

# MODEL WN250/WN850

Installation Instructions for concrete pools & spas.



## User Instructions:

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:

- Cable length should not be shortened on the halogen light. If in doubt contact Spa Electrics.
- Ensure that the lighting system is installed by suitably qualified persons only ( e.g. registered pool builder and/or qualified electrician ), in accordance with AS/NZ 3000:2000 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.

## Cleaning:

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

## 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, i.e once per week.
- Do not operate your halogen underwater light for a continuous period extending beyond eight hours per day. This product has been designed for domestic use, not for commercial or security purposes.
- The WN850 has been designed for commercial use and can be operated for continuous periods of time.



# Installation Instructions:

## For concrete pools and spas.

### Step 1. ( 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.

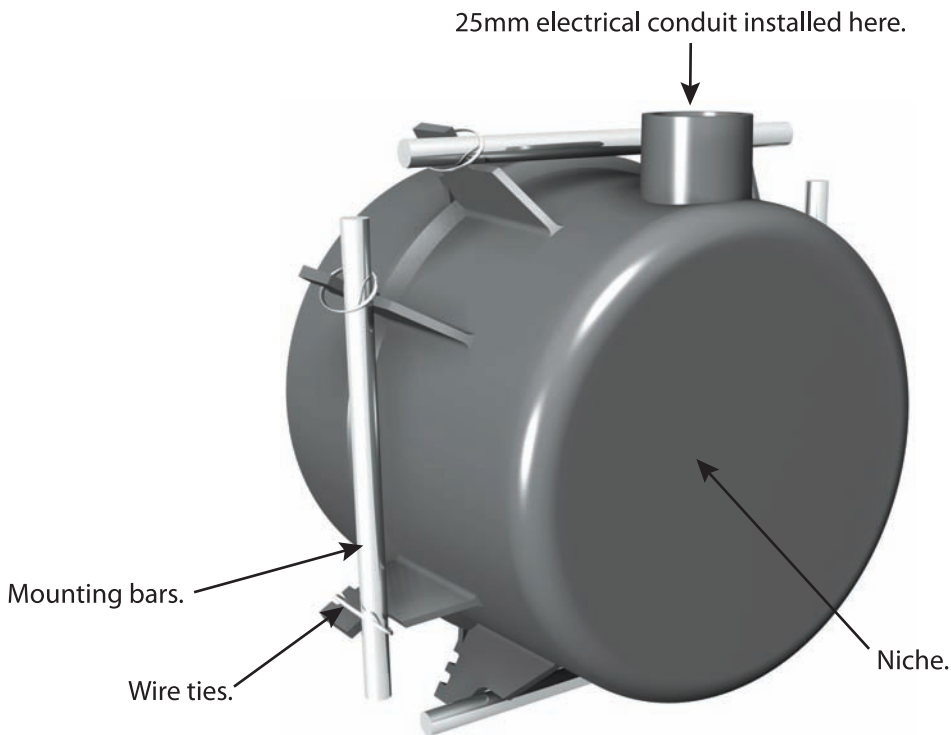


Fig.1

### Step 2.

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.

### Step 3.

Attach a second conduit to return below ground level and away to the location of the transformer. Conduits 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.

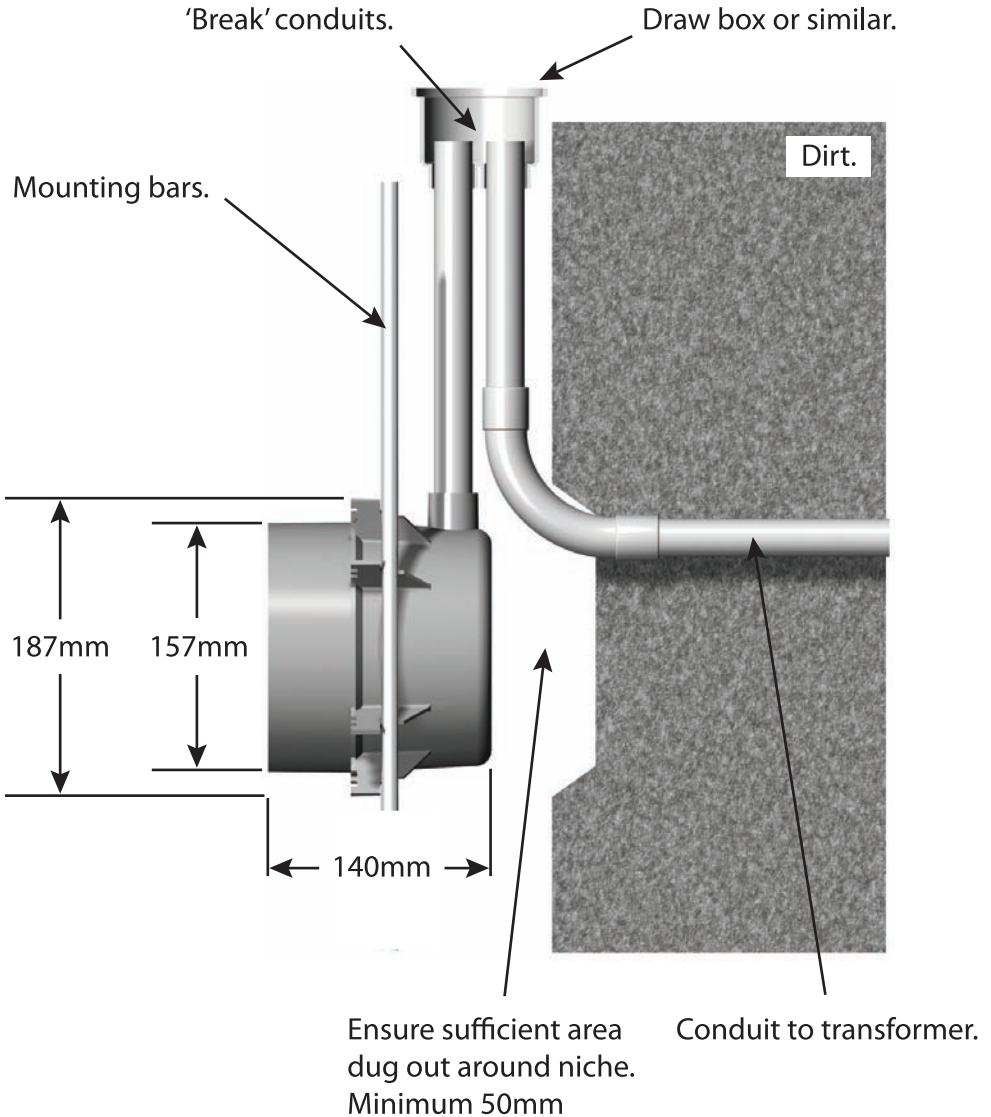


Fig.2

## Step 4.

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.

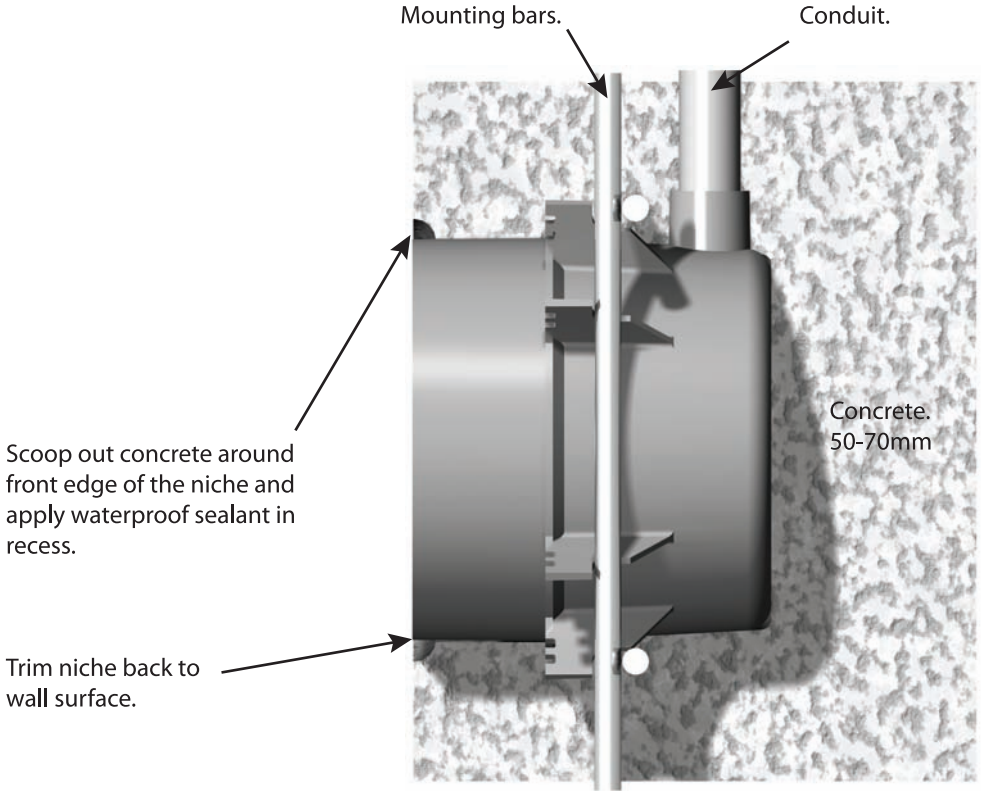


Fig.3

## Step 5. ( 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.

## Step 6.

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.

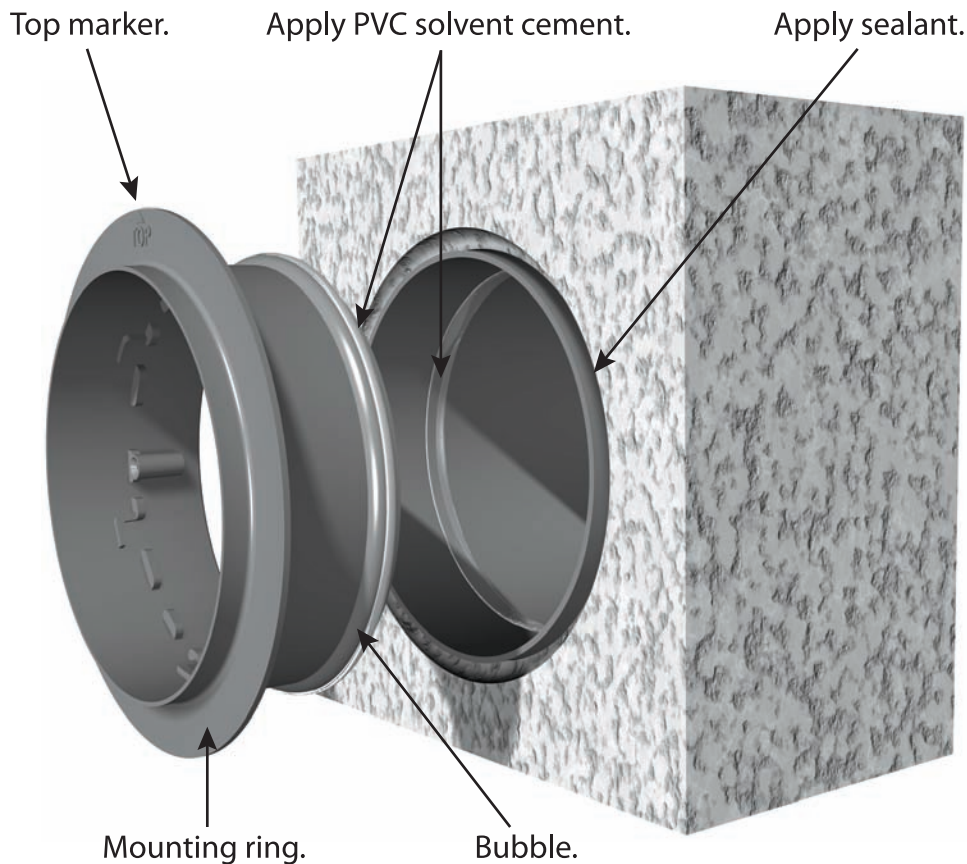


Fig.4

## Step 7.

Slide mounting ring into niche, with 'TOP' arrow uppermost until flush against pool wall. For fully tiled pools, and depending upon tile thickness, the mounting ring may need to be rendered partially into the wall.

**CAUTION:** Ensure that the mounting ring is vertical as the interior surface must be level with this ring.

## Step 8.

Pebble or tiled 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.

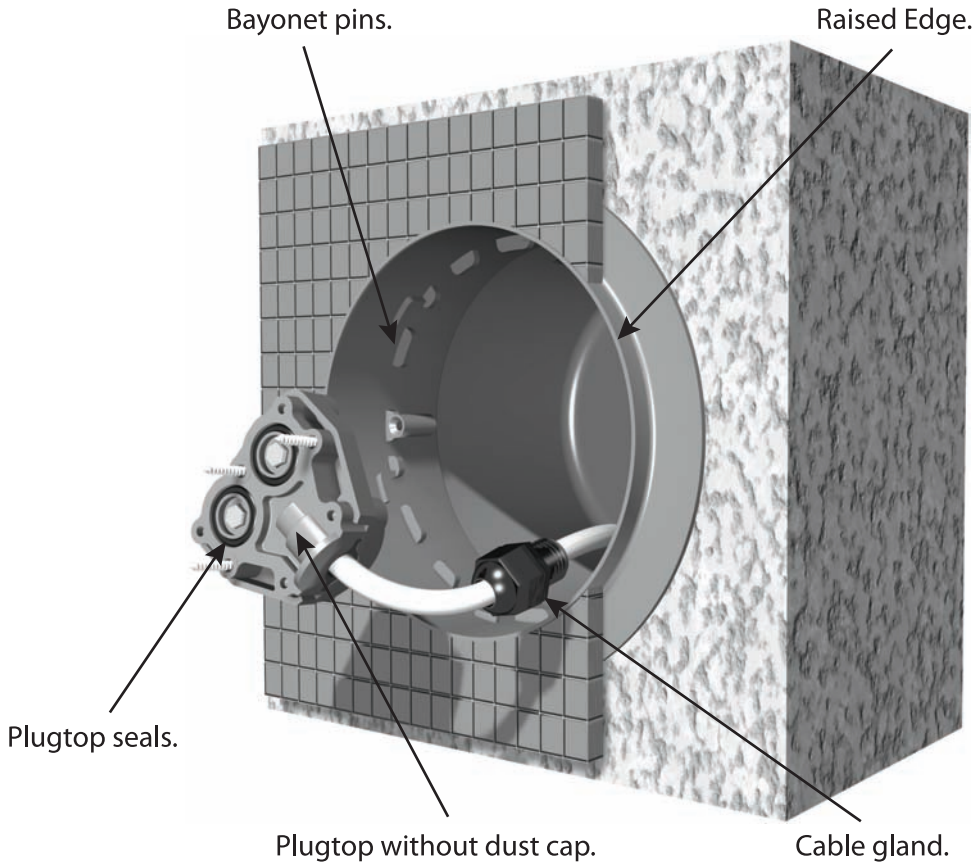


Fig.5

## Step 9.

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)

## Step 10.

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

Plugtop fixing screws.

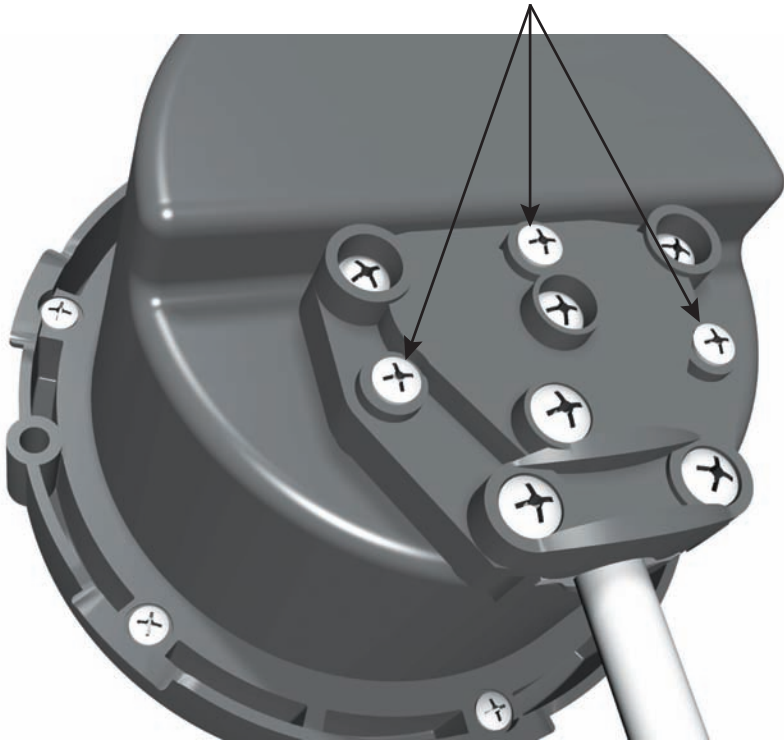


Fig.6

## Step 11.

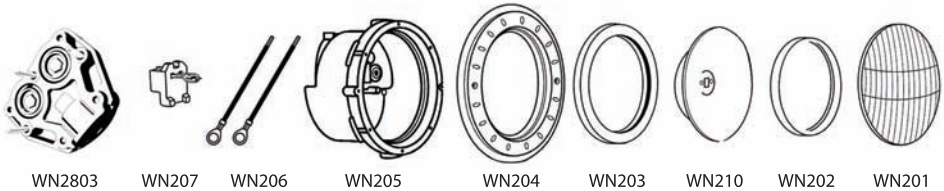
Coil the remaining cable into the niche ( not around the light body ) in a clockwise rotation. Continue turning in a clockwise direction until all cable is inside the niche and the 'TOP' arrow on the light is at the 12 o'clock position. Rotate the light in an anti-clockwise direction until it clips behind the bayonet tabs, before rotating clockwise to lock it into position. Insert fixing screws provided and lightly tighten.

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

# WN250 Halogen Light - Replacement parts.

For instructions on how to change the halogen globe in the WN250 light please refer to [www.spaelectrics.com.au](http://www.spaelectrics.com.au)

- WN201 - Coloured, Removeable lens.
- WN202 - Glass lens.
- WN203 - Gasket.
- WN204 - Facia.
- WN205 - Light housing.
- WN206 - Connector tails.
- WN207 - Globe and Connector.
- WN210 - Reflector.
- WN2803 - Plugtop & seal kit.



## WN850 Ceramic light engine.

The WN850 contains no user serviceable parts, opening the light will void your warranty. This light is not to be used with switch mode or electronic transformers. If you encounter any problems with the WN850 light please contact Spa Electrics Pty Ltd. Refer to the user manual for operating instructions for the multi-colour Ceramic Light Engine.

## Transformer ( sold seperately ).

### Halogen

Part No.

- LV100-12 - for one halogen light.
- LV200-12 - for two halogen lights.

### Ceramic Light Engine

Part No.

- LV35-12 - for one Ceramic Light Engine light.
- LV70-12 - for two Ceramic Light Engine lights.

## Trouble Shooting.

FAULT	POSSIBLE CAUSE	SOLUTION
Light not working	No power to transformer Blown fuse in transformer Blown globe Fault in electrical wiring	Check fuses at switchboard Replace fuses Replace halogen globe Contact qualified electrician to test
Light is very dim	Mismatch of transformer and globe	Check voltage at transformer and globe Check cable size and length Fit correct globe
Globe blows immediately when switched on	As above	As above
Main house / transformer fuse blows when light is switched on	Faulty Transformer Damaged Cable Incorrect electrical installation	Contact qualified electrician to test Installation

### 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.