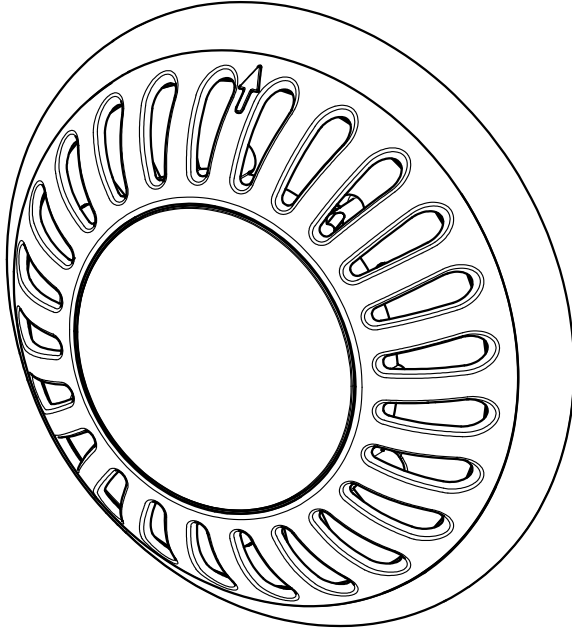# INSTALLATION & OWNER'S MANUAL

ULTRA COMPACT NICHE LIGHT

EMRX

FOR RETRO-FITTING EXISTING POOLS

STORE THIS MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE

atom

EM SERIES

CONTENTS

READ THIS FIRST!

This booklet contains important information about the correct installation and handling of EM-series lights. **Please read this booklet carefully** before commencing installation to familiarise yourself with the included parts, accessories and correct installation procedures.

BEFORE YOU START

- Ensure that the lighting system is installed by a suitably qualified persons (e.g. registered pool builder and/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.
- Check that there is enough cable behind the existing light to allow for servicing above water, preferably *at ground-level pool-side.*
- Ensure the pool light end of cable is circular and free of damage or imperfections i.e. cuts, cracks or deformation. *If possible, trim cable back until a fresh end of cable is available.*
- Confirm existing transformer is a magnetic type, **12V AC ONLY** and in good working order (If in doubt contact Spa Electrics.)
- The EM series light can be mounted at any angle provided the installation conforms to the above.

CLEANING

- Only use warm water and a soft brush or cloth to clean EM-series 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).
- EM-series lights are designed for continuous (24/7) operation.
- EM-series lights are suited for both domestic and commercial installations.

WARNING

- The EM series light must only be powered by a **12V AC** magnetic-type transformer.
- DO NOT use electronic or switch-mode transformers with EM-series lights. These transformers 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

MODEL: EMRX

> Flat-blade screw-driver

> Phillips head (No 2) screw-driver

> Cable stripper

> Pliers

IMPORTANT NOTE (1):

The use of power tools (such as 240V and cordless drills) during installation is **not** recommended as these devices can cause faults and damage to light components.

All EMRX installation steps should be carried out with manual tools only.

IMPORTANT NOTE (2):

Before commencing retro-fit installation of an EMRX Light you must ensure that all connected transformers are **12V AC magnetic-type only**.

If in doubt, contact Spa Electrics.

PRODUCT SUPPORT AND INFORMATION:

Phone: +61 3 9793 2299 (business hours)

Email: info@spaelectrics.com.au (SALES enquiries)

Email: tech@spaelectrics.com.au (TECHNICAL support enquiries)

Web: www.spaelectrics.com.au
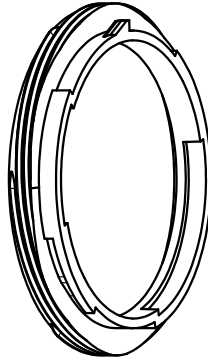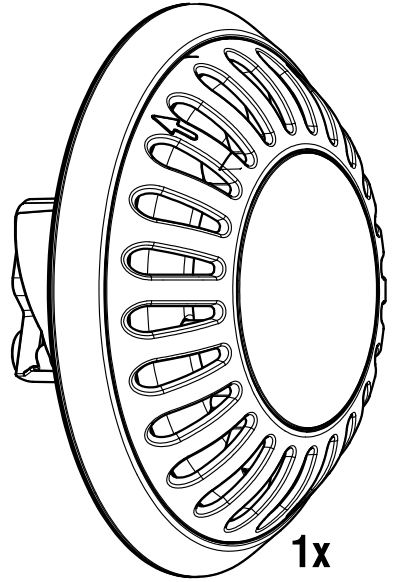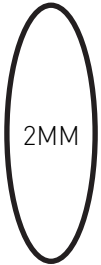
INCLUDED PARTS

MODEL: EMRX

CABLE GLANDS

BLUE **1x**

GREY **1x**

GREEN **1x**

1x

1x

NICHE ADAPTORS (O-RINGS)

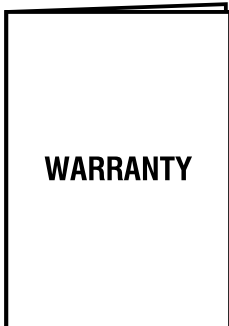2MM **2x**

3MM **2x**

4MM **2x**

EMRX 12

LANOLIN **1x**

WARRANTY **1x**

INSTALLATION MANUAL **1x**
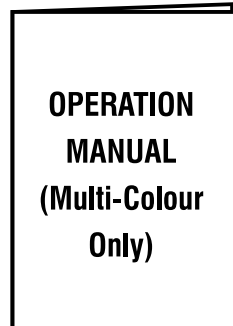
OPERATION MANUAL (Multi-Colour Only) **1x**

1

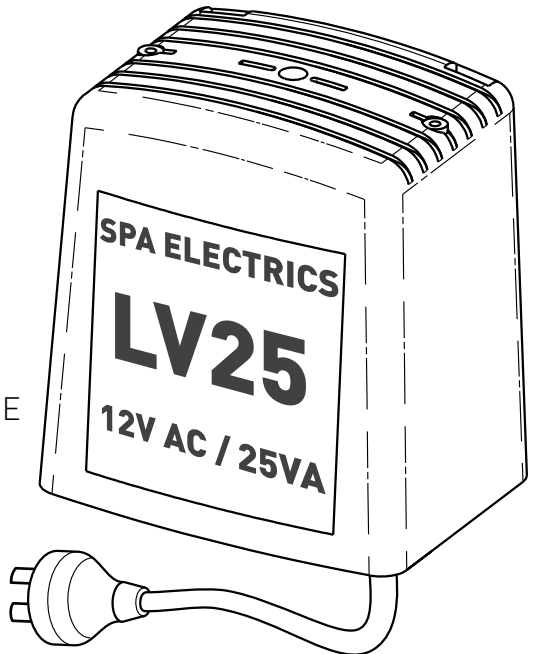TURN POWER OFF

TO EXISTING 12V TRANSFORMER
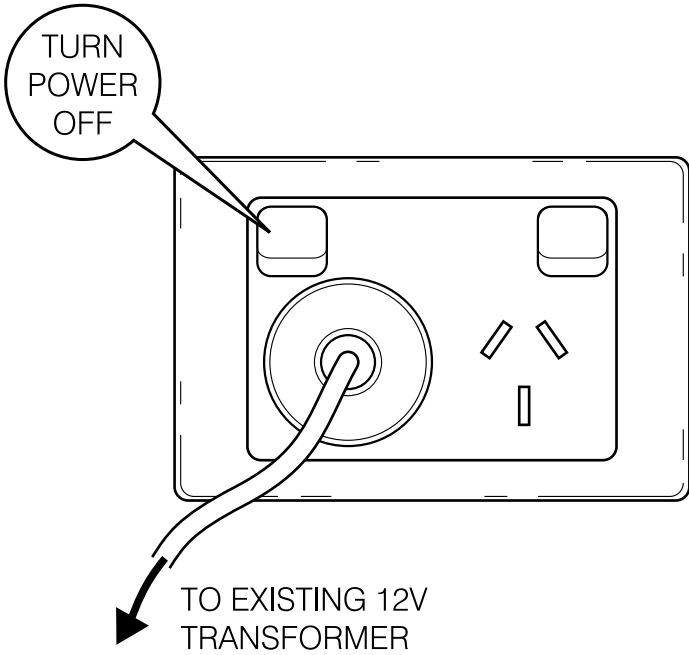
2 CHECK TRANSFORMER

EXISTING TRANSFORMER MUST BE:

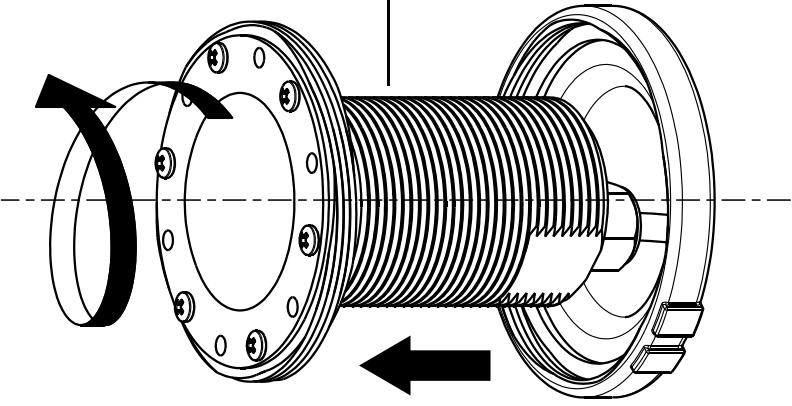- **12V AC ONLY**
- MIN. 15 WATT (PER LIGHT)
- IN GOOD WORKING ORDER

EXISTING TRANSFORMER MUST NOT BE:

- DC OR 'LED DRIVER'
- ELECTRONIC OR SWITCH MODE
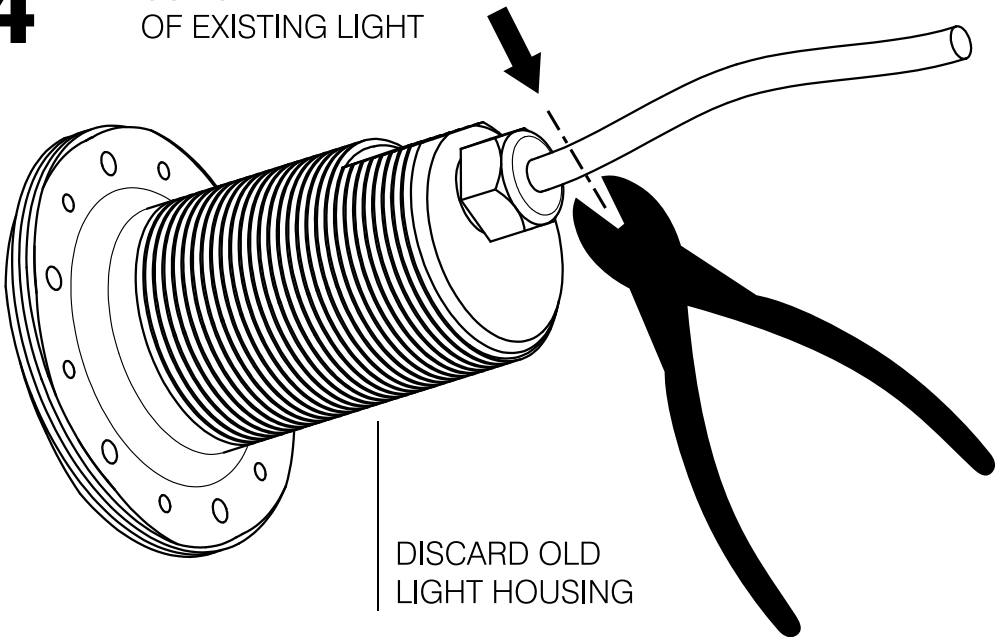- WEATHER DAMAGED OR IN OTHERWISE POOR CONDITION

SPA ELECTRICS
LV25
12V AC / 25VA

3

REMOVE EXISTING LIGHT
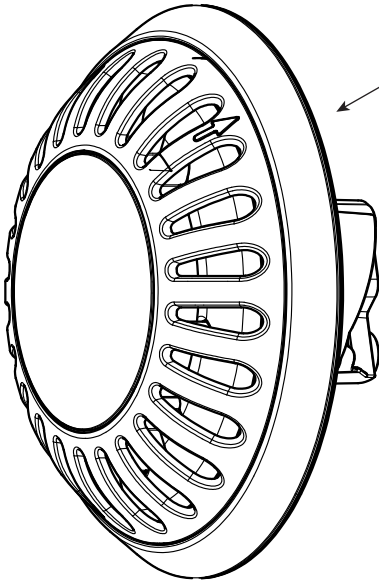FROM NICHE.

4

CUT CABLE AT REAR
OF EXISTING LIGHT

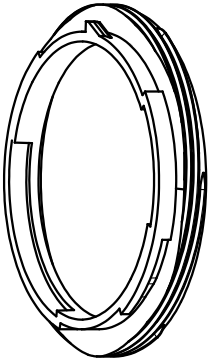DISCARD OLD
LIGHT HOUSING

5 FIT SUITABLE ADAPTOR TO EMRX

NOTE
CLIP-ON SKIRT CAN BE
REMOVED FOR A FLUSH
FINISH (INSTALLATION PERMITTING)

AFFIX TO REAR OF EMRX

PAL ADAPTOR

2mm O'RING

3mm O'RING

4mm O'RING

PAL 2000 (C/F)

PAL TOUCH* (C/F)
*REQUIRES 12V AC
TRANSFORMER.

AUTUMN SOLAR NICHE (C) **(2X O-RING)**

AUTUMN SOLAR NICHE (F) **(2X O-RING)**

W/CO BRITESTREAM 165 (F)**(1X O-RING)**

AQUA DE LIGHT (C)**(2X O-RING)**

50MM PVC PIPE (C)**(2X O-RING)**

AQUA DE LIGHT (F)**(2X O-RING)**

AQUAQUIP EVO 2 (F)* **(1X O-RING)**

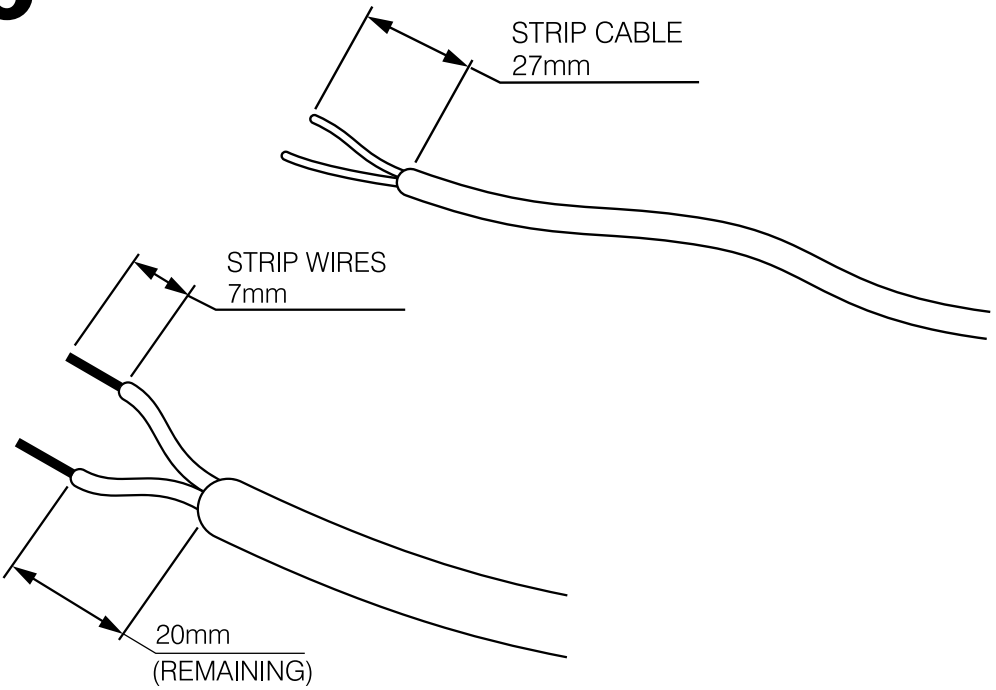*CUT 3 SLOTS IN THE EMRX CLIP-ON SKIRT
 FOR A FLUSH FINISH

(C) CONCRETE INSTALLATIONS
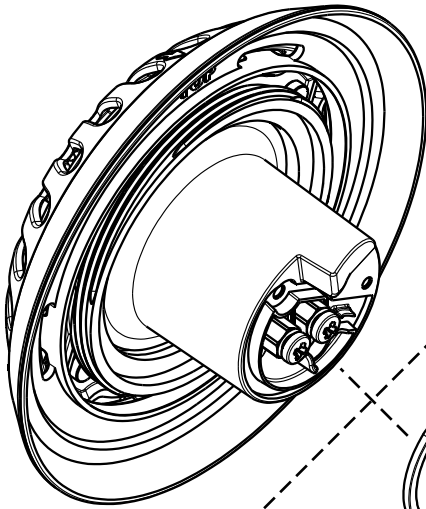**(F)** FIBREGLASS INSTALLATIONS

6 STRIP WIRES

STRIP CABLE
27mm

STRIP WIRES
7mm

20mm
(REMAINING)

7

REMOVE TERMINAL COVER
& SEAL FROM EM LIGHT

1 x SHORT
SCREW

2 x LONG
SCREWS

NOTE:

8
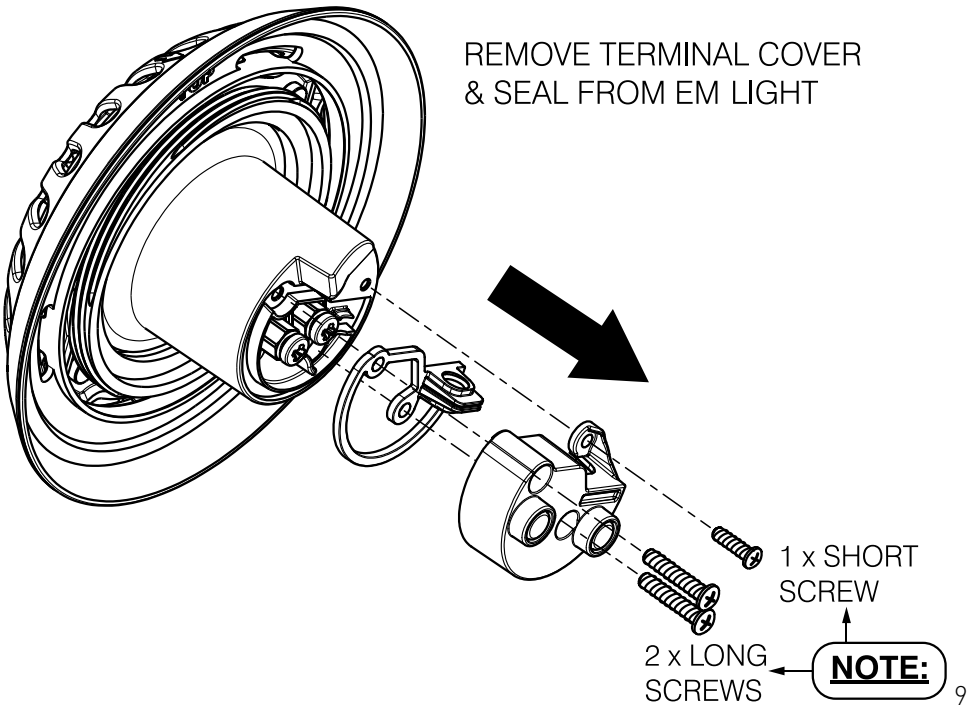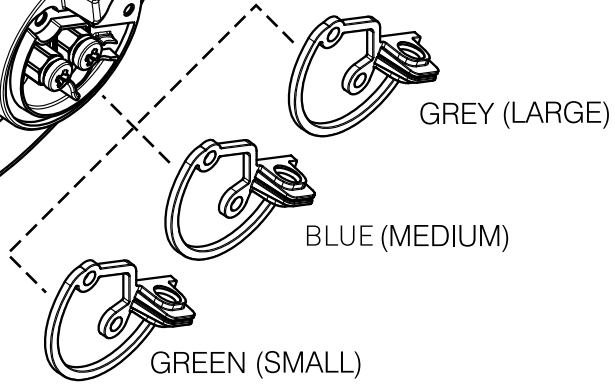
SELECT APPROPRIATE
TERMINAL COVER SEAL
(ENSURE SNUG FIT
OVER CABLE)

GREY (LARGE)

BLUE (MEDIUM)

GREEN (SMALL)

ATTACH SEAL
TO CABLE
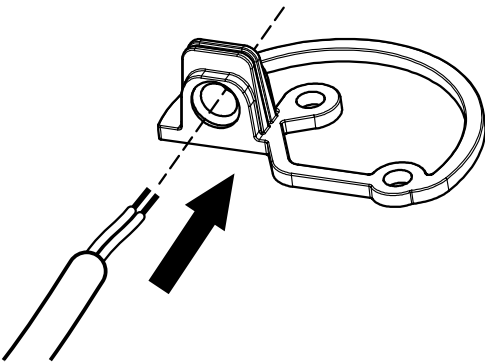
PULL THROUGH
APPROXIMATELY
40mm
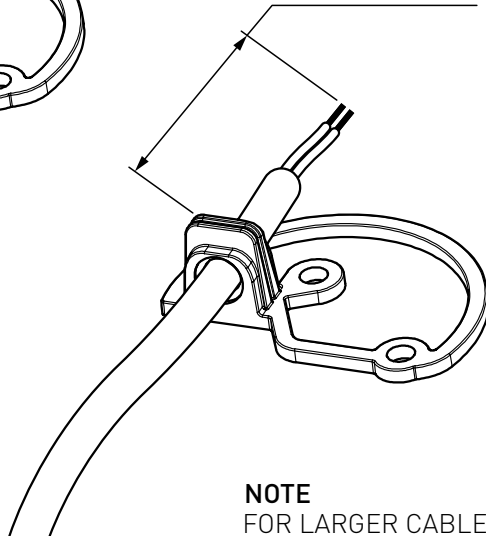
NOTE
FOR LARGER CABLES A CABLE
JOIN MAY BE REQUIRED.
**CONTACT SPA ELECTRICS FOR MORE
INFORMATION.**

9 FOLD SEAL OVER CABLE
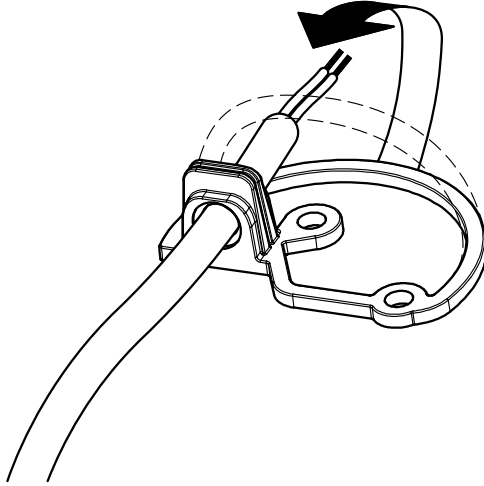
10 LOOSEN TERMINAL FASTENERS
(DO NOT REMOVE)
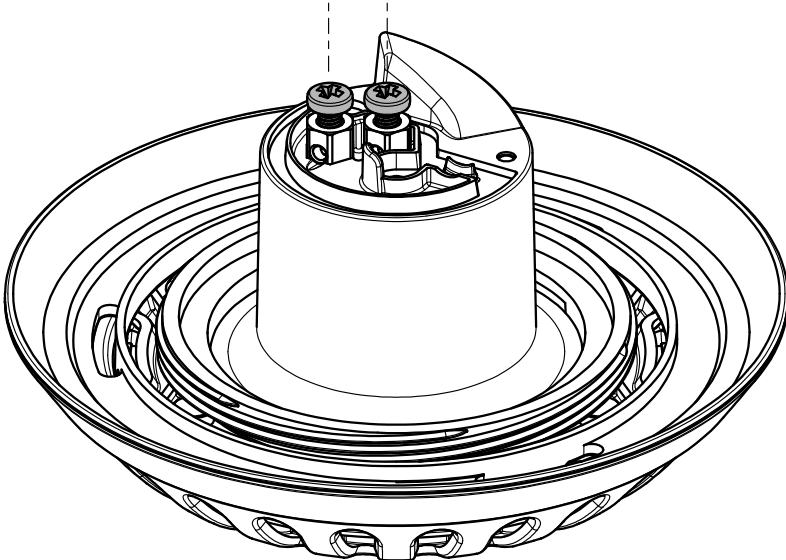
11 INSERT WIRES INTO TERMINALS
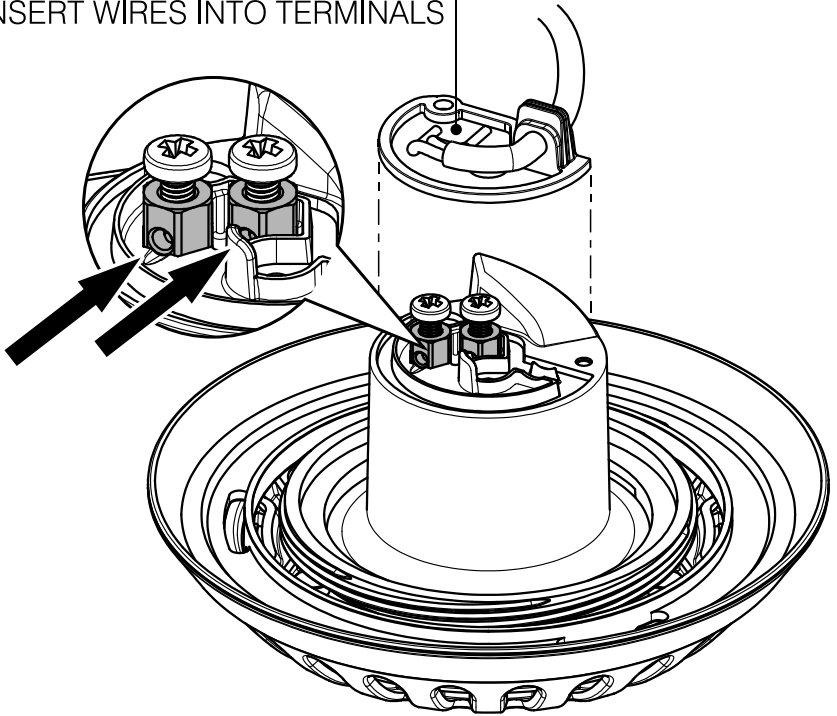
12 TIGHTEN TERMINAL SCREWS
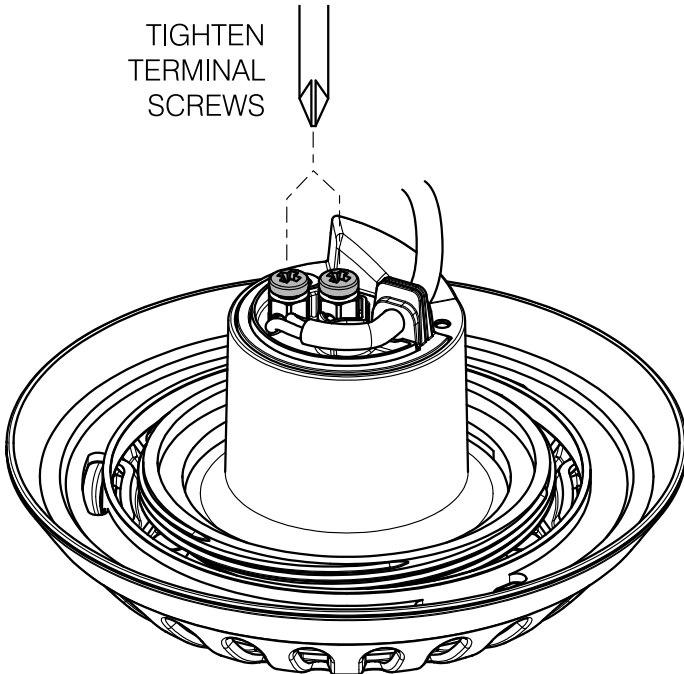
13

(RUN FINGER
AROUND SEAL
TO SEAT FULLY
WITHIN GROOVE)

INSERT SEAL
INTO SEALING
GROOVE

LOCATE
SEAL
ON RIB

14

ATTACH
TERMINAL
COVER
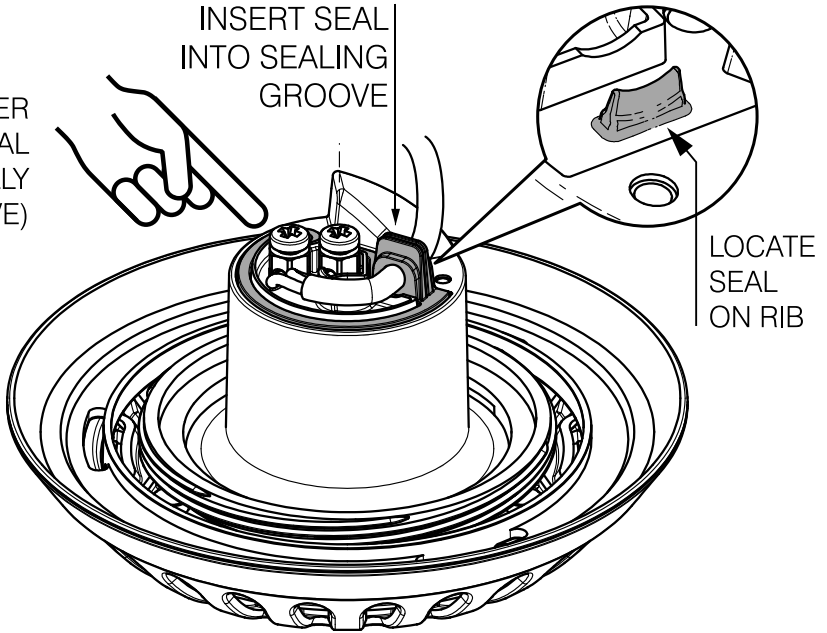
ENSURE SEALING
BEAD AND GROOVE
ARE ALIGNED AND
ACCURATELY COM-
PRESSED TOGETHER

PULL CABLE RIGHT
TO AVOID COLLISION
WITH FASTENING TAB

15

(cable not shown)

1 x SHORT SCREW

FASTEN TERMINAL COVER TO EM-LIGHT HOUSING

2 x LONG SCREWS

NOTE:

16

ENSURE O-RINGS STAY SEATED WITHIN TERMINAL COVER

REMOVE LANOLIN SCREWS

17

1 GENTLY WARM LANOLIN TUBE

LANOLIN

2 REMOVE LID

18

1 FILL TERMINAL CAVITY WITH LANOLIN

LANOLIN

2 STOP FILLING WHEN LANOLIN EXITS TERMINAL COVER (NEAREST TO CABLE)

(USE FILL HOLE FURTHEST FROM CABLE)

19

CHECK O-RINGS ARE PROPERLY SEATED

REPLACE LANOLIN SCREWS

INSTALL EMRX TO NICHE

1

COIL CABLE
ANTI-CLOCKWISE

2

BRING EM-LIGHT
TOWARD NICHE

3

PUSH /FASTEN EMRX
INTO NICHE ENSURING
A FIRM FITMENT BY
HAND ONLY

4

TURN
POWER
ON

TO POOL LIGHT

*NOTE
ONLY TURN POWER ON ONCE
LIGHT IS FULLY SUBMERGED
IN WATER.

MULTI PLUS SETUP

READ THIS FIRST

The MULTI-PLUS light has 7 inbuilt modes of operation for use on a variety of different control systems or installation types.

When you first install your MULTI-PLUS light it will operate in the default, 'Manual' mode for use with a wall switch. In order to connect the light to a 3rd party pool controller OR change to a different operating mode please follow the below steps.

STEP 1 - POOL CONTROLLER SETUP

If connecting to a pool controller, please ensure the system is fully installed and you have completed all the relevant steps in the controller setup menu to operate the lights correctly.

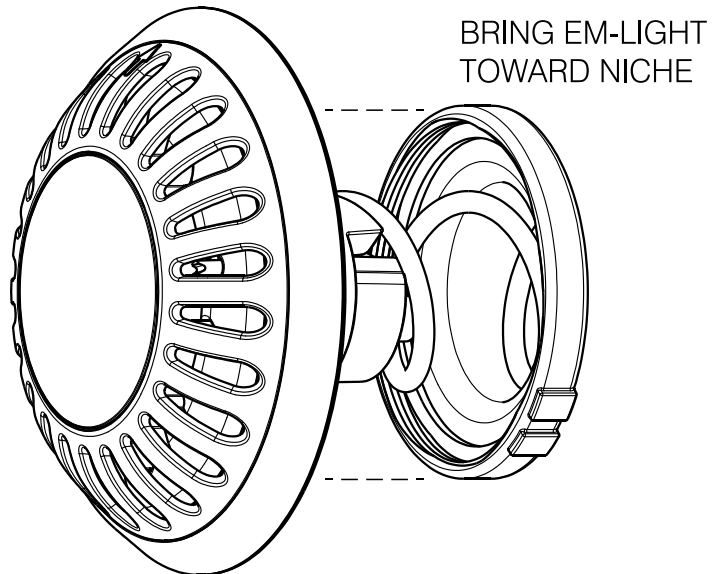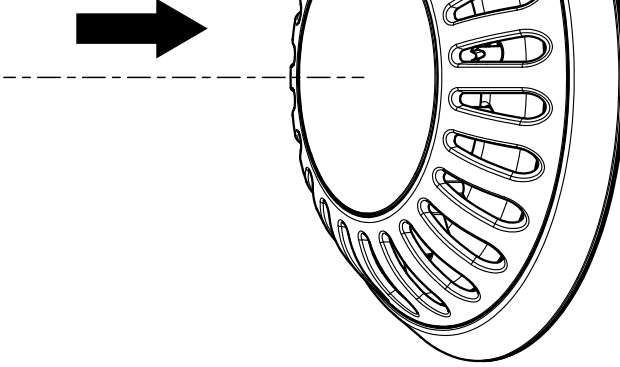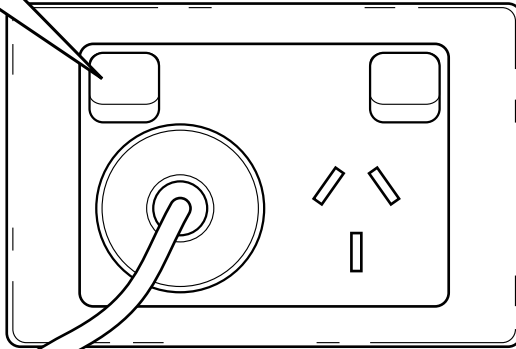**During pool controller setup you will be prompted to select which light model is installed. Please use the below table to select the appropriate light for your pool controller type.**

(For more information on this please refer to the pool controller installation manual).

POOL CONTROLLER	SELECT LIGHT MODEL
Astral **Connect 10** (2016 to current)	**SLX Light**
Jandy **Aqualink RS** (F/W Rev. 'R'- Current)	**Intellibrite Light**
Zodiac **Aqualink TRI**	**Intellibrite Light**
Pentair **EasyTouch**	**Intellibrite Light**
Pentair **IntelliTouch**	**Intellibrite Light**
Hayward **Omnilogic**	**(UCL)Universal Colorlogic**

iRIS Setup
If installing the MULTI PLUS with an **iRIS** remote, please see the **iRIS** installation manual for 'Quick Setup' proceedure.

NOTE: Some older pool controllers may not support these models. Please contact the controller manufacturer for upgrade assistance.

STEP 2 - LIGHT SETUP

IMPORTANT: Ensure Lights have been off for **30 seconds** prior to performing this step.

NOTE: This step can either be performed via a wall switch OR via the controller panel/Mobile App.

1.

TURN LIGHTS **ON**
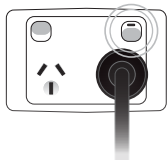
WAIT **1** SECOND

TURN LIGHTS **OFF**
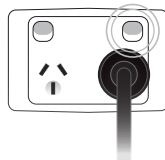
WAIT **12** SECONDS
(min 10s - max 15s)

[REPEAT **x 3**]

2.

TURN LIGHTS **ON**

→

ALL LIGHTS NOW FLASHING
RED
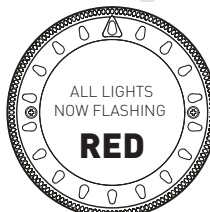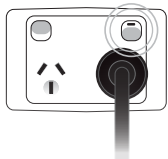
NOTE:
If ALL Lights connected to circuit are NOT continuously flashing RED, please turn Lights **OFF** & **wait 30 seconds** before repeating STEP 2

Continue to STEP 3 ⟶

MULTI PLUS SETUP cont.

After accessing SETUP MODE (STEP 2) the lights will **FLASH RED** continuously. This is MODE 1 (Manual mode)

Use the below process to change the operating mode to correspond to the required controller or operating type below.

TURN LIGHTS **OFF**   TURN LIGHTS **ON**

WAIT **1** SECOND

FLASHING NEXT COLOUR IN SEQUENCE

IMPORTANT: Once desired mode is reached (i.e. "Flashing Green - iRIS Mode) leave power turned ON and continue to STEP 4

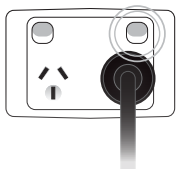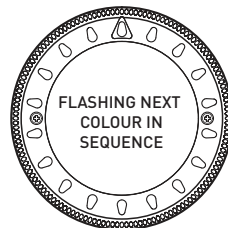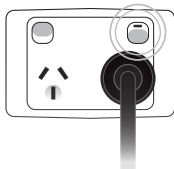| 'FLASHING' COLOUR	CONTROLLER / OPERATING TYPE	LIGHT MODEL SELECTED[1]
1. RED	Manual Mode (wall switch)	-
2. GREEN	Spa Electrics iRIS Controller	-
3. MAGENTA	Astral Connect 10 (2016 to current)	SLX Light
4. WHITE	Jandy Aqualink RS (F/W Rev. 'R'-Current)	Intellibrite Light
	Zodiac Aqualink TRI	Intellibrite Light
	Pentair EasyTouch	Intellibrite Light
	Pentair IntelliTouch	Intellibrite Light
5. BLUE	RGB MULTI Mode[2] (wall switch)	-
6. YELLOW	Hayward Omnilogic	Universal Colorlogic
7. PINK	P-TYPE Mode[3] (Legacy)	Intellibrite Light

NOTE: Should the lights go out of sync at any point during Step 3, turn off the lights for 30 seconds then restart the setup process from Step 2. If this issue persists contact Spa Electrics Support. (03) 9793 2299

Continue to STEP 4

1- Light Model Selected:
This indicates the model of light to be selected in the Pool Controller setup menu.
Refer to STEP 1 of this manual for more information or please contact Spa Electrics. (03) 9793 2299

2- RGB MULTI Mode:
This mode allows the MULTI PLUS light to operate in the standard MULTI-Colour mode. This mode should only be used when operating a MULTI PLUS light from a wall switch with a standard Spa Electrics MULTI-Colour light. For more information please contact Spa Electrics.

3- P-TYPE Mode:
This mode allows the MULTI PLUS light to operate in the RGB P-Type Colour mode. This mode should only be used when operating a MULTI PLUS light in conjunction with an existing Spa Electrics P-Type light. For more information please contact Spa Electrics.

MULTI PLUS SETUP cont.
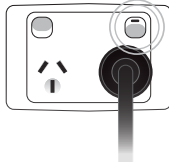
STEP 4 - SAVING OPERATING MODE

Once the desired operating mode is selected follow these steps to save the selection.

TURN SYSTEM **OFF**
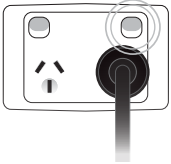
WAIT **30** SECONDS

TURN SYSTEM **ON**

Important
You must wait at least **30** Seconds prior to turning the system back **ON** or selection process will fail and setup will need to be restarted.

STEP 5 - CONFIRM OPERATION

Your setup should now be complete. To confirm the system is working correctly, select a colour via the controller or wall switch (depending on operating mode selected) and check to ensure all lights are synchronised and the correct colour is displayed.

Refer to OPERATING MODE COLOURS for available colours.

MANUAL MODE USER INSTRUCTIONS

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 proceed to the next colour in the sequence.

   Refer to OPERATING MODE COLOURS for available colours.

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 operated colour.

3. To reset or **'synchronize'** your lights; with the power turned **ON**, turn the power **OFF/ON** once rapidly. This will **RESET** your lights to **WHITE**

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

OPERATING MODE COLOURS

MANUAL MODE (DEFAULT)

1	WHITE 4000K
2	AQUA
3	BLUE
4	MAGENTA
5	RED
6	LIME
7	GREEN
8	OCEANIC VIEWS
9	TRANSCENDENCE
10	OUTBACK AUSTRALIA
11	SPRING EQUINOX

iRIS MODE

1	WHITE 4000K
2	AQUA
3	BLUE
4	MAGENTA
5	RED
6	LIME
7	GREEN
8	OCEANIC VIEWS
9	TRANSCENDENCE
10	OUTBACK AUSTRALIA
11	SPRING EQUINOX

CONNECT 10 MODE

1	BLUE
2	MAGENTA
3	RED
4	ORANGE
5	GREEN
6	AQUA
7	WHITE
8	CUSTOMISED COLOUR
9	RAINBOW PATTERN
10	OCEAN PATTERN
11	DISCO PATTERN

UNIVERSAL COLORLOGIC MODE

1	VOODOO LOUNGE
2	DEEP BLUE SEA
3	ROYAL BLUE
4	AFTERNOON SKIES
5	AQUA GREEN
6	EMERALD
7	CLOUD WHITE
8	WARM RED
9	FLAMINGO
10	VIVID VIOLET
11	SANGRIA
12	TWILIGHT
13	TRANQUILITY
14	GEMSTONE
15	USA
16	MARDI GRAS
17	COOL CABARET

INTELLIBRITE MODE

1	SAM
2	PARTY
3	ROMANCE
4	CARIBBEAN
5	AMERICAN
6	CALIFORNIA SUNSET
7	ROYAL
8	BLUE
9	GREEN
10	RED
11	WHITE
12	MAGENTA

P-TYPE MODE

1	SAM
2	PARTY
3	ROMANCE
4	CARIBBEAN
5	AMERICAN
6	CALIFORNIA SUNSET
7	ROYAL
8	BLUE
9	GREEN
10	RED
11	WHITE
12	MAGENTA

STANDARD MULTI* MODE

1	BLUE
2	MAGENTA
3	RED
4	LIME
5	GREEN
6	AQUA
7	WHITE 1
8	WHITE 2
9	SLOW COLOUR BLEND
10	FAST COLOUR CHANGE

*Standard MULTI Mode:
This mode allows the MULTI PLUS light to operate in the standard MULTI-Colour mode. This mode should only be used when operating a MULTI PLUS light from a wall switch or RM-2, in conjunction with a standard Spa Electrics MULTI-Colour light.

For more information please contact Spa Electrics. (03) 9793 2299

STANDARD MULTI USER INSTRUCTIONS

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 proceed to the next colour.

   Refer to OPERATING MODE COLOURS for available colours. (Standard MULTI Mode)

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 operated colour.

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** and will continually **FLASH BLUE**. Turn your lights **OFF for 2 seconds,** then turn **ON.** All lights will now be synchronized

SYNCHRONIZED INSTALLATION

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

⚠ **NOTE**

PLEASE STORE THIS MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE

SE Spa Electrics