Neptune

By **Pool Pro**

for swimming pools

LED
POOL LIGHT
USER MANUAL & INSTALLATION GUIDE

Congratulations on your purchase of your new Neptune LED Pool Light – this is the most advanced LED leak-proof sealed ceramic technology. Your Neptune LED Pool Light will provide you with years of trouble-free use and enjoyment. The Neptune LED Pool Light features fully sealed leak-proof technology which has been proven internationally for many years. Your new Neptune LED Pool Light consumes less power, runs cooler, requires no maintenance, and you will never have to change a globe in your pool light again.

Thank you for supporting Pool Pro Products. Please read this manual carefully, and observe the following installation and safety information before installing, maintaining or troubleshooting your Neptune LED Pool Light.

While every effort has been made to ensure that the information contained in this guide is accurate and complete, no liability can be accepted for any errors or omissions. Pool Pro reserves the right to change the specifications described herein at any time without prior notice.

CONTENTS

WARNINGS

This manual contains important information about the installation, operation and safe use of this product, and should be given to the owner and/or operator of this equipment. When installing and using this equipment, basic safety precautions should always be followed. Failure to follow safety warnings and instructions in this manual can result in serious injury and/or damage to your equipment. Before installing this product, read and follow all warnings and instructions.

- Failure to follow these instructions or improper installation of the pool light can result in damage to the light or electrical equipment.
- The power supply internally contains live electrical components. There is a danger of electric shock if opened.
- If the carton or product has been damaged or is wet: do not install the product, contact your Pool Pro stockist.
- Ensure that the lighting system is installed by a suitably qualified person only (eg. licensed pool builder, qualified pool technician or qualified electrician), in accordance with AS/NZS 3000:2007 Standards.
- For safe and proper installation, ensure that only those parts supplied with the system are used.
- The pool light **MUST** only be switched on under the water. Your Neptune Pool Light must be water cooled at all times. Do not switch the light on until installation is complete and the light is fully submerged in water.
- Do not permit children, or persons with reduced physical, sensory or mental capabilities to use or perform maintenance on this product.
- The pool light is extremely bright, please **DO NOT** look directly at the light as it may damage your eyes.
- **ANY POWER TOOLS INCLUDING CORDLESS DRILLS MUST <u>NOT</u> BE USED TO INSTALL THIS EQUIPMENT.**
- RISK OF ELECTRICAL SHOCK OR ELECTROCUTION. This underwater light fixture must be installed by a qualified electrician or a qualified pool technician in accordance with all applicable local codes and standards. MUST be connected to a 12-24 volt transformer. Improper installation may 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 power to the pool light before servicing. DO NOT connect your new Neptune LED Pool Light to any transformer with an output voltage greater than 24 volts, incorrect voltage supply may damage your light and void warranty. All pool lights **MUST** be turned on under the water only.

TECHNICAL INFORMATION

LED Type	1 Piece Super Bright COB (Chip On Board) LED
Material	Resin / ABS Plastic
Protection Class	IPX8 / Rohs / CE / SAA / IEC60598
Dimensions	272L x 272W x 50H (mm)
Power	20W Single Colour / 15W RGB
	12V-24V AC/DC
Connection	Screw Terminal with Lanolin Grease
Light Angle	120-150 Degrees
Illumination	1500 lumens
RGB System	Preset 11 Colour Changing Program Controlled by Power On/Off Switch
Transformer Power Supply	PPLV30-12 - 12VAC 30VA - 1 Pool Light
	PPLV60-12 - 12VAC 60VA - 2 Pool Lights
	PPLV90-12 - 12VAC 90VA - 3 Pool Lights
	PPLV120-12 - 12VAC 120VA - 4 Pool Lights
Warranty	24 Months

PACKAGING CONTENTS

Neptune LED Pool Light x1
(supplied with all models)

User Manual x1
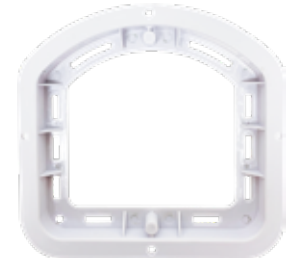*(supplied with all models)*

20m Cable x1
(only supplied with model NPLC)

Concrete Mounting Bracket x1
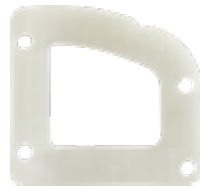*(only supplied with surface mount concrete models NPLR and NPLC)*

Fibreglass Mounting Bracket x1
(only supplied with surface mount fibreglass models NPLR and NPLC)

Pebble Ring x1
(only supplied with surface mount concrete model NPLC)

Gland Housing x1
(supplied with all models)

Silicone Gasket x1
(supplied with all models)

Gland Nut x1
(supplied with all models)

Rubber Gland x5
(supplied with all models)

Gland Grommet x1
(supplied with all models)

Gland Nut Tool x1
(supplied with all models)

OR

Lanolin Grease x1
(supplied with all models)

Retaining Clip x1
(supplied with concrete and fibreglass models NPLR and NPLC)

12mm Stainless Steel Screw x4
(supplied with all models)

14mm Stainless Steel Screw x2
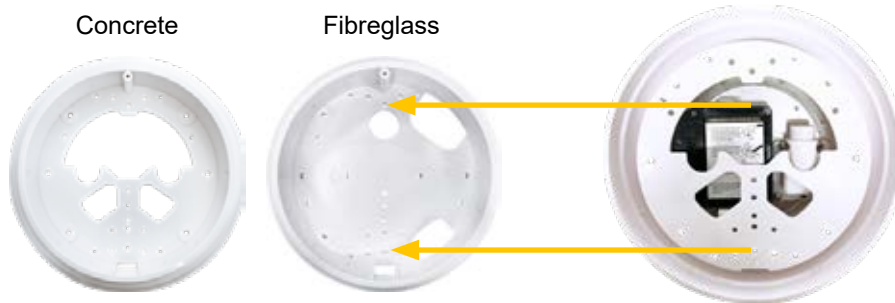*(supplied with all models)*

30mm Stainless Steel Screw x4
(only supplied with surface mount concrete and fibreglass models NPLR and NPLC)

10mm Stainless Steel Screw x3
(supplied with concrete and fibreglass models NPLR and NPLC)
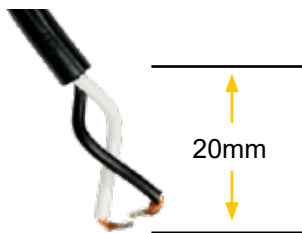
INSTALLATION - RETRO LIGHT

1. Turn off power to transformer and disconnect existing pool light cable from transformer.

2. Remove the existing pool light from wall.

3. Disconnect cable from existing pool light.

4. Remove mounting bracket of existing pool light from wall.

5. Select the existing mounting holes on the appropriate mounting bracket.

Concrete   Fibreglass

6. Affix the mounting bracket to the pool wall using the 30mm bracket screws and hand-tighten (do not use power tools or cordless drills). Ensure that the 'UP' marking on the mounting bracket is facing up.

7. Select an appropriate gland suitable for the thickness of the existing cable. The gland should fit the cable firmly but not too tightly.

8. Strip the pool light cable.

20mm

9. Insert the rubber gland into the gland grommet. Slide the gland nut & grommet over the cable. Slide gland housing over cable, and tighten the gland nut to gland housing using the gland nut tool supplied (ensuring not to over tighten).

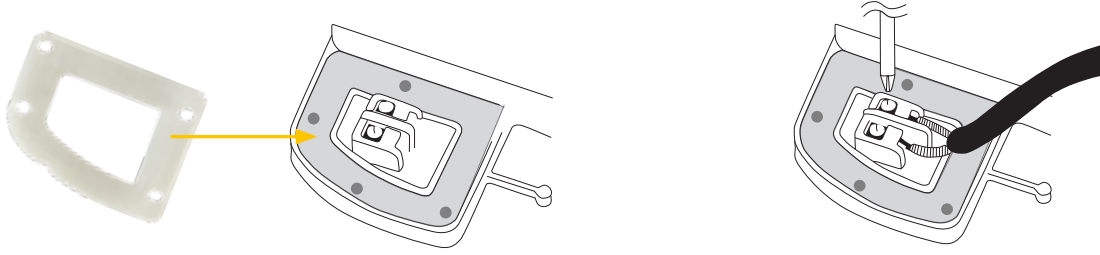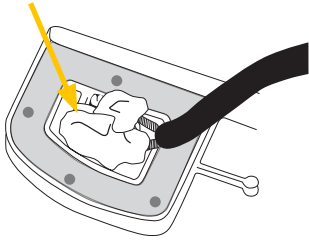Gland nut tool
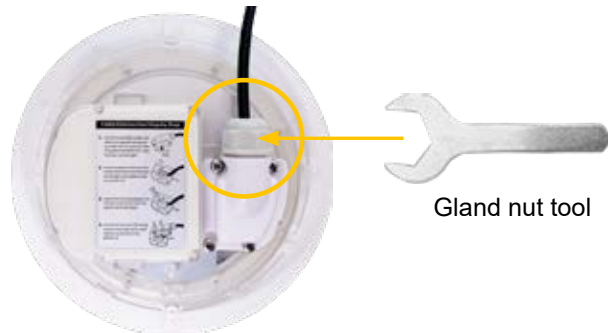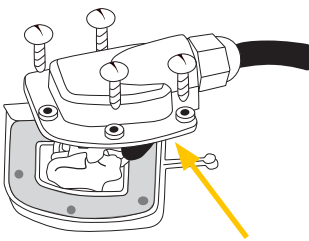
A   B   C   D

10. Place silicone gasket into recess on the back of the light. Insert stripped wires into the screw connectors on the back of the light, and hand-tighten with a phillips head screwdriver (do not use power tools or cordless drills).

11. Inject the lanolin grease into the wire connector and ensure all wires are covered in the plastic terminal cover.

12. Inject lanolin grease into gland housing then secure firmly with the 12mm fixing screws and hand-tighten (do not use power tools or cordless drills). Use the gland nut tool supplied to check the gland nut is still secure. Wipe away any excess grease.

Gland nut tool

13. Secure the light retaining clip with supplied 10mm fixing screws and hand-tighten (do not use power tools or cordless drills).

14. Lower the light into the water. As you are lowering, wrap the cable around the back of the light.

15. Insert the light into the base of the mounting bracket and move light into position. Lock it into place with the retaining clip.
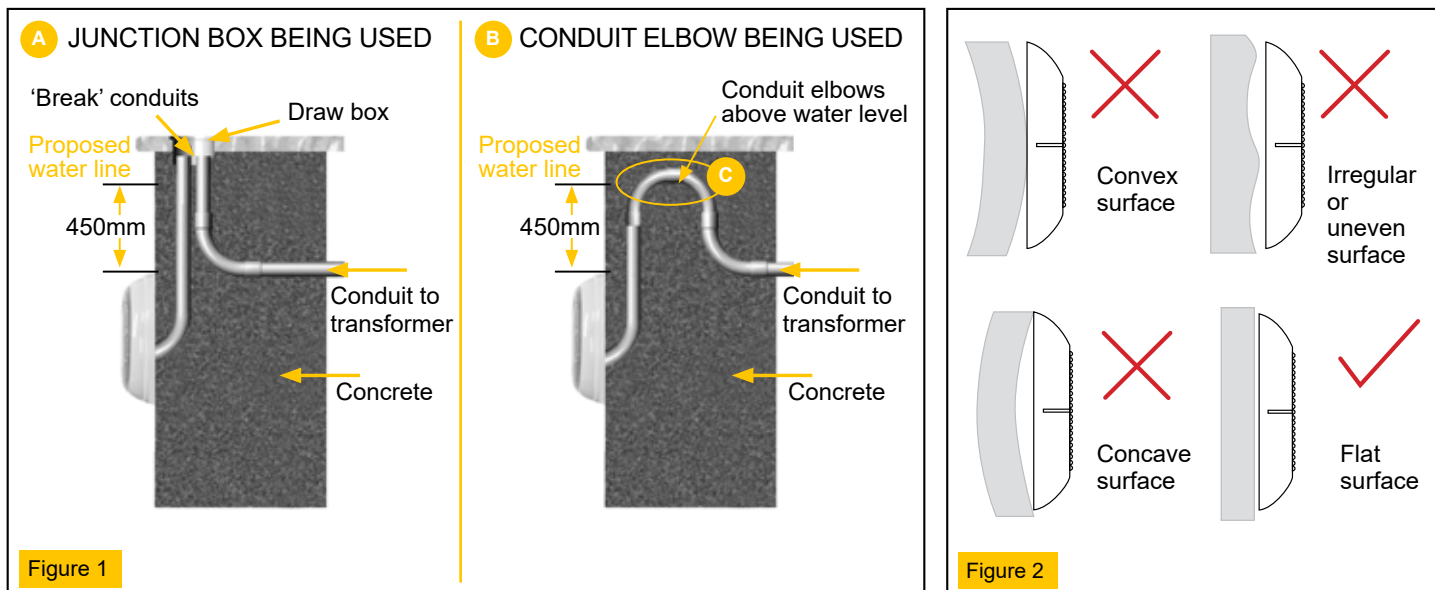
    Push the light fully into the mounting bracket then insert the 14mm screw into the hole at the top of the light and hand-tighten (do not use power tools or cordless drills).

Lock in place

16. Reconnect pool light cable to transformer.

17. Turn light on.

18. See page 13 for operating instructions on Neptune RGB Pool Light.

PREPARATION - SURFACE MOUNT LIGHT

Preparations must be completed by the electrician or pool builder before light is installed. See Figure 1.

A JUNCTION BOX BEING USED

'Break' conduits
Draw box
Proposed water line
450mm
Conduit to transformer
Concrete

Figure 1

B CONDUIT ELBOW BEING USED

Conduit elbows above water level
Proposed water line
450mm
C
Conduit to transformer
Concrete

Convex surface
Irregular or uneven surface
Concave surface
Flat surface

Figure 2

i.   Ensure that the electrical system of the pool conforms to the requirements of all local codes and standards. A licensed electrician must install the electrical system to meet those requirements before the Neptune Pool Light is installed.

    The mounting bracket must be properly installed so that the edge of the face plate of the Neptune LED Pool Light is at least 450mm below the surface of the water in the pool. See Figure 1 above.

ii   The mounting bracket MUST be installed on a flat surface. See Figure 2 above.

iii. Perform the following installation steps after the electrical system requirements are met.
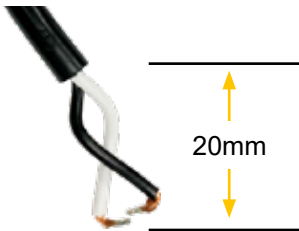
INSTALLATION - SURFACE MOUNT LIGHT

1. Install pool light cable and ensure at least 1m is left at the pool end. This extra cable allows you to bring the lights out of the pools for servicing.

2. Install pebble ring on the concrete pool wall where your LED light is to be mounted (only for concrete pools).

3. Pull the cable through the large opening of the mounting bracket. Affix the mounting bracket to the pebble ring using the 30mm bracket screws and hand-tighten (do not use power tools or cordless drills) Ensure that the 'UP' marking on the mounting bracket is facing up.

4. Select an appropriate gland suitable for the existing cable. The gland should fit the cable firmly but not too tightly.

5. Strip the pool light cable.

20mm

6. Insert the rubber gland into the gland grommet. Slide the gland nut & grommet over the cable. Slide gland housing over cable, and tighten the gland nut to gland housing using the gland nut tool supplied (ensuring not to over tighten).
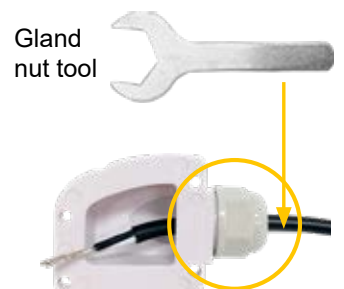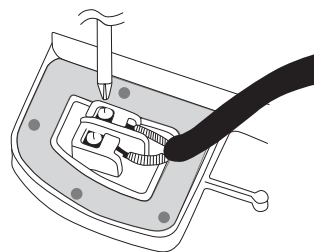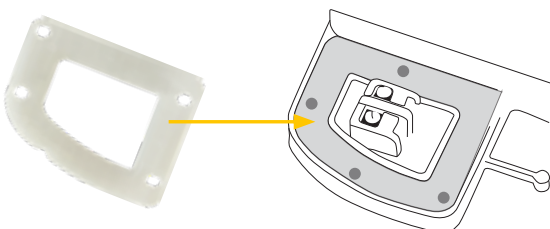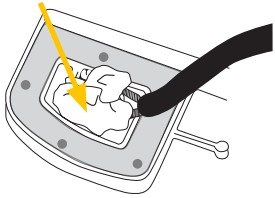
Gland nut tool

A   B   C   D

7. Place silicone gasket into recess on the back of the light. Insert stripped wires into the screw connectors on the back of the light, and hand-tighten with a phillips head screwdriver (do not use power tools or cordless drills).
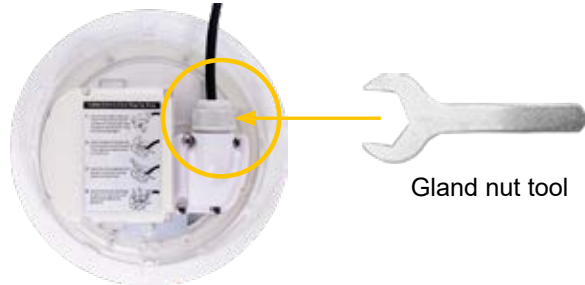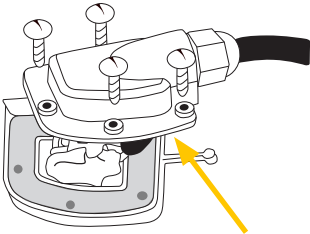
www.poolpro.com.au

8. Inject the lanolin grease into the wire connector and ensure all wires are covered in the plastic terminal cover.

9. Inject lanolin grease into gland housing then secure firmly with the 12mm fixing screws and hand-tighten (do not use power tools or cordless drills). Use the gland nut tool supplied to check the gland nut is still secure. Wipe away any excess grease.
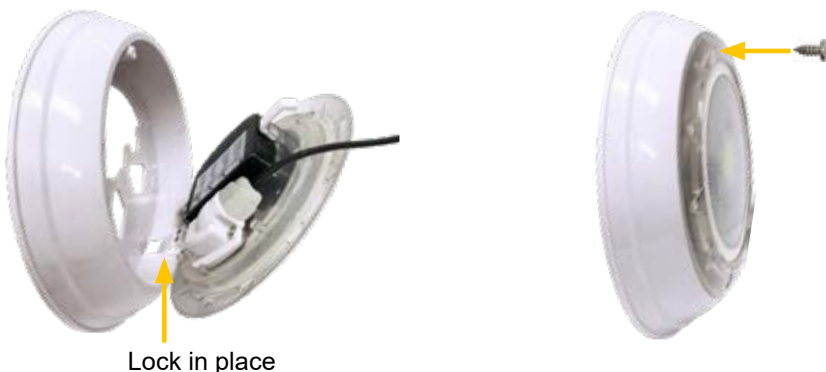

Gland nut tool

10. Secure the light retaining clip with supplied 10mm fixing screws and hand-tighten (do not use power tools or cordless drills).

11 Lower the light into the water. As you are lowering, wrap the cable around the back of the light.

12. Insert the light into the base of the mounting bracket and move light into position.
Lock it into place with the retaining clip.
Push the light fully into the mounting bracket then insert the 14mm screw into the hole at the top of the light and hand-tighten (do not use power tools or cordless drills).
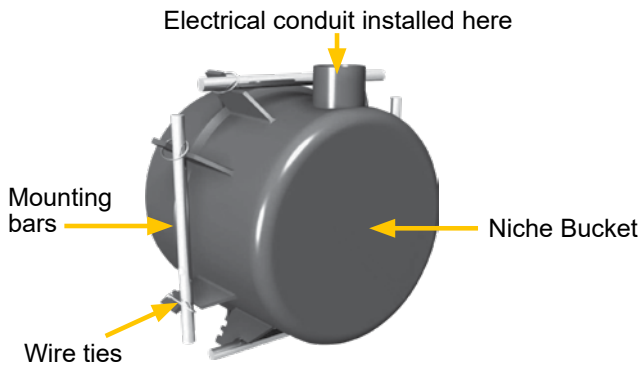

Lock in place

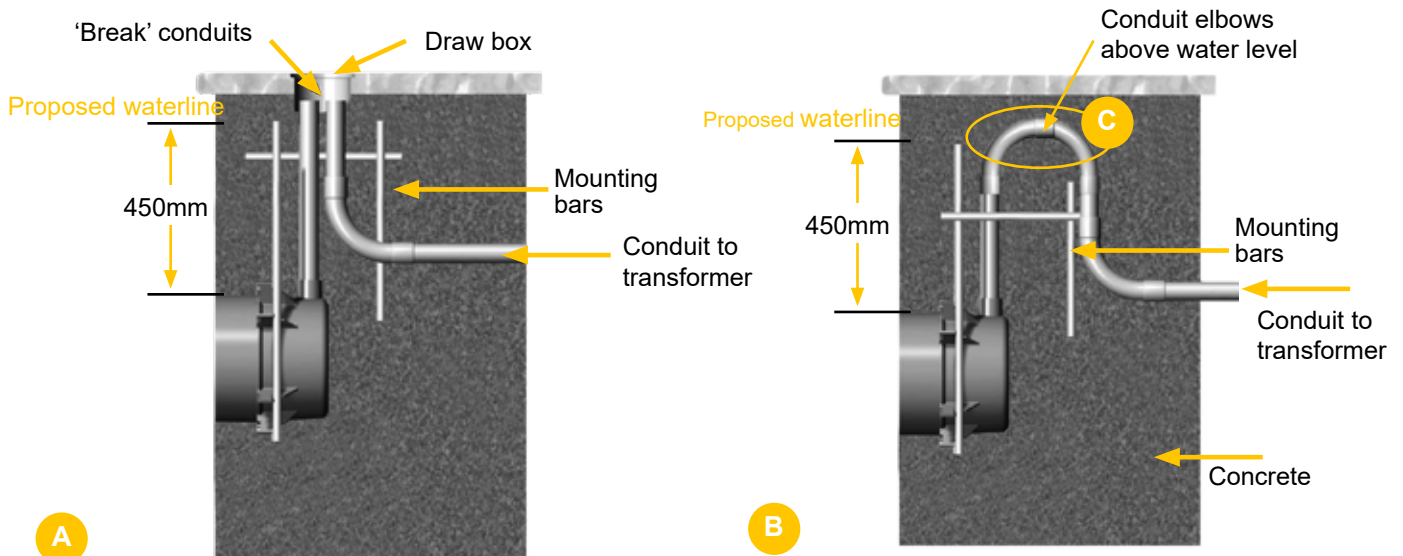13. Reconnect existing pool light cable to transformer.

14. Turn light on via transformer.

INSTALLATION - NICHE (Concrete Pools)

1. Before the contractor completes the concrete spraying, using wire ties or similar, attach the niche bucket to the steel mounting bars vertically.

Electrical conduit installed here

Mounting bars

Wire ties

Niche Bucket

2. Using PVC primer and solvent cement, insert and glue 25mm electrical conduit into the top of the niche. Make sure the conduit is extended above the water level of the pool.
   Note: Allow for 50mm of concrete coverage around the niche to ensure sufficient space.

3. A: A second conduit needs to be installed to return below ground level and away to the transformer location. Cover the conduit and draw wires with a draw box or similar.
   B: If a junction box is not used, make sure conduit elbows are raised above the pool water level to avoid siphoning of pool water. (See figure C)

'Break' conduits

Draw box

Proposed waterline

450mm

Mounting bars

Conduit to transformer

A

Conduit elbows above water level

C

Proposed waterline

450mm

Mounting bars

Conduit to transformer

Concrete

B

4. Place the temporary styrofoam inserts into the niche bucket and mounting ring. This is to prevent concrete from entering the niche during spraying.
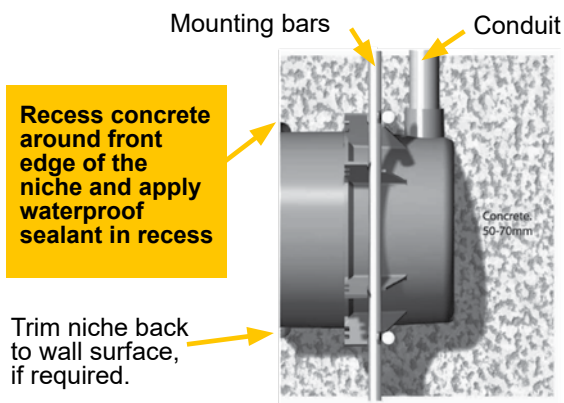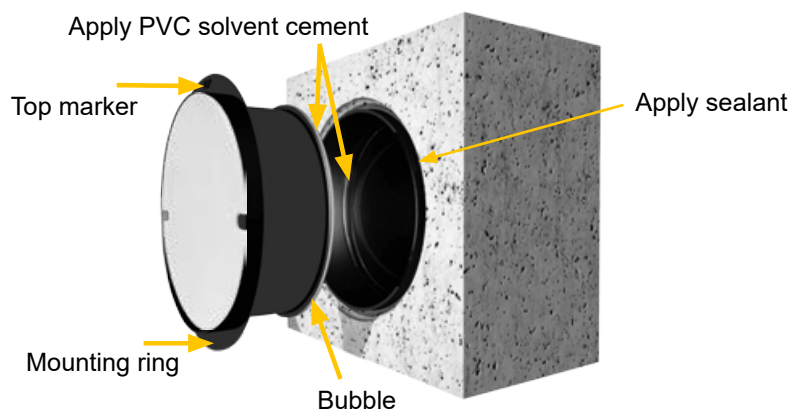
Niche bucket

Mounting ring

5. When spraying concrete, ensure around the entire niche is covered leaving the front edge clear. To avoid the pool leaking, make sure the concrete is well compacted at the base and around the rear of the niche.
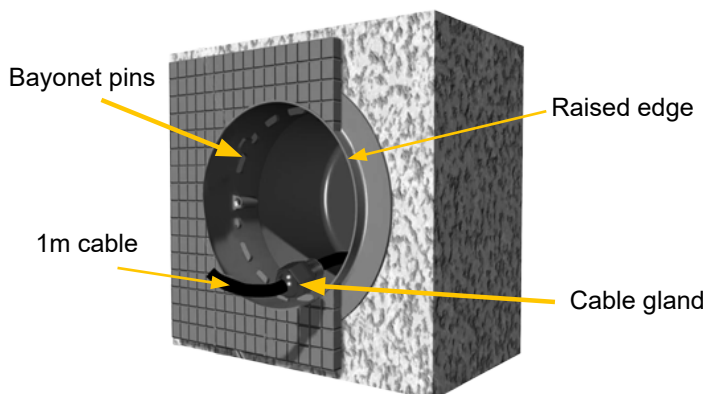

Mounting bars

Conduit

Recess concrete around front edge of the niche and apply waterproof sealant in recess

Concrete. 50-70mm

Trim niche back to wall surface, if required.

6. When prepping for pool surface, remove the temporary styrofoam insert from the niche bucket. Apply a waterproof sealant in the recess between the niche and the concrete wall.

7. Apply PVC solvent cement to the inside of the niche where the mounting ring is likely to finish, and also to the bubble at the rear of the mounting ring.

Apply PVC solvent cement

Top marker

Apply sealant

Mounting ring

Bubble

8. With 'TOP' arrow facing up, insert mounting ring into niche until flush against the pool wall. Note: The mounting ring must be parallel with the pool wall as the interior pool surface must be level with this ring.
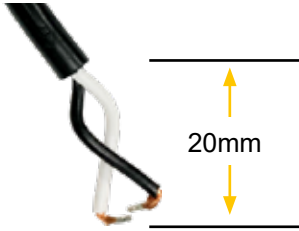
9. Level the interior pool surface with the raised edge of the mounting ring. To ensure the correct fitting of the light, the interior pool surface must not finish higher than the raised edge of the mounting ring. When the pool surface is completed, remove the temporary styrofoam insert from the mounting ring.

Bayonet pins

Raised edge

1m cable

Cable gland

10. Select an appropriate gland suitable for the existing cable. The gland should fit the cable firmly but not too tightly.
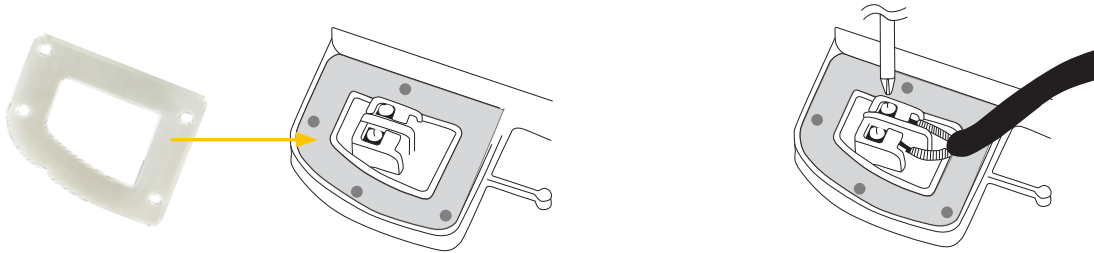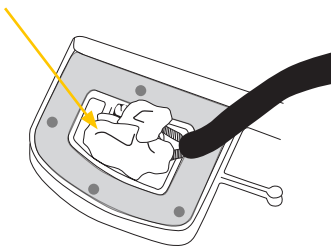
11. Strip the pool light cable.

20mm

12. Insert the rubber gland into the gland grommet. Slide the gland nut & grommet over the cable. Slide gland housing over cable, and tighten the gland nut to gland housing using the gland nut tool supplied (ensuring not to over tighten).

Gland nut tool

A   **B**   **C**   **D**

13. Place silicone gasket into recess on the back of the light. Insert stripped wires into the screw connectors on the back of the light, and hand-tighten with a phillips head screwdriver (do not use power tools or cordless drills).
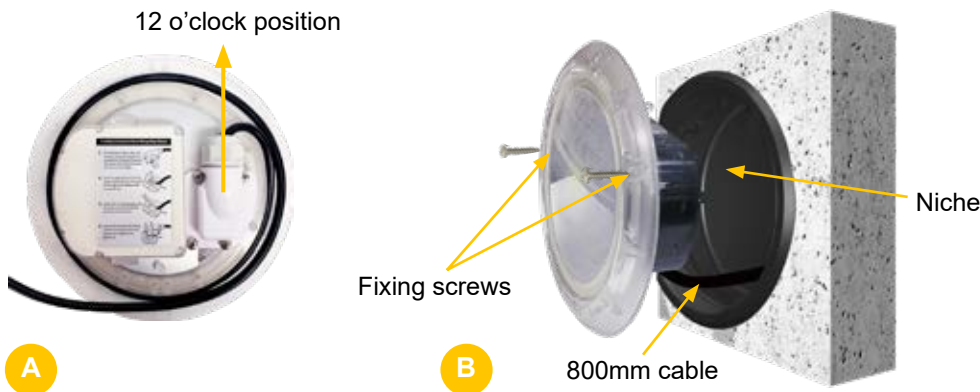

14. Inject the lanolin grease into the wire connector and ensure all wires are covered in the plastic terminal cover.

15. Inject lanolin grease into gland housing then secure firmly with the 12mm fixing screws and hand-tighten (do not use power tools or cordless drills). Use the gland nut tool supplied to check the gland nut is still secure. Wipe away any excess grease.
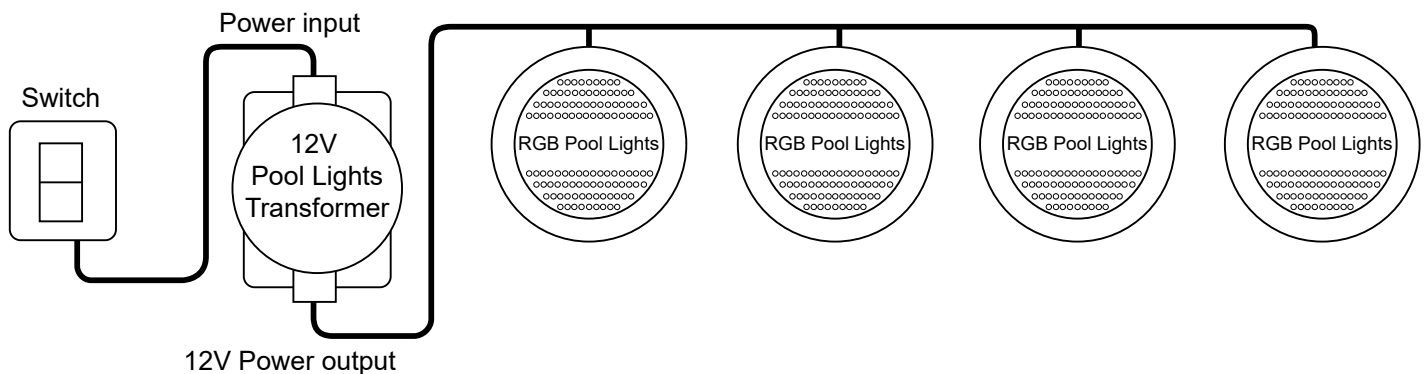

Gland nut tool

16. In a clockwise rotation, coil the remaining cable into the niche. Continue until all of the cable is inside the niche and the plug top is at the 12 o'clock position on the light. Gently slide the light back into the niche. Use the two fixing screws provided and gently hand-tighten (do not use power tools or cordless drills).

12 o'clock position

A

Fixing screws

Niche

800mm cable

B

RGB COLOUR CHANGING CONTROLLER SYSTEM

1. Neptune LED Pool Lights should be installed on the same transformer on the same switch. See page 3 for transformer model required for the amount of lights installed.

2. To achieve the synchronisation when installing multiple lights, make sure each light is installed correctly and on the same circuit.

Example of PPLV120-2 - 12VAC 120VA - 4 Pool Lights

Switch

Power input

12V Pool Lights Transformer

RGB Pool Lights

RGB Pool Lights

RGB Pool Lights

RGB Pool Lights

12V Power output

3. Turn the light on and leave on for more than 10 seconds, the RGB default colour program will start.

4. To select a desired colour, turn the light off and on, every 1-2 seconds until you find your desired colour, leave light switched on. This will save your chosen colour.

5. To return back to number 1 of RGB Default Colour Program, turn light off for 3-6 seconds and turn back on. This will turn the light back to RGB Default Colour Program, Ocean Blue (Number 1).

RGB DEFAULT COLOUR PROGRAM

1 Ocean Blue – One colour blue
2 Neutral White – One colour white
3 Ocean Green – One colour green
4 Deep Blue Sea – Slow animation for blue
5 Sky Blue – green and blue
6 Glass Land – blue and green

7 Sunset – red, green and blue
8 Pink Lady – red and blue
9 Orange Road – red and green
10 Party – Fast animation for all colours
11 Sun Set – Slow animation for red

DISCLAIMER

Information in this guide is intended to provide general information on a particular subject(s) in good faith and is not an exhaustive treatment of such subject(s). Its use is beyond the control of the author, contributor, publishers and distributors and should not be relied upon without consulting your local Pool Pro Professional for comprehensive advice. This guide includes subject(s) that should only be performed by or under the direction and advice of your local Pool Pro Professional and under no circumstances should the guide be used as a substitute for such professionals.

No representations or warranties are made that the content, advice and recommendations in this guide are current, free from errors or omissions, or appropriate for the user's circumstances or abilities. No liability or responsibility is accepted for any loss suffered as a result of any user's reliance on such content.

Pool Pro reserves the right to refuse warranty if any damage is caused to the pool light or auxiliary pool equipment that is not a result of a manufacturer's defect.

LIMITED WARRANTY

Pool Pro warrants the Neptune LED Pool Lights only for the original purchaser and is non-transferable. Pool Pro warrants the Neptune LED Pool Lights to be free of manufacturer's defects in materials and workmanship for a limited period of two (2) years from the date of original purchase for domestic applications only (non-commercial applications on a single-dwelling residential site).

Pool Pro warrants the Neptune LED Pool Lights to be free of manufacturer's defects in materials and workmanship for a limited period of twelve (12) months from the date of original purchase for commercial applications.

Warranty excludes damage caused by negligence, improper use, failure to undertake regular maintenance, lack of care when using the product, incorrect installation, nor does it cover normal wear and tear of the Light's components, corrosive and aggressive climate or location, insect or vermin infestation or any other event beyond the control of the manufacturer.

Pool Pro shall not be liable for any damage to any pool surface directly or indirectly caused by the Neptune Pool Light.

This product is only warranted for its intended use, in domestic swimming pool installations. Water quality must be maintained in accordance with AS 3633-1989 Australian Standard Private Swimming Pools Water Quality. Failure to comply with these standards will void warranty.

Repairs under warranty can only be performed by an authorised nominated Pool Pro repair agent. Proof of purchase must be shown to validate warranty.

Any liability of the manufacturer pursuant to the Trade Practices Act 1974, as amended for a breach of a condition or warranty shall be limited to replacing or acquiring the equipment (or part thereof) where the same has been supplied.

The maximum liability incurred by the manufacturer shall not in any case exceed the contract price for the equipment or the product parts or components thereof claimed to be defective. Further, the manufacturer shall not be liable for any loss, damage or delay directly or indirectly caused by any malfunction of or defect of or failure of the equipment other than as expressly provided in this warranty.

In the unlikely event that you have a problem with any Pool Pro product, simply contact Pool Pro or lodge an online claim at www.poolpro.com.au/serviceclaim.

TECHNICAL SUPPORT

For product support contact your local distributor or Pool Pro directly.

Pool Pro:
Tel 1800 143 788   **Fax** 1800 778 820
Email service@poolpro.com.au   **Web** www.poolpro.com.au

PRODUCT REGISTRATION

Please register your product online at **www.poolpro.com.au/product-registration** within 30 days from date of purchase, or any warranty claim may be voided.

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