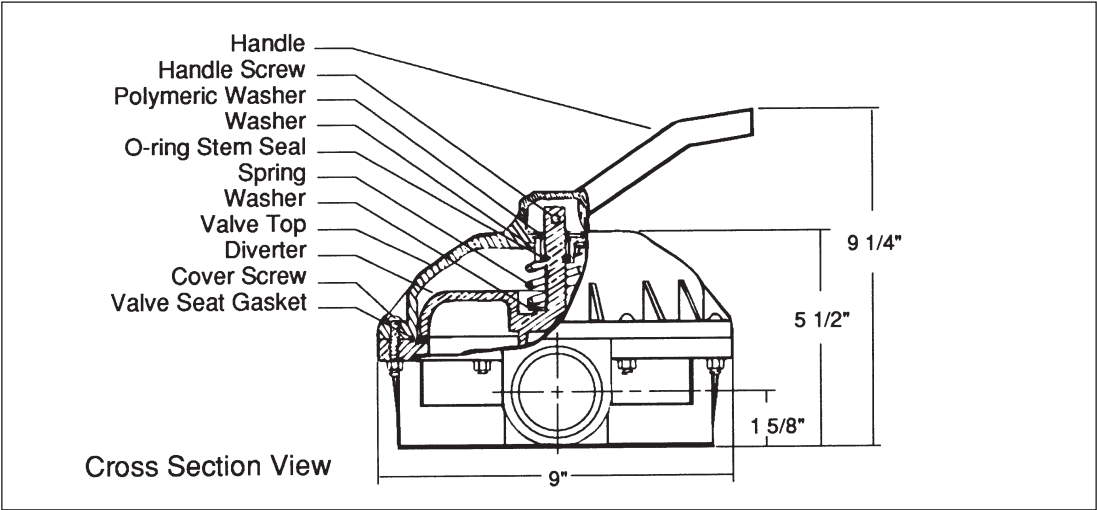
Always disconnect power to the equipment at the circuit breaker before servicing any of the equipment. Ensure that the disconnected circuit is locked out or properly tagged so that it cannot be switched on while you are working on the equipment. Failure to do so could result in serious injury or death to serviceman, operator users or others due to electric shock.

Position the filter and the air relief valve to safely direct water drainage and purged air or water. Water discharged from an improperly positioned filter or valve can create an electrical hazard that can cause severe personal injury as well as damage property.



For Installation of Electrical Controls at Equipment Pad (ON/OFF Switches, Timers and Automation Load Center)

Install all electrical controls at equipment pad, such as on/off switches, timers, and control systems, etc. to allow the operation (startup, shut-down, or servicing) of any pump or filter so the user does not place any portion of his/her body over or near the pump strainer lid, filter lid or valve closures. This installation should allow the user enough space to stand clear of the filter and pump during system start-up, shut down or servicing of the system filter.



⚠ WARNING



FILTER OPERATES UNDER HIGH PRESSURE.

When any part of the circulating system, (e.g., clamp, pump, filter, valve(s), etc.), is serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to separate which can result in severe injury, death, or property damage. To avoid this potential hazard, follow these instructions:

- 1. Before repositioning valve(s) and before beginning the assembly, disassembly, or adjustment of the clamp or any other service of the circulating system: (A) Turn the pump **OFF** and **shut OFF** any automatic controls to ensure the system is NOT inadvertently started during the servicing; (B) open the manual air relief valve; (C) wait until all pressure is relieved.
- 2. Whenever installing the filter clamp **FOLLOW THE FILTER CLAMP INSTALLATION INSTRUCTIONS EXACTLY.**
- 3. Once service on the circulating system is complete **FOLLOW SYSTEM RESTART INSTRUCTIONS EXACTLY.**
- 4. Maintain circulation system properly. Replace worn or damaged parts immediately, [e.g., clamp, pressure gauge, valve(s), o-rings, etc].
- 5. Be sure that the filter is properly mounted and positioned according to instructions provided.

Valve Positions Overview

SETTING	FLOW PATH Function
Filter	Pump > Sand Top / DE Bottom > Through Filter > DE Top / Sand Bottom > Return For normal filter action and vacuuming pool thru filter.
Backwash	Pump > DE Top / Sand Bottom > Through Filter > Sand Top / DE Bottom > Waste For cleaning filter by reversing flow
Rinse	Pump > DE Top / Sand Bottom > Through Filter > DE Top / Sand Bottom > Waste For start-up cleaning and resetting filter bed after backwashing
Waste	Pump > Waste For vacuuming directly to waste, lowering pool level or draining pool
Closed	No Circulation - DO NOT USE THIS SETTING WITH PUMP OPERATING!
Recirculate	Pump > Return For circulating water without going through filter

Valve Installation

⚠ CAUTION This valve is available in two models for use with sand type or diatomaceous earth (DE) type pool filters. Be sure that you have the correct model for your filter. Installing the incorrect model may cause your pump to dead head, or drain the pool when in backwash position.

1. Confirm correct valve is being used; DE valves for DE filters and Sand valves for Sand filters.
2. Install valve to filter by securing bulkhead nuts on valve to fittings on the filter.

⚠ CAUTION Tighten the nuts by hand only! No additional tightness is required.

3. Plumb pump piping to center pipe in valve.
4. Plumb return and waste lines.

Winterizing

1. Drain and winterize pump and filter per manufacturer's instructions.
2. Depress valve handle and rotate so pointer on handle is between any two settings.

Replacement of Valve Top and Diverter Assembly

1. Set valve handle in any setting.
2. Remove cover screws.
3. Lift off valve top and diverter assembly.
4. Install new valve top and diverter assembly. Be sure arrows on valve top and bottom are aligned.
5. Tighten cover screws evenly and alternately. Do not over tighten.

Complete Disassembly

1. Remove Handle to diverter screw. Note arrow on top of diverter stem as handle is removed.
2. Evenly and alternately loosen cover screws.

⚠ CAUTION Top is under spring load. Loosen all screws before removing any of them.

3. Remove cover screws and valve top.
4. Note location of O-ring and spring, and number of washers on diverter stem. Remove O-Ring, spring and washers.
5. Re-assemble in reverse order.

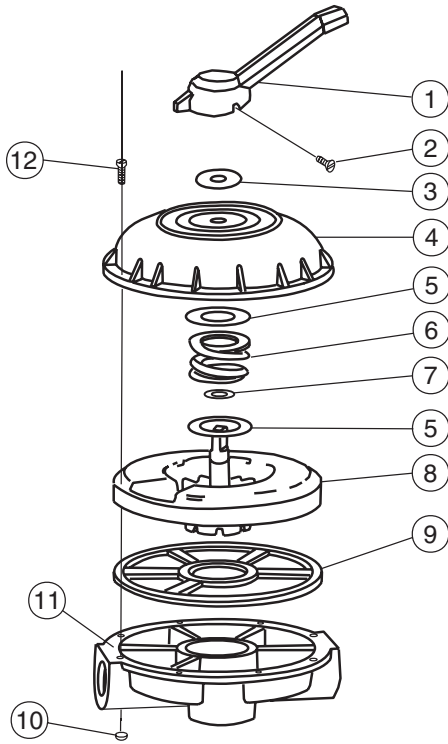
Note: Prior to assembly, be sure bottom gasket and diverter sealing surface are clean and free from nicks to insure positive sealing.

6. When replacing valve handle, be sure arrow on diverter stem and pointer on handle are pointed in the same direction.

⚠ CAUTION DO NOT over tighten the screws or use motorized screwdrivers; as this can cause damage to the threads.

Technical Data

Replacement Parts



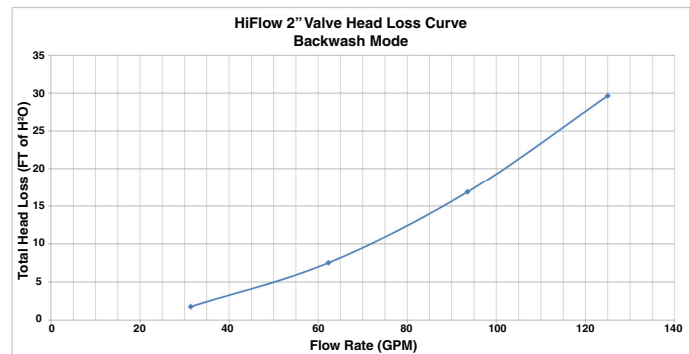
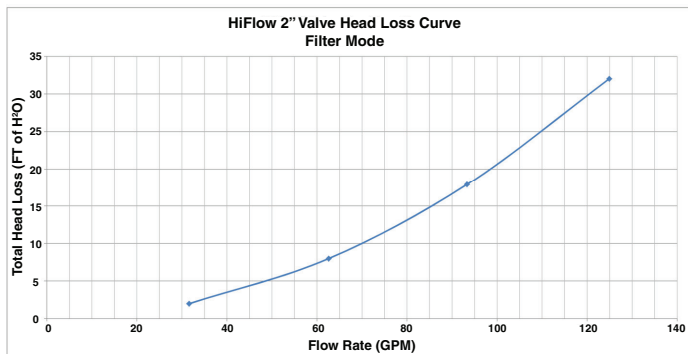
Covers Assemblies P/Ns 261049, 261050 and 261142

Item	P/N	Description	Qty.
1	272520	Handle	1
2	272405	Screw - Handle	1
3	272402	Washer, Plastic	1
4	272412	Valve Top	1
5	271193	Washer - 18 GA	2
6	272400	Spring - Compression	1
7	272406	O-ring - Diverter	1
8	272413Z	Diverter	1
9	272409	Seal -Diverter	1
10	98211400	Nut - 1/4" - 20 Hex	8
11	272415	Plat - 2" Valve Bottom	1
12	272403	Screw - 1/4" - 20	8
*	272422	Valve Top Assembly	1

*This part number includes items 1 thru 9

Note: When replacing gasket P/N 272409, secure it to valve bottom with an instant cyanoacrylate adhesive suitable for bonding rubber to plastic.

Head Loss Curves



1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000
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P/N 272133 REV. G 11/28/18



INTELLIBRITE® 5G

WHITE AND COLOR POOL AND SPA LIGHTS



INSTALLATION AND USER'S GUIDE

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

Technical Support: Phone: (800) 831-7133 - Fax: (800) 284-4151

Web sites: www.pentairpool.com and www.staritepool.com:

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Before Installing luminaries read the following:



WARNING Always install a new lens gasket (see part number in this User's Guide on page 9 and 19), when ever reassembling the light. Failure to do so may permit water to leak into the assembly which could cause; (a) an electrical hazard resulting in death or serious injury to pool users, installer, or others due to electrical shock, or (b) breakage of the lamp or lens, which likewise could result in serious injury to pool user, installers, or bystanders, or in damage to property.

FOR 12 VAC LUMINARIES: ALWAYS USE A SEPARATE STEP DOWN TRANSFORMER TO POWER LUMINARIES. SEE DIAGRAM ON PAGE 7.

Note: Connect all three wires to the corresponding circuit wires in the Junction Box (black wire to power, white wire to common, and green wire to ground).

12 VAC LUMINARIES SPECIFICATION: 12 VAC, 50/60 Hz REPLACE ANY CRACKED PROTECTIVE SHIELD (CRACKED LENS) WITH NEW LENS AND GASKET.



THE INTELLIBRITE 5G LED POOL LIGHT AND SPA LIGHT CANNOT BE USED ON A DIMMER CIRCUIT. USING A DIMMER SWITCH WILL RESULT IN PERMANENT DAMAGE TO THE LIGHT.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS



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



INSTALLERS, POOL OPERATORS AND POOL OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS BEFORE USING THE POOL AND/OR SPA LIGHT.



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.



IMPORTANT NOTICE - Attention Installer: This Installation and User's Guide ("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.



Before installing this product, 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.pentairpool.com for more information related to this products.



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION:

THE INTELLIBRITE® POOL AND SPA LIGHT REQUIRE HIGH VOLTAGE WHICH CAN SHOCK, BURN, OR CAUSE DEATH.

BEFORE WORKING ON POOL AND SPA LIGHTS always disconnect power to the pool and/or spa lights at the circuit breaker from the light before servicing the light. Failure to do so could result in death or serious injury to service person, pool users or others due to electric shock.

This underwater light must be installed by a licensed or certified electrician or a qualified pool professional in accordance with the current 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. Always disconnect the power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to serviceman, pool users or others due to electrical shock.



Important Safety Information for Pentair Water Pool and Spa Niche and Light Installation

- All Niche and Light installations must conform with all codes. If local codes mandate a cord seal, use Pentair Water Pool and Spa plastic niches (P/N 79206600 and P/N 79206700) and Cord Seal Kit (P/N 670044).
- Under **no circumstances** replace lights by splicing wire under water or behind niche.



READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

⚠ WARNING **RISK OF ELECTRIC SHOCK AND INJURY. USE ONLY THE INSTALLATION METHOD SPECIFIED BELOW.**

Location of Luminaire Use	Pentair Water Pool and Spa Fountain Fixture* (P/N 560001 and P/N 560000)	Required Installation Method
Swimming Pool and Spa	Wet-Niche Swimming Pool (or Spa) Luminaire (Light)	Fixture Housing (Forming Shell) ONLY. DO NOT USE Fountain Fixture Stand.
Fountain	Wet-Niche Submersible Luminaire (Light) swimming Pool (or Spa) Luminair (Light)	Fixture Housing (Forming Shell) or Fountain Fixture Stand

(*) Note: Wet-niche luminaires complying with requirements for both uses may bare both the Listed Wet-Niche Submersible Luminaires UL Mark. A luminaire not bearing the corresponding UL Listing Mark is not considered by UL to have been produced under UL's Listing and Follow-Up Service for the associated usage location.

CAUTION - The IntelliBrite® 5G Light fixture must only be used with Pentair Water Pool and Spa fixture housings (niches). If the IntelliBrite light fixture is installed into other niches, the installation will not carry U.L. approval and will void all warranties.

NOTICE: The external flexible cable or cord of this luminaire cannot be replaced; if the cord is damaged, the luminaire shall be destroyed.

⚠ WARNING **For countries in compliance with International Electromechanical Commission (IEC) regulatory standards:** The light fixture must be installed by a licensed or certified electrician or a qualified pool service person, in accordance with IEC 364-7-702 and all applicable local codes and ordinance. Improper installation will create an electrical hazard, which could result in death or serious injury to pool user, installer or other due to electrical shock and may also cause damage to the property.

⚠ WARNING Salt is an inherently corrosive material. While the levels of salt required for proper operation of an electronic chlorine generator are relatively low when compared to sea water and other salt solutions, placing any amount of salt in your pool increases the likelihood of corrosion or other deterioration of pool equipment and any surfaces used in and around your pool. Metal parts and certain natural and man-made surfaces are particularly susceptible to corrosion and deterioration when used in and around salt water pools. Pentair does not represent or otherwise guarantee that the proper use of an electronic chlorine generator will prevent corrosion or other deterioration of pool equipment and any surfaces used in and around your pool. Consult your experienced pool professional, who should be able to advise you on the proper material selection, installation techniques for those materials, and the proper use, care and maintenance of those materials for your specific pool type and location in order to minimize the corrosion and deterioration that is inherent in and around salt water pools.

POOL AND SPA FIXED LUMINARIES: Follow these guidelines when installing, replacing or repairing Pentair Aquatic Systems Pool and Spa fixed luminaries:
- REPLACE ANY CRACKED PROTECTIVE SHIELD (CRACKED LENS) WITH NEW LENS AND GASKET. FOR MORE INFORMATION SEE PAGE 11.
- FOR LIGHT OPERATION, ONLY USE A SAFETY ISOLATION TRANSFORMER.

CAUTION! Luminaires not suitable for direct mounting on normally flammable surfaces (suitable ONLY for mounting on non-combustible surfaces).
Fixed pool and spa luminaries specification:
12 VAC 50/60 Hz - 120VAC ~ ,50/60 Hz.



IntelliBrite® 5G Pool and Spa Lights Overview

This manual describes how to install the IntelliBrite 5G white and color pool light and the IntelliBrite 5G white and color spa light.

The IntelliBrite 5G white light provides a brilliant white light for a spectacular effect in your pool and spa. The IntelliBrite 5G white light lens geometry (pool light only) provides a choice between two light beam shapes; wider coverage with less intensity, or narrower coverage with more intensity.

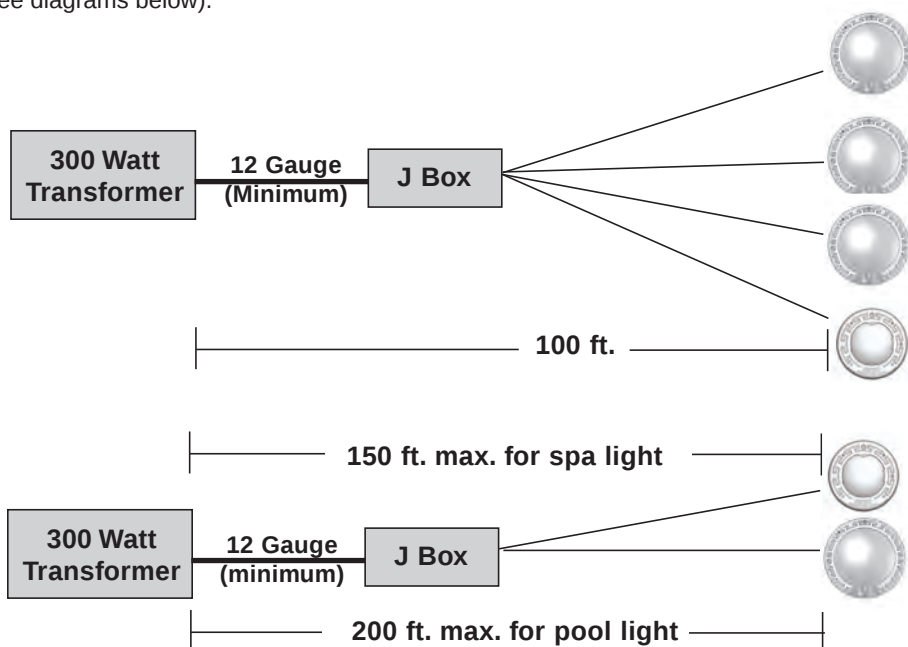
The IntelliBrite 5G color light provides brilliant vivid multi-colors with spectacular effects for your pool and spa. Choose one of the seven pre-programmed color light shows or select one of the five fixed colors to create virtually endless range of dramatic underwater lighting effects for a spectacular effect in your pool and spa.

Operating Pool and Spa Lights Using a Wall Switch (12 VAC)

IntelliBrite 5G pool and spa lights can be manually controlled using a standard wall-mount light switch. Multiple IntelliBrite lights can be connected via a junction box to a single switch so that all lights can be switched on and off together. IntelliBrite lights can also be automatically controlled via Pentair IntelliTouch®, EasyTouch® and SunTouch® Control Systems. **Note: Multiple IntelliBrite 5G pool/spa lights can also be controlled using the IntelliBrite Controller, for more information see page 2.**

Using an External Transformer for Multiple IntelliBrite 12 VAC Lights

When using multiple IntelliBrite 12 VAC lights on a **300 Watt** transformer, it is recommended that no more than three IntelliBrite pool lights and one (1) IntelliBrite Spa light be used. It is also recommended not to exceed 100 feet of total cable run between the transformer and light. Note: For long cable lengths, set transformer to 14 VAC (see diagrams below).



Powering on IntelliBrite® 5G Color Lights

When the IntelliBrite light is powered on, a momentarily white light will illuminate, followed by the previously selected color. Note: If power to the light is off for more than five (5) seconds, the last color show mode or fixed color that was saved will be displayed.

Selecting a light show mode or fixed color

Switch power on to the light. A white light will momentarily illuminate, followed by the previously selected color. To select a color show mode (1-7) or fixed color (8-12), turn the wall switch off/on a specific number of times. Each number (1-12) shown below corresponds to the number of times to power-cycle the switch to activate a color light show or fixed color. For details about saving color effects while in “show” modes, see “Hold” and “Recall” feature on page 4. Example: To select California Sunset Mode; turn the light on, then turn off and on six times. During the off/on switching process, no illumination will occur,

Number of times to cycle power (1-5)	1	SAm Mode: Cycles through white, magenta, blue and green colors (emulates the Pentair SAm® color changing light).	Number of times to cycle power (6-14)	6	California Sunset Mode: Dramatic transitions of orange, red and magenta tones.
	2	Party Mode: Rapid color changing building energy and excitement.		7	Royal Mode: Richer, deeper color tones.
	3	Romance Mode: Slow color transitions creating a mesmerizing and calming effect.		8	Blue: Fixed color.
	4	Caribbean Mode: Transitions between a variety of blues and greens.		9	Green: Fixed color.
	5	American Mode: Patriotic red, white and blue transition.		10	Red: Fixed color.
				11	White: Fixed color.
				12	Magenta: Fixed color.
				13	Hold: Save the current color effect during a color light show.
				14	Recall: Activate the last saved color effect.

Saving a Color Mode or Fixed Color: When power is switched off to the IntelliBrite color lights, the last color show mode or fixed color will be saved. The next time the light is powered on, the previously saved color show mode or fixed color will be displayed. For example, while in “Party Mode” switch the light off. Wait more than 10 seconds, switch the light back on to resume “Party Mode.”



WARNING During the off/on switching process, before the selected color is displayed, no illumination will occur for a brief second. This operating mode is normal during the switching process. During this period the pool and spa will be dark and precautions should be taken to avoid unforeseen accidents. Failure to observe this warning may result in serious injury or death to pool and spa users.

Using an IntelliBrite Color Light Controller

Using the IntelliBrite Controller (sold separately, P/N 600054), IntelliBrite 5G color pool/spa lights can all be synchronized so that individual or multiple IntelliBrite lights all lights can be switched on and off together.

To select a color light show mode or fixed color mode, rotate the dial so that it points to the desired selection.

Hold and Recall Feature: When IntelliBrite color lights are powered on, the previously selected color will be displayed, unless the HOLD or RECALL feature was previously enabled.

Hold button/LED: Press this button (LED on) to capture and save a color effect while displaying one of the light show modes. When the button is pressed, the LED will be on, indicating that the color effect is captured.

Recall Button/LED: Use this button (LED on) to activate the last saved color effect. When the button is pressed, the LED will be on, indicating that the color effect is being displayed.

Replacing the IntelliBrite® 5G Pool and Spa Light Assembly (in an existing pool or spa)



Risk of Electrical Shock or Electrocutation!

This underwater light must be installed by a licensed or certified electrician or a qualified pool professional in accordance with the National Electrical Code and all applicable local codes and ordinances. 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. Always disconnect the power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to serviceman, pool users or others due to electrical shock.

Verify that the pool and spa meets the requirements of the current National Electrical Code and all local codes and ordinances. A licensed or certified electrician must install the electrical system to meet or exceed those requirements before the underwater light is installed. Some of the requirements of the National Electrical Code which the pool's electrical system must meet are as follows:

- The lighting circuit has a Ground Fault Circuit Interrupter (GFCI) for line voltage models, and has an appropriately rated circuit breaker.
- The Junction Box (or, for **12 volt models**, the low voltage transformer) is located at least eight (8) inches (20.3 cm) above ground level and at least 48 inches (1.219 m) from the edge of the pool; see Figure 1 on page 7.
- The light fixture and all metal items within five (5) feet (1.524 m) of the pool are properly electrically bonded.
- The wet niche is properly installed so that the top edge of the underwater light's lens is at least 18 inches below the surface of the water in the pool; see Figure 1 on page 7.
- The wet niche is properly electrically bonded and grounded via the No. 8 AWG ground connector located at the rear of the niche; see Figure 1 on page 7.
- To be certain that the pool's electrical system meets all applicable requirements, the electrician should also consult the local building department. Note: Use only Pentair wet niches to insure proper bonding and grounding connections.

Replacing the IntelliBrite® 5G Pool and Spa Light Assembly (After Electrical Requirements Are Met)

The following removal and installation instructions describe how to remove and install the IntelliBrite pool and spa light assembly. Also use these instructions after completing the following light replacement procedure:

- **IntelliBrite Spa Light and Face Ring Gasket and Lens Removal and Installation instructions, on page 19.**

WARNING

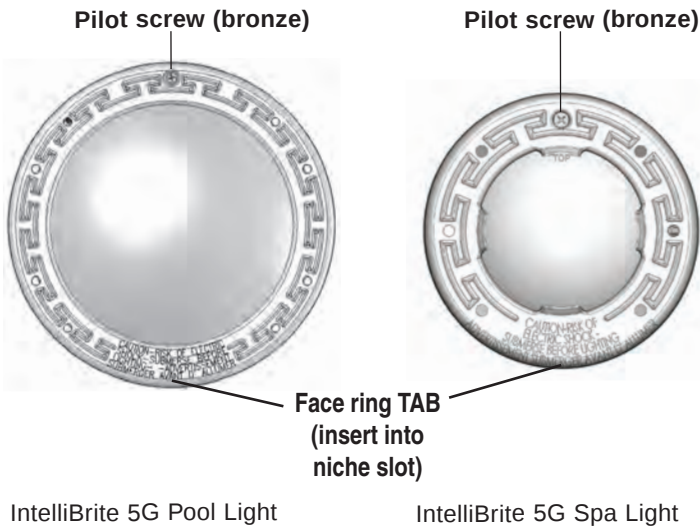
Failure to bring the pool or spa's electrical system up to code requirements before installing the underwater light will create an electrical hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.

1. **WARNING! Switch off main electrical switch or circuit breaker, and the switch which operates the IntelliBrite underwater light.**
2. **To remove light fixture assembly from the pool.** Remove the special bronze pilot screw at top of face ring. Remove the IntelliBrite light assembly from the niche and place it on the deck.
3. Cut the cord about 12 inches (30.5 cm) from the back of the light assembly.
4. Remove Junction Box cover, disconnect the light fixture wires, and pull the cord through the conduit. ***Tip: Before pulling the cord, tape the new cord to the existing cord, This might make it easier to feed the new cord through the conduit (see following step).***
5. Feed the new light fixture cord through the conduit from the niche to the Junction Box. **Note:** Depending on the length of the conduit, special tools may be required to pull the cord through the conduit.
6. Leave at least four (4) feet of cord to coil around the light fixture; see Figure 1 on page 6. This four (4) feet (1.2192 m) of cord coiled around the light allows the light to be serviced after the pool is filled with water.
7. Cut the cord at the Junction Box, leaving at least size (6) inches of cord to make connections.
8. Strip six (6) inches (15.2 cm) of the outer cord jacket from the cord to expose the three insulated conductors. Be careful not to damage the insulation on the three (3) inner conductors). Strip a 1/2" of insulation

9. Connect the three light wires (or two wires) to the corresponding light circuit wires in the Junction Box. For three wires; connect the black wire to power, white wire to common, and the green wire to ground.
10. For two wires connect the corresponding circuit wires (match the wire colors) in the Junction Box. Secure the Junction Box cover.
11. Install the IntelliBrite® light assembly into the pool niche. Be sure to insert the TAB on the lower part of the face ring into the niche SLOT (located on the lower part of the niche). This is important to secure the lower part of the light assembly onto the niche before tightening the pilot screw.
12. Carefully tighten the special bronze pilot screw to secure the upper part of the light assembly onto the niche.

⚠ WARNING

Use only the **special pilot screw provided** with this underwater light. This screw mounts and electrically grounds the housing securely to the mounting ring and wet niche. Failure to use the screw provided could create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock.



13. **Final check for proper IntelliBrite light operation:** Switch on the main switch or circuit breaker to the system, and the switch that operates the IntelliBrite underwater light itself. The light should illuminate when power is applied. If not recheck the installation steps starting with Step 1 (page 4).

INTELLIBRITE® 5G POOL AND SPA LIGHT FIXTURE INSTALLATION (NEW POOL CONSTRUCTION)

The following describes how to install the IntelliBrite® Pool Light fixture and the IntelliBrite Spa Light fixture. Read page 4 before starting the installation procedure.

BEFORE STARTING: The following steps 1-7 (page 7-8) describe the tasks that must be completed by the electrician before the IntelliBrite light fixture is installed. See Figure 1 diagram on page 7.

WARNING

Be sure that the pool or spa meets the requirements of the current National Electrical Code (N.E.C.) Article 680-22 and all local codes and ordinances. A licensed or certified electrician must install the electrical system to meet or exceed those requirements before the underwater light is installed. Some of the requirements of the National Electrical Code which the pool's electrical system must meet are as follows:

- The lighting circuit has a Ground Fault Circuit Interrupter (GFCI) for line voltage models, and has an appropriately rated circuit breaker.
- The Junction Box (or, for **12 volt models**, the low voltage transformer) is located at least eight (8) inches (20.3 cm) above ground level and at least 48 inches (1.219 m) from the edge of the pool; see Figure 1 on page 7.
- The light fixture and all metal items within five (5) feet (1.524 m) of the pool are properly electrically bonded.
- The wet niche is properly installed so that the top edge of the underwater light's lens is at least 18 inches below the surface of the water in the pool; see Figure 1 on page 7.
- The wet niche is properly electrically bonded and grounded via the No. 8 AWG ground connector located at the rear of the niche; see Figure 1 on page 7.

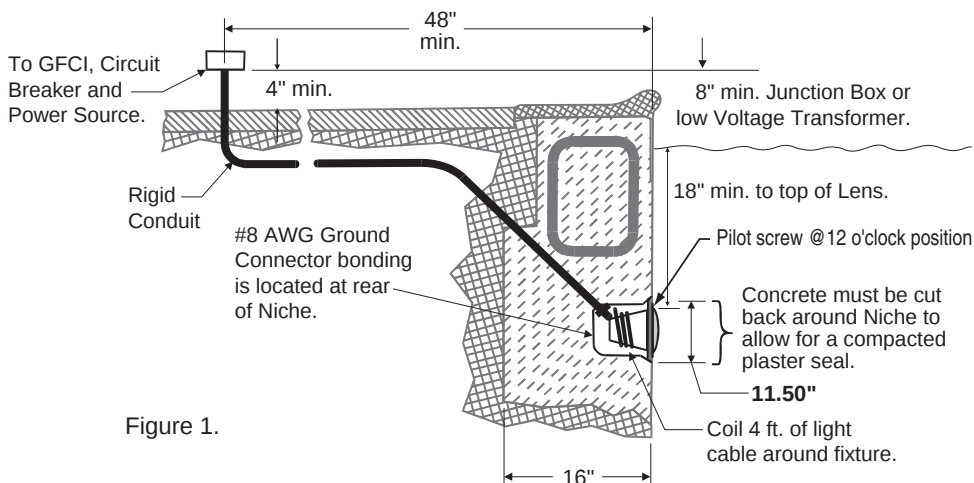
Note: *To be certain that the pool or spa electrical system meets all applicable requirements, the electrician should also consult the local building department.*

Note: *Use only Pentair wet niches to insure proper bonding and grounding connections.*

INSTALLING THE INTELLIBRITE® 5G POOL AND SPA LIGHT FIXTURE (AFTER ELECTRICAL REQUIREMENTS ARE MET)

To install the IntelliBrite® Pool Light and Spa Light fixture:

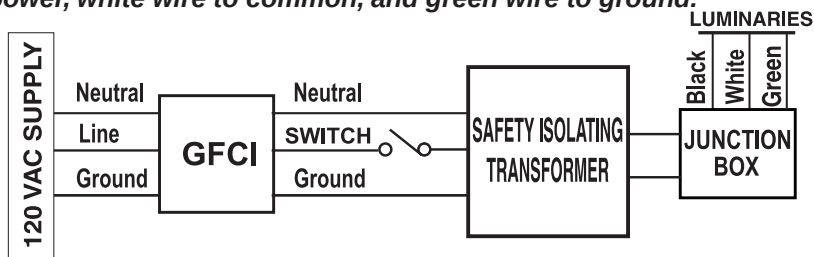
1. Route light cable through conduit to Junction Box, leaving at least four (4) feet of cable at the light fixture to coil around the light (this allows the light to be serviced after the pool is filled with water). See Figure 1 below.



2. Cut the cable at the Junction Box, leaving at least six (6) inches (2.4 cm) of cord to make connections.
3. Strip back six (6) inches (2.4 cm) of the outer cord jacket to expose the three insulated conductors (be careful not to damage the insulation on the three (3) inner conductors). Strip a 1/2" of insulation off the three conductors. Be careful not to damage the copper conductor.
4. Connect all three (3) conductors to the corresponding circuit wires in the Junction Box and secure the Junction Box cover in place.

FOR LIGHT OPERATION, ONLY USE A SAFETY ISOLATION TRANSFORMER.

Note: Connect three wires (or two wires) to the corresponding circuit wires in the Junction Box. For three wires connect: Black wire to power, white wire to common, and green wire to ground.



NOTE: FOR 120 VAC ILLUMINARIES, ISOLATION TRANSFORMER IS INCLUDED IN LIGHT FIXTURE.

5. Install the IntelliBrite® Light assembly into the niche and tighten the special bronze pilot screw.

⚠ WARNING

Use only the **special pilot screw provided** with this underwater light. This screw mounts and electrically grounds the housing securely to the mounting ring and wet niche. Failure to use the screw provided could create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock.

Pilot screw (bronze)



IntelliBrite 5G Pool Light

Pilot screw (bronze)



IntelliBrite 5G Spa Light

6. Fill the pool until the underwater light is completely submerged in water before operating the light.
7. **Final check for proper light operation:** To check for proper operation, switch on the main switch or circuit breaker, and the switch that operates the IntelliBrite underwater light itself. The light should illuminate when power is applied. If not recheck the installation steps starting with Step 1 (page 7)

FOR INTELLIBRITE POOL AND SPA LIGHT REMOVAL AND INSTALLATION INSTRUCTIONS SEE:

- **Replacing the IntelliBrite® 5G Pool and Spa Light Assembly instructions, on page 3.**
- **Replacing the IntelliBrite Spa Light Face Ring and Gasket or Gasket and Lens instructions, on page 19.**

IntelliBrite® 5G Pool Light (12V) Fuse Harness Replacement

The following describes how to replace the IntelliBrite 5G Pool Light fuse assembly (if applicable) and the light main circuit board for the IntelliBrite 5G pool light.

IMPORTANT! Before replacing the fuse assembly note the following:

Troubleshooting

Problem	Cause/Action
Light does not function properly	Check the light wiring connection to the junction box at the pool side and to the AC power switch. Be sure that there is proper AC power applied to the light.
The light will not illuminate.	Check the GFCI ground fault wiring and reset if necessary.
IntelliBrite 5G 12 V Light with Light Fuse Assembly Replace FUSE assembly (see page 12): Note: Replacing the fuse assembly may or may not resolve this problem. In some instances the fuse assembly will blow, and after replacing the fuse the light's circuit board is still not functional.	

REPLACING THE INTELLIBRITE POOL LIGHT CIRCUIT BOARD ASSEMBLY (IN AN EXISTING POOL)

When replacing or reassembling the IntelliBrite Pool Circuit Board, the Gasket (P/N 79101601) or Gasket and Lens (619864Z) MUST ALSO BE REPLACED - SEE PAGE 18 FOR PART NUMBERS

Removal and Installation of IntelliBrite 5G Light Circuit Board

⚠ DANGER



DANGER!

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION

Always disconnect power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to installer, service person, pool users, or others due to electrical shock.

1. **Turn off main electrical switch or circuit breaker**, as well as the switch which operates the IntelliBrite light itself.
2. Before starting make sure that you have a new lens gasket (P/N 79101601) and a IntelliBrite 5G pool light circuit board assembly (P/N 619875Z - 300w, P/N 619916Z-400W, P/N 619917Z- 500w) ready to install (see page 11).

REPLACING THE INTELLIBRITE® 5G POOL LIGHT CIRCUIT BOARD ASSEMBLY (IN AN EXISTING POOL) (Continued)

⚠ WARNING

Replace the light circuit board assembly with the same type and wattage. Failure to replace the light circuit board assembly with the same type will damage the light assembly and may cause an electrical hazard resulting in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.

⚠ WARNING

Always install a new lens gasket (P/N 79101601) whenever disassembling the IntelliBrite light assembly. Failure to do so may permit water to leak into the assembly which could cause:

- (a) an electrical hazard resulting in death or serious injury to pool users, installers, or others due to electrical shock, or
- (b) breakage of the lens, which likewise could result in serious injury to pool users, installers, or bystanders, or in damage to property.

3. **REMOVING THE INTELLIBRITE 5G POOL LIGHT ASSEMBLY:** Remove the pilot screw at top of face ring, remove the light assembly from the niche. Place the assembly on the deck. **Note:** It is not necessary to drain down the pool.
4. Unwind the cord from the base of the light housing.

Pilot screw (bronze)



IntelliBrite 5G Pool Light

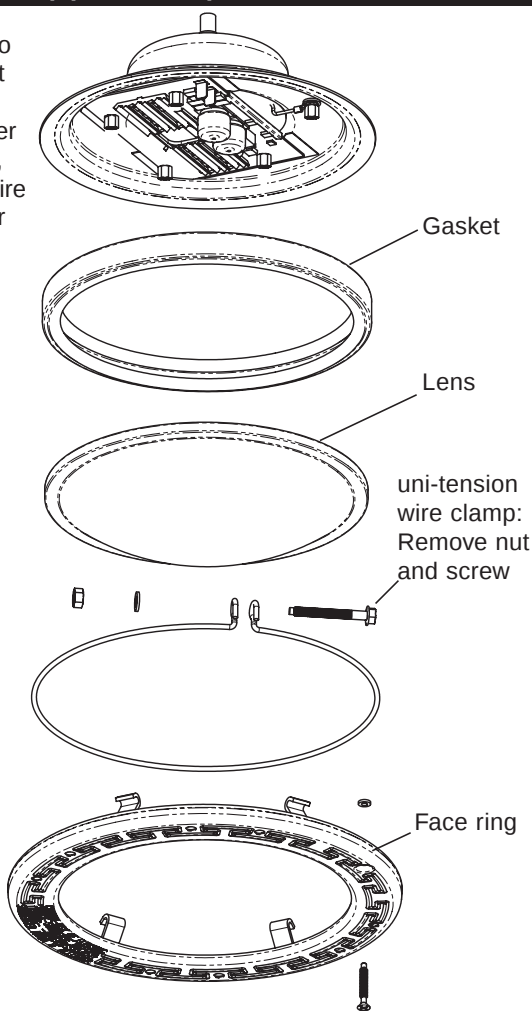
⚠ WARNING

Be sure to keep the pilot screw from the IntelliBrite light. This screw mounts and electrically grounds the housing securely to the mounting ring and wet niche. Failure to use the screw provided could create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock.

REPLACING THE INTELLIBRITE® POOL LIGHT CIRCUIT BOARD ASSEMBLY (IN AN EXISTING POOL) (Continued)

5. Place a cloth on the ground to protect the lens. Turn the light over so the lens is resting on the cloth. Using a $\frac{1}{4}$ " nut driver and a #3 Phillips screwdriver, remove the nut uni-tension wire clamp. Place the nut aside for reinstallation.
6. Remove the face ring and wire clamp from the light housing.
7. With the light resting on its base, carefully pry off the gasket to remove the lens. Set the lens aside for installation later. Discard the gasket.

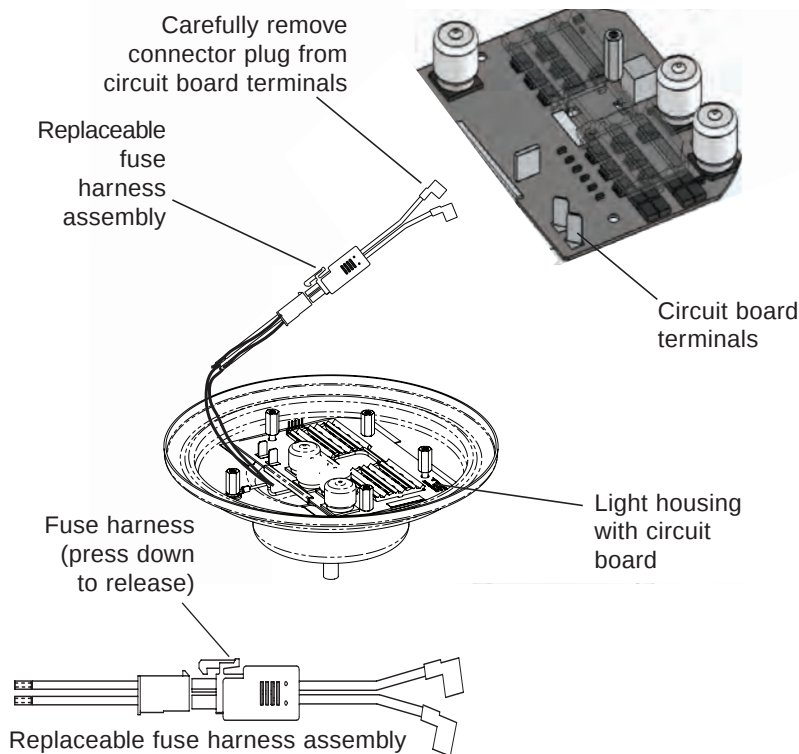
Note: A NEW LENS GASKET (P/N 79101601) MUST BE USED EACH TIME THE LIGHT IS REASSEMBLED. See page 18 for Replacement Kit part numbers.



Note: Note the current position of the lens at the pilot screw (12 o'clock) position, before removing it from the fixture. "W" on the lens indicates wide angle, "N" indicates narrow angle. For more information, see page 17.

NOTE: For a pool light (12 V only. No internal step-down transformer) that has a replacement FUSE ASSEMBLY, continue the procedure on the next page. If the light does NOT have a replaceable fuse assembly, proceed to page 13.

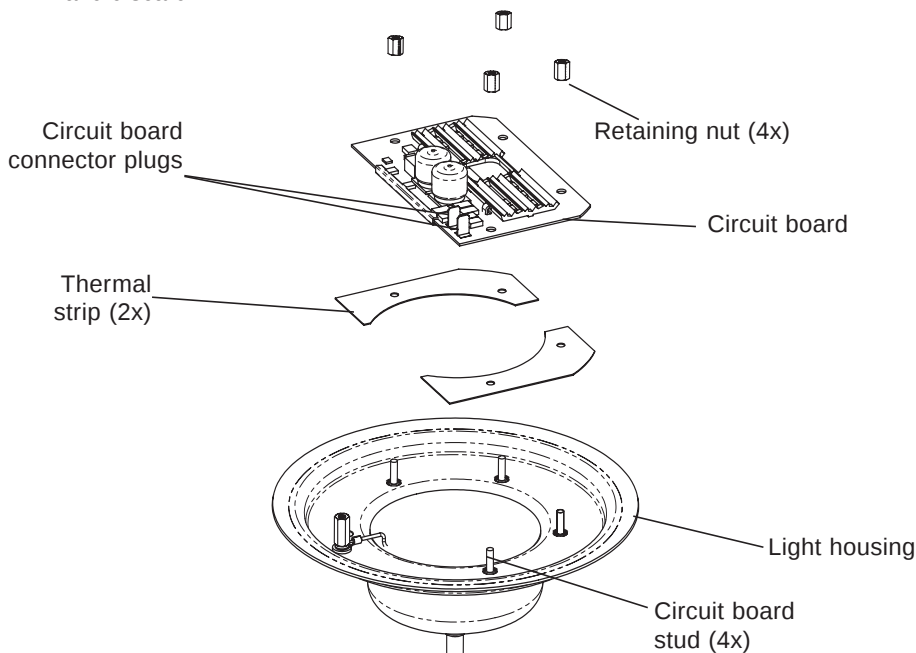
REPLACING THE FUSE HARNESS ASSEMBLY (FOR 12 V LIGHTS ONLY)



1. Using your fingers, carefully disconnect each fuse connector plug from the circuit board terminals. Carefully lift each connector plug upward, with small side-to-side movements while holding the circuit board terminals with a flat screw driver. Then gradually disconnect the connector plug from the terminal. *Note: To avoid permanent damage to the circuit board, be sure not to pull the terminals off the surface of the circuit board.*
2. Once the fuse connector plugs are removed from the circuit board terminals, separate the fuse assembly from the light wire harness by pressing down on the fuse release lever, then gently pull apart.
3. Insert the new fuse harness connector into the light cable harness plug and snap together.
4. Using your fingers to carefully connect each fuse connector plug onto the circuit board terminals. *Be sure not to press down too hard on the connector, this can damage the terminal connections on the circuit board.*
5. **Continue with “INSTALLING THE INTELLIBRITE® 5G POOL LIGHT ASSEMBLY WITH NEW GASKET” on page 13.**

REMOVING THE LIGHT CIRCUIT BOARD ASSEMBLY

1. Using a ¼" nut driver, carefully remove the four retainer nuts from the light assembly (see illustration on next page). Place the nuts aside for reinstallation.
2. Unplug the two connector plugs from the circuit board. Lift up the circuit board and remove it from the light housing base.
3. Carefully lift off the old thermal strips from the base of the light housing base and discard.



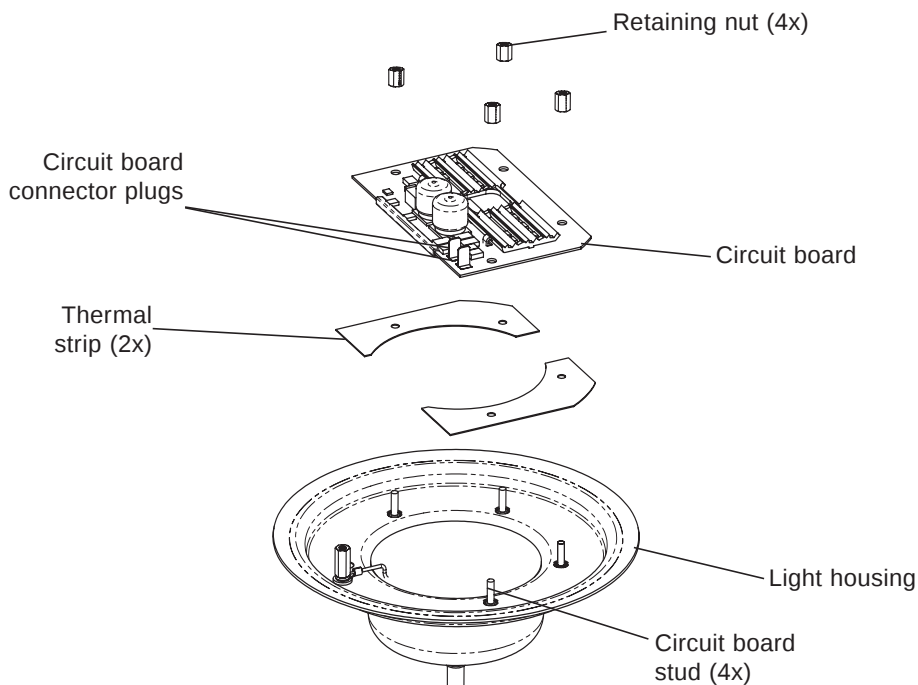
4. Place the two new thermal strips (provided) over the circuit board studs in the base of the light housing.
5. Place the light circuit board over the base studs and seat the circuit board on top of the thermal strips. Be sure the two connecting wires are not caught between the housing and the edge of the circuit board.
6. Using a ¼" nut driver, tighten each of the four (4) retaining nuts to a torque value of 6.0 (minimum) to 8.0 (maximum) in-lbs to secure the circuit board. **DO NOT OVERTIGHTEN THE CIRCUIT BOARD NUTS.**

INSTALLING THE INTELLIBRITE® POOL LIGHT ASSEMBLY WITH NEW GASKET (see illustration on next page)

⚠ WARNING

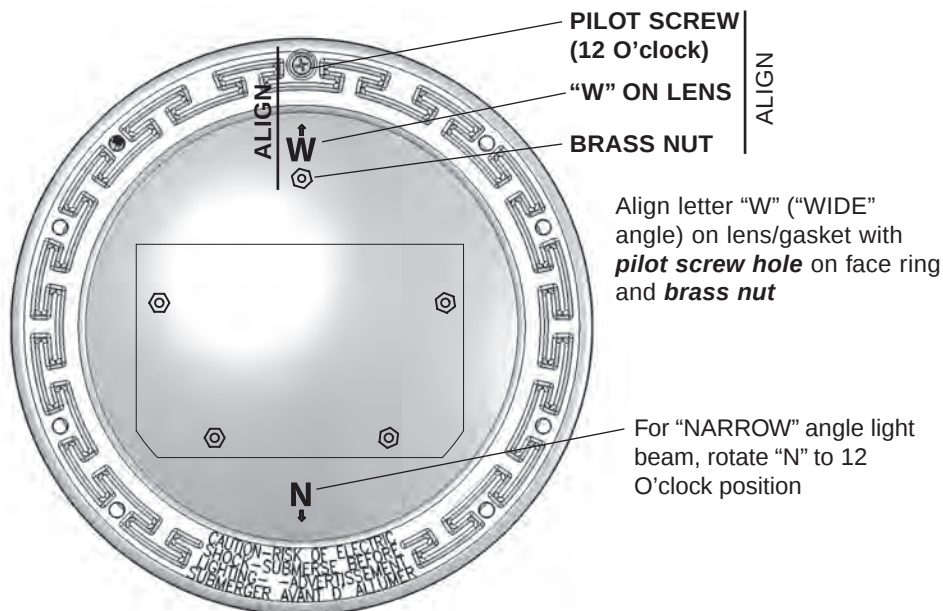
Be sure to install ALL of the four (4) retaining nuts. These nuts ensure proper electrical ground. Failure to install all of the retaining nuts could create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock.

Continue on next page.

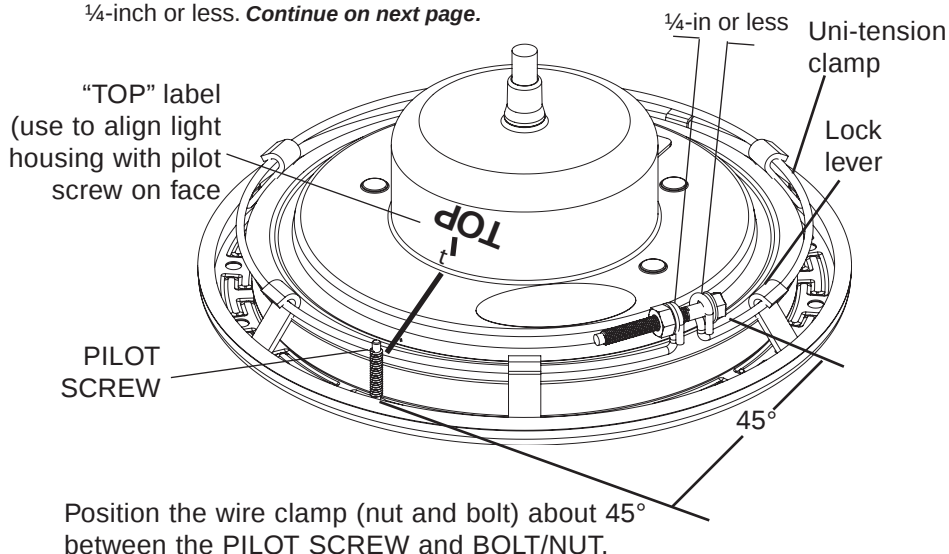


1. **Install NEW GASKET ONTO LENS:** Stretch the gasket around the circumference of the lens. Be sure the gasket is installed evenly around the lens.
2. **ALIGN LENS/GASKET ONTO LIGHT HOUSING:**
 - a) With the light housing resting on its base, place the lens/gasket on top of the light housing.
 - b) Rotate the lens/gasket to align the letter "W" ("WIDE" angle) on the lens with the brass nut in the housing (see diagram on page 14 for brass nut location).

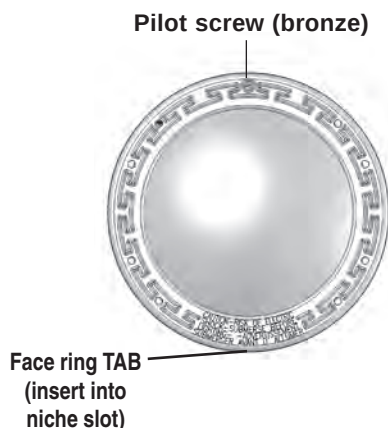
Note: The IntelliBrite light lens ships from the factory in the 'WIDE' (W) angle position. The "wide" position of the lens is typically used for lights located either side of the pool. The "narrow" position of the lens is typically used for lights located either end of the pool. To use the "NARROW" angle light beam, rotate the lens/gasket to align the letter "N" on lens. Note: For more information about using the "WIDE" and NARROW angle lens, see page 17.



- 4. INSTALL UNI-TENSION CLAMP:** With the hook ends of the circular uni-tension clamp pointing down, spread the clamp and place it in the "U" recesses of the locking levers. Be sure the hook ends of the clamp are located between the pair of locking levers as shown below and that the wire clamp is properly engaged with all of the lock levers.
- 5.** Place a cloth on the ground to protect the lens. Turn the light over so the lens is resting on the cloth. Be sure the orientation of the wire clamp and the bolt connection is positioned at 45°.
- 6.** Tighten the bolt and nut until the distance between the ends of the clamp equals ¼-inch or less. **Continue on next page.**



7. Coil at least four (4) feet of cord around the light fixture (see Figure 1 on page 6). This allows the light to be serviced after the pool is filled with water.
8. Connect the three light wires (or two wires) to the corresponding light circuit wires in the Junction Box. For three wire connection: Connect the black wire to power, white wire to common, and the green wire to ground. Secure the Junction Box cover.
9. Install the light assembly into the pool niche. **IMPORTANT: Be sure to insert the TAB on the lower part of the face ring into the niche SLOT (located on the lower part of the niche). This is important to secure the lower part of the light assembly onto the niche before tightening the pilot screw.**
10. Carefully tighten the special bronze pilot screw to secure the upper part of the light assembly onto the niche.



IntelliBrite Pool Light

11. **Final check for proper IntelliBrite® Light operation:** Switch on the main switch or circuit breaker to the system and the switch that operates the IntelliBrite light itself. The light should illuminate when power is applied. If not recheck the installation steps starting with Step 1 (page 4).

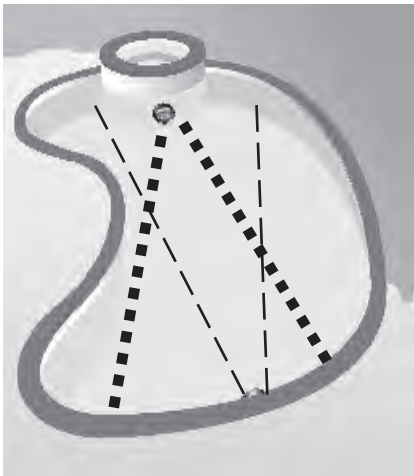
Wide and Narrow Angle Lens Adjustment

Wide and Narrow Angle Lens Feature

The IntelliBrite light lens geometry provides a choice of “wide” or “narrow” angle light beam to suit various size pools. For lights located on either side of the pool, rotate the lens to the ‘wide’ (W) angle position, which will provide a wider angle light beam for greater underwater coverage and light reflection the width of the pool. For lights located either end of the pool, rotate the lens to the ‘narrow’ (N) angle light beam position for increased underwater light intensity and distance. Note: The IntelliBrite light lens ships from the factory in the ‘WIDE’ (W) angle position.



**WIDE ANGLE LIGHT BEAM
(FOR SIDES OF POOL)**



**NARROW ANGLE LIGHT BEAM
(FOR ENDS OF POOL)**

IntelliBrite® 5G Pool Light Assembly Replacement Kit Part Numbers

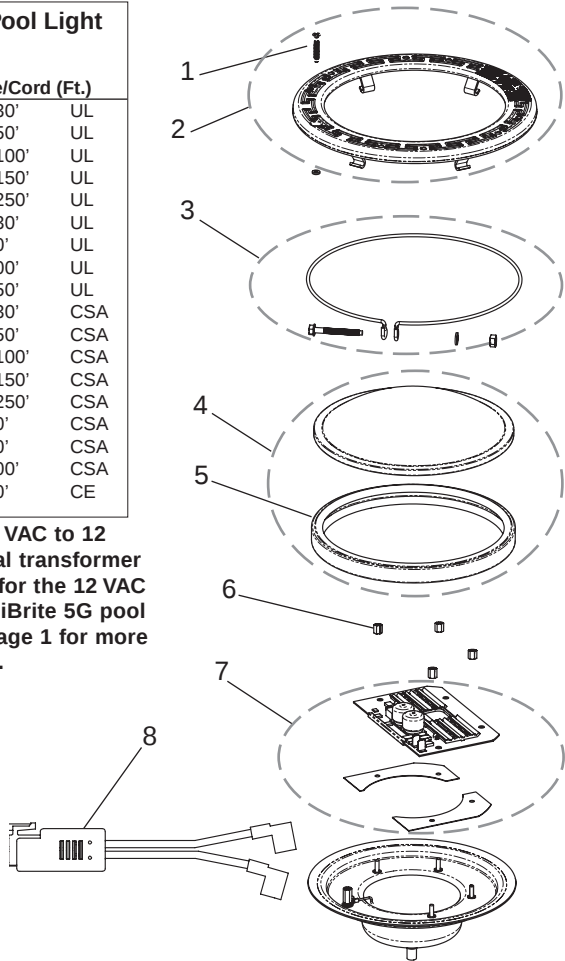
Note: A 120 VAC to 12 VAC external transformer is required for the 12 VAC model IntelliBrite pool white light. See page 1 for more information.

IntelliBrite 5G Pool Light Assembly (UL/CAS listing)		
Product Model	Voltage	Cord Length (feet)
601105	12V	30'
601106	12V	50'
601107	12V	100'
601108	12V	150'
601205	12V	30'
601206	12V	50'
601207	12V	100'
601208	12V	150'
601300	120V	30'
601305	12V	30'
601306	12V	50'
601307	12V	100'
601308	12V	150'

IntelliBrite® Pool Light Assembly Replacement Kit Part Numbers

5G White Pool Light (UL/CSA)	5G Color Pool Light (UL/CSA)
Model/Voltage/Cord (Ft.)	Model/Voltage/Cord (Ft.)
601100/120V/30'	601000/120V/30' UL
601101/120V/50'	601001/120V/50' UL
601102/120V/100'	601002/120V/100' UL
601103/120V/150'	601003/120V/150' UL
601104/120V/250'	601004/120V/250' UL
601105/12V/30'	601010/120V/30' UL
601106/12V/50'	601011/12V/50' UL
601107/12V/100'	601012/12V/100' UL
601108/12V/150'	601013/12V/150' UL
601200/120V/30'	602000/120V/30' CSA
601201/120V/50'	602001/120V/50' CSA
601202/120V/100'	602002/120V/100' CSA
601203/120V/150'	602003/120V/150' CSA
601204/120V/250'	602004/120V/250' CSA
601205/12V/30'	602010/12V/30' CSA
601206/12V/50'	602011/12V/50' CSA
601207/12V/100'	602012/12V/100' CSA
601208/12V/150'	602020/12V/10' CE
601300/120V/30'	
601301/120V/50'	
601302/120V/100'	
601303/120V/150'	
601304/120V/250'	
601305/12V/30'	
601306/12V/50'	
601307/12V/100'	
601308/12V/150'	

Note: A 120 VAC to 12 VAC external transformer is required for the 12 VAC model IntelliBrite 5G pool light. See page 1 for more information.



Item No.	Kit Part No.	Description
2, 3, 5	600095	Face Ring assembly, stainless steel. - Uni-tension wire clamp assembly. - Gasket, 8-3/8 in. diameter, silicon.
4, 5	619864Z	Replacement Lens Kit. - Gasket, 8-3/8 in. diameter, off white. - Lens, IntelliBrite, Pool, 8-3/8 in. diameter, tempered.
3, 5, 7	619875Z (UL) (300W), 619916 Z (400W), 619917Z (500W) - 619818Z (color)	Replacement kit includes: Circuit Board, Thermal Strips (2x). - Uni-tension wire clamp assembly. - Gasket, 8-3/8 in. silicon diameter, off white.
1	79104800	Pilot screw, with captive gum washer.
5	79101601	Gasket, 8-3/8 in. diameter, silicone.
8	620276	Fuse Harness Kit (For 12 V lights only)

Note: The 120 VAC IntelliBrite pool light has an integrated 12 VAC transformer.

Replacing the IntelliBrite® 5G Spa Light Face ring and Gasket (P/N 640045) or Gasket and Lens (640046) see page 21

Note: When replacing an IntelliBrite 5G Spa light assembly, a new spa light assembly includes a light engine, lens, gasket and face ring (for part light assembly part numbers, see page 23).

DANGER



DANGER !

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION

Always disconnect power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to installer, pool professional, pool users, or others due to electrical shock.

1. **Turn off main electrical switch or circuit breaker**, as well as the switch which operates the IntelliBrite underwater light itself.

WARNING

Always install a new lens gasket (P/N 79108600). Whenever disassembling the IntelliBrite light assembly. Failure to do so may permit water to leak into the assembly which could cause: **(a)** an electrical hazard resulting in death or serious injury to pool users, installers, or others due to electrical shock, or **(b)** breakage of the lens, which likewise could result in serious injury to pool users, installers, or bystanders, or in damage to property.

Pilot screw (bronze)



IntelliBrite 5G Spa Light

2. **REMOVING THE INTELLIBRITE SPA LIGHT:** Remove the pilot screw at top of face ring, remove the light assembly from the niche. Place the assembly on the deck. **Note:** It is not necessary to drain down the pool.

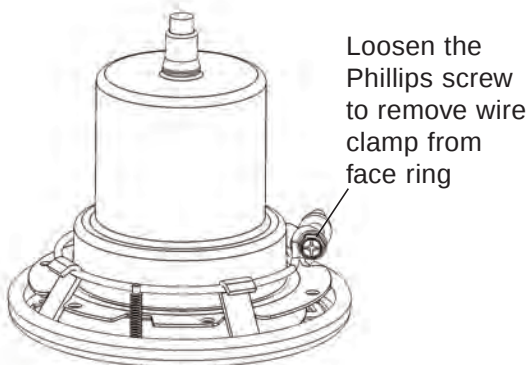
WARNING

Be sure to keep the pilot screw from the IntelliBrite light. This screw mounts and electrically grounds the housing securely to the mounting ring and wet niche. Failure to use the screw provided could create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock.

3. Using a #3 Phillips head screwdriver, loosen the CLAMP SCREW and remove uni-tension wire clamp from the face ring.
4. Remove the face ring and wire clamp from the light housing and **set aside for installation later.**

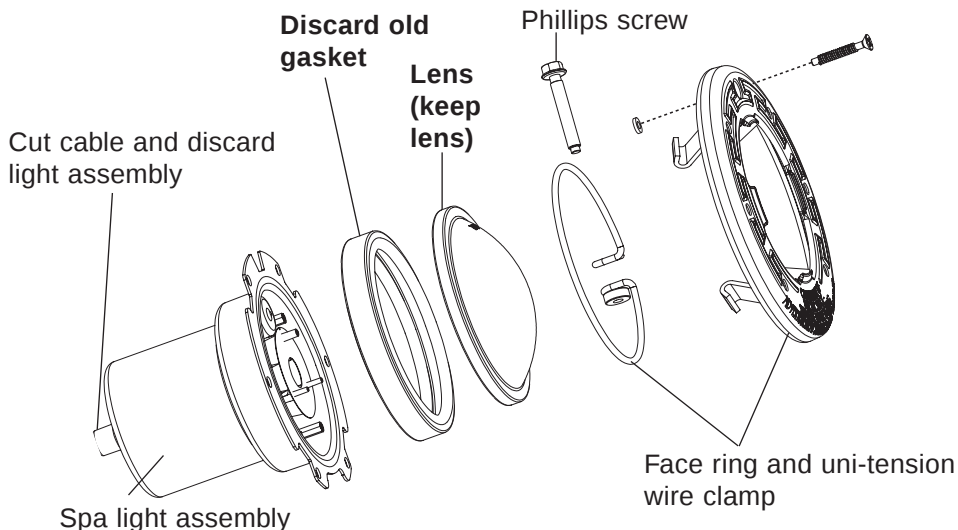
Note: A 120 VAC to 12 VAC external transformer is required for the 12 VAC model IntelliBrite® Spa Light. See page 1 for more information.

Note: The IntelliBrite Spa Light fixture is a sealed light assembly with no replaceable circuit board assembly. Only the lens, gasket and face ring can be removed from the sealed light assembly for replacement. See page 23 for replacement kit part numbers.

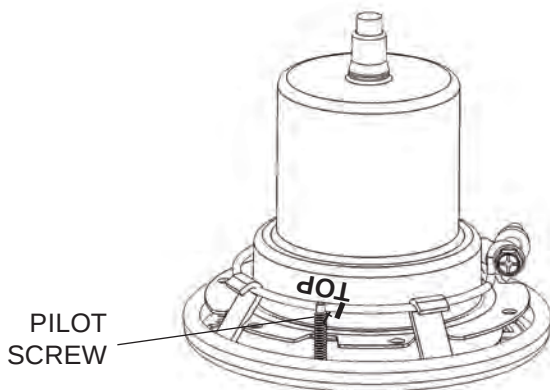


Spa light fixture with lens, gasket and face ring attached

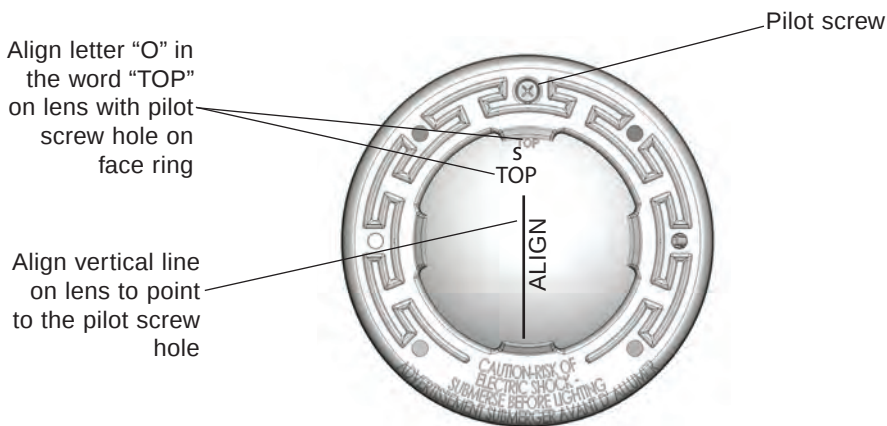
5. With the light assembly resting on its base, carefully pry off the gasket to release the lens. Discard the gasket. A NEW LENS GASKET MUST BE USED EACH TIME THE SPA LIGHT IS REASSEMBLED
6. Disconnect the IntelliBrite spa light assembly cord from the junction box. **Cut the cord near the back of the light assembly and discard the light. See page 4 for replacement instructions for the new spa light.**



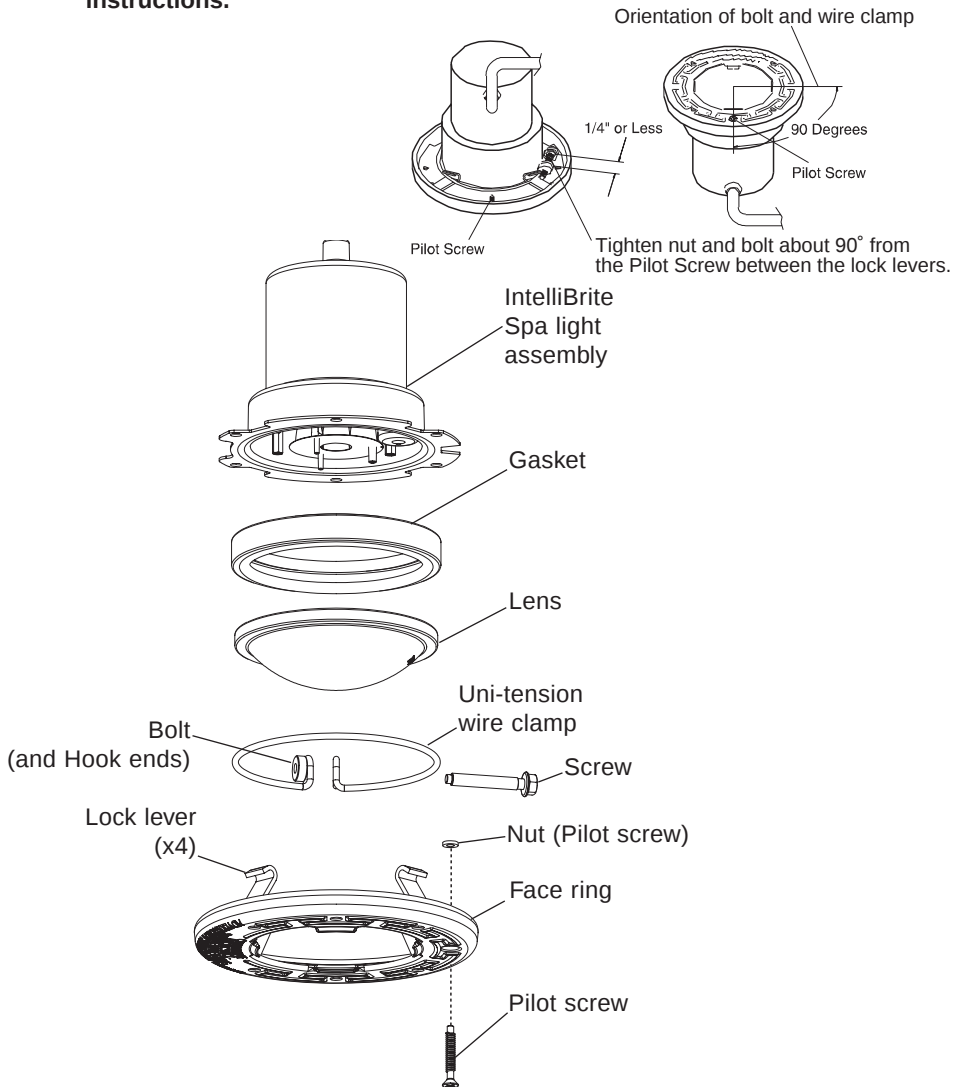
7. **INSTALLING THE INTELLIBRITE® SPA LIGHT WITH NEW GASKET:** Install a new gasket during reassembly of the IntelliBrite spa light. A NEW LENS GASKET MUST BE USED EACH TIME THE LIGHT IS REASSEMBLED.
8. **Install the new gasket onto the lens:** With the light housing resting on its base, place the lens then the gasket on top of the light housing.
9. **INSTALL FACE RING:** Place the face ring on top of the lens/gasket/housing. Rotate the light housing to align the "TOP" position arrow indicator label on the rear of the housing is aligned with the pilot screw on the face ring. Place the face ring on top of the gasket. Make sure that the lens and gasket are centered correctly on the light housing.



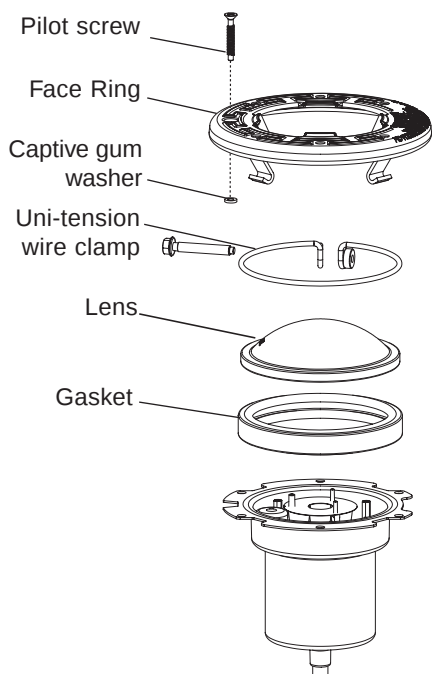
10. **Aligning the face ring and lens:** Align the face ring and vertical line on the lens so that the letter "O" in the word "TOP" and the small arrow above it) on the surface of the lens points to the 12 O'clock position and with pilot screw hole on the face ring.



11. **INSTALL UNI-TENSION CLAMP:** With the hook ends of the circular uni-tension clamp pointing down, spread the clamp and place it in the “U” recesses of the locking levers. Be sure the hook ends of the clamp are located between the pair of locking levers as shown below and that the wire clamp is properly engaged with all of the lock levers.
12. Place a cloth on the ground to protect the lens. Turn the light over so the lens is resting on the cloth. Be sure the orientation of the wire clamp and the bolt connection is positioned at 45°. Tighten the bolt and nut until the distance between the ends of the clamp equals 1/4-in or less.
13. **PROCEED TO “Replacing the IntelliBrite® Spa Light Assembly (in an existing pool or spa)” on page 4 for spa light assembly installation instructions.**



IntelliBrite® 5G Spa Light Replacement Kit Numbers



IntelliBrite® 5G Color Spa Light Assembly (Listing UL/CSA)

Product Model	Voltage	Cord Length (feet)
640120	120V	30'
640121	120V	50'
640122	120V	100'
640123	120V	150'
640124	120V	250'
640130	12V	30'
640131	12V	50'
640132	12V	100'
640133	12V	150'

IntelliBrite® 5G White Spa Light Assembly (Listing UL/CSA)

Product Model	Voltage	Cord Length (feet)
640140	120V	30'
640141	120V	50'
640142	120V	100'
640143	120V	150'
640144	120V	250'
640150	12V	30'
640151	12V	50'
640152	12V	100'
640153	12V	150'

Kit Part No.	Description
640045	Face ring assembly, stainless steel - Uni-tension wire clamp assembly - Gasket, 4 in diameter, off white
640046	Gasket, 4 in diameter, off white - Lens, IntelliBrite, Spa, 4 in diameter, tempered
79104800	Pilot screw, with captive gum washer
791108600	- Gasket, 4 in diameter, silicone

Note: A 120 VAC to 12 VAC external transformer is required for the 12 VAC model IntelliBrite spa light. See page 1 for more information.



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P/N 619921 REV. K 4/2015



INTELLIBRITE® 5G

LAMPE À DEL BLANCHE POUR SPA ET LAMPE À
DEL COULEUR SUBMERSIBLE POUR PISCINE



GUIDE D'UTILISATION ET D'INSTALLATION

INSTRUCTIONS DE SÉCURITÉ IMPORTANTES
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CONSERVEZ CES INSTRUCTIONS

Soutien technique (USA)

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Numéros de pièces de l'ensemble de remplacement de lampe IntelliBrite 5G pour spa.....	24

Avant l'installation des lampes, lisez ce qui suit :

⚠ AVERTISSEMENT Toujours installer un nouveau joint de lentille (voir le numéro de pièce dans le Guide de l'utilisateur aux pages 9 et 19) lors de chaque remontage de la lampe. Ne pas le faire peut permettre à l'eau d'entrer dans l'ensemble, ce qui pourrait causer : (a) un danger électrique pouvant entraîner la mort ou des blessures graves pour les utilisateurs de la piscine, l'installateur ou d'autres personnes en raison de décharges électriques; (b) un bris de la lampe ou de la lentille, ce qui pourrait entraîner des blessures graves à l'utilisateur de la piscine, aux installateurs ou à des personnes à proximité, ou encore des dommages à la propriété.

POUR LES LAMPES 12 V CA : TOUJOURS UTILISER UN TRANSFORMATEUR ABAISSEUR POUR ALIMENTER LES LAMPES. VOIR LE SCHÉMA À LA PAGE 7.
Remarque : Brancher les trois fils aux fils correspondants du circuit dans la boîte de jonction (fil noir à l'alimentation, fil blanc au conducteur commun et fil vert à la mise à la terre).

SPÉCIFICATION DES LAMPES 12 V CA : 12 V CA, 50/60 Hz. REMPLACER TOUT COUVERCLE PROTECTIF FISSURÉ (LENTILLE FÊLÉE) AVEC UNE NOUVELLE LENTILLE ET UN NOUVEAU JOINT.

⚠ MISE EN GARDE **LA LAMPE À DEL INTELLIBRITE 5G POUR PISCINE ET SPA NE PEUT PAS ÊTRE UTILISÉE AVEC UN GRADATEUR. L'UTILISATION D'UN GRADATEUR SE TRADUIRA PAR DES DOMMAGES PERMANENTS À LA LAMPE.**

MISES EN GARDE ET CONSIGNES DE SÉCURITÉ IMPORTANTES

⚠ DANGER

DES BLESSURES GRAVES OU LA MORT PEUVENT S'ENSUIVRE SI CETTE LAMPE N'EST PAS INSTALLÉE OU UTILISÉE CORRECTEMENT.

⚠ DANGER

LES INSTALLATEURS, UTILISATEURS OU PROPRIÉTAIRES DE PISCINE DOIVENT LIRE CES AVERTISSEMENTS ET TOUTES LES INSTRUCTIONS AVANT D'UTILISER LA LAMPE À DEL POUR PISCINE ET/OU SPA.

⚠ AVERTISSEMENT

Les codes locaux et ceux de la majorité des provinces/états couvrent la construction, l'installation et l'utilisation des piscines et spas publics et la construction de piscines et spas résidentiels. Il est important de se conformer à ces codes, dont un grand nombre régissent l'installation et l'utilisation de ce produit. Consultez les codes locaux du bâtiment et de la santé pour obtenir plus d'informations.



AVIS IMPORTANT - À l'attention de l'installateur : Ce guide d'utilisation et d'installation (« Guide ») comporte des informations importantes sur l'installation, le fonctionnement et l'utilisation sûre de cette lampe pour piscine et spa. Ce Guide doit être remis au propriétaire et/ou à l'utilisateur de cet équipement.

⚠ AVERTISSEMENT

Avant d'installer ce produit, lisez et respectez tous les avertissements et instructions présentés dans ce Guide. Le non respect de ces avertissements et instructions peut entraîner des blessures graves, voire mortelles ou des dommages matériels. Composez le (800) 831-7133 (USA) pour d'autres copies gratuites de ces instructions. Veuillez vous reporter à www.pentairpool.com pour obtenir plus d'informations sur ce produit.

⚠ DANGER



RISQUE DE DÉCHARGE ÉLECTRIQUE OU D'ÉLECTROCUTION :

La lampe à DEL pour spa et la lampe à DEL 5G pour piscine IntelliBrite NÉCESSITENT UNE TENSION ÉLEVÉE QUI PEUT PROVOQUER UNE DÉCHARGE ÉLECTRIQUE, DES BRÛLURES OU LA MORT.

AVANT DE TRAVAILLER SUR LES LAMPES INTELLIBRITE ! Débranchez toujours l'alimentation de l'éclairage de la piscine/du spa au niveau du disjoncteur de la lampe avant de faire l'entretien de celle-ci. Le non respect de cette consigne peut entraîner des blessures graves, voire mortelles, du réparateur, des utilisateurs de la piscine et d'autres personnes suite à une décharge électrique.

Cette lampe submersible doit être installée par un électricien agréé ou certifié ou par un professionnel compétent en piscine conformément au National Electrical Code (NEC), NFPA 70 ou au Code canadien de l'électricité (CCE), CSA C22.1. Tous les codes et règlements locaux applicables doivent être respectés. Une installation inappropriée entraînera un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique, pouvant aussi entraîner des dommages matériels. Débranchez toujours l'alimentation de l'éclairage de la piscine au niveau du disjoncteur avant de faire l'entretien de la lampe. Le non respect de cette consigne peut entraîner des blessures graves, voire mortelles des réparateurs, utilisateurs de la piscine et autres personnes suite à une décharge électrique.

⚠ AVERTISSEMENT

Informations de sécurité importantes pour l'installation de niche et de lampe Pentair

- Toutes les installations de niches et de lampes doivent être conformes à tous les codes. Si les codes locaux exigent un joint de cordon, utilisez les niches en plastique de Pentair Water Pool and Spa (pièce n° 79206600 et pièce n° 79206700) et un nécessaire de joint de cordon (pièce n° 670044).
- En aucun cas, les lampes ne peuvent être remplacées en faisant un épissage de fils situés sous l'eau ou derrière une niche.



LISEZ ET SUIVEZ TOUTES LES INSTRUCTIONS DE CE MANUEL.

MISES EN GARDE ET CONSIGNES DE SÉCURITÉ IMPORTANTES

⚠ AVERTISSEMENT

RISQUE DE DÉCHARGE ÉLECTRIQUE ET DE BLESSURE. N'UTILISEZ QUE LA MÉTHODE D'INSTALLATION PRÉCISÉE CI-DESSOUS.

Emplacement du luminaire installé	Appareil de fontaine de Pentair Water Pool and Spa* (pièces n°s 560001 et 560000)	Méthode d'installation requise
Piscine et spa	Luminaire (lampe) pour piscine (ou spa) à niche humide	Boîtier d'appareil (coque de formation) SEULEMENT. N'UTILISEZ PAS le support d'appareil à fontaine
Fontaine	Luminaire (lampe) pour piscine (ou spa) submersible à niche humide	Boîtier d'appareil (coque de formation) ou support d'appareil à fontaine

(*) Remarque : Les luminaires à niche humide conformes aux exigences des deux types d'emploi peuvent porter les deux marques UL pour luminaires submersibles à niche humide listés. Un luminaire ne portant pas la marque d'homologation UL correspondante n'est pas considéré par UL comme étant fabriqué selon le service de suivi et la norme UL pour l'emplacement associé à l'installation.

ATTENTION - L'appareil d'éclairage à DEL IntelliBrite de Pentair Water Pool and Spa® ne doit être utilisé que dans des boîtiers (niches) Pentair Water Pool and Spa. Si l'appareil d'éclairage à DEL IntelliBrite est installé dans d'autres niches, l'installation ne portera pas l'homologation UL et les garanties seront nulles et non avenues.

AVIS : Le câble ou le cordon flexible externe de ce luminaire ne se remplace pas; si le cordon est endommagé, le luminaire doit être détruit.

⚠ AVERTISSEMENT

Pour les pays en conformité avec les normes de la Commission électrotechnique internationale : Cet appareil d'éclairage doit être

installé par un électricien agréé ou certifié ou par une personne qualifiée pour l'entretien de piscine, selon la norme IEC 364-7-702 et tous les codes et règlements locaux applicables. Une installation inappropriée créera un risque d'électrocution pouvant entraîner des blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique, pouvant aussi entraîner des dommages matériels.

⚠ AVERTISSEMENT

Le sel est un matériau corrosif. Même si les niveaux de sel nécessaires pour un bon fonctionnement d'un générateur de chlore électronique sont relativement faibles comparativement à l'eau de mer et aux autres solutions salines, toute quantité de sel quelle qu'elle soit dans votre piscine augmente la possibilité de corrosion ou d'autres détériorations de l'équipement de la piscine et de toute surface de la piscine ou d'objets avoisinants. Les pièces métalliques et certaines surfaces artificielles sont particulièrement susceptibles à la corrosion et à la détérioration lorsqu'elles sont utilisées dans des piscines d'eau salée ou près de celles-ci. Pentair Water Pool and Spa ne fournit pas de garantie et ne garantit pas que l'utilisation appropriée d'un générateur de chlore électronique empêchera la corrosion ou autre détérioration de l'équipement de piscine et de toute surface de la piscine ou se trouvant proche de celle-ci. Consultez votre professionnel compétent dans le domaine des piscines qui devrait pouvoir vous donner des conseils sur le bon choix des matériaux, les techniques d'installation de ces matériaux, ainsi que sur leur entretien et utilisation appropriés selon le type et l'emplacement particuliers de votre piscine afin de minimiser la corrosion et la détérioration des piscines d'eau salée et de leurs environs.

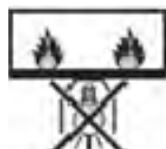
LAMPES FIXES POUR PISCINE ET SPA : Suivez ces lignes directrices lors de l'installation, du remplacement ou de la réparation des lampes fixes pour piscine et spa Pentair :

- **REPLACER TOUT COUVERCLE PROTECTIF FISSURÉ (LENTILLE FÊLÉE) AVEC UNE NOUVELLE LENTILLE ET UN NOUVEAU JOINT. POUR OBTENIR PLUS D'INFORMATION, VOIR LA PAGE 11.**
 - **POUR L'UTILISATION DE LA LUMIÈRE, UTILISER UNIQUEMENT UN TRANSFORMATEUR D'ISOLATION DE SÛRETÉ.**

AVERTISSEMENT! Ces lampes ne conviennent pas pour un montage direct sur des surfaces normalement inflammables (elles conviennent UNIQUEMENT au montage sur des surfaces non inflammables).

Spécifications des lampes fixes pour piscine et spa :

12 V CA 50/60 Hz – 120 V CA  50/60 Hz.



Montage en surface

Présentation des lampes IntelliBrite® 5G pour piscine et spa

Ce manuel explique comment installer les lampes IntelliBrite 5G blanches et colorées pour piscine et les lampes IntelliBrite 5G blanches et colorées pour spa.

La lampe IntelliBrite 5G blanche fournit une lumière blanche brillante pour un effet spectaculaire dans votre piscine et votre spa. La lentille de la lampe IntelliBrite 5G (lumière de piscine seulement) permet de choisir entre deux formes de faisceau lumineux : une couverture plus large avec moins d'intensité ou une couverture plus étroite avec plus d'intensité.

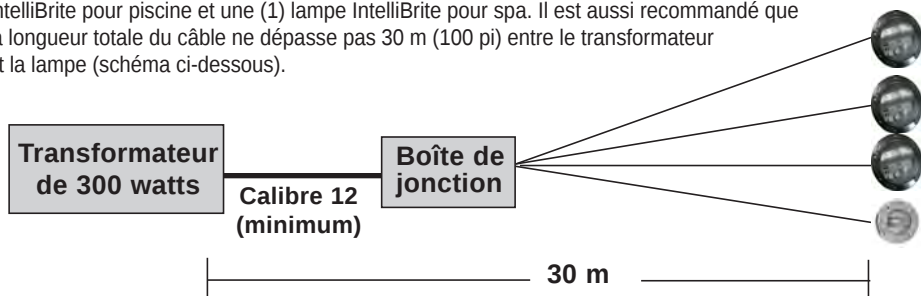
La lampe IntelliBrite 5G colorée fournit plusieurs couleurs vives et intenses avec des effets spectaculaires pour votre piscine et votre spa. Choisissez l'un des sept spectacles de lumières colorées préprogrammés ou l'une des cinq couleurs fixes pour créer une sélection presque infinie d'effets de lumières aquatiques d'ambiance pour un résultat spectaculaire dans votre piscine ou votre spa.

Utilisation des lampes pour piscine et spa avec un interrupteur mural (12 V CA)

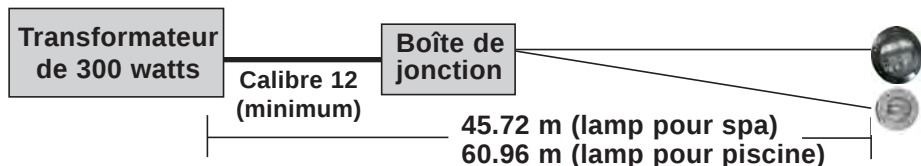
Les lampes 5G IntelliBrite pour piscine et spa peuvent être contrôlées manuellement à l'aide d'un interrupteur mural standard. Grâce à une boîte de jonction, plusieurs lampes IntelliBrite peuvent être raccordées à un seul interrupteur afin que toutes les lampes puissent être allumées et éteintes simultanément. Les lampes IntelliBrite peuvent également être contrôlées automatiquement par les systèmes de contrôle Pentair IntelliTouch®, EasyTouch® et SunTouch®. **Remarque : Plusieurs lampes IntelliBrite 5G pour piscine et spa peuvent également être contrôlées à l'aide du régulateur IntelliBrite. Pour obtenir plus d'information, voir la page 2.**

Utilisation d'un transformateur externe pour multiples lampes IntelliBrite de 12 V CA

Lors de l'utilisation de multiples lampes à DEL IntelliBrite pour piscine de 12 VCA sur un **transformateur de 300 watts**, il est recommandé de ne pas utiliser plus de deux lampes IntelliBrite pour piscine et une (1) lampe IntelliBrite pour spa. Il est aussi recommandé que la longueur totale du câble ne dépasse pas 30 m (100 pi) entre le transformateur et la lampe (schéma ci-dessous).



Si une longueur de câble plus importante est nécessaire, il est recommandé d'utiliser un transformateur de 300 watts séparé pour chaque lampe avec une longueur de câble non supérieure à 61 m au total entre le transformateur et la lampe (schéma ci-dessous).



Allumage des lampes IntelliBrite 5G

Il est possible de commander les lampes à DEL IntelliBrite 5G pour piscine en utilisant un interrupteur mural standard. De multiples lampes à DEL IntelliBrite peuvent être connectées ensemble par l'intermédiaire d'une boîte de jonction à un seul interrupteur pour les allumer ou les éteindre toutes ensemble. Les lampes IntelliBrite 5G se commandent en commutant l'alimentation CA à partir d'un interrupteur mural standard. En mettant l'interrupteur sur marche et sur arrêt un certain nombre de fois, la lampe active l'un des sept modes de jeu de lumière, les couleurs fixes, ainsi que la caractéristique d'« attente » et de « rappel ».

Sélection du mode spectacle de couleurs ou couleur fixe

Alimentation de la lampe. La lumière sera momentanément couleur, puis passera à la couleur préalablement choisie. Pour sélectionner un mode de jeu de couleurs (1-7) ou une couleur fixe (8-12), mettez l'interrupteur mural sur arrêt/sur marche un certain nombre de fois. Chaque chiffre (1-12) illustré ci-dessous correspond au nombre de rallumages au niveau de l'interrupteur pour activer un certain jeu de lumière ou une couleur fixe. Pour obtenir des détails sur la sauvegarde des effets de couleur tout en étant en modes « show » (jeu de lumière), consultez la caractéristique d'« attente » et de « rappel » à la page 4.

1. **Mode SAm** : passe du blanc aux couleurs magenta, bleue et verte (imite la lampe Pentair SAm®).
2. **Mode Partie** : changement rapide des couleurs, accumulant énergie et agitation.
3. **Mode Romantique** : transitions lentes d'une couleur à une autre créant un effet tranquille et envoûtant.
4. **Mode Caraïbes** : transitions entre divers bleus et verts.
5. **Mode Amérique** : transitions entre le rouge, le blanc et le bleu patriotiques.
6. **Mode Coucher de soleil californien** : transitions dramatiques entre les tons orange, rouge et magenta.
7. **Mode Royal** : tons riches et profonds.
8. **Bleu** : couleur fixe.
9. **Vert** : couleur fixe.
10. **Rouge** : couleur fixe.
11. **Blanc** : couleur fixe.
12. **Magenta** : couleur fixe.
13. **Attente** : sauvegarde l'effet de couleur actuel pendant un jeu de lumière.
14. **Rappel** : active le dernier effet de couleur sauvegardé.

Sauvegarde d'un mode couleur ou d'une couleur fixe : Lorsque l'alimentation des lampes IntelliBrite est coupée, le dernier Mode jeu de couleurs ou la couleur fixe est sauvegardé. Lors de prochaine alimentation de la lampe IntelliBrite, le mode jeu de couleurs ou la couleur fixe sauvegardé préalablement s'affiche. Par exemple, en « Mode Partie », l'interrupteur est à l'arrêt. Attendez plus de 10 secondes, rallumez la lampe pour relancer le « Mode Partie ».

⚠ AVERTISSEMENT Lors de la commutation Arrêt/Marche, avant l'apparition de la couleur sélectionnée, il n'y a aucun éclairage. Ce mode de fonctionnement est normal lors de la commutation. Lors de cette période, la piscine et le spa ne sont pas éclairés et il faut alors prendre des précautions pour éviter des accidents inattendus. Le non respect de cet avertissement peut entraîner des blessures graves, voire mortelles des utilisateurs de la piscine et du spa.

Utilisation d'un régulateur de lampe colorée IntelliBrite

Avec le régulateur IntelliBrite (vendu séparément, N/P 600054), les lampes colorées IntelliBrite 5G pour piscine et spa peuvent être synchronisées pour allumer et éteindre simultanément une seule ou plusieurs lampes IntelliBrite.

Allumage des lampes IntelliBrite 5G (suite)

Pour sélectionner un mode Spectacle de lumières colorées ou une couleur fixe, tourner le cadran pour le faire pointer dans la direction voulue.

Fonctions Hold (Mémoriser) et Recall (Rappel) : Lorsque les lampes colorées IntelliBrite sont allumées, la dernière couleur sélectionnée sera utilisée, à moins que les fonctions MÉMORISER ou RAPPEL aient été activées.

Bouton et DEL Hold (Mémoriser) : Appuyer sur ce bouton (lumière DEL allumée) pour mémoriser et enregistrer un effet de couleur durant l'affichage de l'un des modes Spectacle de lumières colorées. Sur une pression du bouton, la lumière DEL s'allumera pour indiquer que l'effet de couleur est mémorisé.

Bouton et DEL Recall (Rappel) : Appuyer sur ce bouton (lumière DEL allumée) pour activer le dernier effet de couleur mémorisé. Sur une pression du bouton, la lumière DEL s'allumera pour indiquer que l'effet de couleur est affiché.

Allumage de la lampe -Lorsque la lampe à DEL IntelliBrite LED est allumée, une lumière couleur paraît d'abord momentanément, elle est ensuite suivie de la couleur préalablement choisie.

Remarque : Si l'alimentation de la lampe est coupée pendant plus de cinq secondes, le dernier mode de jeu de couleurs ou la dernière couleur fixe qui était sauvegardé s'affichera.

Diagnostic - Utilisez les astuces suivantes pour aider à la résolution de problèmes pouvant avoir lieu lors de l'utilisation de la lampe à DEL.

Fonction d'attente et de rappel -Attente : Utilisez la fonction **Attente** (13 commutations) pour capter et sauvegarder un effet de couleurs tout en affichant l'un des modes jeu de lumière. Il est plus facile de capter des effets de lumière personnalisés à partir de l'un des modes de jeu de lumière lent comme le « Mode Romantique » (n° 3).

Rappel : Utilisez la caractéristique **Rappel** pour activer le dernier effet de couleurs sauvegardé (en utilisant la caractéristique **Attente**) tout en étant en mode jeu de couleurs ou couleur fixe. Pour rappeler un effet de couleur, commutez 14 fois, et après cinq secondes, le dernier effet de couleur sauvegardé sera affiché.

Problème	Cause/Action
La lampe ne s'allume pas.	Vérifiez le câblage du disjoncteur différentiel et réenclenchez-le au besoin.
La lampe ne fonctionne pas correctement.	Vérifiez la connexion du câblage de la lampe au niveau de la boîte de jonction près de la piscine et au niveau de l'interrupteur CA. Assurez-vous qu'une alimentation CA appropriée arrive à la lampe.

Remplacement de l'ensemble de la lampe IntelliBrite 5G pour piscine et spa (dans une piscine existante)



Risque de décharge électrique ou d'électrocution!

La lampe submersible doit être installée par un électricien agréé ou certifié ou par une personne qualifiée et spécialisée en piscine, selon le National Electrical Code et tous les codes et règlements locaux applicables. Une installation inappropriée entraînera un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique, pouvant aussi entraîner des dommages matériels.

Débranchez toujours l'alimentation de l'éclairage de la piscine au niveau du disjoncteur avant de faire l'entretien de la lampe. Le non respect de cette consigne peut entraîner des blessures graves, voire mortelles des réparateurs, utilisateurs de la piscine et autres personnes suite à une décharge électrique.

Vérifiez que la piscine et le spa sont conformes aux exigences du National Electrical Code et à tous les codes et règlements locaux applicables. Un électricien agréé ou certifié doit installer le circuit électrique afin qu'il réponde à ces exigences et même les dépasse avant même que la lampe submersible ne soit installée. Certaines exigences du National Electrical Code que doit respecter le circuit électrique de la piscine sont les suivantes :

- Le circuit de l'éclairage doit être équipé d'un disjoncteur différentiel (GFCI) pour les modèles prévus pour une alimentation sur le secteur, et d'un disjoncteur de calibre approprié.
- La boîte de jonction (ou, pour **les modèles de 12 volts**, le transformateur de basse tension) est située à au moins vingt (20) centimètres (8 pouces) au-dessus du niveau du sol et à au moins 122 cm (48 po) du bord de la piscine, Figure 1 à la page 3.
- L'appareil d'éclairage et tous les articles métalliques se trouvant à moins de 1,5 mètre (5 pieds) de la piscine doivent être correctement électriquement raccordés.
- La niche humide doit être correctement installée de manière que le bord supérieur de la lentille de la lampe se trouve à au moins 46 cm (18 po) en dessous de la surface de l'eau de la piscine, Figure 1 à la page 3.
- La niche humide doit être correctement électriquement raccordée et mise à la terre via le connecteur de terre de 8 AWG situé à l'arrière de la niche, Figure 1.

Remarque : Le circuit électrique de la piscine et du spa peut être vérifié en utilisant un nécessaire d'essai d'homologation électrique pour piscine et spa.

Ce nécessaire d'essai est disponible auprès de Pentair Water Pool and Spa.

L'inspection du circuit électrique à réaliser avec ce nécessaire doit être exécutée par du personnel certifié et compétent.

Remplacement de l'ensemble de la lampe IntelliBrite 5G pour piscine et spa (après la satisfaction des exigences en matière d'électricité)

Les instructions de dépose et d'installation décrivent comment enlever et installer l'ensemble de lampe à DEL IntelliBrite pour piscine et spa. Utilisez aussi ces instructions après avoir terminé le remplacement suivant de la lampe :

- **Instructions d'installation et de dépose de la lentille, du joint de l'anneau frontal et de la lampe à DEL IntelliBrite couleur pour spa, page 17.**

AVERTISSEMENT

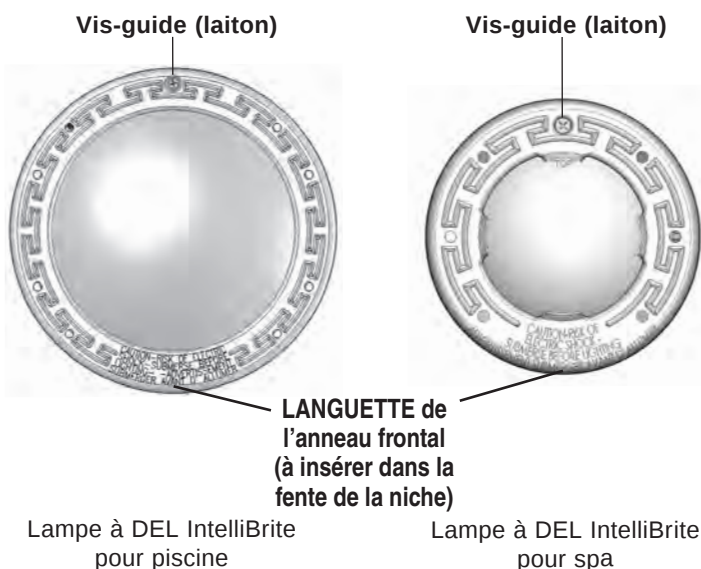
Une installation inappropriée d'un circuit électrique pour la piscine ou le spa, avant la pose de la lampe submersible, non conforme aux exigences des codes, entraînera un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique, et pouvant aussi entraîner des dommages matériels.

1. **AVERTISSEMENT ! Coupez l'alimentation au disjoncteur ou à l'interrupteur principal, et à l'interrupteur de l'alimentation de la lampe submersible IntelliBrite.**
2. **Dépose de la piscine de l'ensemble de lampe.** Retirez la vis-guide spéciale en laiton à la partie supérieure de l'anneau frontal. Retirez l'ensemble de la lampe IntelliBrite de la niche et placez-le sur le pourtour de la piscine.
3. Coupez le cordon à environ 30 cm (12 po) de l'arrière de l'ensemble de lampe.
4. Retirez le couvercle de la boîte de jonction, débranchez les fils de l'appareil d'éclairage et tirez le cordon par le conduit. **Conseil : Avant de tirer le cordon, rubanez le cordon neuf au cordon existant, pour faciliter l'insertion du cordon neuf dans le conduit (voyez l'étape suivante).**
5. Passez le cordon neuf de la lampe dans le conduit de la boîte de jonction jusqu'à la niche. **Remarque :** Selon la longueur du conduit, des outils spéciaux peuvent être nécessaires pour tirer le cordon d'un bout à l'autre du conduit.
6. Laissez au moins 1,2 m (4 pi) de cordon enroulé(s) autour de la lampe, Figure 1 à la page 3. Ce 1,2 m de cordon enroulé autour de la lampe permettra de connecter la lampe une fois que la piscine sera remplie d'eau.
7. Coupez le cordon au niveau de la boîte de jonction en laissant une longueur de cordon d'au moins 15 cm (6 po) pour réaliser les raccordements.
8. Enlevez 15 cm de la gaine extérieure du cordon pour exposer les trois fils isolés – Faites attention de ne pas endommager l'isolant de ces trois fils.

9. Branchez les trois fils aux fils du circuit correspondant dans la boîte de jonction (le noir à la phase, le blanc au neutre et le vert à la terre) et remontez le couvercle de la boîte de jonction.
10. Installez l'ensemble de lampe IntelliBrite dans la niche et serrez la vis-guide spéciale en laiton.

⚠ AVERTISSEMENT

N'utilisez que **la vis-guide spéciale fournie** avec cette lampe submersible. Cette vis fixe le boîtier à l'anneau de montage et à la niche humide et les met à la terre. Une non utilisation de la vis fournie pourrait entraîner un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique.



11. Vérification finale du bon fonctionnement de la lampe IntelliBrite :

Établissez l'alimentation à l'interrupteur principal ou au disjoncteur du circuit, et à l'interrupteur de l'alimentation de la lampe submersible IntelliBrite. La lampe doit s'allumer lorsque l'alimentation est établie. Sinon, revérifiez les étapes de l'installation à partir de l'étape 1 (page 4).

INSTALLATION DE LA LAMPE INTELLIBRITE 5G POUR PISCINE ET SPA (DANS UNE NOUVELLE PISCINE)

Ce qui suit décrit comment installer un appareil d'éclairage à DEL IntelliBrite blanc pour piscine et spa. Lisez la page 3 avant de commencer l'installation.

AVANT DE COMMENCER : Les étapes suivantes 1-7 (pages 7-8) décrivent les tâches que l'électricien doit accomplir avant d'installer l'appareil d'éclairage IntelliBrite. Consultez le schéma de la Figure 1 à la page 7.

AVERTISSEMENT

Assurez-vous que la piscine ou le spa est conforme aux exigences du National Electrical Code (N.E.C.) actuel, Article 680-22, et à tous les codes et règlements locaux applicables. Un électricien agréé ou certifié doit installer le circuit électrique afin qu'il réponde à ces exigences et même les dépasse avant même que la lampe submersible ne soit installée. Certaines exigences du National Electrical Code que doit respecter le circuit électrique de la piscine sont les suivantes :

Le circuit de l'éclairage doit être équipé d'un disjoncteur différentiel (GFCI) pour les modèles prévus pour une alimentation sur le secteur, et d'un disjoncteur de calibre approprié.

- La boîte de jonction (ou, pour les modèles de 12 volts, le transformateur de basse tension) est située à au moins 20 cm au-dessus du niveau maximal de l'eau et à au moins 1,2 m du bord de la piscine, Figure 1.
- L'appareil d'éclairage et tous les articles métalliques se trouvant à moins de 1,5 m de la piscine doivent être correctement électriquement raccordés.
- La niche humide doit être correctement installée de manière que le bord supérieur de la lentille de la lampe submersible se trouve à au moins 46 cm en dessous de la surface de l'eau de la piscine, Figure 1. (Au Canada, pas à une profondeur de plus de 51 cm.)
- La niche humide doit être correctement électriquement raccordée et mise à la terre via le connecteur de terre de 8 AWG situé à l'arrière de la niche, Figure 1.

Remarque : Le circuit électrique de la piscine ou du spa peut être vérifié en utilisant un nécessaire d'essai d'homologation électrique pour piscine et spa. Ce nécessaire d'essai est disponible auprès de Pentair Water Pool and Spa®. L'inspection du circuit électrique à réaliser avec ce nécessaire doit être exécutée par du personnel certifié et compétent.

Remarque : *Pour vous assurer que le circuit électrique de la piscine ou du spa répond à toutes les exigences applicables, l'électricien doit aussi consulter le Service de la construction local. N'utilisez que des niches humides de Pentair Water Pool and Spa pour assurer une liaison électrique et une mise à la terre appropriées.*

INSTALLATION DE LA LAMPE INTELLIBRITE 5G POUR PISCINE ET SPA (APRÈS LA SATISFACTION DES EXIGENCES EN MATIÈRE D'ÉLECTRICITÉ)

Installation de l'appareil d'éclairage IntelliBrite :

1. Introduisez le cordon dans le conduit jusqu'à la boîte de jonction, en laissant au moins 1,2 m de cordon enroulé autour de l'appareil d'éclairage (ceci permet de connecter la lampe une fois la piscine remplie d'eau). Consultez la Figure 1 ci-dessous.

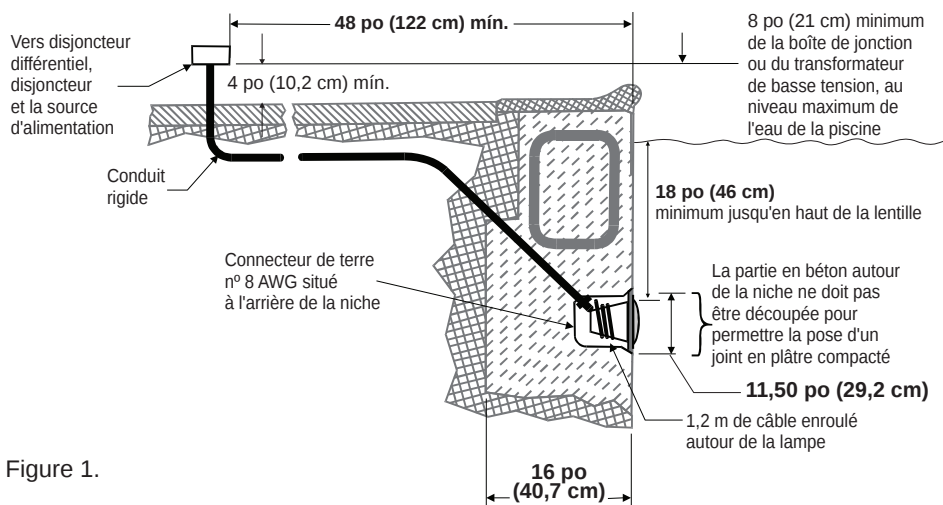
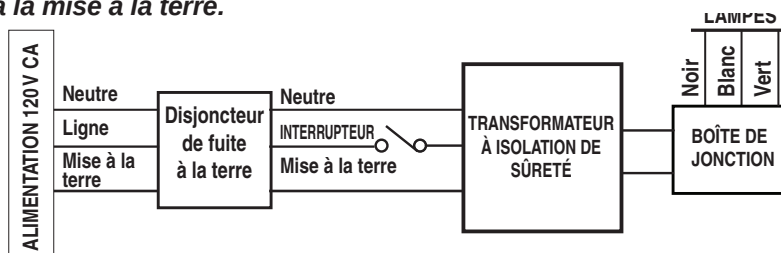


Figure 1.

2. Coupez le cordon au niveau de la boîte de jonction en laissant une longueur de cordon d'au moins 15 cm pour réaliser les raccordements.
3. Enlevez 15 cm de la gaine extérieure du cordon pour exposer les trois fils isolés (faites attention de ne pas endommager l'isolant de ces trois [3] fils).
4. Branchez les trois (3) fils aux fils du circuit correspondant dans la boîte de jonction et remontez bien le couvercle de la boîte de jonction.

POUR L'UTILISATION DE LA LUMIÈRE, UTILISER UNIQUEMENT UN TRANSFORMATEUR D'ISOLATION DE SÛRETÉ.

Remarque : Raccorder les trois (ou deux) fils aux fils correspondants du circuit dans la boîte de jonction. Pour les raccords à trois fils : Brancher le fil noir à l'alimentation, le fil blanc au conducteur commun et le fil vert à la mise à la terre.



REMARQUE : POUR LES LAMPES 120 V CA, LE TRANSFORMATEUR À ISOLATION EST INCLUS DANS LE DISPOSITIF DE RACCORDEMENT.

⚠ AVERTISSEMENT

N'utilisez jamais cette lampe submersible pendant plus de dix (10) secondes sauf si elle est complètement submergée dans l'eau. S'il n'est pas entièrement sous l'eau, l'ensemble de lampe devient extrêmement chaud, et peut entraîner des brûlures graves ou une rupture de la lentille. Ceci pourrait provoquer des blessures graves des utilisateurs, installateurs ou autres personnes se trouvant dans la zone de la piscine, ou des dommages matériels.

5. Installez l'ensemble de lampe IntelliBrite dans la niche et serrez la vis-guide spéciale en laiton.

⚠ AVERTISSEMENT

N'utilisez que **la vis-guide spéciale fournie** avec cette lampe submersible. Cette vis fixe le boîtier à l'anneau de montage et à la niche humide et les met à la terre. Une non utilisation de la vis fournie pourrait entraîner un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique.

Vis-guide (laiton)



Lampe à DEL IntelliBrite pour piscine

Vis-guide



Lampe à DEL IntelliBrite pour spa

6. Remplissez la piscine jusqu'à ce que la lampe soit complètement submergée par l'eau avant d'allumer la lampe pendant plus de dix (10) secondes.
7. **Vérification finale du bon fonctionnement de la lampe :** Pour vérifier le bon fonctionnement, établissez le courant à l'interrupteur principal ou au disjoncteur, et à l'interrupteur de l'alimentation de la lampe submersible IntelliBrite elle-même. La lampe doit s'allumer lorsque l'alimentation est établie. Sinon, revérifiez les étapes de l'installation à partir de l'étape 1 (page 7).

POUR LES INSTRUCTIONS D'INSTALLATION ET DE DÉPOSE DE LA LAMPE À DEL INTELLIBRITE 5G POUR PISCINE ET SPA, CONSULTEZ :

- Instructions d'installation et de dépose de la lampe IntelliBrite pour piscine, page 4.
- Instructions d'installation et de dépose de la lampe à DEL IntelliBrite pour spa, page 19.

Remplacement de faisceau de fusible pour lampe IntelliBrite® 5G pour piscine (12 V)

Ce qui suit explique comment remplacer l'ensemble de fusible de la lampe IntelliBrite 5G pour piscine (le cas échéant) et le circuit imprimé principal intégré de la lampe IntelliBrite 5G pour piscine.

IMPORTANT! Avant de remplacer l'ensemble de fusible, notez les points suivants :

Dépannage

Problème	Cause/Action
La lampe ne fonctionne pas correctement	Vérifier le raccordement électrique de la lumière à la l'interrupteur CA. S'assurer qu'une alimentation CA adéquate est acheminée à la lumière.
La lumière ne s'allume pas	Vérifier le câblage du disjoncteur de fuite à la terre et réinitialiser au besoin. Lampe IntelliBrite 5G 12 V avec ensemble de fusible de lampe Remplacer l'ensemble de fusible (voir page 12) : Remarque : Le remplacement de l'ensemble de fusible peut ne pas résoudre ce problème. Dans certains cas, l'ensemble de fusible grillera, et après avoir remplacé le fusible, le circuit imprimé de la lampe ne fonctionne toujours pas.

REEMPLACEMENT DE L'ENSEMBLE DE CIRCUIT IMPRIMÉ DE LA LAMPE INTELLIBRITE 5G POUR PISCINE (DANS UNE PISCINE EXISTANTE)

Lors du remplacement ou du remontage de la lampe IntelliBrite 5G pour piscine, le joint (pièce n° 79101600) ou le joint et la lentille (619864) **DOIVENT ÉGALEMENT ÊTRE REMPLACÉS - VOYEZ LA PAGE 17 POUR LE NUMÉRO DES PIÈCES**

Dépose et installation de la carte de circuit imprimé de la lampe IntelliBrite 5G

⚠ DANGER



DANGER !

RISQUE DE DÉCHARGE ÉLECTRIQUE OU D'ÉLECTROCUTION

Débranchez toujours l'alimentation de l'éclairage de la piscine au niveau du disjoncteur avant de faire l'entretien de la lampe. Le non respect de cette consigne peut entraîner des blessures graves, voire mortelles, du réparateur, des utilisateurs de la piscine et d'autres personnes suite à une décharge électrique.

1. **Coupez l'alimentation à l'interrupteur principal ou au disjoncteur**, et à l'interrupteur de l'alimentation de la lampe IntelliBrite elle-même.
2. Avant de commencer, assurez-vous d'avoir un joint de lentille neuf (pièce n° 79101600) et un ensemble de lampe à DEL IntelliBrite 5G pour piscine (pièce n° 619818Z) prêt à être installé.

REPLACEMENT DE L'ENSEMBLE DE CIRCUIT IMPRIMÉ DE LA LAMPE INTELLIBRITE 5G POUR PISCINE (DANS UNE PISCINE EXISTANTE) (suite)

⚠ AVERTISSEMENT

Remplacez l'ensemble de lampe par un ensemble du même type et de la même puissance en watts. Un non remplacement de l'ensemble par un ensemble du même type endommagera l'ensemble de lampe à DEL et pourrait entraîner un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique, et pouvant aussi entraîner des dommages matériels.

⚠ AVERTISSEMENT

Installez toujours un joint de lentille neuf (pièce n° 79101600) chaque fois que l'ensemble de lampe IntelliBrite est démonté. Sinon, de l'eau pourrait pénétrer dans l'ensemble et entraîner :

- (a) un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique, ou
- (b) une rupture de la lentille, qui pourrait aussi entraîner des blessures graves des utilisateurs, installateurs ou autres personnes se trouvant dans la zone de la piscine, ou des dommages matériels.

3. **DÉPOSE DE L'ENSEMBLE DE LAMPE À DEL INTELLIBRITE 5G POUR PISCINE** : Retirez la vis-guide à la partie supérieure de l'anneau frontal, retirez l'ensemble de lampe de la niche. Placez l'ensemble sur le pourtour de la piscine. **Remarque** : Il n'est pas nécessaire de vider partiellement la piscine.
4. Déroulez le cordon de la base du boîtier de la lampe.

Vis-guide (laiton)



Lampe à DEL IntelliBrite pour piscine

⚠ AVERTISSEMENT

Assurez-vous de conserver la vis-guide de la lampe à DEL IntelliBrite submersible. Cette vis fixe le boîtier à l'anneau de montage et à la niche humide et les met à la terre. Une non utilisation de la vis fournie pourrait entraîner un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique.

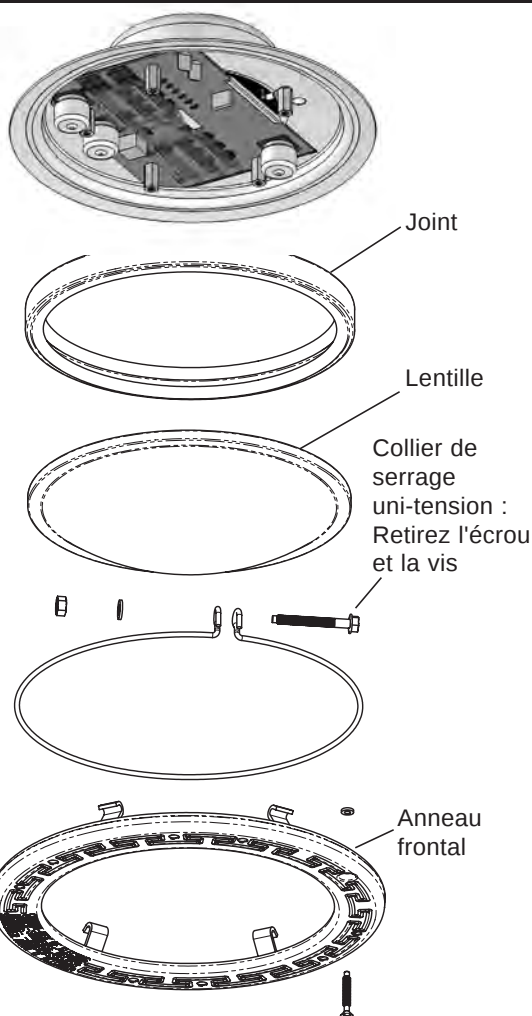
REEMPLACEMENT DE L'ENSEMBLE DE CIRCUIT IMPRIMÉ DE LA LAMPE INTELLIBRITE 5G POUR PISCINE (DANS UNE PISCINE EXISTANTE) (suite)

5. Placez un chiffon sur le sol pour ne pas abîmer la lentille. Retournez la lampe pour que la lentille repose sur le chiffon. À l'aide d'un tourne-écrou de ¼ po et d'un tournevis Phillips n° 3, retirez le collier de serrage uni-tension. Mettez l'écrou de côté pour le remontage.

6. Retirez l'anneau frontal et le collier de serrage du boîtier de la lampe.

7. La lampe reposant sur sa base, enlevez soigneusement le joint pour extraire la lentille. Mettez la lentille de côté pour le remontage. Jetez le joint.

Remarque : UN JOINT NEUF (PIÈCE N° 79101600) DOIT ÊTRE UTILISÉ À CHAQUE REMONTAGE DE LA LAMPE. Consultez la page 15, pour le numéro de pièce des nécessaires de rechange.

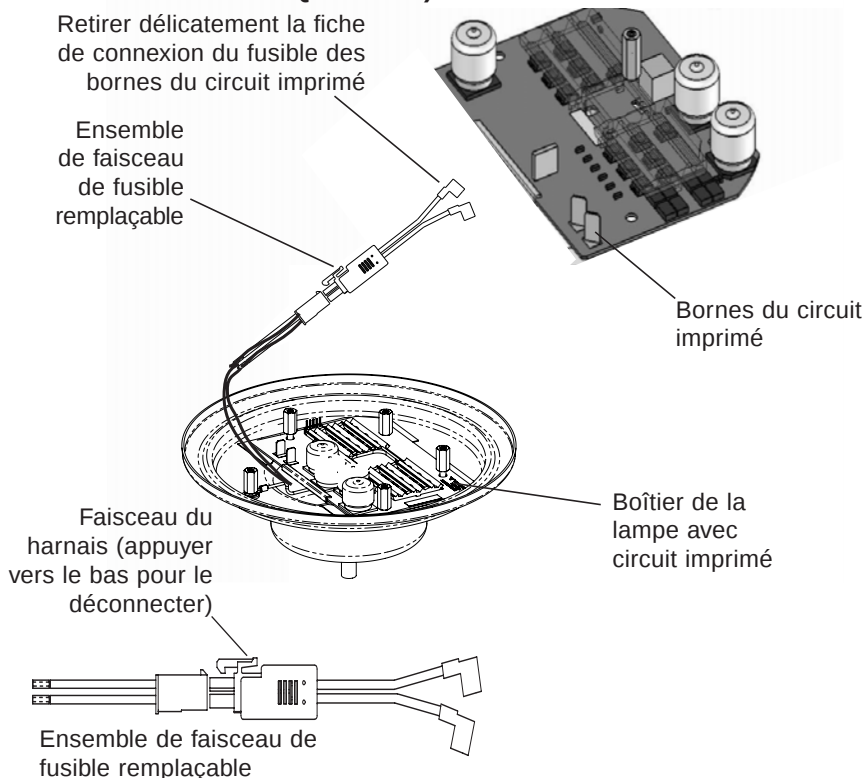


Remarque : Prenez note de la position actuelle de la lentille au niveau de la vis-guide (12 h), avant de la retirer de l'appareil d'éclairage. Un « W » sur la lentille indique un grand angle, un « N » un angle faible. Pour de plus amples renseignements, consultez la page 15.

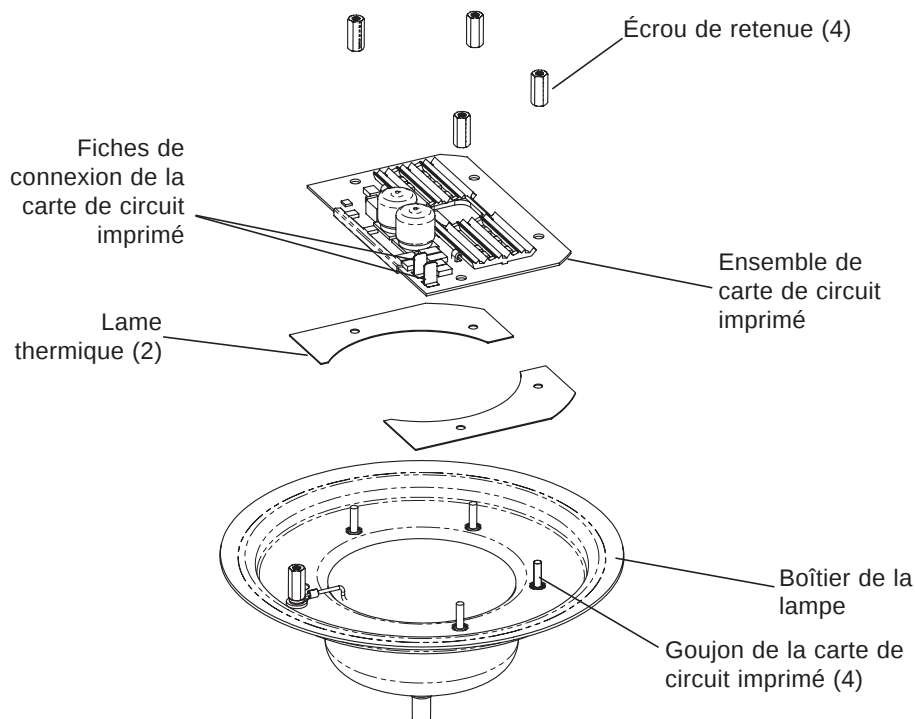
8. À l'aide d'un tourne-écrou de ¼ po, enlevez soigneusement les quatre écrous de retenue de l'ensemble de lampe à DEL (illustration à la page suivante). Mettez les écrous de côté pour le remontage.
9. Débranchez les deux fiches de la carte de circuit imprimé. Soulevez la carte de circuit imprimé et retirez-la de la base du boîtier de la lampe.
10. Soulevez soigneusement les lames thermiques du fond de la base du boîtier de la lampe.

Suite à la page suivante.

REPLACEMENT DE L'ENSEMBLE DE FAISCEAU DE FUSIBLE (POUR LAMPES 12 V UNIQUEMENT)



1. Avec vos doigts, débranchez soigneusement chaque fiche de connexion du fusible des bornes du circuit imprimé. Soulevez délicatement chaque fiche avec de petits mouvements latéraux, tout en maintenant en place les bornes du circuit imprimé avec un tournevis plat. Par la suite, débranchez progressivement la fiche de connexion de la borne. *Remarque : Pour éviter des dommages permanents au circuit imprimé, veillez à ne pas arracher les bornes de la surface du circuit imprimé.*
2. Une fois les fiches de connexion du fusible retirées des bornes du circuit imprimé, séparez l'ensemble de fusible du faisceau de fils de la lampe en appuyant sur le levier de dégagement du fusible, puis en tirant doucement.
3. Insérez le connecteur du nouveau faisceau de fusible dans la fiche du faisceau de fils de lampes et les emboîter.
4. Avec vos doigts, raccordez soigneusement chaque fiche de connexion du fusible aux bornes du circuit imprimé. *N'appuyez pas trop fort sur le connecteur, car cela risquerait d'endommager les bornes du circuit imprimé.*
5. **Suite de l'« INSTALLATION DE L'ENSEMBLE DE LAMPE INTELLIBRITE® 5G POUR PISCINE AVEC NOUVEAU JOINT » à la page 14.**



1. Placez les deux lames thermiques (fournies) sur les goujons de la carte de circuit imprimé dans la base du boîtier de la lampe (consultez l'illustration à la page suivante).
2. Placez la carte de circuit imprimé de la lampe sur les goujons de la base et logez la carte de circuit imprimé sur les lames thermiques. Assurez-vous que les deux fils de connexion ne se trouvent pas pris entre le boîtier et le bord de la carte de circuit imprimé.
3. En utilisant une clé à douille $\frac{1}{4}$ ", serrez chacun des quatre (4) en conservant les noix à une valeur de couple de 6,0 (minimum) à 8,0 (maximum) en lbs pour sécuriser le circuit. Ne serrez pas les NUTS circuit..

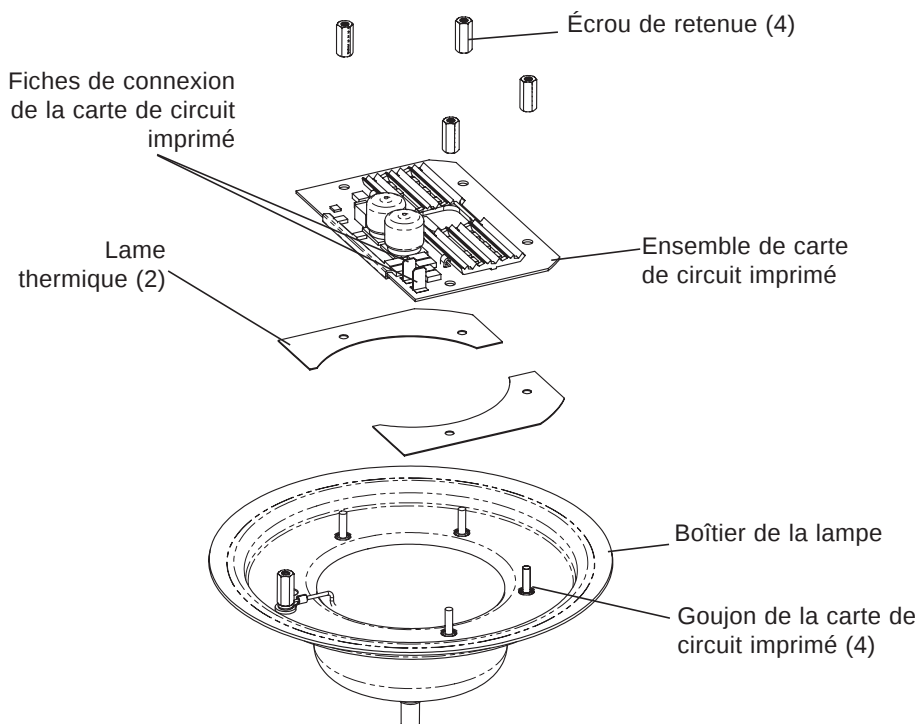
INSTALLATION DE L'ENSEMBLE DE LAMPE À DEL INTELLIBRITE 5G POUR PISCINE AVEC UN JOINT NEUF (consultez l'illustration à la page suivante)

⚠ AVERTISSEMENT

Assurez-vous d'installer TOUS les quatre (4) écrous de retenue. Ces écrous permettent d'assurer une liaison à la terre appropriée. Une non utilisation de tous les écrous de retenue pourrait entraîner un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique.

4. Branchez les deux fiches de connexion aux bornes de la carte de circuit imprimé.

Suite à la page suivante.



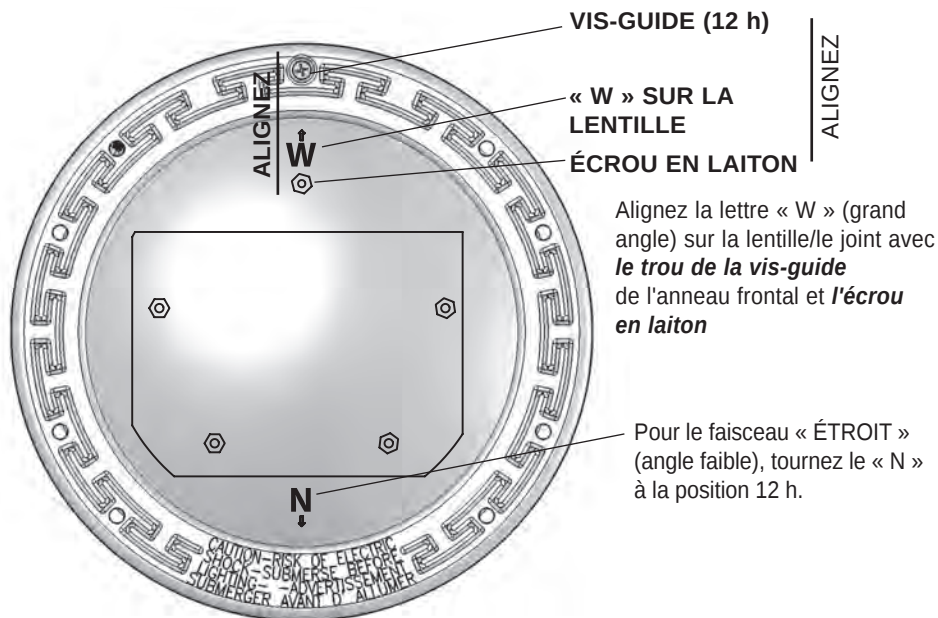
1. **Installez UN JOINT NEUF SUR LA LENTILLE (consultez l'illustration à la page suivante) :** Étirez le joint en le plaçant sur le pourtour de la lentille. Assurez-vous que le joint est installé uniformément autour de la lentille.
2. **ALIGNEZ LA LENTILLE/LE JOINT SUR LE BOÎTIER DE LA LAMPE :**

a) Le boîtier de la lampe reposant sur sa base, placez la lentille/le joint sur le boîtier de la lampe.

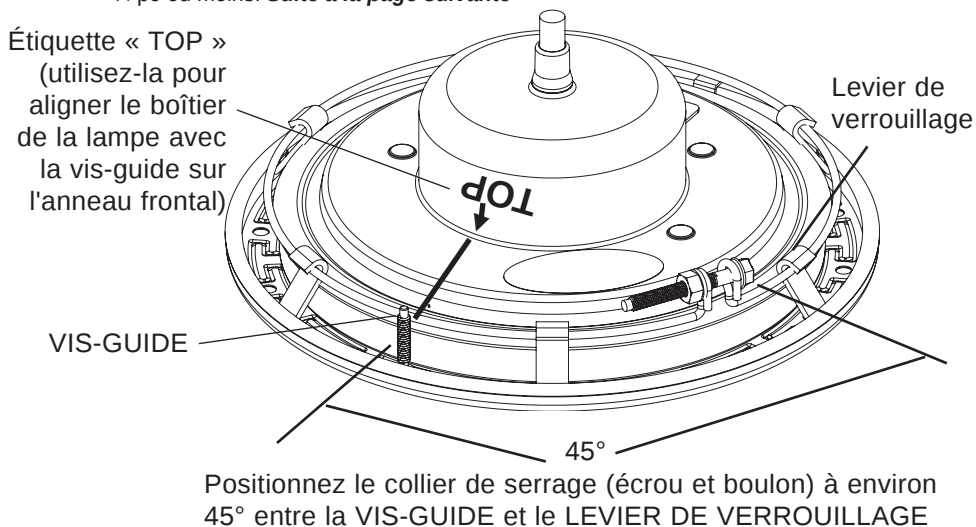
b) Tournez la lentille/le joint pour aligner la lettre « W » (« WIDE », grand angle) sur la lentille avec l'écrou en laiton dans le boîtier (consultez le schéma à la page 13 pour l'emplacement de l'écrou en laiton).

Remarque : La lentille de la lampe IntelliBrite est expédiée de l'usine en position « WIDE » (grand angle). Pour obtenir un faisceau « NARROW/ÉTROIT » (angle faible), tournez la lentille/le joint pour l'aligner avec la lettre « N » de la lentille. Remarque : Pour de plus amples renseignements sur les angles « GRAND » et « ÉTROIT », du faisceau de la lentille, consultez la page 16.

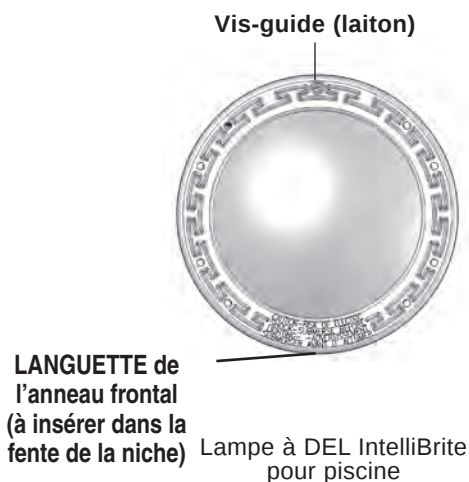
3. **INSTALLEZ L'ANNEAU FRONTAL :** Placez l'anneau frontal sur la lentille/le joint/le boîtier. Tournez l'anneau frontal afin que **le trou de la vis-guide** s'aligne à la position 12 h, la lettre « W » (ou « N ») de la lentille et l'écrou en laiton dans le boîtier. Vérifiez aussi que l'étiquette avec flèche d'indication du haut « TOP » (page 16) à l'arrière du boîtier s'aligne avec la vis-guide de l'anneau frontal.



4. **INSTALLEZ LE COLLIER DE SERRAGE UNI-TENSION** : Les extrémités en crochet du collier de serrage filaire uni-tension se dirigeant vers le bas, écartez ce collier de serrage et placez-le dans les évidements en « U » des leviers de verrouillage. Assurez-vous que les extrémités en crochet sont situées entre la paire de leviers de verrouillage comme il est illustré ci-dessous et que le collier de serrage est correctement engagé avec tous les leviers de verrouillage.
5. Placez un chiffon sur le sol pour ne pas abîmer la lentille. Retournez la lampe pour que la lentille repose sur le chiffon. Assurez-vous que le collier de serrage est orienté de manière que la connexion à boulon se trouve positionnée à 45°.
6. Serrez le boulon et l'écrou jusqu'à ce que la distance entre les extrémités du collier soit de ¼ po ou moins. **Suite à la page suivante**



7. Enroulez au moins 1,2 m de cordon autour de la lampe (Figure 1 à la page 9). Ceci permet de faire l'entretien de la lampe une fois la piscine remplie d'eau.
8. Raccordez les trois (ou deux fils) fils de lampe aux fils de circuit de la lampe correspondante dans la boîte de jonction. Pour les raccordements à trois fils : Brancher le fil noir à l'alimentation, le conducteur blanc au fil commun et le fil vert à la mise à la terre. Mettre en place le couvercle de la boîte de jonction.
9. Installez l'ensemble de lampe dans la niche de la piscine. **IMPORTANT : Veillez à insérer la LANGUETTE sur la partie inférieure de l'anneau frontal dans la fente de la NICHE (située sur la partie inférieure de la niche). Cela est important afin de sécuriser la partie inférieure de l'ensemble de lampe dans la niche avant de serrer la vis-guide.**
10. Installez la vis-guide spéciale en laiton à la partie supérieure de l'anneau frontal pour fixer la lampe à la niche.

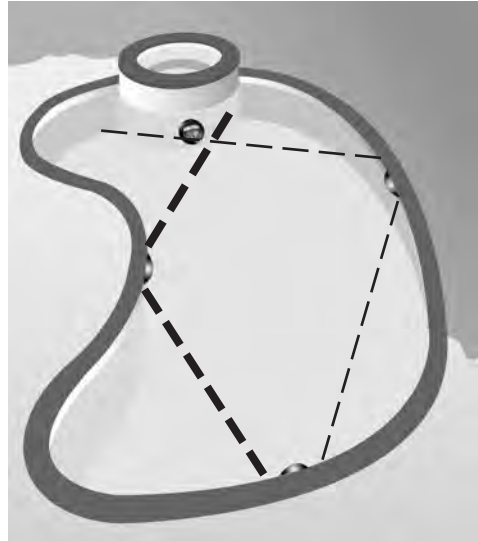


11. **Vérification finale du bon fonctionnement de la lampe IntelliBrite :** Établissez l'alimentation à l'interrupteur principal ou au disjoncteur, et à l'interrupteur de l'alimentation de la lampe submersible IntelliBrite. La lampe doit s'allumer lorsque l'alimentation est établie. Sinon, revérifiez les étapes de l'installation à partir de l'étape 1 (page 9).

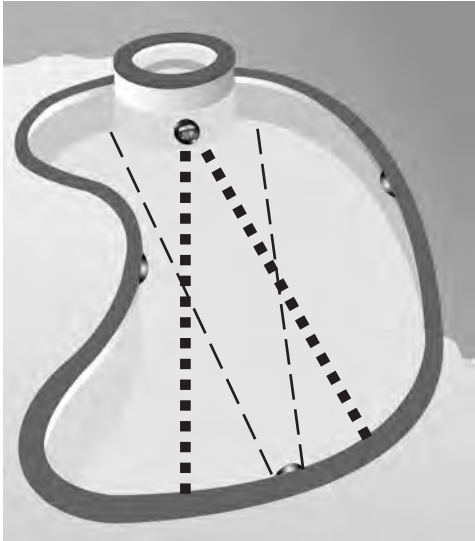
Réglage de lentille à angles large et étroit

Caractéristique unique de la lentille - à grand angle et à angle faible

La géométrie sans pareille de la lentille IntelliBrite donne un choix entre deux formes de faisceau lumineux; un à grand angle « large », ou un à angle faible « étroit » qui conviennent à des piscines de diverses dimensions. Dans le cas de lampes situées des deux côtés de la piscine, tournez la lentille à la position « WIDE » (grand angle), qui donne un faisceau de lumière plus large et une réflexion sur la largeur de la piscine. Dans le cas de lampes situées à une extrémité de la piscine, tournez la lentille à la position « N » (faisceau étroit) pour une intensité de lumière et une distance plus importantes sous l'eau. Remarque : La lentille de la lampe IntelliBrite est expédiée de l'usine en position « WIDE » (grand angle).



**FAISCEAU DE LUMIÈRE LARGE
(POUR CÔTÉS DE PISCINE)**



**FAISCEAU DE LUMIÈRE ÉTROIT
(POUR EXTRÉMITÉS DE PISCINE)**

Numéros de pièces de l'ensemble de remplacement de lampe IntelliBrite® 5G pour piscine

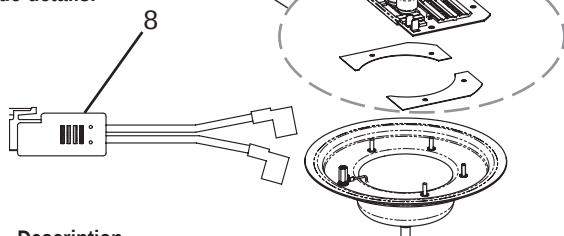
Remarque : Un transformateur externe 120 V CA à 12 V CA est nécessaire pour la lampe blanche IntelliBrite 5G pour piscine de 12 V CA. Consultez la page 1 pour obtenir plus de détails.

Ensemble de lampe IntelliBrite 5G pour piscine (homologation UL/CAS)		
Modèle du produit	Tension	Longueur du câble (pieds)
601105	12 V	30 pi
601106	12 V	50 pi
601107	12 V	100 pi
601108	12 V	150 pi
601205	12 V	30 pi
601206	12 V	50 pi
601207	12 V	100 pi
601208	12 V	150 pi
601300	120 V	30 pi
601305	12 V	30 pi
601306	12 V	50 pi
601307	12 V	100 pi
601308	12 V	150 pi

Numéros de pièces de l'ensemble de remplacement de lampe IntelliBrite® 5G pour piscine

Lampe 5G blanche pour piscine	Lampe 5G colorée pour piscine
Modèle/tension/câble (pi)	Modèle/tension/câble (pi)
601100/120 V/30 pi	01000/120 V/30 pi UL
601101/120 V/50 pi	601001/120 V/50 pi UL
601102/120 V/100 pi	601002/120 V/100 pi UL
601103/120 V/150 pi	601003/120 V/150 pi UL
601104/120 V/250 pi	601004/120 V/250 pi UL
601105/12 V/30 pi	601010/120 V/30 pi UL
601106/12 V/50 pi	601011/12 V/50 pi UL
601107/12 V/100 pi	601012/12 V/100 pi UL
601108/12 V/150 pi	601013/12 V/150 pi UL
601200/120 V/30 pi	602000/120 V/30 pi CSA
601201/120 V/50 pi	602001/120 V/50 pi CSA
601202/120 V/100 pi	602002/120 V/100 pi CSA
601203/120 V/150 pi	602003/120 V/150 pi CSA
601204/120 V/250 pi	602004/120 V/250 pi CSA
601205/12 V/30 pi	602010/12 V/30 pi CSA
601206/12 V/50 pi	602011/12 V/50 pi CSA
601207/12 V/100 pi	602012/12 V/100 pi CSA
601208/12 V/150 pi	602020/12 V/10 pi CE
601300/120 V/30 pi	
601301/120 V/50 pi	
601302/120 V/100 pi	
601303/120 V/150 pi	
601304/120 V/250 pi	
601305/12 V/30 pi	
601306/12 V/50 pi	
601307/12 V/100 pi	
601308/12 V/150 pi	

Remarque : Un transformateur externe de 120 V CA à 12 V CA est nécessaire pour le modèle de lampe IntelliBrite 5G pour piscine de 12 V CA. Consultez la page 1 pour obtenir plus de détails.



Numéro d'article	Numéro de pièce de l'ensemble	Description
2, 3, 5	600095	Ensemble d'anneau frontal en acier inoxydable. - Ensemble de collier de serrage à tension uniforme. - Joint, 8 3/8 po de diamètre, silicone.
4, 5	619864Z	Ensemble de remplacement de lentille. - Joint, 8 3/8 po de diamètre, blanc cassé. - Lentille, IntelliBrite, piscine, 8 3/8 po de diamètre, trempé.
3, 5, 7	619875Z (UL) (300 W), 619916 Z (400 W), 619917Z (500 W) – 619818Z (couleur)	L'ensemble de remplacement inclut : Carte de circuit imprimé, bandes thermiques (2 x). - Ensemble de collier de serrage à tension uniforme. - Joint, 8 3/8 po de diamètre, silicone, blanc cassé.
1	79104800	Vis-guide, avec rondelle de gomme captive.
5	79101601	Joint, 8 3/8 po de diamètre, silicone.
8	620276	Ensemble de faisceau de fusible (pour lampes 12 V seulement)

Remarque : La lampe pour piscine IntelliBrite 120 V CA dispose d'un transformateur 12 V CA intégré.

Remplacement de l'anneau frontal et du joint de la lampe IntelliBrite pour spa (N/P 640045) ou joint et lentille (640046)

Remarque : Lors du remplacement d'un ensemble de lampe à DEL IntelliBrite pour spa, un nouvel ensemble de lampe pour spa comprenant un moteur lumière, une lentille, un joint et un anneau frontal (consultez la page ii pour le numéro de pièce des ensembles de pièces de lampe).

DANGER



DANGER !

RISQUE DE DÉCHARGE ÉLECTRIQUE OU D'ÉLECTROCUTION

Débranchez toujours l'alimentation de l'éclairage de la piscine au niveau du disjoncteur avant de faire l'entretien de la lampe. Le non respect de cette consigne peut entraîner des blessures graves, voire mortelles, de l'installateur, du spécialiste en piscine, des utilisateurs de la piscine et d'autres personnes suite à une décharge électrique.

1. **Coupez l'alimentation à l'interrupteur principal ou au disjoncteur**, et aussi à l'interrupteur de l'alimentation de la lampe à DEL IntelliBrite submersible.

AVERTISSEMENT

Installez toujours un joint de lentille neuf (voir la page 15 pour les numéros de pièces des nécessaires) chaque fois que l'ensemble de lampe à DEL IntelliBrite est démonté. Sinon, de l'eau pourrait pénétrer dans l'ensemble et entraîner : **(a)** un risque d'électrocution pouvant entraîner des blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique, ou **(b)** une rupture de la lentille, pouvant aussi entraîner des blessures graves des utilisateurs, installateurs ou autres personnes se trouvant dans la zone de la piscine, ou des dommages matériels.

Vis-guide —



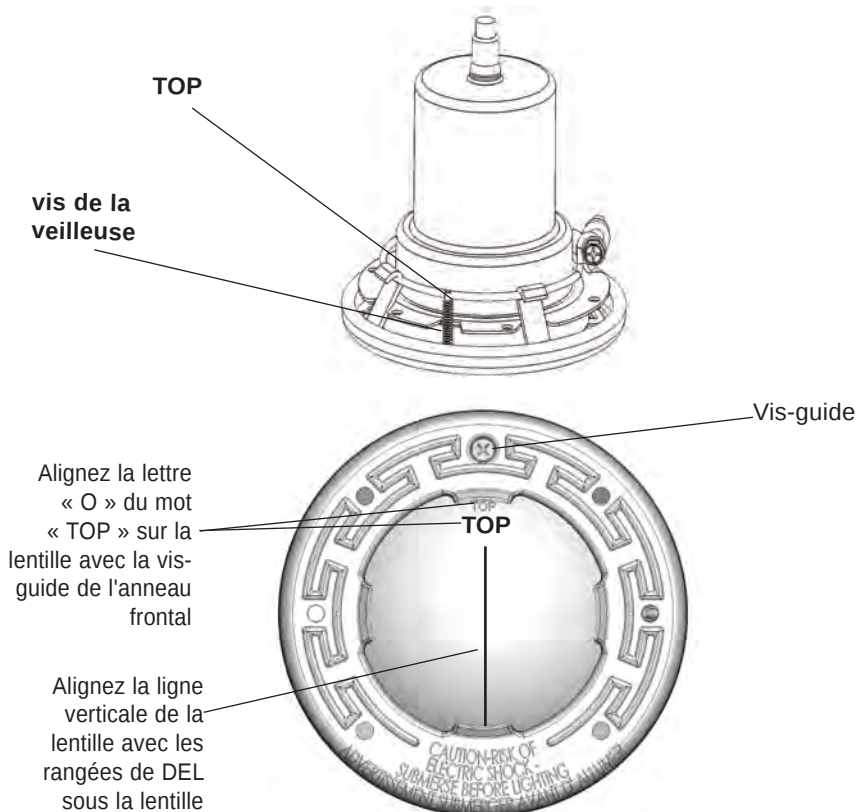
Lampe à DEL IntelliBrite 5G pour spa

2. **DÉPOSE DE LA LAMPE À DEL INTELLIBRITE 5G POUR SPA :** Retirez la vis-guide à la partie supérieure de l'anneau frontal, retirez l'ensemble de lampe de la niche. Placez l'ensemble sur le pourtour de la piscine. **Remarque :** Il n'est pas nécessaire de vider partiellement la piscine.

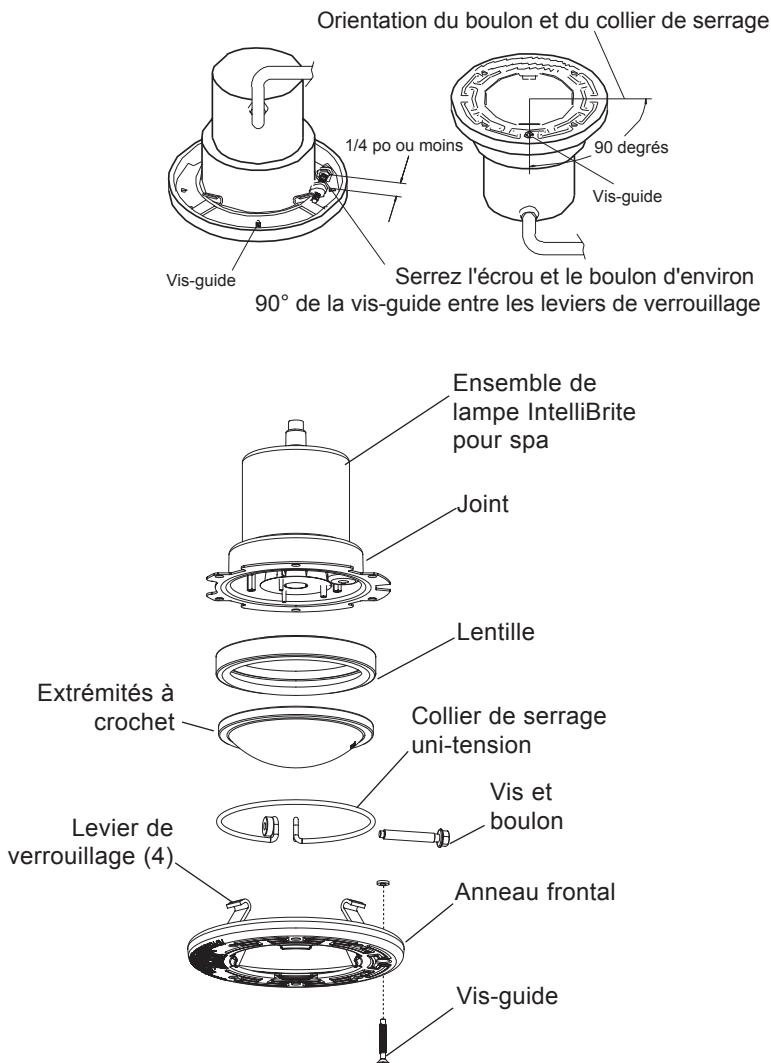
AVERTISSEMENT

Assurez-vous de conserver la vis-guide de la lampe à DEL IntelliBrite submersible. Cette vis fixe le boîtier à l'anneau de montage et à la niche humide et les met à la terre. Une non utilisation de la vis fournie pourrait entraîner un risque d'électrocution d'où blessures graves, voire mortelles des utilisateurs, installateurs de la piscine ou autres personnes suite à une décharge électrique.

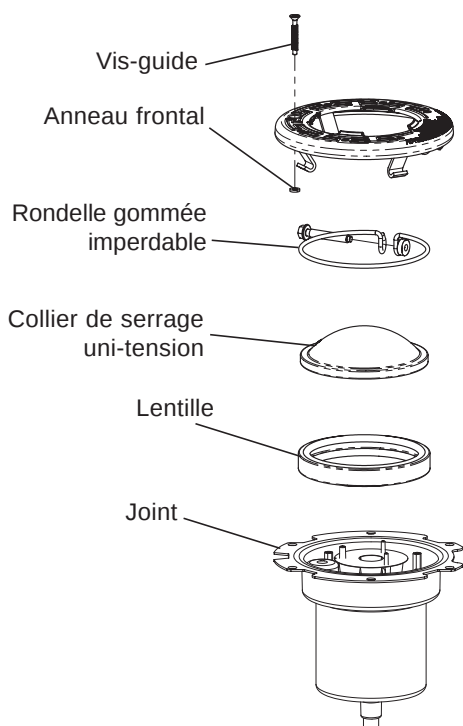
7. **INSTALLATION DE LA LAMPE À DEL INTELLIBRITE 5G POUR SPA AVEC UN JOINT NEUF :** Installez un joint neuf lors du remontage de la lampe à DEL IntelliBrite 5G pour spa. UN JOINT NEUF POUR LENTILLE DOIT ÊTRE UTILISÉ À CHAQUE REMONTAGE DE LA LAMPE.
8. **Installez un joint neuf sur la lentille :**
- a) Le boîtier de la lampe reposant sur sa base, placez la lentille, puis le joint sur le dessus du boîtier de la lampe.
 - b) Placez l'anneau frontal sur le joint. Assurez-vous que la lentille et le joint sont centrés correctement sur le boîtier de la lampe.
 - c) **Alignement de l'anneau frontal et de la lentille :** Alignez l'anneau frontal et la lentille afin que la lettre « O » du mot « TOP » et la petite flèche au-dessus de celui-ci sur la surface de la lentille se dirigent vers le trou de la vis-guide de l'anneau frontal.
 - d) **Alignement de la lentille avec les DEL :** Tout en regardant au travers du devant de la lentille, tournez légèrement la lentille jusqu'à ce que les lignes verticales de la lentille se focalisent sur les quatre rangées de DEL ci-dessous.



9. Les extrémités en crochet du collier de serrage filaire uni-tension se dirigeant vers le bas, écartez ce collier de serrage et placez-le dans les évidements en « U » des leviers de verrouillage. Assurez-vous que les extrémités à crochet du collier de serrage sont situées entre la paire de leviers de verrouillage comme il est illustré ci-dessous et que le collier est correctement engagé avec tous les leviers de verrouillage.
10. Placez un chiffon sur le sol pour ne pas abîmer la lentille. Retournez la lampe pour que la lentille repose sur le chiffon. Serrez le boulon et l'écrou jusqu'à ce que la distance entre les extrémités du collier soit de $\frac{1}{4}$ po ou moins.
11. **PASSEZ À « Remplacement de l'ensemble de lampe à DEL IntelliBrite pour spa (piscine ou spa existant) » à la page 4 pour les instructions d'installation de l'ensemble de lampe pour spa.**



Numéros de pièces de l'ensemble de remplacement de lampe IntelliBrite 5G pour spa



Ensemble de lampe colorée IntelliBrite® 5G pour spa (homologation UL/CSA)

Modèle du produit	Tension	Longueur du câble (pieds)
640120	120 V	30 pi
640121	120 V	50 pi
640122	120 V	100 pi
640123	120 V	150 pi
640124	120 V	250 pi
640130	12 V	30 pi
640131	12 V	50 pi
640132	12 V	100 pi
640133	12 V	150 pi

Ensemble de lampe blanche IntelliBrite® 5G pour spa (homologation UL/CSA)

Modèle du produit	Tension	Longueur du câble (pieds)
640140	120 V	30 pi
640141	120 V	50 pi
640142	120 V	100 pi
640143	120 V	150 pi
640144	120 V	250 pi
640150	12 V	30 pi
640151	12 V	50 pi
640152	12 V	100 pi
640153	12 V	150 pi

Pièce n° (néc.)	Description
640045	Ensemble d'anneau frontal, acier inoxydable - Ensemble de collier de serrage uni-tension - Joint, 4 de diamètre, blanc cassé
640046	Joint, 4 de diamètre, blanc cassé - Lentille, IntelliBrite, spa, 4 de diamètre, trempée
79104800	Vis-guide avec rondelle gommée imperdable
79108600	- Joint, 4 de diamètre, silicone

Remarque : Un transformateur externe de 120 VCA à 12 VCA est nécessaire pour le modèle de lampe à DEL IntelliBrite pour spa de 12 VCA. Consultez la page ii pour obtenir plus de détails.

REMARQUES

REMARQUES

REMARQUES



PENTAIR WATER POOL AND SPA

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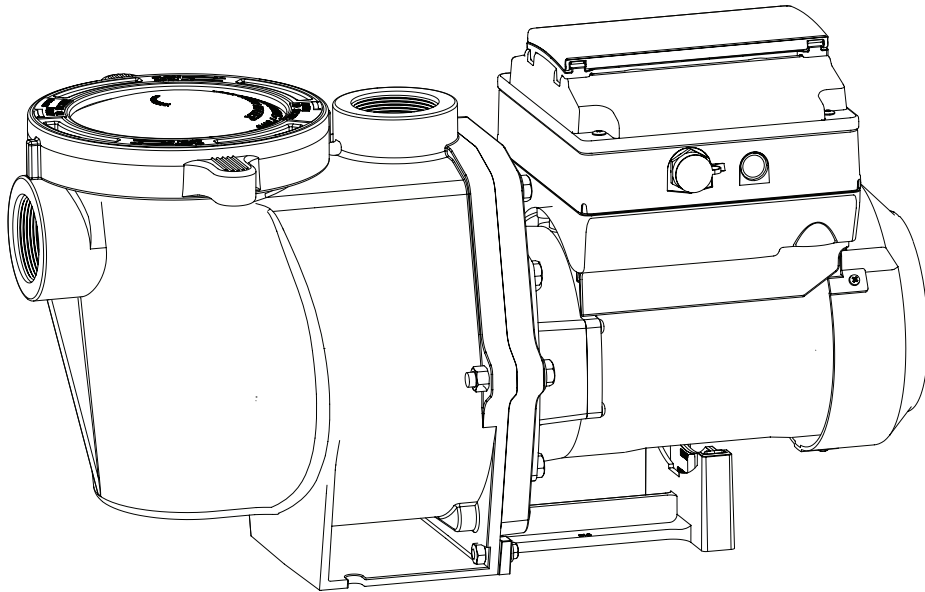


PIÈCE N° 619921 RÉVISION K 4/2015



INTELLIFLO®

VARIABLE SPEED PUMP



INSTALLATION AND USER'S GUIDE

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

IMPORTANT PUMP WARNING AND SAFETY INSTRUCTIONS



IMPORTANT NOTICE

This guide provides installation and operation instructions for this pump. Consult Pentair with any questions regarding this equipment.

Attention Installer: This guide contains important information about the installation, operation and safe use of this product. This information should be given to the owner and/or operator of this equipment after installation or left on or near the pump.

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

READ AND FOLLOW ALL INSTRUCTIONS SAVE THESE INSTRUCTIONS



This is the safety alert symbol. When you see this symbol on your system or in this manual, look for one of the following signal words and be alert to the potential for personal injury.

! DANGER

Warns about hazards that can cause death, serious personal injury, or major property damage if ignored.

! WARNING

Warns about hazards that may cause death, serious personal injury, or major property damage if ignored.

! CAUTION

Warns about hazards that may or can cause minor personal injury or property damage if ignored.

NOTE

Indicates special instructions not related to hazards.

Carefully read and follow all safety instructions in this manual and on equipment. Keep safety labels in good condition; replace if missing or damaged.

When installing and using this electrical equipment, basic safety precautions should always be followed, include the following:

! DANGER

FAILURE TO FOLLOW ALL INSTRUCTIONS AND WARNINGS CAN RESULT IN SERIOUS BODILY INJURY OR DEATH. **THIS PUMP SHOULD BE INSTALLED AND SERVICED ONLY BY A QUALIFIED POOL SERVICE PROFESSIONAL. INSTALLERS, POOL OPERATORS AND OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS IN THE OWNER'S MANUAL BEFORE USING THIS PUMP. THESE WARNINGS AND THE OWNER'S MANUAL MUST BE LEFT WITH THE POOL OWNER.**

! WARNING

Do not permit children to use this product.

! WARNING

RISK OF ELECTRICAL SHOCK. Connect only to a branch circuit protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the circuit is protected by a GFCI.

! WARNING

This unit must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this pump. Disconnect the pump and have the problem corrected by a qualified service representative before using.

! CAUTION

This pump is for use with permanent swimming pools and may also be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently-installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity.

General Warnings

- Never open the inside of the drive motor enclosure. There is a capacitor bank that holds a 230 VAC charge even when there is no power to the unit.
- The pump is not submersible.
- The pump is capable of high flow rates; use caution when installing and programming to limit pumps performance potential with old or questionable equipment.
- Code requirements for electrical connection differ from country to country, state to state, as well as local municipalities. Install equipment in accordance with the National Electrical Code and all applicable local codes and ordinances.
- Before servicing the pump; switch OFF power to the pump by disconnecting the main circuit to the pump.
- This appliance is not intended for use by persons (including children) of reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.

! DANGER

SUCTION ENTRAPMENT HAZARD: STAY OFF THE MAIN DRAIN AND AWAY FROM ALL SUCTION OUTLETS! THIS PUMP IS NOT EQUIPPED WITH SAFETY VACUUM RELEASE SYSTEM (SVRS) PROTECTION AND DOES NOT PROTECT AGAINST BODY OR LIMB ENTRAPMENTS, DISEMBOWELMENTS (WHEN A PERSON SITS ON A BROKEN OR UNCOVERED POOL DRAIN) OR HAIR ENTANGLEMENTS.



THIS PUMP PRODUCES HIGH LEVELS OF SUCTION AND CREATES A STRONG VACUUM AT THE MAIN DRAIN AT THE BOTTOM OF THE BODY OF WATER. THIS SUCTION IS SO STRONG THAT IT CAN TRAP ADULTS OR CHILDREN UNDER WATER IF THEY COME IN CLOSE PROXIMITY TO A DRAIN OR A LOOSE OR BROKEN DRAIN COVER OR GRATE.

THE USE OF UNAPPROVED COVERS OR ALLOWING USE OF THE POOL OR SPA WHEN COVERS ARE MISSING, CRACKED OR BROKEN CAN RESULT IN BODY OR LIMB ENTRAPMENT, HAIR ENTANGLEMENT, BODY ENTRAPMENT, EVISCERATION AND/OR DEATH.

The suction at a drain or outlet can cause:

Limb Entrapment: When a limb is sucked or inserted into an opening resulting in a mechanical bind or swelling. This hazard is present when a drain cover is missing, broken, loose, cracked or not properly secured.

Hair Entanglement: When the hair tangles or knots in the drain cover, trapping the swimmer underwater. This hazard is present when the flow rating of the cover is too small for the pump or pumps.

Body Entrapment: When a portion of the body is held against the drain cover trapping the swimmer underwater. This hazard is present when the drain cover is missing, broken or the cover flow rating is not high enough for the pump or pumps.

Evisceration/Disembowelment: When a person sits on an open pool (particularly a child wading pool) or spa outlet and suction is applied directly to the intestines, causing severe intestinal damage. This hazard is present when the drain cover is missing, loose, cracked, or not properly secured.

Mechanical Entrapment: When jewelry, swimsuit, hair decorations, finger, toe or knuckle is caught in an opening of an outlet or drain cover. This hazard is present when the drain cover is missing, broken, loose, cracked, or not properly secured.

NOTE: ALL SUCTION PLUMBING MUST BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL AND LOCAL CODES, STANDARDS AND GUIDELINES.

IMPORTANT PUMP WARNING AND SAFETY INSTRUCTIONS

⚠ WARNING TO MINIMIZE THE RISK OF INJURY DUE TO SUCTION ENTRAPMENT HAZARD:

- A properly installed and secured ANSI/ASME A112.19.8 approved anti-entrapment suction cover must be used for each drain.
- Each suction cover must be installed at least three (3') feet apart, as measured from the nearest point to nearest point.
- Regularly inspect all covers for cracks, damage and advanced weathering.
- If a cover becomes loose, cracked, damaged, broken or is missing, replace with an appropriate certified cover.
- Replace drain covers as necessary. Drain covers deteriorate over time due to exposure to sunlight and weather.
- Avoid getting hair, limbs or body in close proximity to any suction cover, pool drain or outlet.
- Disable suction outlets or reconfigure into return inlets.

⚠ WARNING The pump can produce high levels of suction within the suction side of the plumbing system. These high levels of suction can pose a risk if a person comes within the close proximity of the suction openings. A person can be seriously injured by this high level of vacuum or may become trapped and drown. It is absolutely critical that the suction plumbing be installed in accordance with the latest national and local codes for swimming pools.

⚠ WARNING A clearly labeled emergency shut-off switch for the pump must be in an easily accessible, obvious place. Make sure users know where it is and how to use it in case of emergency.

The Virginia Graeme Baker (VGB) Pool and Spa Safety Act creates new requirements for owners and operators of commercial swimming pools and spas.

Commercial pools or spas constructed on or after December 19, 2008, shall utilize:

(A) A multiple main drain system without isolation capability with suction outlet covers that meet ASME/ANSI A112.19.8a Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs and either:

(i) A safety vacuum release system (SVRS) meeting ASME/ANSI A112.19.17 Manufactured Safety Vacuum Release systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub, and Wading Pool Suction Systems and/or ASTM F2387 Standard Specification for Manufactured Safety Vacuum Release Systems (SVRS) for Swimming pools, Spas and Hot Tubs or

(ii) A properly designed and tested suction-limiting vent system or

(iii) An automatic pump shut-off system.

Commercial pools and spas constructed prior to December 19, 2008, with a single submerged suction outlet shall use a suction outlet cover that meets ASME/ANSI A112.19.8a and either:

(A) A SVRS meeting ASME/ANSI A112.19.17 and/or ASTM F2387, or

(B) A properly designed and tested suction-limiting vent system, or

(C) An automatic pump shut-off system, or

(D) Disabled submerged outlets, or

(E) Suction outlets shall be reconfigured into return inlets.

⚠ CAUTION For Installation of Electrical Controls at Equipment Pad (ON/OFF Switches, Timers and Automation Load Center)



Install all electrical controls at equipment pad, such as on/off switches, timers, and control systems, etc. to allow the operation (startup, shut-down, or servicing) of any pump or filter so the user does not place any portion of his/her body over or near the pump strainer lid, filter lid or valve closures. This installation should allow the user enough space to stand clear of the filter and pump during system start-up, shut down or servicing of the system filter.

⚠ DANGER



HAZARDOUS PRESSURE: STAND CLEAR OF PUMP AND FILTER DURING START UP.

Circulation systems operate under high pressure. When any part of the circulating system (i.e. locking ring, pump, filter, valves, etc.) is serviced, air can enter the system and become pressurized. Pressurized air can cause the pump housing cover, filter lid, and valves to violently separate which can result in severe personal injury or death. Filter tank lid and strainer cover must be properly secured to prevent violent separation. Stand clear of all circulation system equipment when turning on or starting up pump. Before servicing equipment, make note of the filter pressure. Be sure that all controls are set to ensure the system cannot inadvertently start during service. Turn off all power to the pump. **IMPORTANT: Place filter manual air relief valve in the open position and wait for all pressure in the system to be relieved.**

Before starting the system, fully open the manual air relief valve and place all system valves in the "open" position to allow water to flow freely from the tank and back to the tank. Stand clear of all equipment and start the pump.

IMPORTANT: Do not close filter manual air relief valve until all pressure has been discharged from the valve and a steady stream of water appears. Observe filter pressure gauge and be sure it is not higher than the pre-service condition.

General Installation Information

- All work must be performed by a qualified service professional, and must conform to all national, state, and local codes.
- Install to provide drainage of compartment for electrical components.
- These instructions contain information for a variety of pump models and therefore some instructions may not apply to a specific model. All models are intended for use in swimming pool applications. The pump will function correctly only if it is properly sized to the specific application and properly installed.

⚠ WARNING

Pumps improperly sized or installed or used in applications other than for which the pump was intended can result in severe personal injury or death. These risks may include but not be limited to electric shock, fire, flooding, suction entrapment or severe injury or property damage caused by a structural failure of the pump or other system component.

Pumps and replacement motors that are single speed and one (1) Total HP or greater cannot be sold, offered for sale, or installed in a residential pool for filtration use in California, Title 20 CCR sections 1601-1609.

CUSTOMER SERVICE / TECHNICAL SUPPORT

If you have questions about ordering Pentair replacement parts, and pool products, please contact:

Customer Service and Technical Support, USA

(8 A.M. to 4:30 P.M. — Eastern/Pacific Times)

Phone: (800) 831-7133

Fax: (800) 284-4151

Web site

Visit www.pentair.com for information about Pentair products.

Sanford, North Carolina (8 A.M. to 4:30 P.M. ET)

Phone: (919) 566-8000

Fax: (919) 566-8920

Moorpark, California (8 A.M. to 4:30 P.M. PT)

Phone: (805) 553-5000 (Ext. 5591)

Fax: (805) 553-5515

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PUMP OVERVIEW

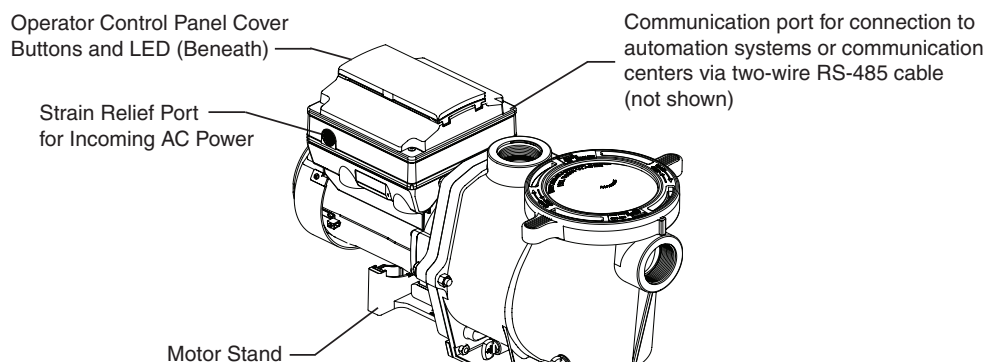
The IntelliFlo® Variable Speed Pump can be programmed to run at specific speeds and time intervals for maximum operating efficiency and energy conservation for a variety of inground pools.

- The pump can operate from 450 RPM to 3450 RPM with four preset speeds of 750, 1500, 2350 and 3110 RPM
- The pump can be adjusted from the control panel to run at any speed between 450 RPM to 3450 RPM for different applications
- Up to 8 programmable speeds
- Pump control panel alarm LED and error messages warn the user against under and over voltage, high temperature, over current and freezing
- Communicates with Pentair Automation Systems or Communication Center via a two-wire RS-485 cable connection
- Programmable priming mode with automatic detection of prime for easy start-up
- Compatible with most cleaning systems, filters, and jet action spas
- WEF Values
EC-011028: WEF 6.9 THP 3.95
011059 and EC-011059: WEF 7.5 THP 3.95
011060 and EC-011060: WEF 6.9 THP 3.95

Drive Assembly and Control Panel

The IntelliFlo pump drive is designed to produce maximum motor operational efficiency. The drive controls the motor's rotational speed by controlling the frequency of the supplied current. It also protects the motor and pump from operating outside of their intended operating parameters.

The control panel can be mounted on the pump in four different directions in order to provide the user the best access. The control panel can also be mounted in a more convenient location with the help of the keypad relocation kit (P/N 356904Z).



Variable Speed Drive Assembly

External Control

Pentair Automation Systems and Communication Centers can remotely control the IntelliFlo pump. The pump's communications address and other functions are accessible from the pump's control panel.

- RS-485 communication cable included
- IntelliComm® Communication Centers control one IntelliFlo pump using the 4 External Control programs.
- Refer to your automation system manual for further details on how to connect and use a Pentair Automation System with your variable speed pump(s).

Motor Features

- High-Efficiency Permanent Magnet Synchronous Motor (PMSM)
- Superior speed control
- Operates at lower temperatures due to high efficiency
- Designed to withstand outdoor environment
- Totally Enclosed Fan Cooled (TEFC) Motor
- 56 Square Flange
- Low noise

Drive Features

- Active Power Factor Correction
- Rotatable Keypad
- Easy Overhead Wiring
- High Drive Operational Efficiency

INSTALLATION

Only a qualified plumbing professional should install the IntelliFlo® Variable Speed Pump. Refer to *“Important Pump Warning And Safety Instructions”* on pages i - ii for additional installation and safety information.

Note: The IntelliFlo pump cannot be connected in series with other pumps.

Location

Note: Do not install this pump within an outer enclosure or beneath the skirt of a hot tub or spa unless marked accordingly.

Note: Ensure that the pump is mechanically secured to the equipment pad.

Be sure the pump location meets the following requirements:

1. Install the pump as close to the pool or spa as possible. To reduce friction loss and improve efficiency, use short, direct suction piping returns.
2. Install a minimum of 5 feet (1.5 meters) from the inside wall of the pool and spa. Canadian installations require a minimum of 9.8 feet (3 meters) from pool water level.
3. Install the pump a minimum of 3 feet (0.9 meters) from the heater outlet.
4. Do not install the pump more than 10 feet (3.1 meters) above the water level.
5. Install the pump in a well ventilated location protected from excessive moisture (i.e., rain gutter downspouts, sprinklers, etc.)
6. Install the pump with a rear clearance of at least 3 inches (76.2 mm) so that the motor can be removed easily for maintenance and repair. See **Figure 1**.

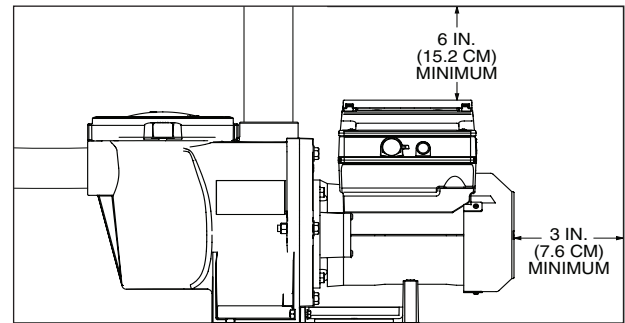


Figure 1: Pump Rear and Overhead Clearance

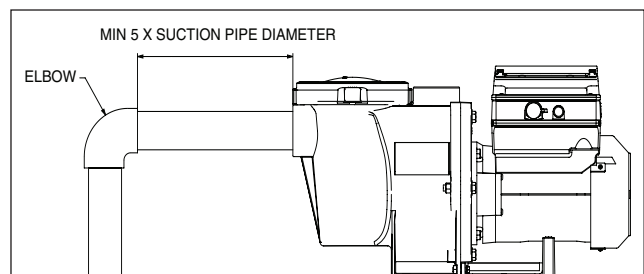


Figure 2: Recommended Piping

Piping

1. For improved pool plumbing, it is recommended to use a larger pipe size. When installing the inlet and outlet fittings (male adaptors), use thread sealant.
2. Piping on the suction side of the pump should be the same or larger than the return line diameter.
3. Plumbing on the suction side of the pump should be as short as possible.
4. For most installations Pentair recommends installing a valve on both the pump suction and return lines so that the pump can be isolated during routine maintenance. However, it is recommended that a valve, elbow or tee installed in the suction line should be no closer to the front of the pump than five (5) times the suction line pipe diameter. See **Figure 2**.

Example:

A 2 inch pipe requires a 10 inch (254 mm) straight run in front of the suction inlet of the pump). This will help the pump prime faster and last longer.

Note: DO NOT install 90° elbows directly into the pump inlet or outlet.

Electrical Requirements

- Install all equipment in accordance with the National Electrical Code and all applicable local codes and ordinances.
- A means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

Optional Keypad Relocation Kit

In special cases when the user lacks easy or convenient access to the IntelliFlo® Variable Speed Pump, a Keypad Relocation Kit (P/N 356904Z [Almond] or P/N 356905Z [Black]) may be purchased from your local pool equipment supplier. This kit allows the user to remove the keypad cover from the top of the drive and mount the keypad in a fixed location with better access.

For installation instructions refer to the *Keypad Relocation Kit Installation Instructions* provided with the kit.

Fittings and Valves

1. Do not install 90° elbows directly into pump inlet.
2. Flooded suction systems should have gate valves installed on suction and discharge pipes for maintenance, however, the suction gate valve should be no closer than five times the suction pipe diameter as described in this section.
3. Use a check valve in the discharge line when using this pump for any application where there is significant height to the plumbing after the pump.
4. Be sure to install check valves when plumbing in parallel with another pump. This helps prevent reverse rotation of the impeller and motor.

Electrical Installation

⚠ WARNING



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION. This pump must be installed by a licensed or certified electrician or a qualified service professional in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation will create an electrical hazard which could result in death or serious injury to users, installers, or others due to electrical shock, and may also cause damage to property.

Always disconnect power to the pump at the circuit breaker before servicing the pump. Failure to do so could result in death or serious injury to service people, users or others due to electric shock.

Read all servicing instructions before working on the pump.

Note: ALWAYS reinstall the drive lid onto the field wiring compartment when leaving the pump unsupervised during servicing. This will prevent foreign matter (i.e. rainwater, dust, etc.) from accumulating in the drive.

Note: When connecting the pump to a Pentair Automation System, continuous power must be supplied to the pump by connecting it directly to the circuit breaker. When using an automation system, be sure that no other lights or appliances are on the same circuit.

Wiring

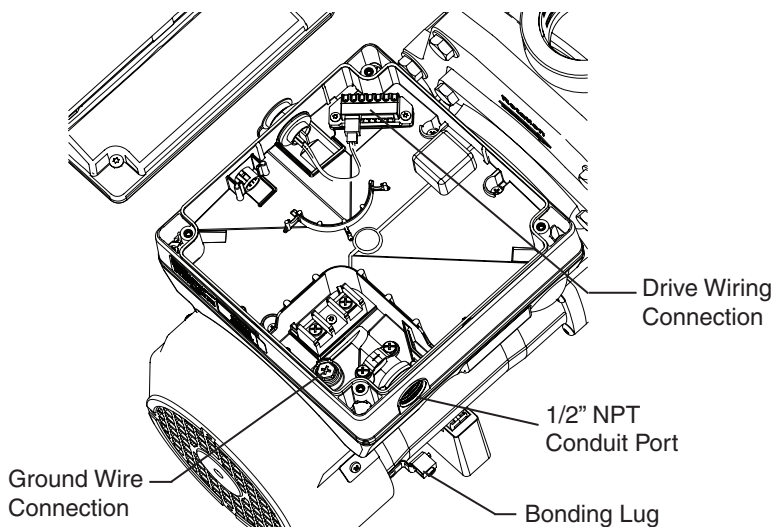
1. Be sure all electrical breakers and switches are turned off before wiring motor.

⚠ WARNING

STORED CHARGE - Wait at least sixty (60) seconds before servicing.

2. Be sure that the supply voltage meets the requirements listed on the motor nameplate. If these requirements are not met, permanent motor damage may occur.
3. For wiring sizes and general guidelines for proper electrical installation, please follow the specifications defined in the National Electric Code and any local codes as required.
4. Use strain relief and be sure all electrical connections are clean and tight.
5. Cut the wires to the appropriate length so they do not overlap or touch when connected.
6. Reinstall the keypad cover after wiring the pump by plugging the cover back into the drive wiring connection and re-seating the keypad cover in the desired orientation with the four (4) corner screws.

Note: Ensure that the keypad cable is not pinched between the drive and keypad cover during re-seating.



Field Wiring Compartment

Grounding

1. Permanently ground the motor using the green ground screw, as shown below. Use the correct wire size and type specified by National Electrical Code. Be sure the ground wire is connected to an electrical service ground.
2. The pump should be permanently connected to either a circuit breaker, 2-pole timer or 2-pole relay.

Note: If AC power is supplied by a GFCI circuit breaker, the pump should be wired on its own independent circuit **unless the pump is operated in tandem with a Pentair salt chlorine generator.**

Bonding

1. Bond the motor to the structure in accordance with the National Electrical Code. Use a solid copper bonding conductor not smaller than 8 AWG. For Canadian installations, a 6 AWG or larger solid copper bonding conductor is required. Run a wire from the external bonding screw or lug to the bonding structure.
2. Connect the wire from the accessible bonding lug on the motor to all metal parts of the swimming pool, spa, or hot tub structure and to all electrical equipment, metal conduit, and metal piping within 5 feet (1.52 meters) of the inside walls of the swimming pool, spa, or hot tub. Run a wire from the external bonding screw or lug to the bonding structure.

Note: When the pump is started and stopped by removing power with a relay or timer, a two-pole device should be used to apply and remove power to both POWER LINE TERMINALS.

Pentair offers 2-Pole 20 Amp GFCI breakers (P/N PA220GF) which offer personnel protection while meeting 2008 to current NEC Standards for Pool Pumps.

Connecting to an Automation System

All IntelliFlo® Variable Speed Pumps are compatible with Pentair Automation Systems.

An RS-485 communication cable is provided with the pump and will be used to connect the pump to a Pentair automation system.

Refer to the automation system manual for further details on how to connect and use the system with your variable speed pump.

OPERATING THE PUMP

NOTE: Speed 1 is the default filtration speed.

NOTE: When setting up the IntelliFlo® Variable Speed Pump, the user must set the pump's internal clock and establish an operation schedule by following the steps in this manual. Please refer to user's guide sections: 'Set Time' (page 9) and 'Set Speeds 1-8 in Schedule Mode' (page 12) to schedule a time to run the pump.

CAUTION This pump is shipped with Priming mode ENABLED. Unless the Priming settings are changed in the menu, **be aware that the pump will speed up to the maximum speed when the pump is powered on for the first time, and the Start/Stop button is pressed.** To change the maximum speed of the pump, refer to page 9.

Before turning the pump ON, be sure the following conditions are met:

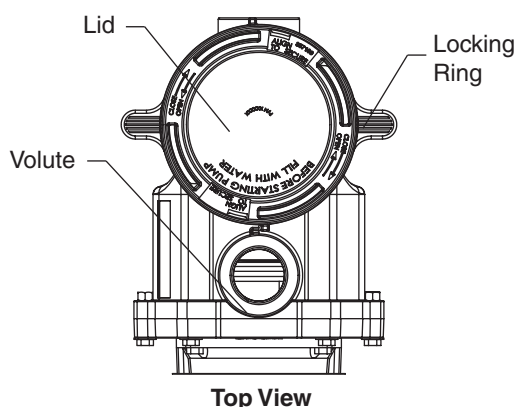
1. Open filter air relief valve.
2. Open valves.
3. Pool return is completely open and clear of any blockages.
4. Water in the pump basket.
5. Stand clear of the filter or other pressurized vessels.

Priming the Pump

Prime the pump before starting the pump for the first time. Remove the lid and fill the basket with water. The pump basket must be filled with water before initial start up or after servicing.

Follow the steps below to prime the pump for start up:

1. Press **Start/Stop** to stop the pump. Disconnect the pump main power supply and communication cable.
2. Close all valves in suction and discharge pipes. Relieve all pressure from the system.
3. Remove the pump lid and locking ring.
4. Fill the pump strainer pot with water.
5. Reassemble the pump lid and locking ring onto the strainer basket. The pump is now ready to prime.
6. Open all valves in suction and discharge pipes.
7. Open the filter air relief valve and stand clear of the filter.
8. Connect power to the pump. Be sure green power light is on.
9. Press **Start/Stop** to start the pump. The pump will enter into priming mode (if enabled) and speed up to the maximum speed set in the pump menu settings.
10. When water comes out of the filter air relief valve, close the valve. The system should now be free of air and recirculating water to and from the pool.
11. Do not allow your pump to run longer than 30 minutes time without developing full flow. If the pump does not prime, check your priming settings on the control panel or see the "Troubleshooting" section on pages 22-24.



Priming Features

The default priming setting is ENABLED.

The pump also allows you to set the following from the operator control panel:

- Priming speed
- Priming range (1-10)
- Priming delay

Set up instructions on page 16.

CAUTION Do not add chemicals to the system directly in front of pump suction. Adding undiluted chemicals may damage the pump and will void the warranty.

CAUTION This is a variable speed pump. Typically the lower speeds are used for filtration and heating. The higher speeds can be used for spa jets, water features, and priming.

CAUTION DO NOT run the pump dry. If the pump is run dry, the mechanical seal will be damaged and the pump will start leaking. If this occurs, the damaged seal must be replaced. ALWAYS maintain proper water level in your pool (half way up skimmer opening). If the water level falls below the skimmer opening, the pump will draw air through the skimmer, losing the prime and causing the pump to run dry, resulting in a damaged seal. Continued operation in this manner could cause a loss of pressure, resulting in damage to the pump case, impeller and seal and may cause property and personal injury.

Using the Operator Control Panel

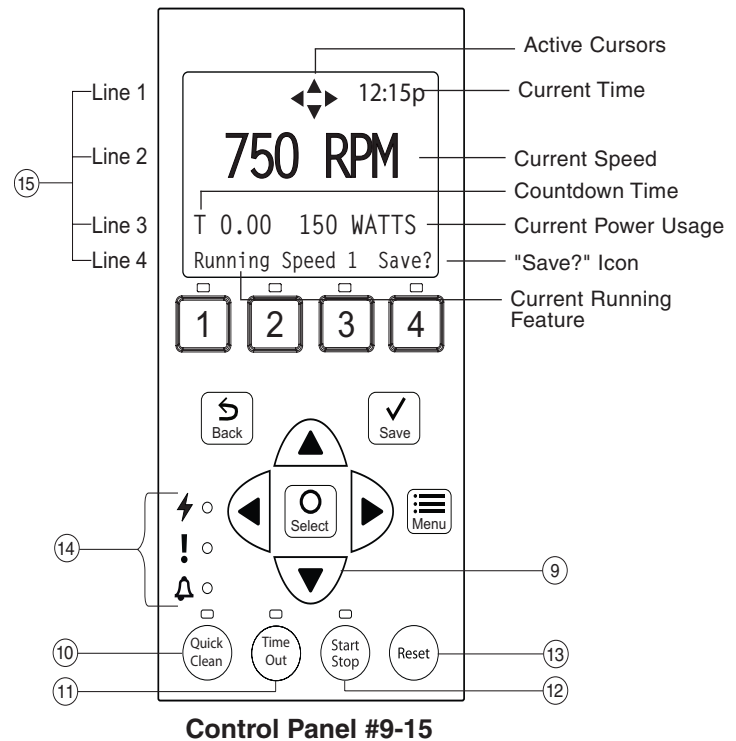
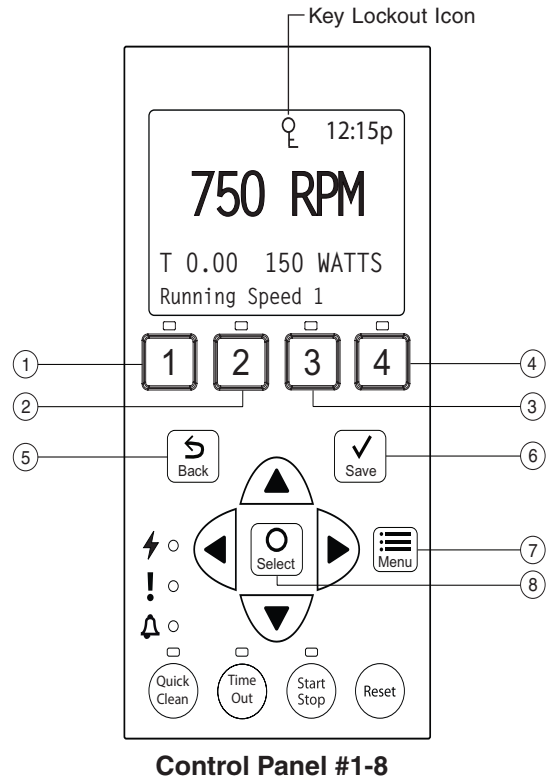
Use the operator control panel to start and stop the IntelliFlo® Variable Speed Pump, program, set, and change speeds (RPM), and access pump features and settings.

Controls and LEDs on Keypad

- ① **Button 1:** Press to select Speed 1 (750 RPM). LED on indicates Speed 1 is active.
- ② **Button 2:** Press to select Speed 2 (1500 RPM). LED on indicates Speed 2 is active.
- ③ **Button 3:** Press to select Speed 3 (2350 RPM). LED on indicates Speed 3 is active.
- ④ **Button 4:** Press to select Speed 4 (3110 RPM). LED on indicates Speed 4 is active.
- ⑤ **Back:** Goes one step back in menu; exits without saving current setting.
- ⑥ **Save:** Saves current menu item setting. When a parameter has been adjusted the "Save?" icon will be displayed.
- ⑦ **Menu:** Accesses the menu items when and if the pump is stopped.
- ⑧ **Select:** Press to select the currently displayed option on the screen.
- ⑨ **Arrow buttons:**
 - **Up arrow:** Move one level up in the menu or increase a digit when editing a setting.
 - **Down arrow:** Move one level down in the menu or decrease a digit when editing a setting.
 - **Left arrow:** Move cursor left one digit when editing a setting.
 - **Right arrow:** Move cursor right one digit when editing a setting.
- ⑩ **Quick Clean:** Pump increases to a higher RPM (for vacuuming, cleaning, adding chemicals, etc.). LED light is on when active.
- ⑪ **Time Out:** Allow the pump to remain in a stopped state for a set period of time before resuming normal operation. LED is on when active.
- ⑫ **Start/Stop button:** To start or stop the pump. When LED is on, the pump is running or in a mode to start automatically.
- ⑬ **Reset button:** Reset alarm or alert.
- ⑭ **LEDs:**
 - ⚡ **On:** Green light when pump is powered on.
 - ! **Warning:** On if warning condition is present.
 - 🔔 **Alarm:** Red LED on if alarm condition occurs. See "Alerts and Warnings" on page 22.

⑮ Control Panel LCD Screen:

- **Line 1:** Key icon indicates password protection mode is active. If password protect is not enabled, no key icon is displayed. Also shows current time of day. Active cursors display when arrow key input is available.
- **Line 2:** Displays current pump speed (RPM).
- **Line 3:** Countdown time and watts
- **Line 4:** Current pump status and current feature. "Save?" will display on this line when a parameter adjustment can be saved.



Note: Always close the keypad cover after using the keypad.

Note: Using screwdrivers or pens to program the pump will damage the keypad overlay. Use your fingers only when programming the pump.

Stopping and Starting the Pump

Starting the Pump

1. Be sure the pump is powered on and the green power LED is on.
2. Select one of the speed buttons, then press the **Start/Stop** button (LED on) to start the pump. The pump will go into priming mode if priming feature is enabled.

Stopping the Pump

1. Press **Start/Stop** to stop the pump.

When servicing equipment (filters, heaters, chlorinators etc.), disconnect the communication cable, and switch OFF circuit breaker to remove power from the pump.

Note: The pump can automatically restart if the communication cable is connected.

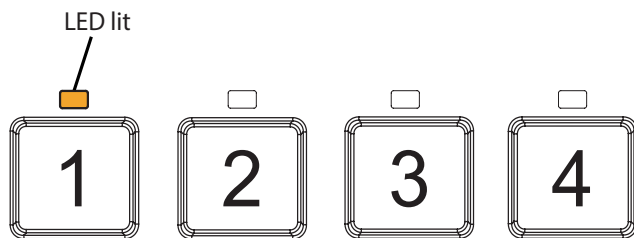
Adjusting and Saving a Pump Speed

1. While the pump is running, press the **Up** or **Down** arrow to adjust to desired speed setting.
2. Press and hold down a **Speed** button (1-4) for three (3) seconds to save speed to the button or press **Save** to save the speed.

Operating the Pump at Preset Speeds

The pump is programmed with four default speeds of 750, 1500, 2350 and 3110 RPM. Speed buttons 1-4 are for each of the preset speeds as shown below.

1. Be sure the pump is powered on and the green power LED is on.
2. Press the **Speed** button (1- 4) corresponding to the desired preset speed and release quickly. The LED above the button will turn on.
3. Press **Start/Stop**. The pump will quickly change to the selected preset speed.

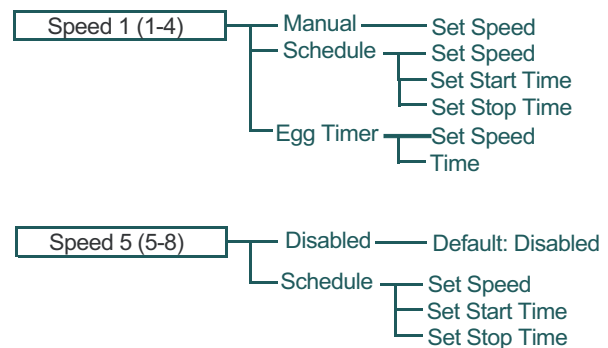


Pump Operating Modes

The IntelliFlo® Variable Speed Pump can be programmed in three different modes:

Manual, Schedule, and Egg Timer.

Speeds 1-4 can be programmed in all three modes. Speeds 5-8 can only be programmed in Schedule mode since there are no buttons on the control panel for Speeds 5-8. The default setting for Speeds 5-8 is “Disabled”.



Speed Menu Tree Options

Manual

Assigns a speed to one of the four Speed buttons on the control panel. This mode can only be used for speeds 1-4.

To operate in Manual mode, press one of the four speed buttons and then press the **Start/Stop** button. The pump will run the assigned speed for that speed button.

Egg Timer

Speeds 1-4 can be programmed to run at a certain speed and for a duration of time once a speed button is pressed.

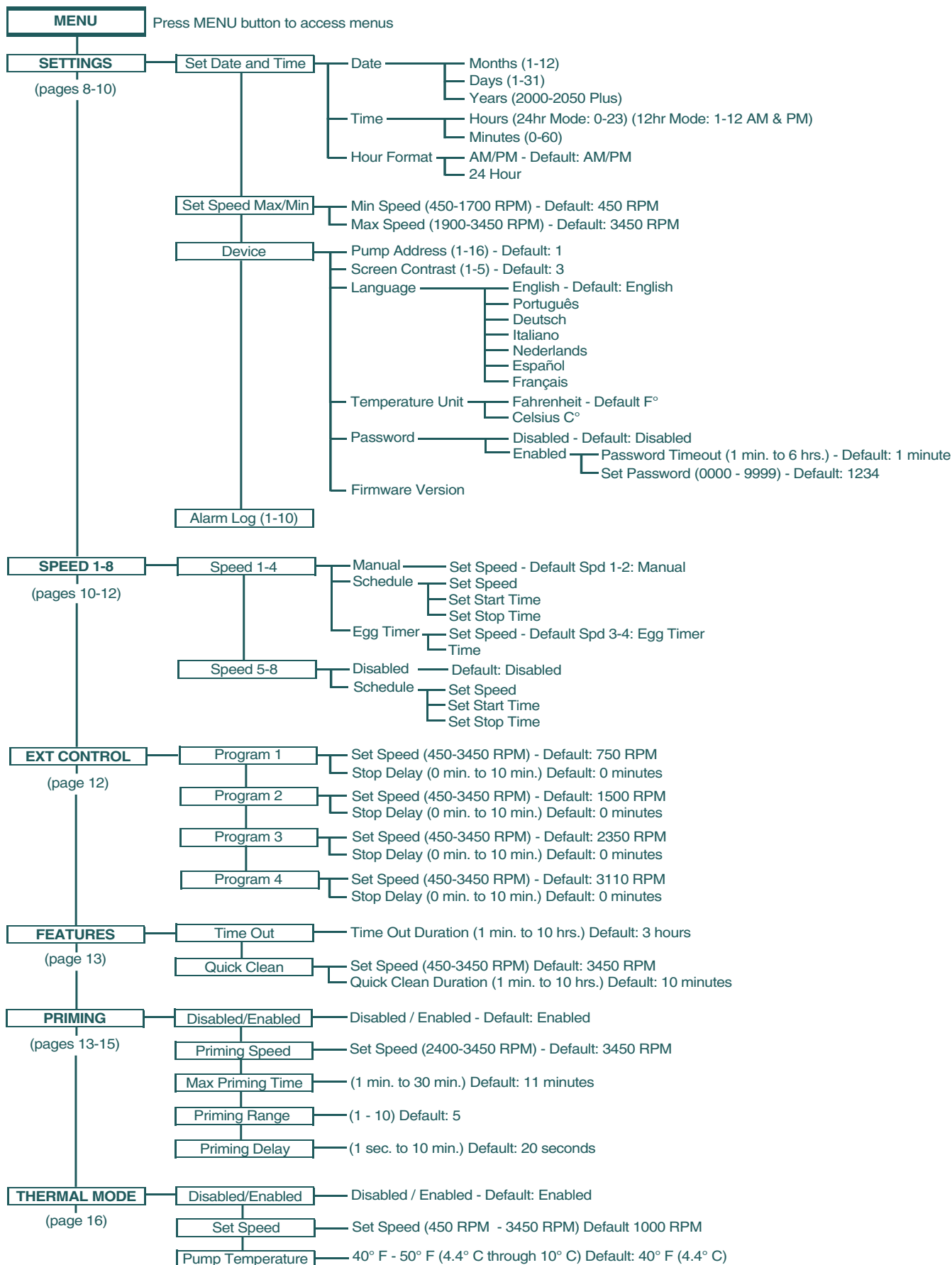
Speeds 3 and 4 are Egg Timers by default. This prevents the pump from running at a speed higher than half of the maximum speed indefinitely. If you desire a different method of operation, speeds 3 and 4 can be changed to Manual mode in the control menu.

To operate in Egg Timer mode, press a speed button and then press **Start/Stop**. The pump will run that speed for the set amount of time and then turn off.

Schedule

Program speeds 1-8 start and stop at a specific time during a 24 hour period. Speeds programmed in Schedule mode will override any manually selected speed (speeds set by manually pressing any of the speed buttons on the control panel).

Operator Control Panel: Pump Menu Guide





Set Date and Time

The time controls all scheduled times, functions, and programmed cycles and stores the correct time for up to 96 hours after power is turned off. Reset if the power is off longer than 96 hours.

1. Check that the green power LED is on.
2. Press **Menu**.
3. Press **Select** to select "Settings".
4. Use the **Up** or **Down** arrows to scroll to "Date and Time" and press **Select**.
5. Press **Select** again and use **Up** or **Down** arrows to set the date.
6. Press **Save** to save user input and return to "Date and Time."
7. Use the **Up** or **Down** arrows to scroll to "Time" and press **Select**.
8. Use the **Up** or **Down** arrows to scroll to set the time.
Note: To set AM/PM or a 24 hour clock see the next section "Set AM/PM or 24 Hour Clock."
9. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
10. Press **Back** to exit.

Set AM/PM or 24 Hour Clock

To change the time from a 12 hour clock (AM/PM) to a 24 hour clock:

1. Press **Menu**.
2. Press **Select** to select "Settings".
3. Use the **Up** or **Down** arrows to scroll to "Date and Time" and press **Select**.
4. Use the **Up** or **Down** arrows to scroll to "AM/PM" and press **Select**.
5. Use the **Up** or **Down** arrows to scroll to choose between 24 hr. and AM/PM.
6. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
7. Press **Back** to exit.

Set Minimum Speed (RPM)

The minimum pump speed can be set from 450 RPM to 1700 RPM. The default setting is 450 RPM.

1. Check that the green power LED is on.
2. Press **Menu**.
3. Press **Select** to select "Settings".
4. Use the **Up** or **Down** arrows to scroll to "Min/Max".
5. Use the **Up** or **Down** arrows to scroll to "Set Min Spd".
6. Press **Select** to change the setting. The cursor will appear in the first number column (ones).

7. Press the **Up** or **Down** arrows to change the minimum speed setting from 450 to 1700 RPM.
8. Press **Save** to save. To cancel, press **Back** to exit edit mode without saving.
9. Press **Back** to exit.

Set Maximum Speed (RPM)

The maximum speed can be set from 1900 RPM to 3450 RPM (default is 3450). Use this setting to set the maximum running speed of the IntelliFlo® Variable Speed Pump.

1. Check that the green power LED is on.
2. Press **Menu**.
3. Press **Select** to select "Settings".
4. Use the **Up** or **Down** arrows to scroll to "Min/Max".
5. Use the **Up** or **Down** arrows to scroll to "Set Max Spd".
6. Press **Select** to change. The cursor will appear in the first number column (ones).
7. Press **Up** or **Down** arrows to change the maximum speed setting from 1900 to 3450 RPM.
8. Press **Save** to save. Press **Back** to exit. To cancel, press the **Back** to exit without saving.

Note: Maximum Speed will limit Priming Speed, except in one case. If the Maximum Speed is set below the lowest available Priming Speed (2350 RPM) then the pump will exceed the Maximum Speed while the priming feature is running. This prevents the pump from having trouble priming if the Maximum Speed is set this low. If this is a problem, priming can be disabled in the Priming Menu (see "Priming" section on page 14).

Pump Address

Use this setting if your pump is connected via the RS-485 COM port to a Pentair automation system.

The default pump address is #1 and only needs to be changed when there is more than one pump on an automation system. When multiple pumps are on the same system, you may change each pump's address to allow the automation system to send a command to the correct pump. The pump address can be set from 1-16.

Refer to the automation system manual for further details on how to connect and use an automation system with your variable speed pump.

1. Be sure the green power LED is on and the pump is stopped.
2. Press **Menu**.
3. Press **Select** to select "Settings".
4. Use the **Up** or **Down** arrows to scroll to "Device" and press **Select**.
5. Use the **Up** or **Down** arrows to scroll to "Pump Address" and press **Select**.



Pump Address (cont.)

6. Press **Up** or **Down** arrows to change the address number from 1-16.
7. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
8. Press **Back** to exit.

Set Screen Contrast

The default setting for the LCD screen is 3. Screen contrast levels can be adjusted from 0 to 7 units for low or high lighting conditions.

Note: Changes to the contrast setting do not update instantaneously. Changes to this setting must be saved before the contrast level changes.

1. Check that the green power LED is on.
2. Press **Menu**.
3. Press **Select** to select "Settings".
4. Use the **Up** or **Down** arrow to scroll to "Device" and press **Select**.
5. Use the **Up** or **Down** arrow to scroll to "Contrast Level."
6. Press **Select**. Screen will show current contrast setting number. Use **Up** or **Down** to change number.
7. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
8. Press the **Back** button to exit.

Set Control Panel Language

To access the language menu:

1. Check that the green power LED is on.
2. Press **Menu** and press **Select** to select "Settings".
3. Use the **Up** or **Down** arrows and scroll to "Device" and press **Select**.
4. Use the **Up** or **Down** arrows to scroll to "Select Language and press **Select**.
5. Use the **Up** or **Down** arrows to choose the desired language.
6. Press **Save** to select the control panel language. To cancel any changes, press **Back** to exit without saving.
7. Press **Back** to exit.

Set Temperature Unit

The default setting is Fahrenheit (°F). The pump can be set to either Celsius (°C) or Fahrenheit (°F).

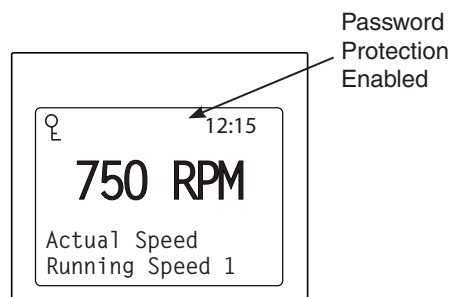
1. Check that the green power LED is on.
2. Press **Menu**.
3. Press **Select** to select "Settings".
4. Use the **Up** or **Down** arrows to scroll to "Device" menu item. Press **Select**.
5. Use **Up** or **Down** arrows to scroll to "Temperature Units" and press **Select**.
6. Use **Up** or **Down** arrows to choose Celsius (°C) or Fahrenheit (°F).
7. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
8. Press **Back** to exit.

Password Protection

The default setting for password protection is disabled. When this feature is enabled, the pump display will prompt for the password before allowing access to the control panel and buttons.

The entered password is any combination of four (4) digits.

- The pump can always be stopped by pressing **Start/Stop**, even when password protection is enabled.
- Password protection cannot be turned back on with **Start/Stop** while running in manual mode.
- Pressing **Start/Stop** when the pump is off will return it back to the Running Cycles Mode and run at the next scheduled run time. If the present time is within the scheduled run time, the pump will run the scheduled speed.
- All functions including programming are disabled in Password Protection Mode.
- Screen will read "Enter Password" if any button other than the **Start/Stop** button is pressed
- Key icon displayed in the upper left side of the screen when Password Protection is on.





Setting Password

1. Check that the green power LED is on.
2. Press **Menu**. Press **Select** to select “Settings”.
3. Use the **Up** or **Down** arrow to scroll to “Device”.
4. Press **Select**.
5. Press **Up** or **Down** arrow to scroll to “Password”. The default setting is “Disabled”.
6. Press **Select**.
7. Press **Up** or **Down** arrow to change the setting to “Enabled”. Press **Save** to save.
8. Press the **Down** arrow. “Password Timeout” will be displayed. The factory default time is 1 minute. This means the IntelliFlo® Variable Speed Pump will go into Password Protection mode 1 minute after the last control panel key is pressed.
9. Press **Select** to change time setting from 1 minute to 6 hours and press **Save** to save.
10. Press the **Down** arrow and then press **Select** on “Enter Password” to change the setting.
11. Press the **Left** or **Right** arrows to move cursor and press the **Up** or **Down** arrow to change the password number to desired setting.
12. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.

Entering Password

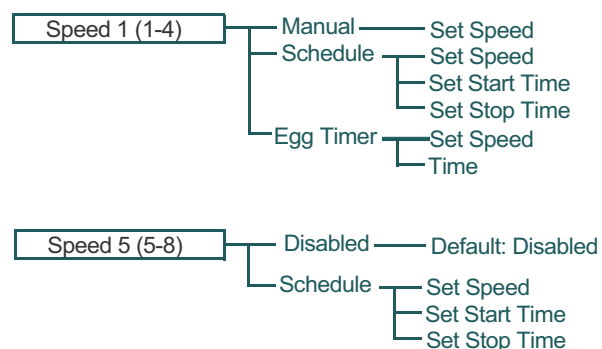
1. Press any button (besides the speed button) to prompt the screen for a password.
2. To enter password, use the **Left** and **Right** arrows to move the cursor and the **Up** and **Down** arrow button to scroll through the digit then press **Save** to confirm.



Pump Operating Modes

The IntelliFlo® Variable Speed Pump can be programmed in three different modes:

Manual, Schedule, and Egg Timer. Speeds 1-4 can be programmed in all three modes. Speeds 5-8 can only be programmed in Schedule mode since there are no buttons on the control panel for Speeds 5-8. The default setting for Speeds 5-8 is “Disabled”.



Speed Menu Tree Options

Manual

Assigns a speed to one of the four Speed buttons on the control panel. This mode can only be used for speeds 1-4.

To operate in Manual mode, press one of the four speed buttons and then press the **Start/Stop** button. The pump will run the assigned speed for that speed button.

Egg Timer

Speeds 1-4 can be programmed to run at a certain speed and for a duration of time once a speed button is pressed.

Speeds 3 and 4 are Egg Timers by default. If you desire a different method of operation, speeds 3 and 4 can be changed to Manual mode in the control menu.

To operate in Egg Timer mode, press a speed button and then press **Start/Stop**. The pump will run that speed for the set amount of time and then turn off.

Schedule

Program speeds 1-8 start and stop at a specific time during a 24 hour period. Speeds programmed in Schedule mode will override any manually selected speed (speeds set by manually pressing any of the speed buttons on the control panel).

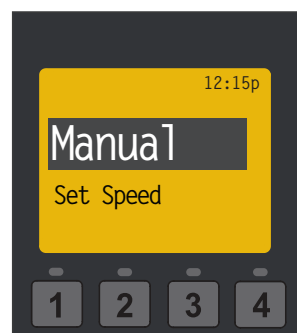


Set Speeds in Manual Mode (Speeds 1-4 Only)

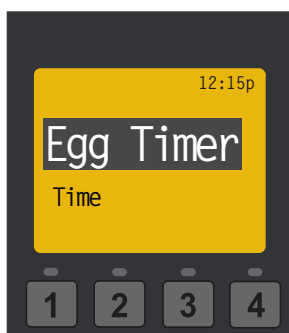
1. Press **Menu**.
2. Use **Up** or **Down** arrows to scroll to "Speed 1-8", then press **Select**.
3. Use **Up** or **Down** arrows to find the speed (1-4) you wish to program, then press **Select**.
4. Speeds 1-2 default setting is Manual. Speeds 3-4 default setting is Egg Timer. To set a speed in Manual mode, press the **Down** arrow ("Set Speed" will display) and press **Select** to change. Use the **Up** or **Down** arrow to adjust speed.
5. Press **Save** to save the new speed setting.

Set Speeds in Egg-Timer Mode (Speeds 1-4 Only)

1. Press **Menu**.
2. Use **Up** or **Down** arrows to scroll to "Speed 1-8", then press **Select**.
3. Use **Up** or **Down** arrow to find the speed (1-4) you wish to program, then press **Select**.
4. Use the **Up** or **Down** arrows to scroll to "Egg-Timer", then press **Select**.
5. To set a speed in Egg-Timer mode, press the **Down** arrow ("Set Speed" will display) and press **Select** to change. Use the **Up** or **Down** arrow to adjust speed.
6. Press **Save** to save the new speed setting.
7. Now press the **Down** arrow ("Set Time" will display) and press **Select** to change. Use the **Up** or **Down** arrows to adjust the time.
8. Press **Save** to save the new time setting.



Manual Mode Menu
Screen



Egg Timer Menu Screen

Set Speeds 1-8 in Schedule Mode

In Schedule mode, Speeds 1-8 can be programmed to run a certain speed at a certain time of day. To run a scheduled speed, press **Start/Stop**. The screen will display "Running Schedules" when it is ready to run a scheduled speed. If **Start/Stop** is pressed while a scheduled speed is running, the pump will stop running the scheduled speed. The pump will not continue to run the scheduled speed until the **Start/Stop** button is pressed again.

1. Press **Menu**.
2. Use **Up** or **Down** arrows to scroll to "Speed 1-8", then press **Select**.
3. Use **Up** or **Down** arrows and press **Select** for the speed you wish to set and schedule.
4. Press **Select** (display will be highlighted) and scroll to "Schedule".
5. Press **Save**.
6. Press **Down** arrow ("Set Speed" will display) and press **Select** to change. Use the **Up** or **Down** arrow to adjust speed.
7. Press **Save** to save the new speed.
8. Press the **Down** arrow again, "Set Start Time" will display. Press **Select** - the cursor will highlight the minute column.
9. Use the **Up** or **Down** arrow to change the time and the **Left** or **Right** arrow to move cursor from minutes to hours.
10. Press **Save** to save the new start time setting.
11. Press **Down** arrow - "Set Stop Time" will display. Press **Select**. Repeat Steps 8-9 to set stop time.
12. Press **Save** to save the new stop time setting.
13. Press **Start/Stop**.

The IntelliFlo® Variable Speed Pump will prime and begin to run the programmed schedule at the specified start time.

When running in Schedule or Egg Timer mode, the countdown time (T 00:01) showing the hours and minutes remaining is displayed.



Set Speeds 1-8 in Schedule Mode (cont.)

Programming Schedule for Constant Run

A speed cannot be programmed with the same start and stop times. To run a speed without stopping, set the Start time one minute after the stop time.

Example: A single speed will run non stop if programmed with a Start Time of 8:00 AM and a Stop time of 7:59 AM.



Note: The pump will not run the scheduled speeds until the **Start/Stop** button is pressed (LED on) to place the pump in Schedule mode.

Note: When two speeds are scheduled during the same run time the pump will run the higher RPM Speed regardless of Speed # in use.

Note: The most recent command, Manual or Schedule, takes priority regardless of speed number RPM.



External Control

This function is for programming speeds that will run when the automation control system sends it a command. For example, Terminal 3 and 4 in the automation system will correspond to External Control Program #1. (5 and 6 to Ext Ctrl #2).

The Stop Delay feature allows the user to program the pump to run a Program Speed after the External Control has been deactivated. This feature can be used to provide a cooling down period for the pump after a trigger signal from an installed heater has been deactivated. Each individual Program Speed can have a Stop Delay of 1 to 10 minutes programmed.

Use the External Control feature to program the IntelliComm system power center.

To access the External Control menu:

1. Check that the green power LED is on.
2. Press the **Menu** button.
3. Use **Up** or **Down** arrow to scroll to "Ext. Ctrl."
4. Press **Select**. "Program 1" is displayed.
5. Press **Select**. "750 RPM" is displayed.
6. Press **Select**. The "RPM" number will highlight.
7. Press **Up** or **Down** arrow to change the RPM setting.
8. Press **Save** to save the setting.

Note: To cancel any changes, press the **Back** button to exit without saving.
9. If you do not wish to program a Stop Delay, continue to step 13. If you do wish to program a Stop delay press **Up** or **Down** arrow to scroll to "Stop Delay".
10. Press **Select** to set Stop Delay.
11. Press **Up** or **Down** arrows to change the Stop Delay setting. Stop Delay can be set from 0 minutes (disabled) to 10 minutes.
12. Press **Save** to save the setting.

Note: To cancel any changes, press the **Back** button to exit without saving.
13. Press **Back** to return to set Program 2.
14. Use **Up** or **Down** arrow to scroll to "Program 2".
15. Repeat Steps 5 through 13 to set Program 2, 3, and 4.



Pump Menu: Features

Time Out

The Time Out feature keeps the pump from running its programmed speeds for a set duration adjustable in the menu. The Time Out feature is displayed in hours and minutes (Hrs:Mins).

Once Time Out is finished, the pump will return to its previous mode of operation, the Start/Stop LED will be lit and ready to turn on at the next scheduled run time.

To access the Time Out menu:

1. Check that the green power LED is on.
2. Press **Menu**.
3. Use **Up** or **Down** arrows to scroll to "Features", then press **Select**.
4. Press **Select** to choose "Timeout".
5. Then press **Select** again to choose "Timeout Duration".
6. Press **Select** to change the time. The cursor will highlight the minutes column.
7. Press the **Left** arrow to move cursor to the hours column. Time out can be set from 1 minute to 10 hours.
8. Press **Save** to save the setting.
Note: To cancel any changes, press **Back** to exit without saving.
9. Press **Back** to exit the menu.

Quick Clean

Note: Quick Clean is the only high-speed override feature of the IntelliFlo® Variable Speed Pump.

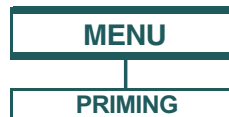
This feature can be used to increase the pump speed for vacuuming, cleaning, adding chemicals, after a storm for extra skimming capability.

Press the **Quick Clean** button (LED on) and then **Start/Stop** to start. When the Quick Clean cycle is over, the pump will resume regular schedules and be in "Running Schedule" mode.

To access the Quick Clean menu:

1. Check that the green power LED is on and the pump is stopped.
2. Press **Menu**.
3. Use **Up** or **Down** arrows to scroll to "Features", then press **Select**.
4. Press the **Down** arrow and press **Select** for "Quick Clean".
5. Press **Select** to choose "Set Speed".
6. Press **Select** to highlight the "RPM" first (ones) column and change the speed.
7. Use **Up** or **Down** arrows to change the speed.
8. Press **Save** to save the speed.

9. Press the **Down** arrow again, and press **Select** for "Time Duration".
10. Press **Select** to change the time. The cursor will highlight the minutes column.
11. Use **Up** or **Down** arrows to change the time from 1 minute to 10 hours.
12. Press **Save** to save the time.
13. Press **Back** to exit the menu.



Pump Menu: Priming

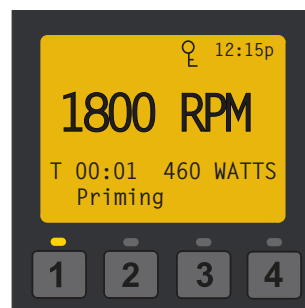
The default setting for Priming is ENABLED. This setting allows the pump to automatically detect if it is primed for startup.

The priming feature increases the pump speed to 1800 RPM and pauses for three (3) seconds. If there is sufficient water flow in the pump basket, the pump will go out of priming mode and run its commanded speed.

If the water flow is not sufficient, the pump speed will increase to the "Max Speed" setting and remain for the priming delay time (default 20 seconds). If there is sufficient water flow in the pump basket at this time, it will exit priming mode and transition to the commanded speed.

If there is still insufficient flow in the pump basket, as determined by the Priming Range setting, the pump will try to prime at the "Priming Speed" for the amount of time set in the "Maximum Priming Time" menu, unless the set "Maximum Speed" is lower than the set "Priming Speed". Once the pump achieves prime, it will resume normal operation after the preset priming delay.

Note: It is possible to set "Maximum Speed" too low for the pump to properly prime. Maximum Speed will limit Priming Speed, except in one case. If the Maximum Speed is set below the lowest available Priming Speed (2350 RPM) then the pump will exceed the Maximum Speed while the priming feature is running. This prevents the pump from having trouble priming if the Maximum Speed is set this low. If this is a problem, priming can be disabled in the Priming Menu.



Display during priming

MENU**PRIMING****Pump Menu: Priming****Priming Features****DISABLED/ENABLED****Default: ENABLED**

Allows IntelliFlo® Variable Speed Pump to automatically detect if pump is primed for startup. The pump will speed up to 1800 RPM and pause for three (3) seconds - if there is enough water in the basket, the pump will go out of priming mode and run the commanded speed.

SET SPEED**Default: 3450 RPM**

The priming speed can be set between 3450 RPM and 2350 RPM. If the pump is on an equipment pad that is close to the water level, it will not need to run at 3450 RPM to successfully prime. The setting can be lowered to prevent running at a higher speed than necessary.

Day to day factors (i.e. local ambient pressure, water/air temperatures, amount of water retained from last system run) can effect priming performance. Because of the frequently changing nature of these factors the priming speed should be set high enough to accommodate environmental and mechanical changes to ensure that the pump can successfully prime. Finding the most effective and efficient speed for your specific needs may take careful testing and evaluation of priming performance.

MAX PRIMING TIME**Default: 11 minutes**

The maximum priming time can be set from 1 - 30 minutes. This setting is the amount of time the pump will try to prime before it gives a priming error. If this occurs, fill the pump basket with water and restart the pump.

PRIMING RANGE**Default: 5**

Priming range can be set from 1-10. The smaller the range, the more water the pump has to be moving to detect that it is primed. At larger ranges, the pump will detect that it is fully primed while moving less water. If the range is set too high, then the pump may exit Priming mode before it has fully primed. The range will automatically adjust with the priming set speed because the flow rates of the pump will be lower at lower speeds.

PRIMING DELAY**Default: 20 seconds**

Priming delay can be set from 1 second to 10 minutes.

If the pump does not have enough water after the automatic priming mode, the pump will increase to the Maximum Speed (under "Pump Settings" on page 9) and run for 20 seconds (or for the time set).

You may need to increase the priming delay to allow the system to stabilize before the pump starts running speeds. If pump continues to show a priming error, increasing the priming delay time might correct this issue.

MENU

PRIMING

Pump Menu: Priming

Setting Priming Features

Note: Priming features are only accessible if priming is “Enabled”.

1. Press **Menu**.
2. Use **Down** arrow to scroll to “Priming” and press **Select**.
3. The factory default is set to priming “Enabled”. To disable, press **Select**.
4. Press **Save** if you have changed the setting - this will save the selection.
5. Press the **Down** arrow - the screen will read “Max Priming Time”.
6. To change from factory default, press **Select**. The cursor will highlight.
7. Use the **Up** or **Down** arrows to change the time from 1 minute to 30 minutes.
8. Press **Save** to save.
9. Press the **Down** arrow - the screen will read “Priming Range”. Default is “5”.
10. Press **Select** to change the priming range. The cursor will highlight the number.
11. Use the **Up** or **Down** arrows to change from 1 to 10. Increasing the number allows the drive to detect prime with less water flow.
12. Press **Save** to save.
13. Press the **Down** arrow - the screen will read “Priming Delay”. Default is 20 seconds.
14. Press **Select** to change the priming delay time.
15. Use the **Up** or **Down** arrows to change from 1 second to 10 minutes.

CAUTION: Increasing the time causes the pump to stay in the priming mode longer.

16. Press **Save** to save the setting.

17. Press **Back** to exit.

Disabling Priming with an Automation System

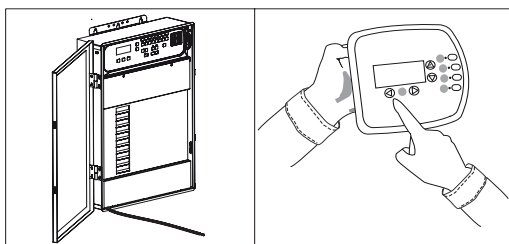
When the IntelliFlo® Variable Speed Pump is connected to an automation control system, ***the priming feature on the pump cannot be disabled by the external automation control system only. It must also be disabled on the pump itself.***

If priming is enabled on start up, the pump responds to its internal settings *before* responding to commands from an automation control system.

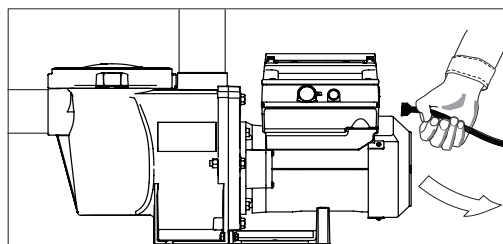
If the pump is connected to an automation control system and priming is not desired, ***disable the priming feature on both the pump and the automation control system.***

To disable priming with an automation system:

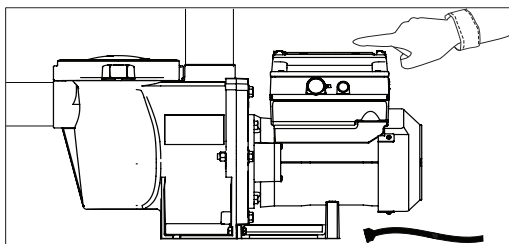
1. Disable the priming feature on the automation control system at the load center or using a system remote. (Refer to the automation control system user’s guide for additional information).
2. Temporarily disconnect the RS-485 communication cable.
3. Open the lid to the control panel to disable priming on the pump. Press **Menu**, use the **Arrow** buttons to scroll and select “Priming”, then select “Disabled” (the factory default is set to “Enabled”). Press **Back** to exit the menu.
4. Once priming is disabled, reinstall the RS-485 communication cable.



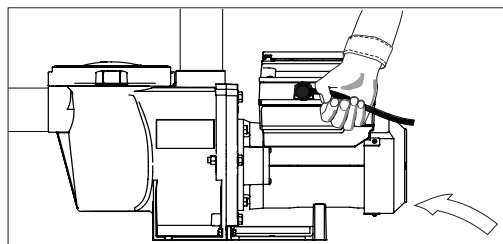
1. Disable priming on automation control system.



2. Disconnect the RS-485 communication cable.



3. Disable priming on pump.



4. Reinstall the RS-485 communication cable.

MENU

THERMAL MODE

Pump Menu: Thermal Mode

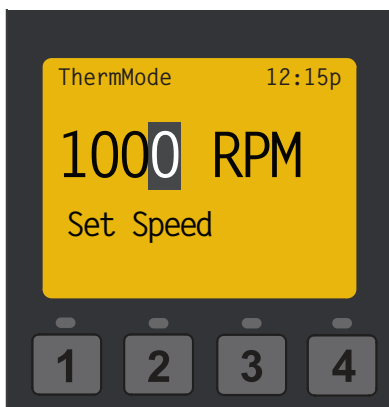
The sensor for Thermal Mode is in the drive, on top of the motor. This feature allows you to set a speed (450 RPM - 3450 RPM) that runs when the IntelliFlo® Variable Speed Pump goes into Thermal Mode. The temperature level that you wish Thermal Mode to start can also be set.

IMPORTANT NOTE: This feature is for protection of the pump. Do not depend on the Thermal Mode feature for freeze protection of the pool. Certain situations could cause the pump to sense a different temperature than actual air temperature.

Your automation systems air temperature sensor should be used to sense actual temperature. For example, if the pump is located indoors, the temperature of the room does not indicate the outdoor temperature. The pump does not sense the water temperature.

To access the Thermal Mode menu:

1. Check that the green power LED is on.
2. Press **Menu**.
3. Use the **Down** arrow to scroll to “Thermal Mode” and press **Select**.
4. The factory default for Thermal Mode is “Enabled”. To disable Thermal Mode, press **Select** to highlight “Enabled”.
5. Press the **Up** arrow - “Disabled” is displayed.
6. Press **Save** to save.



Setting the Thermal Mode Pump Speed

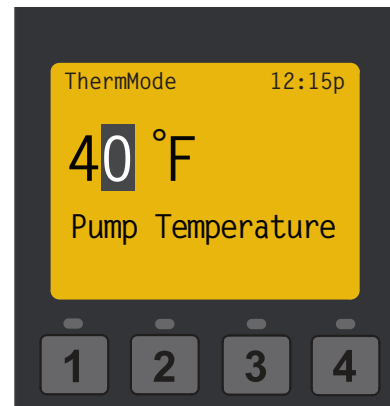
To Set Thermal Mode Speed and Pump Temperature:

Note: Thermal Mode features are only accessible if Thermal Mode is “Enabled”.

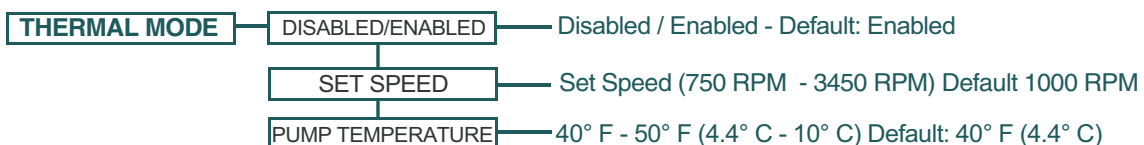
1. With “Thermal Mode” displayed on the screen, press the **Down** arrow - “Set Speed” is displayed. The factory default is 1000 RPM.
2. Press **Select** to change the speed. The cursor will highlight the first column (ones).
3. Use the **Up** or **Down** arrows to set speed (450 - 3450 RPM).
4. Press **Save** to save the speed.
5. Press the **Down** arrow to Pump Temperature (the temperature the pump will activate Thermal Mode, default is 40° F/4.4° C).
6. Press **Select** to change the setting. The cursor will highlight the first column. Can be set 40° F to 50° F (4.4° C - 10° C).
7. Press **Save** to save the temperature setting.

Note: To cancel any changes, press **Back** to exit without saving.

8. Press **Back** to exit.



Setting the Thermal Mode Pump Temperature



Thermal Mode Menu Options

MAINTENANCE



WARNING DO NOT open the strainer pot if IntelliFlo® Variable Speed Pump fails to prime or if pump has been operating without water in the strainer pot. Pumps operated in these circumstances may experience a build up of vapor pressure and may contain scalding hot water. Opening the pump may cause serious personal injury. In order to avoid the possibility of personal injury, be sure the suction and discharge valves are open and strainer pot temperature is cool to touch, then open with extreme caution.



CAUTION To prevent damage to the pump and for proper operation of the system, clean pump strainer and skimmer baskets regularly.

Pump Strainer Basket

The strainer basket (or 'strainer pot'), is located in front of the pump housing. The strainer basket must be kept clean and free of debris. Inspect basket through the lid on the top of the housing. Be sure to visually inspect the strainer basket at least once a week. Dirty strainer baskets reduce filter and heater efficiency and put abnormal stress on the pump motor.

Cleaning the Pump Strainer Basket

1. Press **Start/Stop** button on the pump and turn off the pump at the circuit breaker. Disconnect communication cable from pump.
2. Relieve pressure in the system.
3. Turn the lid and clamp counter-clockwise and remove from the pump.
4. Remove debris and rinse out the basket. Replace the basket if it is cracked.
5. Put the basket back into the housing. Be sure to align the notch in the bottom of the basket with the rib in the bottom of the volute.
6. Fill the pump pot and volute up to the inlet port with water.
7. Clean the lid and clamp, O-ring, and sealing surface of the pump pot.

Note: It is important to keep the lid O-ring clean and well lubricated.

8. Reinstall the lid by placing the clamp and lid on the pot. Be sure the lid O-ring is properly placed.
Seat the clamp and lid on the pump then turn clockwise until the locking ring handles are perpendicular to the inlet.
9. Turn the power "ON" at the circuit breaker. Reconnect communication cable from pump.
10. Open the manual air relief valve on the top of the filter. Stand clear of the filter.
11. Wait until all pressure is relieved. Start the pump.
12. Bleed air from the filter until a steady stream of water comes out of the filter air relief valve. Close the manual air relief valve.



THIS SYSTEM OPERATES UNDER HIGH PRESSURE.

When any part of the circulating system (e.g., Lock Ring, Pump, Filter, Valves, etc.) is serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to separate which can result in serious injury, death, or property damage.

To avoid this potential hazard, follow above instructions.



Winterizing

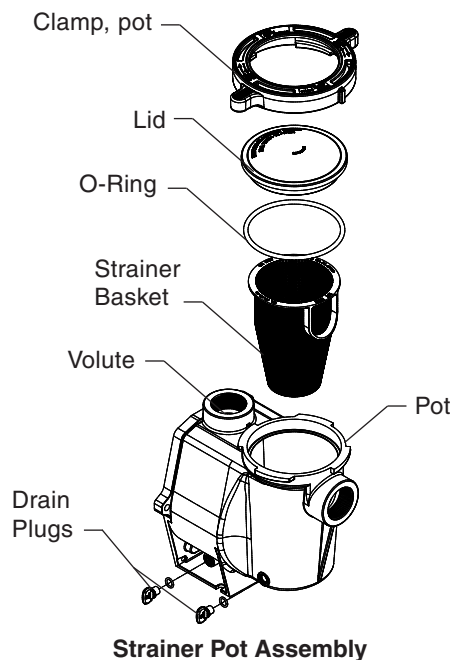
To protect the pump electronics from freeze damage, the pump will switch on to generate internal heat as the temperature drops below freezing if Thermal Mode is enabled. *The Thermal Mode feature on the pump is not intended to protect the system plumbing from freezing.*

- In mild climate areas, when temporary freezing conditions may occur, run your filtering equipment all night to prevent freezing.
- You are responsible for determining when freezing conditions may occur. If freezing conditions are expected, take the following steps to reduce the risk of freeze damage. **Freeze damage is not covered under warranty.**

To prevent freeze damage, follow the procedures below:

1. Shut off electrical power for the pump at the circuit breaker.
2. Drain the water out of the pump housing by removing the two thumb-twist drain plugs from the housing. Store the plugs in the pump basket.
3. Cover the motor to protect it from severe rain, snow and ice.

Note: The motor may be covered during a storm, winter storage, etc., but never when operating or expecting operation. Never wrap motor with plastic or other air tight materials during winter storage.



SERVICING



WARNING Always disconnect power to the IntelliFlo® Variable Speed Pump at the circuit breaker and disconnect the communication cable before servicing the pump. Failure to do so could result in death or serious injury to service people, users or others due to electric shock. Read all servicing instructions before working on the pump.



WARNING **DO NOT** open the strainer pot if pump fails to prime or if pump has been operating without water in the strainer pot. Pumps operated in these circumstances may experience a build up of vapor pressure and may contain scalding hot water. Opening the pump may cause serious personal injury. In order to avoid the possibility of personal injury, be sure the suction and discharge valves are open and strainer pot temperature is cool to touch, then open with extreme caution.



CAUTION Be sure not to scratch or mar the polished shaft seal faces; seal will leak if faces are damaged. The polished and lapped faces of the seal could be damaged if not handled with care.

Motor and Drive Care

Protect from heat

1. Shade the motor from the sun.
2. Any enclosure must be well ventilated to prevent overheating.
3. Provide ample cross ventilation.
4. Provide a minimum clearance of three (3) inches behind the motor fan for proper circulation.

Protect against dirt

1. Protect from any foreign matter.
2. Do not store (or spill) chemicals on or near the motor.
3. Avoid sweeping or stirring up dust near the motor while it is operating.
4. If a motor has been damaged by dirt it may void the motor warranty.

Protect against moisture

1. Protect from continuous splashing or continuous sprayed water.
2. Protect from extreme weather such as flooding.
3. If motor internals have become wet - let it dry before operating. Do not allow the pump to operate if it has been flooded.
4. If a motor has been damaged by water it may void the motor warranty.
5. Be sure to close the keypad cover after every use.

Shaft Seal Replacement

The Shaft Seal consists primarily of two parts, a rotating ceramic seal housed in the impeller and a stationary spring seal in the sealplate. The pump requires little or no service other than reasonable care, however, a shaft seal may occasionally become damaged and must be replaced.

Note: The polished and lapped faces of the seal could be damaged if not handled with care.

Pump Disassembly

Tools required:

- 3/32 inch Allen head wrench
- Two (2) 9/16 inch open end wrenches
- 1/4 inch Allen head wrench
- No. 2 Phillips head screwdriver
- Adjustable wrench

To remove and repair the motor subassembly, follow the steps below:

1. Turn off the pump circuit breaker at the main panel.
2. Disconnect the RS-485 communication cable from the pump (if connected to pump).
3. Drain the pump by removing the drain plugs. No tools are required.
4. Remove the four (4) Phillips head screws from the outer corners of the drive top cover.
5. Disconnect the keypad top cover from the drive and set it to the side in a safe place.
6. Remove the three (3) Phillips head screws, located inside the drive, that anchor the drive to the motor.
7. Remove the drive by lifting upwards to separate it from the motor.
8. Use the 9/16 inch wrenches to remove the six (6) bolts that hold the housing (strainer pot/volute) to the rear subassembly.
9. Gently pull the two pump halves apart, removing the rear subassembly.
10. Use a 3/32 inch Allen head wrench to loosen the two (2) holding screws located on the diffuser.
11. Hold the impeller securely in place and remove the impeller lock screw by using a Phillips head screwdriver. The screw is a left-handed thread and loosens in a clockwise direction.



CAUTION The pump impeller may have sharp edges that could potentially cut or scratch the user's hands. Pentair recommends that safety gloves be worn when holding the impeller during disassembly and reassembly.

12. Use a 1/4 inch Allen head wrench to hold the motor shaft. The motor shaft has a hex-shaped socket on the end which is accessible through the center of the fan cover.
13. To unscrew the impeller from the shaft, twist the impeller counterclockwise.
14. Remove the four (4) bolts from the seal plate to the motor, using a 9/16 inch wrench.
15. Place the seal plate face down on a flat surface and tap out the carbon spring seat.
16. Clean the seal plate, seal bore, and the motor shaft.

- Pump illustrated parts view on the next page -

Pump Reassembly

1. When installing the replacement shaft seal, use silicone sealant on the metal portion before pressing into the seal plate as shown.

Note: Use extreme care when applying sealant. Be sure no sealant contacts the seal plate surface or the ceramic seal. Allow sealant to cure overnight before reassembling.

2. Before installing the rotating portion of the seal into the impeller, be sure the impeller is clean. Use a light density soap and water to lubricate the inside of the seal. Press the seal into the impeller with your thumbs and wipe off the ceramic and carbon faces with a clean cloth.
3. Remount the seal plate to the motor.
4. Screw in the impeller lock screw (counterclockwise to tighten).
5. Remount the diffuser onto the seal plate. Be sure the plastic pins and holding screw inserts are aligned.
Note: Ensure that the seal plate o-ring is clean and free of debris.
6. Grease the diffuser o-ring and seal plate gasket prior to reassembly.
7. Assemble the motor subassembly to the pump housing by using the two (2) through bolts for proper alignment. Do not tighten the through bolts until all six (6) bolts are in place and finger tightened.
Note: Ensure that the seal plate gasket is properly seated inside of the pump assembly. The seal gasket can be pinched between the seal plate and the pump housing while tightening these six (6) screws, preventing a proper seal and producing a slow leak when the pump is restarted.
8. Reinstall the drive onto the top of the motor.
9. Fill the IntelliFlo® Variable Speed Pump with water.

10. Reinstall the pump lid and plastic clamp. See “Cleaning the Pump Strainer Basket” on page 18 for details
11. Reconnect the RS-485 communication cable to the pump.
12. Prime the pump; refer to “Priming the Pump” on page 5.

Drive Assembly Removal and Installation



WARNING To avoid dangerous or fatal electrical shock hazard, switch OFF power to motor before working on pump or motor.

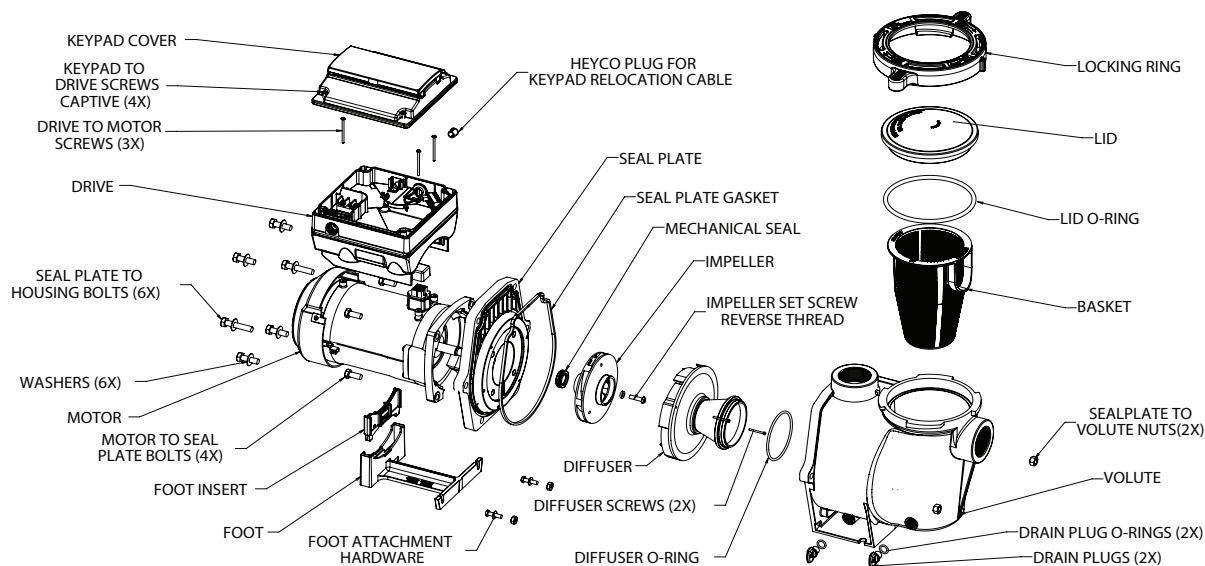


CAUTION To avoid electrical hazard, never remove the four torx-head screws from the intermediate drive cover. There is a capacitor bank that holds an electrical charge even when there is no power supplied to the pump.

To remove the drive and control panel from the motor assembly:

1. Be sure all electrical breakers and switches are turned off before removing the control panel.
2. Disconnect the RS-485 communication cable from the pump.
3. Remove the four (4) Phillips head screws from the outer corners of the drive top cover.
4. Unplug the keypad top cover from the drive and set it to the side in a safe place.
5. Remove the three (3) Phillips head screws, located inside the drive, that anchor the drive to the motor.
6. Lift up the drive assembly and remove it from the motor adapter located on top of the motor assembly.

Note: Be careful not to remove the gasket between the drive and motor, it is critical in keeping moisture out of the drive and motor. Replace the gasket if damaged. Do not reassemble with a damaged or missing gasket.



Pump Illustrated Parts View

Drive Assembly Removal and Installation, (cont.)

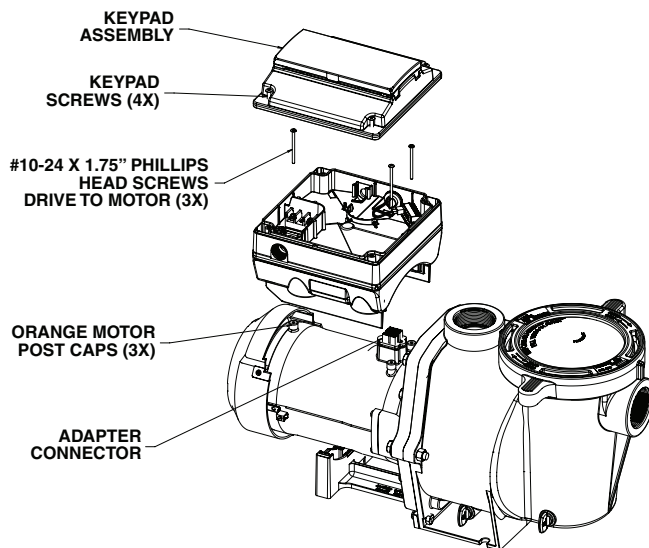


Before installing this product, read and follow all warning notices and instructions on page i - ii.

To install the drive assembly onto the motor assembly:

1. Be sure all electrical breakers and switches are turned off before installing the drive.
2. Be sure that the gasket between the drive and motor is in place. It is critical in keeping moisture out of the drive and motor. Replace the gasket if damaged. Do not reassemble with a damaged or missing gasket.
3. Verify that the three (3) orange motor post caps are in position before placing the drive on the motor assembly.
4. Align the drive assembly with the motor adapter and seat the drive on the motor assembly.
5. Secure and tighten the drive assembly with the three (3) Phillips head screws.
6. Plug the keypad cover back into the drive.
7. Place the keypad cover in the desired orientation on the drive and reattach the four (4) screws in the corners of the drive.

Note: Ensure that the keypad cable is not being pinched between the drive and keypad cover.



Drive Assembly and Removal



FIRE and BURN HAZARD - The pump motor may run at a high temperatures. To reduce the risk of fire, do not allow leaves, debris, or foreign matter to collect around the pump motor. To avoid burns when handling the motor, shut off the motor and allow it to cool for 20 minutes before servicing. The pump provides an automatic internal cutoff switch to protect the motor from heat damage during operation.

TROUBLESHOOTING

WARNING

Always disconnect power to the IntelliFlo® Variable Speed Pump at the circuit breaker and disconnect the communication cable before servicing the pump. Failure to do so could result in death or serious injury to serviceman, pool users or others due to electric shock. DO NOT attempt to adjust or service without consulting your dealer or a qualified pool technician. Read the entire Installation & User's Guide before attempting to use, service, or adjust the pool filtering system or heater.

Alerts and Warnings

The IntelliFlo® Variable Speed Pump displays 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.

All control panel buttons are disabled until the alarm or warning is acknowledged with the **Reset** button. Pressing the **Reset** button will clear the alarm once the fault condition has been resolved.

Note: The pump will not start if the impeller is rotating.

Power Out/OFF

The incoming supply voltage is less than 170 VAC. 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.

Priming Failure

If the pump is not defined as 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 by the user on the priming menu as discussed on page 16. If the pump cannot prime within five attempts it will generate a permanent alarm that must be manually reset.

Overheat

If the drive temperature gets above 54.4° C (130° F) the pump will slowly reduce speed until the over temperature condition clears.

Thermal Mode

When active, 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 YES at the ON WITH FREEZE portion of the circuit function menu in the automation control system. To re-enable the internal thermal protection, the power to the drive must be cycled off then back on. **Important: See explanation of Thermal Mode on page 17.**

Over Current

Indicated 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.

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.

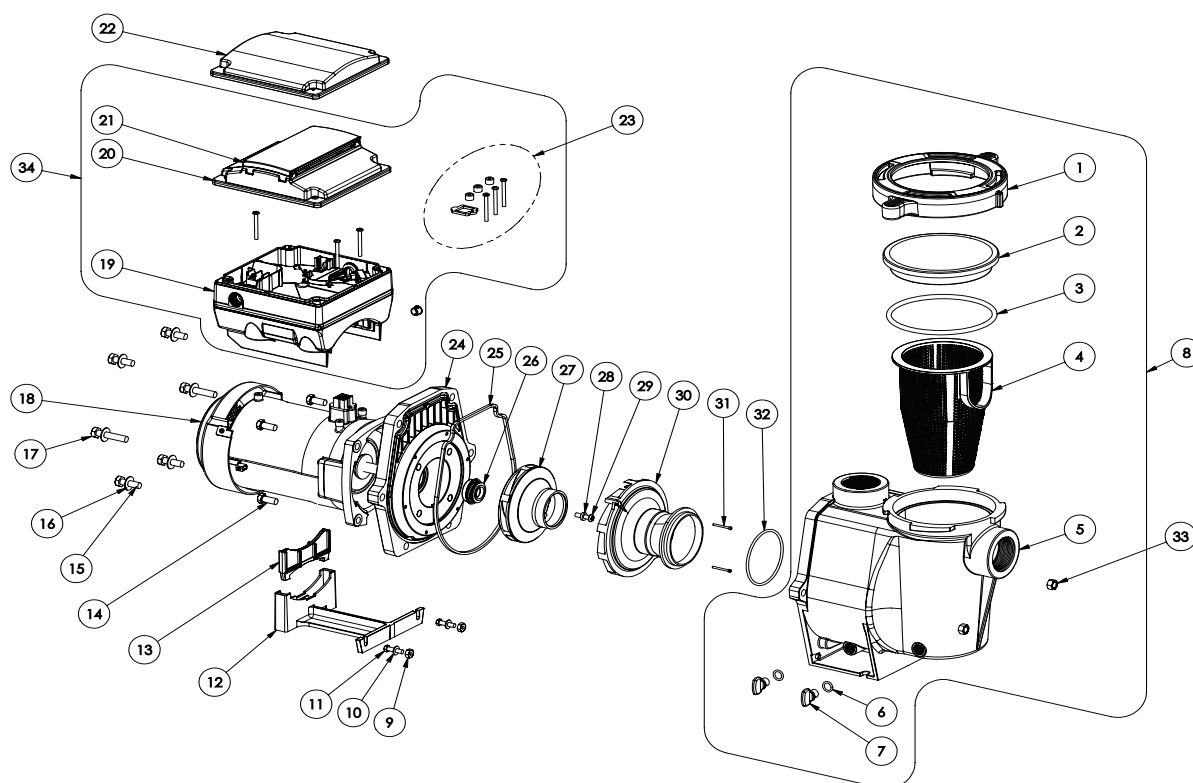
Troubleshooting Chart

[illegible]

Troubleshooting Chart, (continued)

Problem	Possible Cause	Corrective Action
Electrical problem. (For alert display messages, refer to Alerts and Warning on page 22).	Could appear as a “Low Voltage” alarm. Could appear as “Over Heat” alert.	Check voltage at motor terminals and at panel while pump is running. If low, see wiring instructions or consult power company. Check for loose connections. Check line voltage; if less than 90% or more than 110% of rated voltage consult a licensed electrician. Increase ventilation. Reduce ambient temperature. Tighten any loose wiring connections. Motor runs too hot. Turn power to motor off. Check for proper voltage. Check for proper impeller or impeller rubbing.
Control panel LCD screen displays sporadically or flickers on/off.	Loose drive wiring connection.	Check the connection between the drive and keypad. See image on page 3. The drive wiring connection should be tight.
Mechanical troubles and noise.	The pump motor is running but with loud noise. Foreign matter (gravel, metal, etc.) in pump impeller. Cavitation. Speaking noise, especially evident at pump start-up or slow down.	If suction and discharge piping are not adequately supported, pump assembly will be strained. Do not mount pump on a wooden platform! Securely mount on concrete platform for quietest performance. Disassemble pump, clean impeller, follow pump service instructions for reassembly. Improve suction conditions. Increase pipe size. Decrease number of fittings. Increase discharge pressure. Inspect motor slinger and motor shaft seal behind the slinger (NOT the pump’s mechanical seal). Apply lubrication to the motor shaft rubber seals.
Pump does not respond to automation system commands.	Improper automation setup. Communication network inoperative.	1. Be sure that the communication cable is connected at both ends. 2. Check that the pump local address matches with the address used in the automation control system. 3. Check that the pump has been assigned a circuit name on the automation control system. 4. Ensure that the pump display says “DISPLAY NOT ACTIVE”. A defective device on the network can inhibit the proper operation of other network device. Devices should be disconnected sequentially until the network starts working.

REPLACEMENT PARTS



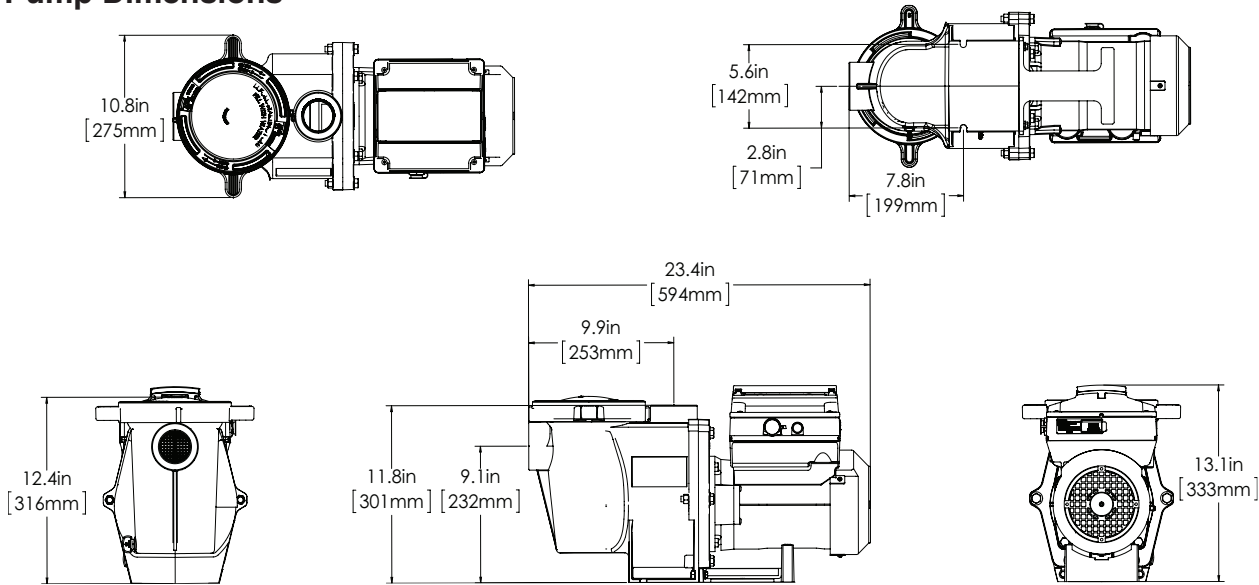
Item No.	Description	Almond Part #	Black Part #
1	Clamp, Cam and Ramp	357199	357150
2	See Through Lid	357151	
3	Lid O-ring	350013	
4	Stainer Basket	070387	
5	Volute	350015	357157
6	O-ring 112 for Drain Plug (Qty2)	192115	
7	Drain Plug (Qty2)	071131	357161
8	Volute Kit (Includes Item #1-7)	357243	357244
9	Nut, 1/4-20 Hex. SS (Qty2)	071406	
10	Washer, Flat 1/4" ID x 5/8" OD (Qty2)	072183	
11	Screw, 1/4-20 x 1" Hex Cap SS (Qty2)	071657	
12	Foot	070927	357159
13	Foot Insert, Pump Motor Support	070929	357160
14	Bolt, Hex Head 3/8-16 x .875" (Qty4)	070429	
15	Bolt, Hex Head 3/8-16 x 1.25" (Qty4)	070430	
16	Washer, Flat 3/8" ID x 7/8" OD (Qty6)	072184	
17	Bolt, Hex Head 3/8-16 x 2" (Qty2)	070431	
18	Motor, 3.2kW 10 Pole	350305S	350306S
19	Drive, Variable Speed	356878Z	356892Z
20	Drive Cover Kit (Includes Item #21)	357527Z	358527Z
21	Keypad Cover	400100	401100
22	Keypad Relocation Kit (Includes Keypad Relocation Cable and Blank Drive Cover)	356904Z	356905Z
23	Drive Hardware Kit (Includes Drive Screws, Drive Gasket and Screw Caps)	355685	

Item No.	Description	Almond Part #	Black Part #
24	Seal Plate	074564	357158
25	Seal Plate Gasket	357100	
26	Mechanical Seal	071734S	
	Mechanical Seal, Ozone/Salt Resistant	071732S	
27	Impeller, 3 HP (Mfg. before 11/20)	073131	
	Impeller, 3 HP (Mfg. after 11/20)	356237	
	Impeller, IntelliFlo i1	073128	
	Impeller, IntelliFlo i2	073131A	
28	Rubber Washer, Impeller Set Screw	075713	
29	Impeller Set Screw, 1/4-20 LH Thread	071652	
30	Diffuser, 3 HP (Mfg. before 11/20)	072928	
	Diffuser, 3 HP (Mfg. after 11/20)	356238	
	Diffuser, i1	072930	
	Diffuser, i2	072927	
31	Diffuser Set Screw, 4-40 x 1-1/8 (Qty2)	071660	
32	Diffuser O-ring	355227	
33	Nut, 3/8-16 Brass, Nickel Plated (Qty2)	071403	
34	Drive Kit Assembly (Includes Item #19-21 & 23)	356879Z	356893Z
-	50 Ft. Communication Cable	350122	
-	Seal Plate Kit w/ Mechanical Seal (Includes Item #24-26)	350202	350203
-	Power End, 3HP	354044	N/A
-	Volute and Seal Plate Kit (Includes Item #1-7 & 24-26)	357149	N/A

(-) Not Shown

TECHNICAL DATA

Pump Dimensions



Electrical Specifications

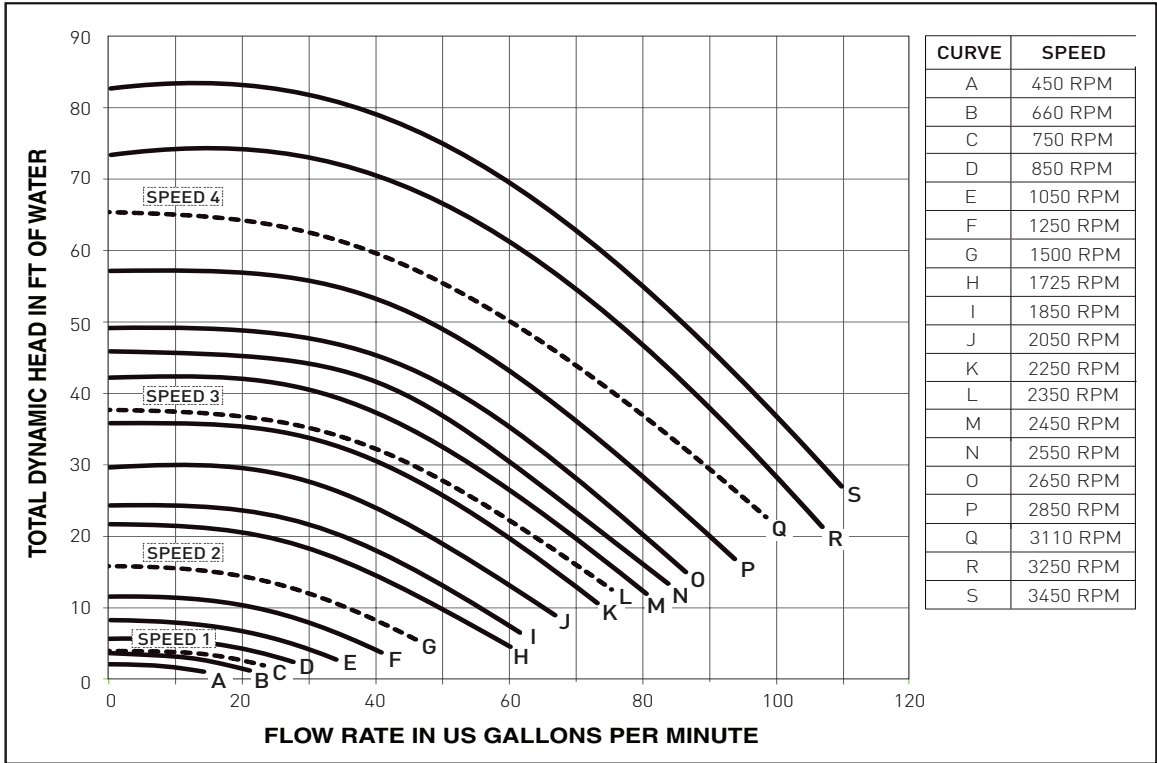
Circuit Protection: Two-pole 20 AMP device at the Electrical Panel.

Input: 230 VAC, 50/60 Hz, 3200 Watts Maximum, 1 phase

Note: Refer to the pump motor label, and all national and local electrical codes, for specific electrical requirements and specifications.

WEF VALUES		
EC-011028	WEF <u>6.9</u>	THP <u>3.95</u>
011059 EC-011059	WEF <u>7.5</u>	THP <u>3.95</u>
011060 EC-011060	WEF <u>6.9</u>	THP <u>3.95</u>

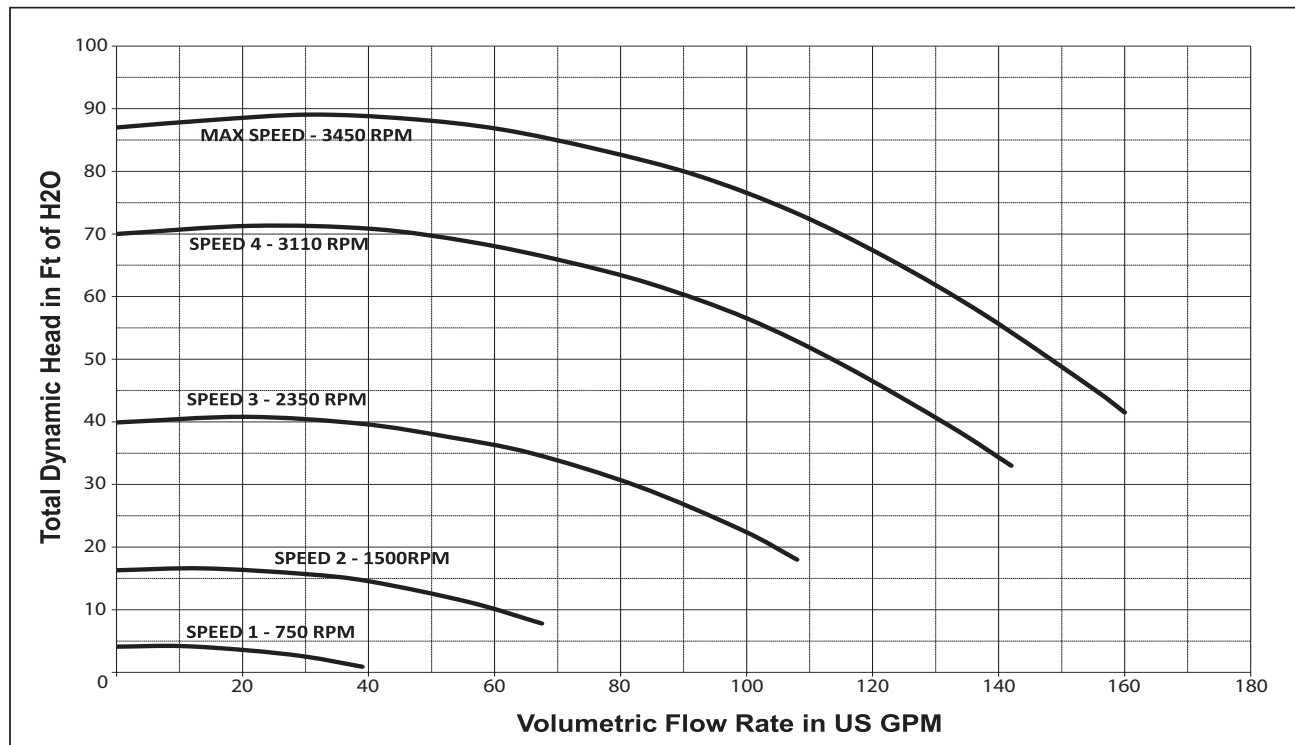
Pump Performance Curves (IntelliFlo i1 Pumps)



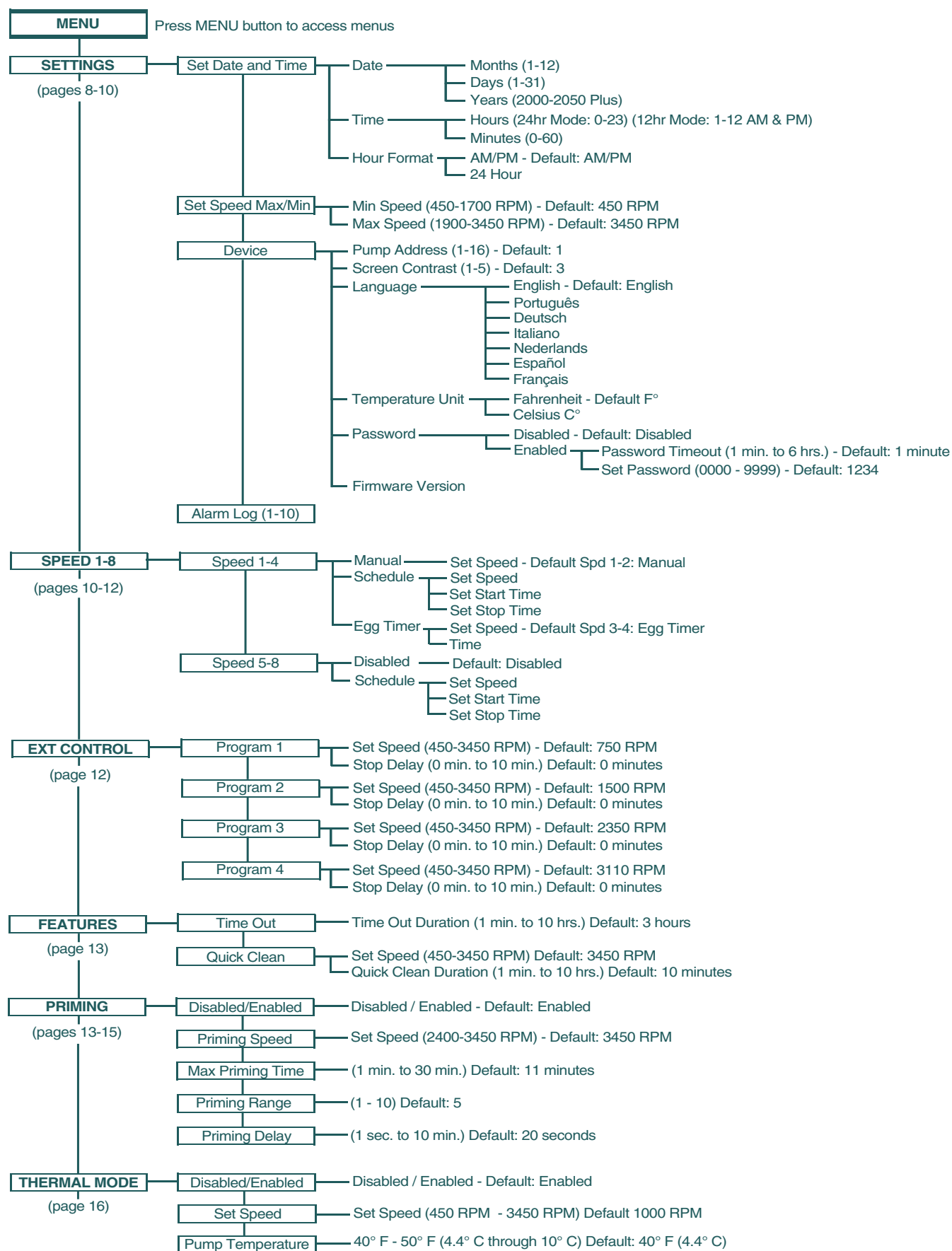
Pump Performance Curves (IntelliFlo i2 Pumps)



Pump Performance Curves (3HP IntelliFlo Pumps)



Operator Control Panel: Pump Menu Quick Reference Guide



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LIT. PKG. P/N 356920



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