

## Jandy® Infinite WaterColors™ Nicheless LED Light

### **! 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. **DO NOT MODIFY THIS EQUIPMENT!**

Improper installation and/or operation can create unwanted electrical hazard which can cause serious injury, property damage, or death.

**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 Nicheless LED Light is 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:

#### **DANGER**

**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 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. 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](http://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® Nicheless Underwater 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 4 inches (102 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.

**⚠ WARNING**

**RISK OF ELECTRICAL SHOCK OR ELECTROCUTION,** which could result in serious injury or death. The Jandy® Infinite WaterColors Nicheless LED Lights are only available for 14-volt AC power. For supply connection, use only the Jandy Infinite WaterColors LED Light Controller which is an isolating low voltage power supply with ungrounded output, evaluated and listed by a Nationally Recognized Testing Laboratory (NRTL) for swimming pool use.

**Section 2. General Description****2.1 Product Overview**

This manual provides instructions for installing and replacing the Jandy Infinite WaterColors LED Lights for pool, spa, and wet area use.

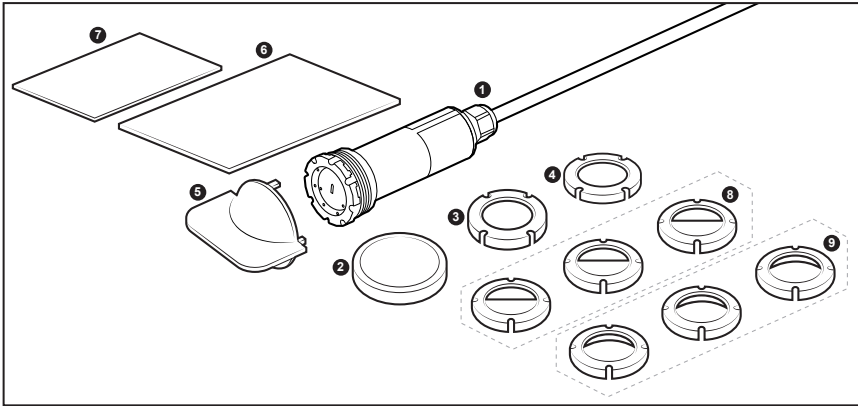
Model #	Voltage	Watts	Amps	Cord Length	# of Lights Included
IWC15W100	14 VAC	15W	1.1 A	100 ft	1
IWC15W200	14 VAC	15W	1.1 A	200 ft	1
IWC3KIT15W100*	14 VAC	15W	1.1 A	100 ft	3

\*Includes Infinite WaterColors LED Light Controller

**CAUTION**

The Jandy Infinite WaterColors LED Underwater Lights are not serviceable and therefore contain no serviceable parts. In order to prevent risk of property damage and/or injury, no service should be attempted to the light in the event of a malfunction. The complete light assembly must be replaced.

## 2.2 Product Contents



- 1 - Jandy Infinite WaterColors Nicheless LED Light
- 2 - Protective Cover
- 3 - White Cosmetic Cover
- 4 - Gray Cosmetic Cover
- 5 - Installation Tool
- 6 - Owner's Manual
- 7 - Halo Instruction Manual
- 8 - Half Moon Cosmetic Covers
- 9 - Quarter Moon Cosmetic Covers

## Section 3. 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® (Canadian Electrical Code, in Canada) 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 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.

**NOTE:** Jandy Nicheless Lights are Low Voltage and do not have any exposed metal and as such do not require a separate ground or bonding wire.

### 3.1 Preparing the Light Fixture for Installation

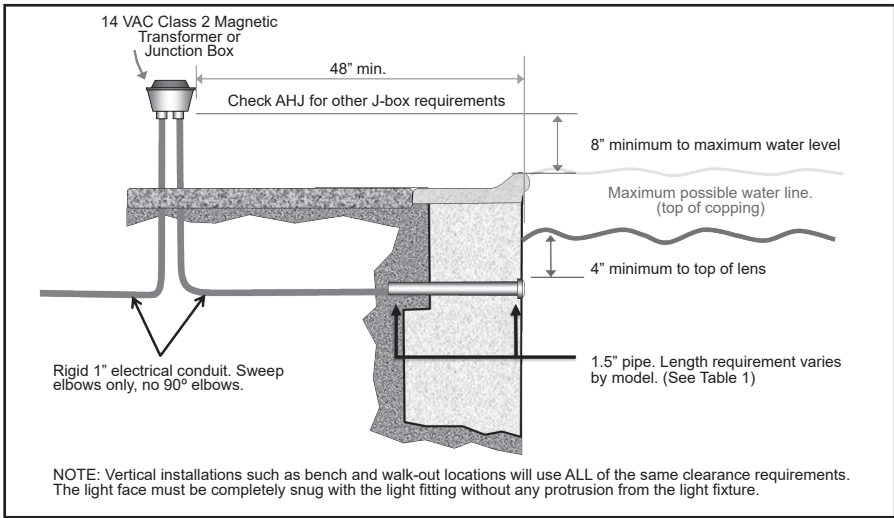
**NOTE:** The electrician must complete preparatory steps before light fixture is installed. See Figure 1.

Verify that the pool meets the requirements of the current National Electrical Code® (Canadian Electrical Code, in Canada) 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:

1. The junction box or Infinite WaterColors LED Light Controller is suitable for direct conduit connection to lights and 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. 1.5" pipe must be installed through the bond beam followed by 1" conduit for the cord using sweep elbows only for turns. Do not use 90 degree elbows. It is highly recommended to use 1.5" pipe throughout the entire width of the bond beam, however, the minimum length for the particular light being installed is specified in Table 1.
3. A standard 1.5" plastic wall / return fitting (not included) must be installed so that the top edge of the underwater light's lens is at least 4 inches (10.2 cm) below the surface of the water in the pool. See Figure 1.

**NOTE:** For optimal lighting results it is recommended to place lights 12-18" below the water line.

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



**Figure 1. Jandy® LED Light Installation with Standard 1.5" Plastic Fitting**

Use the chart below to determine the appropriate pipe length for your installation.

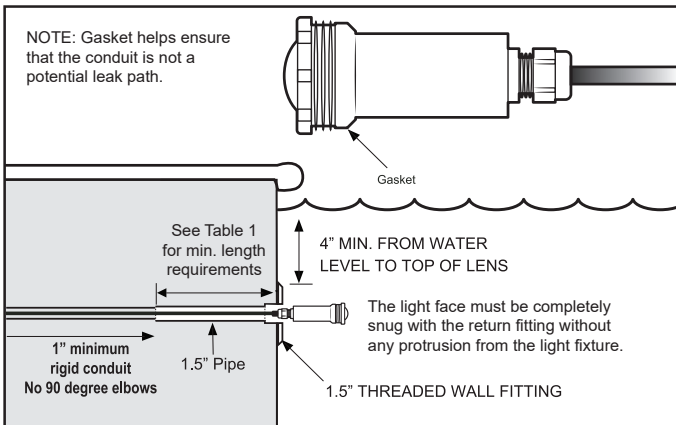
WATTS	MINIMUM LENGTH FOR 1.5" PIPE
15W	10"
Cord length options: 100ft and 200ft	

**Table 1. Jandy® LED Light Minimum 1.5" pipe length**

### 3.2 Installing the Light Fixture

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

1. Keep protective cover on to protect the light during installation.



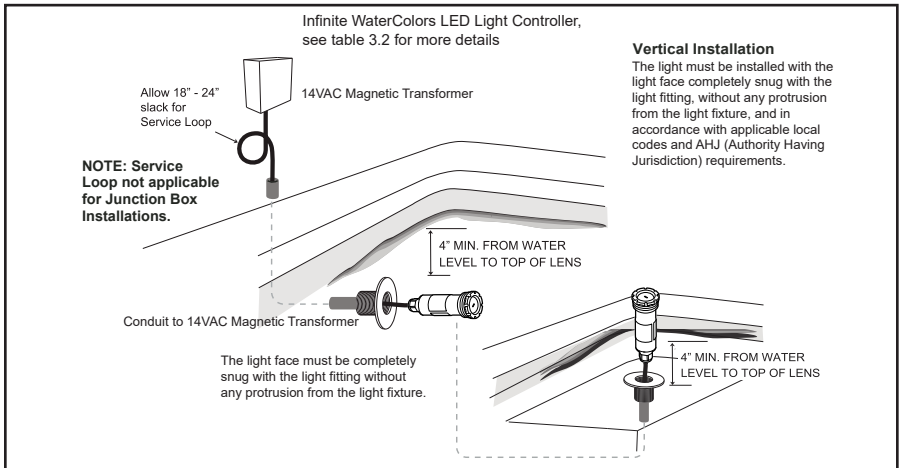
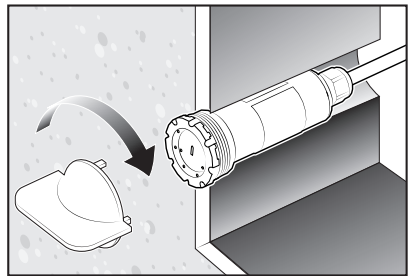
**Figure 2. Standard installation with 1.5" pool wall fitting**



2. Snake the electric cord through the conduit outlet of the wall fitting, into the conduit and up to the location of the pool transformer. Cut the cord 18"-24" beyond the length needed to reach the transformer to allow for a service loop. Pull the fixture snug to the wall fitting.
3. Remove protective cover after construction (including plastering for gunite pools) is complete. Do not plaster the pool with the construction cover removed.
4. Install cosmetic cover if desired.
5. Apply teflon silicone lube to threads to assist with threading.

**NOTE:** When using a 1 1/2" MIP fitting on the back of a SP-1022 or SP-1408 Wall Fitting, the interior of the Spears and Dura MIP are too small for use with the Jandy® Infinite WaterColors Nicheless LED Lights.

6. Using the included installation tool, thread the light into the wall fitting until it is snug. The light face must be completely flush with the return fitting. Please provide the pool owner with a minimum of 1 key upon job completion.



**Figure 3. Standard installation with 1.5" pool wall fitting**

### 3.3 Wet Area Installations

For wet area lighting within 10 feet (3M) of a pool or spa, the luminaire shall be installed in areas not subject to incidental contact from people, pets, vehicles, and foot traffic, except when the luminaire is adequately guarded.

## Section 4. Controller Wiring Options

The Jandy Infinite WaterColors Nicheless LED Light is 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).

**NOTE:** Always consider the cable length when calculating the input voltage at the transformer. The maximum run of service between transformer and lights should not exceed 200ft. in length, inclusive of the use of a J Box or not.

To the extent allowed by local installation codes in effect in the installation jurisdiction and capacity of the electrical equipment, multiple Jandy lights may be controlled with a Infinite WaterColors LED Light Controller.

### 4.1 Wiring to an AquaLink® RS Control System

#### **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) for 120 Volt transformers 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.

## WARNING

**RISK OF ELECTRICAL SHOCK OR ELECTROCUTION**, which could result in serious injury or death. The Jandy Infinite WaterColors Nicheless LED Lights are only available for 14-volt AC power. For supply connection, use only the Jandy Infinite WaterColors LED Light Controller which is an isolating low voltage power supply with ungrounded output, evaluated and listed by a Nationally Recognized Testing Laboratory (NRTL) intended for use with submersible luminaires for swimming pool use.

The Jandy Infinite WaterColors Nicheless LED Lights must be controlled by the Infinite WaterColors LED Light Controller and AquaLink RS (revision Y or later) automation system.

Refer to Figure 4 for wiring the Infinite WaterColors LED Lights to the LED Light Controller. Refer to the Infinite WaterColors LED Light Controller manual for connecting to the AquaLink RS automation system.

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, see Figure 4.

### 4.2 Wire Gauge and Length

#### CAUTION

Jandy® Nicheless Underwater LED Lights are low voltage fixtures. Improper wire gauge and wire length can effect the performance of these products. Follow the guidelines below to determine the proper operation and optimum performance of the lights.

The output voltage of the Infinite WaterColors LED Light Controller is 14 VAC to accommodate the voltage drop across cords up to 200 ft. Installations should not exceed 200 ft.

**NOTE:** Each color mode has a slightly different power draw.

### 4.3 Fourteen (14) Volt Installation

The Infinite WaterColors LED Light Controller IS required to power Infinite WaterColors Lights.



## Section 5. 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.

### 5.1 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.

#### 5.1.1 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 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.

### 5.1.2 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.

### 5.2 Turn Lights On/Off

1. Open the app on your device.
2. From My Systems 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.

### 5.3 Select Colors

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

#### 5.3.1 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.

### 5.3.2 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.

### 5.3.3 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.

## 5.4 Adjust Brightness

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

## Section 6. OneTouch Setup

### 6.1 Light Setup

#### 6.1.1 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.

#### 6.1.2 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.
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.

## 6.2 Select Color

1. Choose equipment on the OneTouch display screen and press select.

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

## Section 7. Amazon Alexa Light Control

Go to [iaqualink.com](http://iaqualink.com) for more information on controlling your Infinite WaterColors lights through Amazon Alexa.



## Section 8. Winterizing

Do not keep the winter water level at the level of the light. Make certain that the water level is left at least 4" or more above or below the light depending on the pool's other winterization needs. Consult a Local Swimming Pool Professional for proper winterization. At NO TIME should there be water removed from the pool without checking ground water tables.

## Section 9. Troubleshooting

Use the troubleshooting information in the following table for suggestions.

Problem	Possible Cause	Corrective Action
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.

<b>Problem</b>	<b>Possible Cause</b>	<b>Corrective Action</b>
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.
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.

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