

# Amerlite® Underwater Light Owner's Manual

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



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### DANGER



#### Risk of Electrical Shock or Electrocution

This underwater light must be installed by a licensed or certified electrician 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, installer, or others due to electrical shock, and may also cause damage to property. Read and follow the specific instructions below.

### WARNING

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

### 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.

### Product Labeling

Certain product labeling has been provided in French and Spanish!

Install these labels over the corresponding English text label if the personnel operating or servicing the product is fluent in either of these languages.

If more than one language is spoken by personnel operating or servicing this equipment, then install the additional labels of the required language adjacent to the English text label. If insufficient space is available on the product to install multiple labels, then these labels should be placed on a placard or sign and posted near the equipment where it is visible to all who operate or service this equipment.

Before installing the label, remove all dirt or grease from the surface that the labels will be installed upon using a mild detergent solution.

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**⚠ DANGER! Risk of Electrical Shock or Electrocution!**



This product must be installed by a licensed or certified electrician or a qualified pool serviceman 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. **READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL.**

**⚠ WARNING — Important Safety Information for 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).
- Under no circumstances replace lights by splicing wire under water or behind niche.

**⚠ WARNING — RISK OF ELECTRIC SHOCK AND INJURY.**

**USE ONLY THE INSTALLATION METHOD SPECIFIED BELOW.**

**Important Safety Information for Fountain Fixture Installations**

<b>Location of Luminaire (Light) Use</b>	<b>Pentair Fountain Fixture* (P/N 560000 – P/N 560001) (P/N 560002 – P/N 560003)</b>	<b>Required Installation Method</b>
Swimming Pool or Spa	Wet-Niche Swimming Pool (or Spa) Luminaire (Light)	Fixture Housing (Forming Shell) ONLY. <b>DO NOT USE</b> Fountain Fixture Stand.
Fountain	Wet-Niche Submersible 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 bear both the Listed Wet-Niche Swimming Pool (or Spa) Luminaire UL Mark and the Listed Wet-Niche Submersible Luminaire 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.

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## **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.

6. Fill the pool until the underwater light is completely submerged in water before operating the light for more than 10 seconds. Turn on main switch or circuit breaker, as well as the switch which operates the underwater light itself, to check for proper operation.

### **SECTION II. Replacing light fixture in existing pool**

## **DANGER**

### **Risk of Electrical Shock or Electrocution**



This underwater light must be installed by a licensed or certified electrician or a qualified pool serviceman 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.

#### **A. Before replacing the light fixture.**

1. Verify that the pool 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:
  - a. The lighting circuit has a Ground Fault Circuit Interrupter (GFCI), and has an appropriately rated circuit breaker.
  - b. The Junction Box (or, for 12 volt models, the low voltage transformer) is located at least 8 inches above water level and at least 4 inches above ground level and at least 48 inches from the edge of the pool; see Figure 1.
  - c. The light fixture and all metal items within 5 feet of the pool are properly electrically bonded.
  - d. 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.
  - e. 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.

#### **NOTE:**

The pool or spa electrical system can be verified with a Pool and Spa Electrical Qualification Test Kit. The test kit is available from Pentair Water Pool and Spa. The electrical system inspection using this kit must be performed by trained and certified personnel.

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

#### **B. Replacing light fixture after electrical system requirements are met.**

## **WARNING**

Failure to bring the pool'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. Turn off main electrical switch or circuit breaker, as well as the switch which operates the underwater light.

- To remove light assembly, remove the special pilot screw at top of face ring, remove light assembly from niche, and place assembly on deck.

**⚠ WARNING**

Be sure to keep the special pilot screw from 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.

- Remove Junction Box cover, disconnect the light fixture wires, and pull the cord through the conduit.
- 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.

- Leave at least 4 feet of cord to coil around the light fixture; see Figure 1. This 4 feet of cord coiled around the light allows the light to be serviced after the pool is filled with water.
- Cut the cord at the Junction Box, leaving at least 6 inches of cord to make connections.
- Strip 6 inches of the outer cord jacket from the cord to expose the three insulated wires. Be careful not to damage the insulation on the three inner wires.
- 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) and secure the Junction Box cover in place.

**⚠ WARNING**

Never operate this underwater light for more than 10 seconds unless it is totally submerged in water. Without total submersion, the light assembly will get extremely hot, which may result in serious burns or in breakage of the lamp or lens. This may result in serious injury to pool users, installers, or bystanders, or in damage to property.

- Replace light assembly into niche and tighten special 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.

- Fill the pool until the underwater light is completely submerged in water before operating the light for more than 10 seconds. Turn on main switch or circuit breaker, and the switch that operates the underwater light itself, to check for proper operation.

**SECTION III. Replacing a lamp only**

**⚠ DANGER**



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, serviceman, pool users or others due to electrical shock.

- Turn off main electrical switch or circuit breaker, as well as the switch which operates the underwater light itself.
- You will need the following items.
  - A new lens gasket (p/n 79101600).
  - A lamp, for proper type and wattage; see Table 1.

<u>Table 1.</u>		
<u>Lamp Specifications:</u>	<u>12* volt Models</u>	<u>120 volt Models</u>
120 volt - 300 watt - R-40 lamp	100 watt	300 watt
120 volt - 400 watt - R-40 lamp	300 watt	400 watt
120 volt - 500 watt - R-40 lamp		500 watt
12 volt - 300 watt - R-40 lamp	*Trnsfmr. req.	
12 volt - 100 watt - R-40 lamp		

## **⚠ WARNING**

Replace lamp with a similar type and wattage. Failure to replace lamp with the same type of lamp 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 (part number 79101600) whenever disassembling 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, installers or others due to electrical shock; or,
- (b) breakage of the lamp or lens, which could result in serious injury to pool users, installers, bystanders, or in property damage.

3. To remove light assembly, remove the special pilot screw at top of face ring, remove light assembly from niche, and place assembly on deck.

## **⚠ WARNING**

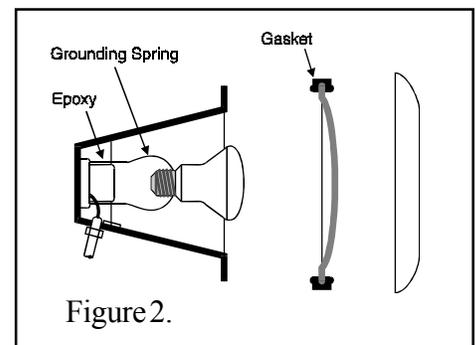
Be sure to keep the special pilot screw from this underwater light. This screw mounts and electrically grounds the housing securely to the mounting ring and wet niche. Failure to use the screw provided could create an electrical hazard which could result in death or serious injury to pool users, installers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

4. Disassemble light fixture and remove bulb. Remove and discard old gasket; see Figure 2.
5. Install new gasket during reassembly of light, Pentair Water Pool and Spa part number 79101600.

## **⚠ WARNING**

Never operate the underwater light for more than 10 seconds unless it is totally submerged in water. Without total submersion, the light assembly will get extremely hot and may result in serious burns or in breakage of the lamp or lens. This may result in serious injury to pool users, installers, bystanders, or in damage to property.

6. Align the pilot screw on the face ring with the first “E” in the word “BEFORE” on the lens face. Then align the lens/ facing ring assembly to the housing by lining up the pilot screw with the arrow on the warning label.
7. Secure ring to light fixture. Sealing screws must be tightened in the following manner to assure a proper seal;
  - a. For lights with chrome or brass face ring:
    - (1) Partly tighten the screw at the 12 o’ clock position, and then partly tighten the screw at the 6 o’ clock position. Partly tighten the screw at another ‘opposite’ position, and then partly tighten the screw directly across from it.
    - (2) Continue partly tightening all screws in the above sequence until all screws are evenly and securely tightened. Recommended 20 inch pounds torque.
  - b. For lights with stainless steel face ring:
    - (1) With the light resting on its base, align the face ring, and lens/gasket on top of the light shell as described in Step 6. A NEW LENS GASKET MUST BE USED EACH TIME THE LIGHT IS REASSEMBLED. The locking levers should all be hanging freely down to install over the lens and gasket. Before installing the Unitension Clamp be sure that the gap at the ends of the clamp is approximately 1 in. apart. Pull the ends of the Unitension Clamp past one another to accomplish this.
    - (2) With the bent ends of the circular unitension clamp pointing down spread the clamp and place it in the “U” recesses of the locking levers. Be sure the bent ends of the clamp are located between the pair of locking levers as shown in Figure 3, location A. Check to see that the clamp is properly engaged with all of the levers.
    - (3) Turn the light so that it is now resting on its lens. Tighten the bolt and nut until the distance between the ends of the clamp equals 1/4 inch or less; see Figure 4.

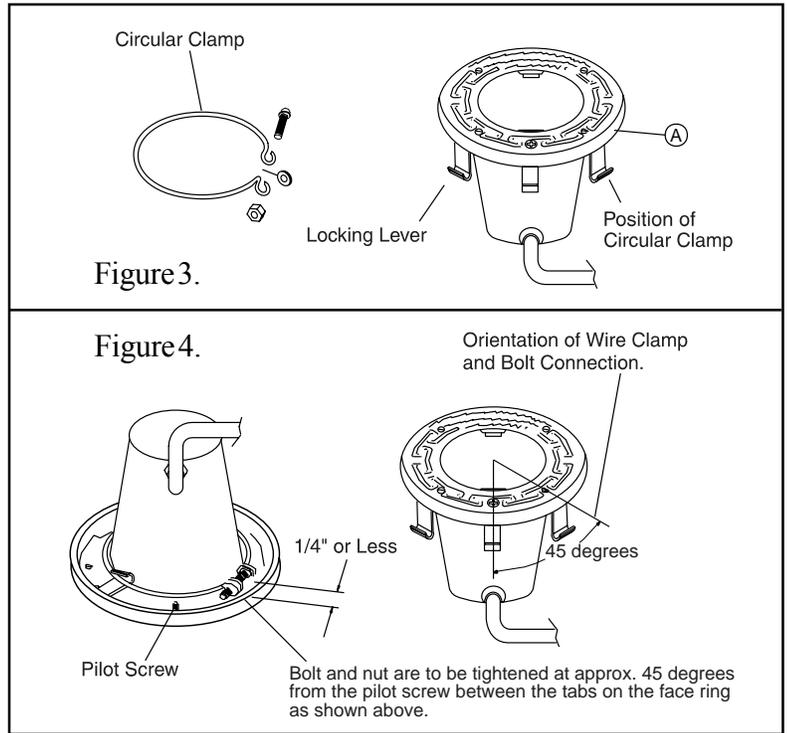


8. Replace light assembly into niche and tighten special pilot screw.

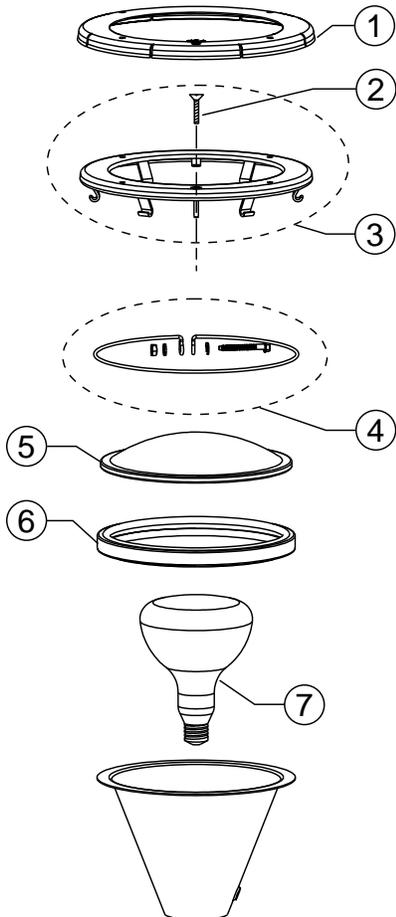
**⚠ WARNING**

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.

9. Fill pool until the underwater light is completely submerged in water before operating the light for more than 10 seconds. Turn on main switch or circuit breaker, as well as the switch which operates the underwater light itself, to check for proper operation.



**SECTION IV. Amerlite Replacement Parts**



Item No.	Part No.	Description
1	79212100	Face ring, large plastic, for S/S only, white
1	79212165	Face ring, large plastic, for S/S only, gray
1	79212111	Face ring, large plastic, for S/S only, black
2	79104800	Pilot Screw, with captive gum washer, brass
2	619355	Pilot Screw, with captive gum washer, S/S
3	79110600	Face ring assembly, S/S
4	79111000	Uni-tension wire clamp assy.
5	79100100	Lens, clear, 8-3/8 in. dia., tempered
5	79100200	Lens, med. blue, 8-3/8 in. dia., heat resistant
6	79101600	Gasket, 8-3/8 in. lens
7	79101800	Floodlamp, med. base, 100 watt, 12 volt
7	79101900	Floodlamp, med. base, 300 watt, 12 volt
7	79102100	Floodlamp, med. base, 500 watt, 120 volt
7	79107600	Floodlamp, med. base, 300 watt, 120 volt
7	79102200	Floodlamp, med. base, 400 watt, 120 volt
	78900700	Kwik-change lens cover, green
	78900800	Kwik-change lens cover, blue
	78900900	Kwik-change lens cover, red
	78901000	Kwik-change lens cover, amber

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