Jandy®

Operation Manual



Jandy® WaterColors LED, Underwater Large and Small Light

⚠ WARNING

FOR YOUR SAFETY - This product must be installed and serviced by a professional pool/spa builder or service technician. The procedures in this manual must be followed exactly. Failure to follow warning notices and instructions may result in property damage, serious injury, or death. Improper installation and/or operation will void the warranty. Before installing this product, read and follow all warning notices and instructions that accompany this filter.

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Section 1. Safety Information

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

READ AND FOLLOW ALL INSTRUCTIONS

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. 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. Call (707) 776-8200 for additional free copies of these instructions.

⚠ CAUTION

Except when the Jandy 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 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. Jandy WaterColors LED Light Operating Instructions

2.1 To Operate the Light and Change Colors

Turn the light **ON**. The ***first*** time the light is turned on, the color sequence begins with the Alpine White. To change the color, turn the light OFF and then ON within three (3) seconds. Continue turning OFF and ON until the desired light color mode is reached. See Table 1 for the color mode sequence.

Table 1. Jandy WaterColors Lights Sequence

Sequence Order	Color Modes
1	Alpine White
2	Sky Blue
3	Cobalt Blue
4	Caribbean Blue
5	Spring Green
6	Emerald Green
7	Emerald Rose
8	Magenta
9	Violet
10	Slow Color Splash
11	Fast Color Splash
12	America the Beautiful
13	Fat Tuesday
14	Disco Tech

NOTE When the light is turned OFF for more than seven (7) seconds, it will remain in the color set that is currently active. When the light is turned back ON, the light will be on the same color set.

2.2 To Reset to the Beginning of the Color Sequence

Turn the light OFF, wait four (4) to six (6) seconds, then turn ON, the light will return to the beginning of the color cycle (Alpine White).

NOTE If an AquaLink RS control system is being used the color set can be selected using the indoor controller.

NOTE To synchronize colors on multiple Jandy WaterColors Light systems wired to separate switches, perform the above actions on all of their switches simultaneously. All Jandy WaterColors Lights will synchronize automatically if activated by the same switch. No other accessories are required.

Section 3. Replacing Light Engine (PCB)

⚠ WARNING

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

1. Turn off the main electrical switch or circuit breaker, as well as the switch, which operates the underwater light.
2. Be sure to have the following items:
   - A new lens gasket, P/N R0451101 for the large light or P/N R0400501 for the small light.
   - A light engine. See Table 2 for specification.

⚠ WARNING

Replace light engine with the same type. Failure to replace the light engine with the same type will damage the light assembly and may cause an electrical hazard resulting in death or serious injury to pool or spa users, installers, or others due to electrical shock, and may also cause damage to property. Be sure the power is switched OFF before removing or installing PCB. Allow PCB to cool before replacing. .

3. To remove the light assembly, unscrew the special pilot screw at the top of the face ring, remove light assembly from niche and gently place assembly on the deck. It is not necessary to drain down the pool. See Figure 1.

Table 2. Light Specifications

Model	Fixture Voltage	Light Engine (PCB) Part Number
Jandy WaterColors Large Light	12 Volt AC	R0474000
Jandy WaterColors Large Light	120 Volt AC	R0474100
Jandy WaterColors Small Light	12 Volt AC	R0473900
Jandy WaterColors Small Light	120 Volt AC	R0473900

⚠ WARNING

Be sure to keep the special pilot screw from 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.

4. Pool Clamp Removal.

a. Loosen the Phillips head screws (six (6) for small light, eight (8) for large light) to allow the bottom clamp to be removed from the face ring assembly. Do not remove the screws or the retaining rings. The retaining rings prevent the screws from falling free from the bottom clamp and also aid in ease of assembly.

b. Remove the bottom clamp, the face ring assembly, the glass lens, and the gasket from the fixture. Remove the gasket from the lens. Refer to *Section 4, Exploded View and Replacement Parts*.

5. Light Engine Replacement

a. 12V Small Light Engine (PCB) Replacement

1. Remove two (2) nuts and two (2) washers.
2. Unplug the quick disconnect terminals from the light engine.
3. Remove the light engine from the light fixture.
4. Place new light engine into the fixture with the orientation shown in Figure 2.
5 Secure the light engine with one (1) nylon washer and one (1) nut. Torque to 12 in-lbs.
6. Place a nylon washer on the other stud and place the green ground wire terminal on the nylon washer and secure both with the nut. Torque to 12 in-lbs.
7. Plug in the quick disconnect wire (white for the 12V and red for the 120V) onto the terminal (AC1) of the light engine.
8. Plug in the quick disconnect wire (black for the 12V and blue for the 120V) onto terminal (AC2) of the light engine.

b. Large Light Engine (PCB) Replacement (120V and 12V)

1. Remove three (3) nuts and washers.
2. Unplug the quick disconnect terminals from the PCB.
3. Remove the light engine from the light fixture.
4. Place new light engine into the fixture with the orientation shown in Figure 3.
5 Secure the new light engine (PCB) with two (2) nylon washers and two (2) nuts. Torque to 12 in-lbs.
6. Plug in the white quick disconnect wire onto the terminal (J2) of the light engine.
7. Plug in the black quick disconnect wire onto terminal (J6) of the light engine for the 12V models; or terminal (J3) of the light engine for 120V models.

8a. For 12V models, place a nylon washer on the stud and place the green ground wire terminal on the nylon washer and secure both with the nut. Torque to 12 in-lbs.

8b. For 120V models, place the green ground wire on the stud and secure with the nut. Torque to 12 in-lbs.

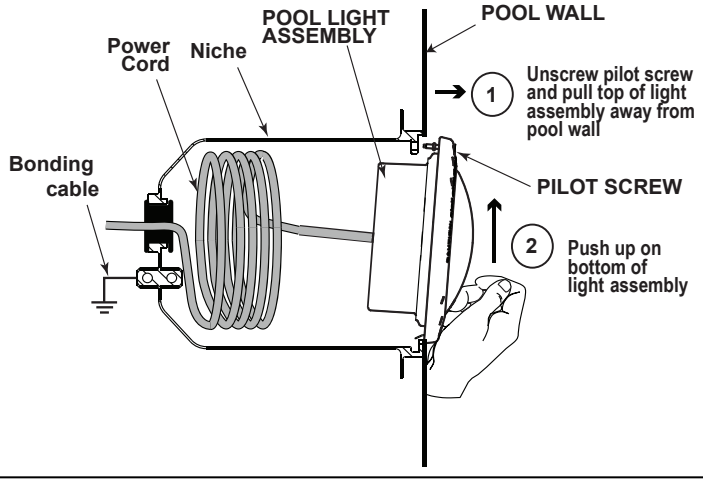


Figure 1. Removing the Jandy WaterColors Light Assembly for Light Engine Replacement

6. Reassemble the fixture.

a. If not already done, remove the gasket from the glass lens and install a new gasket, P/N R0451101 for the large light and R0400501 for the small light, on the lens. On the small light, remove the diverger from the lens.

NOTE A new lens gasket must be used each time the light is reassembled.

⚠ WARNING

Risk of Electrical Shock or Electrocution. Always install a new lens gasket whenever disassembling the light (Jandy Color Light Gasket P/N R0451101 for large light and P/N R0400501 for small light). Failure to do so may permit water to leak into the assembly, which could cause:

(a) An electrical hazard resulting in death or serious injury to pool or spa users, installers, or others due to electrical shock, or

(b) A malfunction of the Jandy WaterColors Light, which likewise could result in serious injury to pool or spa users, installers, or bystanders, or in damage to property.

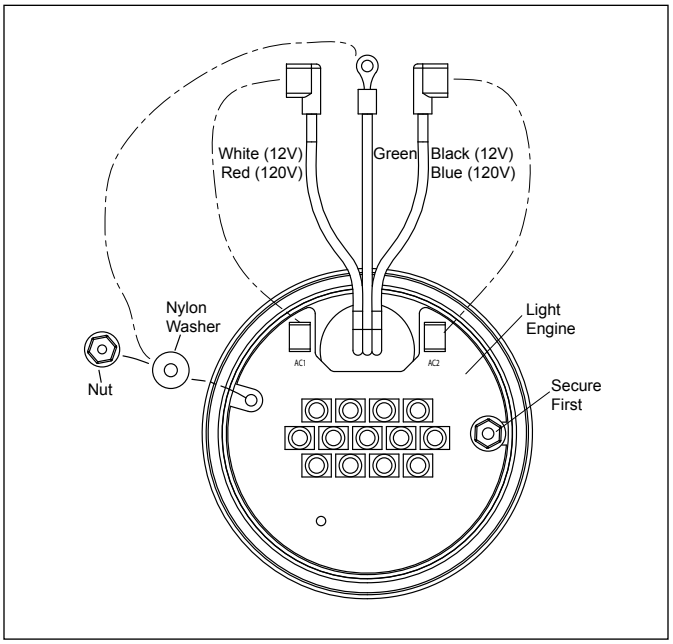


Figure 2. Small Light Engine (PCB) Replacement and Wiring

b. While holding the fixture upright, place the glass lens with the gasket on top of the fixture. Please note that the lens gasket is not symmetrical. Therefore, it must be installed correctly so that the lens can seal to the fixture housing. Place the gasket on the lens so that the thick molded side of the gasket will mate with the housing when the lens is installed. See Figure 4. On the small light, replace the diverger by tucking the tabs between the lens and gasket.

NOTE Be sure to face the dull side of the diverger down towards the PCB.

c. Position the lens and gasket on the fixture. Place the face ring assembly over the lens and align the pilot screw with the small arrow mark on the face of the lens. Note that the small arrow mark on the face of the lens and the pilot screw of the face ring must be aligned with the arrow located on fixture label that reads, “Arrow on this label must line up with the pilot screw on the Face Ring”. See Figure 5.

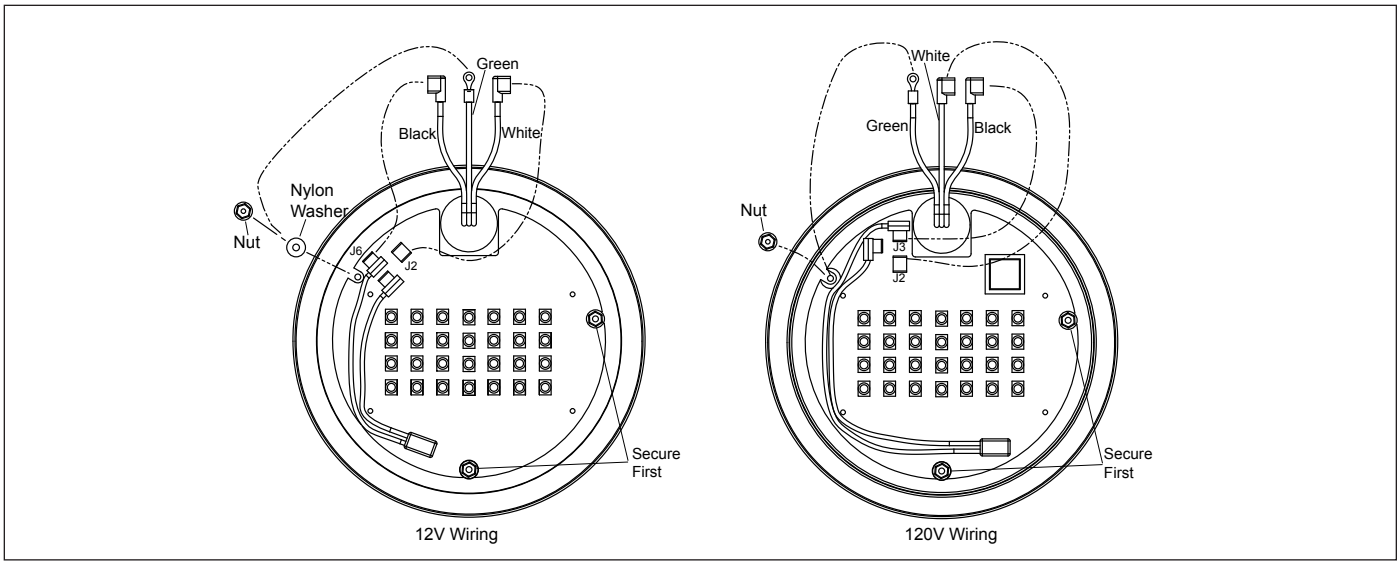


Figure 3. Large Light Engine (PCB) Replacement and Wiring

d. While holding the aligned face ring assembly and fixture together, turn the assembly upside down and set it on the old gasket, using the old gasket as an assembly fixture. This will keep the lens and gasket assembly from being pushed out of the face ring while you secure it to the light fixture.

e. Spread the bottom clamp over the electrical cord and slide it onto the back of fixture to the top clamp.

f. Tighten the Phillips head screws (eight (8) for large light and six (6) for small light) on the color light in alternating cross-pattern. Torque screws to approximately 20 in-lbs. Do not over-tighten.

g. Discard the old gasket.

7. Reinstall the Jandy Light into niche fixture.

a. Coil the extra four (4) feet of cord around the fixture or into the base of the niche and place the light assembly into the niche.

b. 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.

8. If pool is empty, 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, as well as the switch, which specifically operates the underwater light, to check for proper operation.

⚠ 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 damage to the light. This may result in serious injury to pool or spa users, installers, or bystanders or in damage to property.

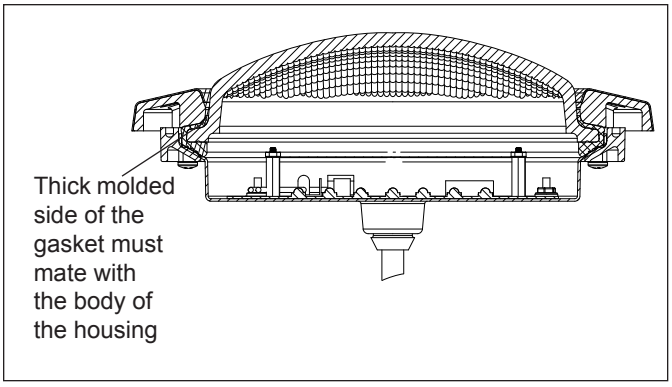


Figure 4. Cross Section of Jandy WaterColors LED Light

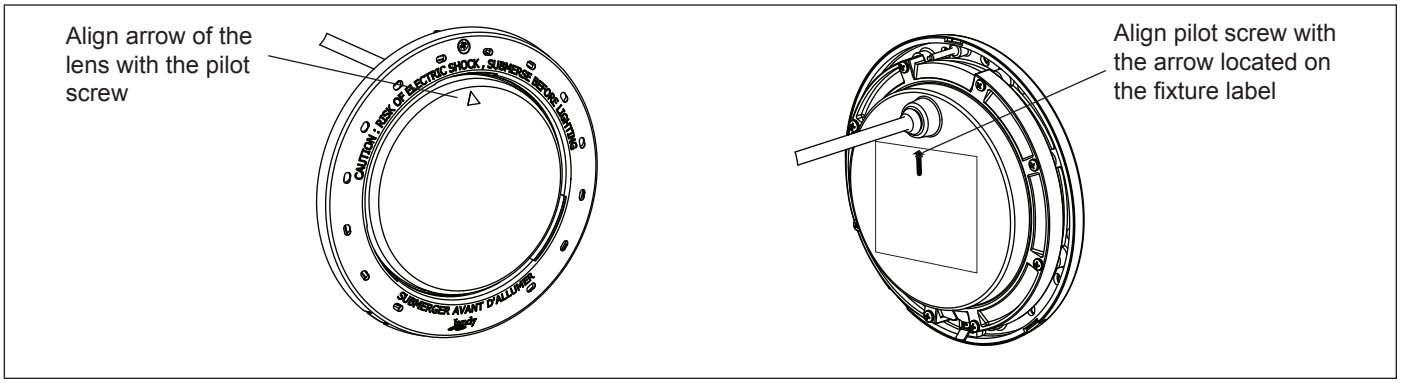


Figure 5. Alignment of the Lens, Face Ring, Housing and Clamps for Color Lights

Section 4. Exploded View and Replacement Parts

4.1 Jandy Large WaterColors LED Light

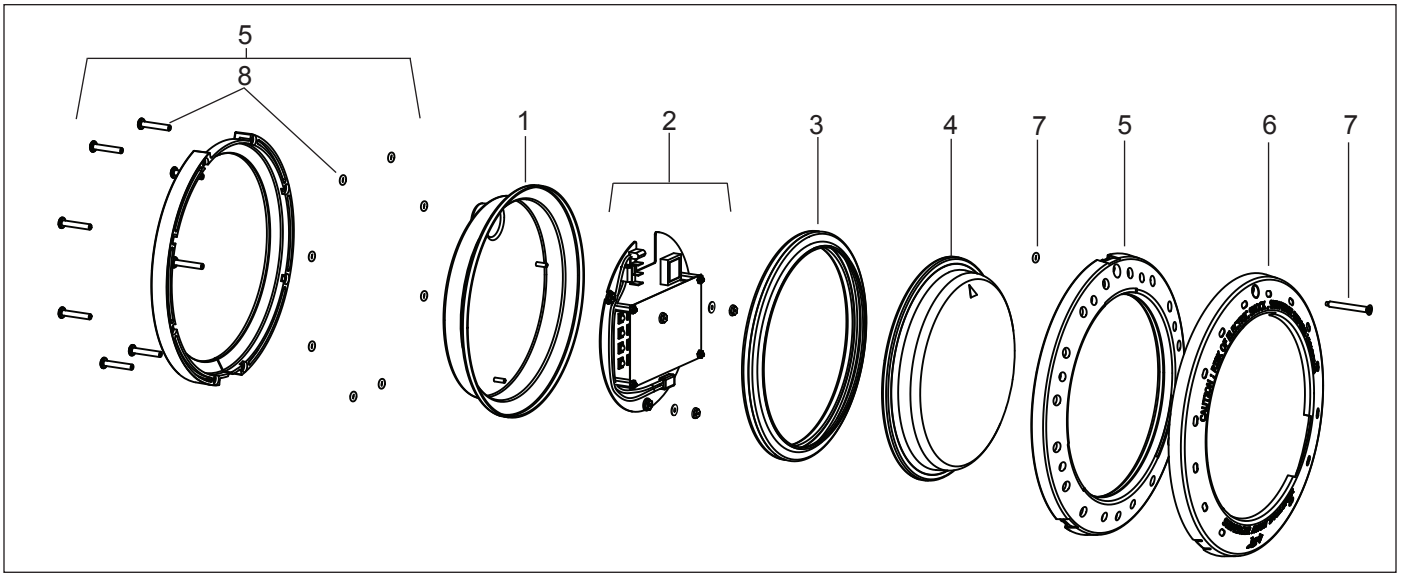


Figure 6. Jandy Large WaterColors LED Light Exploded View

DWG #	Part #	Description	Field Replaceable
1	N/A	WaterColors Light Housing	*NO - Purchase New Light*
2	R0474000	Light Engine PCB, 12V Large LED Light w/ Light Shaping Diverger	**YES**
2	R0474100	Light Engine PCB, 120V Large LED Light w/ Light Shaping Diverger	**YES**
3	R0451101	Silicone Gasket	**YES**
4	R0450601	Glass Lens	**YES**
5	R0450701	Clamp Assembly	**YES**
6	R0450801	Face Ring, Stainless Steel (SS)	**YES**
6	R0450802	Face Ring, Plastic, White	**YES**
6	R0450803	Face Ring, Plastic, Black	**YES**
6	R0450804	Face Ring, Plastic, Gray	**YES**
6	R0450805	Face Ring, Plastic Set	**YES**
7	R0450901	Pilot Screw, with Retainer	**YES**
8	R0451001	Clamp Screws (8 Screws and 8 Retainers)	**YES**

4.2 Jandy Small WaterColors LED Light

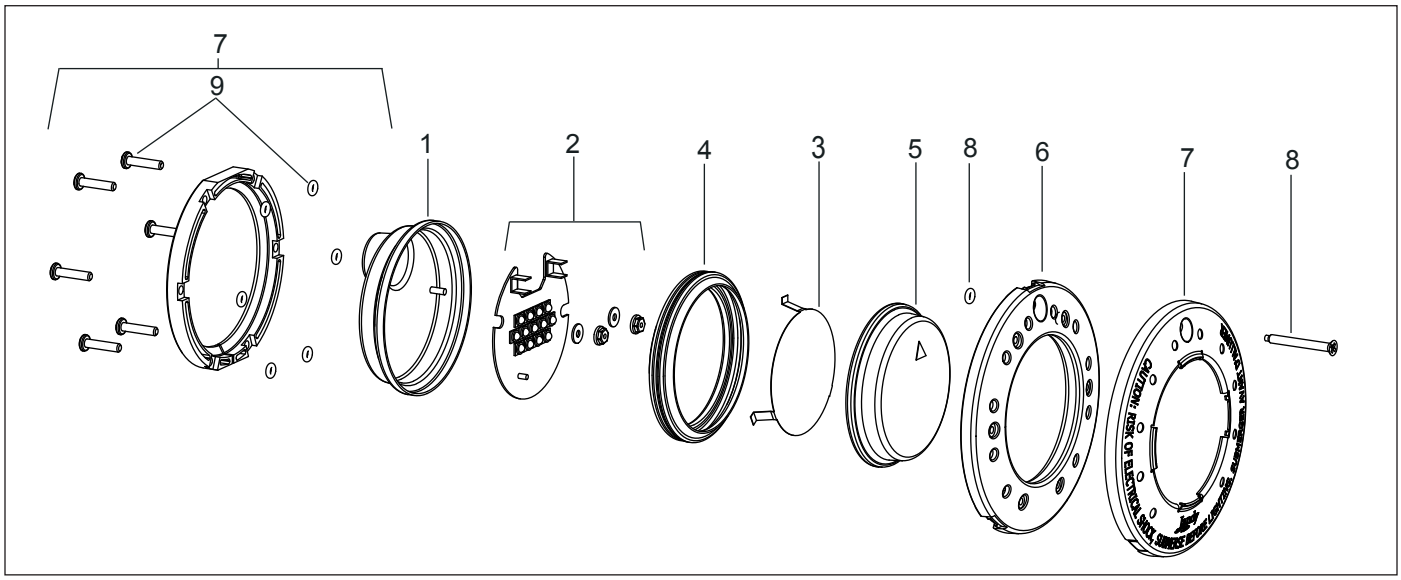


Figure 7. Jandy Small WaterColors LED Light Exploded View

DWG #	Part #	Description	Field Replaceable
1	N/A	WaterColors Light Housing	*NO - Purchase New Light*
2	R0473900	Light Engine, 12V/120V Small LED Light	**YES**
3	R0474200	Diverger, Light Shaping, Small LED Light	**YES**
4	R0400501	Silicone Gasket	**YES**
5	R0400601	Glass Lens	**YES**
6	R0451201	Clamp Assembly	**YES**
7	R0451301	Face Ring, Stainless Steel (SS)	**YES**
7	R0451302	Face Ring, Plastic, White	**YES**
7	R0451303	Face Ring, Plastic, Black	**YES**
7	R0451304	Face Ring, Plastic, Gray	**YES**
7	R0451305	Face Ring, Plastic Set	**YES**
8	R0450901	Pilot Screw, with Retainer	**YES**
9	R0451401	Clamp Screws (6 Screws and 6 Retainers)	**YES**

Notes

LIMITED WARRANTY

Thank you for purchasing Jandy® pool and spa products. Jandy Pool Products, Inc. warrants all parts to be free from manufacturing defects in materials and workmanship for a period of one (1) year from the date of retail purchase, with the following exceptions:

- AquaLink® RS units installed with Jandy Surge Protection Kits will be covered for two (2) years.
- Never Lube® valves are warranted for the life of pool and/or spa on which they were originally installed.
- AquaPure® Electronic Chlorine Generator Electrolytic Cells carry a five (5) year limited warranty on a prorated basis.

This warranty is limited to the first retail purchaser, is not transferable, and does not apply to products that have been moved from their original installation sites. The liability of Jandy Pool Products, Inc. shall not exceed the repair or replacement of defective parts and does not include any costs for labor to remove and reinstall the defective part, transportation to or from the factory, and any other materials required to make the repair. This warranty does not cover failures or malfunctions resulting from the following:

1. Failure to properly install, operate or maintain the product(s) in accordance with our published Installation, Operation and Maintenance Manuals provided with the product(s).
2. The workmanship of any installer of the product(s).
3. Not maintaining a proper chemical balance in your pool and/or spa [pH level between 7.2 and 7.8, Total Alkalinity (TA) between 80 to 120 ppm, Total Dissolved Solids (TDS) less than 2000 not including salt ppm].
4. Abuse, alteration, accident, fire, flood, lightning, rodents, insects, negligence or acts of God.
5. Scaling, freezing, or other conditions causing inadequate water circulation.
6. Operating the product(s) at water flow rates outside the published minimum and maximum specifications.
7. Use of non-factory authorized parts or accessories in conjunction with the product(s).
8. Chemical contamination of combustion air or improper use of sanitizing chemicals, such as introducing sanitizing chemicals upstream of the heater and cleaner hose or through the skimmer.
9. Overheating; incorrect wire runs; improper electrical supply; collateral damage caused by failure of O-Rings, DE grids, or cartridge elements; or damage caused by running the pump with insufficient quantities of water.

LIMITATION OF LIABILITY:

This is the only warranty given by Jandy Pool Products, Inc. No one is authorized to make any other warranties on behalf of Jandy Pool Products, Inc. **THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY. JANDY POOL PRODUCTS, INC. EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT OR PUNITIVE DAMAGES FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY.** This warranty gives you specific legal rights. You may also have other rights that vary by state or province.

WARRANTY CLAIMS:

For prompt warranty consideration, contact your dealer and provide the following information: proof of purchase, model number, serial number and date of installation. The installer will contact the factory for instructions regarding the claim and to determine the location of the nearest designated service center. If the dealer is not available, you can locate a service center in your area by visiting www.jandy.com or by calling our technical support department at (707) 776-8200 extension 260. All returned parts must have a Returned Material Authorization number to be evaluated under the terms of this warranty.

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For technical support call 707-776-8200, ext. 260