



INTELLIBRITE® 5G 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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**READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS**



**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

⚠ DANGER

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

⚠ DANGER

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

⚠ WARNING

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



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.

⚠ WARNING

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.

⚠ DANGER



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION: IntelliBrite® 5g Color Pool and Spa lights **REQUIRE HIGH VOLTAGE WHICH CAN SHOCK, BURN, OR CAUSE DEATH.**

BEFORE WORKING ON INTELLIBRITE 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.

READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL.

⚠ WARNING

Important Safety Information for Pentair Aquatic Systems ("Pentair") Niche and Light Installation

- All Niche and Light installations must conform with all codes. If local codes mandate a cord seal, use Pentair 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.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

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

Location of Luminaire Use	Pentair Aquatic Systems 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) Luminaire (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 Pentair IntelliBrite® Light fixture must only be used with Pentair 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 current 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. FOR MORE INFORMATION SEE PAGE 9.

CAUTION! Luminaires not suitable for direct mounting on normally flammable surfaces (suitable ONLY for mounting on non-combustible surfaces).



Surface Mount

OVERVIEW

IntelliBrite® 5g Color Pool and Spa Lights Overview

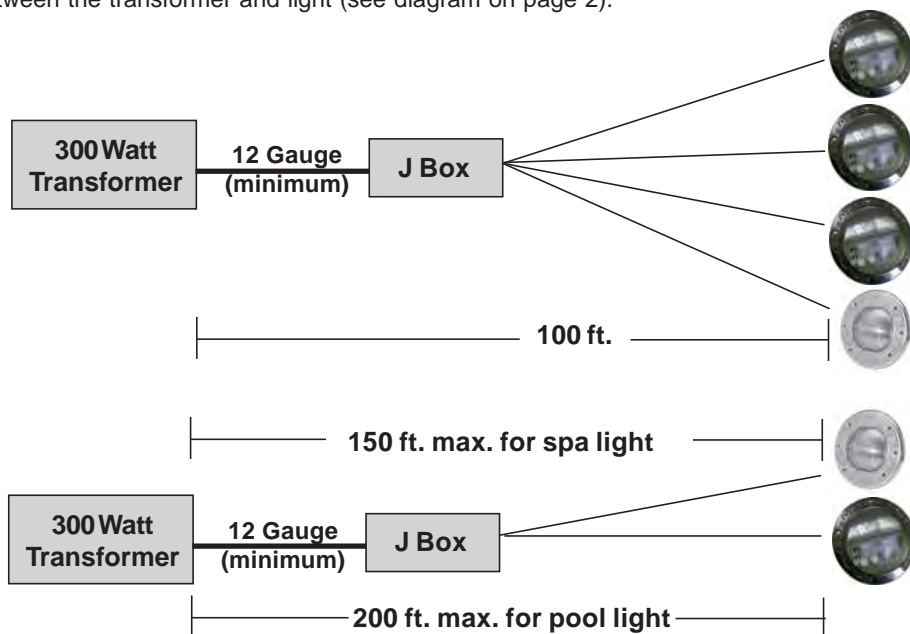
The IntelliBrite® 5g Color Pool and Spa lights system gives you brilliant vivid multi-colors with spectacular effects for your pool. The energy efficient colored LED array utilizes IntelliBrite® color light technology and can cycle through colors at varying speeds and in different sequences of color. 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. The IntelliBrite lens geometry (pool light only) provides a choice between two light beam shapes; wider coverage with less intensity, or narrower coverage with more intensity. For more information, see page 16.

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

The color 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 and a 12 VAC transformer 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. For more information refer to the IntelliTouch User's Guide (P/N 521075), EasyTouch User's Guide (P/N 521044), and SunTouch User's Guide (P/N 520785).

Using an External Safety Isolation Transformer for Multiple IntelliBrite 12 VAC Lights

When using multiple IntelliBrite 12 VAC lights on a **300 Watt** safety isolation 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 (see diagram on page 2).



IntelliBrite® 5g Color Pool Light models:

There are two IntelliBrite 5g Color Pool light models:

- IntelliBrite 5g Color Pool Light; 120 VAC, with integrated 12 VAC transformer. P/N 60100x (UL certified), P/N 60200x (CSA certified), 50 ft. cord length - Other cord lengths are available from 30 ft. (9.14 m) to 250 ft. (76.2 m).
- IntelliBrite 5g Pool Light; 12 VAC, (requires 120 VAC to 12 VAC transformer). P/N 60101x (UL certified), P/N 60201x (CSA certified), 50 ft. cord length - Other cord lengths are available from 30 ft. (9.14 m) to 150 ft. (45.72 m).

Note: For IntelliBrite 5g Color Pool Light replacement parts list, see page 17-18.

IntelliBrite 5g Color Spa Light models

There are two IntelliBrite Color Spa light models:

- IntelliBrite 5g Color Spa Light, 120 VAC, with integrated 12 VAC transformer, 50 ft. cord length (P/N 640121) - Other cord lengths are available from 30 ft. (9.14 m) to 250 ft. (76.2 m).
- IntelliBrite 5g Color Spa Light, 12 VAC, (requires 120 VAC to 12 VAC transformer), 50 ft. cord length (P/N 640131) - Other cord lengths are available from 30 ft. (9.14 m) to 150 ft. (45.72 m).

Note: For IntelliBrite 5g Color Spa Light replacement parts list, see page 23.

Troubleshooting

Problem	Cause/Action
The light will not illuminate.	Check the GFCI ground fault wiring and reset if necessary.
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.

Operating IntelliBrite Color Pool and Spa Lights Using a Wall Switch

IntelliBrite 5g Color Pool and Spa lights can be 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 are controlled by cycling AC power from a standard wall switch. By turning the switch on and off a specific number of times, the light activates one of the seven light show modes, fixed colors, and enables the “Hold” and “Recall” feature.

Powering on the light

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.

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

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,

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.

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.”

Using the IntelliBrite® Color Light Controller

IntelliBrite color lights are compatible with IntelliBrite colors and shows and can be synchronized with IntelliBrite color pool/spa and landscape lights. To select a color light show mode or fixed color mode, rotate the dial so that it points to the desired selection. The color mode selections start in a clockwise direction from the 9 o'clock position.

Hold and Recall Feature

Note: 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.

IntelliBrite® Controller (optional)

Instead of using a wall switch, IntelliBrite lights can be used with an IntelliBrite Controller (sold separately). The IntelliBrite Controller [P/N 600054] provides complete control of IntelliBrite lights and IntelliBrite landscape lights. It's easy to select a lighting feature, just dial in any one of the pre-programmed color light shows or fixed colors. The IntelliBrite Controller can control individual or multiple IntelliBrite lights. Multiple IntelliBrite lights can be connected via a junction box to an IntelliBrite Controller so that all lights can be switched on and off together.



Using Multiple IntelliBrite® Color Lights

When using multiple IntelliBrite lights, the total allowable light wattage is 300 Watts maximum. The following example combination of IntelliBrite color lights can be connected to the IntelliBrite Controller:

- Two (2) IntelliBrite 5g color pool lights (each light 50 Watt maximum) or two (2) IntelliBrite color pool lights (each light 70 Watt maximum)
- One (1) IntelliBrite color spa light (each light 40 Watt maximum)
- Eight (8) IntelliBrite landscape lights (each light 15 Watt maximum)

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



Risk of Electrical Shock or Electrocution!

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 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 current 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 9.
- 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 9.
- 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 9.

Note: *The pool and spa electrical system can be verified with a Pool and Spa Electrical Qualification Test Kit. The electrical system inspection using this kit must be performed by trained and certified personnel.*

- To be certain that the pool's electrical system meets all applicable requirements, the electrician should also consult the local building department.
- Use only Pentair wet niches to insure proper bonding and grounding connections.

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

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

- **IntelliBrite Color Spa Light and Face Ring Gasket and Lens Removal and Installation instructions, on page 19. Always install a new lens gasket (part number 79101601).**

WARNING

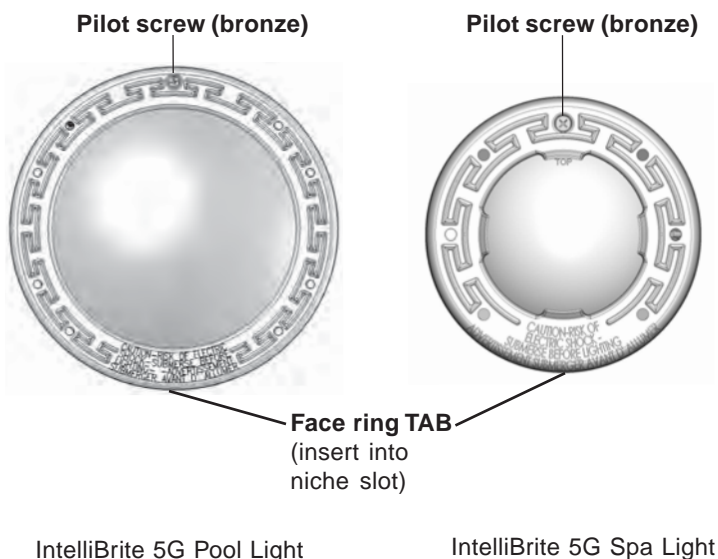
Failure to bring the pool or spa's electrical system up to code requirements before installing the underwater light will create an electrical hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.

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 9. 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 off the three conductors. Be careful not to damage the copper conductor.

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. For two wires connect the corresponding circuit wires (match the wire colors) in the Junction Box. Secure the Junction Box cover.
10. 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.
11. 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.



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 underwater light itself. The light should illuminate when power is applied. If not recheck the installation steps starting with Step 1 (page 6).

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

The following describes how to install the IntelliBrite Color Pool and Spa Color Light fixture. Read page 3 before starting the installation procedure.

BEFORE STARTING: The following steps 1-7 (page 6-7) describe the tasks that must be completed by the electrician before the IntelliBrite light fixture is installed. See Figure 1 diagram on page 9.

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 120 VAC line voltage models, and has an appropriately rated circuit breaker. The conductors on the load side of the GFCI circuit shall not occupy conduit, boxes, or enclosures containing other conductors unless the additional conductors are also protected by a GFCI. Refer to local codes for complete details.
- The Junction Box (or, for 12 volt models, the low voltage transformer) is located at least eight (8) inches (20.3 cm) above water level and at least 48 inches (1.22 m) from the edge of the pool. See Figure 1 on page 6.
- 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 electrically bonded and grounded via the No. 8 AWG ground connector located at the rear of the niche; see Figure 1.
- 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 9.
- The light niche must be properly installed so that the top edge of the AmerBrite light's lens is at least 18" minimum below (not more than 48 inches below in Canada) the surface of the water in the pool or spa.
- Be certain that the pool or spa electrical system meets all applicable requirements, the electrician should also consult the local building department.

Note: The pool or spa electrical system can be verified with a Pool and Spa Electrical Qualification Test Kit. The electrical system inspection using this kit must be performed by trained and certified personnel. **Note: To be certain that the pool or spa electrical system meets all applicable requirements, the electrician should also consult the local building department. Use only Pentair spa wet niches to insure proper bonding and grounding connections.**

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

To install the IntelliBrite Color 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.

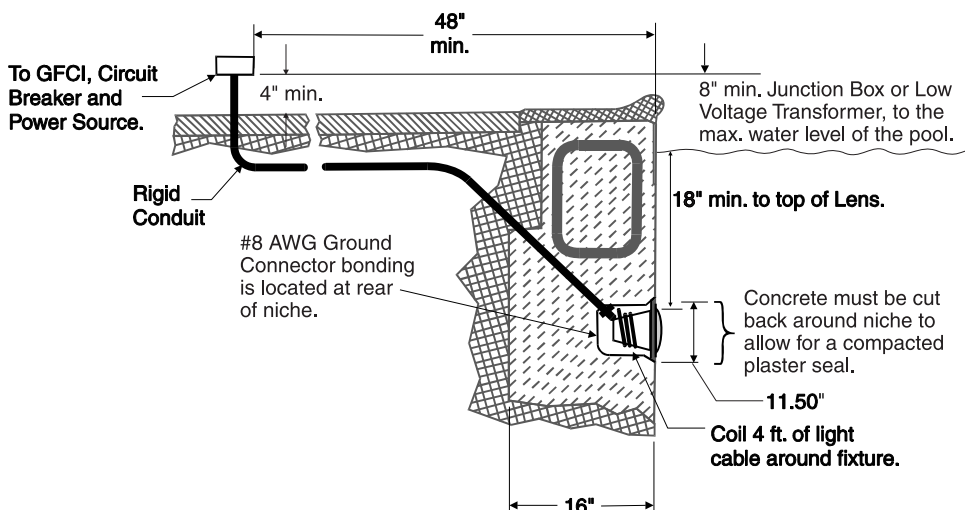

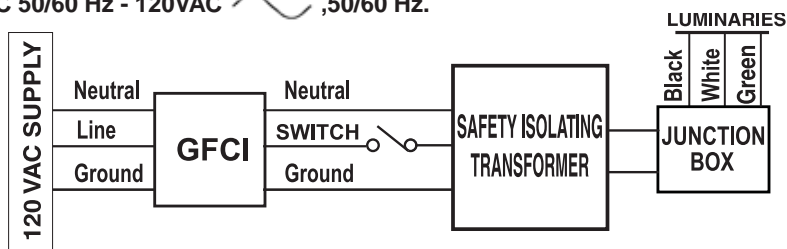


Figure 1.

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. **FIXED POOL AND SPA LUMINARIES SPECIFICATION:** 12 VAC 50/60 Hz - 120VAC , 50/60 Hz.



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

5. Install the IntelliBrite® Color 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 6)

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

- **IntelliBrite Color Pool Light Removal and Installation instructions, on page 5.**
- **IntelliBrite Color Spa Light Removal and Installation instructions, on page 19.**

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

When replacing or reassembling the IntelliBrite® Color Pool Light, the Gasket (P/N 79101601) or Gasket and Lens (619864Z) MUST ALSO BE REPLACED - SEE PAGE 17 FOR PART NUMBERS

Removal and Installation of IntelliBrite 5g Color Light Circuit Board

⚠ DANGER



D A N G E R !

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 pool light. Note: It is not necessary to drain down the pool to replace the light.
2. Before starting make sure that you have a new lens gasket (P/N 79101601) and a IntelliBrite 5g color pool light assembly (P/N 619818Z) ready to install.

⚠ WARNING

Replace the light assembly with the same type and wattage. Failure to replace the light 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. **REMOVE THE INTELLIBRITE COLOR POOL LIGHT ASSEMBLY:** Remove the PILOT screw at top of face ring, then remove the light assembly from the niche by tilting the top away from the niche and then lifting the light assembly from the locking tab at the bottom of the niche.
4. Unwind the cord from the base of the light housing.

Pilot screw (bronze)



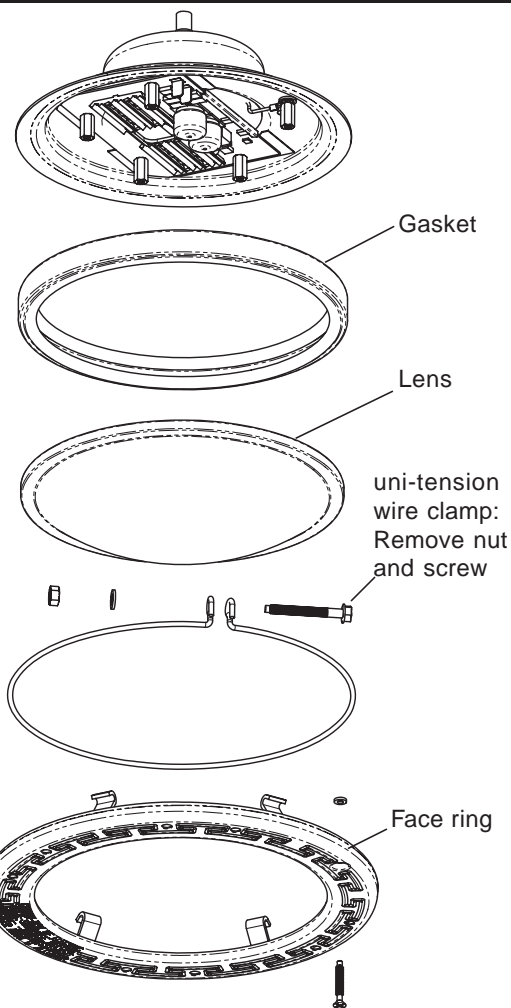
IntelliBrite 5G Color Pool Light

⚠ WARNING

Be sure to keep the pilot screw from the IntelliBrite 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.

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

5. Place the light assembly on the pool deck. Place a cloth on the ground to protect the lens. Place a cloth on the ground. Turn the light over so the lens is resting on the cloth. Using a 3/8" nut driver or #3 Phillips screwdriver and a 7/16" wrench, remove the nut and uni-tension wire clamp. Place the nut aside for reinstallation.
6. Remove the face ring and uni-tension 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.

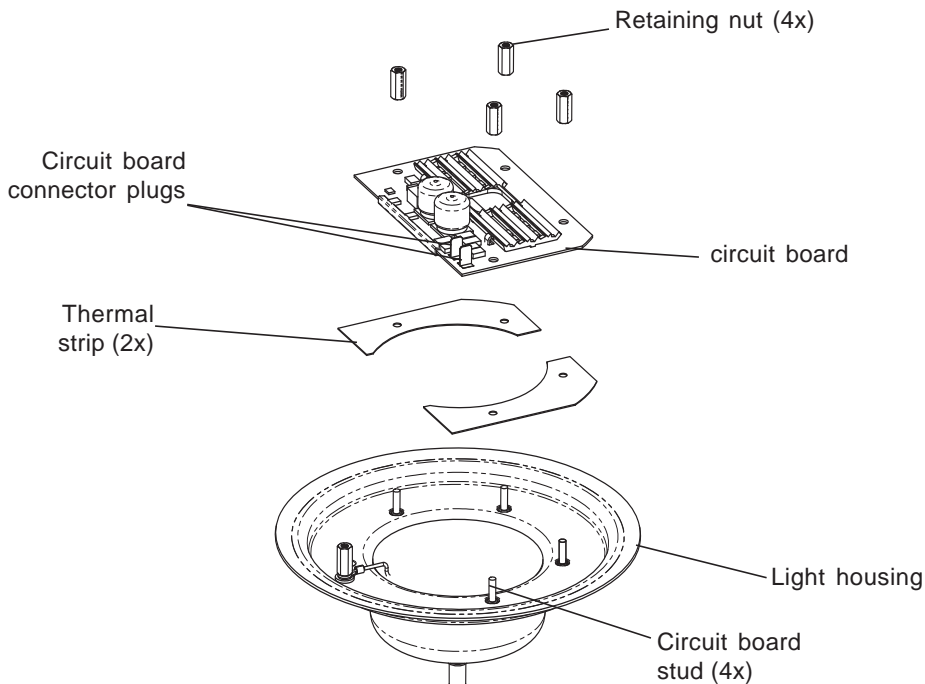


Note: A NEW LENS GASKET (P/N 79101601) MUST BE USED EACH TIME THE LIGHT IS REASSEMBLED. See page 17 for Replacement Kit part numbers.

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 15.

8. Using a 1/4" nut driver, carefully remove the four retainer nuts from the light assembly (see illustration on next page). Place the nuts aside for reinstallation.
9. Unplug the two connector plugs from the circuit board. Lift up the circuit board and remove it from the light housing base.
10. Carefully lift off the thermal strips from the base of the light housing base.

Continue on next page.



11. Place the two thermal strips (provided) over the circuit board studs in the base of the light housing (see illustration on next page).
12. 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.
13. 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.**

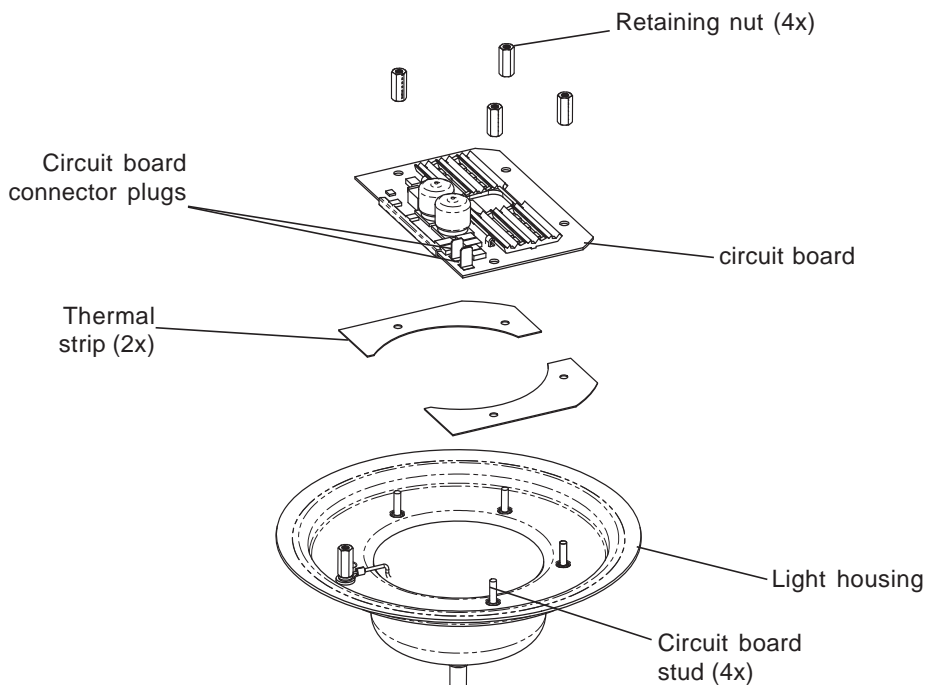
INSTALLING THE INTELLIBRITE® COLOR POOL LIGHT ASSEMBLY WITH NEW GASKET (see illustration on next page)



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.

14. Connect the two connector plugs to the circuit board terminals.

Continue on next page.



15. **Install NEW GASKET ONTO LENS:** Stretch the gasket around the circumference of the lens. Be sure the gasket is installed evenly around the lens.

16. **ALIGN LENS/GASKET ONTO LIGHT HOUSING:**

a) With the lamp housing resting on its base, place the lens/gasket on top of the light housing.

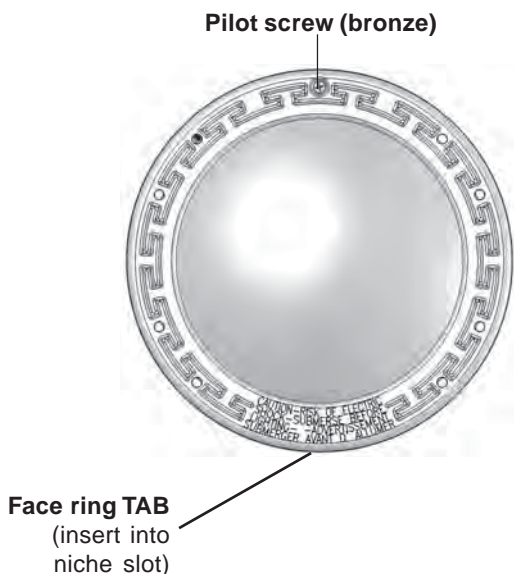
b) Rotate the lens/gasket to align the letter “N” (“NARROW” angle for installing light at either end of pool length) on the lens to the UP arrow on the LED assembly (see page 15). **See page 16 to determine the best option.**

Note: The IntelliBrite® Light lens ships from the factory in the ‘WIDE’ (W) angle position. 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 16.

17. **INSTALL FACE RING:** Place the face ring on top of the lens/gasket/housing. Rotate the face ring so the **pilot screw hole** is aligned in the 12 O'clock position, with the lens letter “N” (or “W”). Note: Also, verify the “TOP” position arrow indicator label (see page 15) on the rear of the housing is aligned with the pilot screw on the face ring.

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

21. 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.
22. 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.
23. Carefully tighten the special bronze pilot screw to secure the upper part of the light assembly onto the niche.
24. **Final check for proper IntelliBrite light operation:** Switch on the main switch or circuit breaker to the system, and the switch that operates the light itself. The lamp should illuminate when power is applied. If not recheck the installation steps starting with Step 1 (page 9).

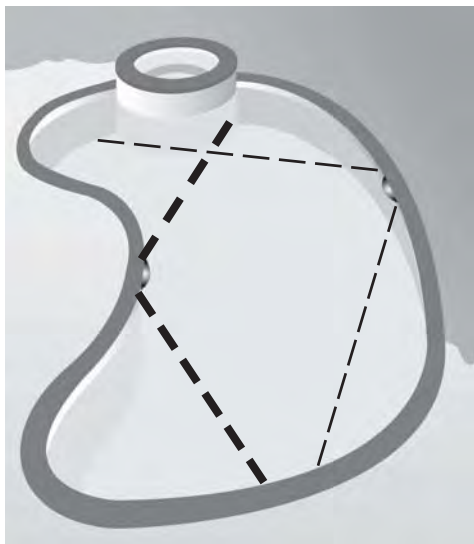


IntelliBrite 5G Pool Light Assembly

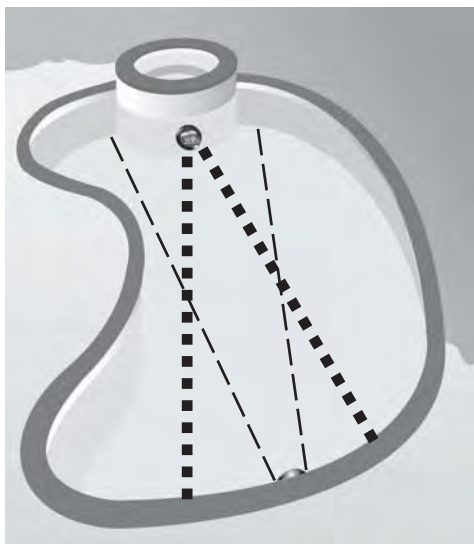
Wide and Narrow Angle Lens Adjustment

Wide and Narrow Angle Lens Feature

The IntelliBrite® Color 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 color light lens ships from the factory in the ‘WIDE’ (W) angle position.



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

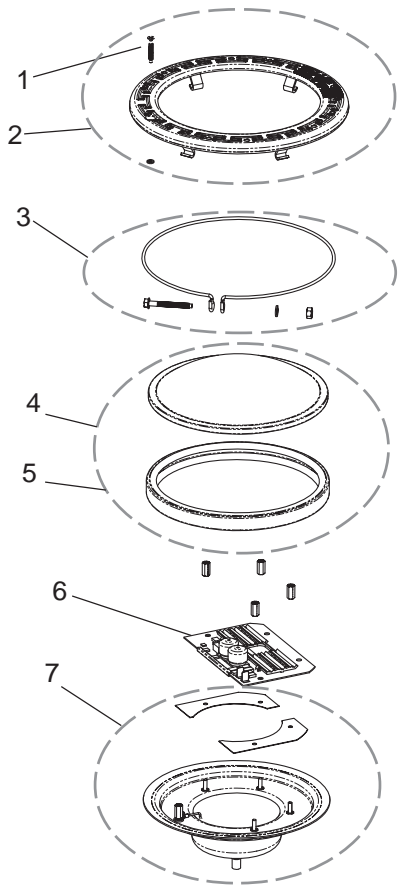


**NARROW ANGLE LIGHT BEAM
(FOR ENDS OF POOL)**

IntelliBrite® 5g Color Pool Light Assembly
Replacement Kit Part Numbers

Product Model	Voltage	Cord Length (feet)	Listing (UL, CSA, CE)
601000	120V	30'	UL
601001	120V	50'	UL
601002	120V	100'	UL
601003	120V	150'	UL
601004	120V	250'	UL
601010	12V	30'	UL
601011	12V	50'	UL
601012	12V	100'	UL
601013	12V	150'	UL
602000	120V	30'	CSA
602001	120V	50'	CSA
602002	120V	100'	CSA
602003	120V	150'	CSA
602004	120V	250'	CSA
602010	12V	30'	CSA
602011	12V	50'	CSA
602012	12V	100'	CSA
602020	12V	10'	CE

Note: A 120 VAC to 12 VAC external transformer is required for the 12 VAC model IntelliBrite pool color 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, silicon.
3, 5, 7	619818Z (UL)	- Lens, IntelliBrite 5g, Pool, 8-3/8 in. diameter, tempered. - Replacement Kit. (Circuit Board and Thermal Strips (2x), 5g Pool light Assy.) - Uni-tension wire clamp assembly. - Gasket, 8-3/8 in. diameter, silicon.
1	79104800	Pilot screw, with captive gum washer.
5	79101601	Gasket, 8-3/8 in. diameter, silicon.

Note: The 120 VAC IntelliBrite® 5g Color Pool Light has an integrated 12 VAC transformer.

Replacing the IntelliBrite® 5G Color Spa Light Face ring and Gasket (P/N 640045) or Gasket and Lens (640046) see page 23

Note: When replacing an IntelliBrite® 5G Color 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) (see page 23 for kit part numbers) whenever disassembling the IntelliBrite color spa 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 COLOR 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.

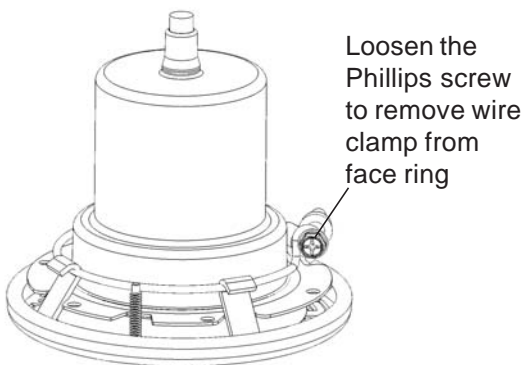
WARNING

Be sure to keep the pilot screw from the IntelliBrite color spa 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 uni-tension wire clamp SCREW/NUT. Remove the 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.**

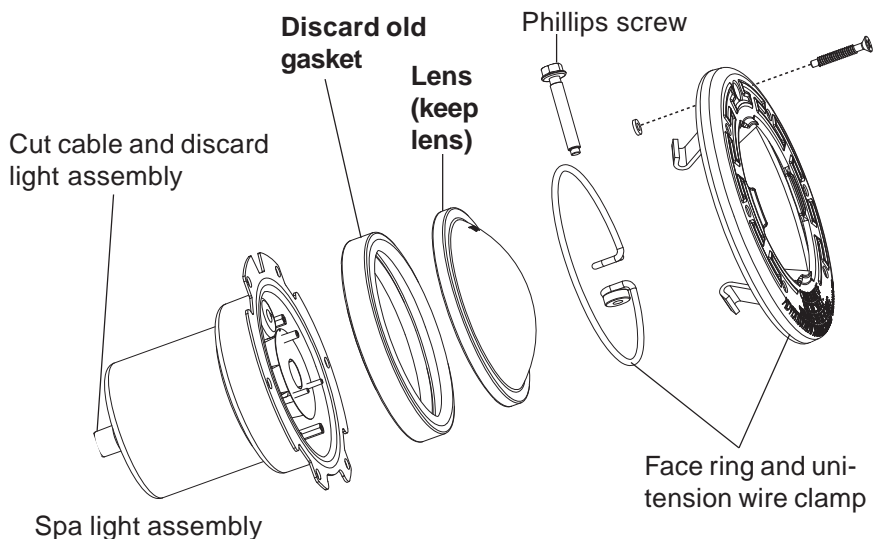
Note: A 120 VAC to 12 VAC external transformer is required for the 12 VAC model IntelliBrite® Color Spa light. See page 2 for more information.

Note: The IntelliBrite® Color 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.

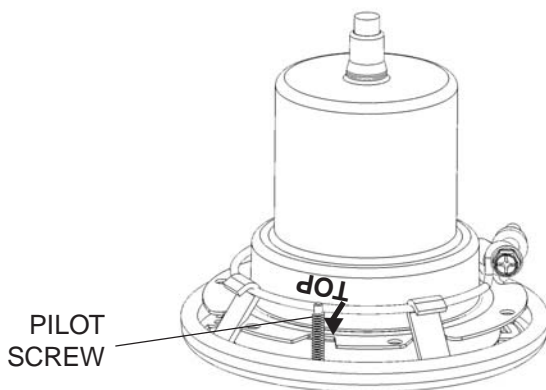


Spa light fixture with lens, gasket and face ring attached

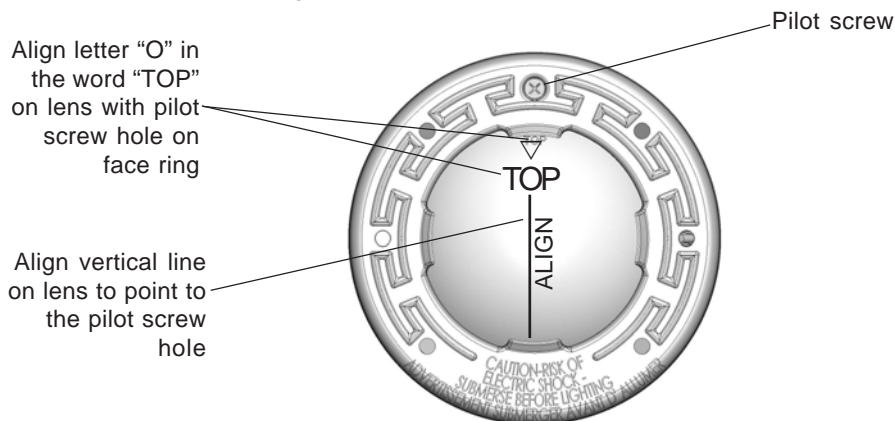
5. With the light assembly resting on its base, carefully pry off the gasket to release the lens. Discard the gasket. A NEW LENS GASKET MUST BE USED EACH TIME THE SPA LIGHT IS REASSEMBLED
6. Disconnect the IntelliBrite Spa color light assembly cord from the junction box. **Cut the cord near the back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



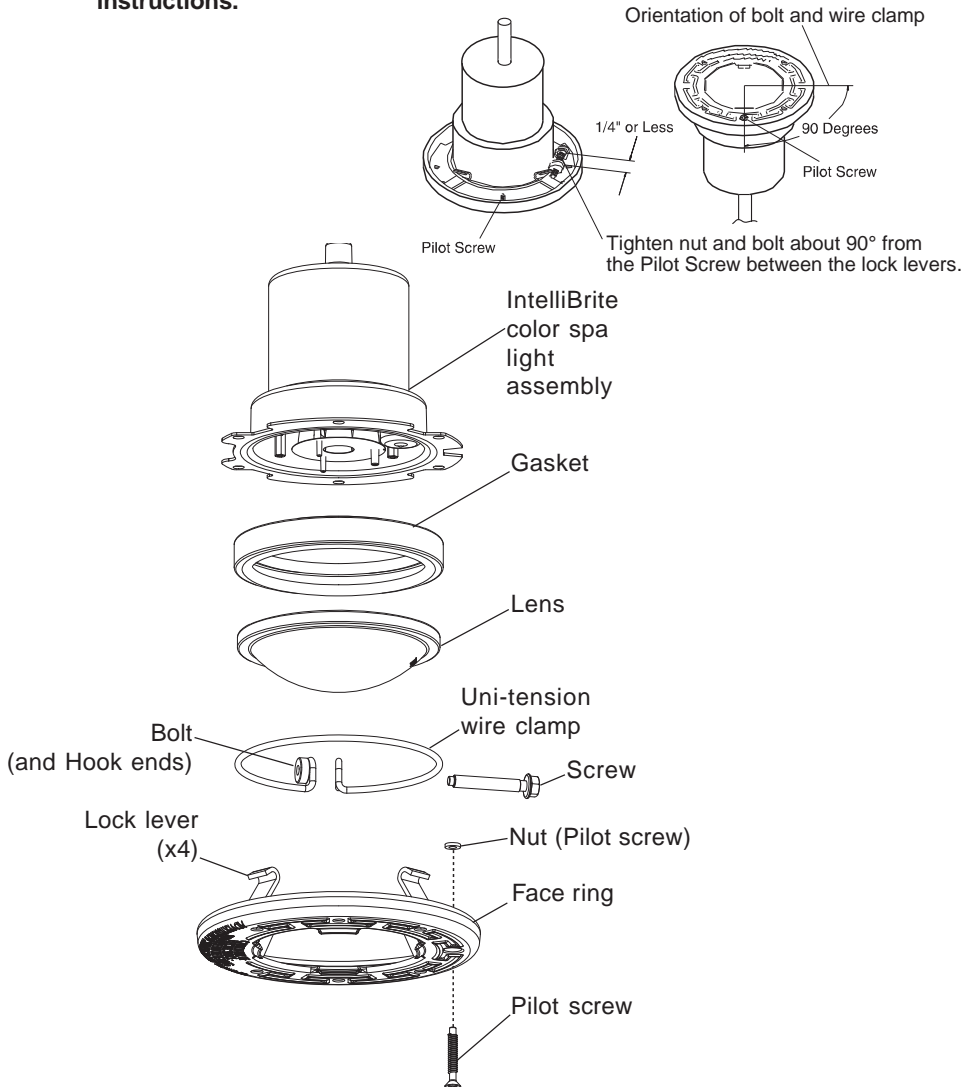
7. **INSTALLING THE INTELLIBRITE® COLOR SPA LIGHT WITH NEW GASKET:** Install a new gasket during reassembly of the IntelliBrite color spa light. **A NEW LENS GASKET (P/N 79108600) MUST BE USED EACH TIME THE LIGHT IS REASSEMBLED.**
8. **Install the new gasket onto the lens:** With the light housing resting 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.



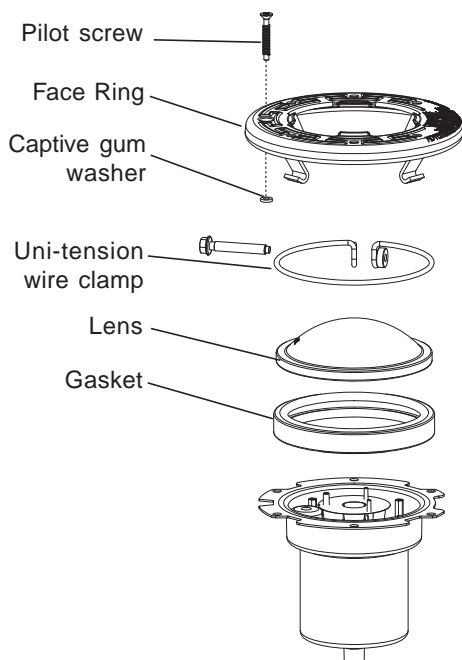
10. **Aligning the face ring and lens:** Align the face ring and vertical line on the lens so that the letter "O" in the word "TOP" and the small arrow above it) on the surface of the lens points to the 12 O'clock position and with pilot screw hole on the face ring.



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® 5G Color Spa Light Assembly (in an existing pool or spa)” on page 7 for spa light assembly installation instructions.**



IntelliBrite® 5g Color Spa Light Replacement Kit Numbers



Kit Part No.	Description
640045	Face ring assembly, stainless steel - Uni-tension wire clamp assembly - Gasket, 4 in diameter, off color
640046	Gasket, 4 in diameter, off color - Lens, IntelliBrite, Spa, 4 in diameter, tempered
79104800	Pilot screw, with captive gum washer
79108600	- 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 ii for more information.

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

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'



PENTAIR AQUATIC SYSTEMS

1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000
WWW.PENTAIRPOOL.COM

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