

UV Low Pressure HMAC

Models: JUVLP100, JUVLP150, JUVLP200, JUVLP250

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 may 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.

Table of Contents

<p>Section 1. Important Safety Instructions..... 3</p> <p>1.1 Safety Instructions 3</p> <p>Section 2. General Description..... 4</p> <p>2.1 UV Disinfection..... 4</p> <p>2.2 Product Specifications 4</p> <p>2.3 Dimensions..... 5</p> <p>2.4 System Description 6</p> <p>2.5 Product Contents 6</p> <p>Section 3. Pool Water 7</p> <p>3.1 Suggested Size Selection 7</p> <p>3.2 Pool Water Conditions 7</p> <p>Section 4. Installation 8</p> <p>4.1 Installation Requirements..... 8</p> <p>4.2 Installation of the UV Reactor 8</p> <p>4.3 Electrical Connections 9</p> <p>4.4 Control Panel: Field Wiring Diagram 10</p> <p>4.5 Lamp Connection..... 14</p>	<p>Section 5. Operation..... 15</p> <p>5.1 Initial Start-up..... 15</p> <p>5.2 System Controls..... 16</p> <p>5.3 Alarms 16</p> <p>Section 6. Maintenance..... 17</p> <p>6.1 Replacing the UV Lamp 17</p> <p>6.2 Reset the Hour Counter 18</p> <p>6.3 Replacing / Cleaning a Quartz Sleeve..... 18</p> <p>6.4 Replacing Seal in Contact with the Quartz Sleeve 20</p> <p>6.5 Replacing the Inner SS Reflector 21</p> <p>6.6 Control of System Isolation and Connections 21</p> <p>6.7 Winterizing 21</p> <p>Section 7. Troubleshooting 22</p> <p>Section 8. Exploded Views and Replacement Kits..... 23</p>
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SAVE THESE INSTRUCTIONS

EQUIPMENT INFORMATION RECORD	
DATE OF INSTALLATION	_____
INSTALLER INFORMATION	_____
INITIAL PRESSURE GAUGE READING (WITH CLEAR FILTER)	_____
PUMP MODEL	_____
HORSEPOWER	_____
NOTES	_____

Section 1. Important Safety Instructions

READ AND FOLLOW ALL INSTRUCTIONS

1.1 Safety Instructions

All electrical work must be performed by a licensed electrician and conform to all national, state, and local codes. When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

⚠ DANGER

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Installation and manipulation should only be performed by a qualified technician.

Do not use this equipment for any purpose other than that for which it was designed. Applicable standards for prevention of accidents and for electrical installations must be respected.

Never remove the retention nut of the quartz tube when water is circulating inside the reactor, since it could be ejected, causing damage.



The UV radiation produced by this equipment can cause serious harm if eyes or skin are exposed directly to the lamp. Never connect the equipment when the lamp is outside the reactor. Never handle the UV lamp until it is completely cold.

⚠ WARNING

To reduce the risk of severe injury or death, do not operate the UV emitter when it is removed from the appliance enclosure. Unintended use of the appliance or damage to the housing may result in the escape of dangerous UV radiation. UV radiation may, even in little doses, cause harm to the eyes and skin. Never look directly at an illuminated UV lamp.

RISK OF ELECTRIC SHOCK, FIRE, PERSONAL INJURY, OR DEATH.

- Installation must be done in accordance with the National Electrical Code® (NEC®, NFPA-70) and/or any other applicable local and national installation codes.
- Use equipment only in a pool or spa installation.
- Maintain circulation system properly. Replace worn or damaged parts immediately.

ATTENTION

UV LP treatment systems operate with a supply of 120-240 VAC /60 Hz/1 phase. Do not alter the power supply to operate at any other voltage. Ensure that all electrical connections are properly tightened and check for bad connections that could overheat.

Risk of electric shock - Install the power center at least five (5) feet (1.52 m) from the inside wall of the pool and/ or hot tub using non-metallic plumbing. Canadian installations must be at least three (3) meters from the water.

Children should not use spas or hot tubs without adult supervision. Do not use spas or hot tubs unless all suction guards are installed to prevent body and hair entrapment. People using medications and/or having an adverse medical history should consult a physician before using a spa or hot tub.

Before installing or replacing any component in the system, ensure that it is disconnected from the power supply and no water is flowing through it. Only use genuine replacement parts. The manufacturer accepts no responsibility for assembly, installation, setup, or any manipulation or addition of components other than when carried out in the manufacturer's installations.

Always use gloves to handle the UV lamp, since grease or other substances deposited on it could reduce its performance and useful life. If the lamp must be cleaned, use a soft cloth soaked with alcohol.

Section 2. General Description

2.1 UV Disinfection

The germicidal effects of ultraviolet (UV) radiation with wavelengths around 260 nm have been known for over 100 years. The use of UV has become more popular in recent years, since it has several advantages over chemical disinfection methods. UV hardly alters the physical/chemical composition of the water, it is effective against any type of micro-organism (algae, bacteria, viruses, spores, yeast, etc.), and its use reduces the risks associated with handling and dosing potentially hazardous chemical products. UV treatment also minimizes the levels of combined chlorine in the pool water leading to significant water savings (by reducing the volume and frequency of water replacement in the swimming pool). The UV LP treatment system should operate while the pool's filtration system (pump and filter) is running.

The UV LP treatment system, together with the maintenance of correct chlorine levels in the pool water, guarantees its healthiness.

The UV LP treatment systems have been designed and manufactured using the most advanced technology in UV water treatment, to guarantee long-term operation with minimum maintenance.

2.2 Product Specifications

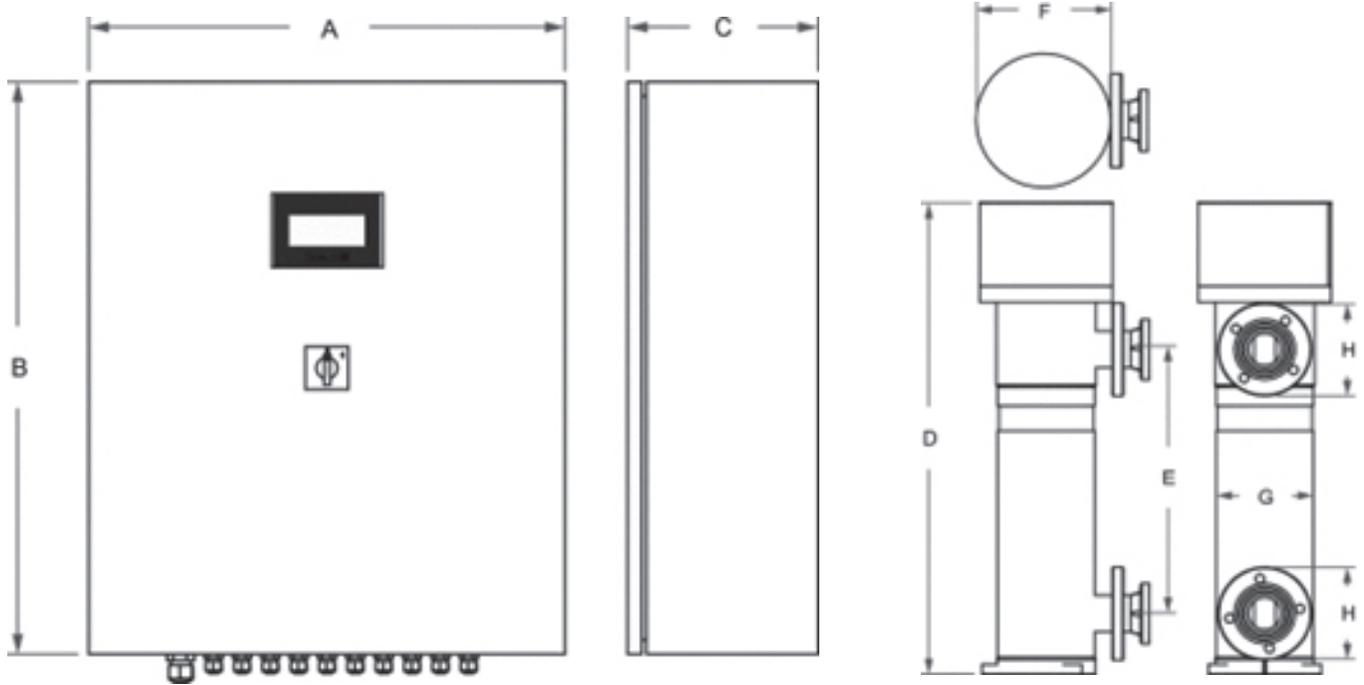
The UV LP treatment systems are designed and manufactured with the latest technology in UV treatment of water, thus ensuring continuous operation and minimal maintenance.

- Electronic ballast with integrated control (high efficiency + 95%)
- Irradiance monitoring
- Operation hour counter
- Input for external flow switch
- Alarm output.HO low-pressure UV lamps
- Lamp lifetime: 13,000 hours (depending on the number of ignitions)

	JUVLP100	JUVLP150	JUVLP200	JUVLP250
Flow (UVT 94%)	105 gpm 24 m³/h	140 gpm 32 m³/h	175 gpm 40 m³/h	210 gpm 48 m³/h
Material				
Control panel	Metallic, polyester-epoxy resin coating RAL 7035			
UV reactor	PE + SS-316L sheet			
Dimensions				
Control panel	23.6" x 19.7" x 7.9"			
UV reactor (height./diam.)	43" / 8" or 10"			
Inlet/Outlet	3" ANSI flange		4" ANSI flange	
Max. rated pressure	50 psi			
Head loss	0.65 psi @ 105 gpm	1.12 psi @ 140 gpm	1.60 psi @ 175 gpm	2.10 psi @ 210 gpm
Voltage	120 or 240 VAC / 60 Hz. / 1-phase			
Current	1,86 - 0,97 A	2,44 - 1,26 A	3,04 - 1,55 A	3,65 - 1,84 A
Rated power (W)	270	360	450	540
Electronic ballasts	3	4	5	6
UV-C power (W)	90	120	150	180
Lamps	3	4	5	6
Lifetime (hours)	13,000 hours			
Cooling	Panel: self-cooled Ballast: aluminium heatsink			
Control monitor	3.4" TFT monochrome touchscreen (200 x 80 pixels) Lamp hour counter Lamp state monitoring Alarm detection			
Control inputs	Two (2) potential-free contacts: flow switch and UV reactor cover sensor			
Control outputs	One (1) potential-free contact: alarm			

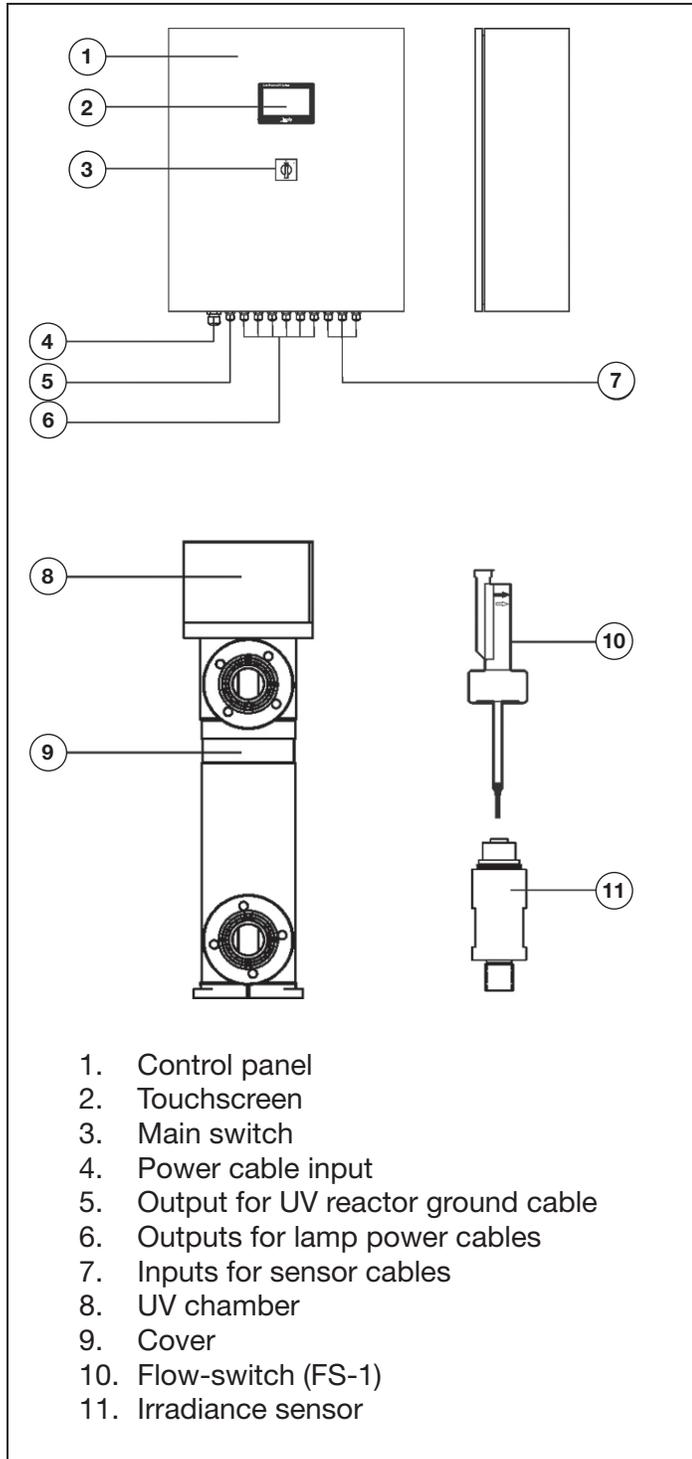
¹ This product has met the requirements of NSF/ANSI 50, Annex H.1: Disinfection Efficacy for the >= minimum of a 3 log (99.9%) reduction of Enterococcus Faecium [ATCC #6569] and Pseudomonas aeruginosa [ATCC #27313]. This product is intended for supplementary disinfection and should be used with EPA registered or approved disinfection chemicals to impart residual concentrations in accordance with state and local regulations.

2.3 Dimensions



	A	B	C	D	E		F	G	H	
					JUVLP 100/150	JUVLP 200/250			JUVLP 100/150	JUVLP 200/250
inch	19.7	23.6	7.9	40.2	22.8	22.2	14.0	9.8	3" ANSI	4" ANSI
mm	500	600	200	1020	580	565	355	250		

2.4 System Description



2.5 Product Contents

You should find the following accessories inside the box:

- UV reactor
- Pre-installed irradiance sensor + EVT344 cable (16.4 ft)
- Pre-installed flow switch FS-1+ cable (9.8 ft)
- Control panel
- Lamp power cables LP-045 x *n* (16.4 ft) (*n*, depending on the number of lamps)
- Micro-switch cable LP-025/M x1 (16.4 ft)
- Operation manual

NOTE: Disposal Of Your Old Product

Please act according to your local rules and do not dispose of your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.

Section 3. Pool Water

3.1 Suggested Size Selection

Model	Max. flow rate (gpm)	Pool Size (gal.)	
		6 hr. turnover	8 hr. turnover
JUVLP100	105	37,000	50,400
JUVLP150	140	50,400	67,200
JUVLP200	175	63,000	84,000
JUVLP250	210	75,600	100,800

3.2 Pool Water Conditions

Recommended Limits	
Iron:	less than 0.3 mg/l
Hardness:	less than 120 mg/l
Turbidity:	less than 1 NTU
Manganese:	less than 0.05 mg/l
TSS:	less than 10 mg/l
UV Transmittance:	higher than 94%

If the level of any of these parameters is outside the recommended limits, we recommend a suitable preliminary treatment be applied to correct them.

Balance the pool water. Correctly balanced water will produce a more efficient treatment and a lower concentration of free chlorine in the water, which will extend the operating life of the lamp and less lime scale deposits on the quartz housing in the system.

- pH should be 7.2-7.6
- Total alkalinity should be 60-120 ppm

Section 4. Installation

4.1 Installation Requirements

The UV LP system should always be installed VERTICALLY on the floor, as shown below.

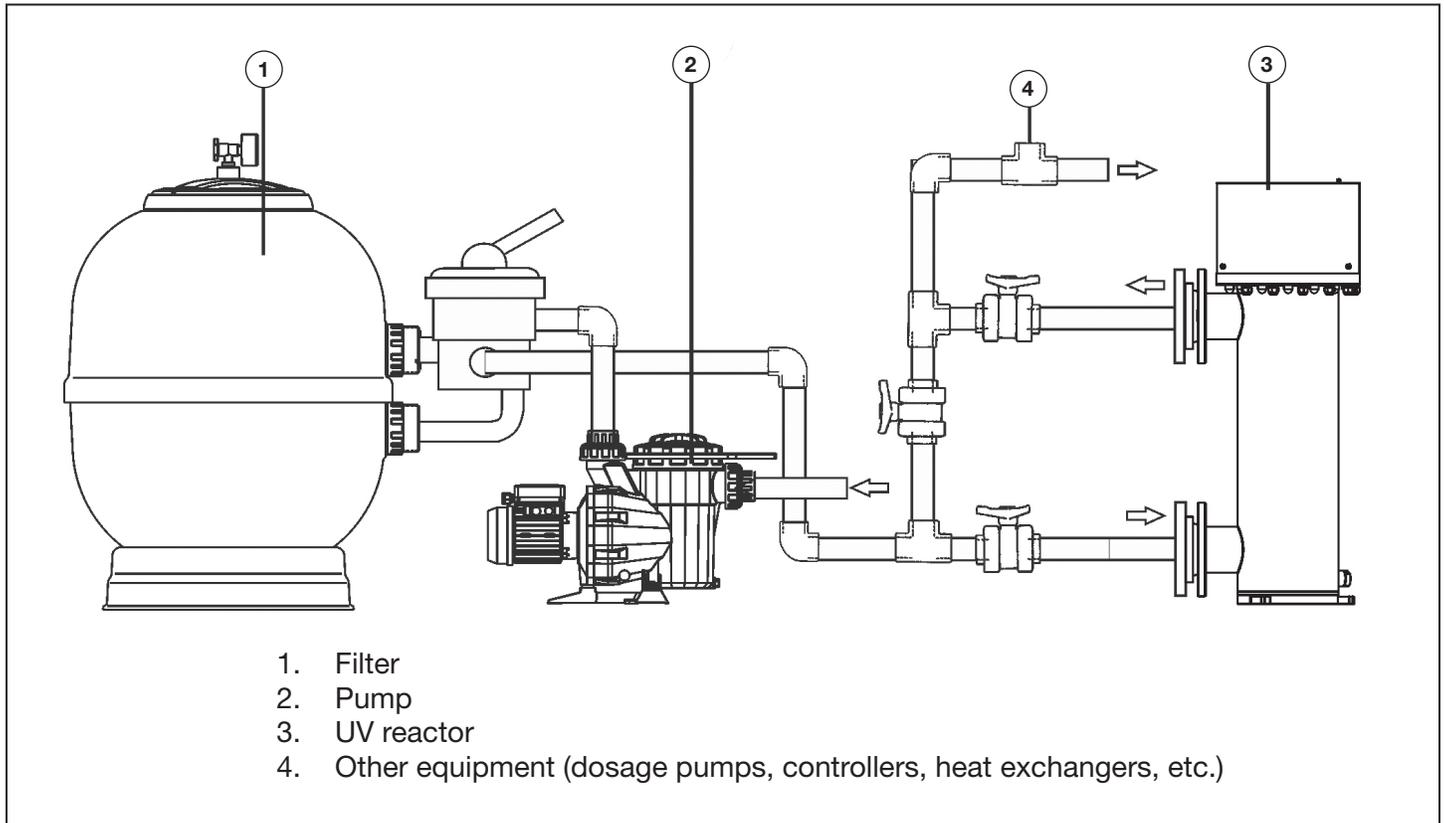


Figure 1. UV LP Plumbing Connections

- The UV LP system must be installed in a dry and well-ventilated location (either indoor or outdoor).
- The temperature at the installation area must be within 36°F (2°C) and 104°F (40°C) and the relative humidity should not exceed 80%.
- Install the unit as far away as possible from any storage of chemical products and sources of moisture.

WARNING
<p>Beware of corrosive atmosphere formation due to pH decreasing solutions (such as hydrochloric acid "HCl"). Do not install the UV LP system near to any stores of these chemicals. We strongly recommend the use of chemicals based on sodium bisulphate or diluted sulphuric acid.</p>

4.2 UV Reactor Installation

The UV LP reactor is made of AISI 316 L stainless steel and houses the UV lamp. The UV LP reactor must be installed after the filtration system, and before any other device in the installation such as heat pumps, control systems, dosage systems, salt electrolysis systems, etc.

The installation of the UV system should allow easy access to the UV lamp by the user. The location of the UV LP system must have an effective dimension that allow the complete removal of the UV lamp from the sleeve (approximately 1 m above the reactor cover).

It is highly recommended to install the UV LP system in a place of the pipe that can be easily isolated from the rest of the installation by two valves, so that the tasks of maintenance can be carried out with no need of partial or total draining of the swimming pool. Where the system is installed on a by-pass (recommended option), a valve to regulate the flow must be introduced.

⚠ WARNING

Prior to the installation or replacement of any system component, make sure it has been previously disconnected from the main power supply and there is no water flow through it. Use only spare parts supplied by Jandy.

⚠ WARNING

Bonding and Grounding

The National Electrical Code® (NEC® in the United States) or the Canadian Electrical Code (CEC in Canada) requires pool equipment to be bonded to each other. Check your local codes to determine if the NEC or CEC and/or other local installation codes are enforced by the Authority Having Jurisdiction (AHJ in the United States) or the local competent authorities in Canada. A solid, copper 8.37 mm² (8 AWG) wire is required per the NEC, and 13.3 mm² (6 AWG) per the CEC, for bonding the equipment to a permanent bonding connection that is acceptable to the local AHJ or the local competent authorities in Canada. Refer to your locally enforced codes for the acceptable bonding wire gauge.

Connect to the bonding point located on the power center and UV reactor to a common bonding point. Do not use the Jandy equipment as the common bonding point. Each piece of non-related pool equipment requiring a ground should also be bonded to the common, approved bonding point.

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.

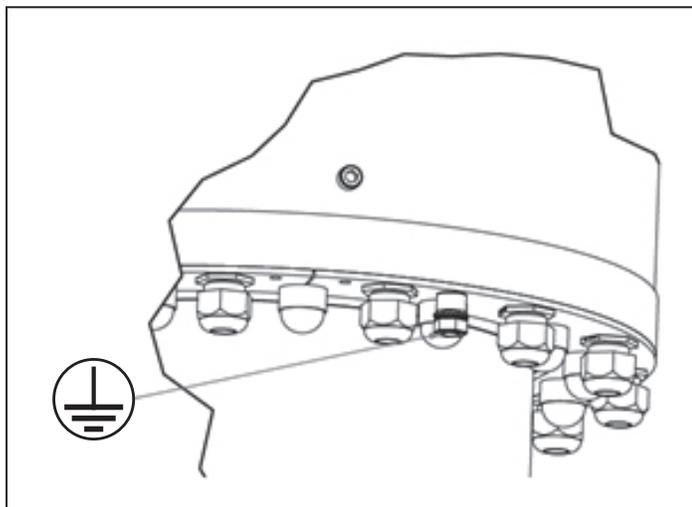


Figure 2. Bonding Lug Location

4.3 Electrical Connections

- Install the control panel vertically on a rigid surface (wall) so that the touchscreen on the front panel is at eye-level.
- Cooling fan and grids (if exist) must not be blocked.

⚠ WARNING

The equipment should be assembled and handled by truly qualified people.

Current electrical and accident prevention regulations should be followed.

Do not attempt to alter the system to operate at a different voltage.

Both the power of the JUV UV LP system control panel and the interconnection of the UV lamp and the sensors must be made at the terminal block at the base inside the control panel. The control panel base has a series of cable glands for the correct fixation of the power cables and sensors. In any case the length or section thereof should be amended, without first consulting an JANDY authorized technician.

⚠ WARNING

Use copper conductors only.

Permanently connected.

4.4 Control Panel: Field Wiring Diagram

4.4.1 JUVLP100 Model

T. Block	Control Panel Input		Cable	Wire Description
PE	POWER 120-240 VAC / 50-60 Hz / 1-phase		(1)	GROUND
1				PHASE
2				NEUTRAL
PE	UV REACTOR BONDING		(2)	GROUND
3	LAMP 1	UV LAMP-1/1	LP-045/1	BLACK "1"
4		UV LAMP-1/2		BLACK "2"
5		UV LAMP-1/3		BLACK "3"
6		UV LAMP-1/4		BLACK "4"
7	LAMP 2	UV LAMP-2/1	LP-045/2	BLACK "1"
8		UV LAMP-2/2		BLACK "2"
9		UV LAMP-2/3		BLACK "3"
10		UV LAMP-2/4		BLACK "4"
11	LAMP 3	UV LAMP-3/1	LP-045/3	BLACK "1"
12		UV LAMP-3/2		BLACK "2"
13		UV LAMP-3/3		BLACK "3"
14		UV LAMP-3/4		BLACK "4"
27	FLOW SWITCH INPUT			POTENTIAL-FREE CONTACT
28				
29	HEAD DETECTOR	SW-1	LP-025-M	BLACK "1"
30		SW-2		BLACK "2"
31	ALARM OUTPUT		(3)	POTENTIAL-FREE CONTACT
32				
33	IRRADIANCE SENSOR	BROWN	EVT344	POWER (24dc)
34		GREY		SIGNAL (0...10Vdc)
35		BLUE		GND

¹ Not supplied with the unit.

² Not supplied with the unit. Bonding must be made with a solid copper conductor minimum No. 8 AWG (USA) / 6 AWG (Canada).

³ Output logics.

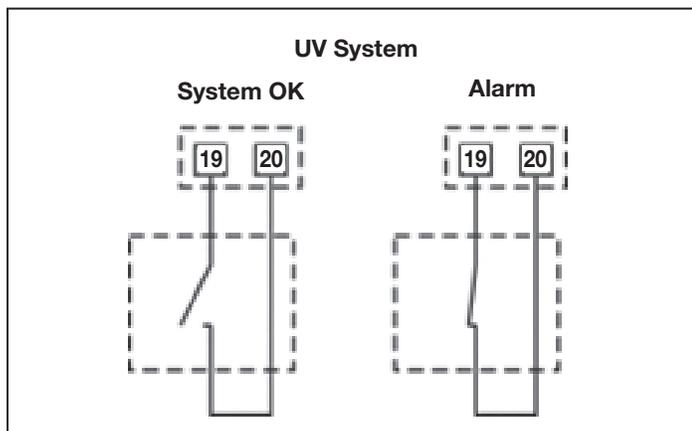


Figure 3. JUVLP100 Wiring

Model	240 V / 1-phase	120 V / 1-phase
JUV-LP-100	3 x AWG 18 (3 x 1.0 mm ²)	
JUV-LP-150	3 x AWG 16 (3 x 1.50 mm ²)	
JUV-LP-200		
JUV-LP-250		

¹ Minimum recommended wire size

4.4.2 JUVLP150 Model

T. Block	Control Panel Input		Cable	Wire Description
PE				GROUND
1	POWER 120-240 VAC / 50-60 Hz / 1-phase		(1)	PHASE
2				NEUTRAL
PE				UV REACTOR BONDING
3	LAMP 1	UV LAMP-1/1	LP-045/1	BLACK "1"
4		UV LAMP-1/2		BLACK "2"
5		UV LAMP-1/3		BLACK "3"
6		UV LAMP-1/4		BLACK "4"
7	LAMP 2	UV LAMP-2/1	LP-045/2	BLACK "1"
8		UV LAMP-2/2		BLACK "2"
9		UV LAMP-2/3		BLACK "3"
10		UV LAMP-2/4		BLACK "4"
11	LAMP 3	UV LAMP-3/1	LP-045/3	BLACK "1"
12		UV LAMP-3/2		BLACK "2"
13		UV LAMP-3/3		BLACK "3"
14		UV LAMP-3/4		BLACK "4"
15	LAMP 4	UV LAMP-4/1	LP-045/4	BLACK "1"
16		UV LAMP-4/2		BLACK "2"
17		UV LAMP-4/3		BLACK "3"
18		UV LAMP-4/4		BLACK "4"
27	FLOW SWITCH INPUT			POTENTIAL-FREE CONTACT
28				
29	HEAD DETECTOR	SW-1	LP-025-M	BLACK "1"
30		SW-2		BLACK "2"
31	ALARM OUTPUT		(3)	POTENTIAL-FREE CONTACT
32				
33	IRRADIANCE SENSOR	BROWN	EVT344	POWER (24dc)
34		GREY		SIGNAL (0...10Vdc)
35		BLUE		GND

¹ Not supplied with the unit.

² Not supplied with the unit. Bonding must be made with a solid copper conductor minimum No. 8 AWG (USA) / 6 AWG (Canada).

³ Output logics.

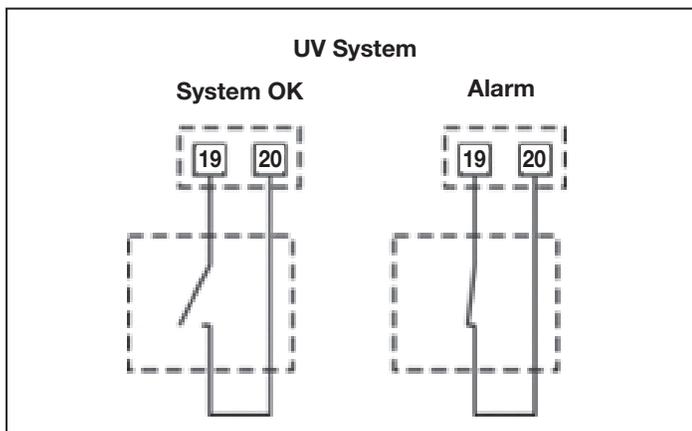


Figure 4. JUVLP150 Wiring

Model	240 V / 1-phase	120 V / 1-phase
JUV-LP-100	3 x AWG 18 (3 x 1.0 mm ²)	
JUV-LP-150	3 x AWG 16 (3 x 1.50 mm ²)	
JUV-LP-200		
JUV-LP-250		

¹ Minimum recommended wire size

4.4.3 JUVLP200 Model

T. Block	Control Panel Input		Cable	Wire Description
PE				GROUND
1	POWER 120-240 VAC / 50-60 Hz / 1-phase		(1)	PHASE
2				NEUTRAL
PE				UV REACTOR BONDING
3	LAMP 1	UV LAMP-1/1	LP-045/1	BLACK "1"
4		UV LAMP-1/2		BLACK "2"
5		UV LAMP-1/3		BLACK "3"
6		UV LAMP-1/4		BLACK "4"
7	LAMP 2	UV LAMP-2/1	LP-045/2	BLACK "1"
8		UV LAMP-2/2		BLACK "2"
9		UV LAMP-2/3		BLACK "3"
10		UV LAMP-2/4		BLACK "4"
11	LAMP 3	UV LAMP-3/1	LP-045/3	BLACK "1"
12		UV LAMP-3/2		BLACK "2"
13		UV LAMP-3/3		BLACK "3"
14		UV LAMP-3/4		BLACK "4"
15	LAMP 4	UV LAMP-4/1	LP-045/4	BLACK "1"
16		UV LAMP-4/2		BLACK "2"
17		UV LAMP-4/3		BLACK "3"
18		UV LAMP-4/4		BLACK "4"
19	LAMP 5	UV LAMP-5/1	LP-045/5	BLACK "1"
20		UV LAMP-5/2		BLACK "2"
21		UV LAMP-5/3		BLACK "3"
22		UV LAMP-5/4		BLACK "4"
27	FLOW SWITCH INPUT			POTENTIAL-FREE CONTACT
28				
29	HEAD DETECTOR	SW-1	LP-025-M	BLACK "1"
30		SW-2		BLACK "2"
31	ALARM OUTPUT		(3)	POTENTIAL-FREE CONTACT
32				
33	IRRADIANCE SENSOR	BROWN	EVT344	POWER (24dc)
34		GREY		SIGNAL (0...10Vdc)
35		BLUE		GND

¹ Not supplied with the unit.

² Not supplied with the unit. Bonding must be made with a solid copper conductor minimum No. 8 AWG (USA) / 6 AWG (Canada).

³ Output logics.

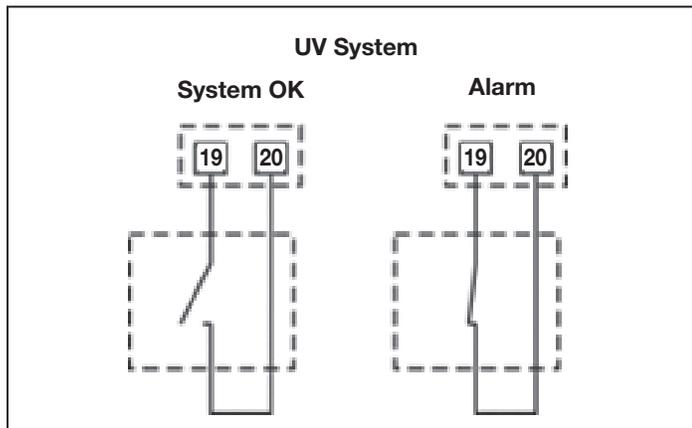


Figure 5. JUVLP200 Wiring

Model	240 V / 1-phase	120 V / 1-phase
JUV-LP-100	3 x AWG 18 (3 x 1.0 mm ²)	
JUV-LP-150	3 x AWG 16 (3 x 1.50 mm ²)	
JUV-LP-200		
JUV-LP-250		

¹ Minimum recommended wire size

4.4.4 JUVLP250 Model

T. Block	Control Panel Input		Cable	Wire Description
PE				GROUND
1	POWER 120-240 VAC / 50-60 Hz / 1-phase		(1)	PHASE
2				NEUTRAL
PE				UV REACTOR BONDING
3	LAMP 1	UV LAMP-1/1	LP-045/1	BLACK "1"
4		UV LAMP-1/2		BLACK "2"
5		UV LAMP-1/3		BLACK "3"
6		UV LAMP-1/4		BLACK "4"
7	LAMP 2	UV LAMP-2/1	LP-045/2	BLACK "1"
8		UV LAMP-2/2		BLACK "2"
9		UV LAMP-2/3		BLACK "3"
10		UV LAMP-2/4		BLACK "4"
11	LAMP 3	UV LAMP-3/1	LP-045/3	BLACK "1"
12		UV LAMP-3/2		BLACK "2"
13		UV LAMP-3/3		BLACK "3"
14		UV LAMP-3/4		BLACK "4"
15	LAMP 4	UV LAMP-4/1	LP-045/4	BLACK "1"
16		UV LAMP-4/2		BLACK "2"
17		UV LAMP-4/3		BLACK "3"
18		UV LAMP-4/4		BLACK "4"
19	LAMP 5	UV LAMP-5/1	LP-045/5	BLACK "1"
20		UV LAMP-5/2		BLACK "2"
21		UV LAMP-5/3		BLACK "3"
22		UV LAMP-5/4		BLACK "4"
23	LAMP 6	UV LAMP-6/1	LP-045/6	BLACK "1"
24		UV LAMP-6/2		BLACK "2"
25		UV LAMP-6/3		BLACK "3"
26		UV LAMP-6/4		BLACK "4"
27	FLOW SWITCH INPUT			POTENTIAL-FREE CONTACT
28				
29	HEAD DETECTOR	SW-1	LP-025-M	BLACK "1"
30		SW-2		BLACK "2"
31	ALARM OUTPUT		(3)	POTENTIAL-FREE CONTACT
32				
33	IRRADIANCE SENSOR	BROWN	EVT344	POWER (24dc)
34		GREY		SIGNAL (0...10Vdc)
35		BLUE		GND

¹ Not supplied with the unit.² Not supplied with the unit. Bonding must be made with a solid copper conductor minimum No. 8 AWG (USA) / 6 AWG (Canada).³ Output logics.

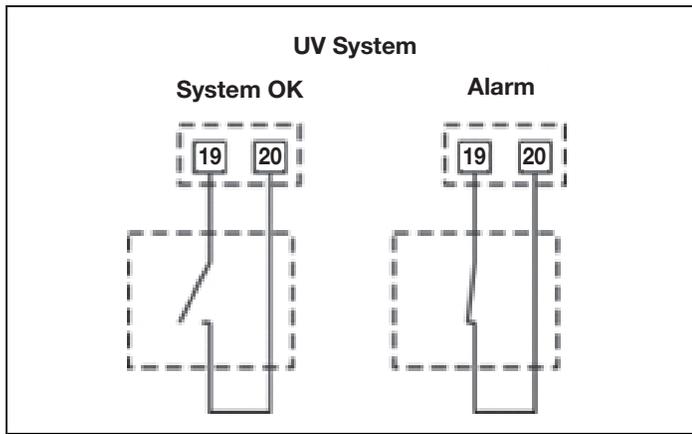


Figure 6. JUVLP250 Wiring

Model	240 V / 1-phase	120 V / 1-phase
JUV-LP-100	3 x AWG 18 (3 x 1.0 mm ²)	
JUV-LP-150	3 x AWG 16 (3 x 1.50 mm ²)	
JUV-LP-200		
JUV-LP-250		

¹ Minimum recommended wire size

4.5 Lamp Connection

Connect the UV lamps to the corresponding terminals on the control panel using the cables supplied with the unit (LP-0XX/n). To do this, remove the cover on the top of the UV reactor and connect wires to the corresponding terminals.

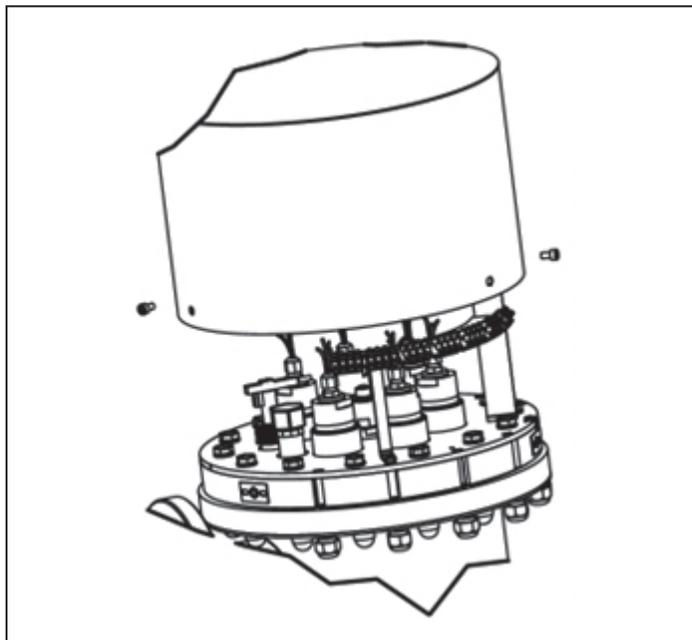


Figure 7. Remove the UV Lamp Cover to Connect Terminal Wiring

1. LP-045 lamp power cables (black wires labeled “1” to “4”. Wire number must exactly match the number of the terminal block as shown in the following figure).
2. LP-025-M microswitch cable (black wires, labeled “1” and “2”. Wire relative position is not relevant).

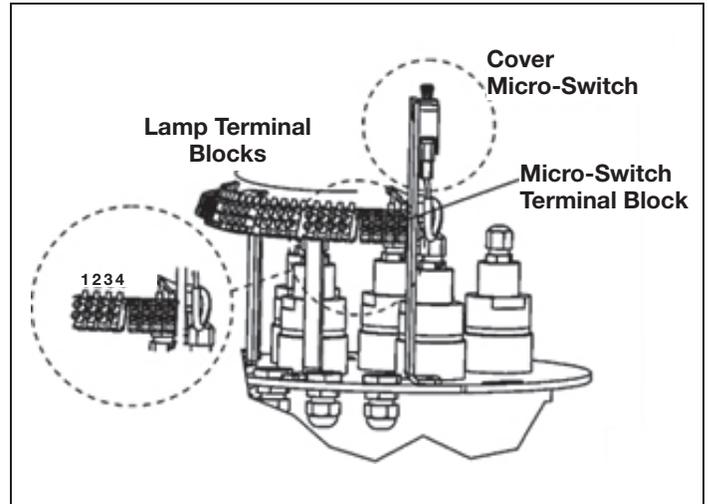


Figure 8. Terminal Block Wiring

⚠ WARNING

Unit is equipped with an automatic mechanism (micro-switch) for shutting off the power of the UV lamp whenever the cover is removed.

3. Once the connection is made, close the UV reactor head.
4. Connect the ground wire to the bonding lug marked Ⓧ* on the UV chamber suitable for No. 8 AWG (US) / No. 6 AWG (Canada) and secure to the chamber with a paint breaking washer and nut.

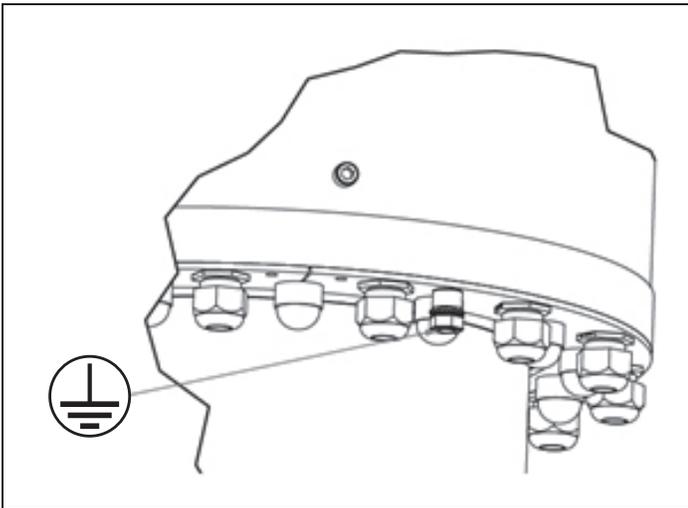


Figure 9. Connect Ground Wire to the Bonding Lug

⚠ WARNING

Prior to the installation or replacement of any system component, make sure it has been previously disconnected from the main power supply and there is no water flow through it.

Check all the electrical connections are well tightened to avoid false contacts and their consequent overheating.

Section 5. Operation

UV LP treatment systems are equipped with a touchscreen on the front of the control panel, which allows full control of the treatment process and power to the UV lamp and the main system on/off switch.

5.1 Initial Start-up

1. Check the filter. Make sure that the filter is 100% clean.
2. Check the water chemistry. Make sure water chemistry levels are within the recommended limits before operating to ensure the UV LP system can perform with maximum efficiency. There should be no copper, iron or algae in the pool.
3. Balance the pool water. Correctly balanced water will produce a more efficient treatment with a lower concentration of free chlorine in the water and extend the operating life of the lamp with less lime scale deposited on the quartz housing in the system.
4. Check pipe connections are correct and free of leaks.
5. Allow water to circulate for several minutes to flush any air and dirt from inside the UV reactor.
6. Turn the system on with the ON/OFF switch located on the back panel of the unit.

⚠ IMPORTANT

Always connect the unit to a circuit protected by an RCD.

Never look directly at the UV lamp when it is turned on.

Never connect the system when the lamp is out of the reactor.

Do not operate the system at flow lower than 88 gpm.

5.2 System Controls

5.2.1 System Main Screen

Once the firmware is loaded, the main control screen of the system appears. This screen is divided into different areas of information.

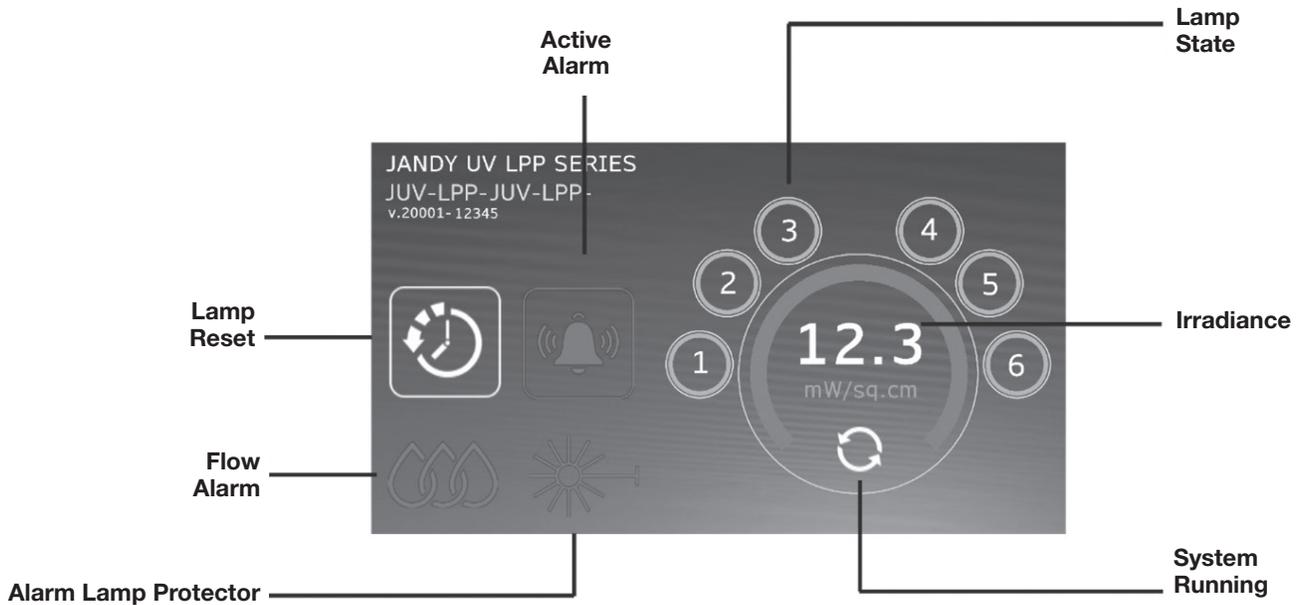


Figure 10. Main Menu Screen

5.2.2 System Initialization

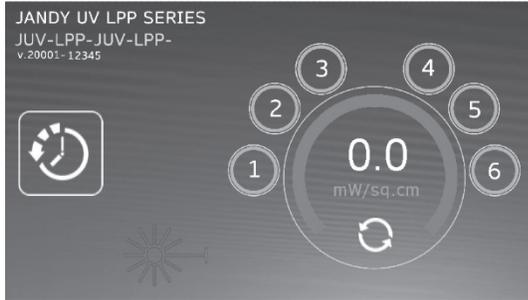
	RUN This icon will remain rotating whenever the UV system is in operation.
	LAMP HOUR COUNTER This indicator shows the hours of operation of the lamps.
	LAMP STATUS This icon shows the current status of the ballast and the corresponding lamp. Icon without blinking indicates that ballast and lamp are in operation. Internal coloured arc will indicate the remaining life of the lamp. Green: lifespan > 5,550 hours Orange: 1,665 hours < lifespan < 5,550 hours Red: lifespan < 1,665 hours

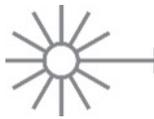
5.3 Alarms

	This icon will blink whenever there is an active alarm in the system. The ALARM contact (terminals [31] - [32]) will remain closed. ATTENTION: the FLOW and PROTECTOR alarms DO NOT activate the ALARM contact.
--	--



	<p>FLOW</p> <p>Whenever the installed sensor detects an insufficient or null water flow inside the UV reactor, the system disconnects the UV lamps and the “Flow” indication of the screen will flash.</p> <p>WARNING:</p> <p>Once restored the water flow, the system automatically resets and becomes operative again.</p>
---	--



	<p>UV REACTOR COVER OPEN</p> <p>The unit is equipped with an automatic mechanism for shutting off the power of the UV lamps whenever the reactor cover is removed. These two icons will blink whenever the UV reactor cover is not properly mounted.</p>
--	---

Section 6. Maintenance

<p>⚠ WARNING</p>
<p>Prior to the installation or replacement of any system component make sure it has been previously disconnected from the main power supply and there is no water flow through it. Use only spare parts supplied by Jandy.</p>

6.1 Replacing the UV Lamp

Frequency:

- UV lamp must be replaced each time the number of hours of operation established by the manufacturer is reached.
- When COMBINED CHLORINE levels in the pool are abnormally high.

<p>⚠ WARNING</p>
<p>Do not handle the UV lamp until completely cold.</p>

<p>IMPORTANT</p>
<p>Always handle the UV lamp with gloves to protect the surface of the lamp from any impurities, which may reduce the lamp’s performance and durability. Clean lamp surface using a soft cloth soaked with alcohol, if necessary.</p>

Procedure:

1. Remove the front panel by removing the two screws (1) that fix it to the body of the UV reactor.

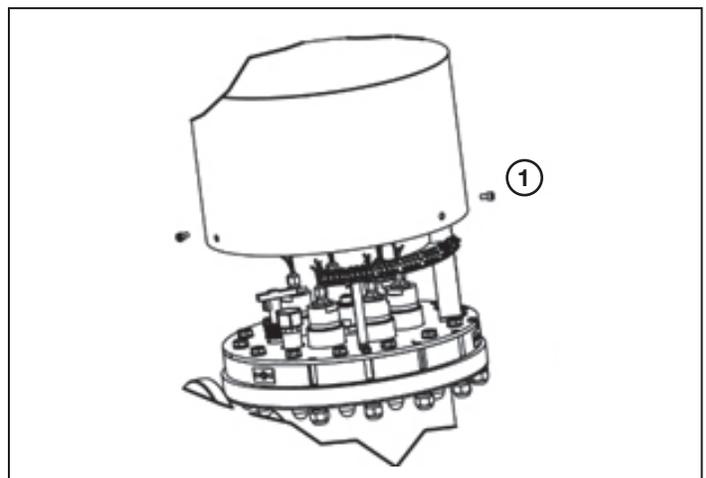


Figure 11. Remove the UV Lamp Cover

2. Release the locking nut of the corresponding cable gland (2).
3. Release the locking nut of the lamp (3, 4).
4. Remove the lamp (5) by holding it from the power connector until the ceramic end is visible.

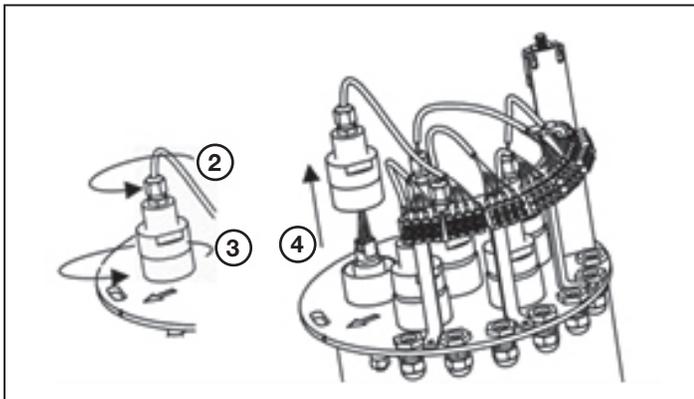


Figure 12. Disconnect the Lamp from the Power Connector

5. Hold the lamp at the ceramic end and carefully remove the power connector.

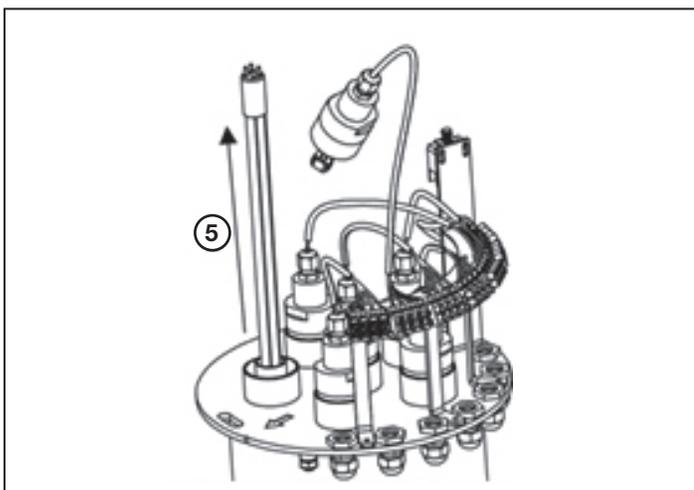


Figure 13. Remove the Power Connector

6. Pull out the lamp from the quartz sleeve, keeping it vertical so that it does not suffer any torsion.
7. Hold the new lamp at the ceramic end, and keeping it vertical, insert to about 3/4 of its total length.
8. Carefully connect the power connector.
9. Install the lamp all the way into the quartz sleeve.
10. Tighten the locking nut.

IMPORTANT

Whenever the lamp is replaced, you must reset the hour counter of the system.

11. Replace the cover using the original screws.
12. Reset the hour counter for the new lamp.

6.2 Reset the Hour Counter



Press the **“Counter Reset”** button. The following screen will appear:



Press for at least 3 seconds the **icon corresponding to the lamp** whose counter is to be reset, until both counters, “Hours” and “Ignitions”, go to **zero**.



Press the **“Home”** button to return to the main screen.

6.3 Replacing / Cleaning a Quartz Sleeve

Frequency:

- You should check the quartz sleeve at least **ONCE A YEAR** for any kind of deposit on its surface (lime, iron, manganese, organic matter, etc.).
- Clean the quartz sleeve **EACH TIME YOU REPLACE THE LAMP**.

6.3.1 Removal of the Quartz sleeve

Procedure:

1. Follow the procedure described in the section *Replacing the UV Lamp* to remove the lamp from the quartz sleeve. Place the lamp in a clean, safe place.

⚠ WARNING

Do not handle the UV lamp until completely cold.

IMPORTANT

Always handle the UV lamp with gloves to protect the surface of the lamp from any impurities, which may reduce the lamp's performance and durability. Clean lamp surface using a soft cloth soaked with alcohol, if necessary.

2. Insert your thumb into the sleeve and carefully slide it until the O-ring is released.

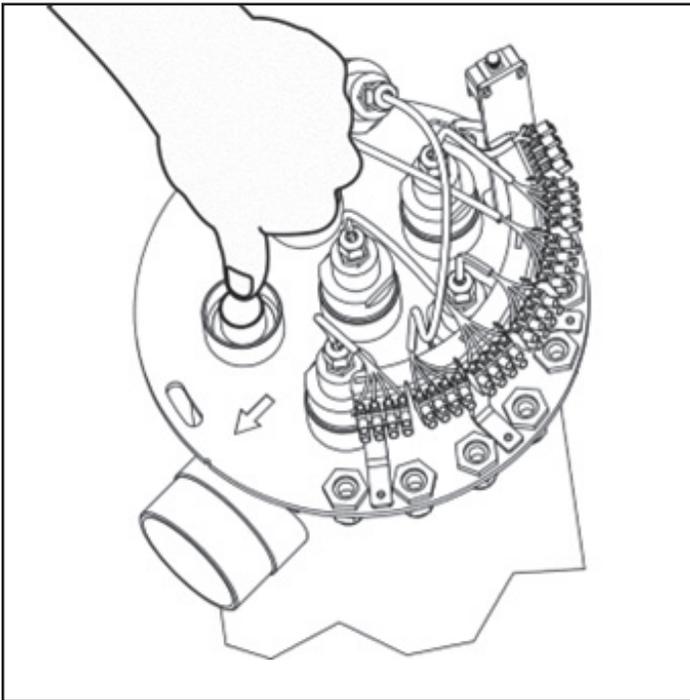


Figure 14. Remove the Quartz Sleeve and O-Ring

3. Completely remove the quartz sleeve keeping it vertical so it does not suffer any torsion.
4. Carefully remove the O-ring from the sleeve.

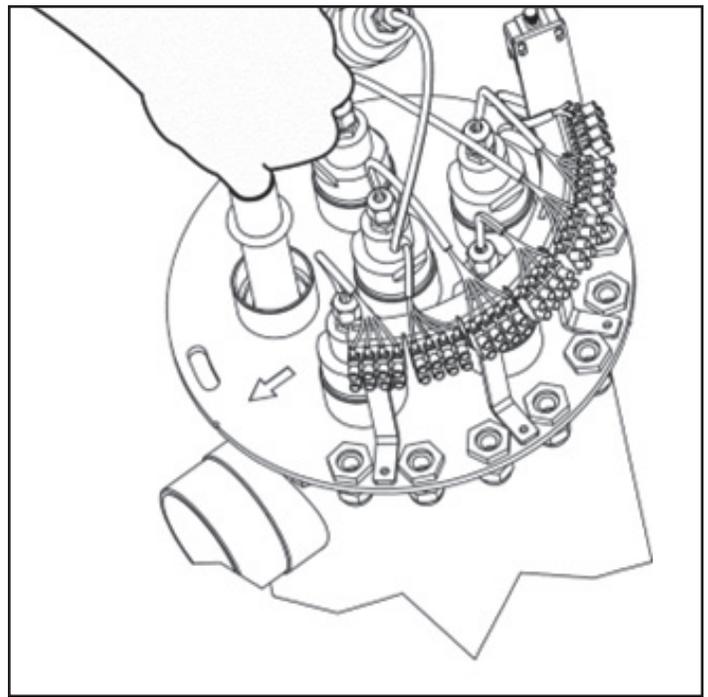


Figure 15. Slide the Quartz Sleeve out of the UV Lamp

5. If the sleeve is completely transparent, it is still clean. Replace back in the housing, as described below.
6. To clean the quartz sleeve, use a soft cloth soaked with vinegar or diluted acid.

6.3.2 Assembly of the Quartz Sleeve

Procedure:

1. Moisten the O-ring and replace it about 2 inches from the end of the sleeve.
2. Fully insert the quartz sleeve, keeping it vertical, until the O-ring reaches its housing.
3. Place the sleeve locking cap in its housing carefully. Place your palm over the cap and press until the sleeve is fully inserted into the housing. The sleeve will stick out a few millimeters above the O-ring.
4. Reassemble the lamp as described in the section *Replacing the UV Lamp*.

Check for Water Leaks:

If you notice water leaking from the end caps:

1. Check the O-ring for damage.
2. Check for cracks or breaks in the quartz sleeve.
3. Check that the locking nut and the O-ring form a water-tight seal.

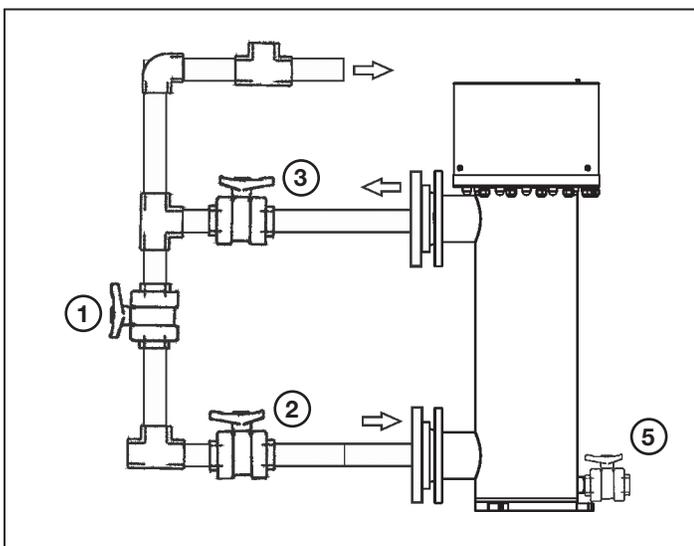
4. Check that the end caps are sufficiently tight.
5. Check that all components are clean and free from dirt and debris.

NOTE: Items 1-5 listed above are service items and therefore not subject to a claim under warranty. The service items listed are available.

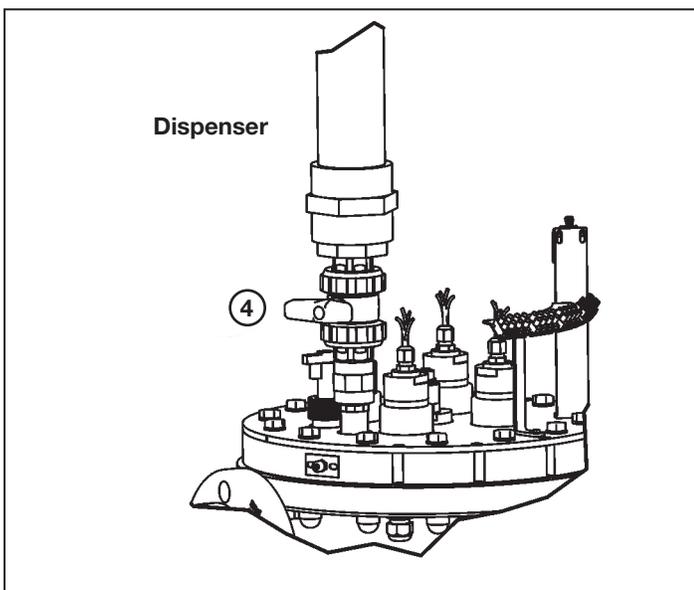
6.3.3 Cleaning of the Quartz Sleeve

Procedure:

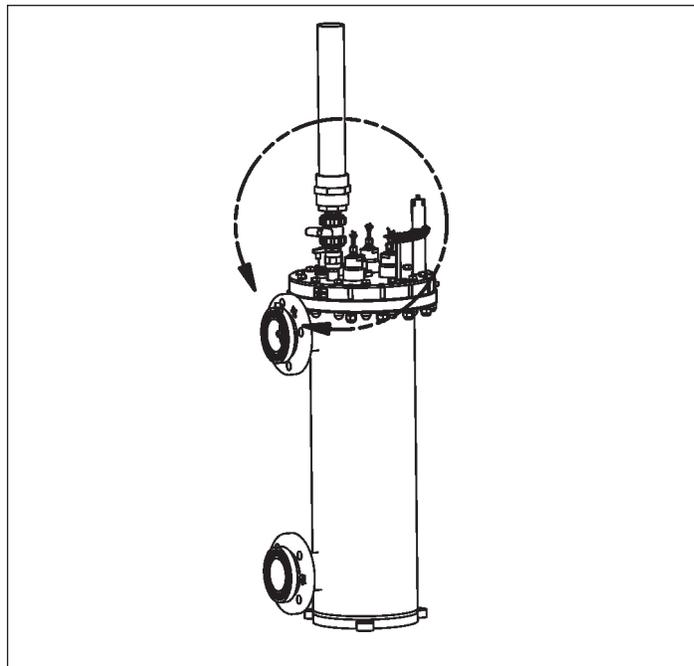
1. Switch OFF UV device.
2. Open valve 1 and close valves 2 and 3 (UV chamber inlet – outlet).
3. Open the chamber protection head.



4. Plug-in the dispensing device in the corresponding inlet (“Cleaning”).



5. Add sulphuric acid (10%) on the PVC transparent reservoir of the dispenser.



6. Open valve 4 and 5, and wait until the level of acid in the dispenser reservoir goes down. Once the reservoir is empty, close valve 5.
7. Leave the cleaning solution inside the UV chamber overnight.
8. Open valve 5 until the chamber is completely empty.
9. Close valve 5.
10. Unplug the dispenser.
11. Open valve 2 and 3.
12. Close valve 1.
13. Switch ON the UV device.

6.4 Replacing Seal in Contact with the Quartz Sleeve

Frequency:

- Replace the seal in contact with the quartz sleeve EACH TIME YOU REPLACE THE LAMP.

Procedure:

To replace the seal of the quartz sleeve, follow the procedure described in Section 6.2.

6.5 Replacing the Inner SS Reflector

Frequency:

- Only in case of corrosion.

Procedure:

To replace the sheet, disassemble the lamps and UV lid.



Figure 16. Inner SS Reflector

6.6 System Isolation and Connections Control

Frequency:

- Check the ground fault circuit breaker (GFCI) located inside the control panel at least EACH TIME YOU REPLACE THE UV LAMP by pressing the TEST button (at front).
- Check all connections, especially the lamp power and the grounding of both the control panel and the UV reactor, EACH TIME YOU REPLACE THE LAMP.

6.7 Winterizing

Extremely cold temperatures may cause damage to the vessel or sleeve. Under 35°F the UV unit should be drained.

Section 7. Troubleshooting

Problems and Corrective Actions

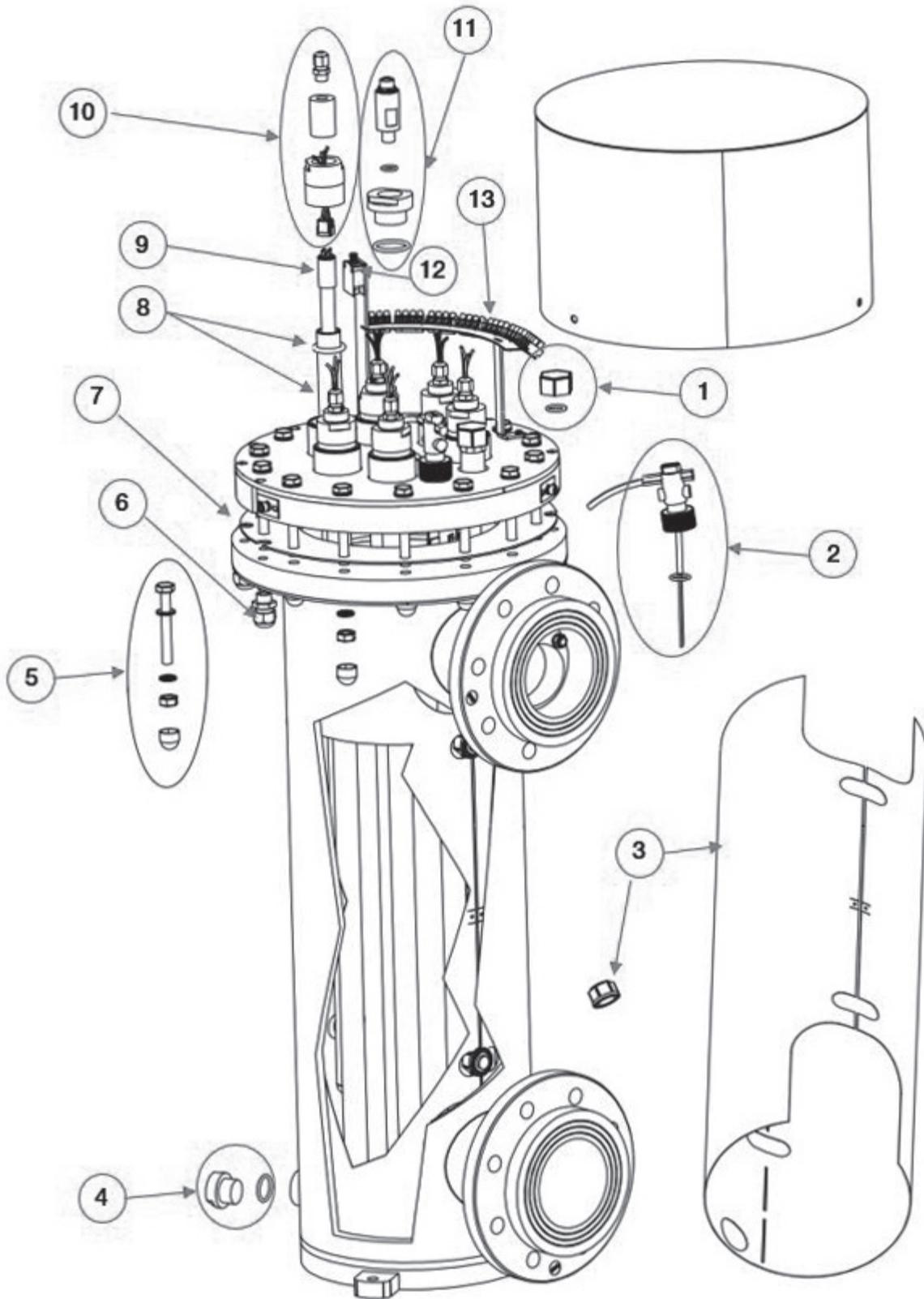
⚠ WARNING

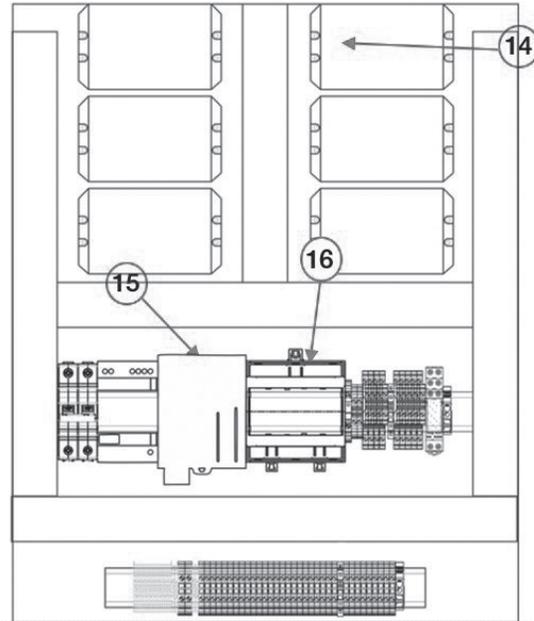
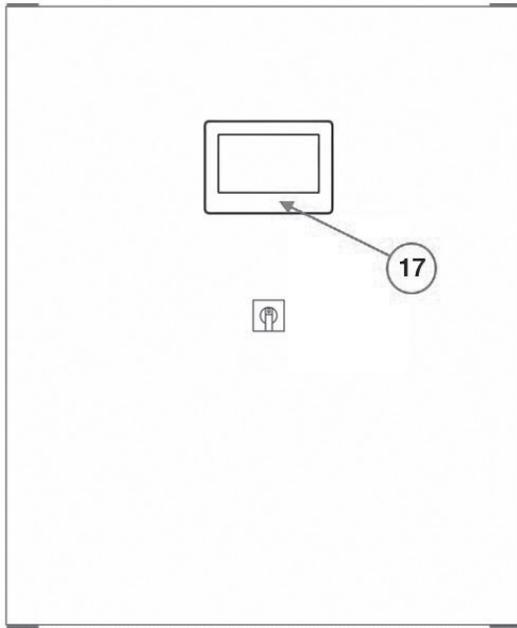
Always disconnect the electrical supply before beginning troubleshooting procedures.

Problem	Solution
The unit does not turn on.	Check that it is properly connected to a 240 V-60 Hz supply in the pool's electrical control panel. Check fuse F1 in the lower part of the unit.

If issues persist, contact Jandy Technical Support at 1-800-822-7933.

Section 8. Exploded Views and Replacement Kits





RKIT	CODE	DESCRIPTION
#1	R0977900	Cleaning Cap
#2	R0978000	Flow Sensor
#3	R0978100	Stainless Steel Inner Liner
#4	R0978200	Drain Plug
#5	R0978300	Screw Kit
#6	R0978400	Cable Gland
#7	R0978500	Main Body Gasket
#8	R0978600	Quartz Sleeve
#9	R0978700	UV Lamp
#10	R0978800	UV Lamp Head Kit
#11	R0978900	UV Light Sensor
#12	R0979000	Safety Switch
#13	R0979100	Wire Housing Plug
#14	R0979200	UV Lamp Ballast
#15	R0979300	CPU Module
#16	R0979400	Relay Module
#17	R0979500	HMI Screen

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