



atom
emSERIES

A large, stylized illustration of a pool light fixture. It features a circular outer ring with several teardrop-shaped cutouts. Inside this ring is a smaller circular area with a grid of small circles, representing the light's lens or diffuser. A white rectangular box is overlaid on the left side of the fixture, containing the text 'EMC FOR CONCRETE POOLS'.

EMC

FOR CONCRETE POOLS

ULTRA COMPACT NICHE LIGHT

**INSTALLATION &
OWNER'S MANUAL**

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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:

- EM-series cables can be shortened to suit individual installation requirements. Spa Electrics recommends all cabling is protected by conduit and that a conduit draw-box (or similar) is incorporated into pool cabling design to avoid siphoning. 20m cable is supplied as standard; 30m & 50m cable lengths are available to order from Spa Electrics or your distributor.
- Ensure that the lighting system is installed by a suitably qualified person (e.g. registered pool builder and/or qualified electrician), in accordance with the most current edition and/or amendment of AS/NZS 3000:2007 standards.
- For safe and proper installation, ensure that only those parts supplied with the system are used.
- Maximum installation depth for EM-Series lights is 400mm below coping (to centre of light)
- All lights should be mounted in a location that is easily accessible without the need for entering or lowering the pool water.
- At least 700mm cable must remain stored within the Niche to ensure the light can be accessed above the waterline. (Maximum cable within niche = 2 metres).
- EM-series lights can be mounted at any angle provided the installation conforms to the above items.

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 suited for both domestic and commercial installations and can be operated continuously (24/7) if required.



WARNING

The EM series light must only be powered by the supplied 12V AC SPA ELECTRICS 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

- No. 2 Phillips screwdriver
- 13mm open-ended spanner
- Flat-blade screw driver (for EM-light removal)



IMPORTANT NOTE

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 installation steps should be carried out with manual tools only.

PRODUCT SUPPORT & INFORMATION

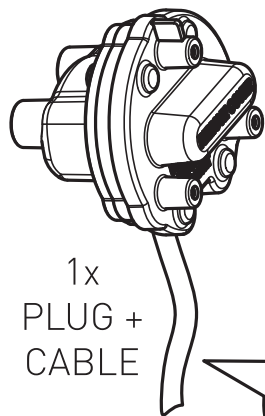
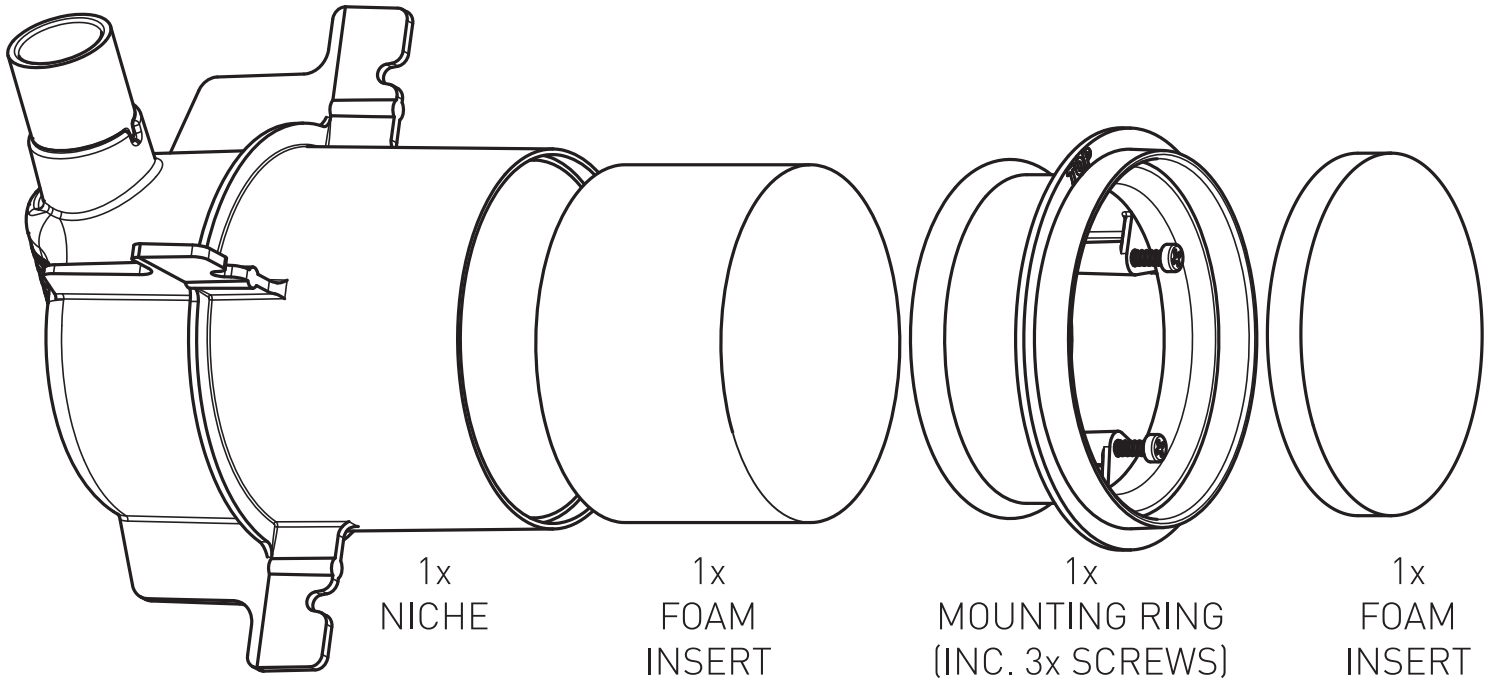
Phone: +61 3 9793 2299 (business hours)

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

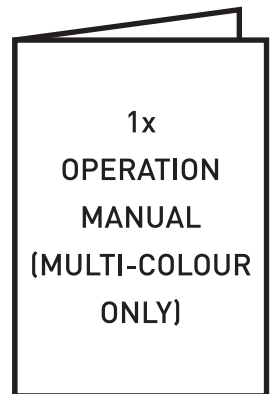
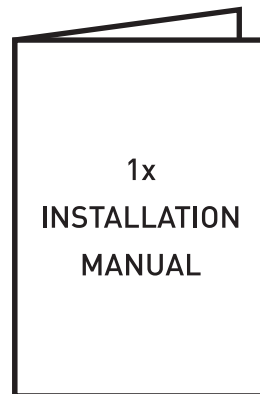
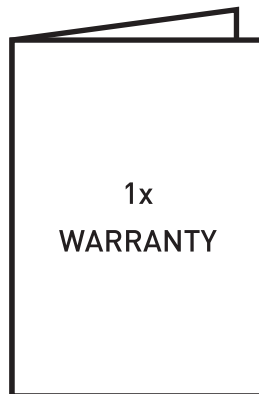
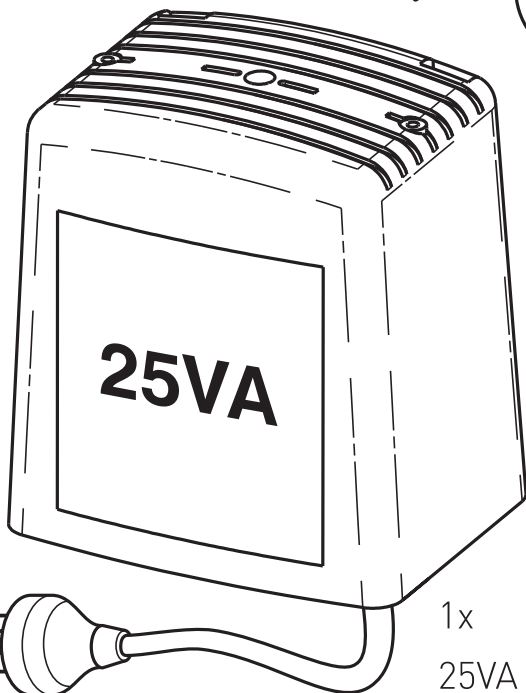
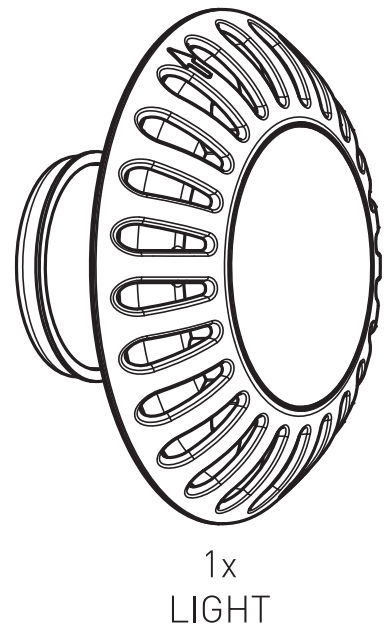
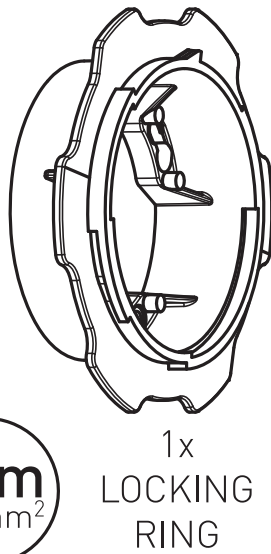
Email: tech@spaelectrics.com.au (TECHNICAL support enquiries)

Web: www.spaelectrics.com.au

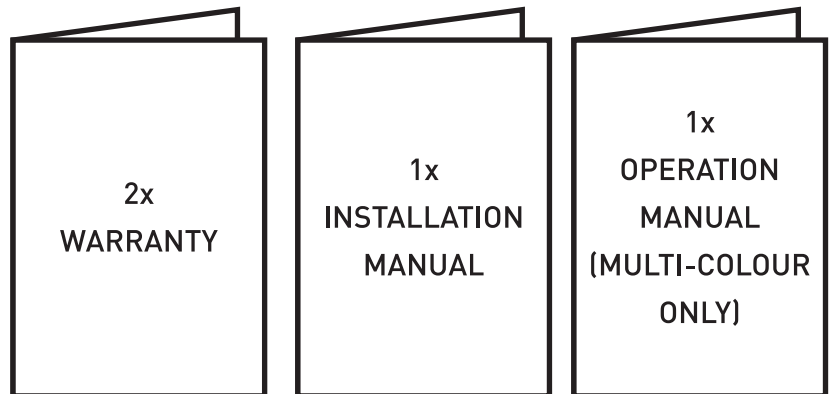
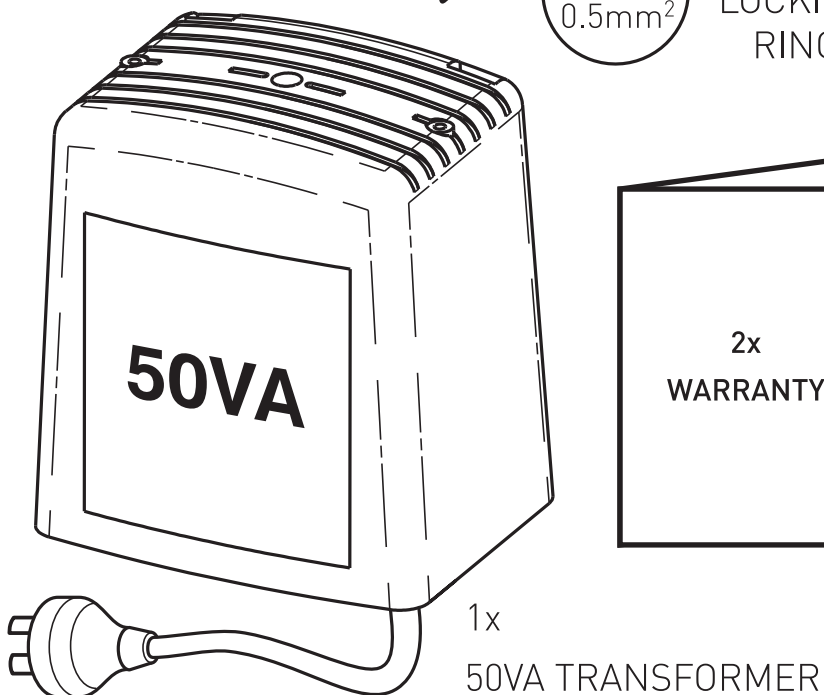
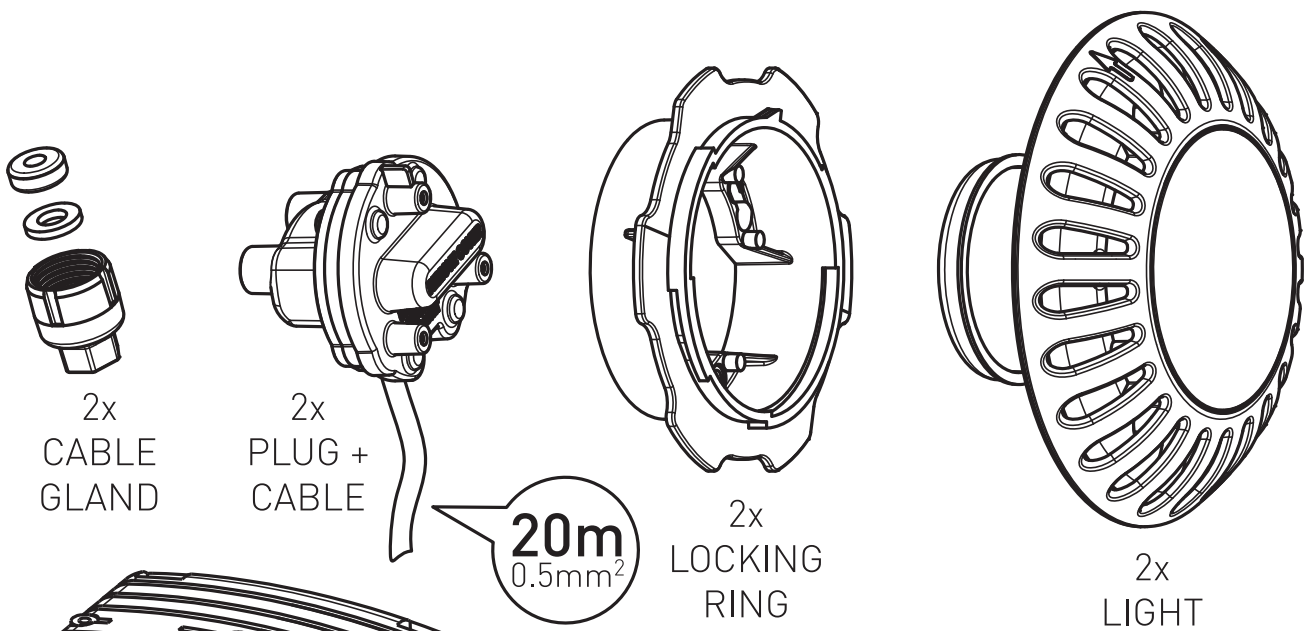
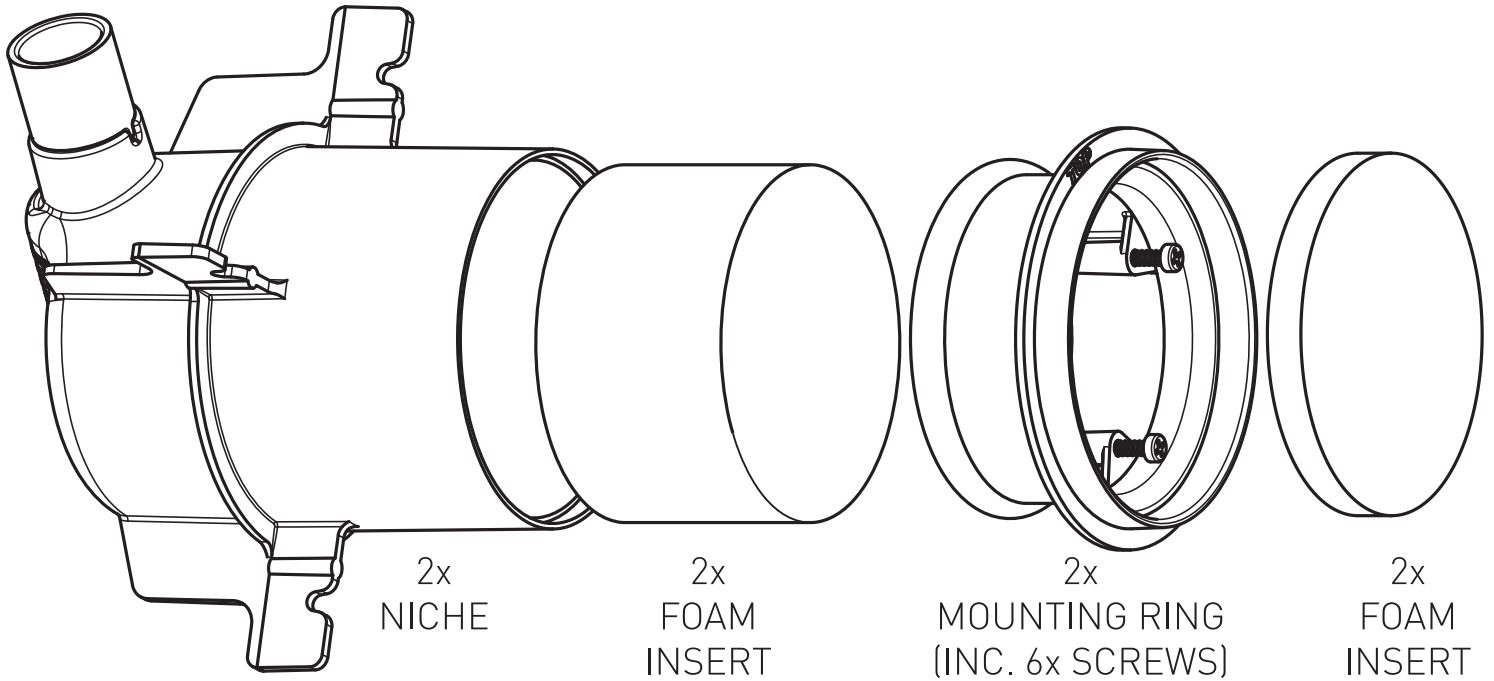
INCLUDED PARTS (25VA SINGLE KIT)



20m
0.5mm²

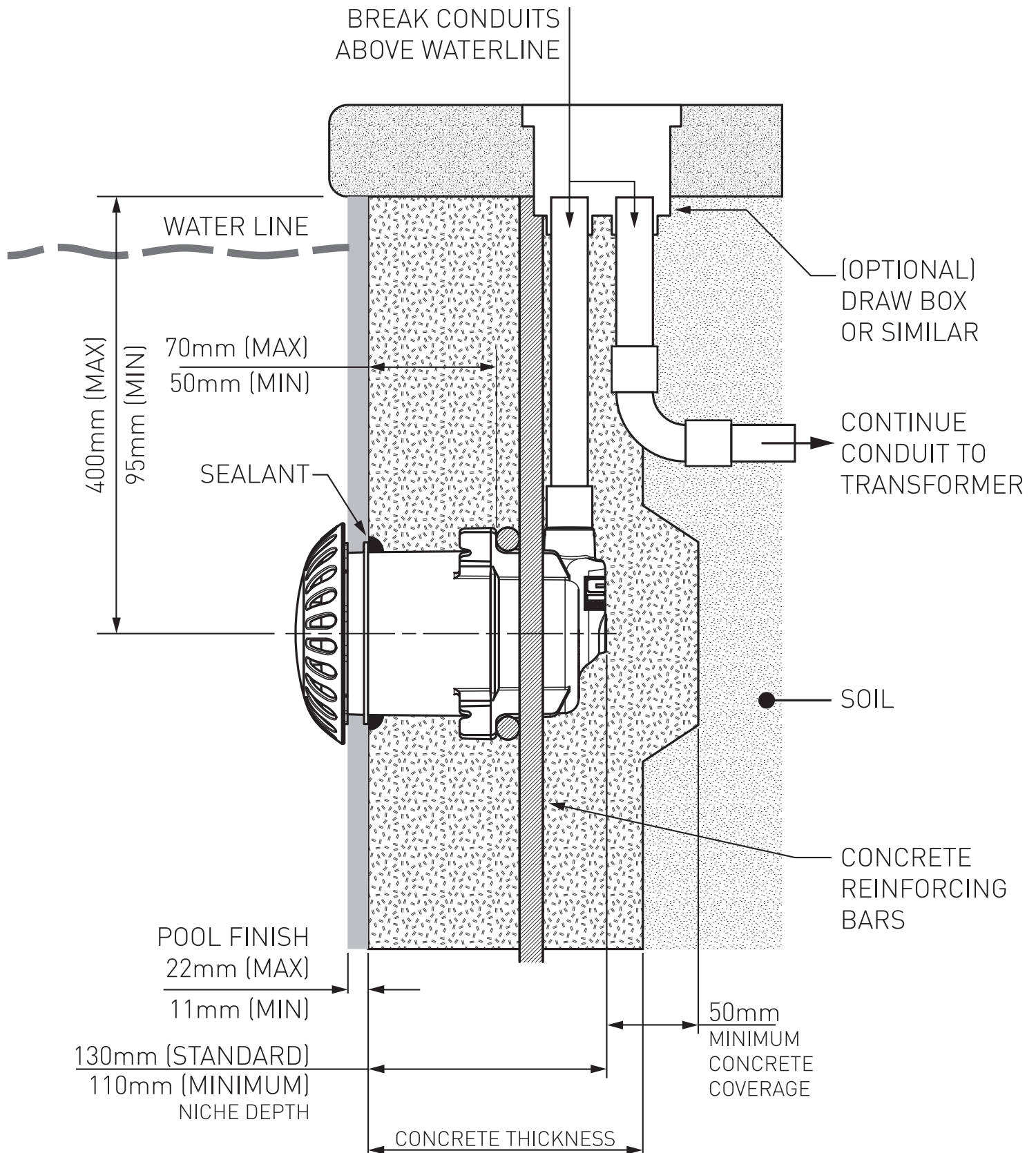


INCLUDED PARTS (50VA DUAL KIT)



FINISHED INSTALLATION

OPTION 1: STANDARD WALL MOUNTING



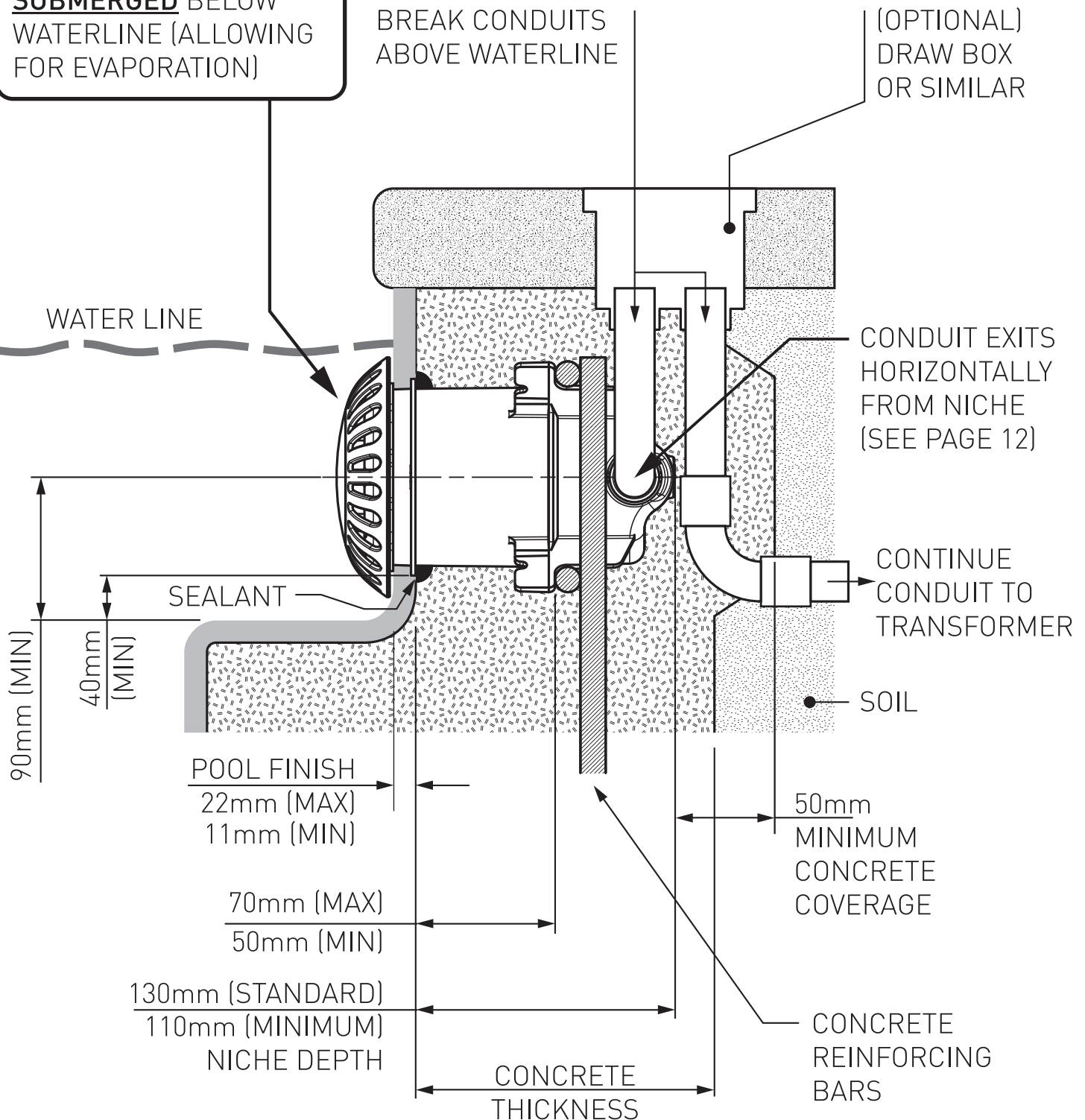
FINISHED INSTALLATION

OPTION 2: STEP MOUNTING



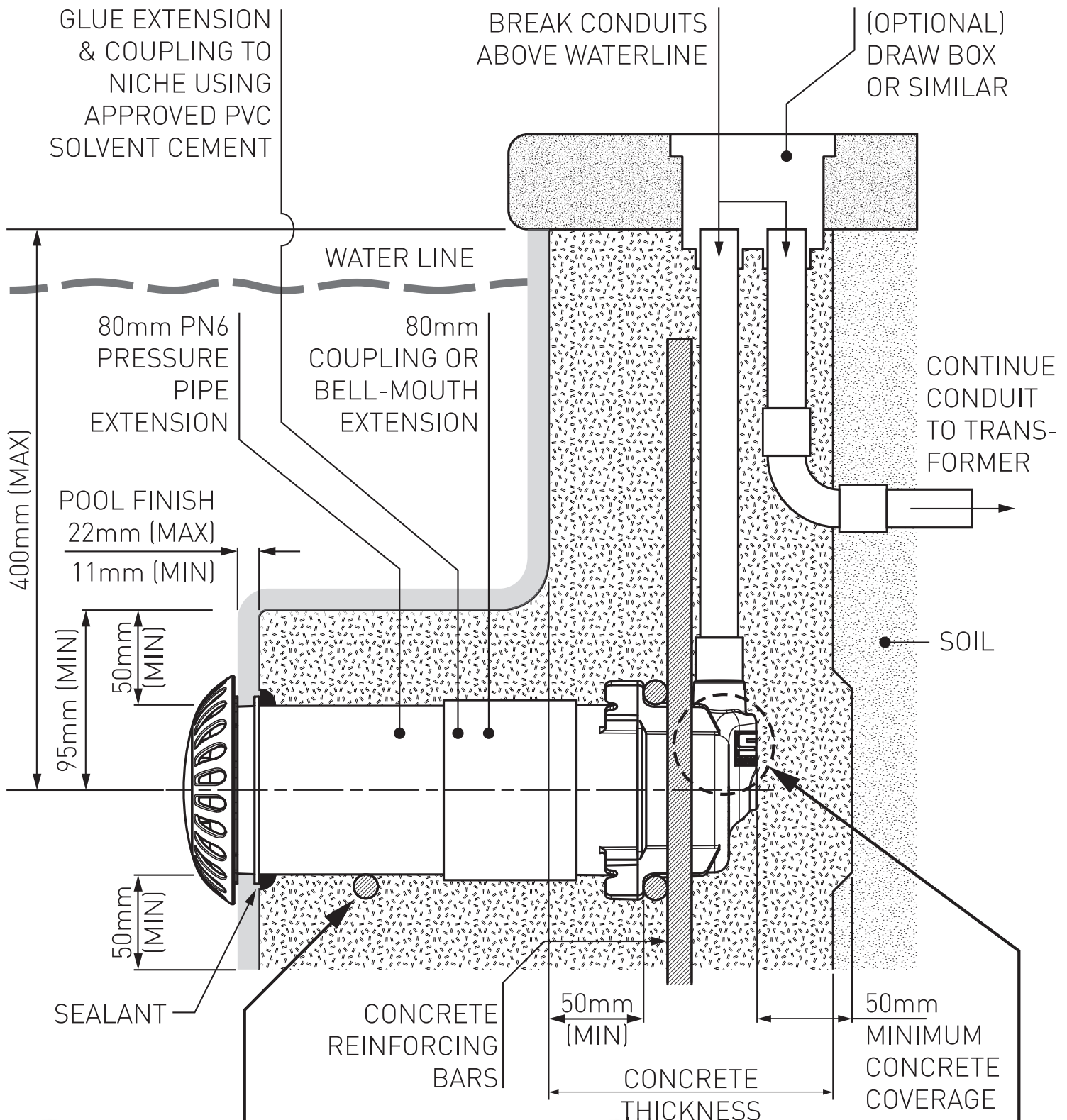
NOTE

ENSURE INSTALLED LIGHT IS **FULLY SUBMERGED** BELOW WATERLINE (ALLOWING FOR EVAPORATION)



FINISHED INSTALLATION

OPTION 3: SWIM-OUT OR FREE-FORM MOUNTING



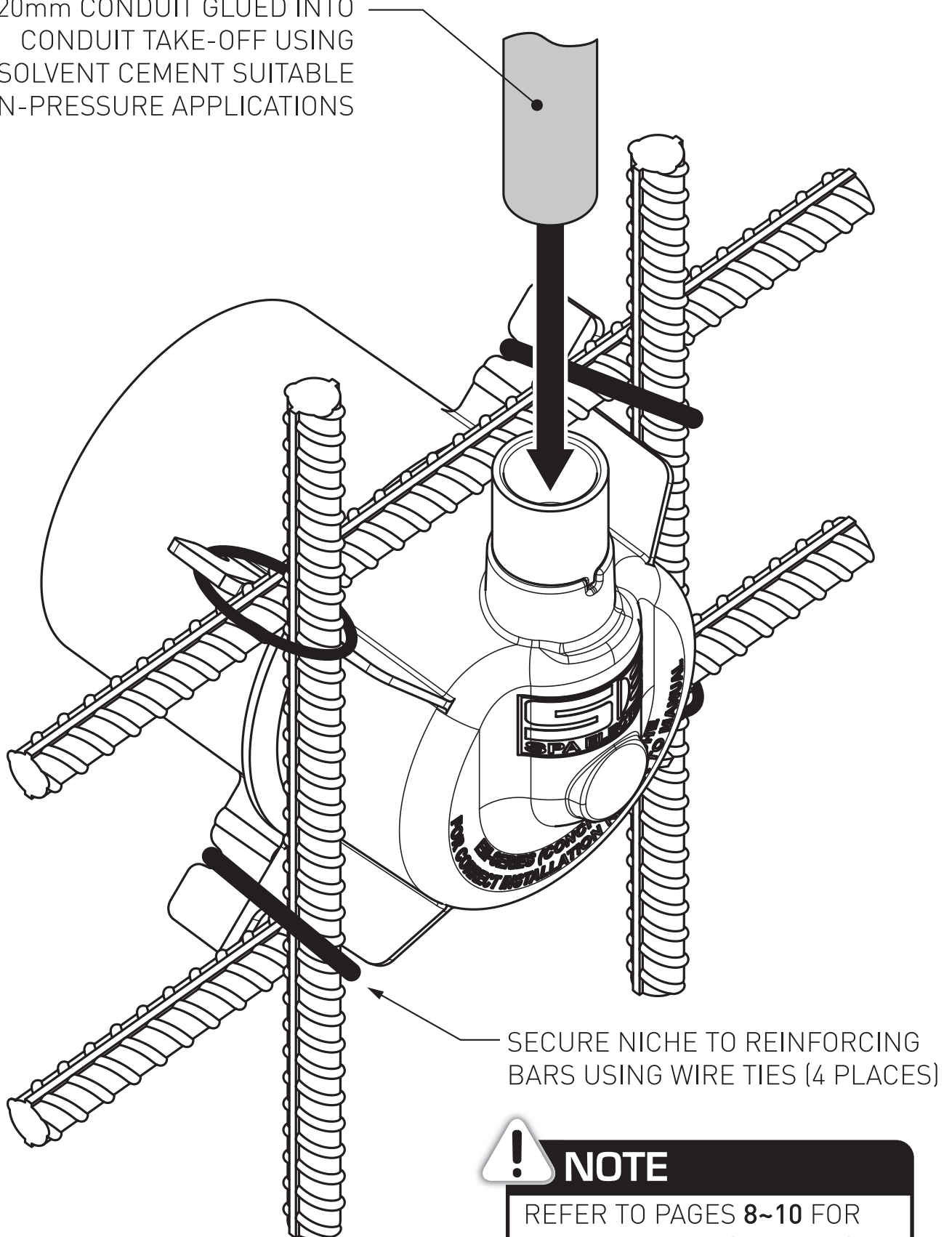
NOTE
ADDITIONAL SUPPORT IS RECOMMENDED FOR LONGER EXTENSIONS TO KEEP LIGHT LEVEL & SECURE DURING CONCRETING

NOTE
REMOVAL OF CABLE GLAND AND USAGE OF DRAW-WIRE IS RECOMMENDED IN THIS INSTALLATION CONFIGURATION

FINISHED INSTALLATION

1 VERTICAL CONDUIT INSTALLATION

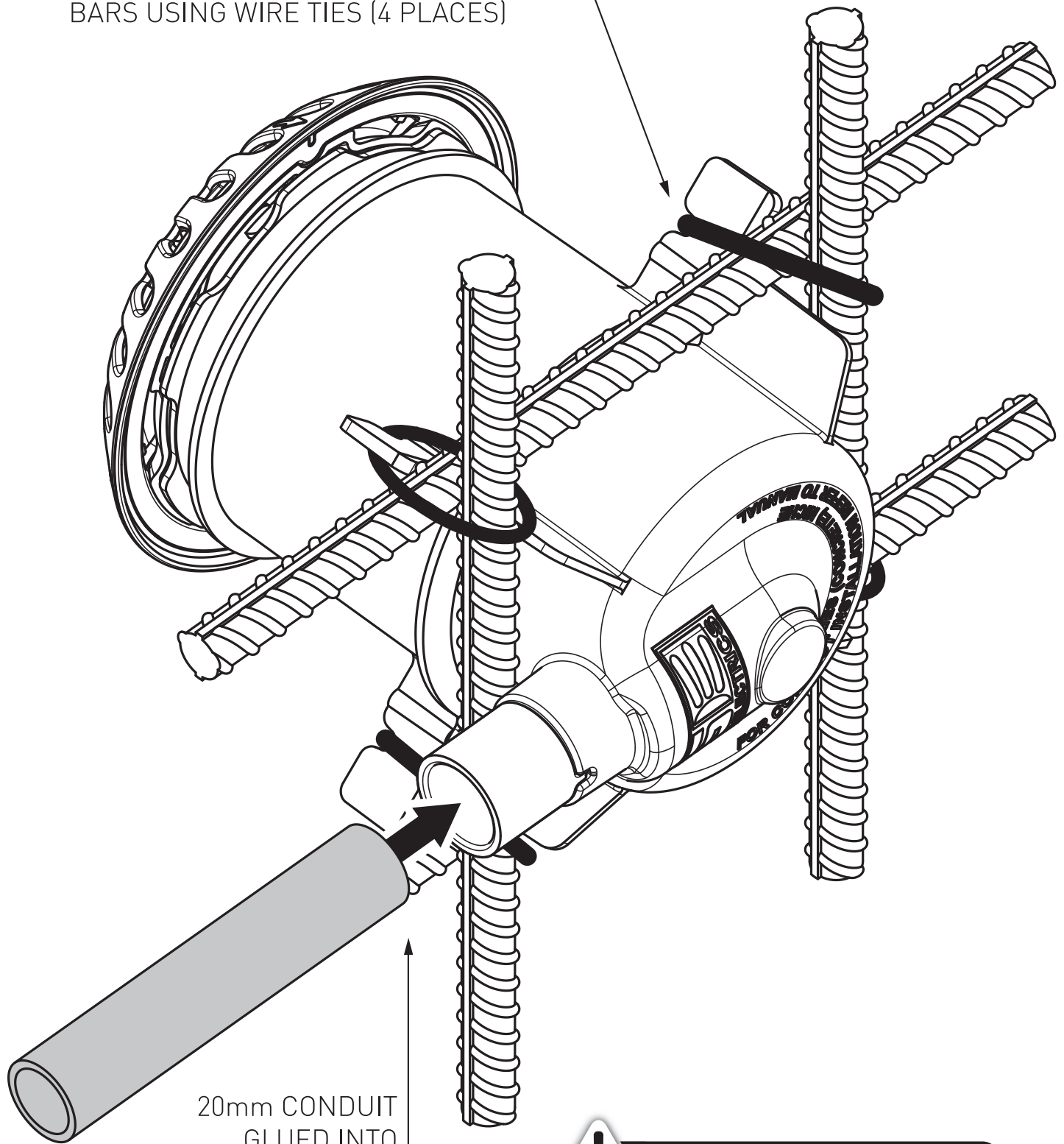
20mm CONDUIT GLUED INTO
CONDUIT TAKE-OFF USING
PVC SOLVENT CEMENT SUITABLE
FOR NON-PRESSURE APPLICATIONS



NOTE

REFER TO PAGES 8~10 FOR
ALTERNATIVE INSTALLATION
CONFIGURATIONS

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



20mm CONDUIT
GLUED INTO
CONDUIT TAKE-OFF
USING APPROVED
PVC SOLVENT
CEMENT

NOTE

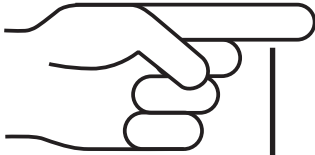
REFER TO PAGES 8~10 FOR
ALTERNATIVE INSTALLATION
CONFIGURATIONS

3

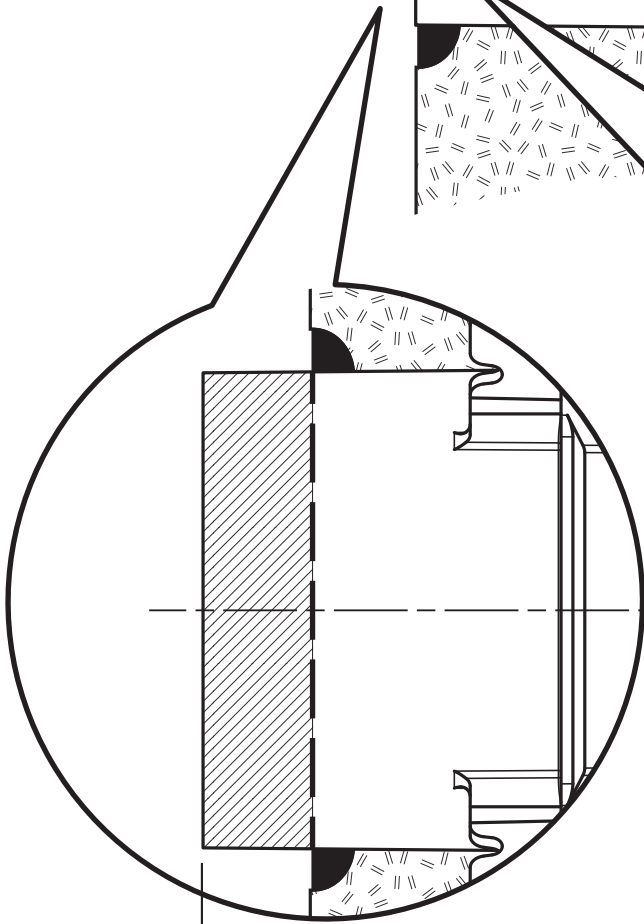
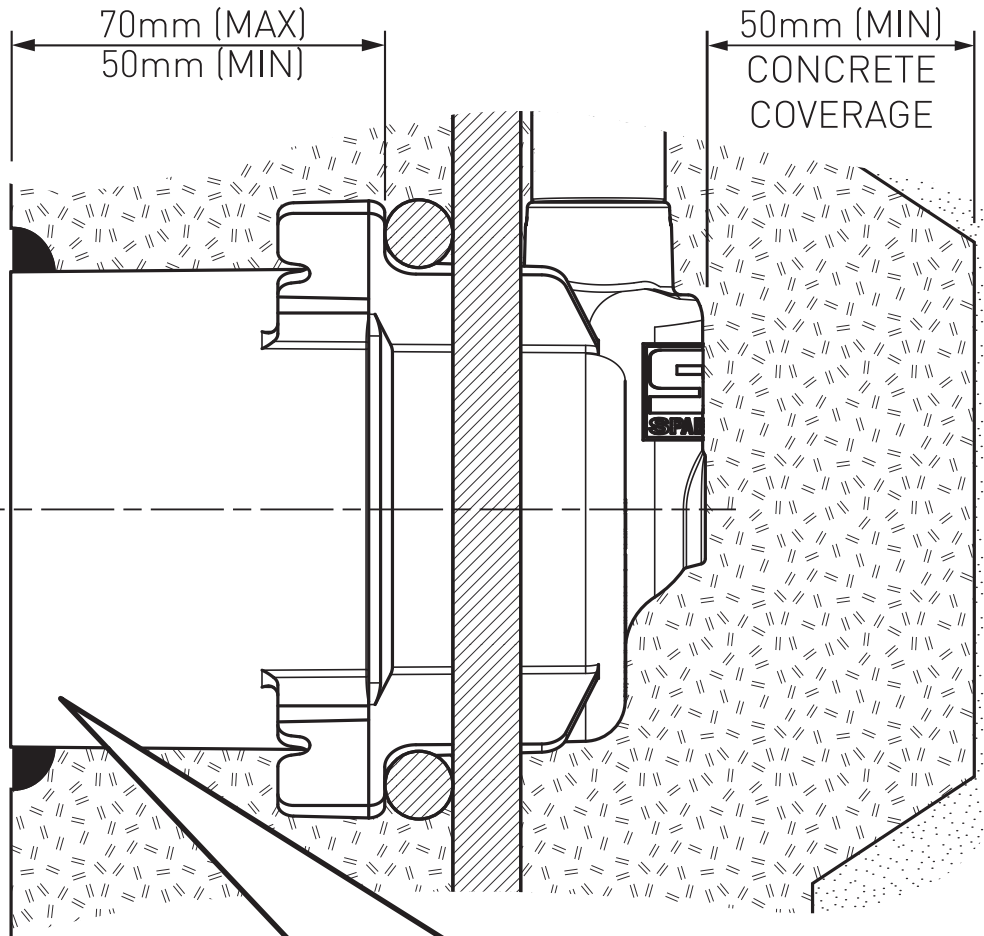
NICHE + CONCRETE DETAILS



NOTE



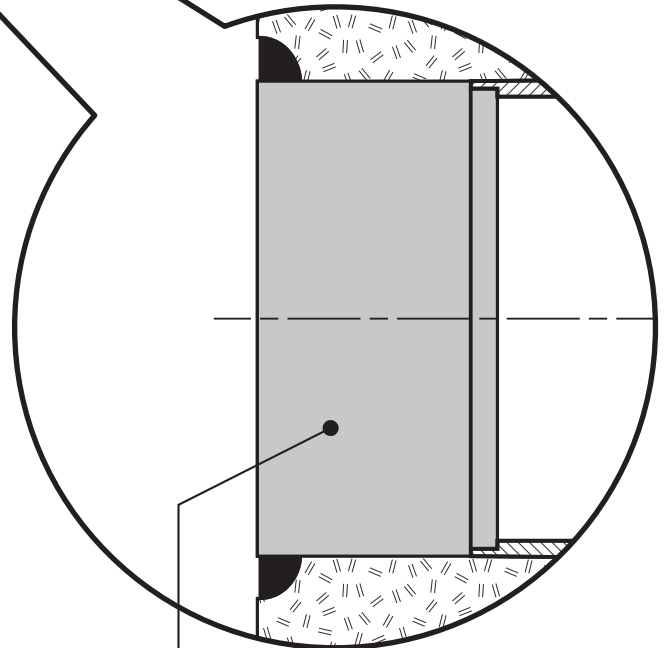
SCALLOP CONCRETE AROUND NICHE PERIMETER AND FILL WITH SEALANT



20mm (MAX)

NICHE PROTRUDING?

NICHE CAN BE TRIMMED A MAXIMUM OF 20mm IF IT PROTRUDES FORWARD OF FINISHED CONCRETE SURFACE

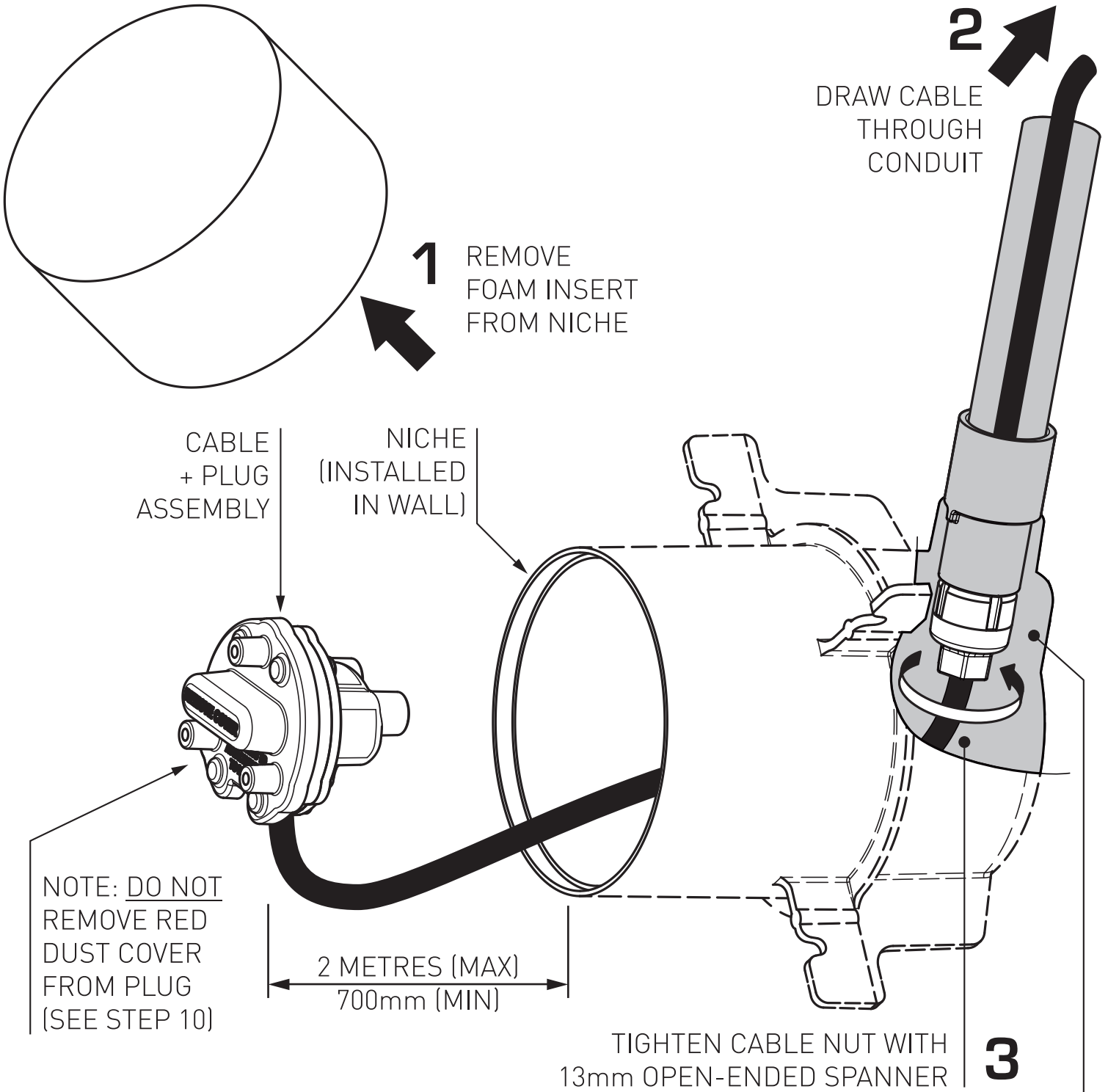


NICHE RECESSED?

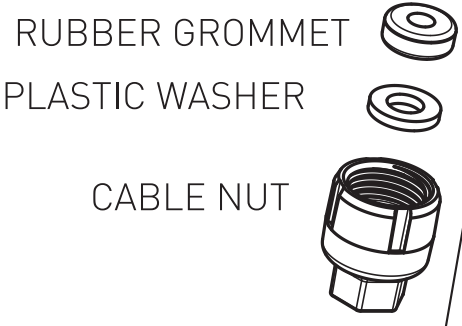
IF NICHE PULLS BACK DURING CONCRETING, INSERT **NICHE-EXTENSION** (CONTACT SPA ELECTRICS)

4

INSTALL CABLE & PLUG INTO NICHE



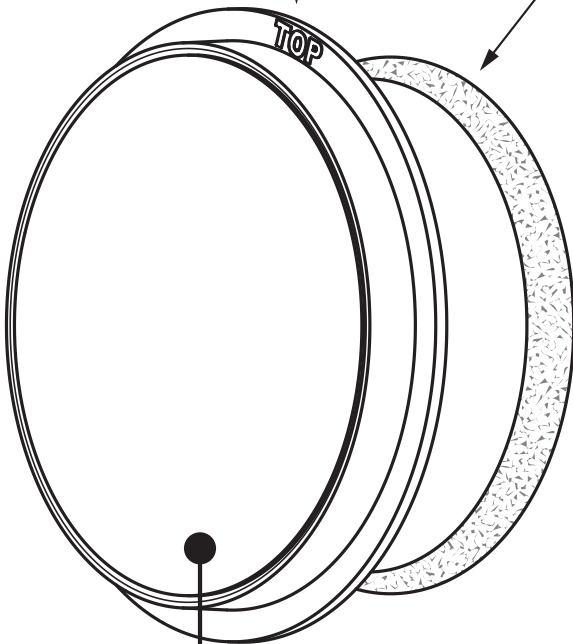
NOTE
ENSURE CABLE GLAND COMPONENTS ARE ASSEMBLED AS SHOWN



5

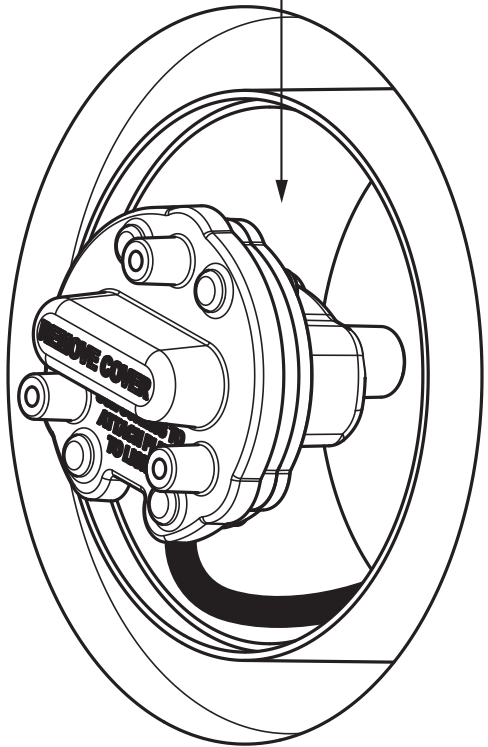
INSTALL MOUNTING RING INTO NICHE

NOTE
ENSURE "TOP" IS POSITIONED CORRECTLY



2 APPLY PVC SOLVENT CEMENT TO MOUNTING RING

1 COIL PLUG & CABLE INSIDE NICHE



3 FIRMLY PUSH MOUNTING RING INTO NICHE

NOTE
ENSURE FOAM INSERT REMAINS IN MOUNTING RING (UNTIL STEP 8)

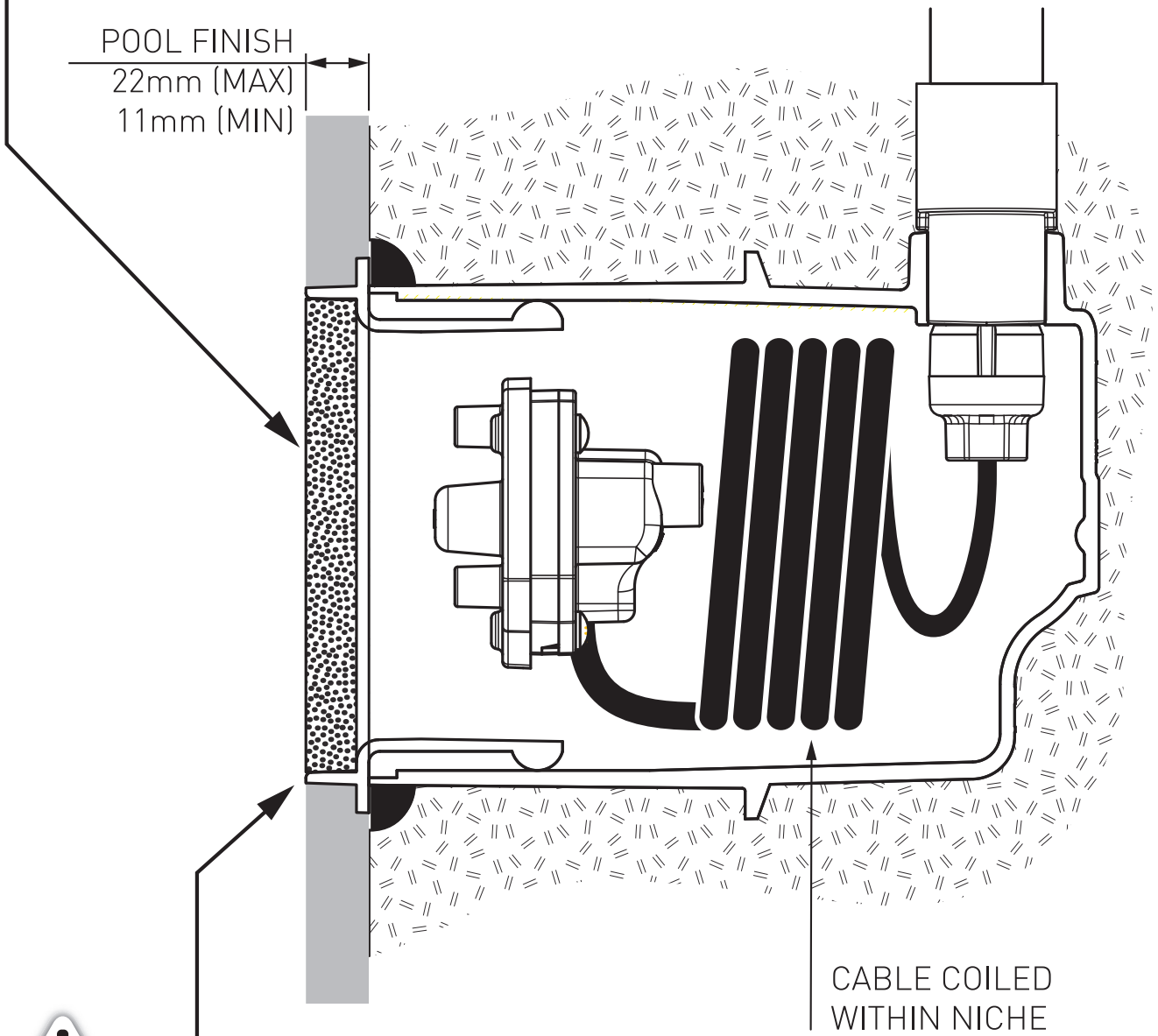
6

APPLY POOL FINISH



NOTE

FOAM INSERT MUST REMAIN IN MOUNTING RING DURING RENDERING / TILING

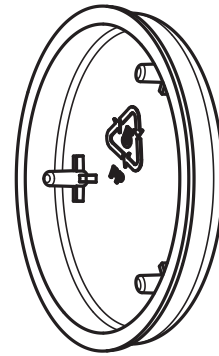
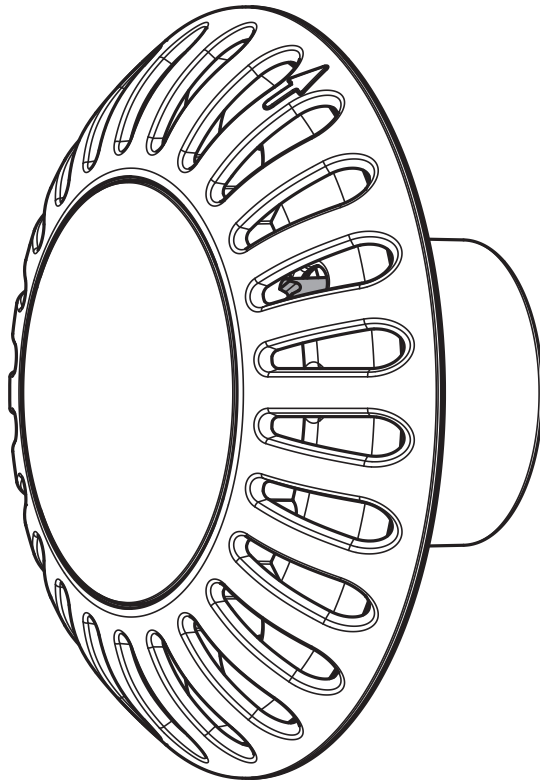


NOTE

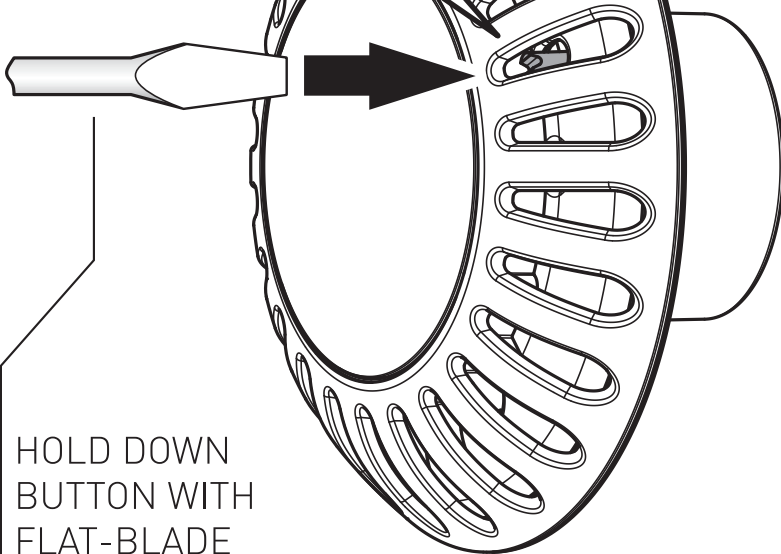
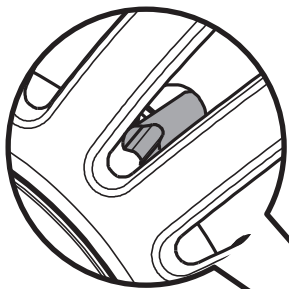
DO NOT TRIM
FRONT EDGE OF
MOUNTING RING

7

REMOVE LOCKING RING

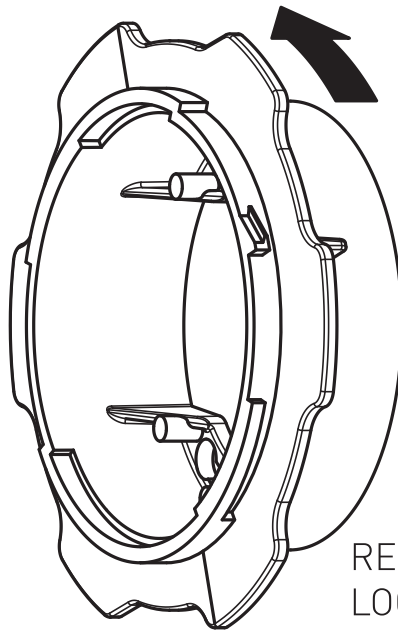


1 REMOVE
DUST CAP



2 HOLD DOWN
BUTTON WITH
FLAT-BLADE

3 ROTATE ANTI-CLOCKWISE &
RELEASE LOCKING RING

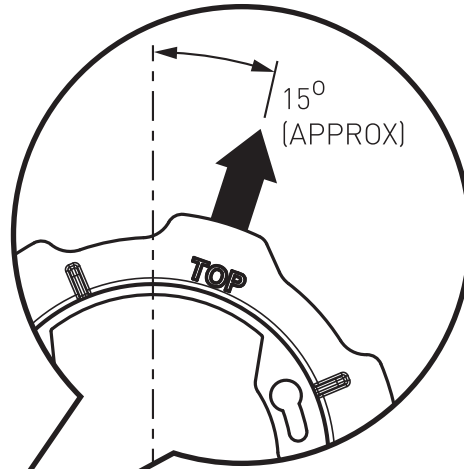
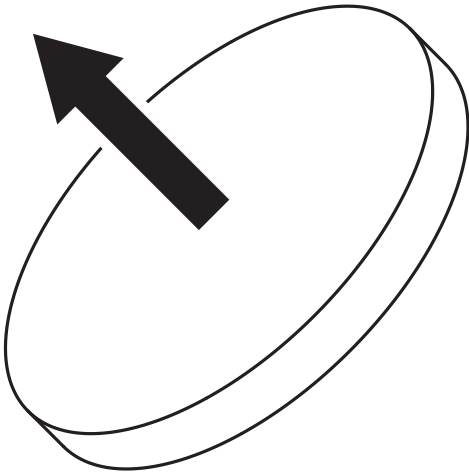


4
REMOVE
LOCKING
RING

8

ASSEMBLE LOCKING RING TO MOUNTING RING

1 REMOVE FOAM INSERT FROM MOUNTING RING



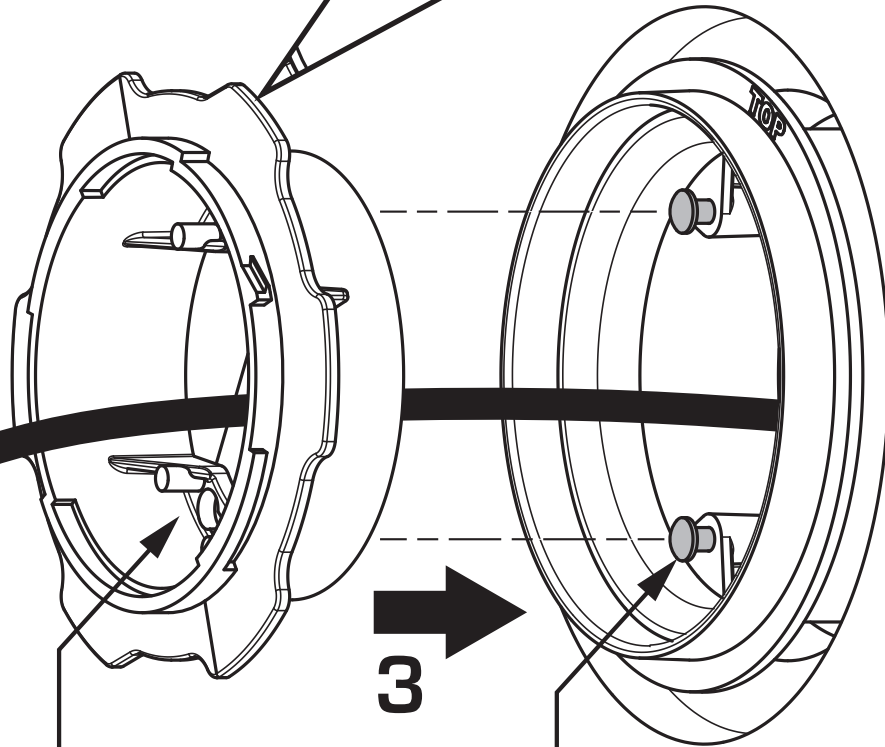
ROTATE LOCKING RING TO ALIGN KEY-HOLES WITH SCREW-HEADS

PULL PLUG + CABLE THROUGH LOCKING RING

2

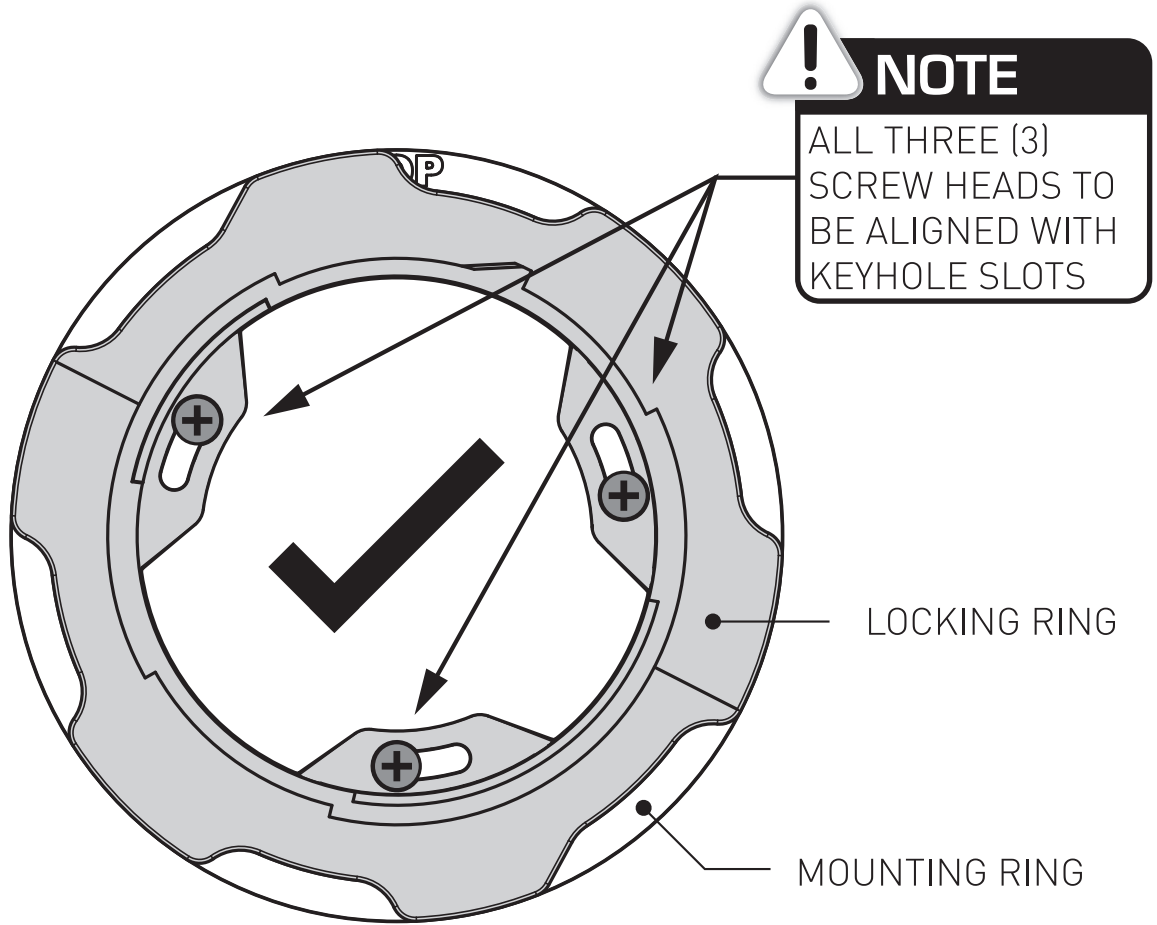


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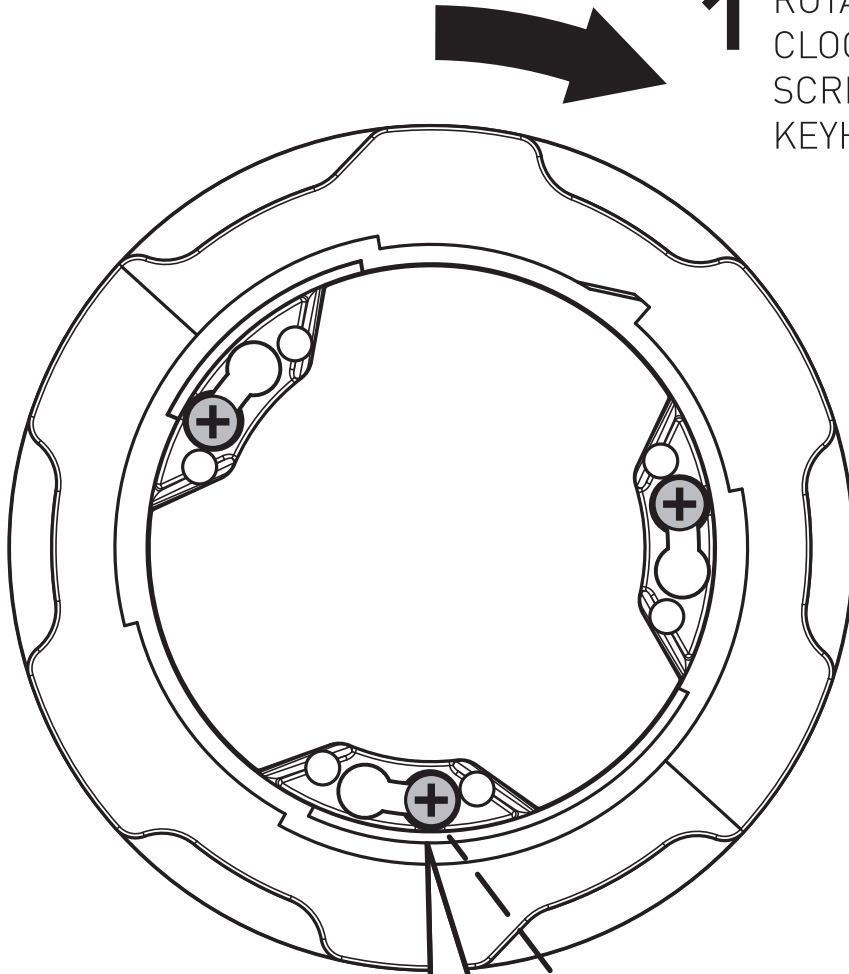


NOTE
ALL THREE KEY-HOLES MUST BE ALIGNED WITH MOUNTING RING SCREW HEADS

NOTE
DO NOT REMOVE
THREE (3) SCREWS FROM MOUNTING RING

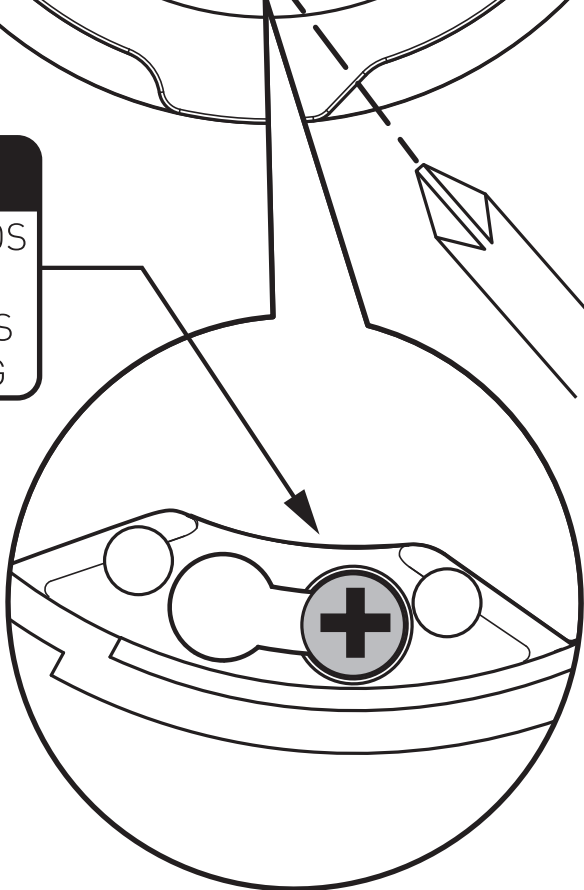


1 ROTATE LOCKING RING
CLOCKWISE TO ENGAGE
SCREW HEADS INTO
KEYHOLE SLOTS



! NOTE
ALL SCREW HEADS
MUST SEAT IN
SHALLOW RECESS
OF LOCKING RING

2 CAREFULLY
TIGHTEN THREE
(3) SCREWS
(NO.2 PHILLIPS)

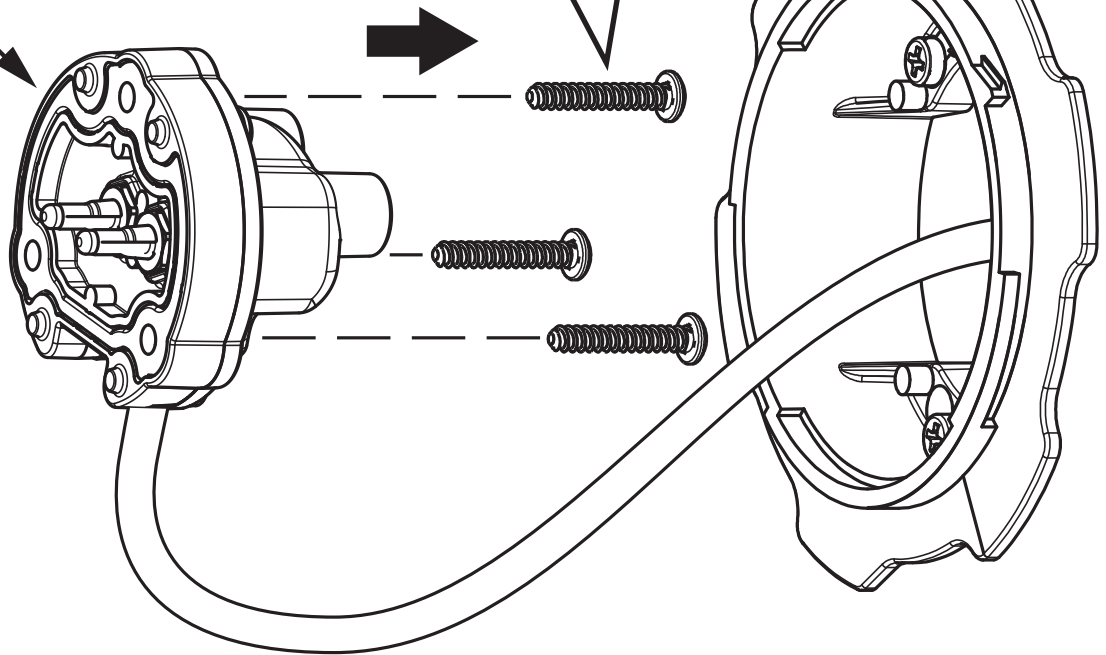
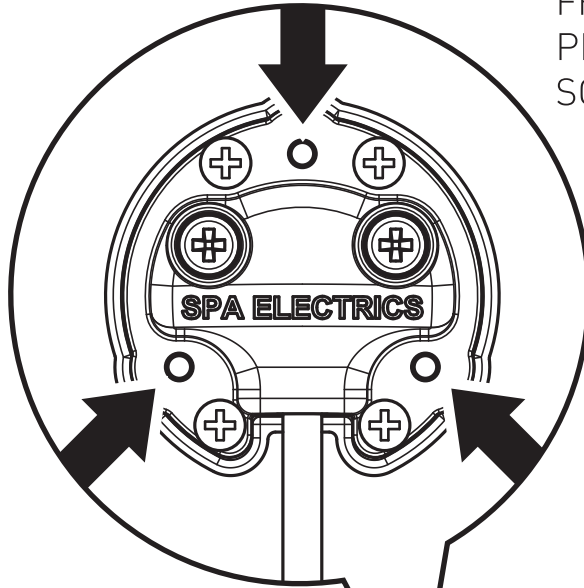


10

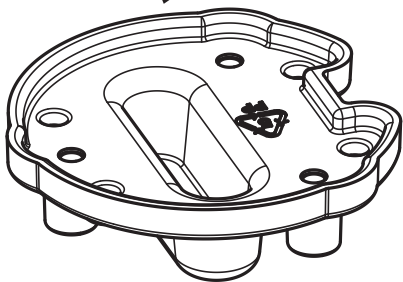
REMOVE PLUG DUST COVER

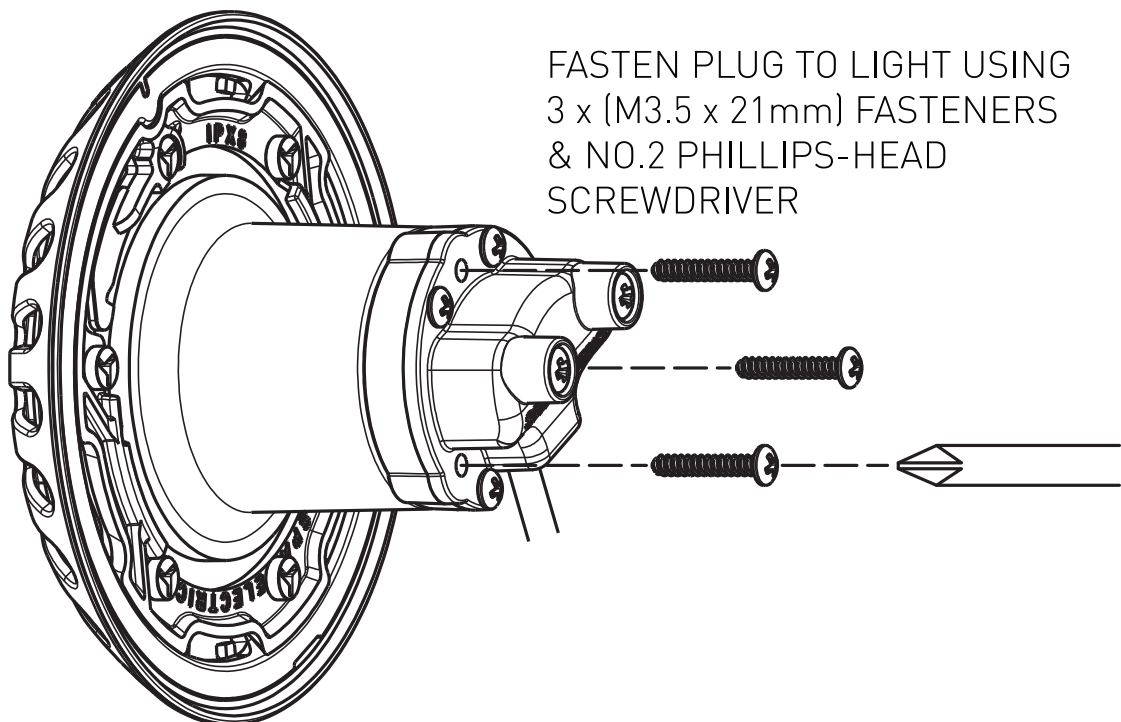
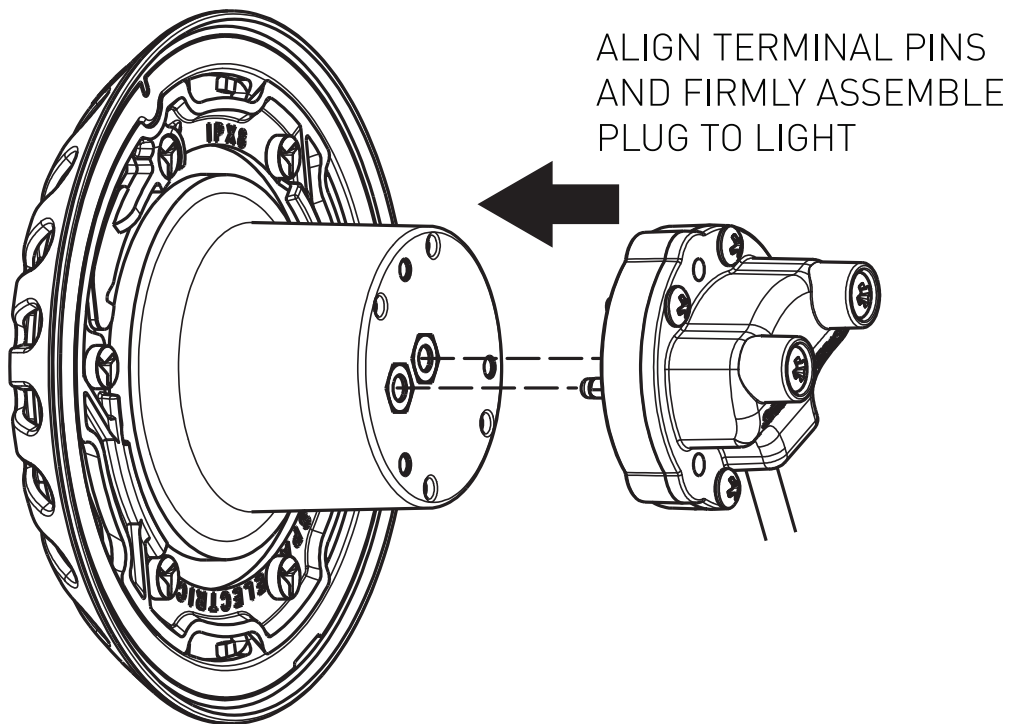
REMOVE DUST COVER FROM PLUG USING PHILLIPS-HEAD (NO.2) SCREW-DRIVER

NOTE
ENSURE SEAL IS SEATED FLAT IN PLUG BASE



NOTE
DO NOT REMOVE RED DUST COVER UNDERWATER



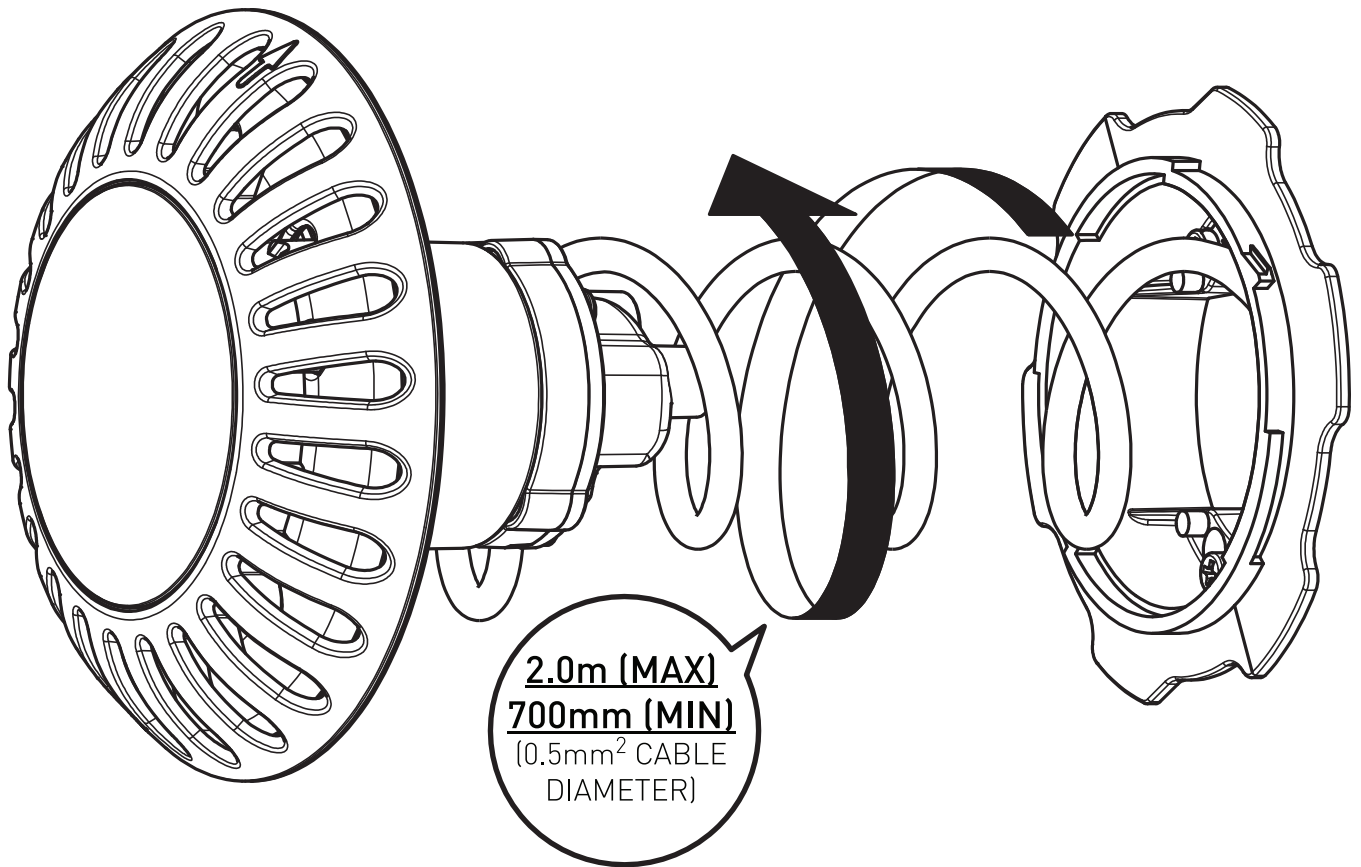


IMPORTANT NOTES

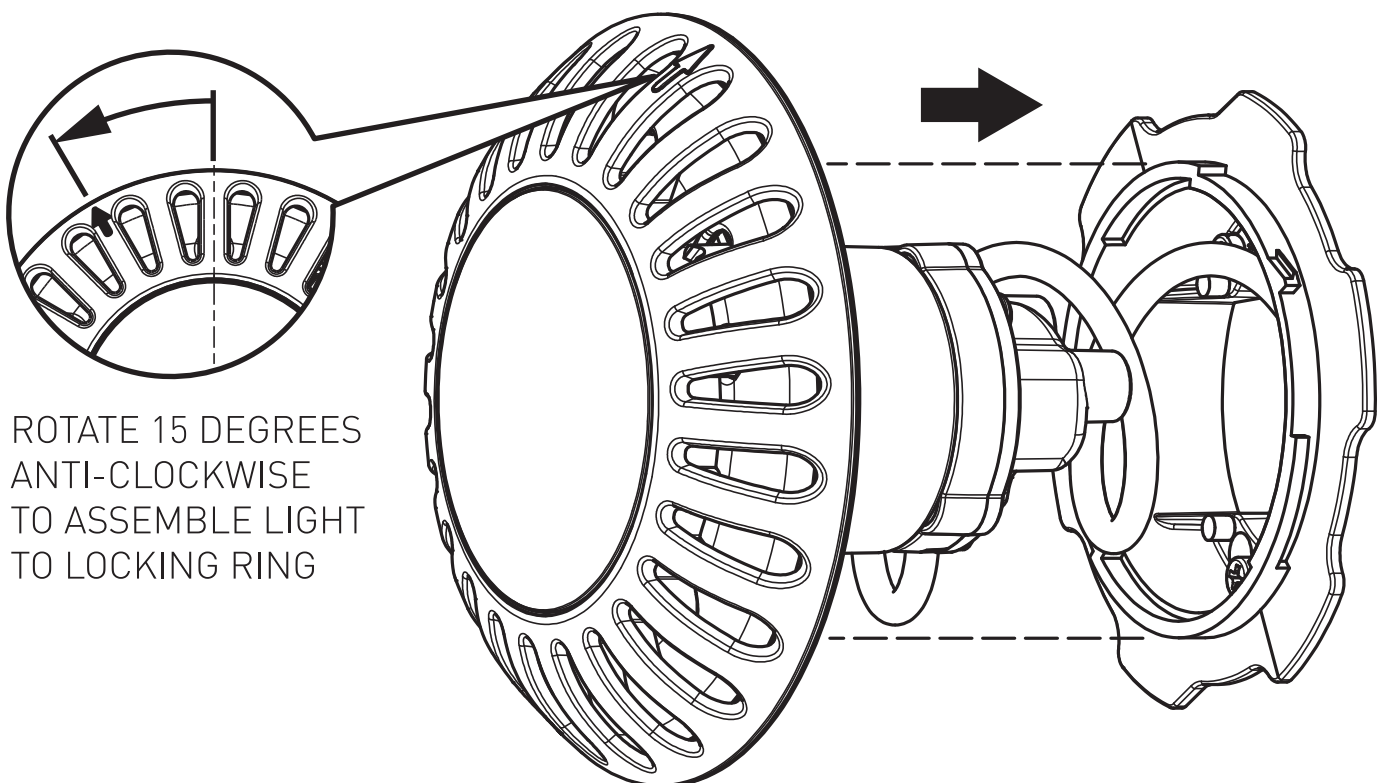
- DO NOT OVERTIGHTEN SCREWS
- DO NOT USE POWER-TOOLS
- DO NOT ADD SEALANTS OR GREASES
- ENSURE ALL SURFACES ARE CLEAN AND DRY
- **DO NOT ASSEMBLE UNDERWATER**

EM-LIGHT ASSEMBLY

1 COIL CABLE INSIDE NICHE

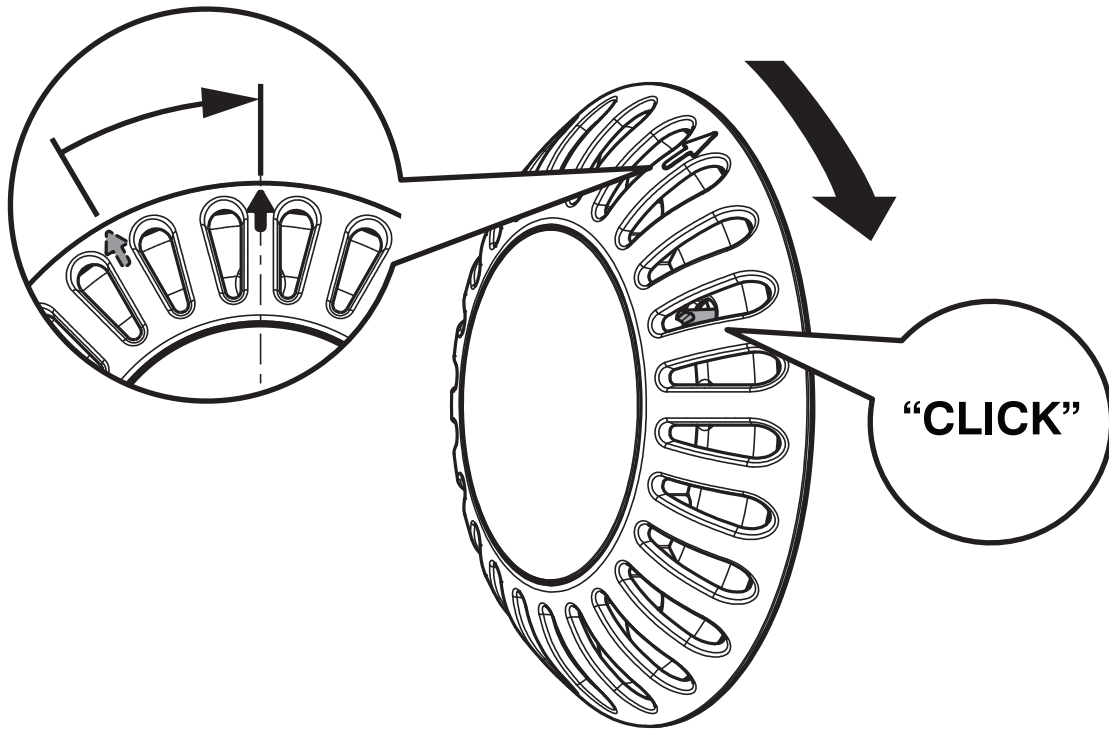


2 INSERT LIGHT INTO LOCKING RING



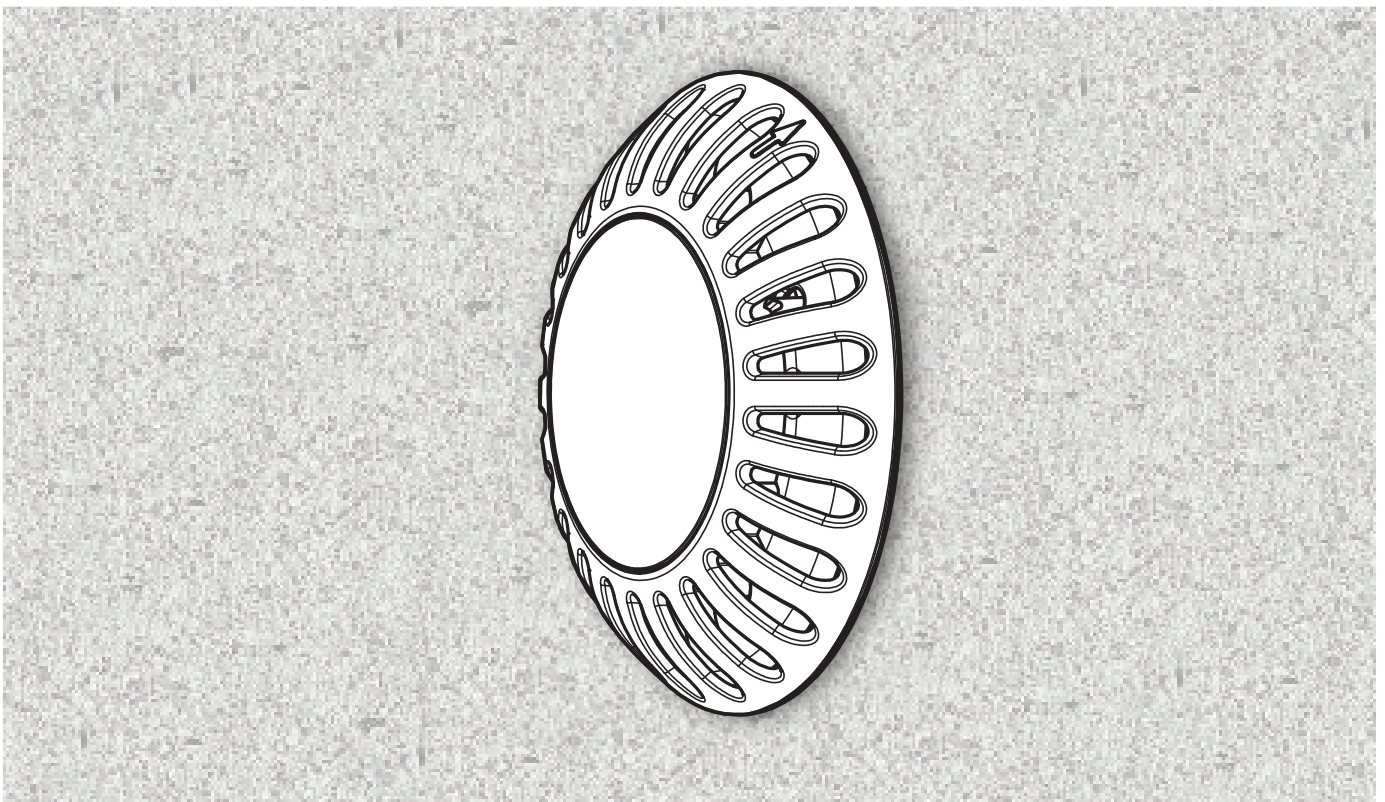
3

ROTATE LIGHT CLOCKWISE TO "CLICK"



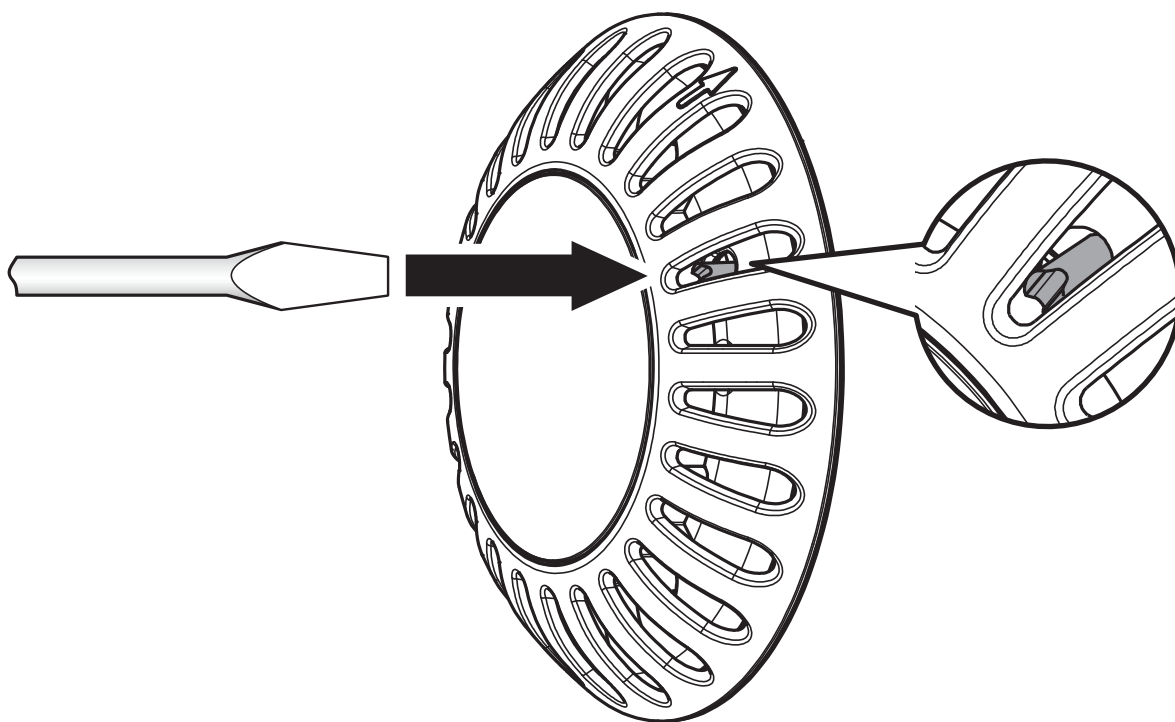
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FINISHED INSTALLATION

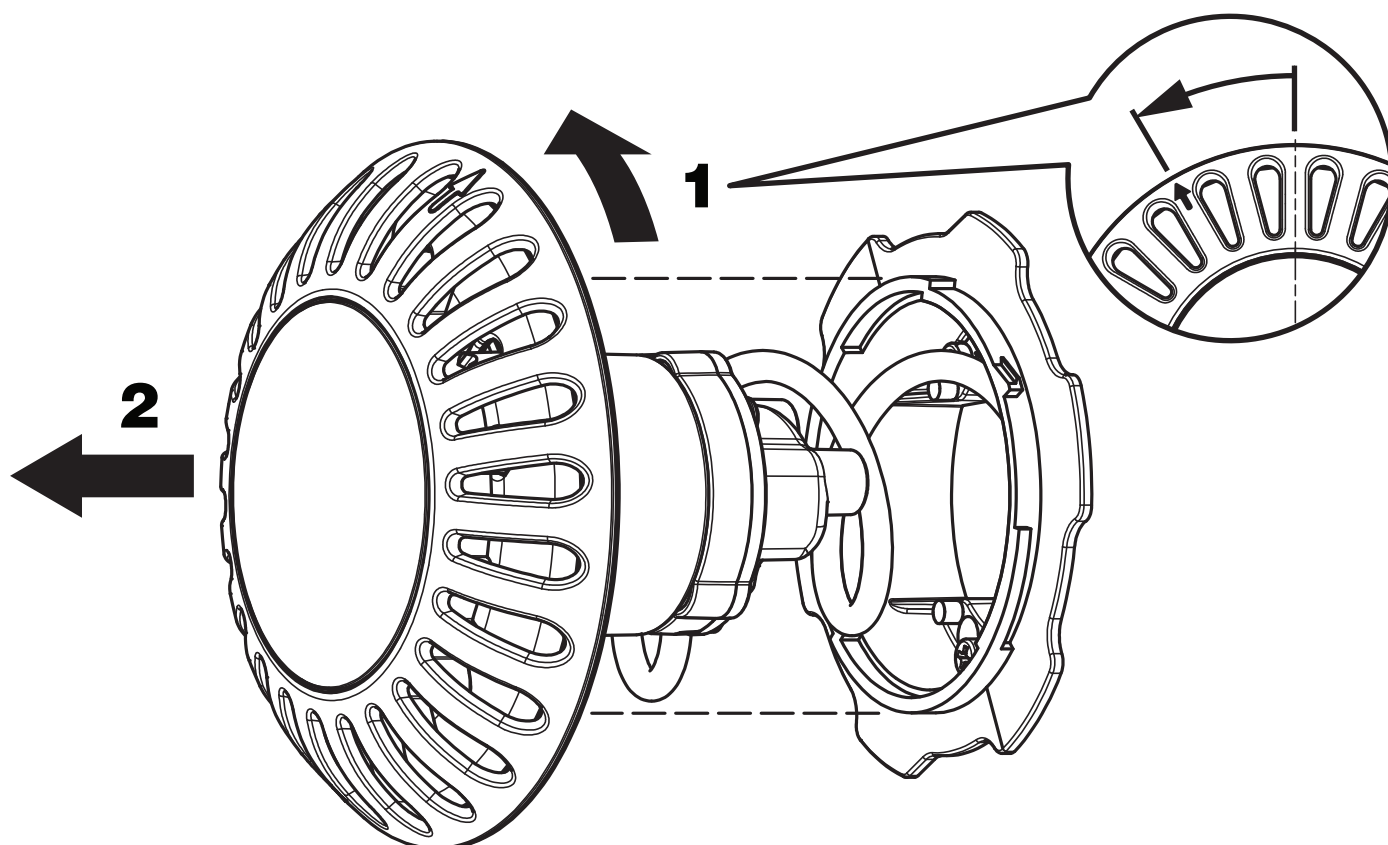


EM-LIGHT REMOVAL

1 PUSH DOWN BUTTON WITH FLAT BLADE & HOLD



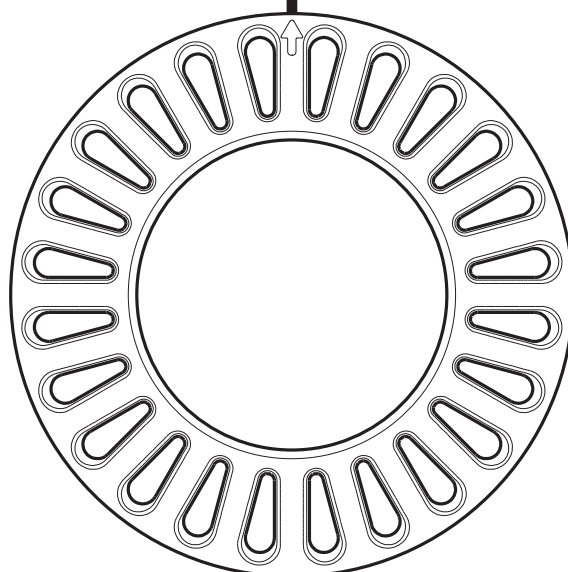
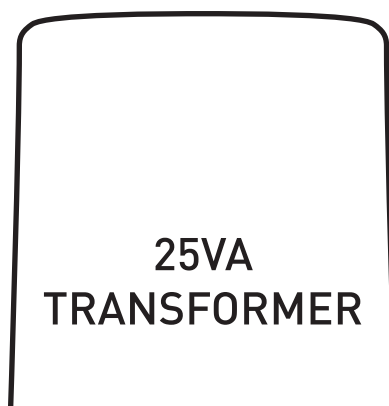
2 ROTATE ANTI-CLOCKWISE & RELEASE FROM LOCKING RING



CONNECTIONS

HOW TO CONNECT A SINGLE EM-LIGHT

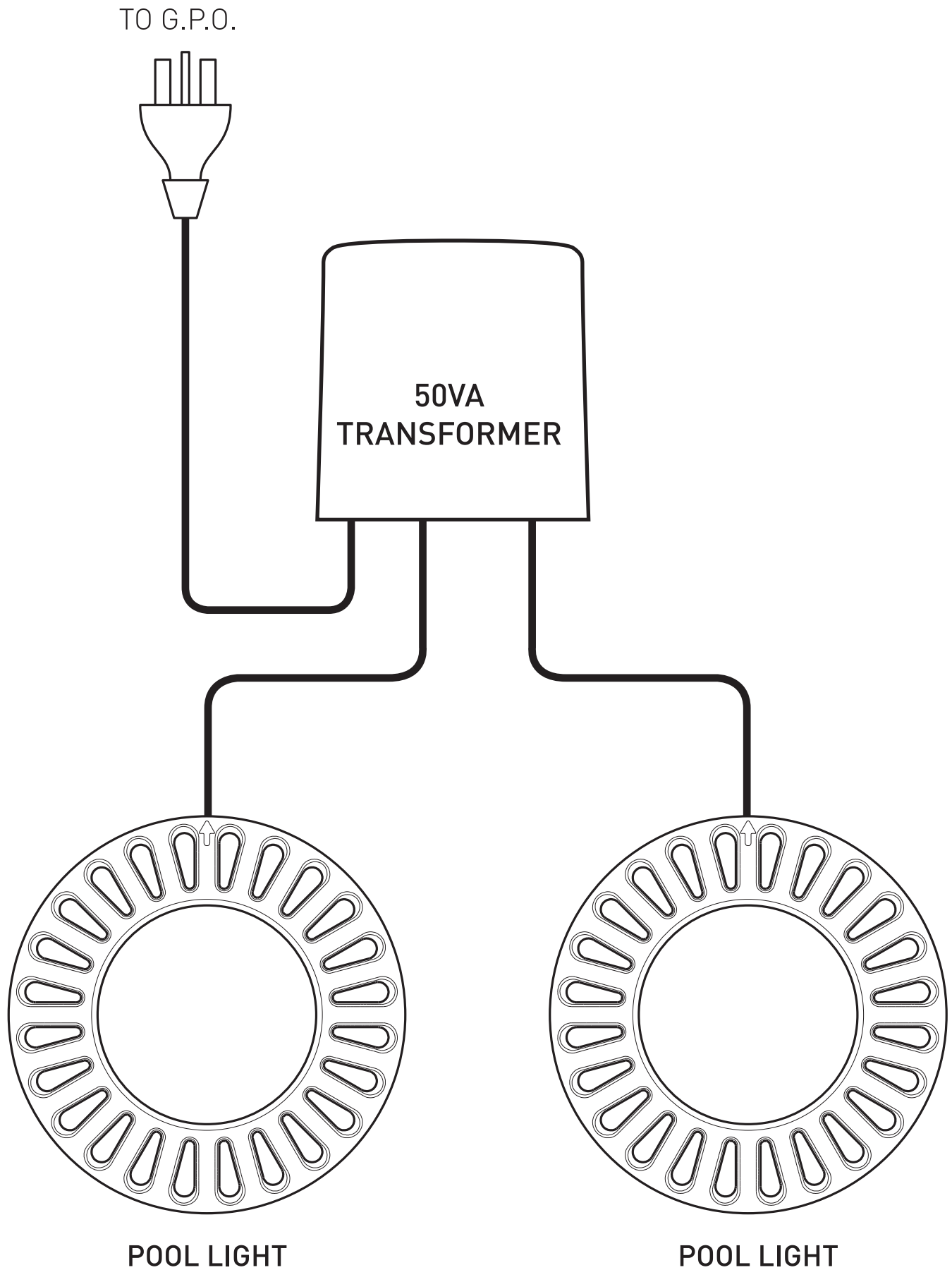
TO G.P.O.



POOL LIGHT

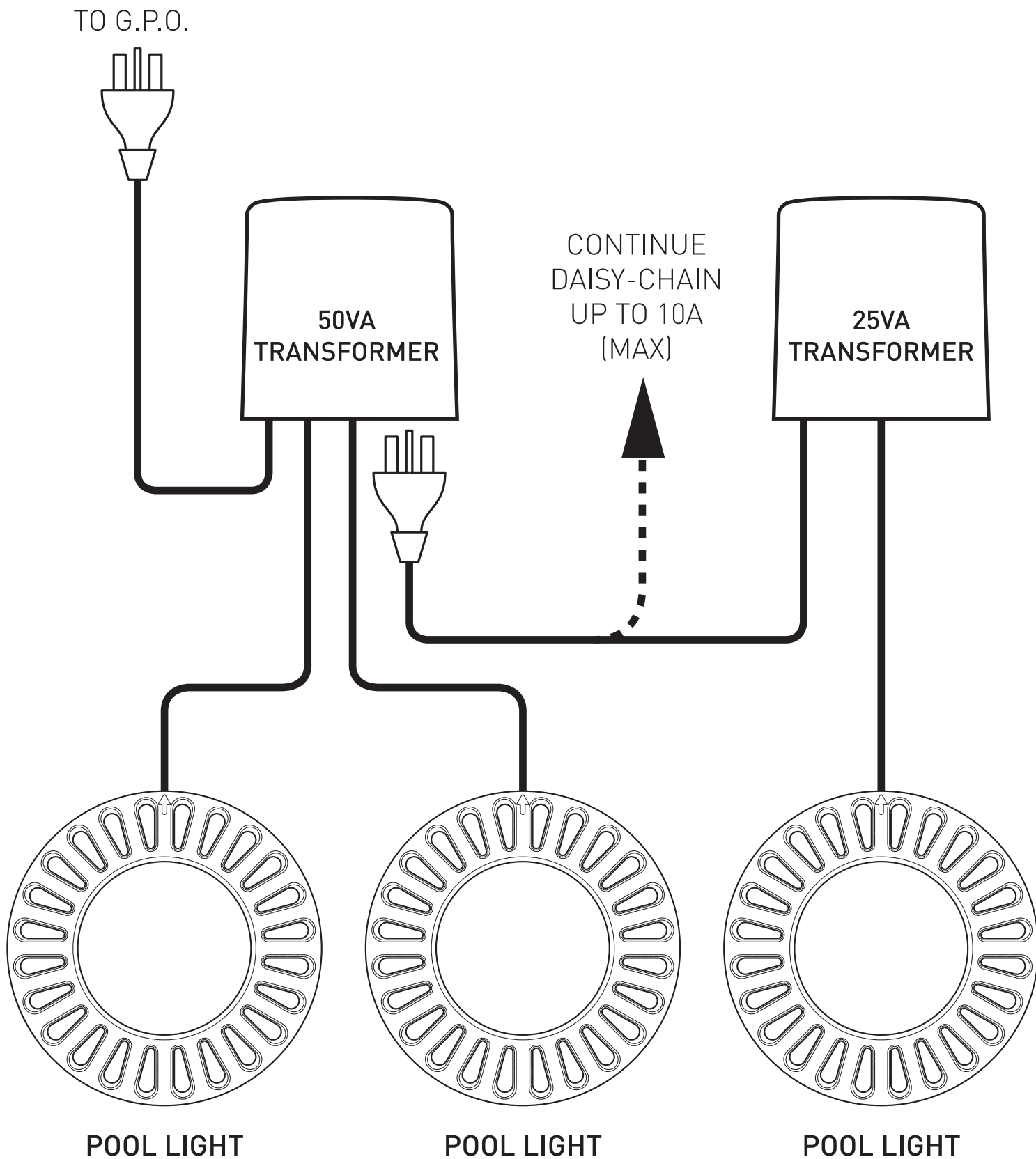
CONNECTIONS

HOW TO CONNECT MULTIPLE EM-LIGHTS



CONNECTIONS

HOW TO CONNECT MULTIPLE EM-LIGHTS



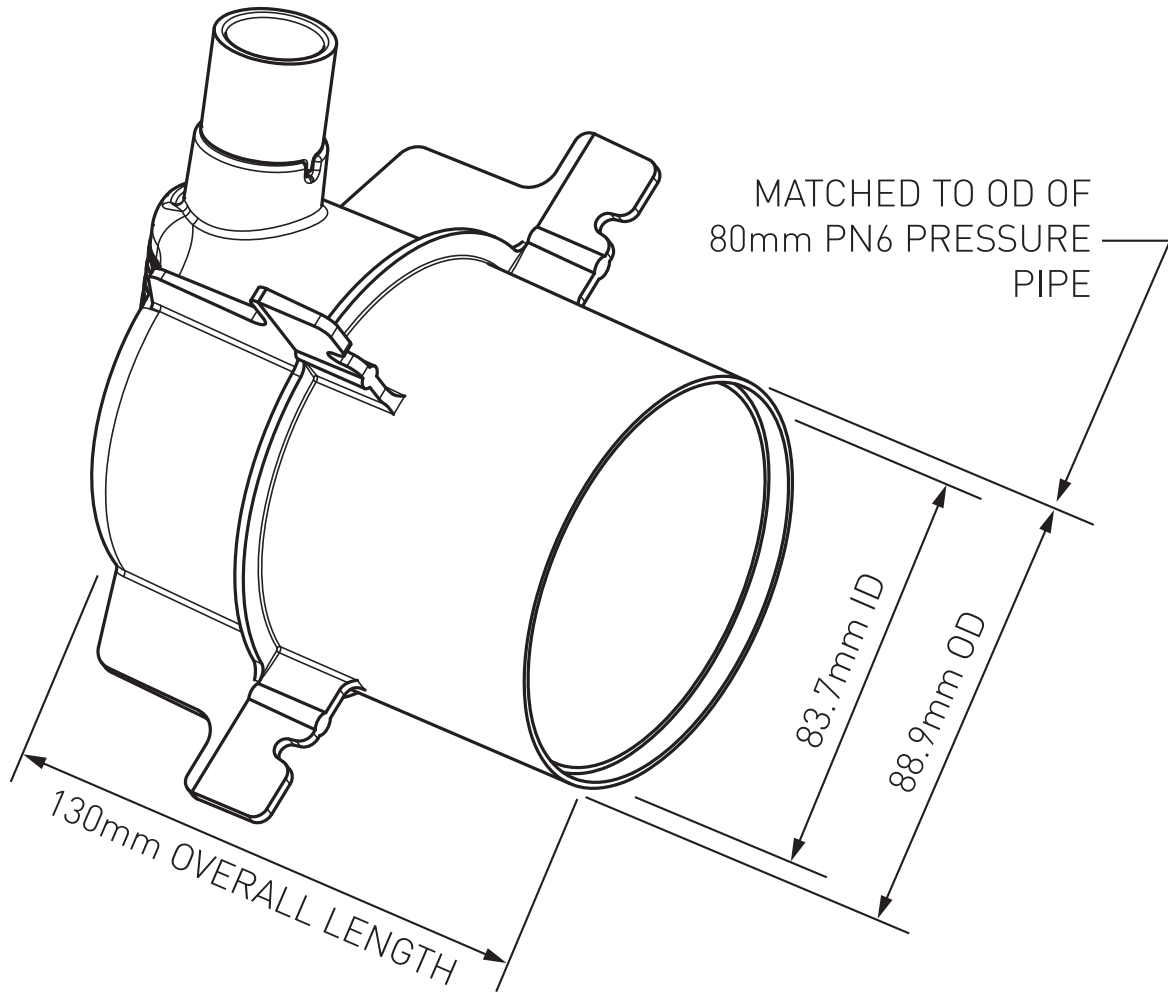
TROUBLESHOOTING

ISSUE	REASON	ACTION
Light flashing Blue continuously	System is in "Reset" mode	Refer to multi-colour operating instructions
Light flashes 2 times	Light over heating	Check light is fully submerged Check vents are not obscured
Light not operating (1)	Faulty connection to transformer	Ensure cable correctly connected to transformer terminals as per instructions
Light not operating (2)	Mains power not connected	Check transformer is plugged in to GPO and switched on
Light not operating (3)	Damaged cable	Replace cable
Light not operating (4)	Transformer not working	Check fuses & test transformer using multimeter under load (ie. 20W 12V)
Light not operating (5)	Damage caused by high voltage and/or incorrect power supply.	Return product to Spa Electrics for repair
Light colours not synchronised	Power interruptions or lights have been used individually	Reset lights - refer to multi-colour operating instructions

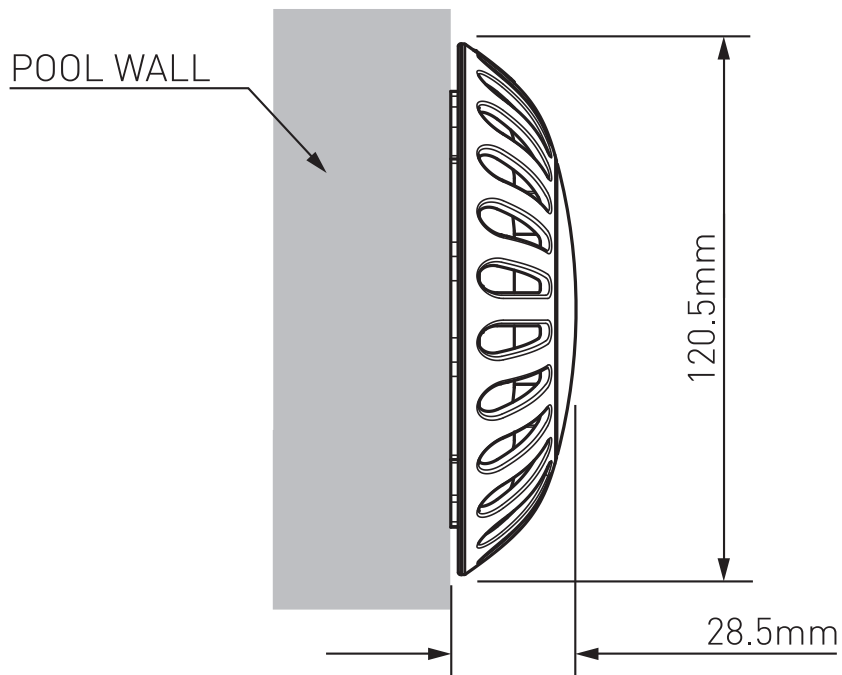
If these issues cannot be resolved with the above recommended actions, please contact your distributor or Spa Electrics.

KEY DIMENSIONS

A NICHE



B INSTALLED LIGHT



YOUR INSTALLATION

PLEASE RECORD THE DETAILS OF YOUR INSTALLATION FOR FUTURE REFERENCE

DATE OF PURCHASE

YOUR EM-LIGHT(S) WAS SUPPLIED BY:

DATE OF INSTALLATION

POOL BUILDER / COMPANY:

EM-LIGHT(S) INSTALLED BY [FULL NAME]:

NOTES



NOTE

**PLEASE STORE THIS
MANUAL IN A SAFE PLACE
FOR FUTURE REFERENCE**



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