

### Disclaimer

Please read all instructions before beginning installation. These guidelines are provided in good faith to help prevent any problems caused by errors in installation. The manufacturer of this product shall not be held responsible for installation actions taken or not taken. There are many details of installation that are assumed to be general construction knowledge to experienced installers; which may not be included in these instructions. These installation guidelines are intended to be recommendations and are not to serve as a step-by-step, fail-safe installation checklist.

### 1 Product Description and Features

LED spa bath light system, comprising of a power supply, controller and LED lights that fit into the spa jet body. Light is emitted from the LED's through the clear components of the jets to create mood lighting in the bath that adds to the relaxing experience of using the spa

- Auto time-off function after 1 hr. after last switch operation saves energy
- Other than the power supply, all components are accessible from within bath i.e. front serviceable.
- Controller switches change intensity and colour via scrolling through set sequences.
- Energy Level V power supply means ultra-low power consumption when not in use.

### 2 Technical Specifications



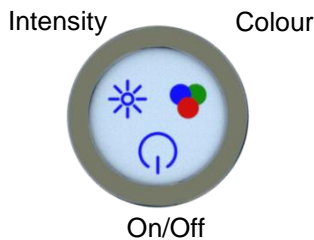
#### Power supply:

- Input 240VAC,
- Output 12VDC,
- 7.2W.
- Energy Level V
- C tick certified



#### LED's: (Light Emitting Diodes)

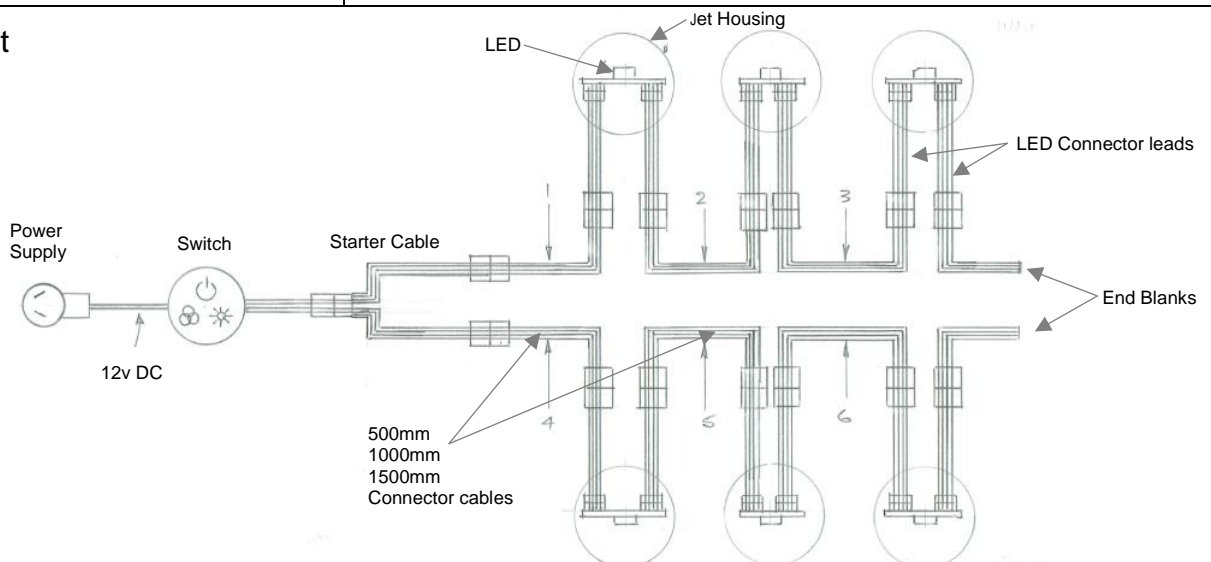
- 0.5W RGB 5050 SMD.
- 6 per system in 2 lines of 3 per line



#### Controller:

- Power on/off,
- 7 colours plus white,
- 7 intensities,
- Auto time-off energy saver function

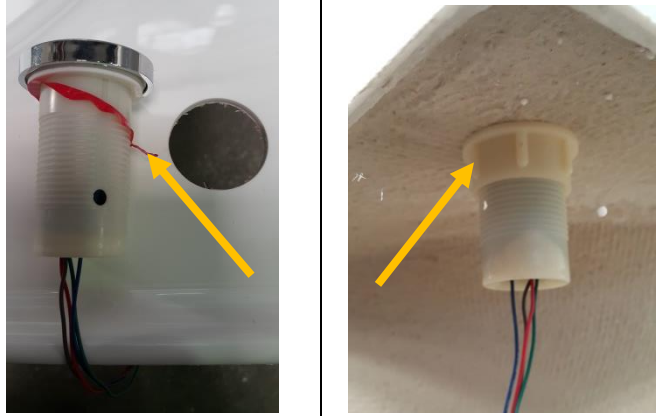
### Wiring Circuit



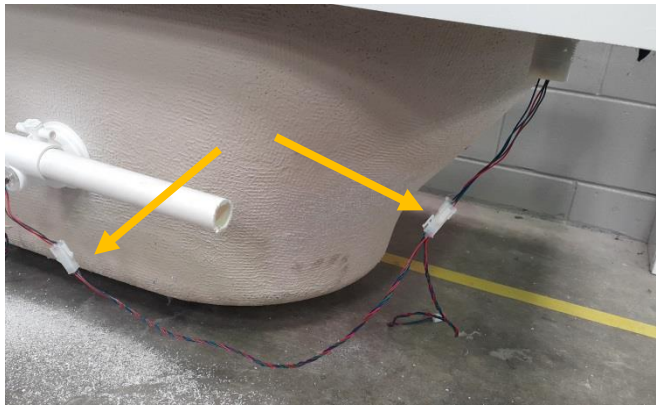
**3 Installation Instructions – Bath Manufacturer**

**A** Install and plumb all jets and fittings as per normal practice

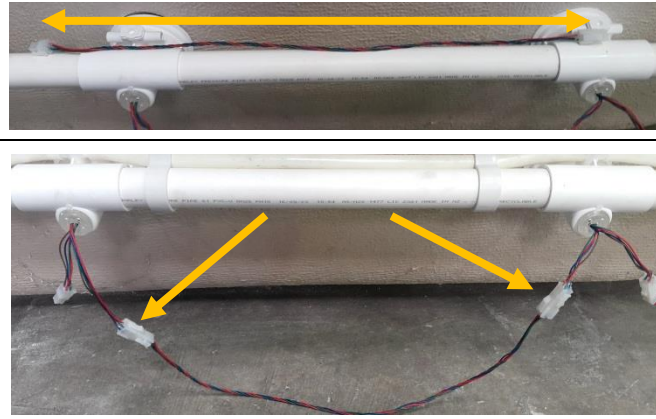
**B** Drill a 1 ¼" (32mm) hole in the horizontal top surface of the bath in the selected position,  
Remove the plastic adhesive seal protector and insert the controller into the hole.  
Screw the nut on from the underside to hold in place




**C** Insert the single leg of the Y connector cable M5516 into the connector cable from the controller,  
Connect each leg to a 500mm long cable

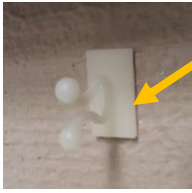

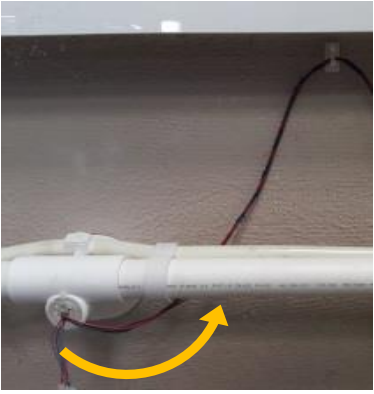
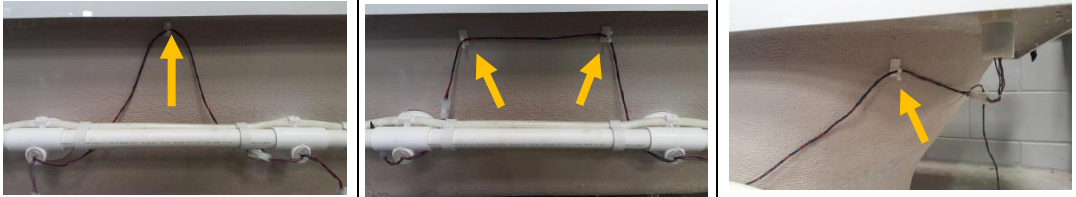


**D** Use connection cables which are of length equal to at least the jet centers plus 100mm.  
Connect each cable to the appropriate jet.  
Continue down each string of jets connecting LED cables




**E** Connect a short blank end cable to each of the last LEDs  
Tuck tail between airline and waterline (must not be so tight that it can't pull out)



3 Installation Instructions – Bath Manufacturer -continued				
F	Remove the adhesive tape from a cable clip.  Wipe surface of fiberglass wall with solvent to remove dust	 <p><b>Silicone</b></p>		
	Position it on the bath wall so that it will support a cable against the bath wall between the jets  Silicone in place to hold it to bath wall  Feed the cable under the water line and between the air line and bath wall and hook into clip.	 		
G	<b>Do not twist the legs of the cable clip together because the cable will be prevented from freeing itself to allow access when servicing.</b>			
H	Suggested cable clip positions	One Clip – shorter cable	Two Clips – longer cable	Controller Wires
				
I	Connect the power supply to the controller and turn the power on to test the system works  Scroll through the colour and the intensity ranges – there are 7 colours and 7 intensities			
J	It is normal for the LEDs to flash briefly when the power is applied to the power supply. Run for 30-40 minutes then check to confirm there are no heat related problems (like the LEDs flashing on and off) – Ref trouble shooting guide			

4 Bath Manufacturers Check Guide.	
✓	Must be equal amounts of LED's on each side of the system (3+3)
✓	No loose or hanging wires (could get caught when installing the bath into the hob)
✓	Cable clips are not twisted together (cable must pull free for servicing LED's)
✓	The trim on the controller is properly clipped on so that the o-ring underneath seals properly
✓	There is enough free length in the cables incase the LED's need to be serviced

	<b>BEST PRACTICE GUIDELINES</b>	Create Date	19-12-2016
	<b>Spa Bath Jet LED System</b>	Revision No.	DRAFT
		Pages	5

<b>5 Installation Instructions – Bath Installer</b>	
<b>A</b>	Once the support system is ready for the bath to be installed permanently, check that there is adequate room for the bath to fit, and that none of the cable clips have been twisted.
<b>B</b>	Connect the power supply to the socket inside the controller and connect it to the mains. Connect up the other system components and lower the bath into position.
<b>C</b>	Turn power on and check the LEDs are working as in 3.I above
<b>D</b>	Complete the installation process as per normal practice

<b>6 Trouble Shooting guide</b>	
<b>Fault</b>	<b>Causes (In decreasing order of likely failure mode)</b>
LEDs do not turn on when on/off switch operated	No Power – check mains power and supply connected to controller Faulty membrane switch – replace. Faulty controller- replace Faulty cable connector to controller – replace Y cable M5516 Faulty LED in both strings – replace all 6 LEDs. Faulty power supply – replace
One colour (red, green, or blue) does not work (identify by scrolling through the colours to confirm)	One side of bath – Faulty LED -replace the 3 LEDs on that side Both sides- Faulty LEDs -replace all 6 LEDs , Faulty controller – replace controller
Different colours on each side of the bath (identify by scrolling through the colours to confirm which are not working)	Faulty LED –replace 3 LED's on the side of the bath where colours not working, Faulty LED's both sides – replace second side
LEDs flash or flicker	Faulty LED -replace all 3 LEDs on side that flashes

7 Service Instructions	
<b>A</b>	<p><b>Controller.</b></p> <p>The body of the controller is fixed to the bath by the adhesive washer and nut but the assembly inside it is accessible after using a knife to gently lever off the trim ring to expose the membrane switch panel and the printed circuit board under it.</p> <p>These are separable and both can be removed easily by withdrawing them carefully, upwards from the housing, drawing the power supply and output cables with them.</p> <p>To replace either part disconnect it from the adjacent components and the reconnect the replacement in the same manner.</p> <p>Assemble the PCB carefully into the housing where it will locate correctly at its lowest point then locate the membrane panel in its location points without distorting the flexible tail fitting.</p> <p>Locate the trim ring then press it home as it clips into place.</p> <p><b>Ensure o-ring is in place to seal water from electronics</b></p>
<b>B</b>	<p><b>LED cartridges</b></p> <p>Remove the jet cartridge by rotating it anticlockwise until it disengages the retaining lugs and then withdraw it from the housing.</p> <p>Remove the LED cartridge by using the tool supplied to rotate the cartridge anticlockwise and drive it out.</p> <p>Once free, the cartridge may pull out with the tool. If it doesn't, use a bent wire to hook into the small hole next to one of the drive dogs and pull the cartridge free.</p> <p>Take care when pulling the cables and connectors through the rear of the jet body and though to where the connectors can be disconnected from the cables behind the bath wall.</p> <p>Be sure to restrain the cables and connectors from falling back into the cavity behind the bath wall as retrieval may be very difficult.</p> <p>Replacement is the reverse process, using the tool to insert and lock the cartridge in position followed by the jet cartridge.</p> <p><b>Ensure o-ring is fitted and not damaged</b></p>
<b>C</b>	<p><b>Cables</b></p> <p>Replace a faulty cable by removing the adjacent LED cartridges (or controller) as above and then connect one end of the replacement cable to the connector of the faulty cable.</p> <p>Connect the other end of the replacement cable to the LED cable connector.</p> <p>Pull the other end of the faulty cable through the jet body, drawing the replacement through behind the bath wall.</p> <p>Once through, disconnect and discard the faulty cable and reconnect the new one to the LED connector and refit the LED cartridges as above.</p> <p>Replace a faulty Y cable by withdrawing the controller assembly as above and then the Y cable until the connectors are free.</p> <p>It will be necessary to draw the two connectors one after the other through the hole as there is not enough room for both at once.</p> <p>Swap over the new cable for the faulty one and reinstall, replacing the controller assembly as above.</p>