



atom

A technical diagram of a circular light fixture. The outer ring contains several teardrop-shaped light openings. The inner ring contains a grid of small circles. A white rectangular box is overlaid on the diagram, containing the text 'CONCRETE POOLS'.

CONCRETE POOLS

ULTRA COMPACT NICHE LIGHT

**INSTALLATION &
OWNER'S MANUAL**

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NOTICE

**FRESH WATER USE ONLY
HORIZONTAL MOUNT ONLY
NOT INTENDED FOR OPERATION OUT OF WATER**

FOR SUPPLY CONNECTION, USE ONLY AN ISOLATING LOW VOLTAGE POWER SUPPLY WITH UNGROUNDED OUTPUT, EVALUATED FOR SWIMMING POOL USE

READ THIS FIRST

Congratulations on your purchase of the **ATOM** underwater lighting system. All **ATOM** lights are manufactured by Spa Electrics in Australia from only the highest quality materials. For more information about Spa Electrics & our products, please visit www.spaelectrics.com

BEFORE YOU START:

- Cables can be shortened to suit individual installation requirements. Spa Electrics recommends all cabling is protected by conduit and that a junction box (or similar) is incorporated into pool cabling design to avoid siphoning.
- Ensure that the lighting system is installed by a qualified person (e.g. registered pool builder and/or licensed electrician), in accordance with the most current edition and/or amendment of current NEC wiring code.
- For safe and proper installation, ensure that only those parts supplied with the system are used.
- Maximum installation depth for the **ATOM** light is 500MM (20") below water line (to top of light).
- The **ATOM** light must be correctly installed in or on the wall of the pool with the top of the lens no less than 4" below the nominal water level.
- All lights should be mounted in a location that is easily accessible without the need for entering or lowering the pool water.
- At least 2.5ft of cable must remain stored within the Niche to ensure the light can be accessed above the waterline. (Maximum cable within niche :18AWG /16AWG = 8ft).

CLEANING

- Only use warm water and a soft brush or cloth to clean **ATOM** lights. **DO NOT** use detergents or spirits as this can damage the light and void your warranty.

USE

- **DO NOT** operate light unless completely submerged in water.
- Operating the light for at least 15 minutes every week is advised (all year round).
- **ATOM** lights are suited for both domestic and commercial installations and can be operated continuously (24/7) if required.
- Temperature range for installation, operation and servicing: +32°F ~ +104°F (0°C ~ +40°C)



IMPORTANT NOTE

The ATOM light must only be used with a UL listed 12V AC power supply or a power source intended for swimming pool use (not included).

Minimum power source wattage requirement - 15 Watts per light.

- DO NOT use electronic or switch-mode power supplies with ATOM lights. These power supplies will damage the light and void your product warranty.
- Pool chemicals & pH levels: Due to the corrosive nature of unbalanced pool chemicals, Spa Electrics strongly recommend that your pool water is balanced prior to installing your pool lights or any plastic or stainless steel components, and tested weekly to maintain these levels. pH levels should be maintained between 7.2 – 7.6 at all times to ensure the longevity of these components.
 - > Failure to do so can result in chemical damage to the light housing and pool fittings, including stainless steel components.
 - > Please note: Lights or components found to have excessive chemical damage will not be covered under our manufacturer's warranty policy.
- This light contains no user-serviceable parts; opening the light will void the product warranty.

TOOLS REQUIRED

- No. 2 Phillips screwdriver
- Flat-blade screw driver (for light-head removal)



IMPORTANT NOTES

- The use of power tools during installation is **not** recommended as these devices can cause faults and damage to light components.
- All installation steps should be carried out with manual tools only.
- The enclosed images are for illustrative purposes only. Appearances of parts and assemblies may vary from the enclosed illustrations.
- Please contact your reseller if you have any questions regarding the correct installation of this product.



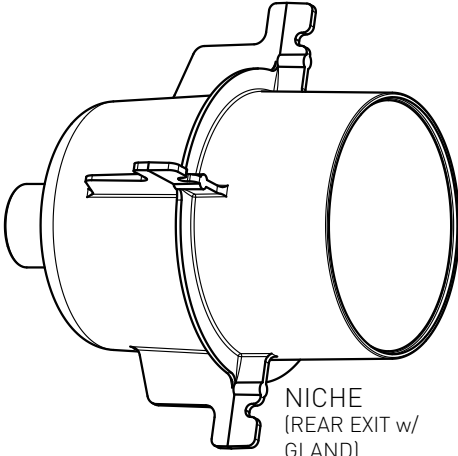
WINTERIZATION

- Lights must be removed from pool wall and cable disconnected via plug connection & stored in a safe place.
- Terminal Cover must be fitted to Plug Top prior to reinstalling into niche for winter.
- Unless niche/conduit connection is adequately sealed (i.e. via included cable gland components), pool water level must be drained down 12" below the lowest light(s) position in pool wall.
- All conduits should be checked for accumulated water and drained if required.
- Consult your local pool professional for complete pool winterization process.

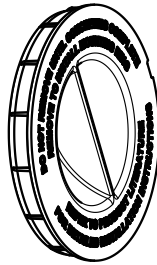
PRODUCT SUPPORT & INFORMATION

For the most update to date installation information and contact information for assistance in your region, please visit www.spaelectrics.com

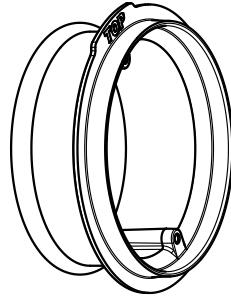
INCLUDED PARTS



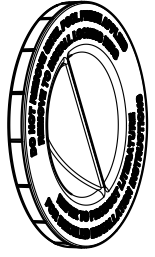
NICHE
(REAR EXIT w/
GLAND)



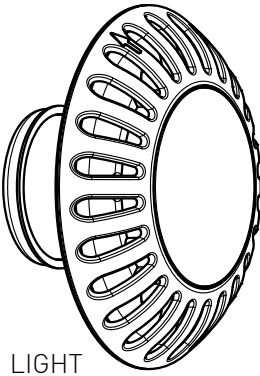
PROTECTIVE
CAP



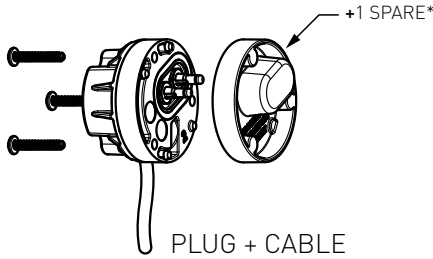
MOUNTING RING



PROTECTIVE
CAP

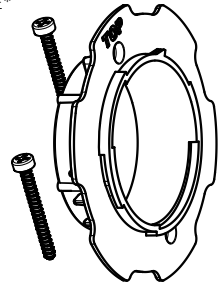


LIGHT



PLUG + CABLE

* 1 SPARE TERMINAL COVER PROVIDED
FOR WINTERIZATION (SEE PAGE 6)



LOCKING RING



1x WARRANTY CARD



1x INSTALLATION MANUAL



REQUIRED PART (NOT INCLUDED)

UL LISTED 12V AC POWER SUPPLY OR POWER SOURCE INTENDED FOR SWIMMING POOL USE.

Minimum power source wattage requirement - 15 Watts per light

Spa Electrics recommends "LVX" series safety transformers for use with ATOM 3" lights.

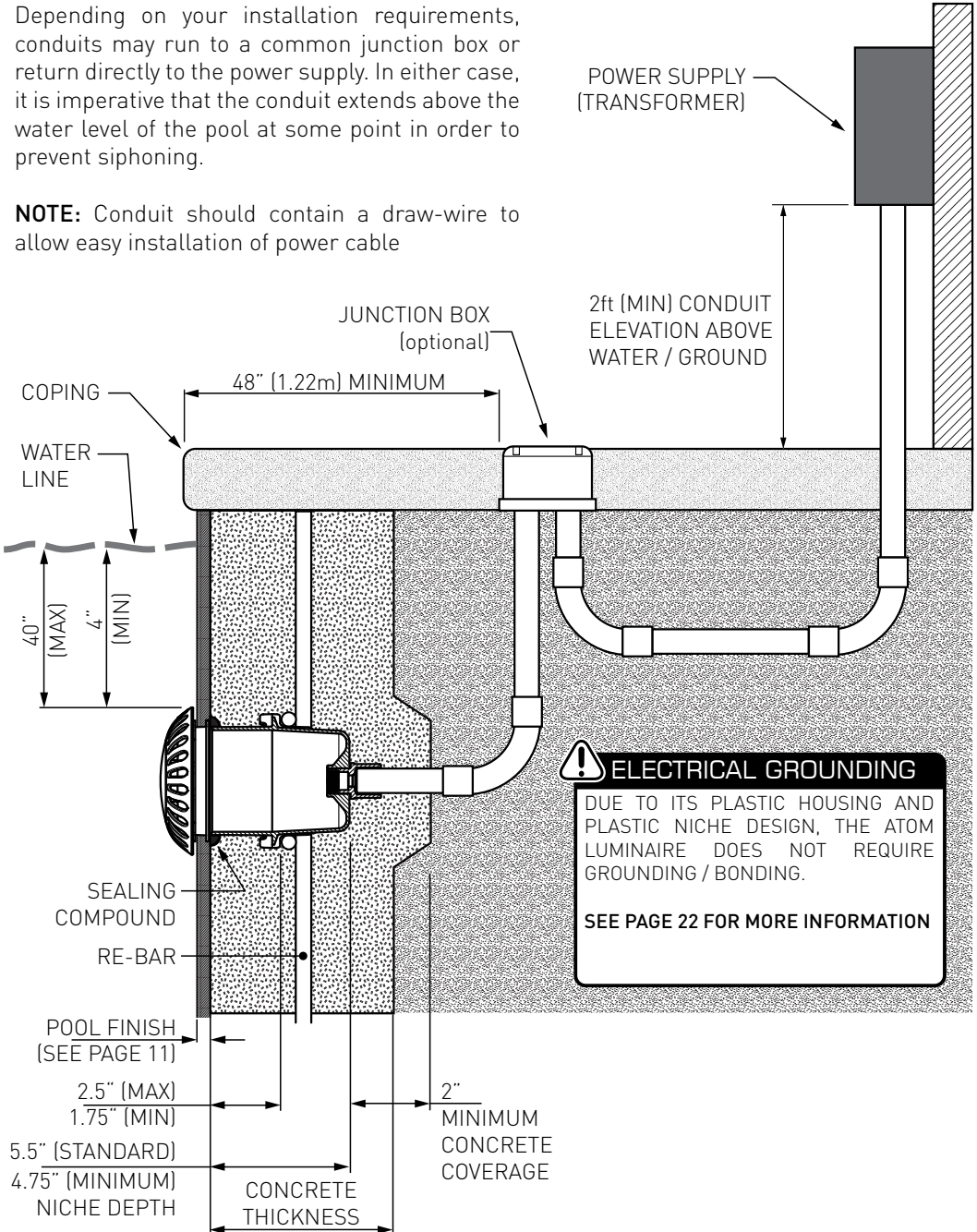
For more information visit www.spaelectrics.com

FINISHED INSTALLATION

STANDARD WALL MOUNTING

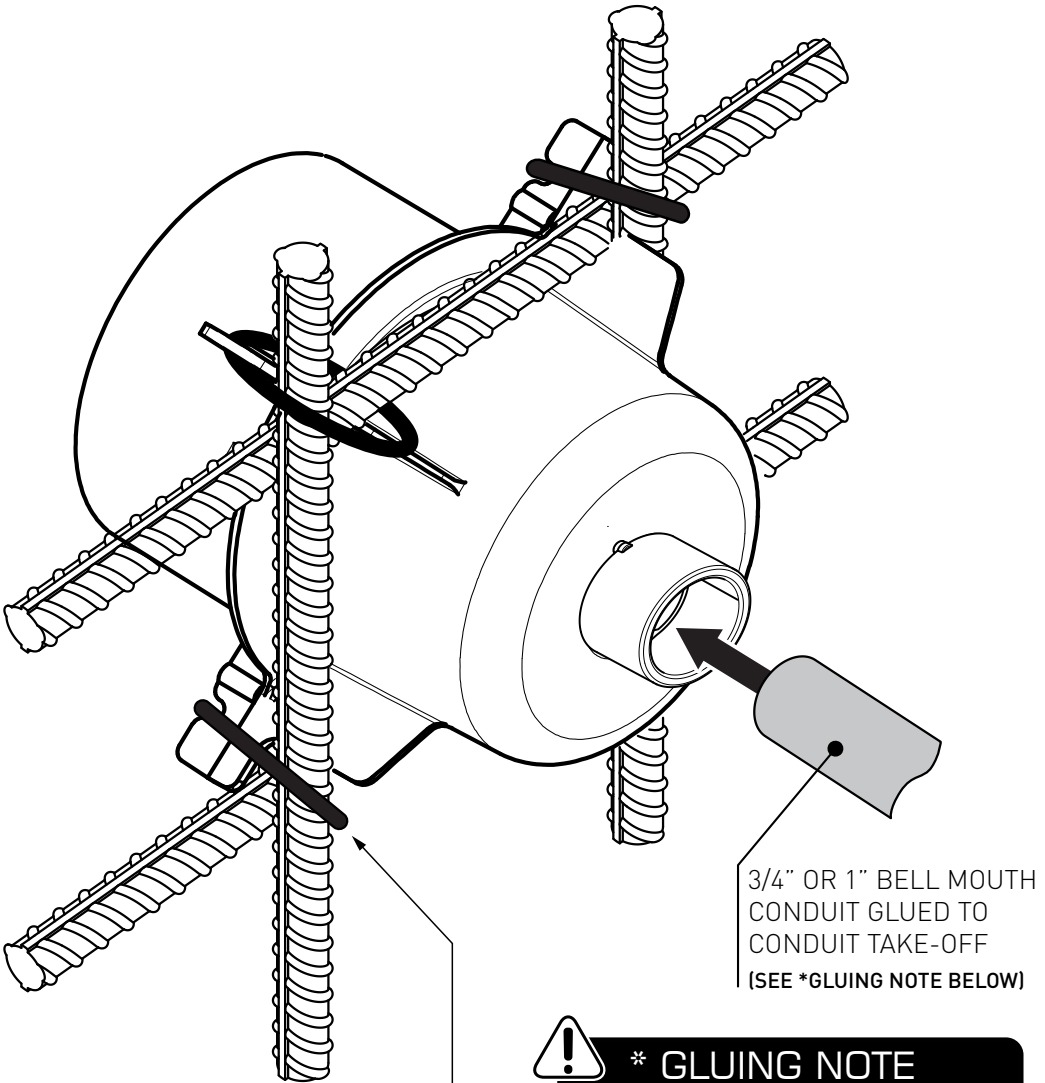
Depending on your installation requirements, conduits may run to a common junction box or return directly to the power supply. In either case, it is imperative that the conduit extends above the water level of the pool at some point in order to prevent siphoning.

NOTE: Conduit should contain a draw-wire to allow easy installation of power cable



INSTALLATION

1 NICHE & CONDUIT INSTALLATION



SECURE NICHE TO
REINFORCING BARS USING
WIRE TIES (4 PLACES)

3/4" OR 1" BELL MOUTH
CONDUIT GLUED TO
CONDUIT TAKE-OFF
(SEE *GLUING NOTE BELOW)

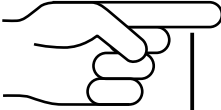


* GLUING NOTE

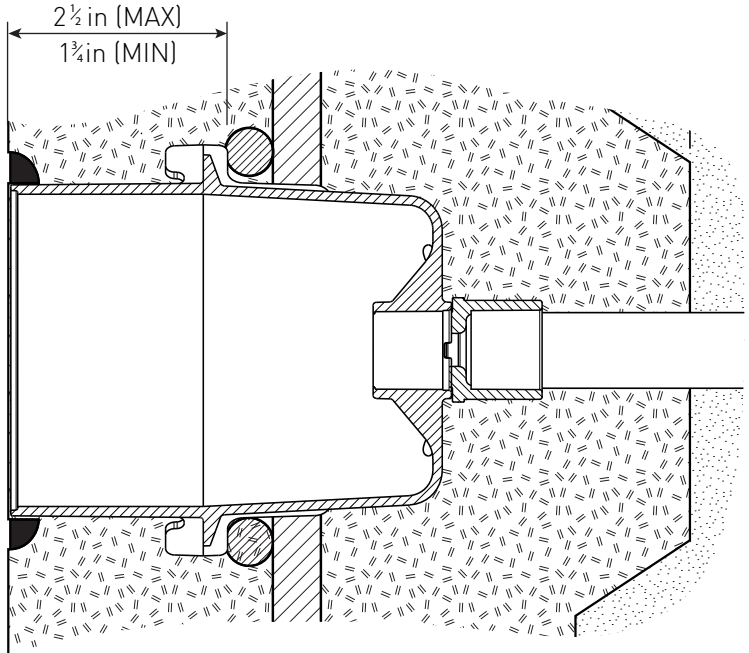
ENSURE P.V.C. SOLVENT CEMENT IS
SUITABLE FOR NON-PRESSURE
APPLICATIONS AND USE WITH A.B.S.
PLASTIC



NOTE



SCALLOP
CONCRETE
AROUND NICHE
PERIMETER
AND FILL WITH
SEALING
COMPOUND*

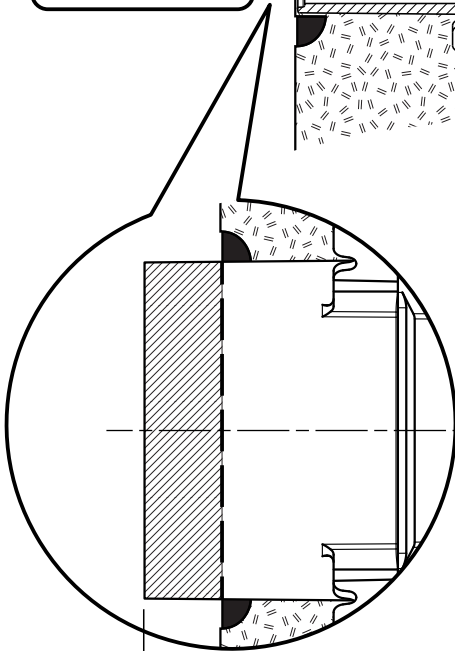


* SEALING NOTES

SEALING COMPOUND OR HYDRAULIC CEMENT REQUIRED TO PREVENT WATER EGRESS THROUGH POOL WALL.

ENSURE NICHE RIM IS CLEAN, DRY AND FREE OF DEBRIS PRIOR TO APPLICATION OF SEALING COMPOUND.

ENSURE SEALING COMPOUND IS SUITABLE FOR USE WITH A.B.S. PLASTIC



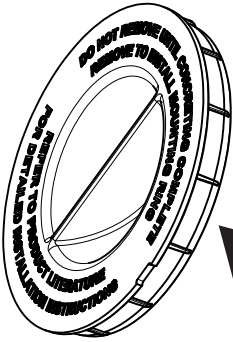
$\frac{3}{4}$ in
(MAX)

NICHE PROTRUDING?

NICHE CAN BE TRIMMED A MAXIMUM OF $\frac{3}{4}$ in IF IT PROTRUDES FORWARD OF FINISHED CONCRETE SURFACE

3

INSTALL CABLE & PLUG INTO NICHE



1 REMOVE NICHE PROTECTIVE CAP

2

DRAW CABLE THROUGH CONDUIT

CABLE + PLUG ASSEMBLY

NICHE (INSTALLED IN WALL)

NOTE: DO NOT REMOVE RED TERMINAL COVER FROM PLUG UNTIL STEP 8

6.5ft (MAX)
[18AWG & 16AWG]
2.5ft (MIN)

TIGHTEN CABLE NUT **3**



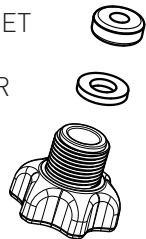
NOTES

- ENSURE CABLE GLAND IS ASSEMBLED AS SHOWN.
- PRIMARY SEALING POINT SHOULD BE VIA CONDUIT WITH AIR LOOP
- CABLE-GLAND COMPONENTS MAY BE OMITTED PROVIDED CONDUITS EXTEND ABOVE WATERLINE TO PREVENT SIPHONING (SEE PAGE 8)

RUBBER GROMMET

PLASTIC WASHER

CABLE NUT



4

INSTALL MOUNTING RING INTO NICHE



NOTE

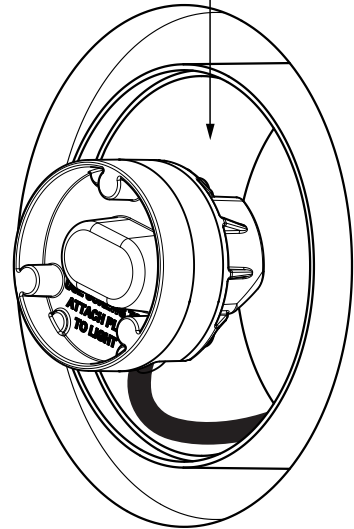
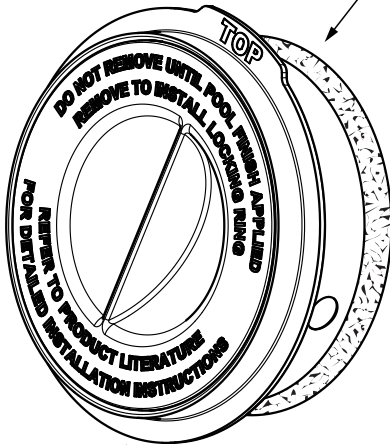
ENSURE "TOP" IS POSITIONED CORRECTLY

2

APPLY P.V.C. SOLVENT CEMENT TO MOUNTING RING
(SEE * GLUING NOTE BELOW)

1

COIL PLUG & CABLE INSIDE NICHE



3

FIRMLY PUSH MOUNTING RING INTO NICHE



NOTE

ENSURE PROTECTIVE CAP REMAINS IN MOUNTING RING (UNTIL STEP 7)



* GLUING NOTE

ENSURE P.V.C. SOLVENT CEMENT IS SUITABLE FOR NON-PRESSURE APPLICATIONS AND USE WITH A.B.S. PLASTIC

5

APPLY POOL FINISH

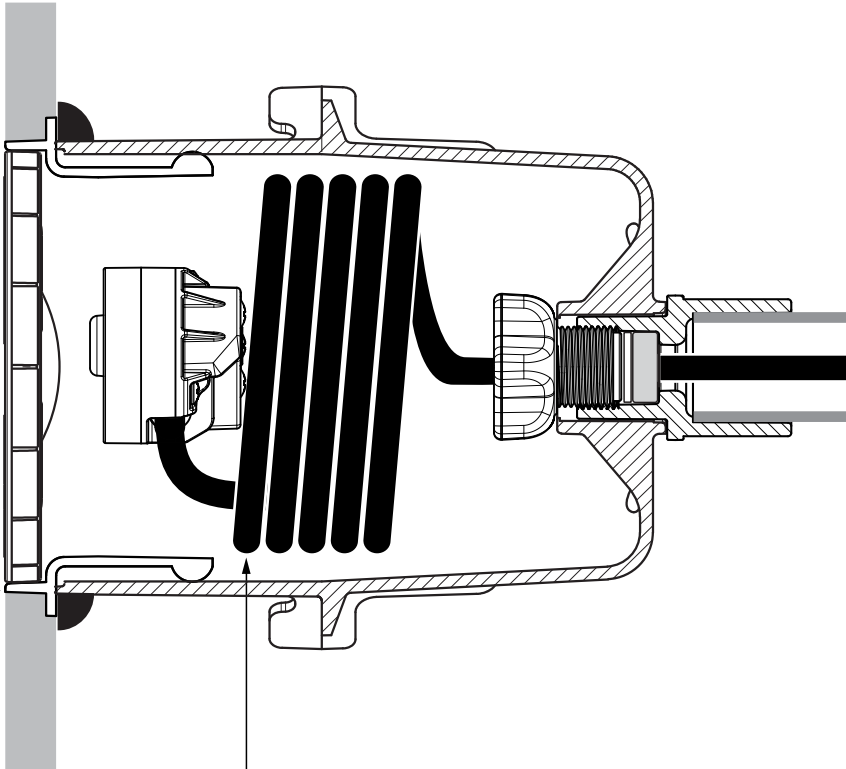


NOTE

PROTECTIVE CAP MUST REMAIN IN MOUNTING RING DURING PLASTERING / TILING

USE FRONT EDGE OF MOUNTING RING AS GUIDE FOR MINIMUM POOL-FINISH THICKNESS

$\frac{3}{4}$ " MAXIMUM THICKNESS



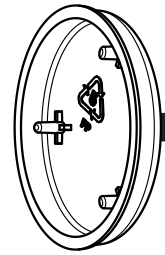
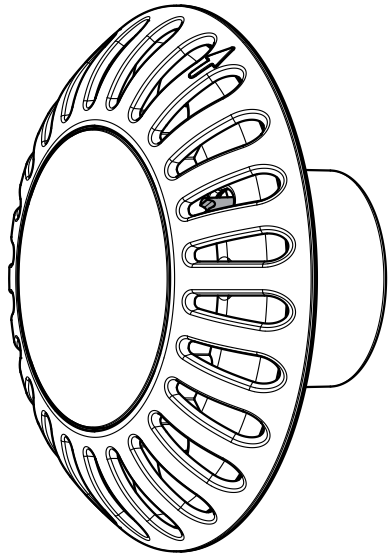
NOTE

DO NOT TRIM FRONT EDGE OF MOUNTING RING

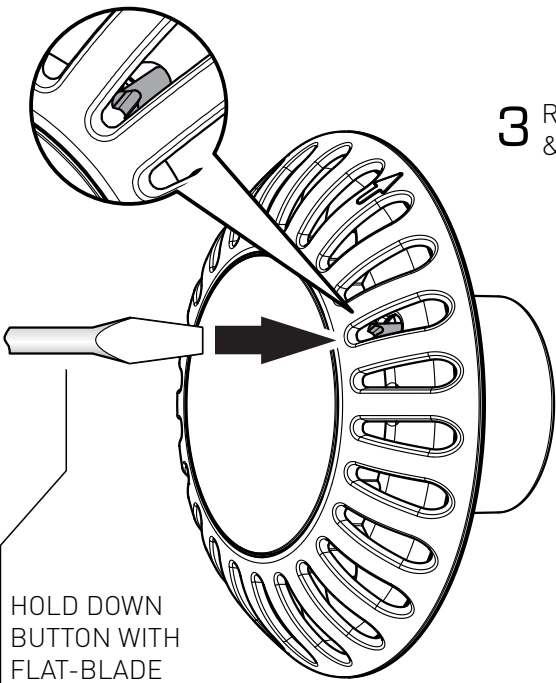
CABLE COILED WITHIN NICHE

6

REMOVE LOCKING RING



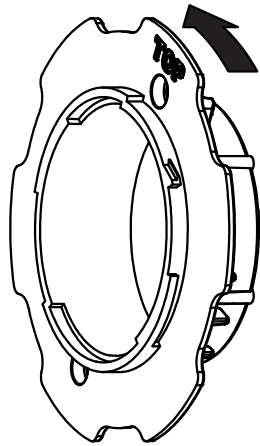
1 REMOVE PROTECTIVE CAP



2

HOLD DOWN BUTTON WITH FLAT-BLADE

3 ROTATE COUNTER-CLOCKWISE & RELEASE LOCKING RING

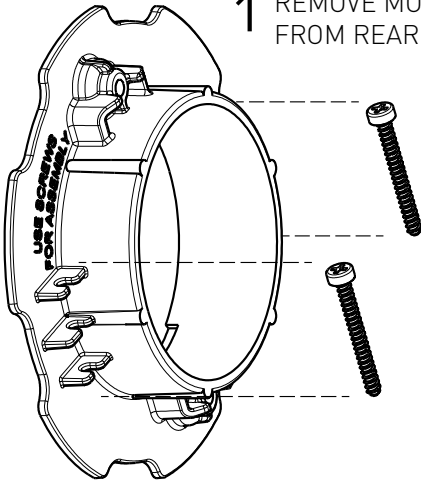


4 REMOVE LOCKING RING

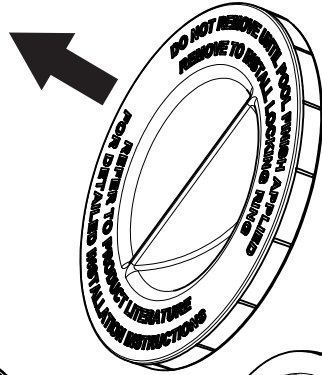
7

ASSEMBLE LOCKING RING TO MOUNTING RING

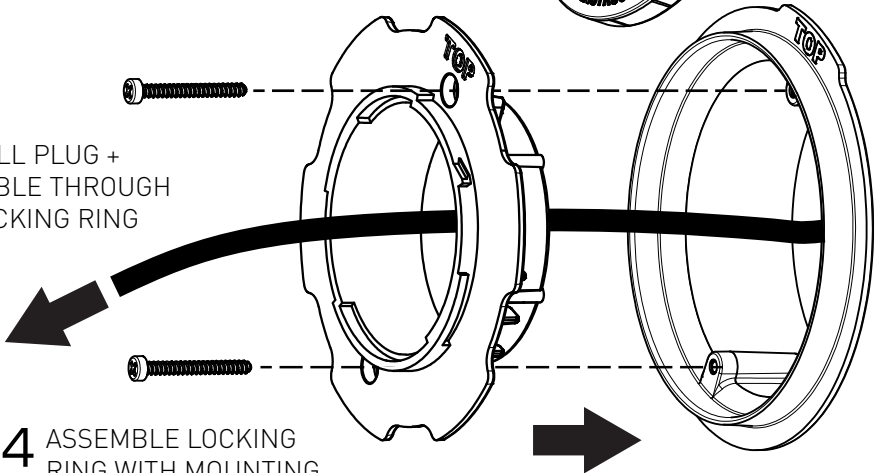
1 REMOVE MOUNTING SCREWS FROM REAR OF LOCKING RING.



2 REMOVE PROTECTIVE CAP FROM MOUNTING RING



3 PULL PLUG + CABLE THROUGH LOCKING RING



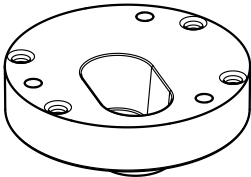
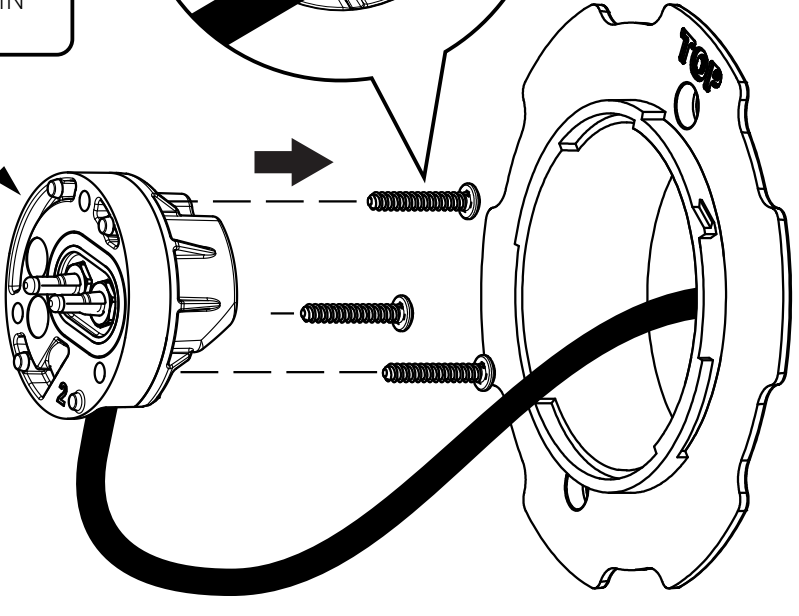
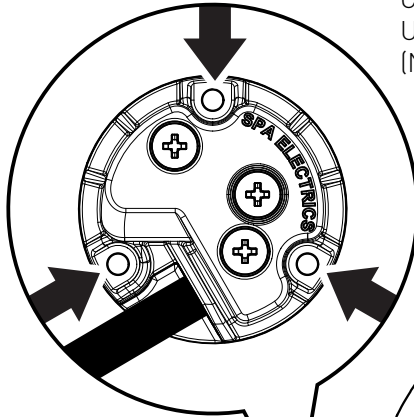
4 ASSEMBLE LOCKING RING WITH MOUNTING RING USING MOUNTING SCREWS PROVIDED.

8

REMOVE TERMINAL COVER

REMOVE TERMINAL COVER FROM PLUG USING PHILLIPS-HEAD (NO.2) SCREW-DRIVER

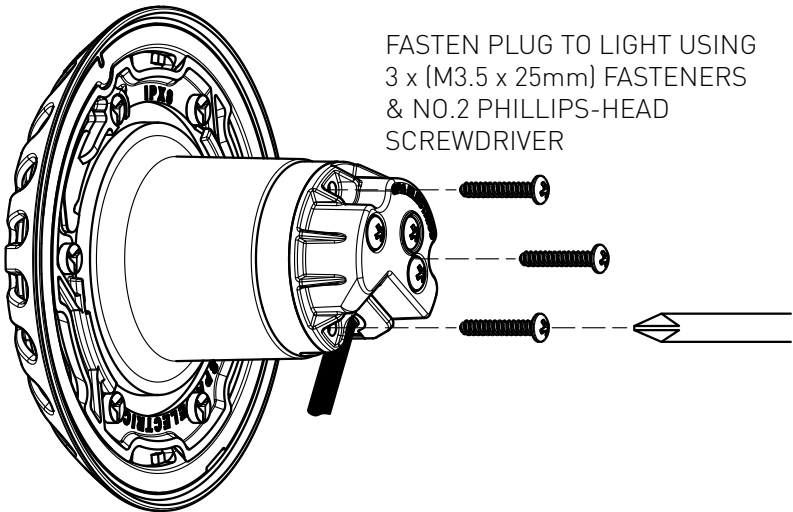
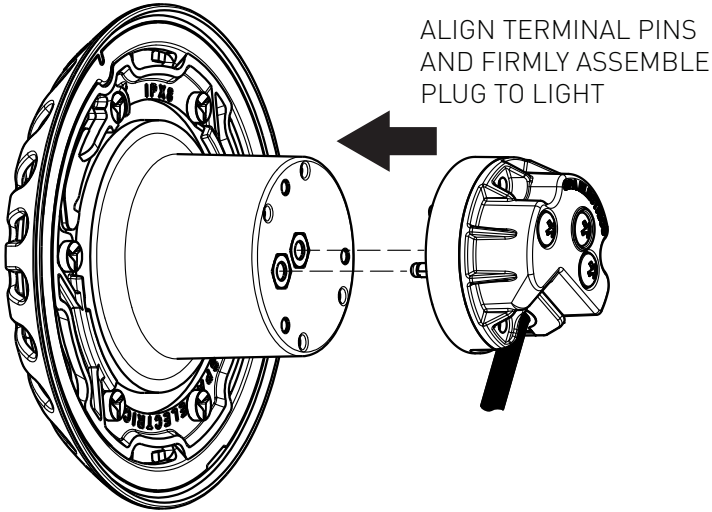
NOTE
ENSURE SEAL IS SEATED FLAT IN PLUG BASE



TERMINAL COVER

NOTE
DO NOT REMOVE TERMINAL COVER UNDERWATER

WINTERIZATION
RETAIN TERMINAL COVER FOR WINTERIZATION. SEE PAGE 6 FOR DETAILS

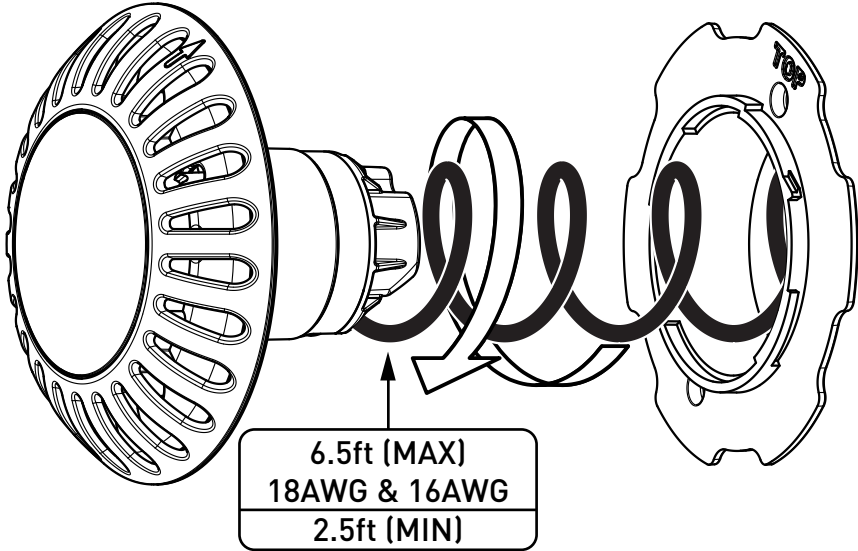


IMPORTANT NOTES

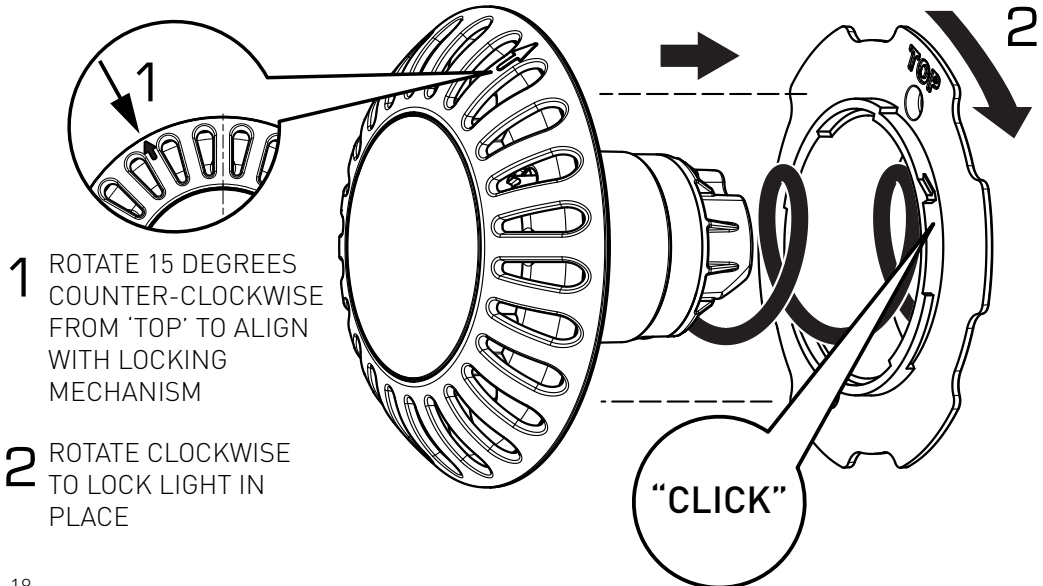
- DO NOT OVERTIGHTEN SCREWS
- DO NOT USE POWER-TOOLS
- DO NOT ADD SEALANTS OR GREASES
- ENSURE ALL SURFACES ARE CLEAN AND DRY
- **DO NOT ASSEMBLE UNDERWATER**

LIGHT ASSEMBLY

1 COIL CABLE INSIDE NICHE

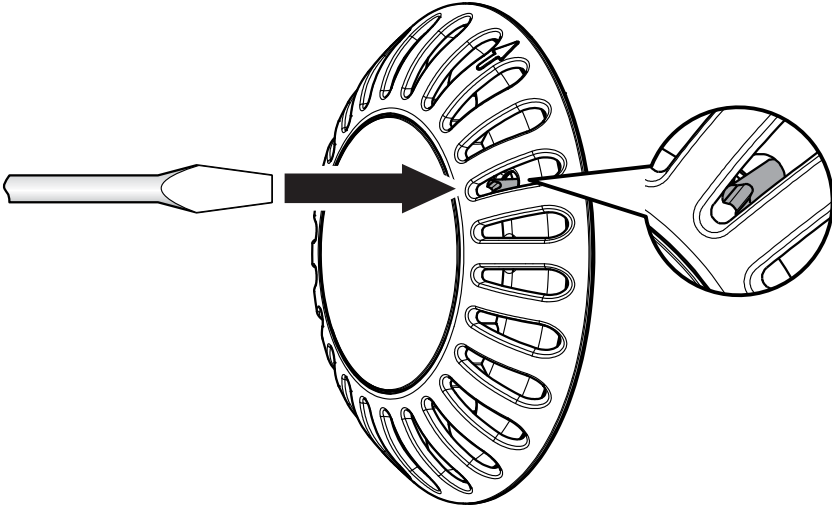


2 INSERT LIGHT INTO LOCKING RING

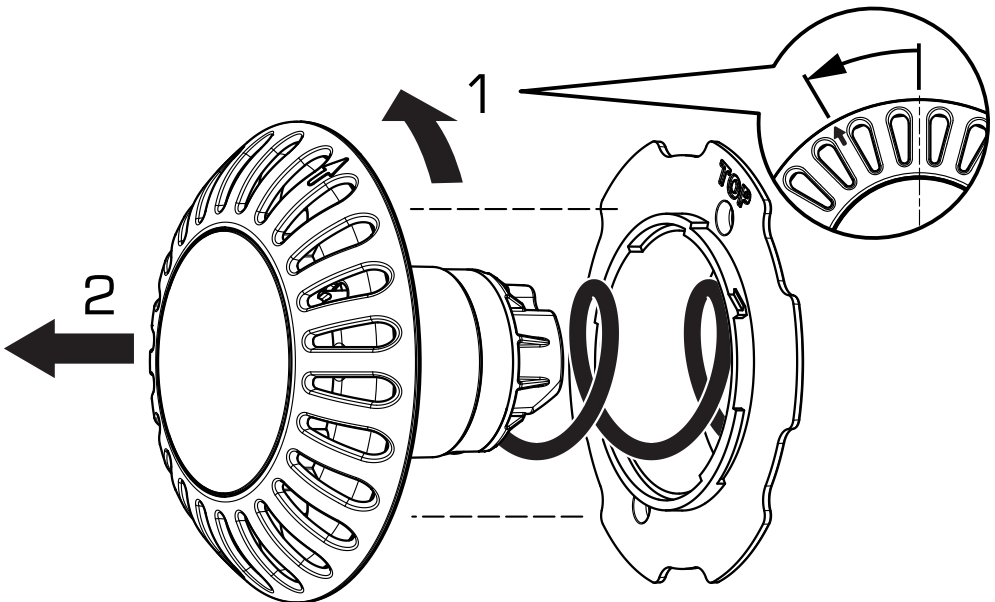


LIGHT REMOVAL

1 PUSH & HOLD BUTTON WITH FLAT BLADE

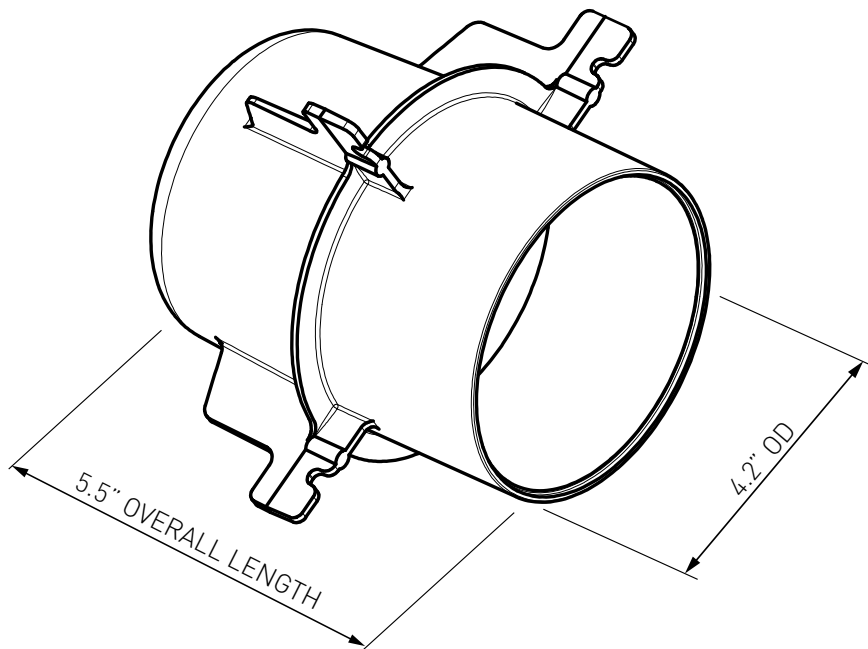


2 ROTATE COUNTER-CLOCKWISE & REMOVE FROM LOCKING RING

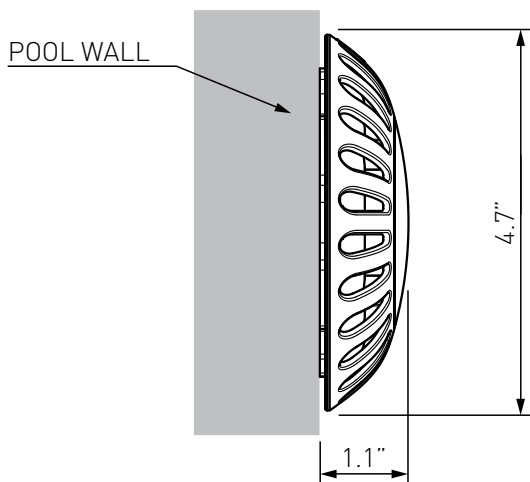


KEY DIMENSIONS

A NICHE



B INSTALLED LIGHT



TROUBLESHOOTING

ISSUE	REASON	ACTION
Light returns to WHITE colour during manual colour change.	Light synchronization process has been triggered.	Refer to MULTI-PLUS User Guide. (Pg. 3)
Light flashes (RED)	Light over heating	Check light is fully submerged. Check vents are not obstructed
Light not operating (1)	Faulty connection to transformer	Ensure cable correctly connected to transformer terminals
Light not operating (2)	Mains power not connected	Check transformer is plugged in to GPO and switched on
Light not operating (3)	Damaged cable	Disconnect plug top and test voltage under load using multi-meter (ie. 20w 12v)
Light not operating (4)	Transformer not working	Check fuses & test transformer using multimeter under load (ie. 15W 12V)
Light not operating (5)	Damage caused by high voltage and/or incorrect power supply.	Return product to your local Spa Electrics reseller or Spa Electrics for repair
Light colours not synchronized	Incorrect operating mode selected.	Refer to MULTI PLUS setup procedure (pg. 3)

If these issues cannot be resolved with the above recommended actions, please contact your local Spa Electrics reseller or Spa Electrics directly.

Web: www.spaelectrics.com

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

Spa Electrics ATOM & QUANTUM (EM & WN9) luminaires with their plastic housing designs and plastic niches do not require grounding / bonding.

Spa Electrics ATOM & QUANTUM (EM & WN9) lights have also been determined to comply with the applicable requirements for wet-niche, LED type Swimming Pool and Spa Luminaires.

FCC COMPLIANCE STATEMENT

This device complies with part 15 of the FCC rules. Operation is subject to the following two (2) conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different to that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

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



NOTE

PLEASE STORE THIS
MANUAL IN A SAFE PLACE
FOR FUTURE REFERENCE



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Spa Electrics



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