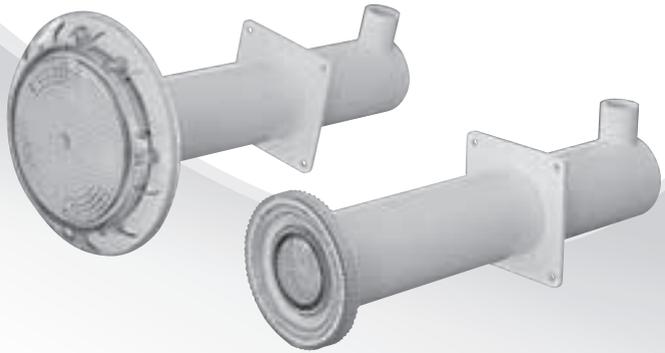


BRITESTREAM LED SLIM90 & SLIM165 CONCRETE POOL LIGHTS

Owner's Manual



⚠ WARNING

This equipment must be installed and serviced by a qualified technician. Improper installation can create electrical hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.



Notice to Installer

This manual contains important information about the installation, operation and safe use of this product. Once the product has been installed **this manual must be given to the owner/operator of this equipment.**

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BRITESTREAM LED SLIM90 & SLIM165 CONCRETE POOL LIGHTS

Britestream concrete Slim90 & Slim165 has been specifically designed for easy installation into concrete pools. Features include the following:

- Flush mounted with a minimal 14mm (Slim90) & 28mm (Slim165) projection into pool.
- Super bright LED's.
- Life span of over 70,000 hours.
- Operates on only 10% of the electrical power of an equivalent halogen light.

CAUTION

- Ensure all pool lights are installed by a suitably qualified persons (e.g. registered pool builder and/or qualified electrician), in accordance with AS/NZS 3000:2007 standards.
- This pool light is supplied with a 20m power cable and should not be modified. Cutting an underwater section of power cable will void the warranty unless done so in conjunction with the underwater light replacement kit.
- The pool light must be installed not more than 500mm below top of coping, to allow for removal from pool/spa for servicing.

The recommended length of power cable that is stored within the light niche is 1m. This enables easy access without the need for entering the pool water.

- Surrounding area has to be clear and unencumbered to allow for adequate space to service the light.

INSTALLATION

Positioning the Niche

The Britestream concrete Slim90 & Slim165 pool light is recommended to be installed no deeper than 500mm below the top of the coping.

- Prior to pouring concrete position the light niche within the concrete wall & steel reinforcement.
- Secure the lights niche to the reinforcement steel with tie wires as shown in fig 1

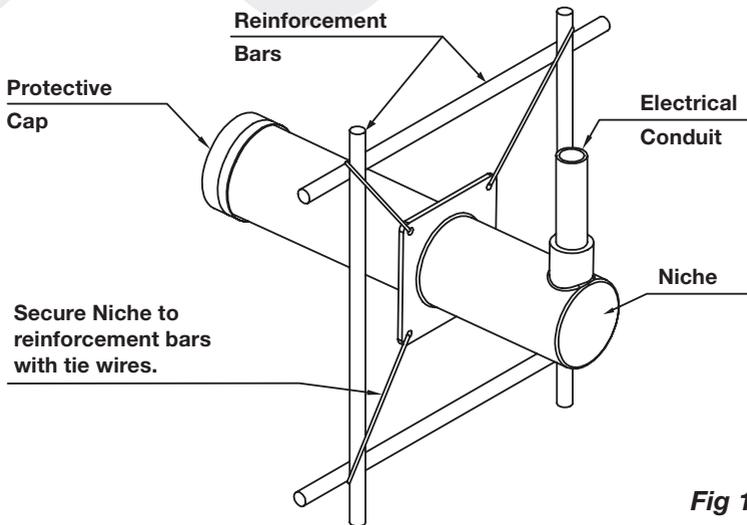


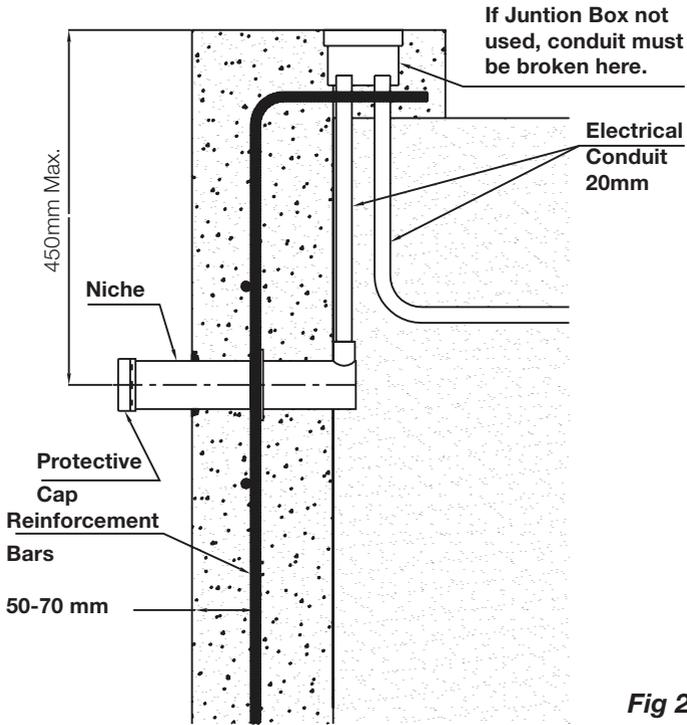
Fig 1

Make sure the niche socket and conduit connection is not covered by concrete during the forming process. refer to fig 2.

Glue electrical conduit to the niche socket. Either use 20mm conduit which will fit into the socket, or use 25mm conduit, the conduit socket end will fit the outside the niche socket. The conduit must terminate above water level.

It is advisable to thread a draw string through conduits.

If a junction box is not fitted, when continuing the conduit run make sure the conduit run is interrupted above water level (so it is not airtight), otherwise siphoning may occur.

**Fig 2**

Spraying Concrete

Make sure the protective cap is fitted onto the end (opening) of the Niche prior to commencing spraying concrete.

When the concrete is being sprayed it is important to ensure the niche surface is fully covered. However, avoid concrete covering the niche socket and conduit as this will enable future access and reduce the risk of leaking.

Create an annular recess around the Niche before the concrete sets as shown in Fig 3.

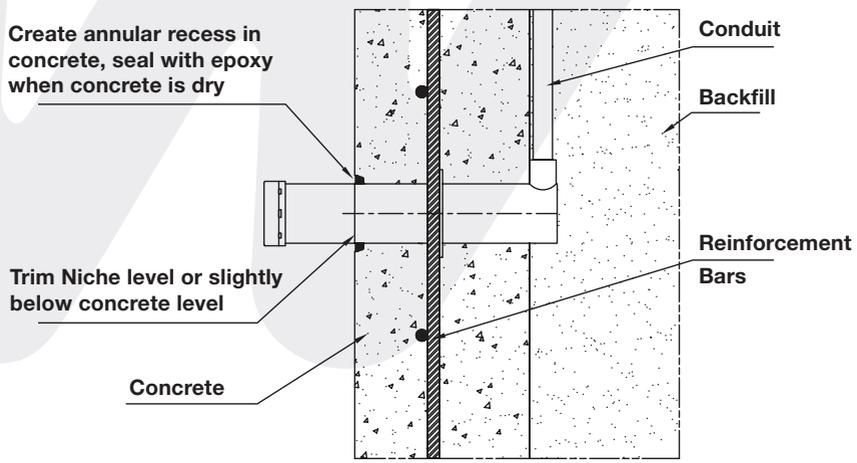


Fig 3

Sealing

When the concrete has fully set the protective cap can be removed. Apply a two part epoxy into the annular groove around the niche as shown in fig 3.

It will be necessary to trim the front of the niche to make it level with the concrete, refer Fig 4.

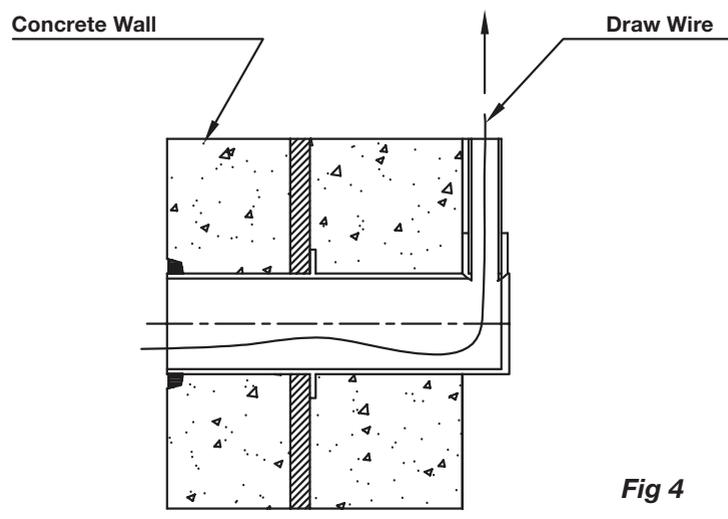


Fig 4

If not previously done, at this stage it would be recommended that a draw string be passed through the niche and electrical conduit to aid in the installation of the actual light and electrical cable.

FITTING THE LED LIGHT

Once the pool surface has been finished the LED light is ready for installation. The light comes fully assembled within an outer housing and a 20m power cable connects via a gland nut. Before proceeding ensure the gland nut is sufficiently tightened.

The 20m power cable needs to be passed through the light niche and electrical conduit for connection to a Waterco single or multi connect pool light transformer.

Tie the LED lights power cable to the draw string that was previously installed into the electrical conduit and pass and ensure that the connection of the power cable and tire wire is totally secure to ensure that the two do not come apart whilst pulling the power cable through the electrical conduit. Refer Fig 5.

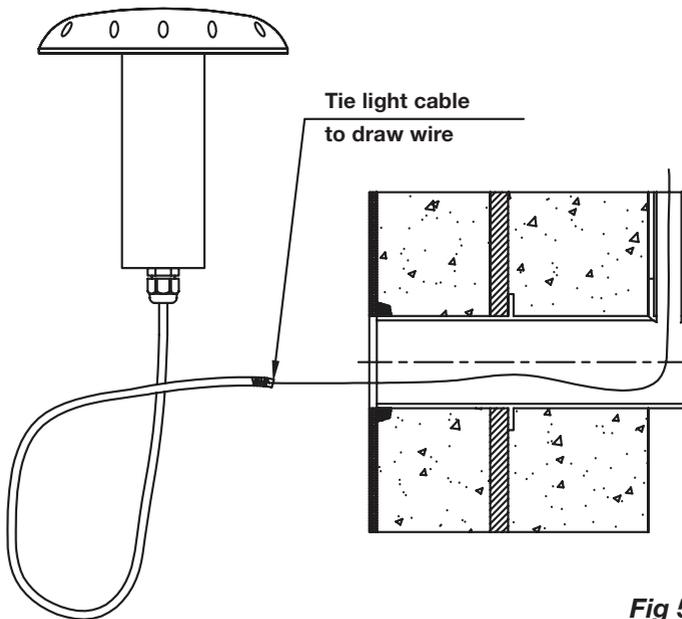


Fig 5

Before pulling all of the 20m power cable through the electrical conduit and fixing the LED into the niche, the LED light needs to be prepared for permanent installation into the niche using PVC glue.

Once correct positioning of LED light is achieved apply PVC priming fluid & glue into the LED light outer housing. Ensure the niche is clean of dirt and debris and then place the LED light into the final position within the niche. Refer Fig 6 & 7.

Note: Please refer to manufacturers use & application instructions for PVC priming fluid & glue prior to use. We recommend the use of Waterco's PVC priming fluid & glue.

Connect the power cable to the electrical junction block if applicable and to the Waterco single or multi connect pool light transformer, refer to the appropriate installation transformer manual.

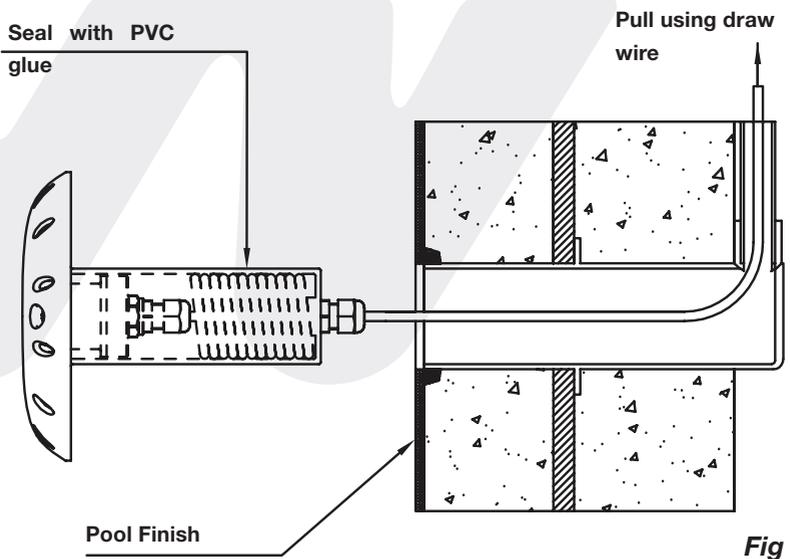


Fig 6

Final Assembly

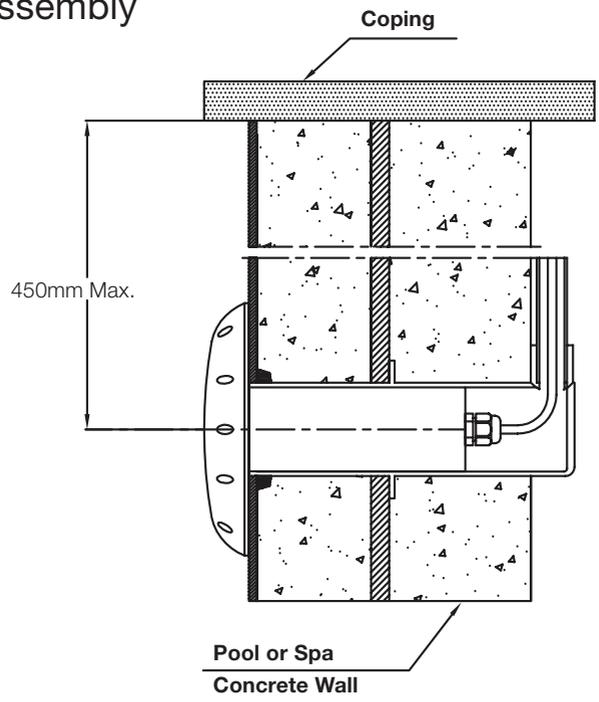


Fig 7

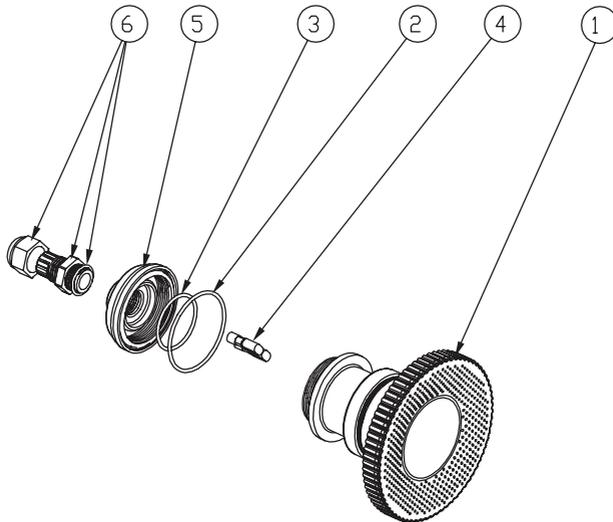
NOTE: Both Britestream concrete Slim90 & Slim165 have identical installation procedures, with the variation being the size of the LED light lenses.

LED REPLACEMENT LIGHT INSTALLATION

Disconnecting the Slim90 LED light

- Disconnect power to light at the circuit breaker.

Complete assembly exploded view



- Remove the light lens (1) by turning the light lens anticlockwise to the left unscrewing from the outer flange body concreted into the pool. This will allow the lens assembly to be removed from the pool/spa water, but will still be connected to the body via the 1m coiled power cord that is stored within the body.
- Remove the black power cable gland nut and Black gland (6) and slide back along power cable. Unscrew the gland mount cap (5) anticlockwise exposing the two power wires.

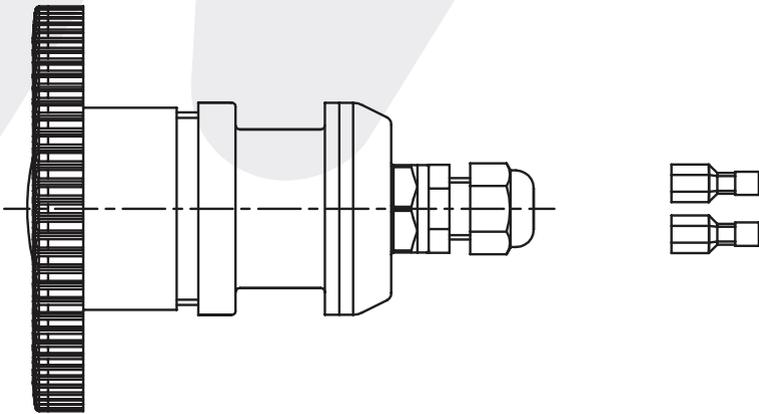
Note: These two wires are connected to the LED light assembly via two quick connects electrical spade connectors (4). These can be either disconnected by pulling apart or simply cutting the two power wires.

You have now successfully disconnected the existing LED light assembly and are ready to reconnect a new LED light assembly.

Connecting replacement LED light

The replacement LED lights are available as white, blue or multicolour RGB models and are supplied as a complete light assembly with the additional components as follows:

Complete assembly with 2 x quick connects spade electrical connectors



Note: Refer Exploded view for following parts identification.

2 x quick connect spade electrical connectors (4).

1 x gland mount cap (5) with black power cable gland nut and black gland (6).

2 x “o” rings (2 & 3).

1 x bottle of natural lanoline.

- If not removed, inspect the two existing quick connect electrical connectors (4) on the two exposed wires of the power cable. These should be replaced if there is any suspicion of damage.
- If required remove the two quick connect electrical connectors (4) and replace with the 2 x replacements supplied with the LED replacement light.

Note: The exposed wires from the power cable conduit required length is approx 50mm.

Note: The electrical components inspection and installation of the pool/spa lights should be carried out by a suitably qualified persons (e.g. registered pool builder and/or qualified electrician), in accordance with AS/NZS 3000:2007 standards.

- Remove the gland mount cap (5) from the rear of the LED replacement light (unscrew to left).
- The black power cable gland nut and black gland (6) are fitted into the gland mount cap (5).
- Unscrew the black power cable gland nut (5) and place over the power cable and push the power cable through the black gland (6) and gland cap (5).

Note: Gland nut (6) should not be fully tightened. This will allow for adjustment of power cable.

- If necessary, ensure the 2 x exposed power wires to the replacement LED pool light are approximately 50mm and then strip the blue and brown wires insulations approximately 10mm. Crimp the two quick connect spade connectors (4) to the stripped 10mm section of the blue and brown wires.
- Connect the two quick connect spade connectors (4) to connectors provided in the rear cup section of replacement LED light.
- Squeeze natural lanoline from supplied bottle into rear cap of replacement LED light completely covering the two quick connect spade connectors and fill to top.

Hint: Submerge the bottle of lanoline into a suitable size vessel and add temperate/warm water, this will help to soften the lanoline for easier flow and ensure the rear cap is completely full of lanoline for proper protection of the two quick connect spade connectors.

- Slide gland mount cap (5) with black gland (6) to the correct position on the power cable conduit. Refit the two new "o" rings (2 & 3) to the rear of the replacement LED light and internally of the gland mount cap (5).

Note: Ensure that both "o" rings are properly fitted into the gland mount cap (5) "o" ring seats/grooves.

- Secure gland mount cap (5) to the replacement LED light by turning to the right and tighten to ensure there is a water tight seal, and once again check "o" ring is proper fitting.
- Refit black power cable gland nut (6) and tighten to ensure proper sealing and locking the gland mount cap (5) to correct position.

The replacement LED light is now ready to be refitted to the outer flange body already secured into the fibreglass pool/spa wall. Ensure to carefully push the 1m coiled power cable into the outer flange niche body and refit the new replacement LED light & lens assembly (1) and secure to the light Niche housing by turn till tight to the right.

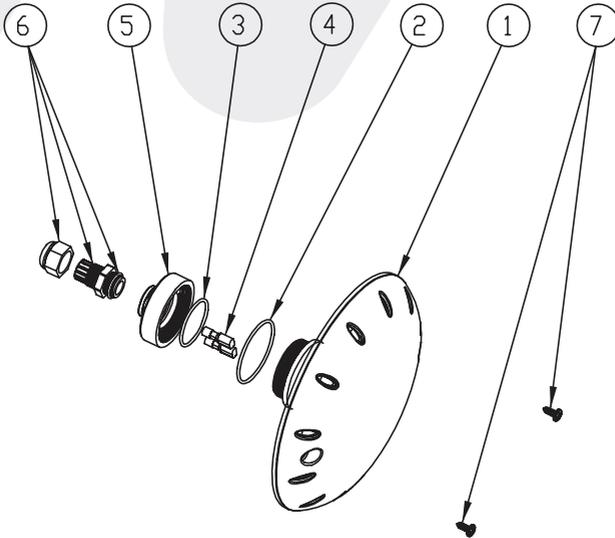
Congratulations reconnect power to your light at the circuit breaker and your new Waterco replacement LED Slim90 light is ready for use.

LED REPLACEMENT LIGHT INSTALLATION

Disconnecting the Slim165 LED light

- Disconnect power to light at the circuit breaker.

Complete assembly exploded view



- Remove the 2 screws (7) securing the light lens to the outer flange niche body outer concreted into the pool. This will allow the lens assembly to be removed from the pool water, but will still be connected to the niche body via the 1m coiled power cord that is stored within the niche body.
- Remove the black power cable gland nut and Black gland (6) and slide back along power cable. Unscrew (turn to left) the gland mount cap (5) exposing the two power wires.

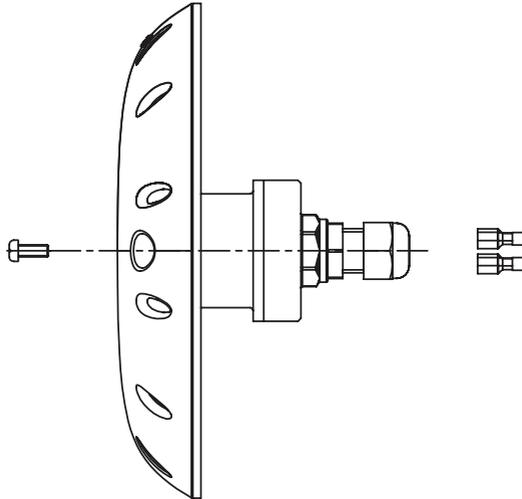
Note: These two wires are connected to the LED light assembly via two quick connects electrical spade connectors (4). These can be either disconnected by pulling apart or simply cutting the two power wires.

You have now successfully disconnected the existing LED light assembly and are ready to reconnect a new LED light assembly.

Connecting replacement LED light

The replacement LED lights are available as white, blue or multicolour RGB models and are supplied as a complete light assembly with the additional components as follows:

Complete assembly with 2 x quick connects spade electrical connectors



Note: Refer Exploded view for following parts identification.

2 x Quick connect spade electrical connectors (4).

1 x gland mount cap (5) with black power cable gland nut and black gland (6).

2 x “o” rings (2 & 3).

1 x Bottle of natural lanoline.

- If not removed, inspect the two existing quick connect electrical connectors (4) on the two exposed wires of the power cable. These should be replaced if there is any suspicion of damage.
- If required remove the two quick connect electrical connectors (4) and replace with the 2 x replacements supplied with the LED replacement light.

Note: Note: The exposed wires from the power cable conduit required length is approx 50mm.

Note: The electrical components inspection and installation of the pool lights should be carried out by a suitably qualified persons (e.g. registered pool builder and/or qualified electrician), in accordance with AS/NZS 3000:2007 standards.

Remove the gland mount cap (5) from the rear of the LED replacement light (unscrew to left). The black power cable gland nut and black gland (6) are fitted into the gland mount cap (5). Unscrew the black power cable gland nut (5) and place over the power cable and push the power cable through the black gland (6) and gland cap (5).

Note: Gland nut (14) should not be fully tightened. This will allow for adjustment of power cable.

- If necessary, ensure the 2 x exposed power wires to the replacement LED pool light are approximately 50mm and then strip the blue and brown wires insulations approximately 10mm. Crimp the two quick connect spade connectors (4) to the stripped 10mm section of the blue and brown wires.
- Connect the two quick connect spade connectors (4) to connectors provided in the rear cup section of replacement LED light.
- Squeeze natural lanoline from supplied bottle into rear cap of replacement LED light completely covering the two quick connect spade connectors and fill to top.

Hint: Submerge the bottle of lanoline into a suitable size vessel and add temperate/warm water, this will help to soften the lanoline for easier flow and ensure the rear cap is completely full of lanoline for proper protection of the two quick connect spade connectors. Slide gland mount cap (5) with black gland (6) to the correct position on the power cable conduit. Refit the two new “o” rings (2 & 3) to the rear of the replacement LED light and internally of the gland mount cap (5).

Note: Ensure that both “o’ rings are properly fitted into the gland mount cap (5) “o” ring seats/grooves.

- Secure gland mount cap (5) to the replacement LED light by turning to the right and tighten to ensure there is a water tight seal, and once again check “o” ring is proper fitting.
- Refit black power cable gland nut (6) and tighten to ensure proper sealing and locking the gland mount cap (5) to correct position.

The replacement LED light is now ready to be refitted to the outer flange niche body already secured into the fibreglass pool wall. Ensure to carefully push the 1m coiled power cable into the outer flange niche body and refit the new replacement LED light assembly and secure with the 2 screws (7).

Congratulations reconnect power to your light at the circuit breaker and your new Waterco replacement LED Slim165 light is ready for use.

TROUBLE SHOOTING

FAULT	POSSIBLE CAUSE	REMEDY
Light not operating	<ul style="list-style-type: none"> - Fuse in transformer blown. - No power to transformer. - Fault in electrical wiring. 	<ul style="list-style-type: none"> - Replace fuse. - Check main fuses in switchboard. - Electrician to check.
Light very dim and pulsating	<ul style="list-style-type: none"> - Mismatch of lamp and transformer ratings. - Damaged wiring/ connectors. 	<ul style="list-style-type: none"> - Fit correctly rated transformer*. - Replace wiring/ connectors.
Main house fuse blows when light switched on	<ul style="list-style-type: none"> - Faulty transformer - Damaged cable - Incorrect electrical installation. 	<ul style="list-style-type: none"> - Call electrician to check installation.

WARRANTY

BriteStream LED lights are covered by a comprehensive 2 years warranty. Please refer to the Waterco Warranty Booklet for further details.

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