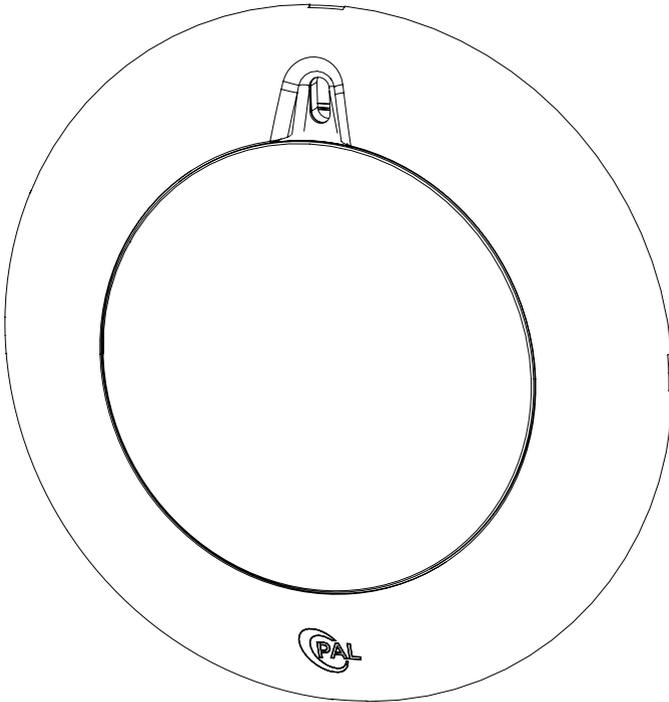




LIGHTING



# SONAR POOL/SPA LIGHT INSTALLATION INSTRUCTIONS



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## GUIDES AND WARNINGS

### Tools Required:

Phillips Head No. 2 Screw Driver

## GUIDES AND WARNINGS IMPORTANT INFORMATION:

- 1) Ensure that the electrical system for your pool conforms with all the requirements of the National Electrical Code (NEC) and all relevant local codes and ordinances.
- 2) This Underwater Light must be installed in accordance with the National Electrical Code by a Certified Electrician or a Qualified Pool Technician. NOTE: No Bonding Terminal is required on the forming shell since the fixture is an all plastic construction and complies with NEC article 680 Requirements.
- 3) This Underwater light is designed for use with a 12V AC or 12/24V DC UL Listed Class 2 LED Driver.

#### DO NOT CONNECT THIS 12V LIGHT DIRECT TO A 120V CIRCUIT.

The Junction Box and the 12V AC or 12/24V DC transformer is located at least 4 (four) inches (10.16 cm) above ground level or eight (8) inches(20.3 cm) above maximum water level, whichever is higher. The Junction Box must be at least 48 inches (1.22 m) from the edge of the pool.

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

Be sure 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.

- 1) **!!IMPORTANT** Turn off power to pool lights

**IMPORTANT!** Ensure system is safely isolated during entire light replacement process. If in doubt, contact an electrician to assist. Failure to comply may result in severe injury or death.

- 2) Check Transformer Type

Ensure transformer used **matches** power rating of your chosen light 12V/24V DC or 12V AC. If not matched, consider purchasing the appropriate lighting controller from your PAL Lighting retailer.

Each light requires approximately 10W of power.

Ensure controller is undamaged by weathering or else damaged and in good working order.

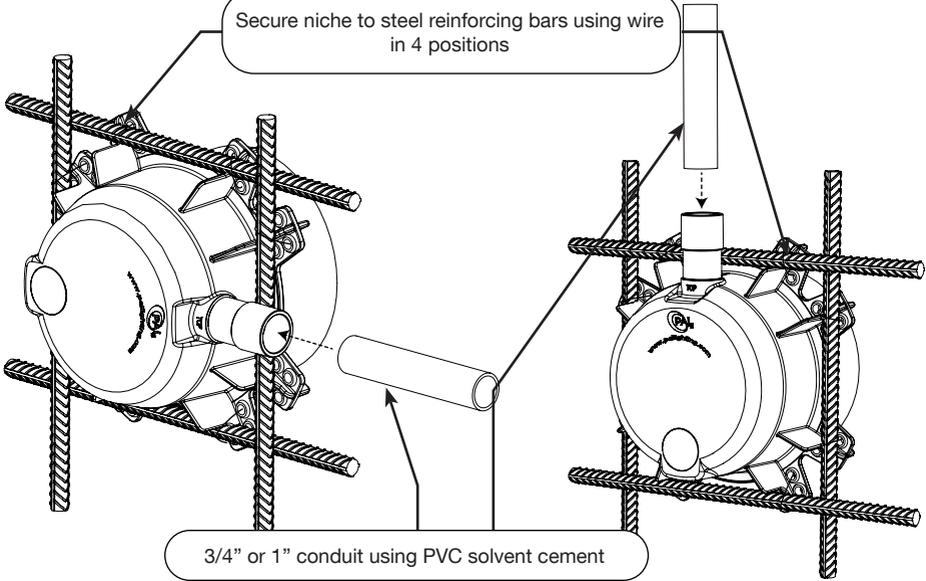
Ensure controller is suitable for use with swimming pool lights.

Ensure controller is **NOT** a switch mode transformer.

# NICHE INSTALLATION

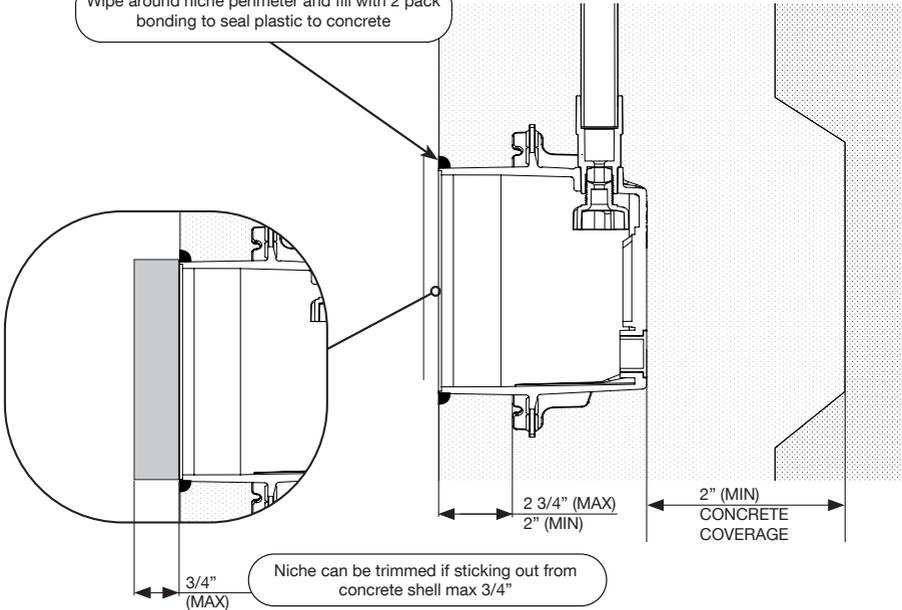
## Securing to steel bars

Secure niche to steel reinforcing bars using wire in 4 positions



3/4" or 1" conduit using PVC solvent cement

Wipe around niche perimeter and fill with 2 pack bonding to seal plastic to concrete



2 3/4" (MAX)  
2" (MIN)

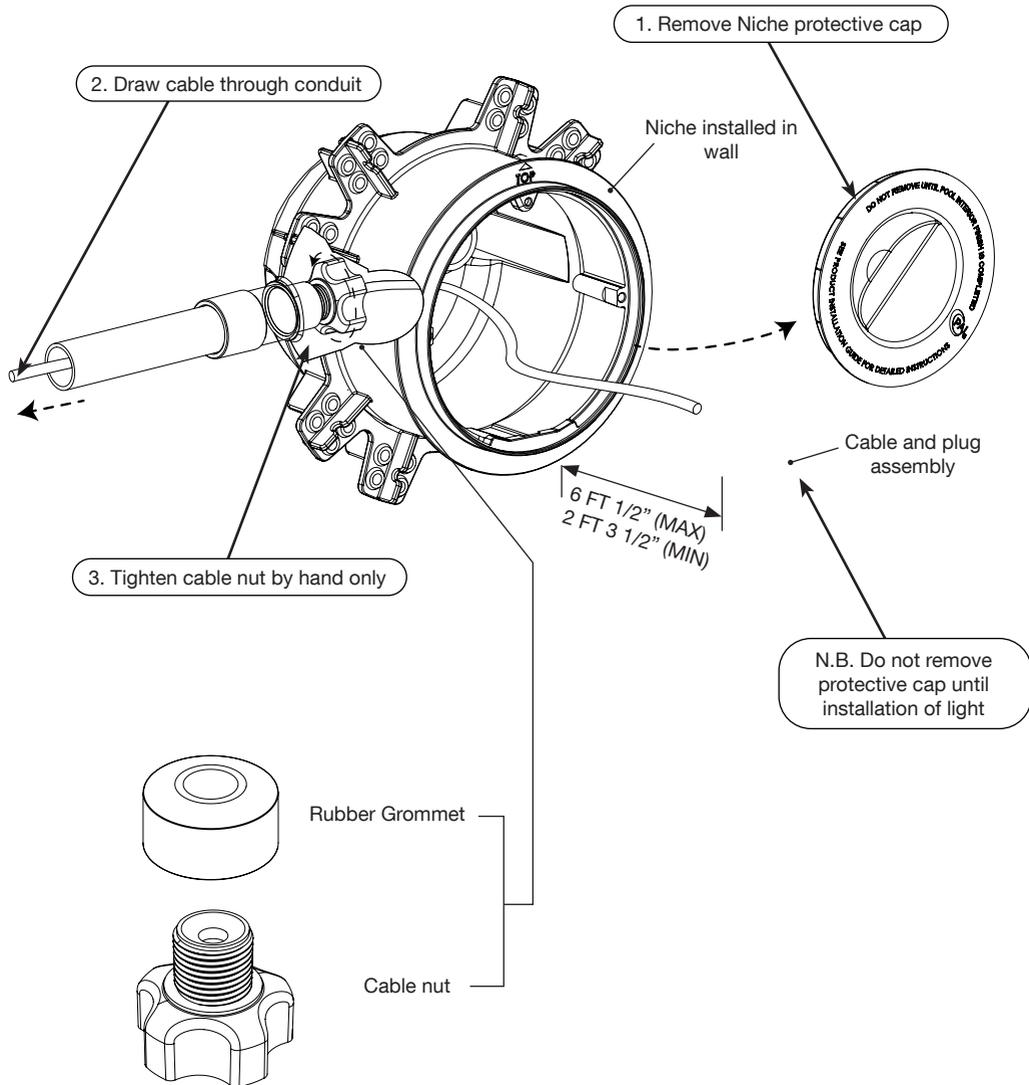
2" (MIN)  
CONCRETE  
COVERAGE

Niche can be trimmed if sticking out from concrete shell max 3/4"

3/4" (MAX)

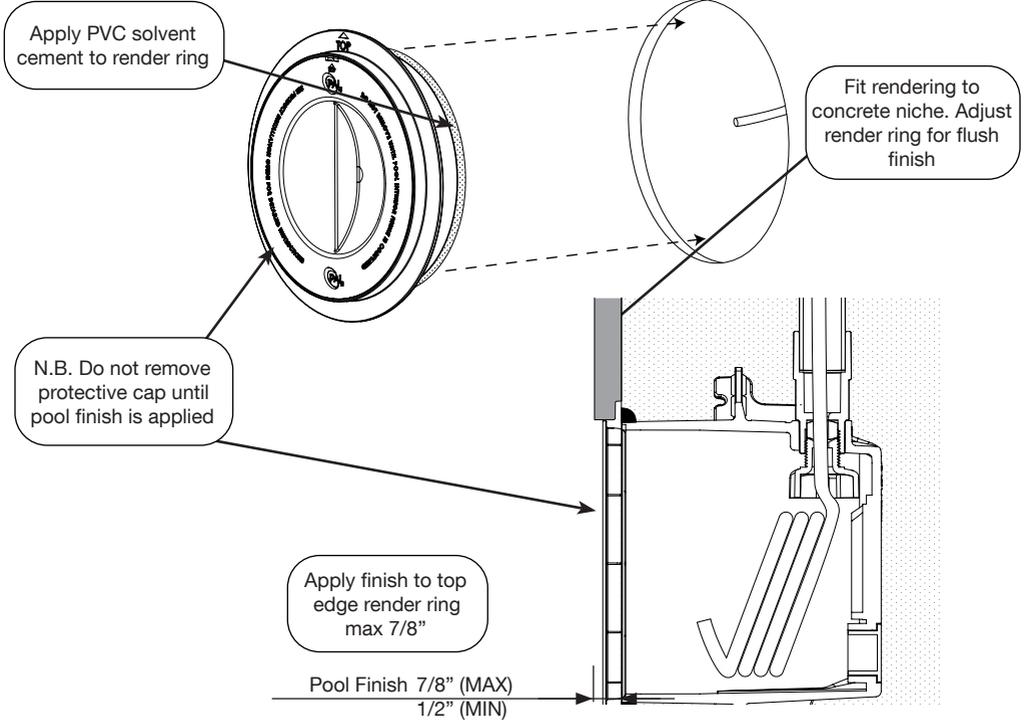
# NICHE INSTALLATION

## Installation of cable



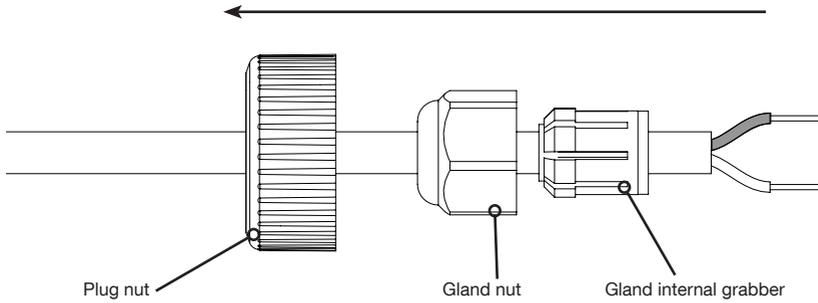
# NICHE INSTALLATION

## Pool Finish and Rendering

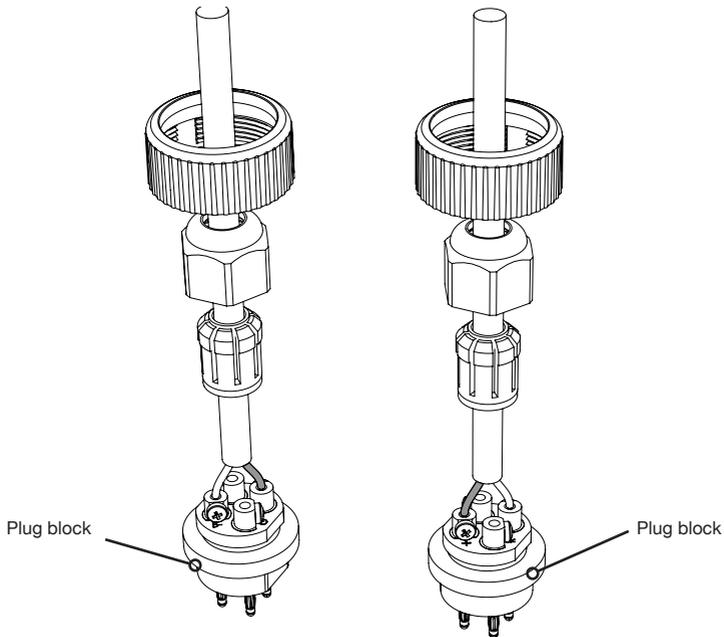


# Attach cable to retro field assembly plug

A) In correct order, feed plug nut, gland nut and then gland internal grabber (with rubber seal inside) over cable.  
\* Use appropriate cable gland size for existing cable gauge.

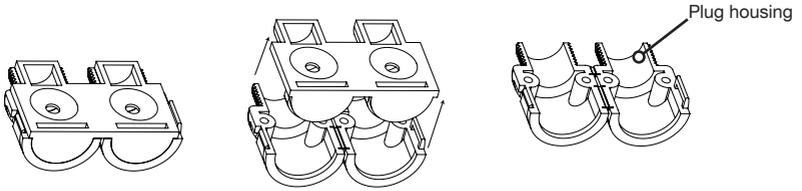


B) Insert the white wire into the socket marked B- on the plug block. Using a philips head screw driver secure the wire in place with the screw for that socket. Insert the black wire into the socket marked + on the plug block. Using a philips head screw driver secure the wire in place with the screw for that socket.

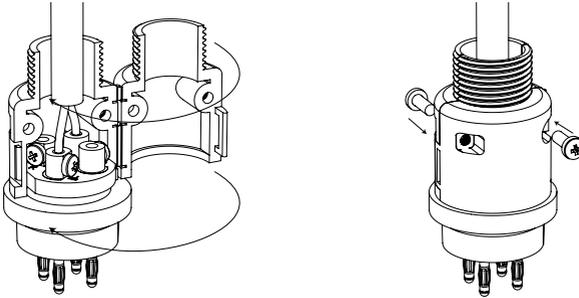


DO NOT OVER TIGHTEN

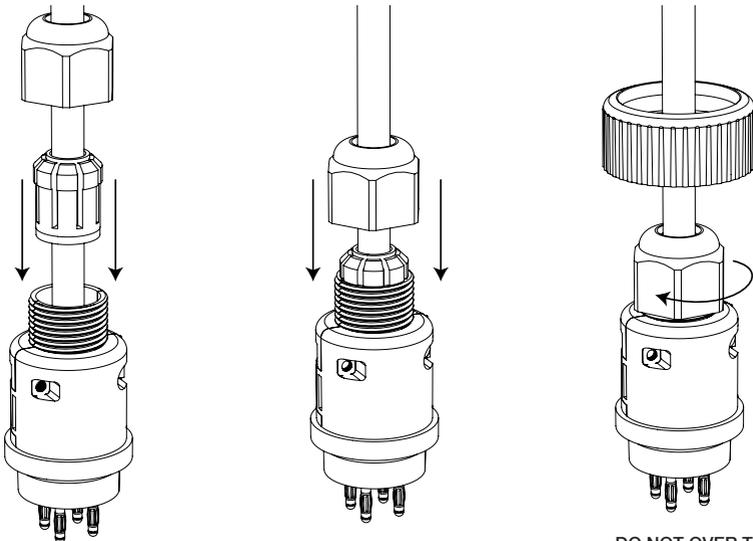
C) Remove protective cover from plug housing and discard.



D) Wrap plug housing around plug block with clip and secure with 2 x screws using philips head screw driver.



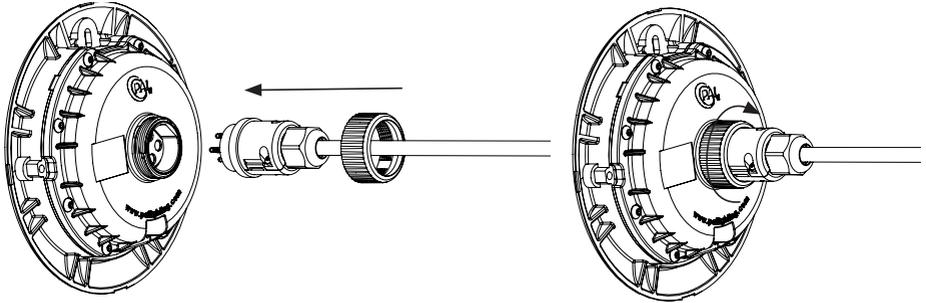
E) Push gland internal grabber into top of plug housing and screw on gland nut to secure cable onto plug housing.



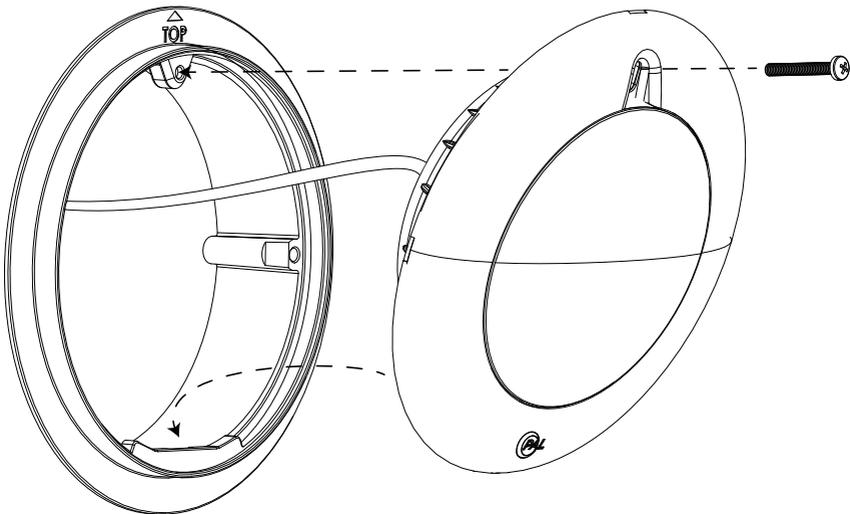
**DO NOT OVER TIGHTEN**

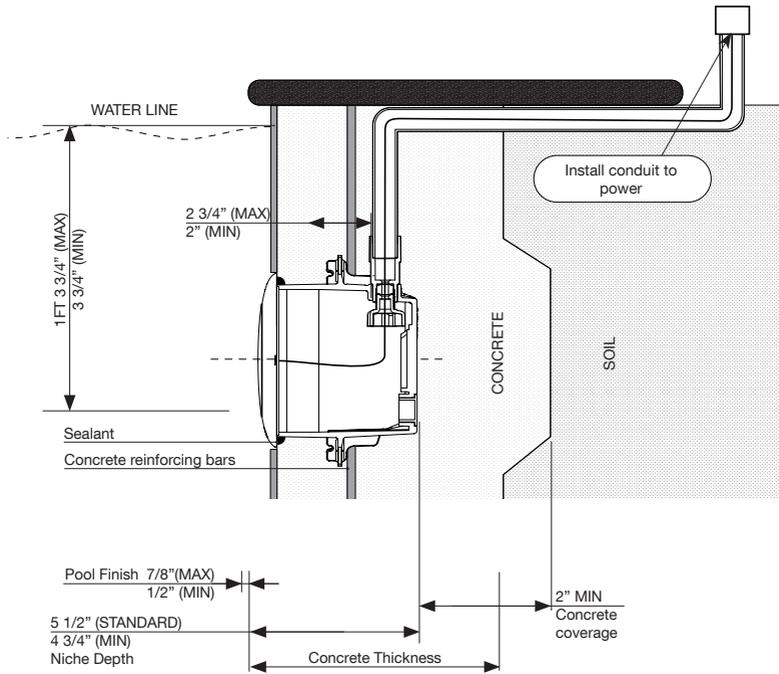
## 6) Install Light

A) Remove dust cap from back of Light and insert plug. Hand tighten nut clockwise on light.



B) Coil cable into niche and lever light in from bottom of dress ring, securing at top with screw. Do not use electric drill.



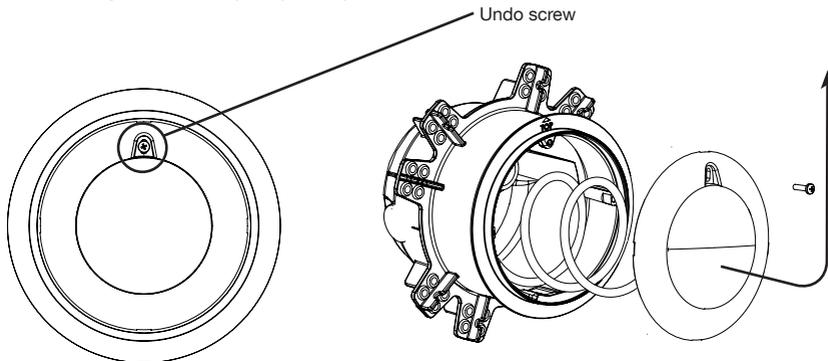


## 7) Turn on power

Turn on power at mains/lighting controller/transformer to ensure system is operational.

## Winterisation

Undo 2 screws and remove light from adapter plate. Lift light above water, dry and disconnect cable from light. Store cable and light with dust caps to protect pins.



## ELECTRICAL GROUNDING

Underwriters Laboratories (UL) Statement Per the NEC, NFPA 70, Article 680.23 (B)(5), states that bonding shall not be required for luminaires that are listed for the application and have no non-current carrying metal parts. In addition, per Article 680.26 (B)(4), exception states that Listed low-voltage lighting systems with non-metallic forming shells shall not require bonding. Therefore, luminaires with polymeric/non-current carrying metal parts are not required to be grounded / bonded.

### Manufacturers Statement

PAL Lighting with their plastic housing designs and plastic niches do not require grounding / bonding. PAL Lighting lights have also been determined to comply with the applicable requirements for wet-niche, LED type Swimming Pool and Spa Luminaires.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual.

# TERMS AND CONDITIONS

## PAL PRODUCT WARRANTY DETAILS

The PAL product is guaranteed against defects in materials and/or workmanship, under normal domestic use for (36) thirty six months.

Except as otherwise provided for by law, this guarantee becomes invalid if in the opinion of the Company the product has been misused, abused, damaged in transit, incorrectly installed, or connected to an electrical supply not corresponding with the products specification or a non-approved PAL power supply.

The Company is not responsible for forwarding freight charges or losses in transit.

If any part of the product proves to be defective within the warranty period, the defective part will be repaired or replaced, free of charge and at the discretion of PAL Lighting.

PAL Lighting shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever arising directly or indirectly from PAL Lighting products.

PLEASE REGISTER YOUR PRODUCT WARRANTY DETAILS ONLINE AT:

<https://pallighting.com/product-registration/>

OR You MUST retain some proof of purchase to provide evidence of the DATE of the original purchase.



Scan QR Code for Product Information, Instructions, Apps and more info