



QUANTUM

WN SERIES

FOR CONCRETE &
FIBREGLASS POOLS

HIGH-OUTPUT NICHE LIGHT

**INSTALLATION &
OWNER'S MANUAL**

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PRODUCT SUPPORT & INFORMATION

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INTRODUCTION



Congratulations on your purchase of a Spa Electrics underwater lighting system. Spa Electrics, specialists in underwater lighting have been designing and manufacturing underwater lighting systems since 1976, with a focus on quality and reliability. All Spa Electrics lights are manufactured in Australia from only the highest quality materials.

In order to maintain a long product life and hassle free operation, please take the time to become familiar with the following information.

Installation:

- Ensure that the lighting system is installed by a suitably qualified persons only (eg. registered pool builder and/or qualified electrician), in accordance with AS/NZ 3000:2007 standards.
- For safe and proper installation, ensure that only those parts supplied with the system are used.
- Lights should only be installed to a maximum depth of 400mm.
- The use of power tools such as cordless / 240v drills during installation is NOT recommended as these devices can damage the light fitting.

Cleaning:

- Should your underwater light require cleaning at any stage, be sure to only use a mild detergent. Products such as methylated spirits can weaken certain parts of the fitting.

Use:

- Your underwater 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.
- To ensure maximum life, your light should be used regularly throughout the year, ie. once per week.
- The WN-Series has been designed for commercial use and can be operated for continuous periods of time.

INSTALLATION (CONCRETE POOLS)

1

ATTACH NICHE TO REINFORCEMENT BARS

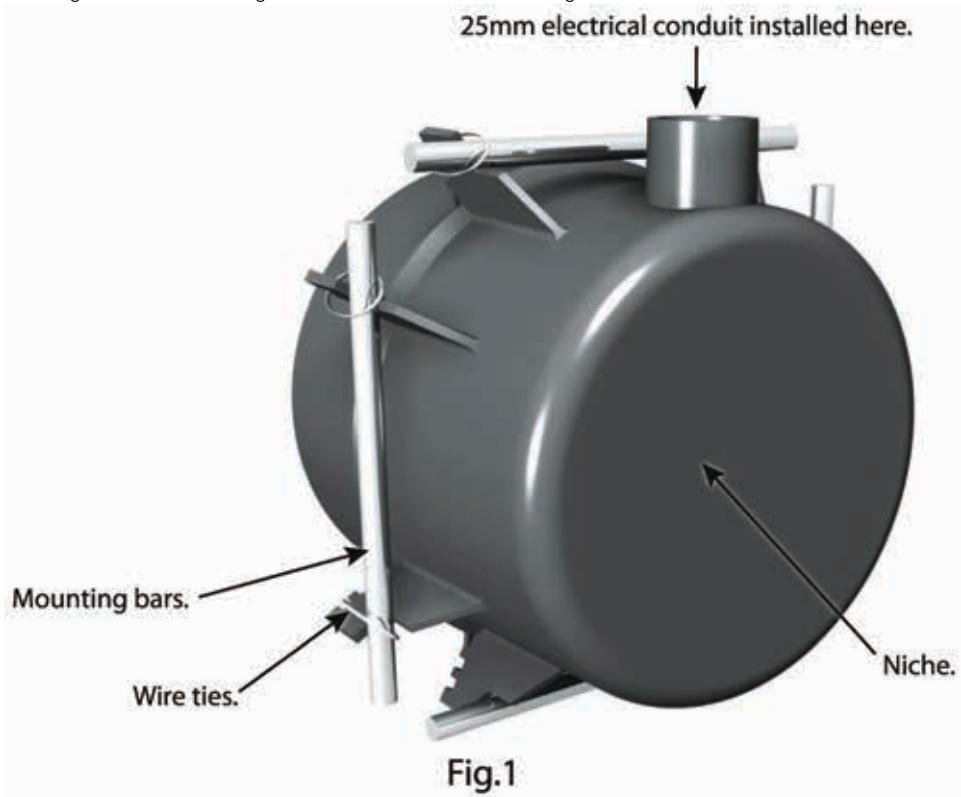
(Before spraying concrete)

Attach the niche to either horizontal or vertical steel mounting bars using wire ties or similar. Ensure conduit entry is at the top of the niche. (Fig. 1)

CAUTION:

Lights should only be submerged to a maximum depth of 400mm to the top of the light, any deeper and the warranty will be void.

These lights are not designed for horizontal mounting.



2

INSERT AND GLUE 25mm CONDUIT INTO NICHE

Glue length of 25mm electrical conduit into top of niche using PVC solvent cement. Conduit should extend above the water level of the pool.

CAUTION: Ensure that sufficient area behind the niche is dug out to allow for 50mm of concrete coverage around the entire niche.

3

INSTALL SECONDARY CONDUIT

Attach a second conduit to return below ground level and away to the location of the transformer. Conduit should contain a draw wire and be covered with a draw box (part No. SE5) or similar to allow for later access. (Fig 2)

CAUTION: If a junction box is not used, ensure that conduits are 'broken' before returning below water level, to stop siphoning of water from pool or spa.

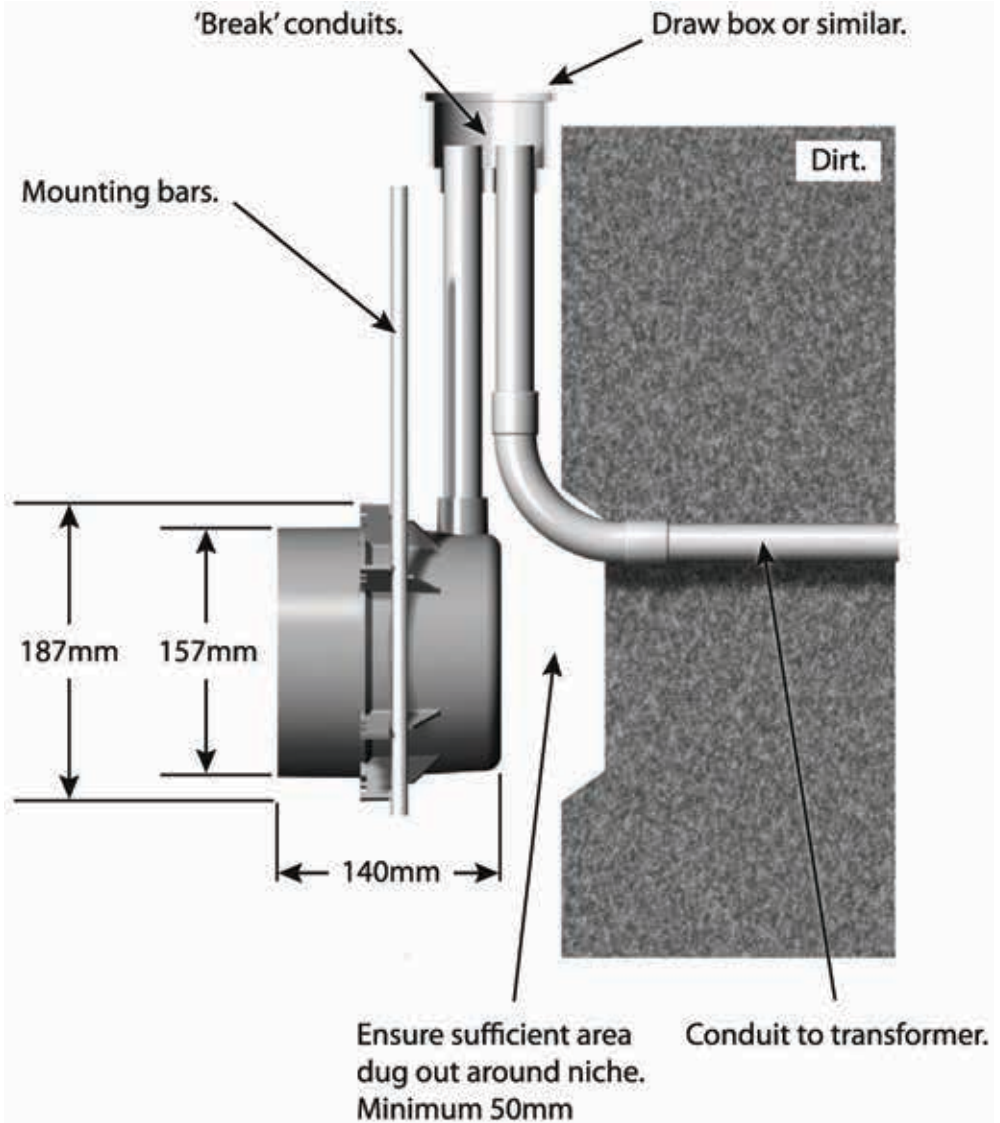


Fig.2

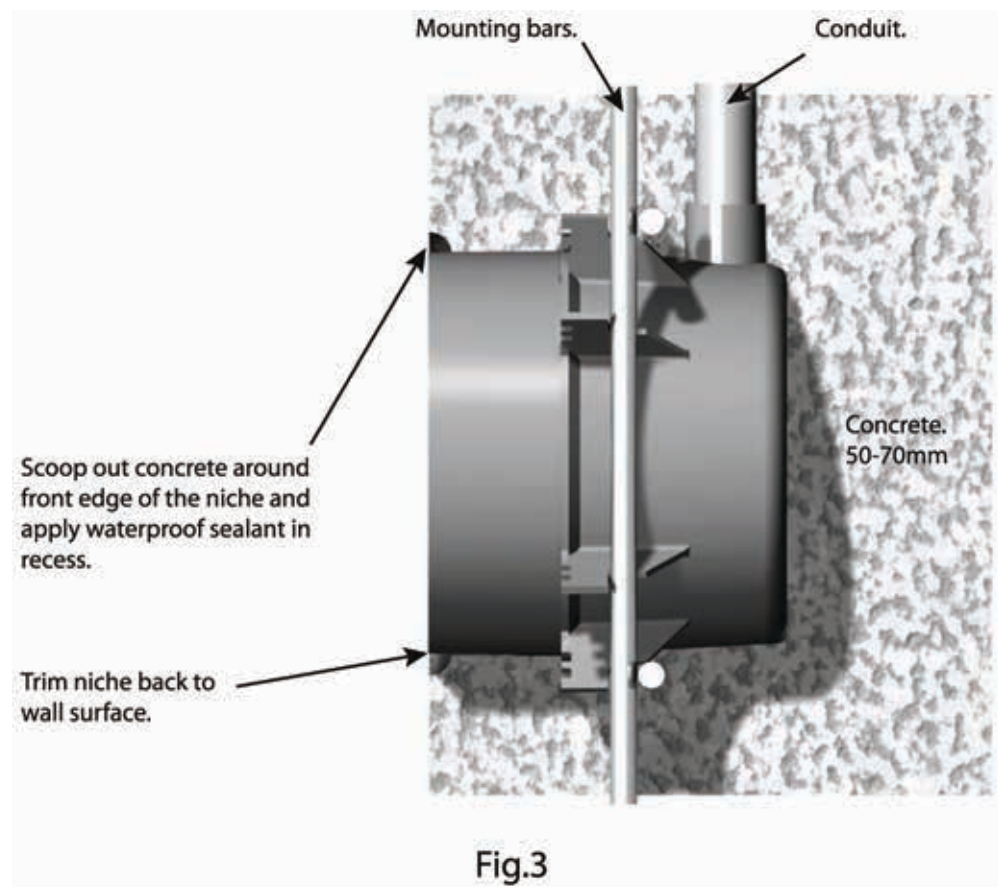
4

CONCRETE SPRAYING

Spray concrete, paying particular attention to covering the entire niche, using fingers, scoop out the concrete around the front edge of the niche. (Fig 3)

WARNING: Ensure that the concrete is well compacted around the rear and base of the niche, otherwise the pool may leak.

CAUTION: The front of the niche should not be recessed into the concrete.



5

FOAM REMOVAL

(After concrete is sprayed and dry)

Remove foam from niche and if necessary, trim niche back to wall surface. Apply a waterproof sealant in the recess between the niche and the concrete wall. (Fig 3)

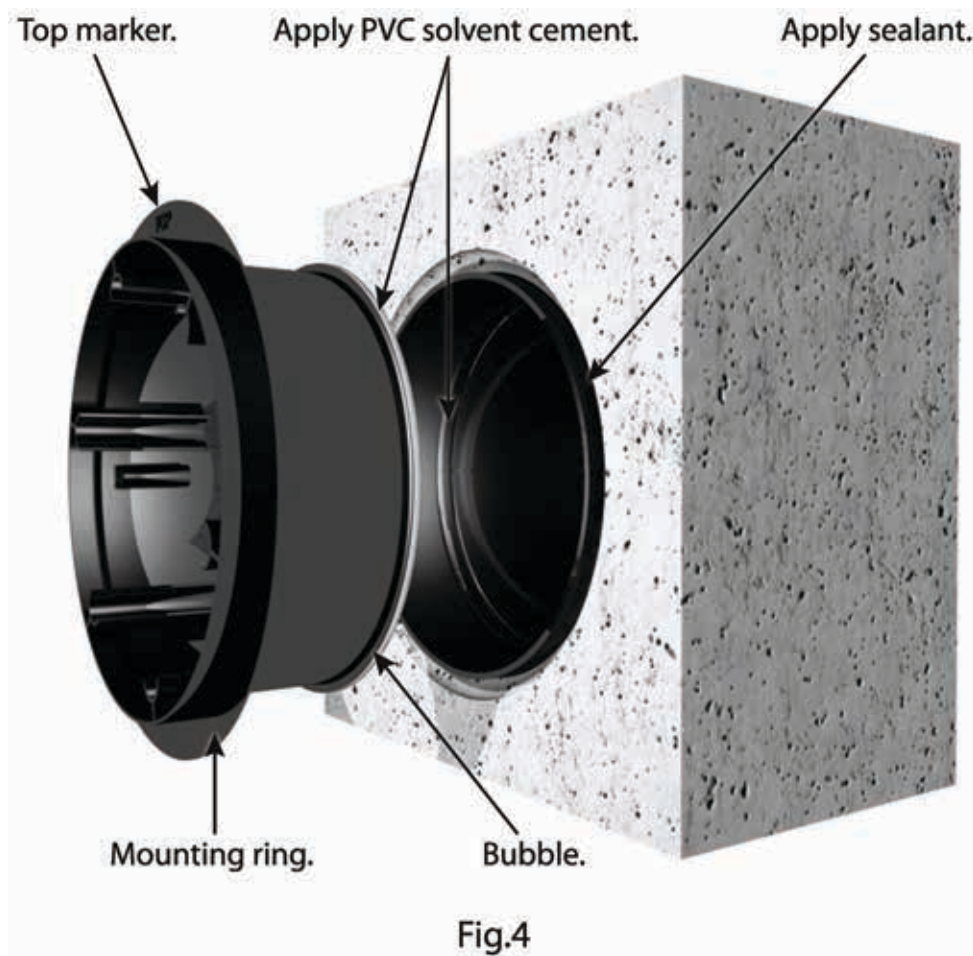
CAUTION: Do not trim more than 20mm from the front of the niche or there may not be sufficient depth remaining for inserting the light.

6

MOUNTING RING PREPARATION

Apply PVC solvent cement to bubble at rear of the mounting ring, and also to the inside of the niche where the mounting ring is likely to finish. (approximately 40mm inside niche) (Fig. 4)

WARNING: Ensure solvent cement is suitable for ABS plastics.



7

ASSEMBLE MOUNTING RING INTO NICHE

Slide mounting ring into niche, with 'TOP' arrow up; insert until flush against pool wall.

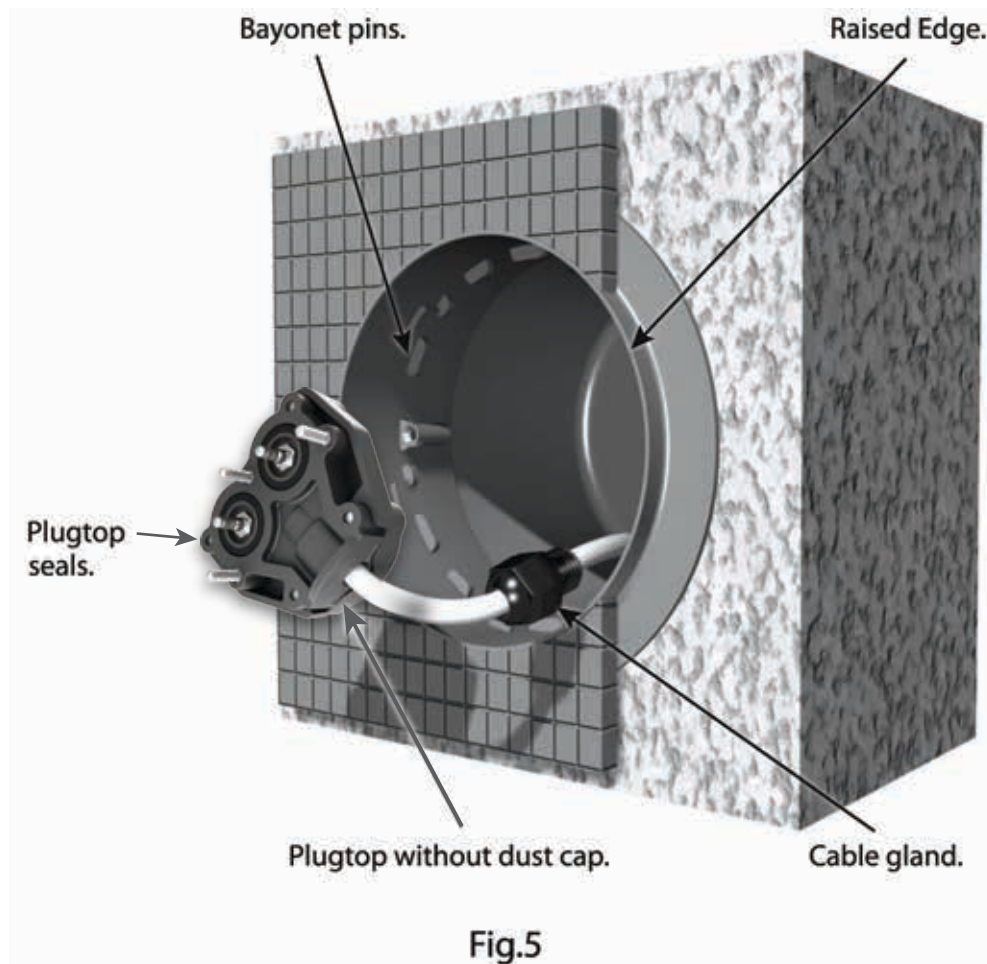
CAUTION: Ensure that the mounting ring is parallel with pool wall as the interior pool surface must be level with this ring.

8

APPLY POOL FINISH

Pebble or tile interior pool surface, level with raised edge of mounting ring.

CAUTION: Interior surface must not finish higher than raised edge of mounting ring, or the light will not be able to be mounted.



9

INSERT CABLING

Using the draw wire, feed the cable from the pool interior, through the niche and conduit to transformer. Ensure that approximately 800mm of cable extends from the niche to the light, in order to allow the light to be lifted from the water to the pool surround for servicing. Insert and tighten the cable gland.

CAUTION: Do not install the light until after the pool has been acid washed. (Fig. 5)

10

ASSEMBLE PLUG TO LIGHT HOUSING

Remove the dust cover from both the light housing and the plugtop. Ensure both plug top seals are present and located within their grooves. Attach plug top to light housing using the three fixing screws provided and tighten firmly by hand. (Fig. 6)



11

ASSEMBLE LIGHT INTO NICHE

Coil the remaining cable into the niche (not around the light body) in a clockwise rotation. Continue turning in a clockwise direction until all cable is inside the niche and the plug top on the light is at the 12 o'clock position. Gently push the light back into the niche. Insert the two fixing screws provided and lightly tighten.

WARNING: Ensure that the light cannot be turned on until it is fully submerged in water.

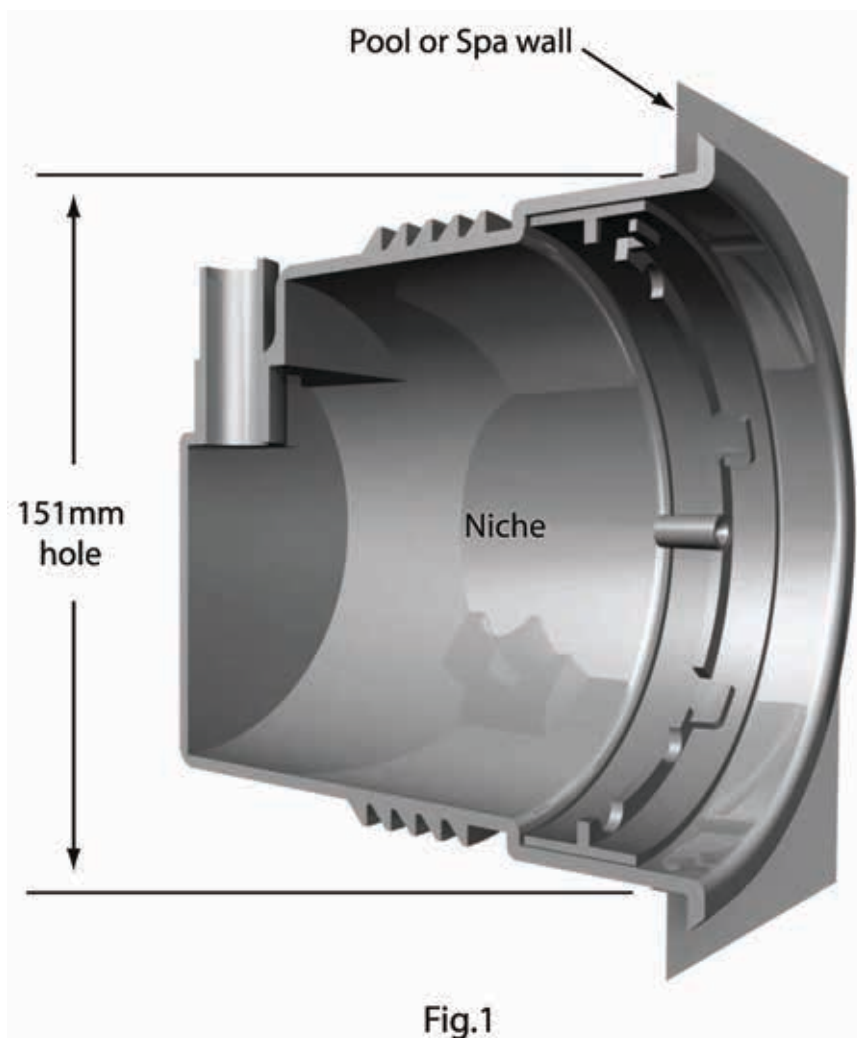
INSTALLATION (FIBREGLASS POOLS)

1 CUT HOLE IN POOL WALL

Cut a circular hole of 151mm diameter in a flat surface approximately 300mm below the water line. Check that the niche will fit through the previously cut hole without any interference. (Fig. 1)

Remove niche from the hole before continuing to step 2.

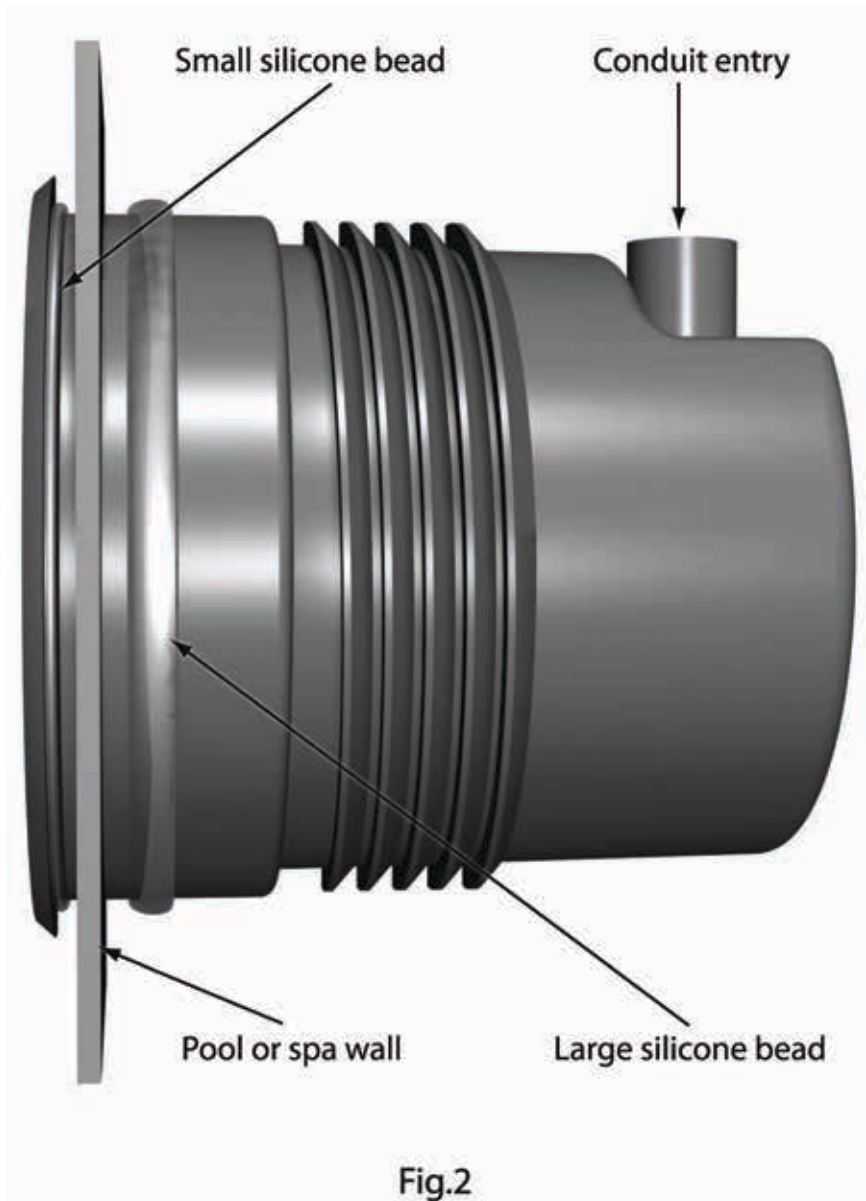
CAUTION: Niche should be installed no deeper than 400mm below the finished pool surround, to allow for servicing.



2

ASSEMBLE NICHE TO POOL WALL

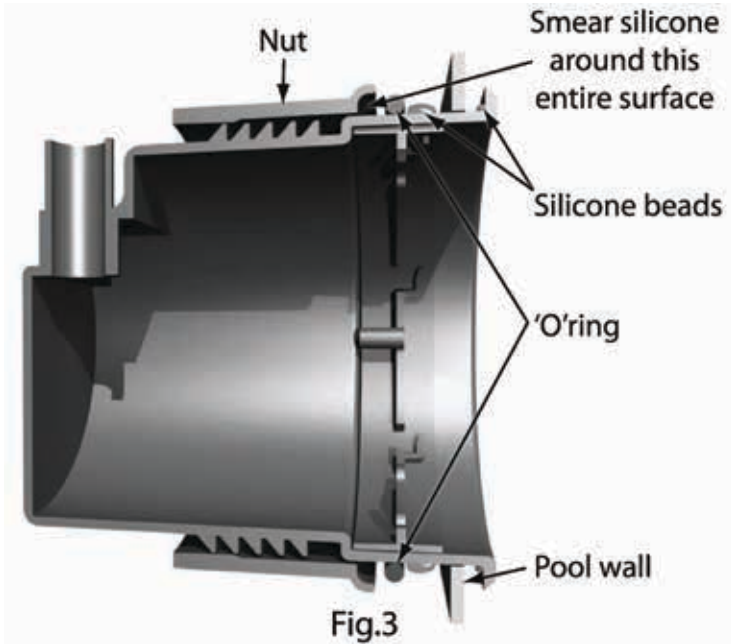
Run a small bead of silicone around the inner edge of the niche front lip before fitting the niche through the hole, ensuring that the conduit entry is at the top position of the niche. Apply a second heavy full circle bead of silicone around the niche on the outside of the pool or spa wall. (Fig. 2)



3

FIT COMPRESSION RING

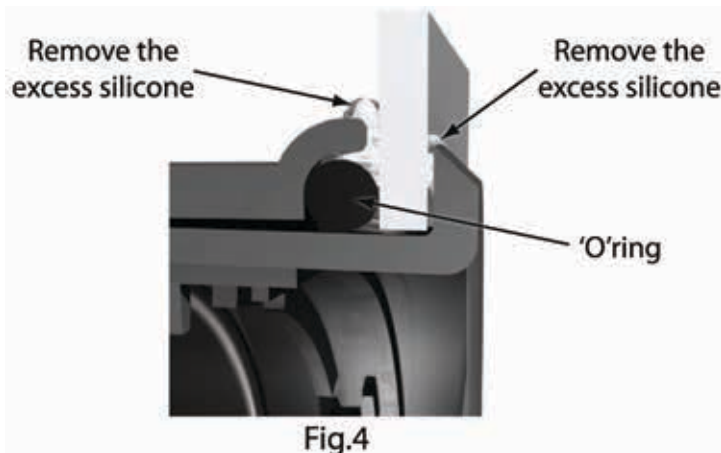
Lightly smear silicone in 'o' ring recess in the nut. Fit 'o' ring then the nut over the niche, allowing 'o' ring to push the silicone bead against the pool or spa wall. Tighten the nut firmly by hand only. (Fig. 3 & Fig. 4)



4

CLEAN-UP SILICONE AND ALLOW TO CURE

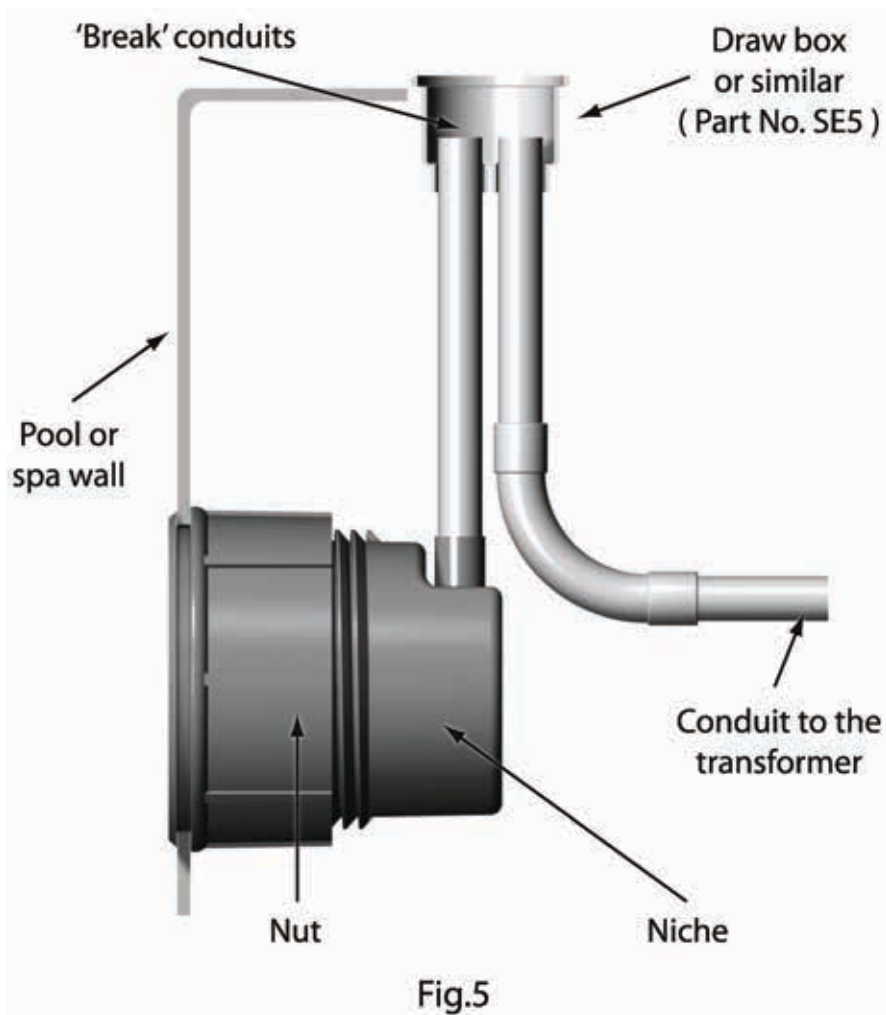
Clean excess silicone from front and rear of outer niche and allow it to cure (approx. 12 hours) before fitting the electrical conduit. (Fig. 4)



5

INSERT AND GLUE 25mm CONDUIT INTO NICHE

Glue a length of 25mm electrical conduit into the top of the niche using PVC solvent cement. The conduit should extend to above the water level of the pool.



6

INSTALL SECONDARY CONDUIT

Attach a second conduit to return below ground level and to the location of the transformer. Conduit should contain a draw wire and be covered with a draw box. (Part no. SE5) or similar, to allow access. (Fig. 5)

Ensure that conduits are 'broken' before returning below water level, to stop siphoning of water from the pool or spa.

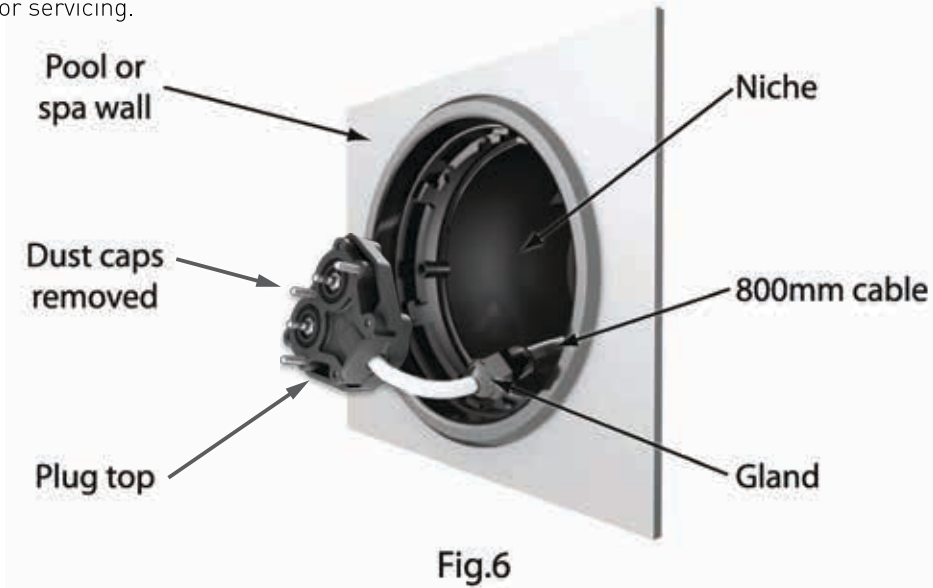


NOTE: If your light is pre-assembled, please skip Steps 7, 8 & 9

7

INSERT CABLING

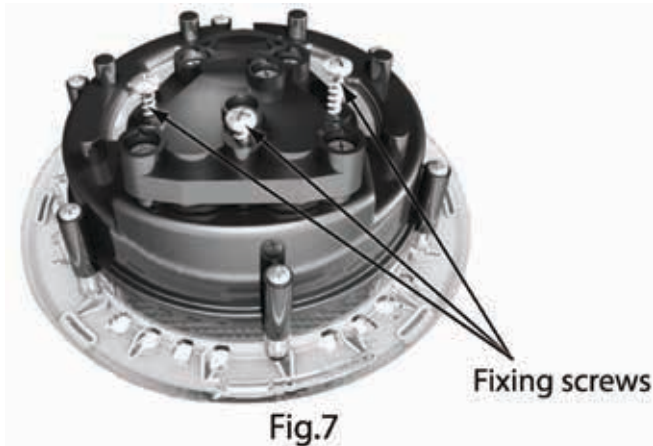
Using draw wire, feed electrical cable from the pool interior, through the niche and conduit, to the transformer. Ensure that approximately 800mm cable extends from the niche to the light before tightening the gland, in order to allow the light to be lifted to the pool surround for servicing.



8

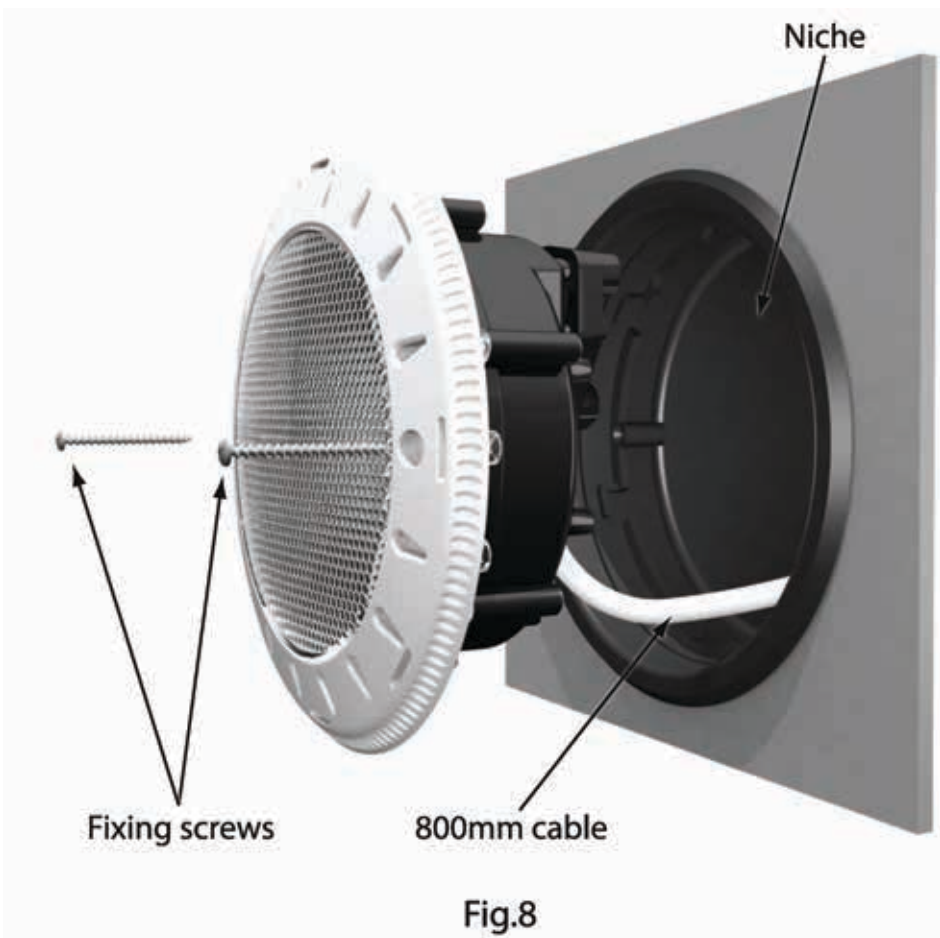
ASSEMBLE PLUG TO LIGHT HOUSING

Remove the dust covers from the plug top and the light housing. Attach the plug top to the light using the three fixing screws provided. Tighten firmly. (Fig. 7)



Coil the remaining cable into the niche (not around the light body) in a clockwise rotation. Continue turning in a clockwise direction until all cable is inside the niche and the plug top on the light is at the 12 o'clock position. Gently push the light back into the niche. Insert the two fixing screws provided and lightly tighten.

WARNING: Ensure that the light cannot be turned on until it is fully submerged in water.



MULTI-COLOUR OPERATION

MULTI-Colour light models provide a choice of 8 exciting fixed colours & 2 Multi-Colour programs with the flick of a switch!

COLOURS AVAILABLE:

- | | | |
|----------------------------|-------------------------|--------------------------|
| 1. Electric Blue | 4. Spring Lime | 7. Daylight White |
| 2. Midnight Magenta | 5. Lagoon Green | 8. Warm White |
| 3. Ruby Red | 6. Tropical Aqua | 9. Slow colour Blend |
| | | 10. Fast Colour Change |

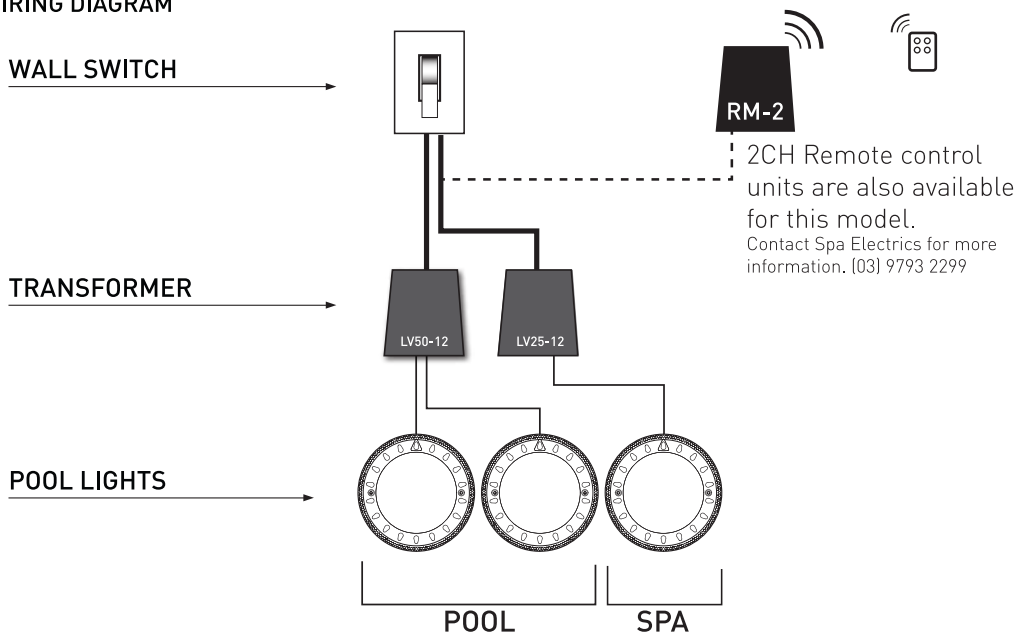
OPERATING INSTRUCTIONS

1. To change the color of the light, simply turn your light **OFF** for **2** seconds and then turn it back **ON**. This will signal the light to step through to the next colour. Colours will display in the order above, to select a desired colour, simply step through the colours until you find your desired selection.
2. Your lights will automatically save your selected colour once the power has been turned **OFF** for more than **1** minute so the next time the lights are used, they will illuminate on the last colour selected.
3. To reset or '**synchronize**' your lights; with the power turned **ON**, turn the power **OFF/ON** once rapidly. This will put the lights into **RESET** mode (flashing **BLUE**), once this occurs turn the power **OFF**, wait **2** seconds & turn the power **ON**. Your lights should now be synchronized.

SYNCHRONIZED INSTALLATION

When installing multiple lights; to ensure synchronization and ease of operation all Lights must operate from a single switch.

WIRING DIAGRAM



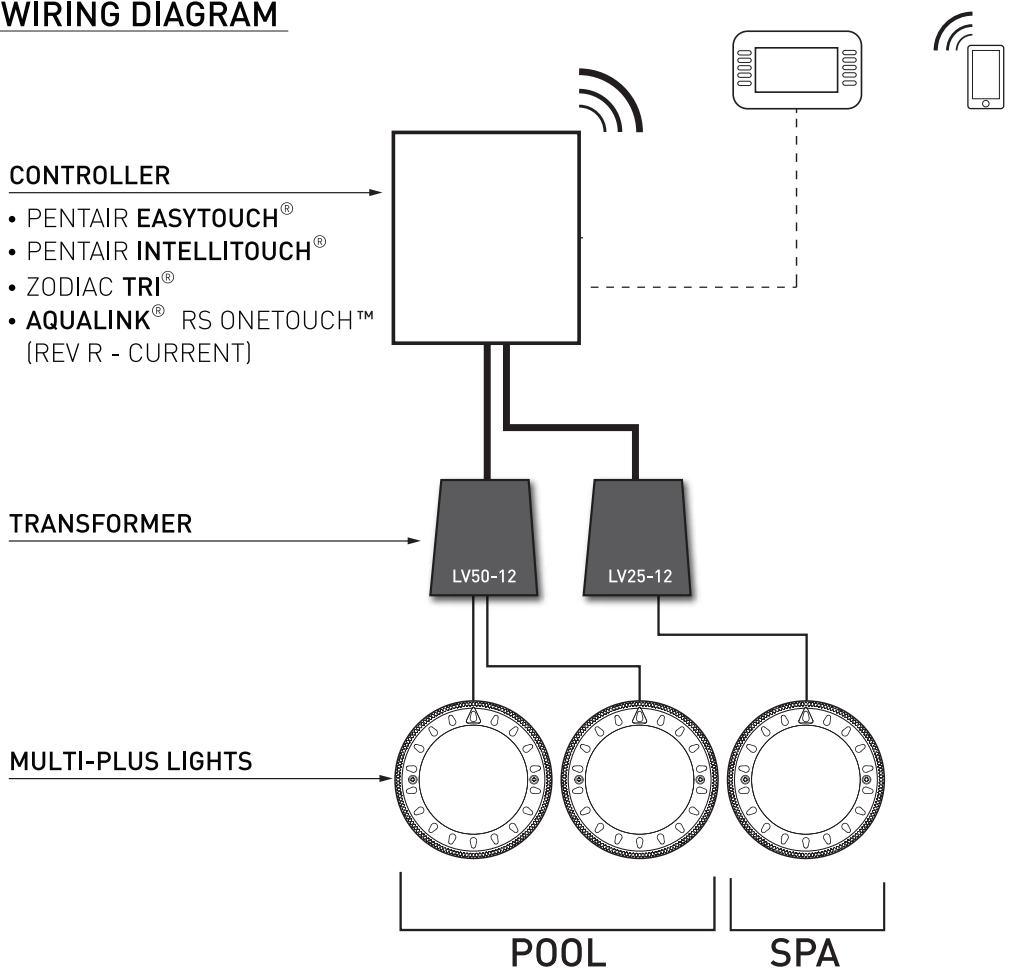
MULTIPLUS OPERATION

Controller Setup

The **Multi-Plus** lights integrate with the Pentair **EasyTouch®** , **IntelliTouch®** / Zodiac **TRI®** & **Aqualink® RS OneTouch™** (Rev R - Current) Control systems. This allows the user to have direct control over colors and light shows via the intelligent control unit.

To setup the controller to operate the **Multi-Plus** lights, simply follow the controller setup procedure and select “**INTELLIBRITE**” as the desired operating mode.

WIRING DIAGRAM



MULTIPLUS OPERATION CONT.

Manual Operation

If required, the **Multi-Plus** lights can function using a standard wall switch. Wall switch operation can be used to select individual colors and shows as well as activate the 'HOLD' & "RECALL" feature.

Turning the switch **OFF/ON** a specific number of times will select one of the five fixed colors or seven light shows available.

To select a different color show mode **[1-7]** or fixed color **[8-12]**, with the lights turned **ON** - Turn the wall switch **OFF/ON** the required number of times. Each number **[1-12]** below corresponds to the number of times to power cycle the switch to activate the selected show or fixed color.

NOTE: Whenever a different color mode is selected by the user, the light is turned off for a short period (a few seconds) until the new mode is activated. This is normal operating behaviour.

Number of times to cycle power [1-14]	1	SAM®:	Cycles through white, magenta, blue and green colors. (emulates the Pentair SAM® color changing light).
	2	Party:	Rapid color changing building energy and excitement.
	3	Romance:	Slow color transitions creating a mesmerizing and calming effect.
	4	Caribbean:	Transitions between a variety of blues and greens
	5	American:	Patriotic red, white and blue transition.
	6	California Sunset:	Dramatic transitions of orange, red and magenta tones.
	7	Royal:	Richer, deeper color tones
	8	Blue:	Fixed color.
	9	Green:	Fixed color.
	10	Red:	Fixed color.
	11	White:	Fixed color.
	12	Magenta:	Fixed color.
	13	Hold:	Save the current color effect during a color light show.
	14	Recall:	Activate the last saved color effect.

IMPORTANT:

The **Multi-Plus** light is **not** designed to be operated in conjunction with other manufacturers lighting products as the colors and shows may not be identical.

REPLACEMENT PARTS

WN-SERIES PLUG TOP & SEAL KIT

Product Code: WN903

Spa Electrics replacement plug & seal kits are designed for the following cable diameters:

- 4mm² (Red seal)
- 2.5mm² (White seal)
- 0.75mm² (Grey seal)

NOTE: All coloured seals (above) are included to help you (or your authorised service technician) select the correct size for your existing light installation



WN-SERIES CERAMIC LIGHT ENGINE

WN-series lights contain no user serviceable parts, opening the light will void your warranty.

This light is not to be used with switch mode or electronic mode transformers.

If you encounter any problems with your WN-series light please contact Spa Electrics.

Refer to the user manual for operating instructions for the multi-colour Ceramic Light Engine.

TRANSFORMER (sold separately).

Ceramic Light Engine

Part No.

- LV25-12 – for one Ceramic Light Engine light.
- LV50-12 – for two Ceramic Light Engine lights.

WARNING

Before touching any electrical installation or checking globes or fuses, switch off mains power.

Any modification to an electrical circuit must be carried out by a qualified electrician.

Never turn on the light unless it is fully submerged in water, otherwise damage to your light will occur.



NOTE

PLEASE STORE THIS
MANUAL IN A SAFE PLACE
FOR FUTURE REFERENCE

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