

## INSTALLATION INSTRUCTIONS & OWNERS MANUAL

**INSTALLER** – READ ENTIRE INSTRUCTION SHEET BEFORE PROCEEDING TO INSTALL.

**POOL OWNER** – PLEASE KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE.

**PLEASE NOTE**  
**THESE INSTALLATION INSTRUCTIONS APPLY TO AQUA-QUIP QC SURFACE MOUNTED LED LIGHTS FOR CONCRETE POOLS ONLY.**

### IMPORTANT INFORMATION TO INSTALLER/ELECTRICIAN

- All QC Series LED Lights operate from a VARIABLE SUPPLY VOLTAGE from 12volt AC through to 32volt AC.



- For new pool construction, a 12volt AC transformer must be installed in accordance with AS/NZS 3000:2007, as amended.

*“Each underwater luminaire must be supplied from an individual source. An individual source may be an individual isolation transformer or an individual winding on an isolation transformer that has a number of secondary windings”.*

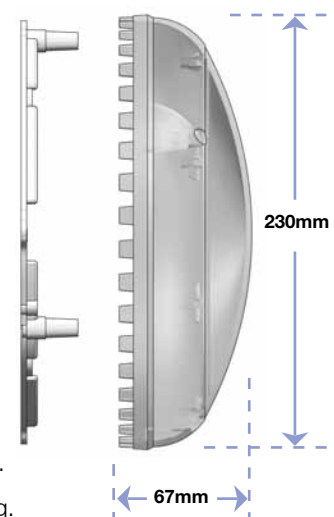
**Aqua-Quip’s transformers allow multiple QC Series LED Lights to be connected, refer to TRANSFORMERS info panel on page 4.**



### TECHNICAL SPECIFICATIONS AQUA-QUIP QC SURFACE MOUNTED LED POOL LIGHTS

Power Requirement for Fixed Colour and Multi-Colour LEDs:	12V ~ 32V AC 50/60Hz.
Pool Light Protection Rating:	IPX8 to 2.0m depth.
Temperature Range:	0°C ~ +40°C pool water temperature.
Installation Location:	200mm ~ 400mm below water level.
Power Consumption (Fixed Colour LEDs):	Maximum 16VA at all voltages 12V ~ 32V.
Power Consumption (Multi-Colour LEDs):	Maximum 22VA at all voltages 12V ~ 32V.
Voltage Tolerance (Fixed Colour and Multi-Colour LEDs):	10.5V AC ~ 35V AC.
Light Colour:	White = >5000K, Blue = 475nm, Green = 525nm.
Light Output (Typical):	White = 1050 Lumens, Blue = 300 Lumens, Green = 650 Lumens.
Fault Protection:	Power Cycle “Run Dry” thermal cut-out. Voltage transient clamping.

QC Surface Mounted Pool Light Dimensions



# QC SERIES SURFACE MOUNTED LED LIGHTS for CONCRETE POOLS

## INCLUDED WITH THE QC SERIES LED POOL LIGHT FOR CONCRETE POOLS:

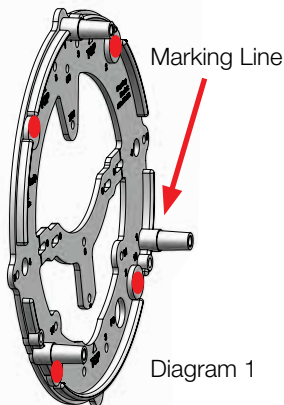


Item	Description	Item	Description
1	Universal Mounting Bracket	4	Cable, assembled with Quick Connect Plug
2	Mounting Screws x 3	5	Cable Cap
3	LED Light Only	6	Quick Connect Plug

Additional parts diagram is shown on Page 3.

## INSTALLATION INSTRUCTIONS

- 1) A rigid PVC conduit (min. 20mm diameter) should be run from the pool wall back to the plant room, where the transformer will be located. The conduit should be installed as to prevent water siphoning from the pool. The location of the pool light should be in such a position to allow enough cable to be wound up at the rear of the light to enable it to be floated to the pool deck. A location should also be chosen that minimises any shadowing from the light beam.
- 2) The Universal Mounting Bracket can be rendered to the pool wall or screwed directly on top of the pool interior, either way ensure the bracket is oriented correctly. The word "TOP" is moulded into the bracket.



**When pebblecreting, plastering or rendering:** Cover the circular frame of the Mounting Bracket with the finished pool surface up to the marking line on the three mounting posts. After the pool surface has been applied, only the 3 mounting posts will be visible.

**When screwing directly onto pool wall:** Drill 4 holes in pool wall, aligning with the four screw hole provisions marked in RED in Diagram 1. Use the APL071 Retro-Fit Screw Kit (see page 3, item 7) available for purchase as an optional extra.

**Note:** Trim Back the three mounting posts by 5mm, which will then enable the rear of the clear lens to sit against the interior pool surface.

- 3) The Cable can be fed through at a convenient time throughout the construction, it is factory-fitted with a protective Cable Cap to protect the electrical connector and O-rings from moisture, dust and grit. As mentioned above, ensure enough cable is left for future servicing.
- 4) When the pool is ready to be filled, then the Quick Connect Plug Kit is now ready to be inserted into the receptacle on the rear of the QC Series Led Pool Light. Unscrew and save the three screws that are securing the Cable Cap to the Cable Bracket. Remove the Cable Cap by disengaging the two clips on the Cable Bracket. The two O-rings are factory-lubricated, ensure they are free from dust and grit. Align the Quick Connect Plug Kit with the exposed metal pins in the receptacle on the rear of the QC Series LED Pool Light and push into place. Push the Cable Bracket towards the light until the clips engage into place. Use a #1 Phillips screwdriver and three screws (saved from above) and secure the Cable Bracket into the three screw holes. Do not overtighten. See Diagram 2.
- 5) Wind up excess cable around the hooks on the rear of the QC Series LED Pool Light. Use the three PE6 screws provided to mount the QC Series LED Pool Light onto the three posts on the Universal Mounting Bracket.

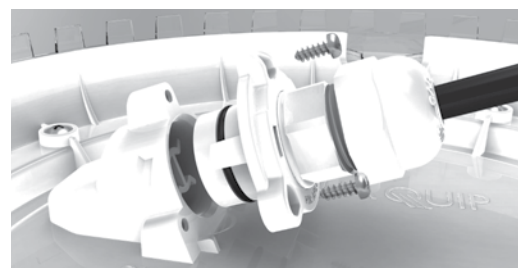


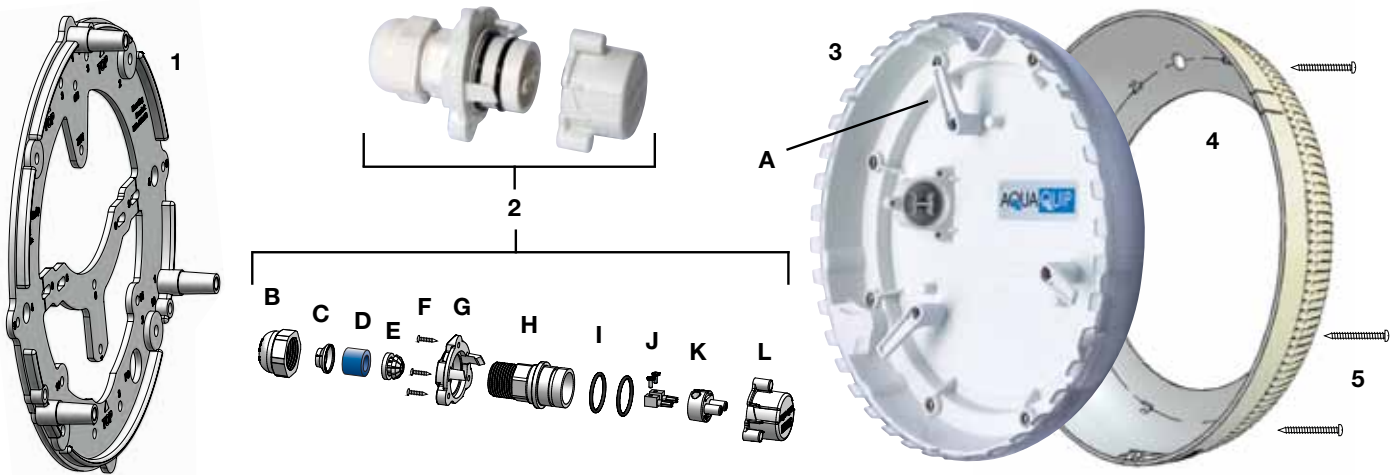
Diagram 2

# QC SERIES SURFACE MOUNTED LED LIGHTS for CONCRETE POOLS

## IMPORTANT INFORMATION FOR INSTALLER AND POOL OWNER

- Pool light must be fully submerged before switching on. If the light overheats due to operation out of water, the inbuilt “run dry” thermal cut-out will engage and the LEDs will operate at a greatly reduced intensity until power is shut down for 5 minutes and turned back on.
- Always allow sufficient cable length behind the pool light to enable future servicing.
- Only use stainless steel screws provided, using inferior quality screws voids the warranty.
- Internal components are not user-serviceable. Return to place of purchase for service.
- Never stare directly at LED lights, prolonged direct exposure can cause eye damage.
- Only use the stainless steel screws provided with the QC Series LED Pool Light, the use of incorrect screws voids the warranty.
- Keep the protective Cable Cap for possible future use.
- Please make careful note of where the pool builder or electrician locates the transformer(s) and junction box(es). This information is necessary if future servicing is required.

## QC SERIES LIGHT PARTS DIAGRAM Diagram 3



QC SERIES LED LIGHT PARTS LIST				LIGHT ONLY – CODES	
A	APL 802 Cable Hook	J	ASN 611 Female Pin Kit	3	LED 021 QC Blue Light
B	ASN 366 Cable Nut	K	ASN 362 Female Plug	3	LED 022 QC White Light
C	ASN 367 Washer	L	APL 803 Cable Cap	3	LED 023 QC Green Light
D	ASN 374 Blue Seal	1	APL 050 Universal Mounting Bracket	3	LED 024 QC Multi-Colour Light
E	ASN 365 Cable Clamp	2	LED 375 Quick Connect Plug Kit		
F	APL 806 Screw Kit for Cable Bracket	3	Light Only – see codes next column		
G	APL 804 Cable Bracket	4	LED 151 Design Ring		
H	ASN 363 Connector Housing	5	APL006 PE6 Screw Kit		
I	ASN 380 O-ring Kit	6	APL071 Optional Retro-fit Screw Kit		

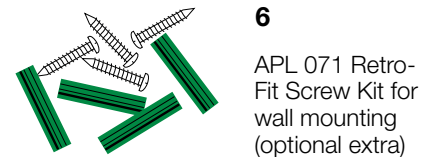


Diagram 4

Diagram 4 shows the Quick Connect Plug Kit at the end of the cable now attached to the rear of the QC Series LED Pool Light. Excess cable wraps around the three hooks located on the rear of the pool light.

The Light is factory-sealed and assembled with a clear lens with proprietary diffusion material, ensuring the vivid colours of the LEDs (contained within) are projected and evenly dispersed throughout the pool.

## FEATURES

### Energy Efficient

QC Series LEDs are energy efficient drawing only 15% of the power requirement of older style halogen lights. Thanks to the integrated heat sink QC Series LEDs also run well below their thermal rating increasing their life to beyond 50,000 hours.

### Variable Voltage Technology

Each QC Series Light is able to be operated from a supply voltage ranging from 12 Volt AC through to 32 Volt AC. For retro-fitting – the **existing transformer** will not have to be replaced, saving money.

### Amazing LED Colours

Choose from fixed colours of white, blue or green for maximum illumination; or the **Multi Colour option** which incorporates the advanced Spectrum IX technology. The **QC Series Multi Colour** lights allow the user to select from a variety of pre-programmed scroll and flash modes as well as being able to choose from over 100 different “hold” colours.

### New Style Back Plate

**Newly designed back plate** creates more space behind the light for extra cable to be secured. The raised flange on the back plate also provides for **improved aesthetics**.

### Quick Connect Feature

When installing into an existing pool the **Quick Connect Plug Kit** is the simplest and most convenient way to safely and reliably join the pool light to the existing cable. Cable seals of **varying sizes** are provided to ensure that the QC Series Light **quickly connects** up to cables of **varying thicknesses**. For pool builders, the Quick Connect feature complete with protective cap enables the pool light to be stored in a safe location and only needs to be connected to the cable when the pool is ready to be filled.

### Universal Mounting Bracket

The innovative bracket is used for both retro-fit applications and for new pools. To aid retro-fitting into existing concrete pools the universal mounting bracket **has a variety of screw provisions** to ensure compatibility with all brands of pool lights.

### Massive Illumination

When comparing the illumination of the QC Series Fixed Colour LED Lights against standard halogen models the QC Series LEDs are approximately **twice as bright**.

### Australian Made

For your peace of mind and like most products within Aqua-Quip's range the QC Series LED Surface Mounted Lights are **proudly made in Australia**.

*For decades Aqua-Quip have been innovators in swimming pool lighting systems. As new technologies emerge we seek out ways to involve them in our current range of products. The QC Series concept has evolved from a need for pool builders and technicians to most conveniently effect the wiring connection when installing either a new light in a new pool or retro-fitting in an existing pool.*

*With its protective cable cap in place, the wiring and connector are safe from the rigours of a construction site – simply unscrew the cap when the light is ready to be installed, connect and fasten with the screws provided.*

## TRANSFORMERS

### ELECTRICAL CONNECTION AND OPERATION

- Install Light(s) and Transformer(s) in accordance with AS/NZS 3000:2007 as amended.
- Aqua-Quip's extra low voltage Transformers have either 1, 2 or 4 x 12v secondary outputs, refer to Diagram.
- Dimming of QC Series LED Fixed Colour Lights (i.e. white, blue and green) is possible. Aqua-Quip recommends the HPM Leading Edge Dimmer Cat. 200L. QC Series Multi-Colour LED Lights cannot be dimmed.
- If your lights are QC Series Multi-Colour, then see included “LED Programming Instructions”.



P/N: APL 511N
Output: 1 x 30VA
Runs 1 light



P/N: APL 512N
Outputs: 2 x 30VA
Runs up to 2 lights



P/N: APL 514N
Outputs: 4 x 30VA
Runs up to 4 lights

Hardwired transformers are also available upon request.

### WARNING

Never stare directly at LED Pool Lights.  
Prolonged direct exposure can cause eye damage.