



Installation Manual



AquaLink[®] RS All Button and OneTouch[™] Control Systems



Dual Equipment Systems

WARNING

FOR YOUR SAFETY - This product must be installed and serviced by a professional pool/spa 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.

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EQUIPMENT INFORMATION RECORD	
DATE OF INSTALLATION _____	
INSTALLER INFORMATION _____	
INITIAL PRESSURE GAUGE READING (WITH CLEAN FILTER) _____	
PUMP MODEL _____	HORSEPOWER _____
FILTER MODEL _____	SERIAL NUMBER _____
CONTROL PANEL MODEL _____	SERIAL NUMBER _____
NOTES:	

Section 1. Important Safety Instructions

READ AND FOLLOW ALL INSTRUCTIONS

Lire la notice technique.

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

To reduce the risk of injury, do not remove the suction fittings of your spa or hot tub. Never operate a spa or hot tub if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the equipment assembly.

WARNING

Prolonged immersion in hot water may induce hyperthermia. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6° F. The symptoms of hyperthermia include dizziness, fainting, drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include: 1) unawareness of impending danger; 2) failure to perceive heat; 3) failure to recognize the need to exit spa; 4) physical inability to exit spa; 5) fetal damage in pregnant women; 6) unconsciousness resulting in a danger of drowning.

WARNING

To Reduce the Risk of Injury -

- a) The water in a spa should never exceed 104°F (40°C). Water temperatures between 100°F (38°C) and 104°F (40°C) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.
- b) Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperatures to 100°F (38°C).
- c) Before entering a spa or hot tub, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature-regulating devices varies.
- d) The use of alcohol, drugs, or medication before or during spa or hot tub use may lead to unconsciousness with the possibility of drowning.
- e) Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a spa.
- f) Persons using medication should consult a physician before using a spa or hot tub since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

WARNING

Risk of electric shock - install the power center at least five (5) feet (152.4cm) 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.

AVERTISSEMENT

Danger d'électrocution - Les installations canadiennes doivent se trouver à au moins trois (3) mètres de l'eau.

Ne pas laisser les enfants utiliser une cuve de relaxation sans surveillance.

Pour éviter que les cheveux ou une partie du corps puissent être aspirés, ne pas utiliser une cuve de relaxation si les grilles de prise d'aspiration ne sont pas toutes en place.

Les personnes qui prennent des médicaments ou ont des problèmes de santé devraient consulter un médecin avant d'utiliser une cuve de relaxation.

⚠ WARNING

People with infectious diseases should not use a spa or hot tub.

To avoid injury, exercise care when entering or exiting the spa or hot tub.

Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning.

Pregnant or possibly pregnant women should consult a physician before using a spa or hot tub.

Water temperature in excess of 100°F/38°C may be injurious to your health.

Before entering a spa or hot tub measure the water temperature with an accurate thermometer.

Do not use a spa or hot tub immediately following strenuous exercise.

Prolonged immersion in a spa or hot tub may be injurious to your health.

Do not permit any electric appliance (such as a light, telephone, radio, or television) within 5 feet (1.5 m) of a spa or hot tub.

The use of alcohol, drugs or medication can greatly increase the risk of fatal hyperthermia in hot tubs and spas.

Water temperature in excess of 100°F/38°C may be hazardous to your health.

⚠ AVERTISSEMENT

Les personnes atteintes de maladies infectieuses ne devraient pas utiliser une cuve de relaxation.

Pour éviter des blessures, user de prudence en entrant dans une cuve de relaxation et en sortant.

Pour éviter l'évanouissement et la noyade éventuelle, ne prendre ni drogue ni alcool avant d'utiliser une cuve de relaxation ni quand on s'y trouve.

Les femmes enceintes, que leur grossesse soit confirmée ou non, devraient consulter un médecin avant d'utiliser une cuve de relaxation.

Il peut être dangereux pour la santé de se plonger dans de l'eau à plus de 38°C/100°F.

Avant d'utiliser une cuve de relaxation mesurer la température de l'eau à l'aide d'un thermomètre précis.

Ne pas utiliser une cuve de relaxation immédiatement après un exercice fatigant.

L'utilisation prolongée d'une cuve de relaxation peut être dangereuse pour la santé.

Ne pas placer d'appareil électrique (luminaire, téléphone, radio, téléviseur, etc) à moins de 1.5m de cette cuve de relaxation.

La consommation d'alcool ou de drogue augmente considérablement les risques d'hyperthermie mortelle dans une cuve de relaxation.

Il peut être dangereux pour la santé de se plonger dans de l'eau à plus de 38°C/100°F.

⚠ CAUTION

A terminal bar marked "GROUND" is provided within the power center. To reduce the risk of electrical shock, connect this terminal bar to the grounding terminal of your electric service or supply panel with a continuous copper conductor having green insulation and one that is equivalent in size to the circuit conductors supplying this equipment, but no smaller than no. 12 AWG (3.3mm). In addition, a second wire connector should be bonded with a no. 8 AWG (4.115mm) copper wire to any metal ladders, water pipes, or other metal within five (5) feet (1.52m) of the tub.

⚠ CAUTION

A ground-fault circuit-interrupter must be provided if this device is used to control underwater lighting fixtures. The conductors on the load side of the ground-fault circuit-interrupter shall not occupy conduit, boxes, or enclosures containing other conductors unless the additional conductors are also protected by a ground-fault circuit-interrupter. Refer to local codes for complete details.

⚠ CAUTION

Control system is intended to control heaters with built-in high limit circuits only.







Attention installer: Install to provide drainage of compartment for electrical components.

SAVE THESE INSTRUCTIONS

Section 2. System Overview

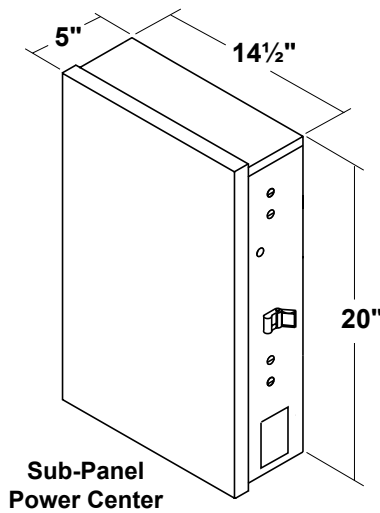
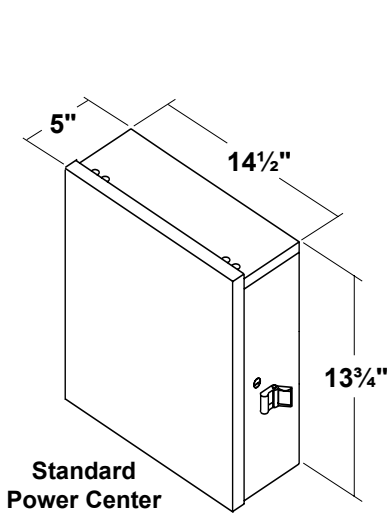
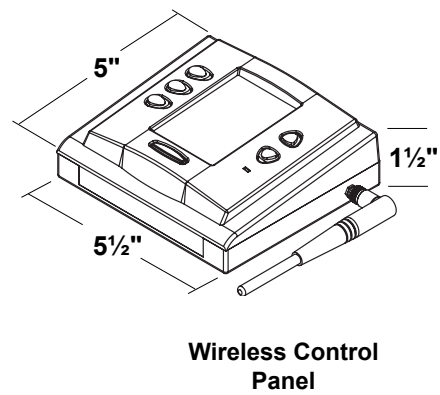
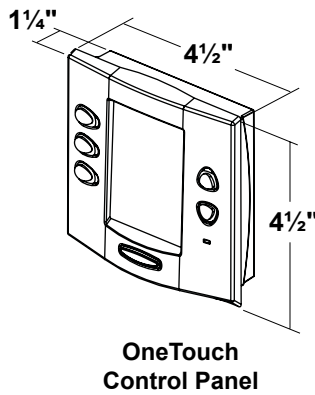
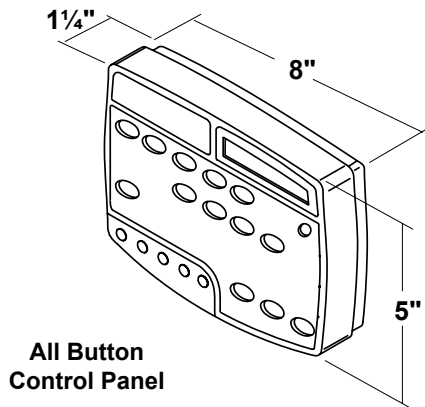
2.1 Package Contents

Package contents will depend on which AquaLink RS System you are installing. All Jandy AquaLink RS Systems come complete with the appropriate number of 3HP relays needed.

Control System Sub-Assemblies	
All Button Dual Equipment	OneTouch Dual Equipment
 <p>All Button Control Panel, Power Center PCB, Three (3) Temp Sensors, Additional Relays</p>	 <p>OneTouch Control Panel, Power Center PCB, Three (3) Temp Sensors, Additional Relays</p>
Power Centers	
 <p>Standard Power Center (with mounting brackets)</p>	 <p>Sub-Panel Power Center (with mounting brackets)</p>

2.2 System Component Specifications and Dimensions

Specifications (USA and Canada)	
Power Supply	120 VAC; 60 Hz; 3 A
Contact Rating	High voltage - 25 A; 3HP @ 240 VAC 1½ HP @ 120 VAC 1500 Watts Incandescent
	Low Voltage - Class Two, 1 A @ 24 VAC
Emergency Service Switch	All Circuits (located at Power Center in Service Mode)
Specifications (European)	
Power Supply	230-240VAC; 50/60 Hz; 3 A
Contact Rating	High voltage - 25 A; 3HP @ 240 VAC
	Low Voltage - Class Two, 1 A @ 24 VAC
Emergency Service Switch	All Circuits (located at Power Center in Service Mode)
Dimensions	



Suitable Listed Breakers (Available Locally)						
Manufacturer	CIRCUIT BREAKER					Filler Plate
	Single	Double	Twin	Quad	GFCB	
Cutler-Hammer	BR	BR	BRD	BRD	GFCB	BRFP
Murray	MP-T	MP-T	MH-T	MH-T	MP-GT	LX100FP
Siemens	QP	QP	QT	QT	QPF	QF3
Square D	HOM	HOM	HOMT	HOMT	HOM	HOMFP
Thomas & Betts	TB	TB	TBBD	TBBQ	GFB	FP-1C-TB

2.3 Plumbing Diagrams

2.3.1 Basic Plumbing

Refer to Figure 1 when plumbing two separate sets of equipment. The basic setup consists of one pump, filter and heater for the pool and another set for the spa.

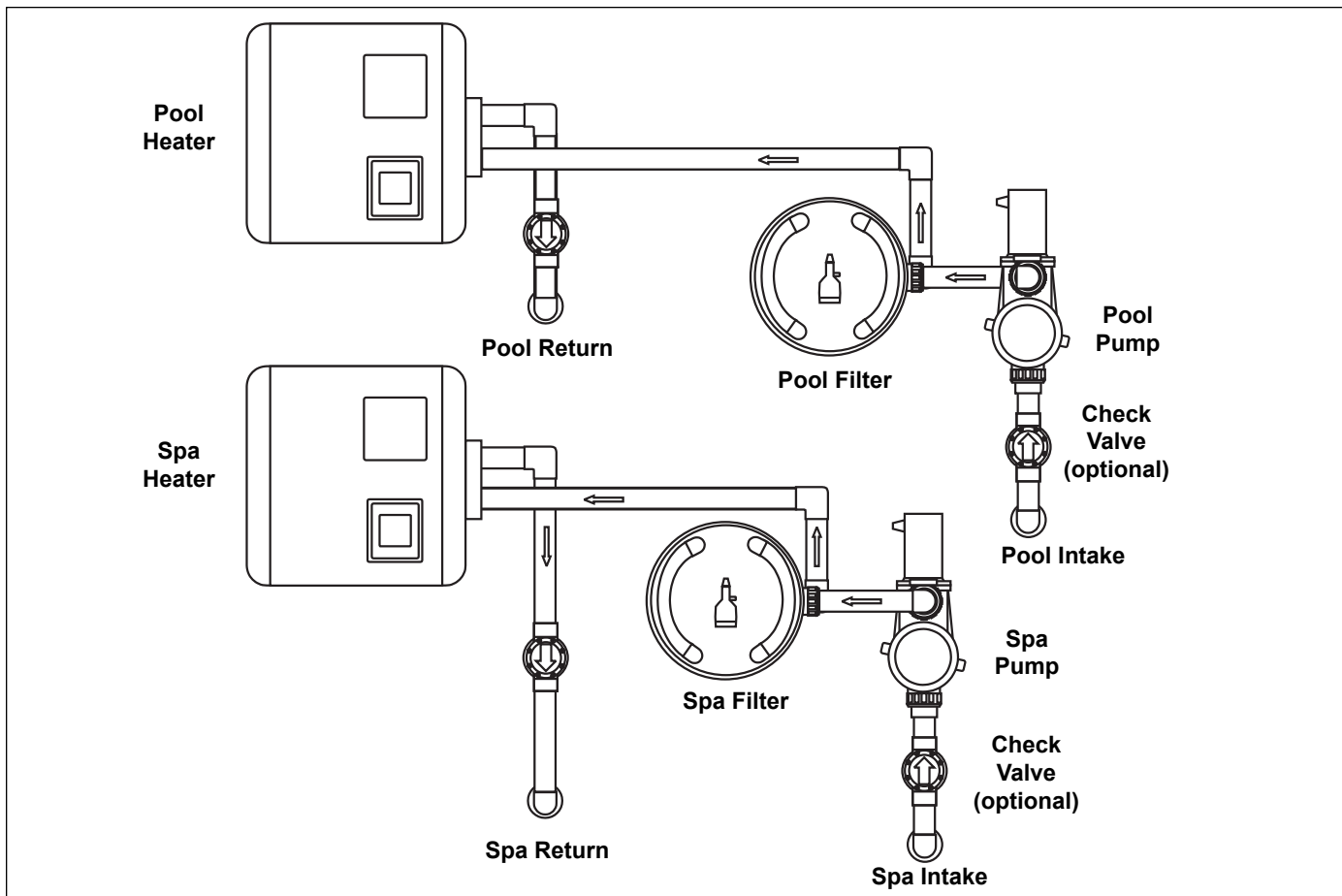


Figure 1. Basic Plumbing for Dual Equipment

2.3.2 Plumbing - Sharing One Heater

When the system setup is using only one heater, plumb the equipment as shown in Figure 2.

NOTE When connecting to the AquaLink RS, plug the shared heater JVA valve into the JVA Socket on Power Center Board, and turn DIP Switch 6 to the ON position. See wiring diagram in Section 4, Figure 5.

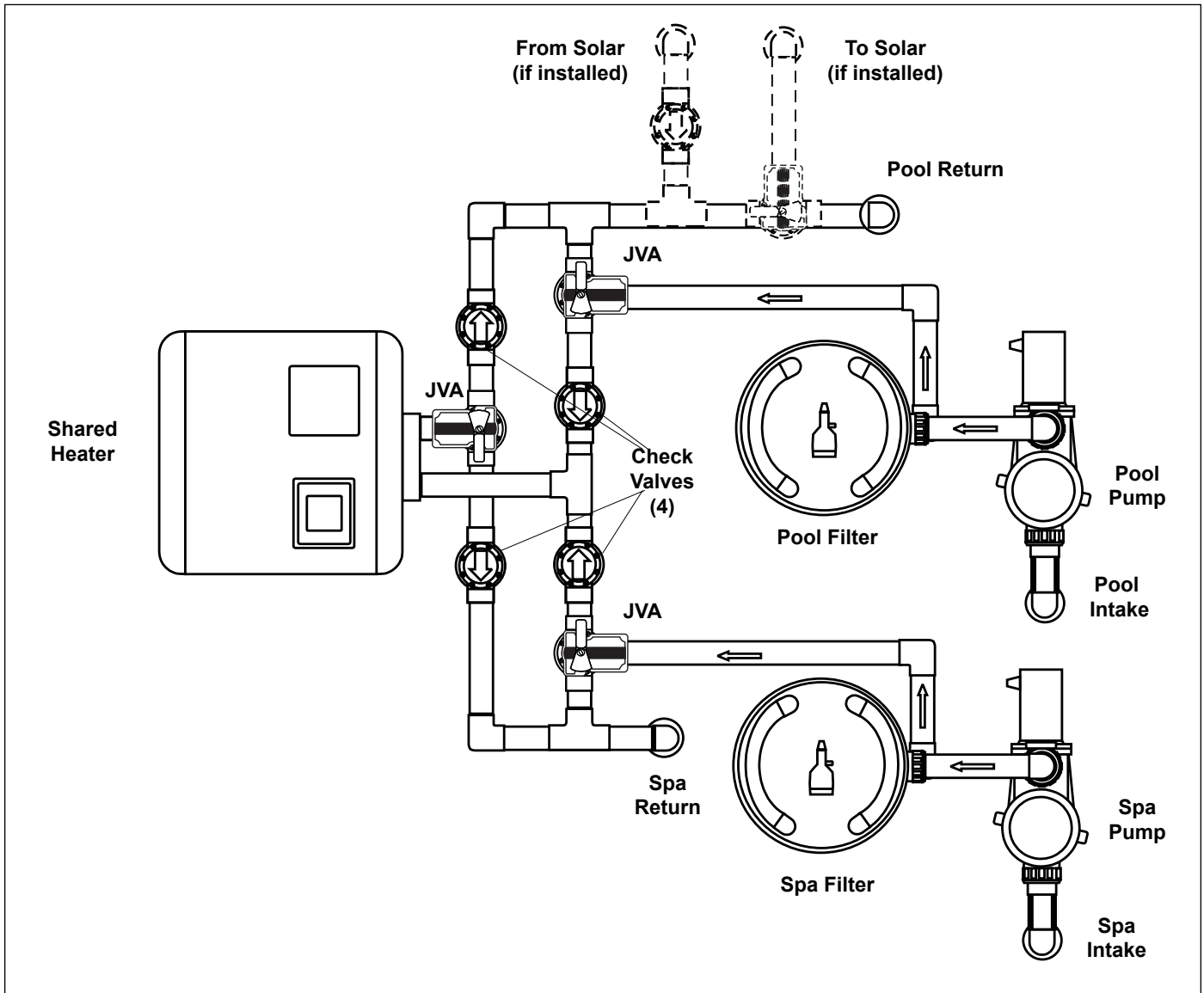


Figure 2. Dual Equipment System with One Heater

Section 3. Power Center Connection (Low Voltage)

3.1 Connecting Power and Mounting Bezel

1. Plug the orange 24 VAC power plug from the transformer into its 3-pin terminal on the back of the Low Voltage Bezel. Mount the Bezel to the Power Center with the screws provided (see Figure 3).

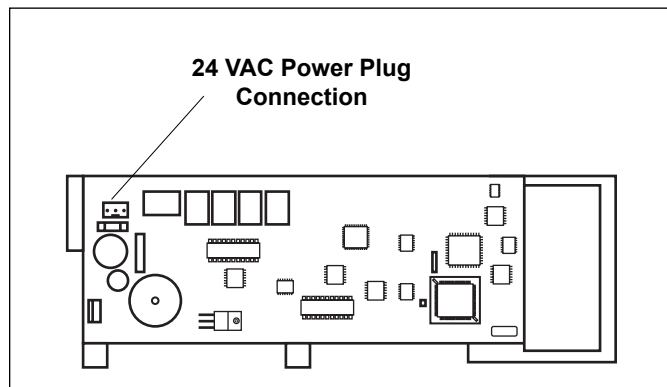


Figure 3. Power Center PCB (back view)

2. *(Shared Heater Setup only)*
Mount JVAs & run wires to Power Center.

NOTE Refer to the JVA manual to install JVAs. Run JVA wires back to the low voltage compartment of the Power Center, through low voltage raceway, and plug the JVAs into their sockets. See Figure 2 for JVA placement.

Do not coil JVA cable inside Power Center. To shorten cable, remove JVA lid and disconnect the cable. Shorten, strip, and reconnect.

3.2 Connecting Control Panel Cable to PCB

1. Make provisions for Jandy Control Panel Cable to be run between the Control Panel and the Power Center.

NOTE When cable will be run underground or in concrete, it must be run in conduit. Never run high voltage and low voltage cables in the same conduit.

2. Pull the Control Panel Cable into the low voltage compartment.
3. Strip back cable jacket 6". Strip each wire $\frac{1}{4}$ ".

4. Wire according to the Power Center PCB wiring diagram (see Section 4, Figure 3).

3.3 Connecting Sensors to Terminals

3.3.1 Water Temperature Sensor

1. Drill $\frac{3}{8}$ " hole in pipe between filter pump and filter. Insert the sensor and use the clamp provided to hold the sensor in place.
2. Connect the sensor wires to the 10 pin terminal bar as shown on the wiring diagram on the inside door of the Power Center.

3.3.2 Freeze/Air Temperature Sensor (Required)

Install the Freeze/Air Temperature Sensor outdoors where it will be subjected to outdoor temperatures, but not in direct sun. Connect the sensor wires to the 10 pin terminal bar as shown on the Power Center wiring diagram. Connect the other sensors to the 10 pin terminal bar as shown on the wiring diagram.

3.3.3 Solar Temperature Sensor (Optional)

Install the sensor adjacent to the solar panels. Connect the sensor wires to the 10 pin terminal bar (pins 7 & 8) as shown in the wiring diagram. Connect the other sensors to the 10 pin terminal bar as shown in the wiring diagram.

NOTE If a solar system is installed, the Freeze/Air Sensor will become the Solar Sensor. A special Freeze Sensor Kit (Part #6996) is needed. Follow instructions included with the Kit.

3.4 Connecting Heater to Low Voltage Terminal

NOTE Millivolt, electronic ignition, or heat pump with thermostatic circuitry of 24 VAC or less.

1. If you are connecting a Low Voltage pool heater (for example, a Laars Brand heater), connect two #14 gauge wires, designed

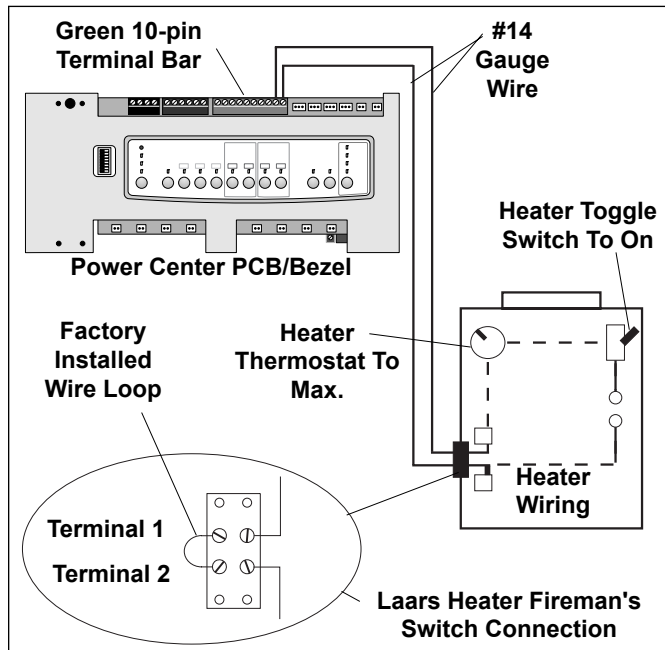


Figure 4. Laars Heater Connection

for use in hot environments, to the proper terminals on the 10 pin terminal bar (see Figure 4). If you are connecting a High Voltage pool heater, contact Jandy for instructions.

2. Bring the 2 heater wires from the P.C. Board over to the heater and wire nut in series with heater circuitry as if you were wiring a fireman's switch or a heater delay.
3. Turn the heater thermostat to the Spa position and maximum setting.
4. Turn heater toggle switch on.
5. Do not disconnect high limit or pressure switches.

NOTE For Spa Heater, make connection to the Spa heater Interface Board and plug it into the Spa Heater socket.

3.5 Connecting Equipment to PCB

Connect the high voltage relay plugs into their appropriate sockets according to the wiring diagram located on the inside of the Power Center door (see Section 4, Figure 5).

NOTE Pool filter pump socket is on the far left of the PCB and the spa filter pump relay socket is on the far right.

3.6 Setting DIP Switches

See the wiring diagram in Figure 5 to set all DIP Switches for optional operation features.

3.7 Installing Power Center Faceplate

Use the screws provided to install and secure the Power Center Faceplate onto the Power Center.

Section 4. Dual Equipment Wiring Diagram

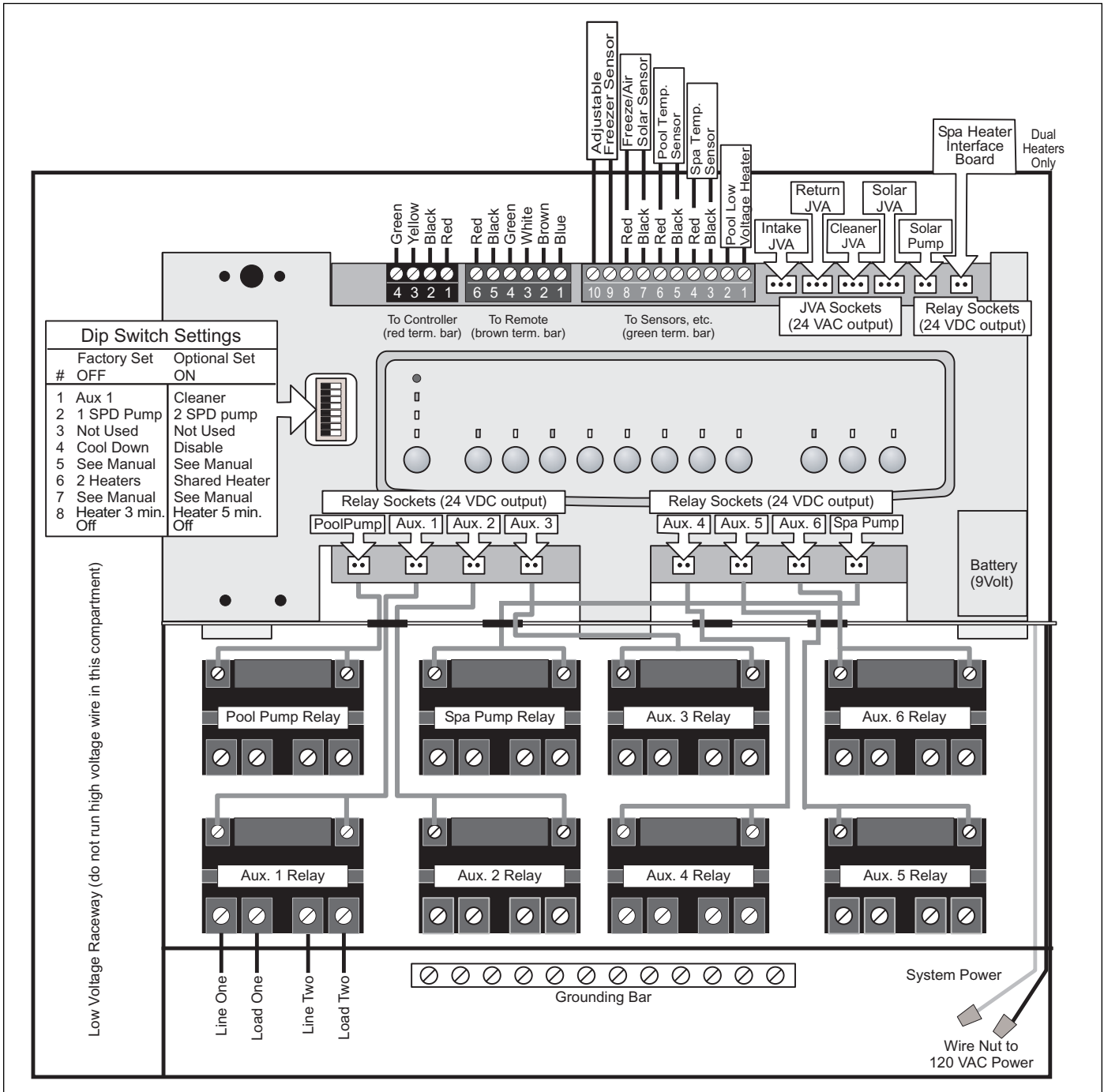


Figure 5. Wiring Diagram

NOTES

NOTES

LIMITED WARRANTY

Thank you for purchasing Jandy® pool and spa products. Waterpik Technologies (manufacturer of Jandy products, including Laars® pool and spa heaters, Air Energy Heat Pumps, and Clormatic Electronic Chlorine Generators) warrants all parts to be free from manufacturing defects in materials and workmanship for a period of one 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 years.
- NeverLube® 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 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 Waterpik Technologies 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 Waterpik Technologies. No one is authorized to make any other warranties on Waterpik Technologies' behalf. **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. WATERPIK TECHNOLOGIES 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 which 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.

