



# INTELLIBRITE® 5G COLOR LED POOL LIGHT



## 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

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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 POOL LIGHTS.**



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 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](http://www.pentairpool.com) for more information related to this products.



### **RISK OF ELECTRICAL SHOCK OR ELECTROCUTION:**

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

**BEFORE WORKING ON POOL LIGHTS always disconnect power to the pool 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.



**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.

**Surface Mount**

## IntelliBrite® 5G Pool Light Overview

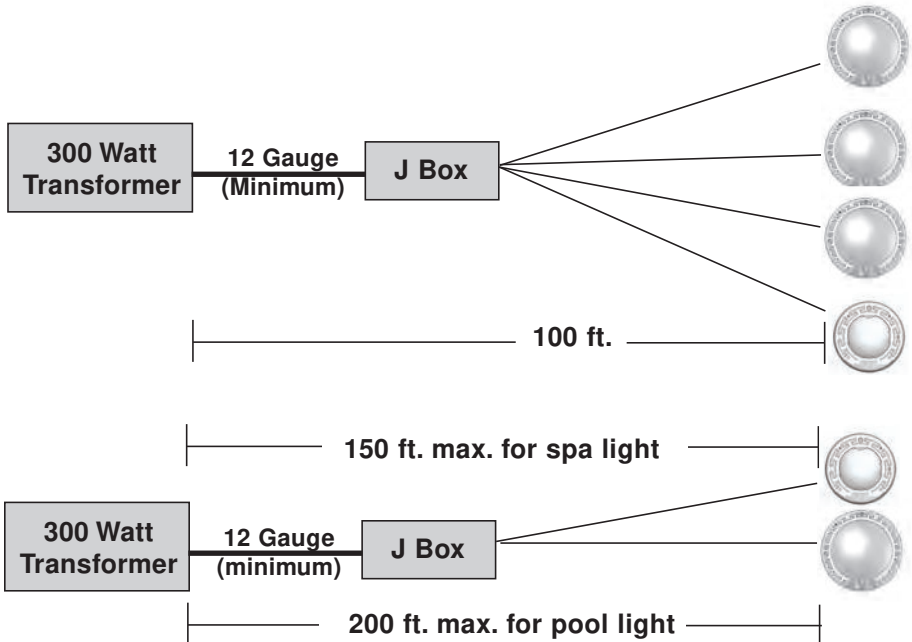
This manual describes how to install the IntelliBrite 5G Color LED Pool Light. The IntelliBrite 5G color LED light provides brilliant vivid multi-colors with spectacular effects for your pool. Choose one of the seven pre-programmed color light shows or select one of the five fixed colors to create virtually endless range of dramatic underwater lighting effects for a spectacular effect in your pool. For more information, see page 2.

### Operating Lights Using a Wall Switch (12 VAC)

IntelliBrite 5G 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).



**POOL AND SPA FIXED LUMINARIES:** Follow these guidelines when installing, replacing or repairing Pentair Water Pool and Spa 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.

## 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 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 Light Assembly (in an existing pool)



### 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 Light Assembly (After Electrical Requirements Are Met)

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

### WARNING

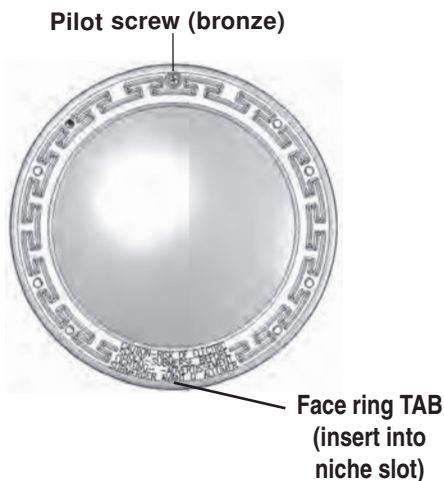
Failure to bring the pool or spa's electrical system up to code requirements before installing the underwater light will create an electrical hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.

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.



IntelliBrite 5G Pool Light

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 LIGHT FIXTURE INSTALLATION (NEW POOL CONSTRUCTION)

The following describes how to install the IntelliBrite® Pool 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.

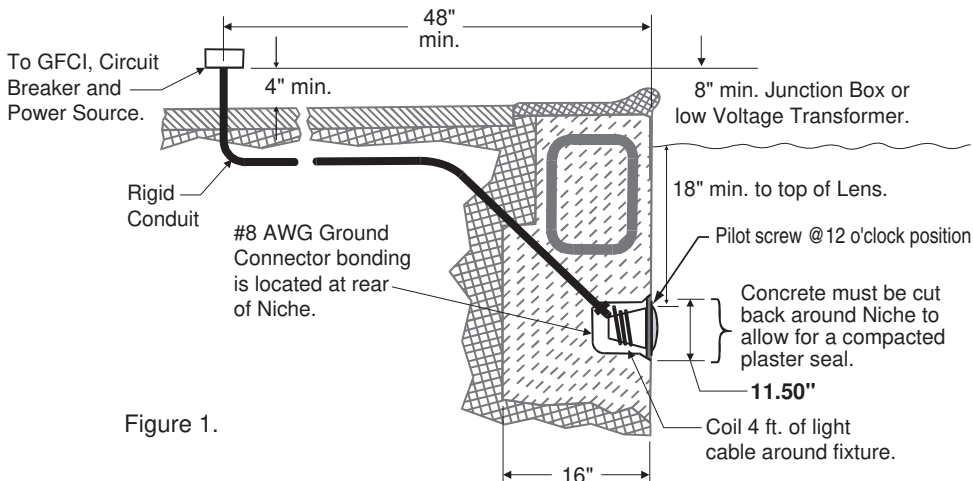
**Note: To be certain that the pool electrical system meets all applicable requirements, the electrician should also consult the local building department.**

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

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

To install the IntelliBrite® Pool Light fixture:

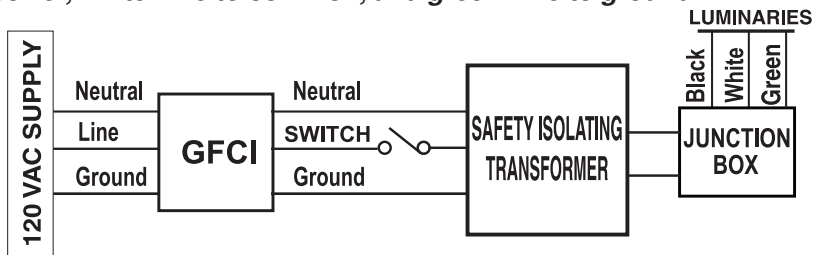
1. Route light cable through conduit to Junction Box, leaving at least four (4) feet of cable at the light fixture to coil around the light (this allows the light to be serviced after the pool is filled with water). See Figure 1 below.



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

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 LIGHT REMOVAL  
AND INSTALLATION INSTRUCTIONS SEE:**

- **Replacing the IntelliBrite® 5G Pool Light Assembly instructions, on page 3.**

## 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**



**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 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

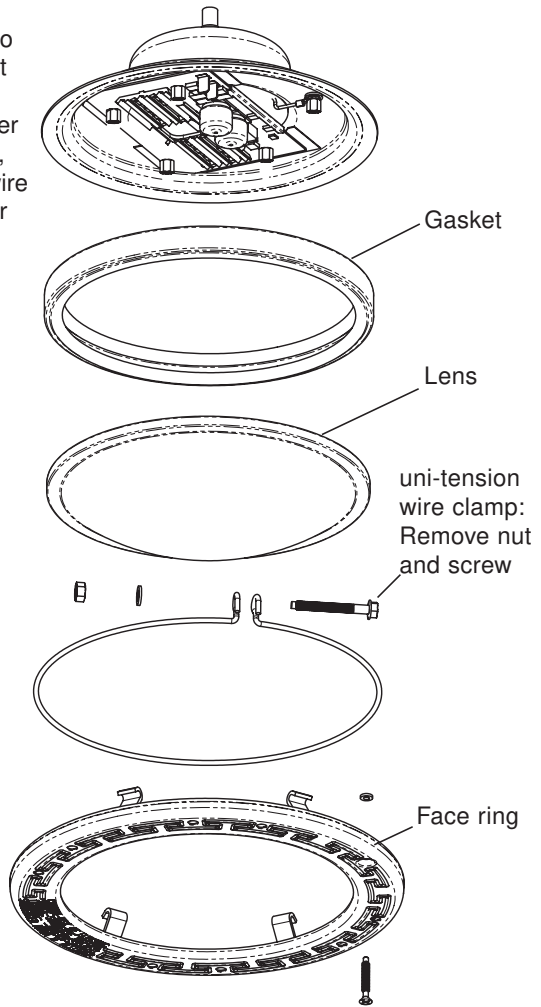
### **WARNING**

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 ¼" 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.

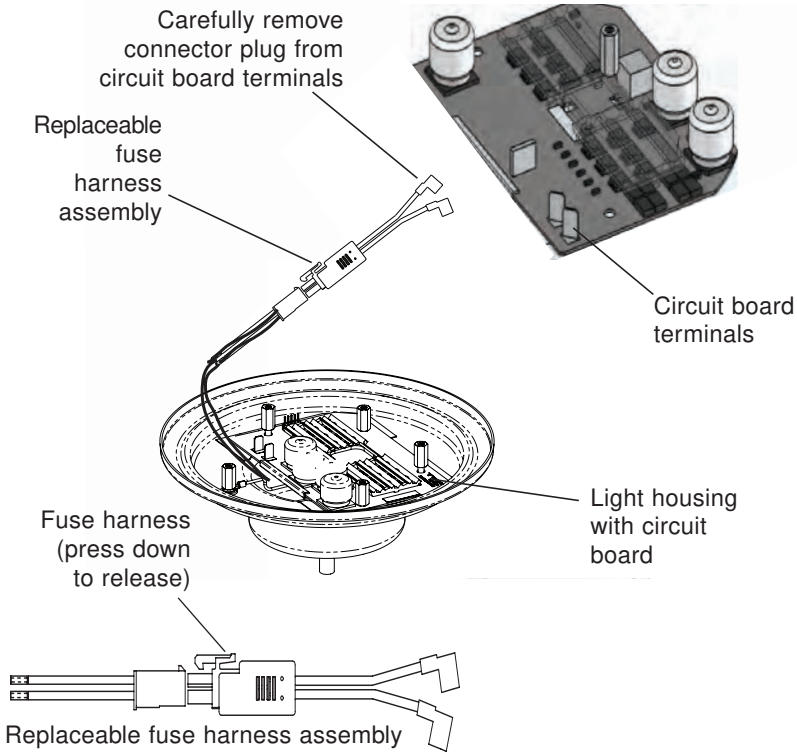
**Note: A NEW LENS GASKET (P/N 79101601) MUST BE USED EACH TIME THE LIGHT IS REASSEMBLED. See page 18 for Replacement Kit part numbers.**



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.**

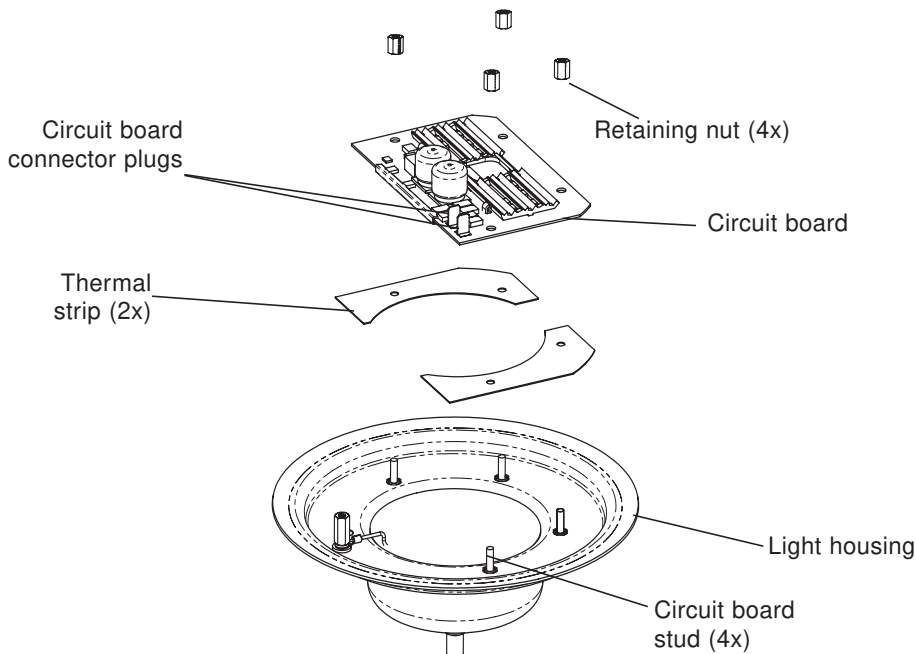
## REPLACING THE FUSE HARNESS ASSEMBLY (FOR 12 V LIGHTS ONLY)



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.



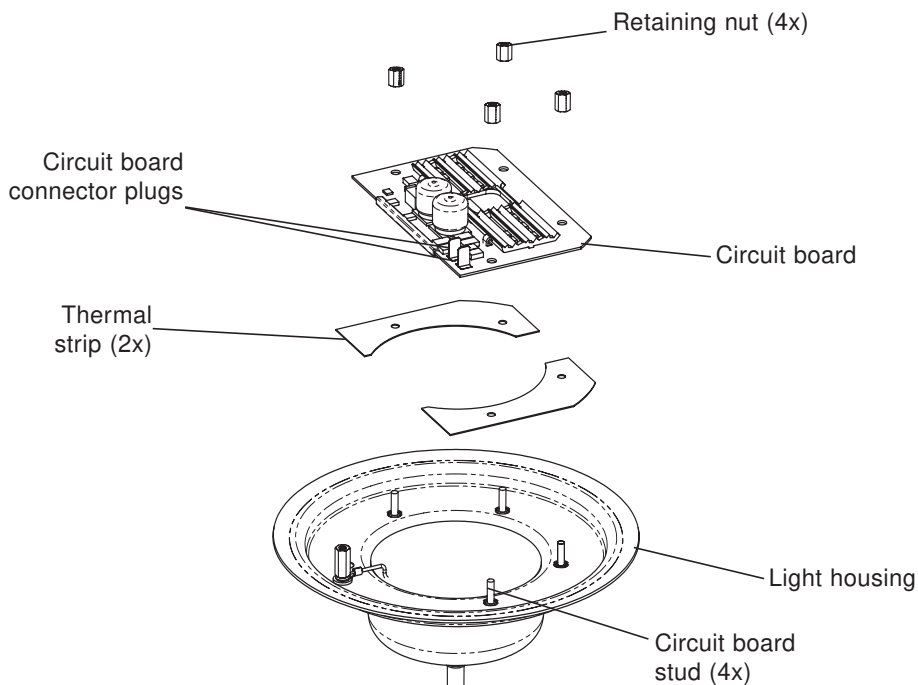
4. Place the two new thermal strips (provided) over the circuit board studs in the base of the light housing.
5. Place the light circuit board over the base studs and seat the circuit board on top of the thermal strips. Be sure the two connecting wires are not caught between the housing and the edge 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**

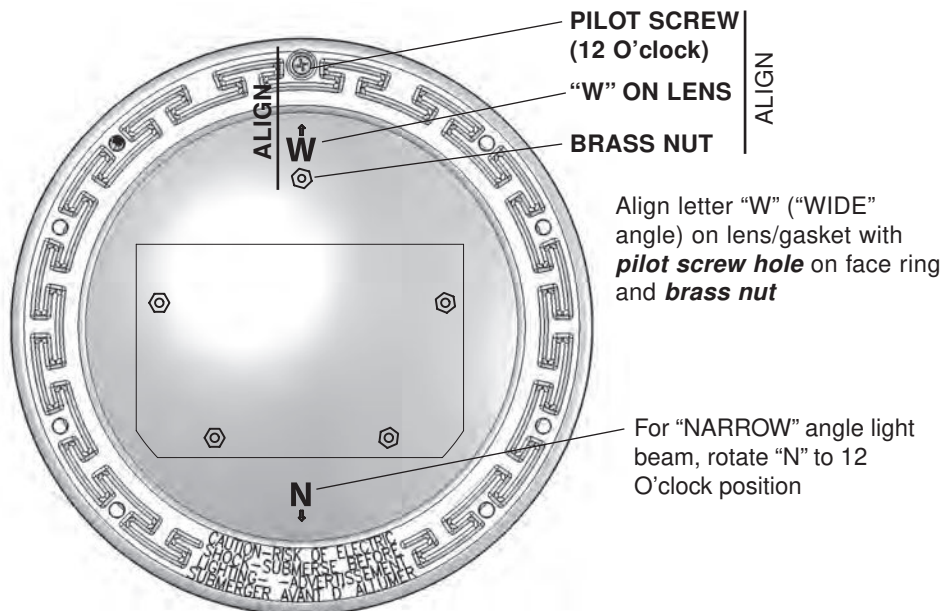
Be sure to install ALL of the four (4) retaining nuts. These nuts ensure proper electrical ground. Failure to install all of the retaining nuts could create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock.

*Continue on next page.*

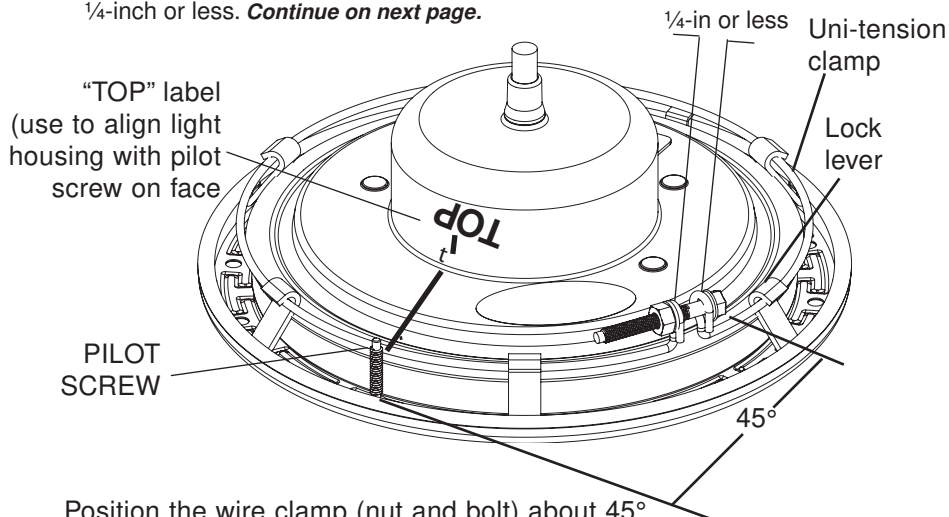


1. **Install NEW GASKET ONTO LENS:** Stretch the gasket around the circumference of the lens. Be sure the gasket is installed evenly around the lens.
2. **ALIGN LENS/GASKET ONTO LIGHT HOUSING:**
  - a) With the light housing resting on its base, place the lens/gasket on top of the light housing.
  - 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.

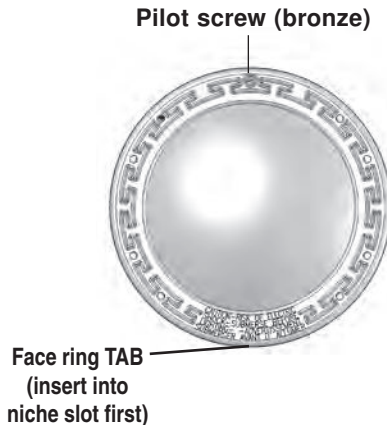


- INSTALL UNI-TENSION CLAMP:** With the hook ends of the circular uni-tension clamp pointing down, spread the clamp and place it in the "U" recesses of the locking levers. Be sure the hook ends of the clamp are located between the pair of locking levers as shown below and that the wire clamp is properly engaged with all of the lock levers.
- 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-inch or less. **Continue on next page.**



Position the wire clamp (nut and bolt) about 45° between the PILOT SCREW and BOLT/NUT.

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.



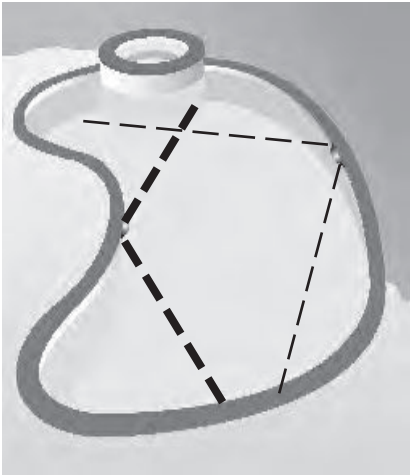
IntelliBrite® 5G Pool Light

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).

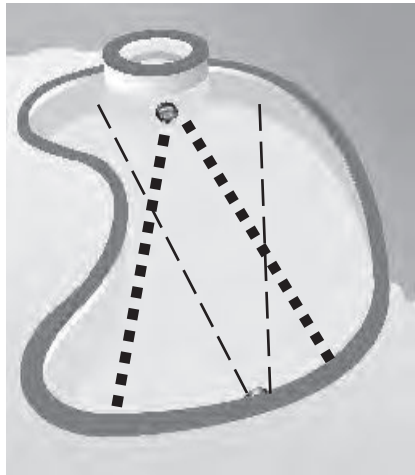
# Wide and Narrow Angle Lens Adjustment

## 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

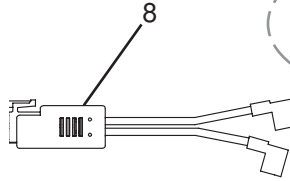
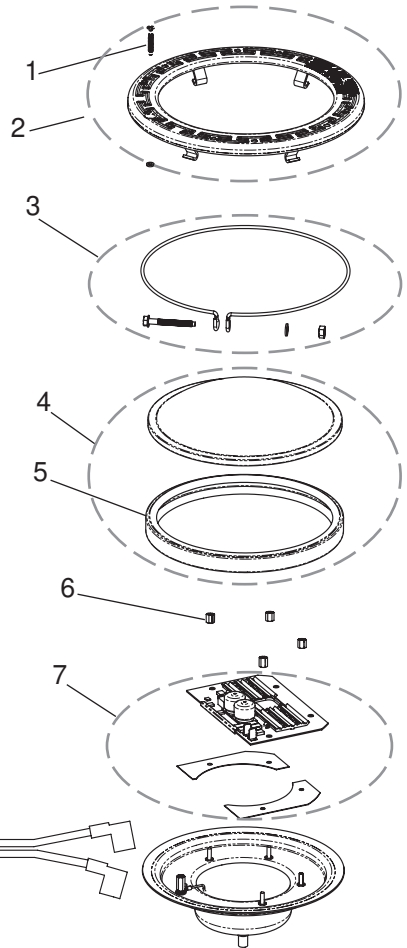
Note: A 120 VAC to 12 VAC external transformer is required for the 12 VAC model IntelliBrite pool white light. See page 1 for more information.

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'
<b>601300</b>	<b>120V</b>	<b>30'</b>
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)
<b>Model/Voltage/Cord (Ft.)</b>	<b>Model/Voltage/Cord (Ft.)</b>
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
<b>601200/120V/30'</b>	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 ( <b>For 12 V lights only</b> )

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

## NOTES



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