

Pentair's Large Stainless Steel Niche (Concrete/Gunite) Installation Instructions

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

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NOTE

For use with Pentair Water Pool and Spa® wet niche light fixtures only, (Amerlite®, AmerQuartz®, SAM®, IntelliBrite®, SunGlow™ II, and SunBrite™ II).

DANGER



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION!

This niche - fixture housing must be installed by a licensed or certified electrician in accordance with the National Electrical Code AND the Canadian Electrical Code and all applicable local codes and ordinances. ***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.** 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. Read and follow the specific instructions.

WARNING

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

Important Notice



Attention Installer.

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

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Pool Products®
Because **reliability** matters most®

Section I. General Information – USA ONLY

- A. 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 light and (fixture-housing) is installed.
- B. Some of the NEC requirements are listed below.
1. The lighting circuit must have a Ground Fault Circuit Interrupter (GFCI), and have an appropriately rated circuit breaker.
 2. The Junction Box or the low voltage transformer is located at least 8 inches above water level and at least 48 inches from the edge of the pool, see Figure 1.
 3. The light fixture and all metal items within five (5) feet of the pool must be properly electrically bonded.
 4. The niche must be properly installed so the pilot screw hole is at the 12 o'clock position and 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.

NOTE

The required orientation of all Pentair lights is with the pilot screw at the 12 o'clock position. This is guaranteed by proper niche installation.

NOTE

Different rules apply to Fountain Light installations, consult the National Electric Code.

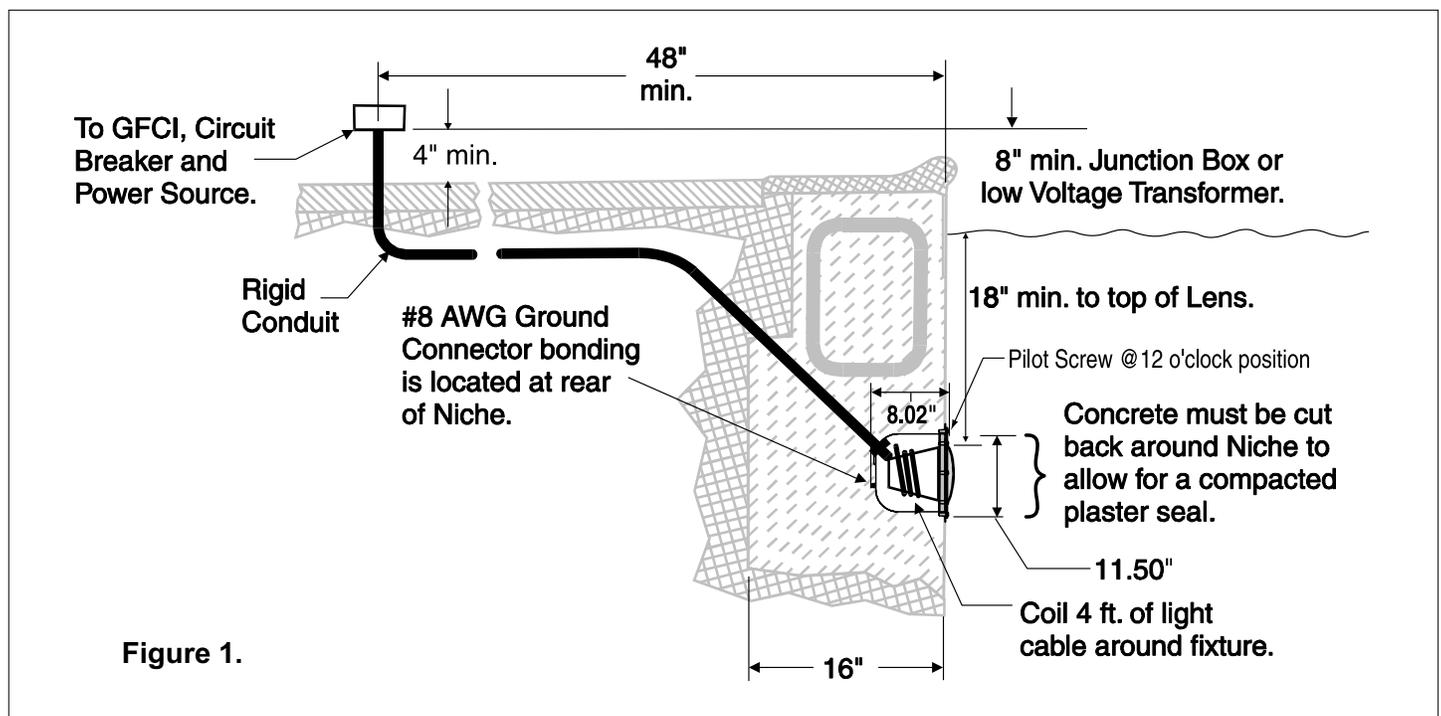
5. The niche is properly electrically bonded and grounded via the NO. 8 AWG ground connector located at the rear of the niche; see Figure 1.
- C. Use only Pentair Water Pool and Spa lighting fixtures in this niche to ensure proper bonding and grounding connections.

⚠ DANGER



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION

For proper bonding and grounding connections, use only Pentair Water Pool and Spa 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.

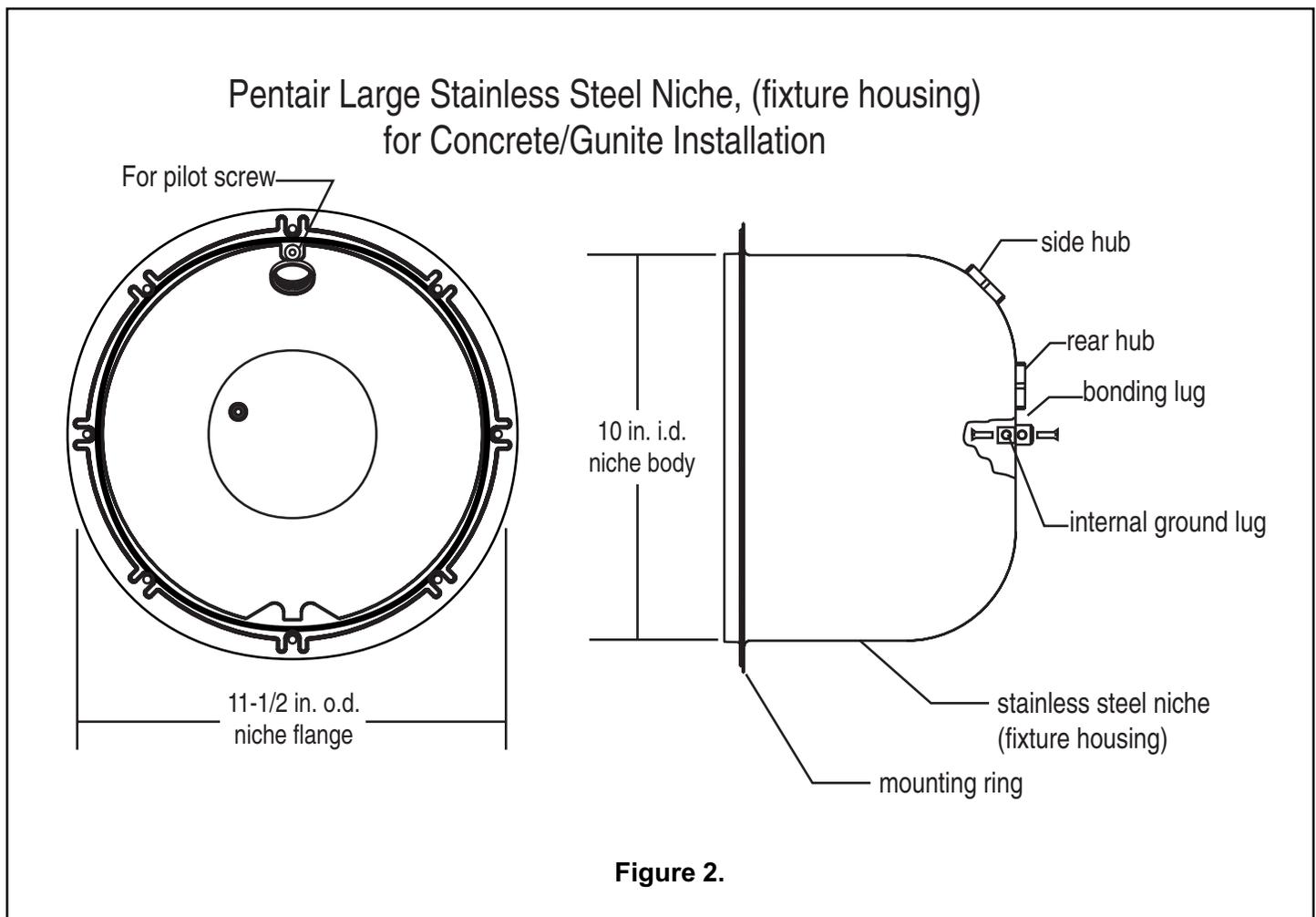


Section II. Concrete/Gunite Installation Instructions – USA ONLY

NOTE

Pentair pool lights are **NOT** rated for bottom upward facing applications in swimming pools and spas.

- A. Locate position on the vertical wall where the light is to be installed. The top of the light lens must be a minimum of 18 in. below normal water level.
- B. Orient the niche so the pilot screw hole is at the 12 o'clock position, see Figure 1.
- C. Connect conduit to the niche using a recommended thread sealant.
- D. Connect bonding wire from rebar and bonding grid to the bonding lug at the rear of the niche.
- E. Bond the niche-fixture housing to all other metallic items within five (5) feet of the pool, using a No. 8 AWG wire. Bond connection is located at the rear of the niche.
- F. If non-metallic conduit is used, a No. 8 AWG bonding/grounding wire must be installed through the conduit from the Junction Box to the bonding/grounding lug inside the niche. The connection inside the niche must be sealed with a listed sealant such as 3M Scotchcast 2135 or equivalent.
- G. Support conduit to hold niche the proper distance in front of rebar so that the front of the mounting ring is flush with the desired finish surface.
- H. If the pool 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. Finished area surrounding the niche must be flat and flush with the brass mounting ring on the front of the niche. This ensures a snug fit between light and wall.



Section III. General Information – CANADA ONLY

- A. Ensure that the electrical system of your pool conforms with the following requirements of the Canadian Electrical Code (CE), and all local codes and ordinances. A licensed or certified electrician must install the electrical system to meet or exceed those requirements before the light and (fixture-housing) is installed.
- B. Some of the CE requirements are listed below.
1. The lighting circuit must have a Ground Fault Circuit Interrupter (GFCI), and have an appropriately rated circuit breaker.
 2. The GFCI or a transformer must be located at least 3 m or more from the edge of the pool, see *NOTE and Figure 3.
 3. The junction/deck box must be sealed to the conduit to prevent water from getting into the box, see Figure 4.
 4. The light fixture and all metal items within 3 m of the pool must be properly electrically bonded.

NOTE

Different rules apply to Fountain Light installations, consult the Canadian Electrical Code.

5. The niche must be properly installed so the pilot screw hole is at the 12 o'clock position and that the center line of the Underwater Light's lens is at a maximum depth of 600 mm below the surface of the water in the pool, see Figure 3.

NOTE

The required orientation of all Pentair lights is with the pilot screw at the 12 o'clock position. This is guaranteed by proper niche installation.

6. The niche is properly electrically bonded and grounded via the NO. 6 AWG ground connector located at the rear of the niche; see Figure 3.

- C. Use only Pentair Water Pool and Spa lighting fixtures in this niche to ensure proper bonding and grounding connections.

DANGER



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION

For proper bonding and grounding connections, use only Pentair Water Pool and Spa 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.

*NOTE

Very specific exceptions allowed as defined in the Canadian Electrical Code.

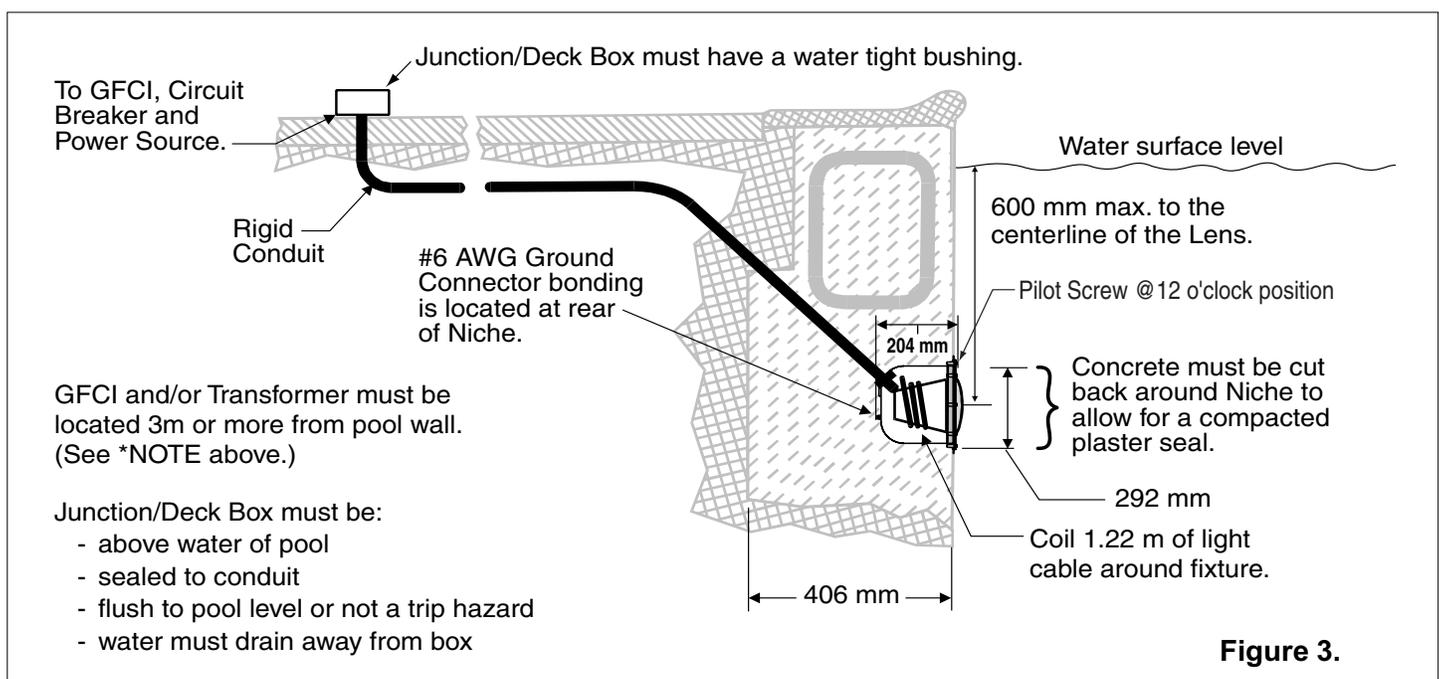
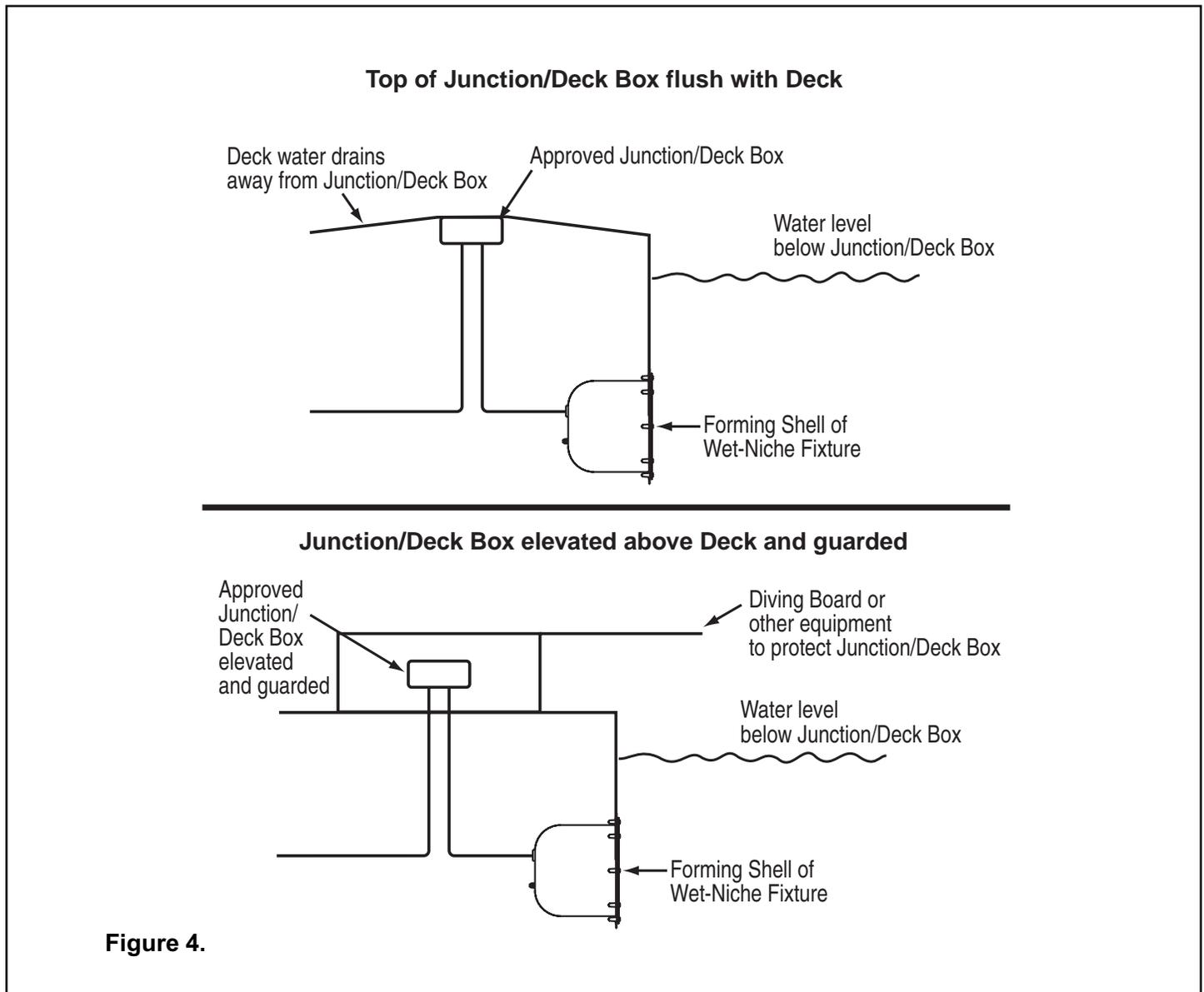


Figure 3.

Section IV. Junction/Deck Box Location Information – CANADA ONLY

A. The Junction/Deck Box must be installed:

- above the normal water level of the pool;
- so that the top of the box is located at or above the finished level of the pool deck;
- in such a manner or location that the box will not be an obstacle, and:
- in such a manner that any water on the deck will drain away from the box, see Figure 4.

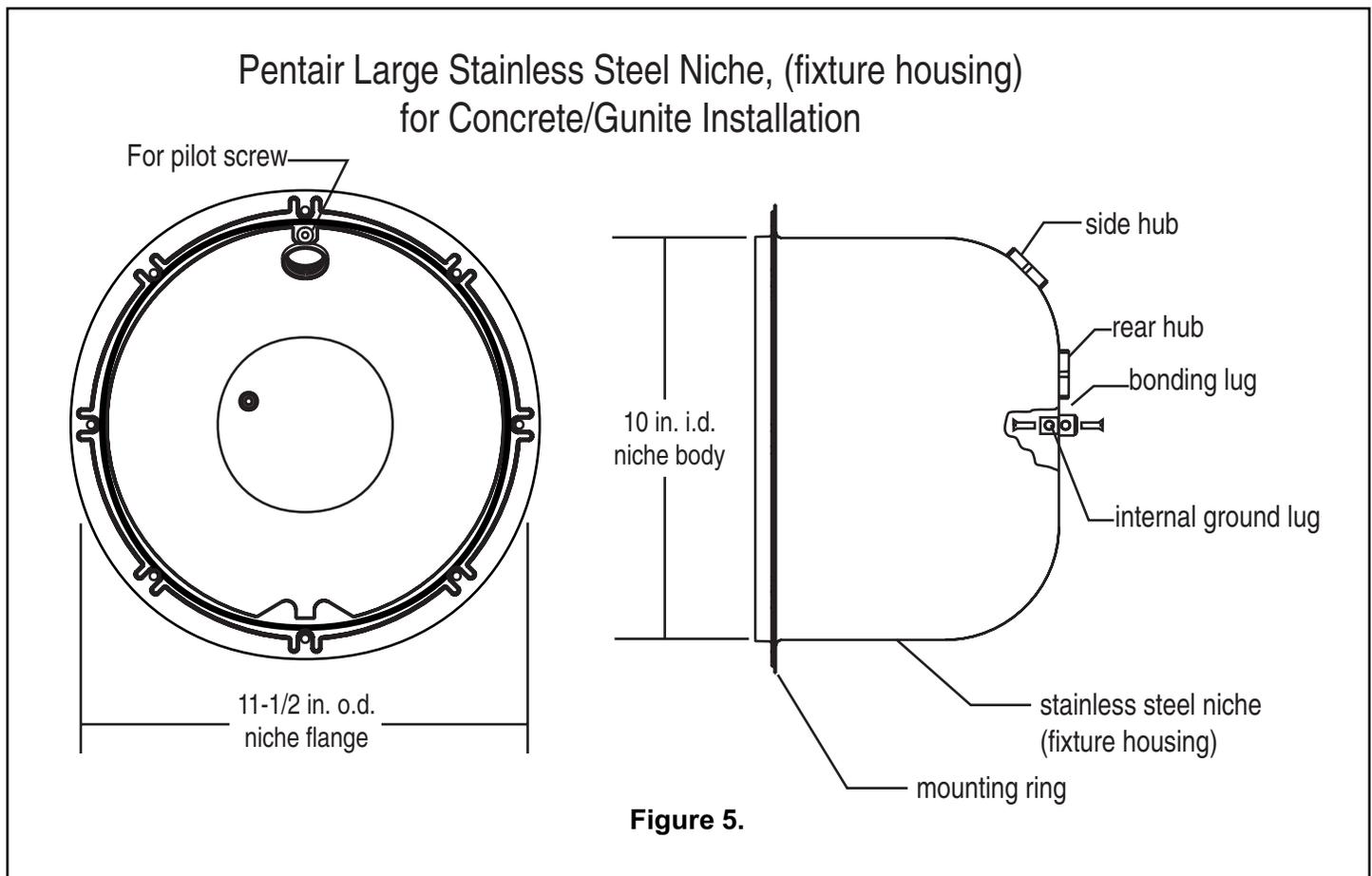


Section V. Concrete/Gunite Installation Instructions – CANADA ONLY

NOTE

Pentair pool lights are **NOT** rated for bottom upward facing applications in swimming pools and spas.

- A. Locate position on the vertical wall where the light is to be installed. The centerline of the light lens must be a maximum of 600 mm below normal water level.
- B. Orient the niche so the pilot screw hole is at the 12 o'clock position, see Figure 3 on page 4.
- C. Connect conduit to the niche using a recommended thread sealant.
- D. Connect bonding 6 AWG wire from rebar and bonding grid to the bonding lug at the rear of the niche.
- E. Bond the niche-fixture housing to all other metallic items within 3 m of the pool, using a No. 6 AWG wire. Bond connection is located at the rear of the niche.
- F. If non-metallic conduit is used, a No. 6 AWG bonding/grounding wire must be installed through the conduit from the Junction Box to the bonding/grounding lug inside the niche. The connection inside the niche must be sealed with a listed sealant such as 3M Scotchcast 2135 or equivalent.
- G. Support conduit to hold niche the proper distance in front of rebar so that the front of the mounting ring is flush with the desired finish surface.
- H. If the pool 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. Finished area surrounding the niche must be flat and flush with the brass mounting ring on the front of the niche. This ensures a snug fit between light and wall.



SAVE THESE INSTRUCTIONS

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