



IMPORTANT SAFETY INSTRUCTIONS -

Read before starting the installation process

Hazardous voltage can cause serious injury or death to installer and pool user. Ensure power is turned off at the spa light switch **AND** at the main breaker before attempting to install or service the VIVID 360 Spa light.

The VIVID 360 LED Spa light's plastic construction and low voltage operation allow for it to be installed without the need for bonding or grounding. For supply connection, use only an isolating 12 volt - 14 volt power supply with ungrounded output, evaluated for swimming pool use. Failure to comply with this installation requirement could cause electric shock, resulting in serious injury or death.

INSTALLER

Follow all warning notices and instructions before installing the VIVID 360 LED Spa light.

VIVID 360 LED Spa light must be installed in accordance with the National Electric Code by a Certified Electrician or Qualified Pool Technician. This Installation Manual must be given to the Pool Owner after the new light has been installed.

For use in Fresh Water Pool only (salt water pools with <6,000ppm salt are considered fresh water). VIVID 360 LED Spa light operates from a 12 volt ~ 14 volt AC Supply only. The power supply must be installed by a suitably qualified electrician or pool professional to ensure safety to pool users and to provide the safe operation of the VIVID 360 LED Spa light.

See back page for recommendations on cable gauge and length. If connected to a pool automation controller follow the instructions provided with that device.

Included in this kit:

VIVID 360 LED
 Spa Niche Light



Plug Kit factory-fitted on
 18AWG Cable



Cable lengths available:
 50ft, 100ft, 150ft

⚠ WARNING

NEVER STARE DIRECTLY AT LED POOL LIGHTS. PROLONGED DIRECT EXPOSURE CAN CAUSE EYE DAMAGE.

⚡ DANGER

ELECTRIC SHOCK RISK

⚠ WARNING

LOW VOLTAGE ONLY

INSTALLATION

1 Confirm that power has been turned off to the existing underwater light that is being replaced. If you cannot be sure that power has been disconnected, then **DO NOT CONTINUE WITH THE INSTALLATION.**

2 Locate the connection point of the existing spa light cable, which is likely to be at a Junction Box or at a Transformer. Disconnect the existing spa light cable from the Junction Box or Transformer.

Pull on the existing cable to determine if it moves freely in the conduit. Removing the cable seal grommet and any sealant from the niche should also make it easier to pull the new cable through.

3 Unscrew the existing underwater light and disengage it from the niche, see Diagram 1. Float the light to spa deck and cut the existing spa light cable close to the rear of the existing spa light.

4 Use the existing spa light cable as a draw wire to pull through the cable on the VIVID 360 LED Spa Light. Refer to Diagrams 2-4. Remove 3" of outer cable sheath on both the existing and new spa light cables. Expose a 2" length of copper conductor, and twist together tightly. Form loops in the copper conductors and join and twist together with loops on the new cable. It is important to then twist firmly to create a firm join. Cover the join with electrical or duct tape.

5 Pull the existing cable from the Junction Box or Transformer end, so that the VIVID 360 LED Spa Light Cable is pulled through. Leave sufficient extra cable to be coiled in the niche to allow for the light to be floated to spa deck for possible future servicing.

6 The Vivid 360 LED Spa Light is able to be fitted into a variety of existing spa niches, including the popular brands shown below. There are subtle differences in the sizes of spa niches. To allow for this we have factory-fitted one locking tab and included **an alternative locking tab**, thus providing three mounting positions (A, B, and C). Refer to diagrams below to determine if the locking tab needs to be installed in a different position before installation, Locking Tab (A) is the factory default position. NB – Tab B is the flipped position of Tab A.

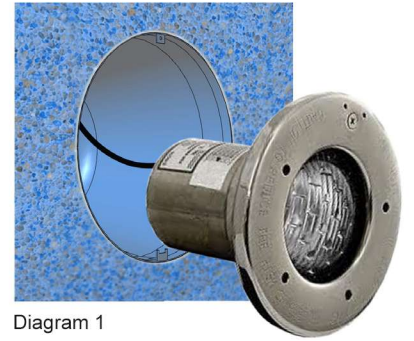


Diagram 1

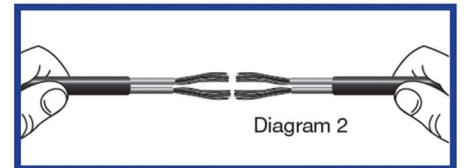


Diagram 2

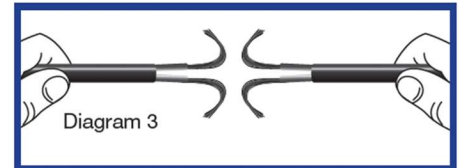


Diagram 3

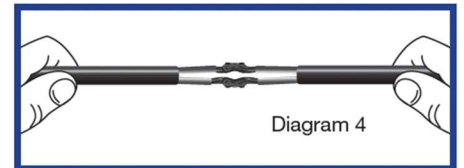
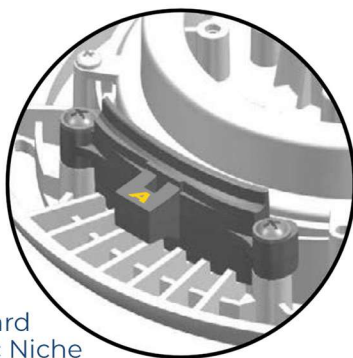
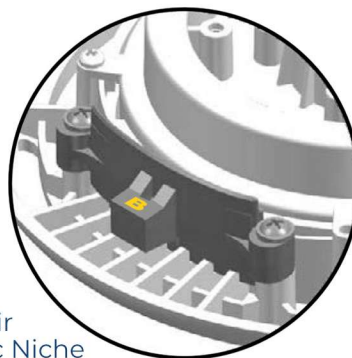


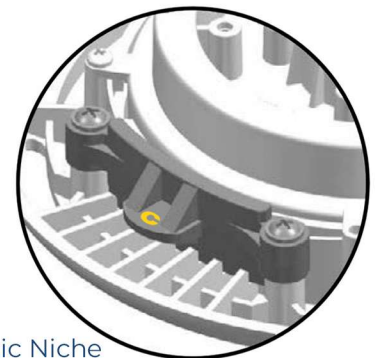
Diagram 4



Tab A
Hayward
Plastic Niche



Tab B
Pentair
Plastic Niche



Tab C
Pentair SS
Niche and
Jandy Plastic Niche



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The new cable connects to the VIVID 360 LED Spa Light by following these instructions:

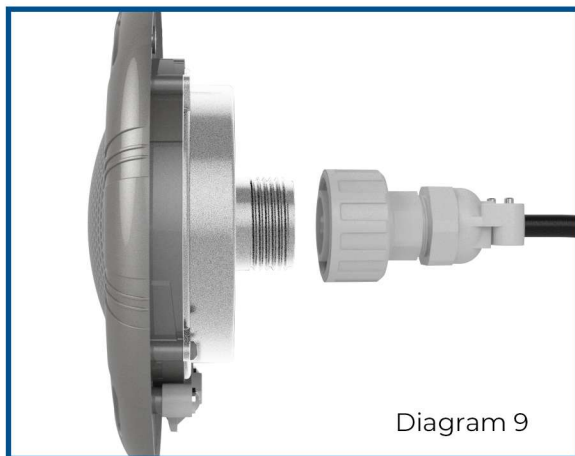
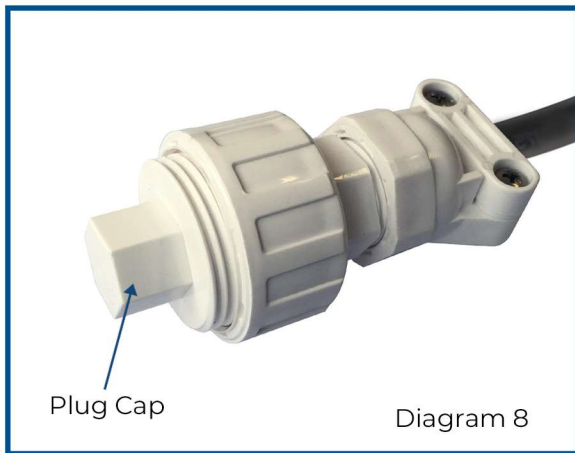
- Unscrew protective Plug Cap from end of new cable. See Diagram 8. Keep Plug Cap for possible future use.
- The two o-rings are factory-lubricated, ensure they are not exposed to dust and grit. If needed, wipe clean.
- Align the plug kit with the exposed metal connector pins at the rear of the spa light, and push into place, hand-tighten the Connector Nut. See Diagrams 9 and 10. Do not over-tighten. Leave the spa light on the spa deck.

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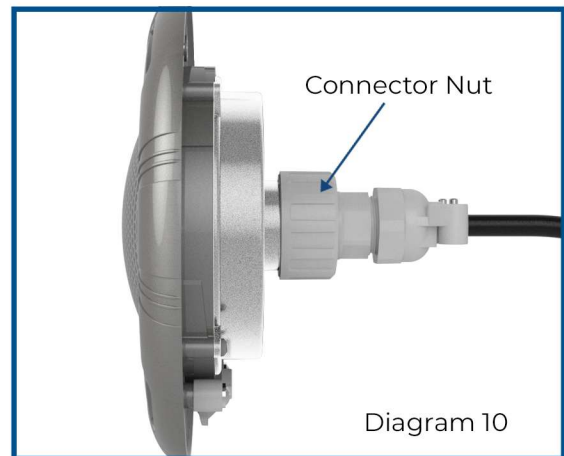
At the Junction Box or Transformer, cut excess new cable, leaving enough cable to make the electrical connection. Wire up the new VIVID 360 LED Spa Light Cable in the same manner as the old light.

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Turn the spa light on just long enough to confirm proper functioning. Turn power off. Coil up the extra cable in the niche and then mount the new VIVID 360 LED Spa Light into the niche by inserting the locking tab on the bottom of the spa light into the mounting slot on the lower part of the niche face ring. Then secure with the pilot screw provided. Installation is now complete. Only operate once the light is fully submerged. If the light does not illuminate, then turn the power off and go back and start from Step 1 to review each installation step.



Plug Kit ready for insertion into rear of Vivid 360 LED Spa Light



Hand tighten the Connector Nut

LIGHT SPECIFICATIONS

Model	Description	Color Temp or Wavelength	Lumens	Power Consumption	Incandescent Equivalent
ALL LIGHTS OPERATE FROM 12V AC ~ 14V AC POWER SUPPLY <i>UL Listed for installation with the top of the luminaire lens not less than 100mm (4") below the normal water level of the pool.</i>					
VLS4004 – WT	Cool White	6500K	985	25VA	165 watts
VLS4014 – WW	Warm White	2850K	900	25VA	155 watts
VLS4008 – BL	Blue	465nm	300	25VA	N/A
VLS4000 – T	Amber (Turtle Friendly)	>560nm	425	13VA	N/A
VLS4000 – P	Multi-Color PENTAIR (held on white)	4,000K	850	25VA (30VA max)	140 watts
VLS4000 – J	Multi-Color JANDY + WALL SWITCH (held on white)	4,000K	650	21VA (30VA max)	110 watts
VLS4000 – H	Multi-Color HAYWARD (held on white)	>10,000K	380	16VA (30VA max)	65 watts

MAXIMUM CABLE LENGTHS For VIVID 360 LED Spa Lights

Voltage	18AWG	14AWG	18AWG	14AWG
	MULTI-COLOR		FIXED COLOR	
12V	60ft	130ft	70ft	150ft
13V	90ft	190ft	100ft	220ft
14V	120ft	250ft	140ft	310ft

ONLY USE THE CABLE AND PLUG KIT SUPPLIED WITH THE PRODUCT

If there is insufficient voltage reaching the VIVID 360 LED Spa Lights then they may not perform correctly. Ensure correct operation by following the recommendations in the Cable Length chart.

18AWG Cable is supplied as standard with the VIVID 360 LED Spa Lights. Contact Blue Square Manufacturing if you need to upgrade to 14AWG cable.

Thank you for purchasing and installing the technically-advanced Vivid 360 LED Spa Light.

It has been manufactured with great care, using only the finest materials available – suitable for the demanding underwater environment in which it operates.

The unique patented Plug Kit allows for simple connection to the spa light – making installation effortless.

The brightness and color-blending is unsurpassed and allows the state-of-the-art LED array to operate efficiently and reliably.

Questions?

Call (800) 277-4150



The Vivid Pool Retro Plug Kit is a great option for circumstances where pulling a cable may be difficult or impossible. It is critical, however, to ensure that the existing cable can supply the current necessary to operate the light properly today, and for years to come.

The instructions below describe how to test the resistance of the existing cable. There are multiple ways to test a cable, but the technique described here allows for minimal commitment to the project prior to deciding on the best product for the application.

Okay, Let's Get Started



Tools Needed

- Multimeters
- Wire strippers



It is imperative that the proper tool is used to test the cable resistance due to the high conductivity of stranded copper wire. It has very little resistance by nature. Use a multimeter or millivolt meter capable of testing to 1/100th Ohms to accurately test the cable.

Follow these steps to test the cable:

- 1 Turn off the power to the existing switch or relay.
- 2 Disconnect the cable from the switch or relay.
- 3 Remove the existing light from its niche and cut the cable at the back of the housing.
- 4 Set your multimeter or milliohm meter to test for resistance. Zero out the device and set to the highest sensitivity.
- 5 Be sure to test the entire length of the run from the pool end all the way to where it will connect to the transformer.
- 6 Strip approximately 1/2" of the outer insulation on the cable, and then approximately 1/4" of the inner insulation exposing the copper strands.
- 7 At one end of the cable tie two of the wires together with a wire nut.
- 8 At the other end of the cable connect the alligator clips on the milliohm meter to the same two wires you connected at the other end.
- 9 Record the results and refer to the table.
- 10 Most existing cables will have three conductors (hot, neutral, and ground). It is acceptable to use any two of the three for our low voltage light, so test all three combinations to find the pair that have the least resistance.



VIVID 360 NICHELESS RETRO LIGHT

Model#	Color	Wattage	Maximum Cable Resistance @12V (Existing Cable)	Plug Kit
300071-WT	White	11 watts	2.1 OHM	300000
300076-WW	Warm White	11 watts	2.1 OHM	300000
300070-BL	Blue	11 watts	2.1 OHM	300000
300077-T	Turtle(Amber)	11 watts	2.1 OHM	300000
300073-P	Pentair	18 watts	1.3 OHM	300000
300074-J	Jandy/Wall Switch	15 watts	1.6 OHM	300000
300075-H	Hayward	19 watts	1.2 OHM	300000

VIVID 360 SPA RETRO LIGHT

Model#	Color	Wattage	Maximum Cable Resistance @12V (Existing Cable)	Plug Kit
VLS4004-WT	White	25 watts	1.0 OHM	400001
VLS4014-WW	Warm White	25 watts	1.0 OHM	400001
VLS4008-BL	Blue	25 watts	1.0 OHM	400001
	Turtle(Amber)	13 watts	1.8 OHM	400001
VLS4000-P	Pentair	25 watts	1.0 OHM	400001
VLS4000-J	Jandy/Wall Switch	21 watts	1.1 OHM	400001
VLS4000-H	Hayward	16 watts	1.5 OHM	400001

VIVID 360 POOL RETRO LIGHT

Model#	Color	Wattage	Maximum Cable Resistance @12V (Existing Cable)	Plug Kit
VLP2004-WT	White	30 watts	0.8 OHM	400001
VLP2014-WW	Warm White	30 watts	0.8 OHM	400001
VLP1004-BL	Blue	30 watts	0.8 OHM	400001
	Turtle(Amber)	22 watts	1.0 OHM	400001
VLP3030-P	Pentair	28 watts	0.8 OHM	400001
VLP3030-J	Jandy/Wall Switch	20 watts	1.2 OHM	400001
VLP3030-H	Hayward	28 watts	0.8 OHM	400001