

Jandy® Infinite WaterColors™ Pool & Spa LED Lights

WARNING

FOR YOUR SAFETY - This product must be installed and serviced by a contractor who is licensed and qualified in pool equipment by the jurisdiction in which the product will be installed where such state or local requirements exist. The maintainer must be a professional with sufficient experience in pool equipment installation and maintenance so that all of the instructions in this manual can be followed exactly. Before installing this product, read and follow all warning notices and instructions that accompany this product. Failure to follow warning notices and instructions may result in property damage, personal injury, or death. Improper installation and/or operation may void the warranty.



Improper installation and/or operation can create unwanted electrical hazard which can cause serious injury, property damage, or death. **DO NOT MODIFY THIS EQUIPMENT.**

ATTENTION INSTALLER - This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

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FCC Regulatory Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Section 1. Safety Information

IMPORTANT SAFETY INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

READ AND FOLLOW ALL INSTRUCTIONS

The Jandy Infinite WaterColors Pool & Spa Lights are designed to be powered and operated with the Jandy Infinite WaterColors LED Light Controller, the lights will not operate when powered from an alternate transformer. Follow all installation and operating instructions that accompany this product, as well as the Jandy Infinite WaterColors LED Light Controller (Model: IWCLC300W).

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION. This underwater light must be installed by a licensed or certified electrician in accordance with the National Electrical Code® and applicable local codes and ordinances. In Canada, the Canadian Electrical Code and all applicable local codes and ordinances must be adhered to. Improper installation will create an electrical hazard, which may result in death or serious injury to pool or spa users, installers, or others due to electrical shock, and may also cause damage to property. Read and follow the specific instructions below.

WARNING

Before installing this underwater light, read and follow all warning notices and instructions accompanying this light. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Visit www.zodiacpoolsystems.com for additional free copies of these instructions or call Zodiac Technical Support at 800.822.7933 (U.S.) or 888.647.4004 (Canada)

CAUTION

Except when the Jandy Infinite WaterColors LED Lights are installed in an area of the swimming pool that is not used for swimming and the lens is adequately guarded to keep any person from contacting it, the light shall be installed in or on a wall of the pool, with the top of the lens opening not less than 18 inches (457 mm) below the normal water level of the pool.



ATTENTION INSTALLER

This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

NOTICE

The Jandy Infinite WaterColors LED Lights are intended for installation in fresh water and salt water swimming pools. It is important to ensure that the wet niches in which the lights are installed are intended for their appropriate application, either fresh water or salt water pools.

SAVE THESE INSTRUCTIONS

Section 2. Product Overview

Model #	Light Size	Voltage	Watts	Amps	Cord Length	Face Ring Material	# of Lights Included
IWCP50W100	Large	14 VAC	50W	3.6 A	100 feet	Stainless Steel	1
IWCP50W200	Large	14 VAC	50W	3.6 A	200 feet	Stainless Steel	1
IWCS25W100	Small	14 VAC	25W	1.8 A	100 feet	Stainless Steel	1
IWCS25W200	Small	14 VAC	25W	1.8 A	200 feet	Stainless Steel	1
IWCPSKIT100*	Large and Small	14 VAC	50W (Large) 25W (Small)	3.6 A (Large), 1.8 A (Small)	100 feet	Stainless Steel	1 Pool 1 Spa
*Includes Infinite WaterColors LED Light Controller							

Section 3. New Construction Installation

The Jandy Infinite WaterColors Pool & Spa LED Lights are designed to be powered and operated with the Jandy Infinite WaterColors LED Light Controller. Follow all installation and operating instructions.

WARNING

Risk of Electrical Shock or Electrocution.

This underwater light must be installed by a licensed or certified electrician or a qualified pool serviceman in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation will create an electrical hazard, which could result in death or serious injury to pool or spa users, installers or others due to electrical shock, and may also cause damage to property.

Always disconnect the power to the color light at the circuit breaker before installing or servicing the light. Failure to do so could result in death or serious injury to serviceman, pool or spa users or others due to electrical shock.

3.1 Preparing the Light Fixture for Installation

NOTE The electrician must complete preparatory steps before light fixture is installed. See Figure 1.

Ensure that the pool meets the requirements of the current National Electrical Code® and all local codes and ordinances. A licensed or certified electrician must install the electrical system to meet or exceed those requirements before the underwater light is installed. Some of the requirements of the National Electrical Code, which the pool electrical systems must meet, are as follows:

WARNING

To minimize risk of Electrical shock or electrocution, which could result in injury or death, for supply connection of low-voltage lights use only the Jandy Infinite WaterColors LED Light Controller which is an isolating low voltage power supply, evaluated and listed by a Nationally Recognized Testing Laboratory (NRTL) intended for use with submersible luminaires for swimming pool use.

WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION, which could result in serious injury or death. A Ground Fault Circuit Interrupter (GFCI, in Canada: Class A type) should be used if required by the transformer manufacturer or if required by the local applicable code and/or Authority Having Jurisdiction (AHJ). When a GFCI is used, the conductors on the load side of the GFCI circuit shall not occupy conduit, boxes, or enclosures containing other conductors unless the additional conductors are also protected by a GFCI. Refer to local codes for complete details. When a GFCI is used, the conductors on the load side of the GFCI circuit shall not occupy conduit, boxes, or enclosures containing other conductors unless additional conductors are also protected by a GFCI. Test the GFCI on a routine basis.

Refer to local codes for complete details.

1. The junction box or Infinite WaterColors LED Light Controller suitable for direct conduit connection to lights must be located at least (8) inches above water level, at least four (4) inches above ground level, and at least (48) inches (4) feet from the edge of the pool, or as required by local code, See Figure 1.
2. The light fixture and all metal items within five (5) feet of the pool must be properly electrically bonded to a reliable point of grounding.
3. The wet niche must be properly installed so that the top edge of the underwater light's lens is at least (18) inches below the surface of the water in the pool. See Figure 1.
4. The wet niche must be properly electrically bonded and grounded via the No. 8 AWG ground connector located at the rear of the niche. See Figure 1.

National Electrical Code® (NEC®) requires bonding of the Pool Water. Where none of the bonded pool equipment, structures, or parts are in direct connection with the pool water; the pool water shall be in direct contact with an approved corrosion-resistant conductive surface that exposes not less than 5800 mm² (9 in²) of the surface area to the pool water at all times. The conductive surface shall be located where it is not exposed to physical damage or dislodgement during usual pool activities, and it shall be bonded in accordance with the bonding requirements of NEC Article 680. Refer to locally enforced codes for any additional pool and spa bonding requirements.

NOTE To be certain that the pool's electrical system meets all applicable requirements, the electrician should also consult the local building department.

Use only approved wet niches (see following note) to ensure a safe and proper installation.

NOTE Jandy lights are ETL listed (ETL report/file 3141154CHI) for installation with *only* the following manufacturer's wet niche fixtures:

Large Niche Model Numbers:

Jandy: PLNICLRG, PLNICVFLRG,
WT000002, SSNICLRG1R, SSNICLRG1S
Pentair: 620004, 78210200 thru 700, 78210401
Hayward DuraNiche: SP0600U

Small Niche Model Numbers:

Jandy: PLNICSM, SSNICSM,
Pentair: 79206600
Pentair® and Sta-Rite® are registered trademarks of Pentair, Inc.
Hayward® is a registered trademark and DuraNiche™ is a trademark of Hayward Pool Products, Inc.

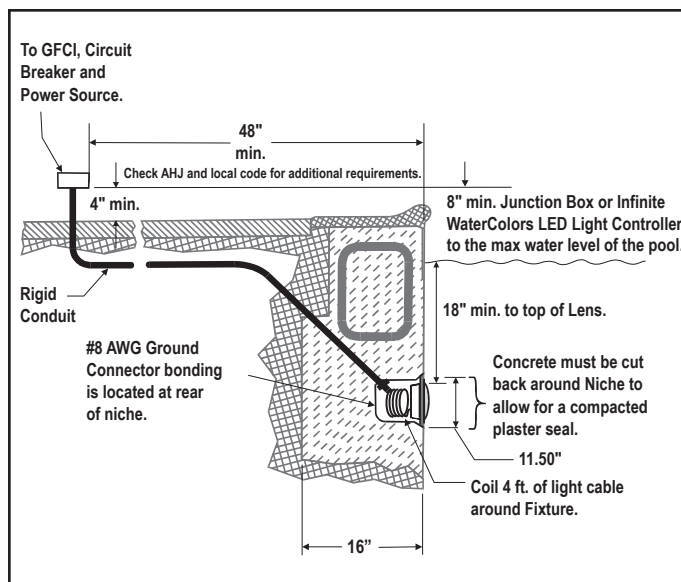


Figure 1. Jandy Infinite WaterColors Light Installation

3.2 Installing the Light Fixture

NOTE Perform these steps *only* after the electrical system requirements are met.

1. Feed cord through conduit to junction box, leaving at least four (4) feet of cord at the light fixture to coil into the base of the light niche, see Figure 1. The four (4) feet of cord allows the light to be serviced after the pool is filled with water.
2. Cut the cord at the junction box, leaving at least six (6) inches of cord to make connections.
3. Strip six (6) inches of the outer cord jacket to expose the three insulated wires. *Be careful not to damage the insulation on the three (3) inner wires.*
4. Install strain relief over cord jacket and connect the light wires to the controller, black to orange, white to orange, and green to the ground terminal bar. Install the junction box cover.
5. Coil the 4-foot length of cord around the fixture or into the base of the pool niche, and place the light assembly into the niche.
6. Engage the retainer tab on the bottom of the face ring, then pivot the top of the fixture inward and tighten the special pilot screw.

⚠ WARNING

Use only the special pilot screw provided with this underwater light. This screw mounts and electrically grounds the housing securely to the mounting ring and wet niche. Failure to use the screw provided could create an electrical hazard, which could result in death or serious injury to pool or spa users, installers or others due to electrical shock.

- Fill the pool until the underwater light is completely submerged in water before operating the light for more than 10 seconds. The light will heat up quickly when operated outside of water. Turn on circuit breaker, which operates the Infinite WaterColors LED Light Controller. To check for proper operation, Refer to *Section 5, Controller Wiring Options*.

⚠ WARNING

Never operate this underwater light for more than 10 seconds unless it is totally submerged in water. Without total submersion, the light assembly will get extremely hot, which may result in serious burns or in breakage of the bulb or lens. This may result in serious injury to pool or spa users, installers, or bystanders or damage to property.

Section 4. Existing Pool or Spa Installation

⚠ WARNING

Risk of Electrical Shock or Electrocution.
This underwater light must be installed by a licensed or certified electrician or a qualified pool serviceman in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation will create an electrical hazard, which could result in death or serious injury to pool or spa users, installers or others due to electrical shock, and may also cause damage to property.

Always disconnect the power to the color light at the circuit breaker before installing or servicing the light. Failure to do so could result in death or serious injury to serviceman, pool or spa users or others due to electrical shock.

4.1 Preparing the Light Fixture for Replacement

Verify that the pool meets the requirements of the current National Electrical Code® (NEC) and all local codes and ordinances. A licensed or certified electrician must install the electrical system to meet or exceed those requirements before the underwater light is installed. Some of the requirements of the National Electrical Code, which the pool’s electrical system must meet, are as follows:

⚠ WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION, which could result in serious injury or death. A Ground Fault Circuit Interrupter (GFCI, in Canada: Class A type) should be used if required by the transformer manufacturer or if required by the local applicable code and/or Authority Having Jurisdiction (AHJ). When a GFCI is used, the conductors on the load side of the GFCI circuit shall not occupy conduit, boxes, or enclosures containing other conductors unless the additional conductors are also protected by a GFCI. Test the GFCI on a routine basis. Refer to local codes for complete details.

- The junction box or Infinite WaterColors LED Light Controller suitable for direct conduit connection to lights must be located at least (8) inches above water level, at least four (4) inches above ground level, and at least (48) inches (4) feet from the edge of the pool, or as required by local code, See Figure 1.
- The light fixture and all metal items within five (5) feet of the pool must be properly electrically bonded to a reliable point of grounding.
- The wet niche must be properly installed so that the top edge of the underwater light’s lens is at least (18) inches below the surface of the water in the pool. See Figure 1.
- The wet niche must be properly electrically bonded and grounded via the No. 8 AWG ground connector located at the rear of the niche. See Figure 1.

To be certain that the pool’s electrical system meets all applicable requirements, the electrician should also consult the local building department.

4.2 Replacing the Light Fixture

NOTE Perform these steps *only* after the electrical system requirements are met.

⚠ WARNING

Failure to bring the pool’s electrical system up to code requirements before installing the underwater light will create an electrical hazard which could result in death or serious injury to pool or spa users, installers, or others due to electrical shock, and may also cause damage to property.

NOTE The light fixture may be replaced without removing water from the pool.

1. Turn off the **main** electrical switch or circuit breaker, which operates the underwater light.
2. Unscrew the special pilot screw at top of the face ring and remove the light assembly from the niche, and place the assembly on the deck.

WARNING

Be sure to keep the special pilot screw provided with this underwater light. This screw mounts and electrically grounds the housing securely to the mounting ring and wet niche. Failure to use the screw provided could create an electrical hazard, which could result in death or serious injury to pool or spa users, installers or others due to electrical shock.

3. Remove Junction Box cover, disconnect the light fixture wires and strain relief, and then pull the cord out of the conduit from the niche.
4. Feed the new light fixture cord through the conduit from the niche to the Junction Box.

NOTE Depending on the length of the conduit, special tools may be required to pull the cord through the conduit.

5. Leave at least four (4) feet of cord to coil around the light fixture or coiled into the base of the light niche, see Figure 1. This allows the light to be serviced after the pool is filled with water.
6. Cut the cord at the Junction Box, leaving at least six (6) inches of cord to make connections.
7. Strip six (6) inches of the outer cord jacket from the cord to expose the three insulated wires. *Be careful not to damage the insulation on the three (3) inner wires.*
8. Install strain relief over cord jacket and connect the light wires to the controller, black to orange, white to orange, and green to the ground terminal bar. Install the junction box cover.
9. Reinstall the light assembly into the niche and tighten the special pilot screw.

WARNING

Use only the special pilot screw provided with this underwater light. This screw mounts and electrically grounds the housing securely to the mounting ring and wet niche. Failure to use the screw provided could create an electrical hazard, which could result in death or serious injury to pool or spa users, installers or others due to electrical shock.

10. Fill the pool until the underwater light is completely submerged in water before operating the light for more than 10 seconds. Turn on main switch or circuit breaker, which operates the underwater light, to check for proper operation. Refer to *Section 5, Controller Wiring Options*.

WARNING

Never operate this underwater light for more than 10 seconds unless it is totally submerged in water. Without total submersion, the light assembly will get extremely hot, which may result in serious burns or in breakage of the bulb or lens. This may result in serious injury to pool or spa users, installers, or bystanders or in damage to property.

Section 5. Controller Wiring Options

The Jandy Infinite WaterColors Pool & Spa LED Lights are designed to be powered and operated with the Jandy Infinite WaterColors LED Light Controller and AquaLink RS (revision Y or later). Follow all installation and operating instructions.

NOTE The Jandy Infinite WaterColors LED Lights are dimmable in the iAquaLink app and will not operate properly with light dimmers. Do not wire the lights to any dimming circuitry.
DO NOT CONNECT TWO OR MORE POWER SUPPLIES IN PARALLEL.

5.1 Wiring to an AquaLink® RS Control System

The Jandy Infinite WaterColors LED Lights must be wired into the Jandy AquaLink® RS control system. AquaLink RS revision Y or later is required for operation of the lights.

Refer to Figure 2 for the Infinite WaterColors Wiring Diagram which shows light connections to the controller and Aqualink system.

5.2 Wiring to the Light Controller

1. Knock out an opening in the right compartment.
2. Run low voltage light through a conduit connector and secure to the enclosure.
3. Connect the low voltage wires black to orange and white to orange.
4. Connect the ground wire to the bus bar.

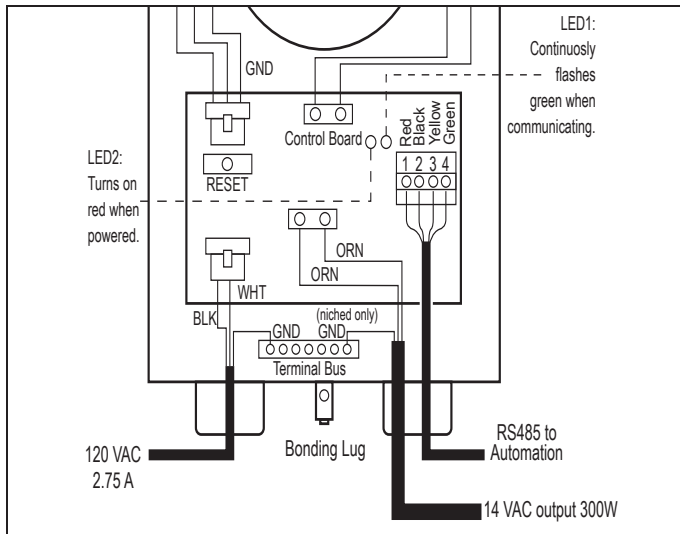


Figure 2. Jandy Infinite WaterColors Wiring Diagram

Section 6. iAqualink® App Features

Download the iAqualink app and/or upgrade to the latest version prior to light and zone set up. App function and design is subject to change.

6.1 Light Setup

1. Open the app on your device.
2. From My Systems page, select your pool.
3. From the home page, choose the cog system icon on the top right and select System Setup.

6.1.1 Assign Lights

1. From the System Setup page, select Light Setup and Assign Lights.
2. From the Assign Lights pop up, choose proceed to continue the process.
3. On the Light the Zone Setup page, select a light in order to move it to a different zone and follow further instructions in the app.

NOTE: When exiting the Light Zone Setup page, the lights will turn off.

NOTE: Lights have to be assigned to a zone in order to rename the zone.

6.1.2 Name Light Zones

1. Go to > System Setup > Light Setup > Zone Name.
2. From the Edit Zone Name pop up, enter the zone name and choose OK..

6.2 Turn Lights On/Off

1. Open the app on your device.
2. From the My System page, select your pool.
3. Choose the equipment page.
4. Turn zone lights on/off by tapping the toggle to the right of the desired zone.

6.3 Select Colors

1. Open the app on your device
2. From the My System page, select your pool.

6.3.1 Select Custom Color

1. Go to > equipment page.
2. From the equipment page, choose the zone you want to change color.
3. From that zones page, choose Custom Color.
4. Choose your custom color from the color wheel.
5. Choose Apply to apply the custom color to your zone.

6.3.2 Preset Colors

1. Go to the equipment page and select the zone you want to change color.
2. After selecting the zone, then choose from the list of preset colors to apply that preset color to your zone.

6.3.3 Preset Color Shows

1. From equipment page, choose the zone you want to change color.
2. After selecting the zone, then choose from the list of preset color shows to apply that preset color show to your zone.

6.4 Adjust Brightness

1. From the equipment page, select the sun icon on the zone where you want to change to adjust the brightness.
2. Move the slider bar up or down with your finger and then click apply to change the brightness.

Section 7. OneTouch Setup

7.1 Light Setup

7.1.1 Assign Lights

1. Choose menu on the OneTouch display screen and press select.
2. From the menu screen, go to > System Setup > IWC Lights.
3. Select zone set up.
4. From the IWC Lights Zone Setup screen, choose Assign Zone.
5. From the IWC Lights screen, choose your device (light controller) from the list to assign lights to a light zone.
6. A list of lights currently connected to the light controller will appear, select a light and assign it to a light zone (up to 4 zones).

NOTE: The list will display the last six digits of your Infinite WaterColors LED Light Controller serial number located on the bottom of your controller.

NOTE: When exiting the Light Zone Setup page, the lights will turn off.

7.1.2 Name Light Zones

1. Choose menu on the OneTouch display screen and press select.
2. From the menu screen, go to > System Setup > IWC Lights.
3. From the IWC Lights screen, select Zone Setup.
4. From the IWC Lights Zone Setup screen, choose Zone Name.
5. From the IWC Lights Rename screen, choose the zone you want to name and enter the name.

7.2 Select Color

1. Choose equipment on the OneTouch display screen and press select.
2. Scroll through the menu and select the desired light zone.
3. From the list of preset colors and light shows, select the desired color.

NOTE: To turn off lights, re-select the light zone and wait 5 seconds.

NOTE: Custom color can only be adjusted using the iAquaLink app.

⚠ WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION, which could result in serious injury or death. A Ground Fault Circuit Interrupter (GFCI, in Canada: Class A type) must be provided for 120 volt pool and spa lights. A Ground Fault Circuit Interrupter (GFCI) should be used if required by the transformer manufacturer or if required by the local applicable code and/or Authority Having Jurisdiction (AHJ). When a GFCI is used, the conductors on the load side of the GFCI circuit shall not occupy conduit, boxes, or enclosures containing other conductors unless the additional conductors are also protected by a GFCI. Test the GFCI on a routine basis. Refer to local codes for complete details.

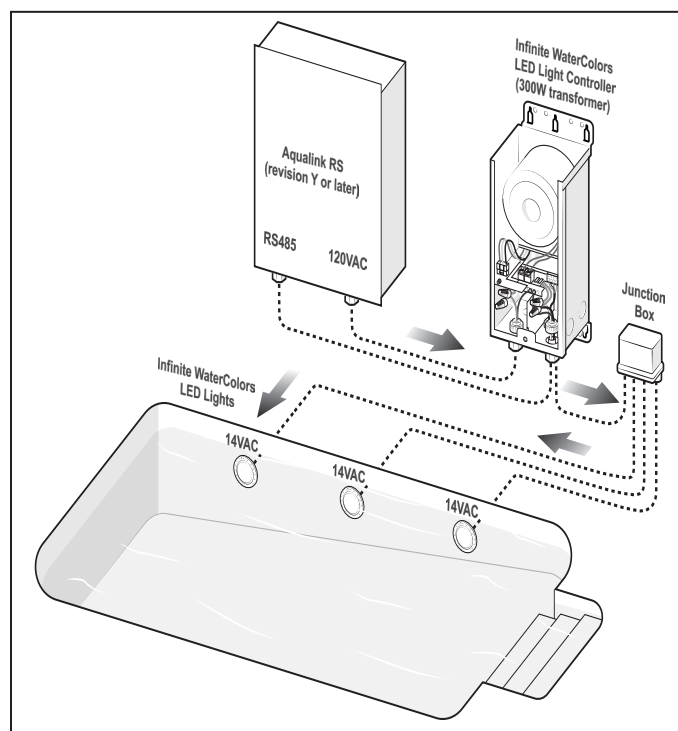


Figure 3. Jandy Infinite WaterColors System Overview

Section 8. Amazon Alexa Light Control

Go to iaqualink.com for more information on controlling your Infinite WaterColors lights through Amazon Alexa.



Section 9. Troubleshooting

Problem	Possible Cause	Corrective Action
Lights don't turn on	Lights are not powered	Check the 120VAC power supply into the transformer, 14VAC output at the transformer, and ensure the lights are enabled via the iAquaLink app. Check or reset the GFCI. Make sure 120 volts has not been used in the installation. If so, damage is assured and is not warrantable.
	Lights have failed.	Replace the light or swap the PCBA. See section 10 for replacement parts.
Lights are out of sync	Zones are set differently	Check that lights are in the same zone or the same light show is applied to all zones.
One or more lights are dim, blinking or not working	Poor connection or improper wire gauge	Separate each light and independently wire 14VAC to a single light only. Repeat this process for each light. If the junction box is being used, then check for proper connection of the light cord. Verify that the correct wire gauge is being used between the transformer and junction box.
Lights are flashing yellow	Lights are not communicating with the Infinite WaterColors LED Light Controller or lights are connected to a non-compatible controller or transformer.	Confirm lights are powered by the Infinite WaterColors LED Light Controller. If not, then connect and try again. If they're powered, then check the RS-485 connection.
Different colors from different lights	Zones are set differently	Check that lights are in the same zone, or that all zones are set to the same color.

Section 10. Replacement Parts

10.1 Pool Light Replacement Parts

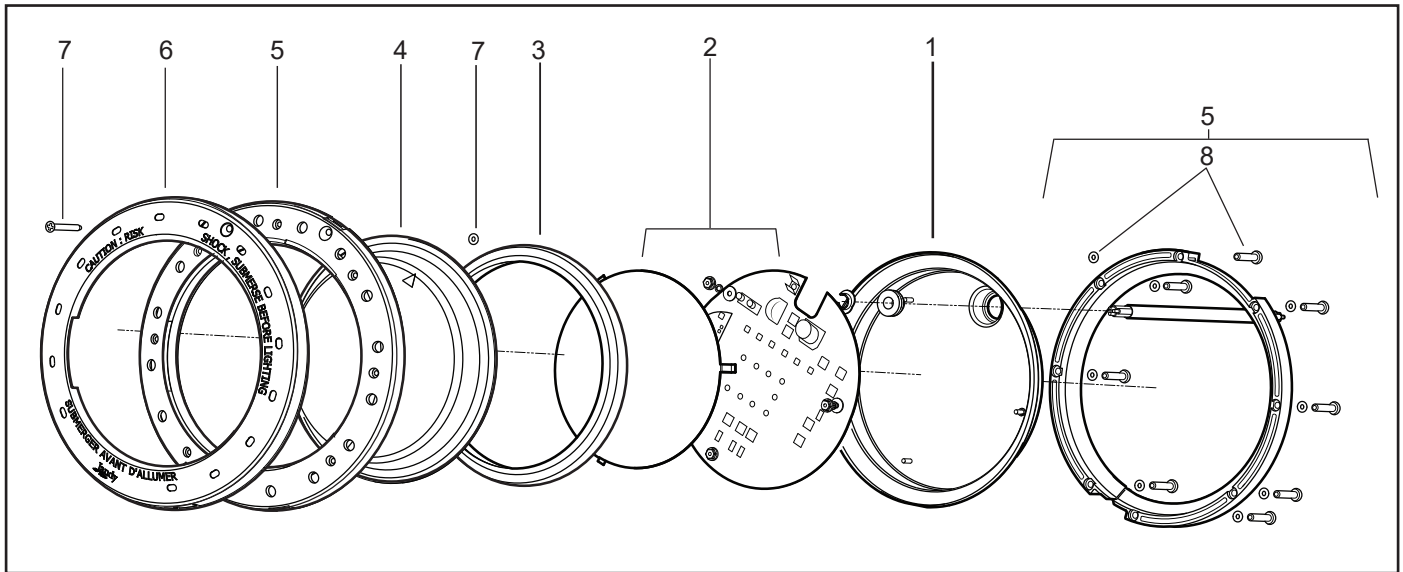


Figure 4. Jandy Infinite WaterColors Pool LED Light Exploded View

DWG #	Part #	Description	Field Replaceable
1	N/A	Infinite WaterColors Pool LED Light Housing	NO - Purchase New Light
2	R0979600	Infinite WaterColors Pool Light, PCBA, w/ Gasket & Diverger	YES
3	R0790500	Silicone Gasket	YES
4	R0790600	Glass Lens	YES
5	R0790700	Clamp Assembly	YES
6	R0790801	Face Ring, Stainless Steel (SS)	YES
6	R0790802	Face Ring, Plastic, White	YES
6	R0790803	Face Ring, Plastic, Black	YES
6	R0790804	Face Ring, Plastic, Gray	YES
6	R0790805	Face Ring, Plastic Set	YES
7	R0790900	Pilot Screw, with Retainer	YES
8	R0791000	Clamp Screws (8 Screws and 8 Retainers)	YES

