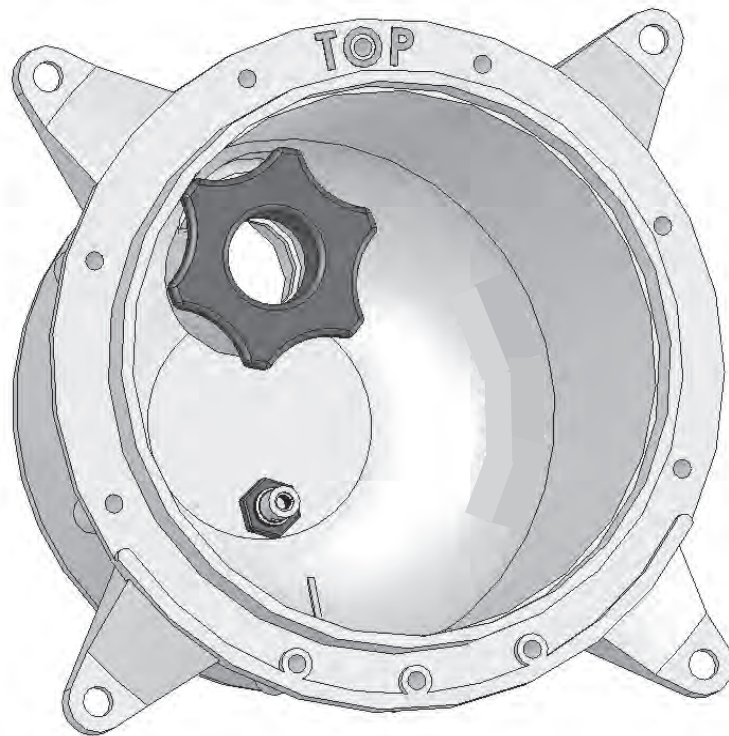




LARGE PLASTIC NICHE
FOR USE WITH PENTAIR WET NICHE LIGHT FIXTURES



INSTALLATION AND USER'S GUIDE

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

IMPORTANT WARNING AND SAFETY INSTRUCTIONS



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 and/or operator of this equipment after installation.



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 these instructions.



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 state and 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 Aquatic Systems Niche and Light Installation**

- All Niche and Light installations must conform with all codes.
- 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

Location of Luminaire Use	Pentair Fountain Fixture* (P/N 560000 – P/N 560001) (P/N 560002 – P/N 560003)	Required Installation Method
Swimming Pool or Spa	Wet-Niche Swimming Pool (or Spa) Luminaire (Light)	Fixture Housing (Forming Shell) ONLY. DO NOT USE 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.

CAUTION: The IntelliBrite® LED light fixture must only be used with Pentair fixture housings (niches). If the IntelliBrite LED light fixture is installed into other niches, the installation will not carry U.L. approval and will void all warranties.

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Large Plastic Niche Kit Contents

The following items are included in the Large Plastic Niche kit. If any items are missing please contact Pentair Technical Support.

- Plastic niche (large) (P/N 79206700)
- Cap, Cord Seal (P/N 670040)
- PVC Conduit, Elbow (P/N 520272)
- Large Plastic Niche Installation Guide (this manual)

Cord Seal Grommet Assembly Accessory (sold separately)

The cord seal grommet assembly accessory includes:

- Cord Seal Grommet Assembly (P/N 670044)
 - Seal
 - Stub

Pentair compatible light fixture part numbers

Use the large plastic niche with any of the following Pentair wet niche light fixture part numbers:

P/N 783xxxxx
 P/N 784xxxxx
 P/N 788xxx xx
 P/N 789xxxxx
 P/N 6000xx

Technical Support

Contact Technical Support at:

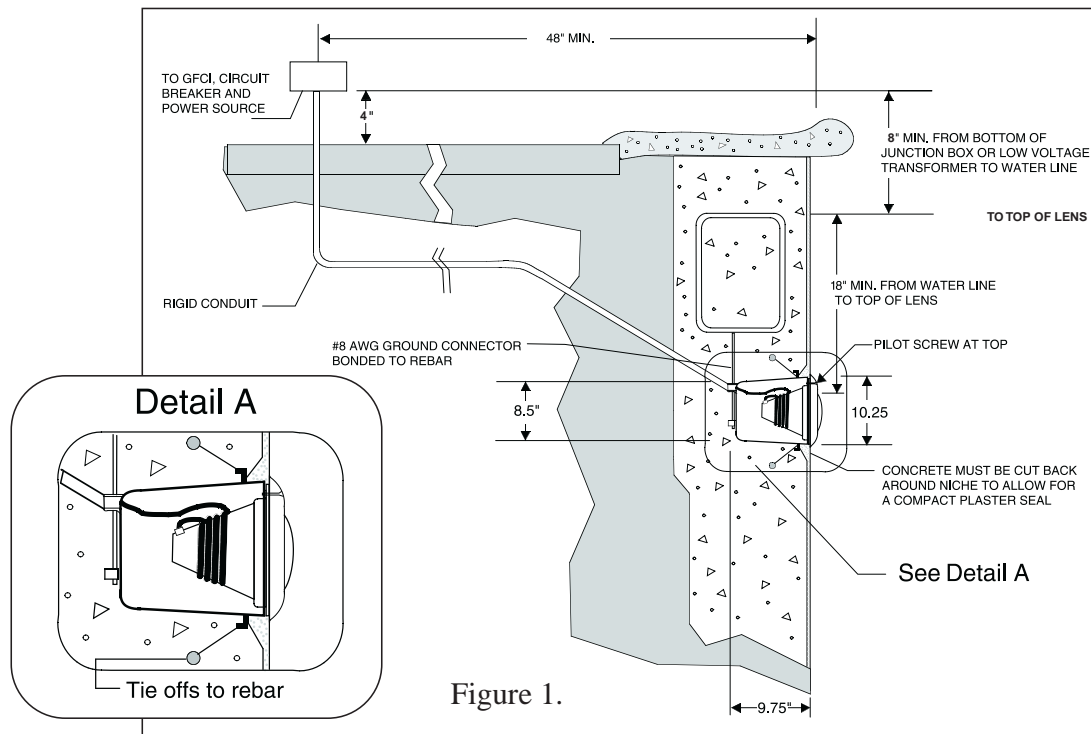
Sanford, North Carolina (8 A.M. to 5 P.M. ET)
Moorpark, California (8 A.M. to 5 P.M. PT)
 Phone: (800) 831-7133
 Fax: (800) 284-4151

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

Large Plastic Niche Overview

READ THIS FIRST BEFORE INSTALLING

1. Ensure that the electrical system of your pool conforms with the following requirements of the National Electrical Code (NEC), and all local codes and ordinances. A licensed or certified electrician must install the electrical system to meet or exceed those requirements before the Large Plastic Niche (fixture-housing) is installed.
2. Some of the NEC requirements are as follows:
 - The lighting circuit must have a Ground Fault Circuit Interrupter (GFCI), and have an appropriately rated circuit breaker.
 - The junction box or the low voltage transformer is located at least 12 inches above water level and at least 48 inches from the edge of the pool, see Figure 1 below.
 - The light fixture and all metal items within five (5) feet of the pool must be properly electrically bonded.
 - The niche must be properly installed so the pilot screw hole is at the 12 o'clock position and 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. This requirement may be less than 18" if the fixture is installed in an area of the swimming pool that is not used for swimming and the lens is adequately guarded to keep any person from coming in contact with the lens. Consult your local codes and ordinances and the National Electrical Code (NEC).



The niche is properly electrically bonded and grounded using the NO. 8 AWG ground connector located at the rear of the niche, see Figure 1.

Use only Pentair lighting fixtures in this niche to ensure proper bonding and grounding connections.

Large Plastic Niche Concrete/Gunite Pool Installation

The following steps describe how to install the large plastic niche to the pool rebars, connect the metal conduit to the niche and connect the bonding/grounding wire to the outside of the niche. Also, included are installation instructions for the optional Cord Seal Grommet kit (sold separately). For more information, see page 3.

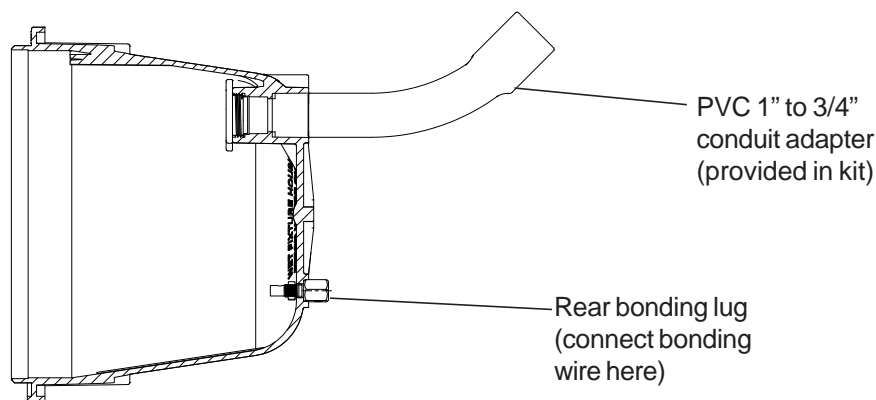
DANGER RISK OF ELECTRICAL SHOCK OR ELECTROCUTION



WARNING — Risk of electrical shock or electrocution.

For proper bonding and grounding connections, use only Pentair underwater Light fixtures with this niche-fixture housing. Failure to do so could create an electrical hazard which would result in death or serious injury to pool users, installers and others.

1. Locate position on the vertical surface where the niche and light is to be installed. The top of the light lens must be a minimum of 18" below normal water level.
2. Connect the PVC conduit to the niche using a PVC solvent, such as Weld-On® 710™ PCV Cement.
Note: If required, a 45° PVC 1" to 3/4" conduit elbow adapter is provided with the kit. When gluing the PVC elbow to the niche, ensure to insert the elbow with the niche facing up, to avoid glue running into the inside of the niche.
3. Secure the niche-fixture housing to the rebar with tie wires. Orient the niche so that the pilot screw receptacle is located at the top of the niche.
4. On the rear of the niche is a brass terminal called the bonding lug for securing the bond wire. The bond wire is a #8 AWG wire that connects the bonding lug to the bonding grid. The bonding grid is all other metallic items within five (5) feet of the pool including the rebar connected together. For more information, see NEC 680.26 code requirement.
5. Inside the niche is a brass terminal called the grounding lug. The grounding lug is the opposite side for the bonding lug. A #8 AWG insulated solid or stranded bonding/grounding wire must be installed through the conduit from the junction box to the grounding lug inside the niche. This connection inside the niche must be sealed with a listed sealant such as 3M™ Scotchcast™ Potting Kit 2136 or equivalent (see page 5 step 13). For more information, see NEC 680.23 code requirement.



Large Plastic Niche (side view)

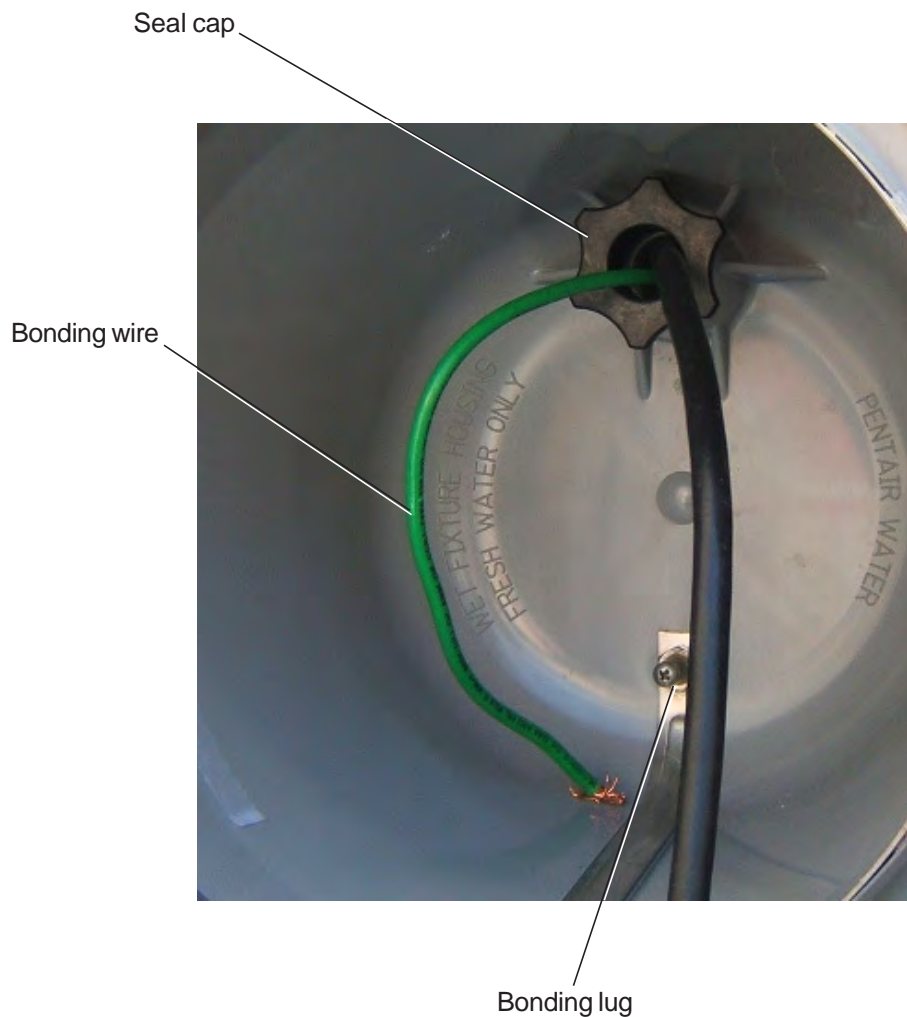
6. Support conduit to hold the Large Plastic Niche at the proper distance in front of rebar so that the front of mounting ring is flush with the desired finish surface.
7. If pool surface is to be plastered, you must allow proper concrete cut-back for plaster thickness. Finished concrete surface must be cut-back behind the niche flange, see Detail A of Figure 1 on page 1). Finished area surrounding niche must be flat and flush with the front face of the niche. This ensures a snug fit between light and wall.

Large Plastic Niche Concrete/Gunite Pool Installation (with optional cord seal grommet)

Before installing the large niche, read through the installation steps. Also, if required by local code, included are installation instructions for the optional cord seal grommet assembly, which can be purchased separately (P/N 670044).

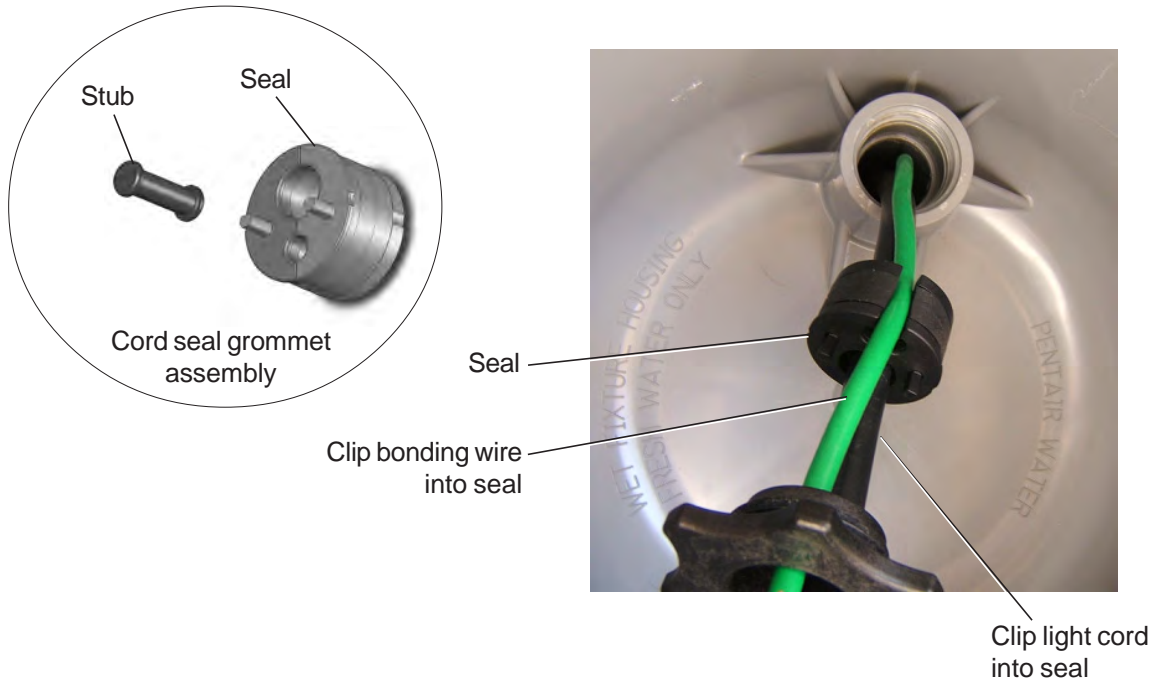
To install the bonding wire (and optional cord seal grommet) in the niche:

1. The seal cap is factory installed in the conduit thread.
2. Route the bonding/ground wire and the light cord through the conduit and seal cap into the inside of the niche.
3. Pull the required length of light cord through the niche.
4. On the rear of the niche is a brass terminal called the bonding lug for securing the bond wire. The bond wire is a #8 AWG wire that connects the bonding lug to the bonding grid. The bonding grid is all other metallic items within five (5) feet of the pool including the rebar connected together. For more information, see NEC 680.26 code requirement.
5. Inside the niche is a brass terminal called the grounding lug. The grounding lug is the opposite side for the bonding lug. A #8 AWG insulated solid or stranded bonding/grounding wire must be installed through the conduit from the junction box to the grounding lug inside the niche. This connection inside the niche must be sealed with a listed sealant such as 3M™ Scotchcast™ Potting Kit 2136 or equivalent (see page 5 step 13). For more information, see NEC 680.23 code requirement.

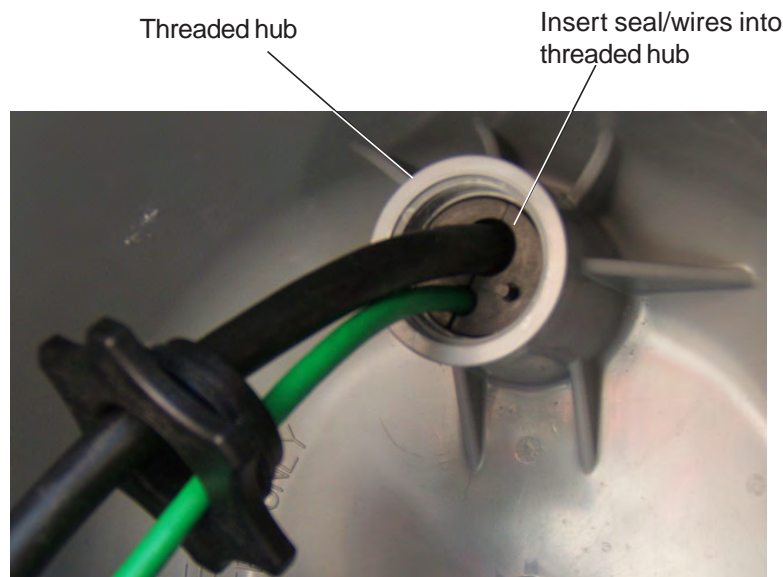


6. Grasp the cord seal grommet and spread the smaller opening, and clip onto the bonding/ground wire. Spread the larger opening, and clip onto the light cord as shown. Position the seal pins facing outward.

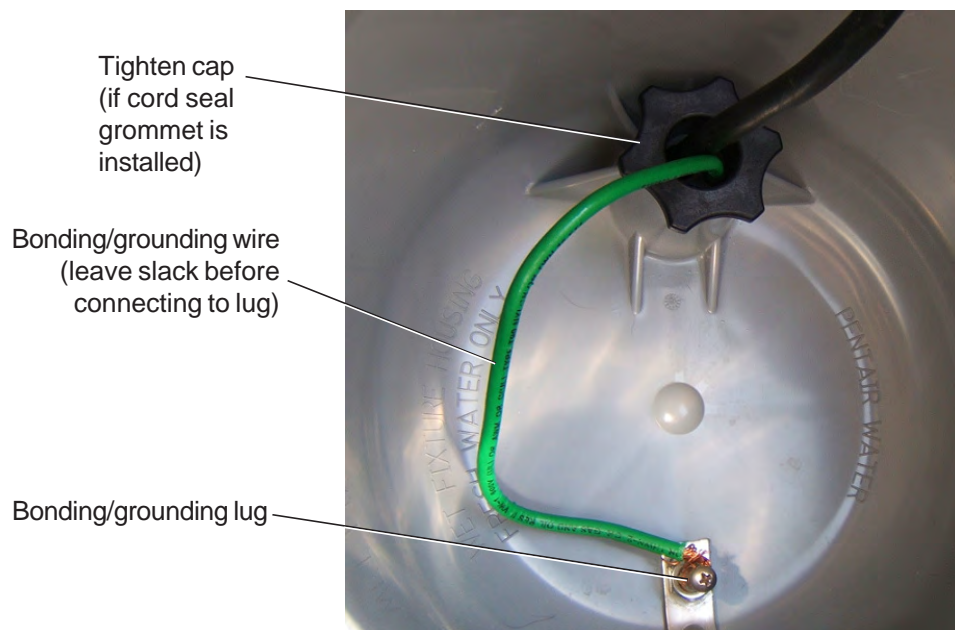
Note: If a bonding/ground wire is not being used, insert the stub in small opening where the bonding/ground wire would be.



7. Ensure that the seating surface in the threaded hub is clean and clear of any debris or glue.
8. Slide the seal down the wires and insert it into the threaded hub in the niche. Push the seal and wires into the hub until it bottoms out.



9. Slide the seal cap into the niche threaded hub. Carefully position and align the cap with the threaded hub. Hand tighten the cap clockwise two or three turns.
10. Gently tug on the wire, you still should be able to pull the wires in or out of the seal to adjust the wire length if necessary.
11. Tighten the cap clockwise to lock the seal and wires in place. Tug on the wires to ensure that they do not move. The seal will form a water tight seal so that water cannot enter the conduit from inside of the niche.
12. Connect the bonding/ground wire to the lug inside the niche. Tighten the screw to secure the wire to the lug. Ensure that the wire has sufficient slack to allow removal of the cap and seal in the future.
13. Sealed the wire/lug connection with a listed sealant such as 3M™ Scotchcast™ Potting Kit 2136 or equivalent.



14. The niche installation is complete. The niche is ready for the light installation.

Seal Removal and Replacement

When replacing a pool or spa light, in order to route the new light cord to the junction box, the existing seal and cap should be replaced. The cord seal grommet assembly kit (P/N 670044) can be purchased separately.

WARNING — Risk of electrical shock or electrocution.



For proper bonding and grounding connections, use only Pentair underwater Light Fixtures with this niche-fixture housing. Failure to do so could create an electrical hazard which would result in death or serious injury to pool users, installers and others.

To remove and replace the optional cord seal grommet (refer to illustrations on previous pages):

1. Remove the light assembly from the niche and cut the wire that is connected to the existing light.
2. Unscrew the cap from the niche hub.
3. Tug on the light cord to loosen the seal from the niche threaded hub. Using needle-nose pliers, gently pull on each of the seal pins to remove the seal and wires from the hub.
4. Unsnap the seal from the wires and remove the seal from the niche. Leave the bonding/ground wire connected to the lug inside the niche.
5. Insert the light cord through the cap.
6. Run the new light cord into the niche hub and through the conduit to the junction box.
7. Allow for the required length of light cord to wrap around the light assembly.
8. Spread the larger opening of the seal, and clip it onto the light cord. Spread the smaller opening, and clip it onto the bonding/ground wire.
9. Ensure that the seating surface in the threaded hub is clean and clear of any debris or glue.
10. Slide the seal down the wires and insert it into the niche hub. Push the seal and wires into the hub until it bottoms out.
11. Slide the seal cap into the niche threaded hub. Carefully position and align the cap with the threaded hub. Hand tighten the cap clockwise two or three turns.
12. Gently tug on the wire, you still should be able to pull the wires in or out of the seal to adjust the wire length if necessary.
13. Tighten the cap clockwise to lock the seal and wires in place. Tug on the wires to ensure that they do not move. The seal will form a water tight seal so that water cannot enter the conduit from inside of the niche.
14. The installation is complete.



WATER SOLUTIONS

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