Jandy®

Installation Manual

POOL LINK
Dual Timer Module
Control System

⚠ 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.

H0279900-

Table of Contents

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 drowsines 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 (10 feet) 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'electrocution - 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 drougue 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 témperature 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 pur 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 etrê dangereux pour la santé de se plonger dans de l'eau à plus de 38°C/100°F.

⚠ WARNING

To avoid injury ensure that you use this control system to control only packaged pool/spa heaters which have built-in operating and high limit controls to limit water temperature for pool/spa applications. This device should not be relied upon as a safety limit control.

⚠ 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.

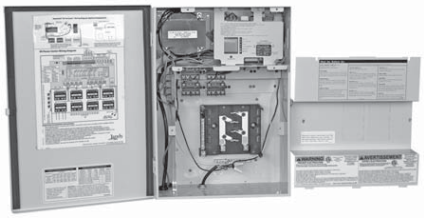
Attention installer: Install to provide drainage of compartment for electrical components.

SAVE THESE INSTRUCTIONS

Section 2. System Overview

2.1 Package Contents

Pool Link Control System Sub-Assemblies
 

Power Centers (required and sold separately)		
		
6613 Standard Power Center (with mounting brackets)	6614 Sub-Panel Power Center (with mounting brackets)	6613AP and 6614AP PureLink Sub-Panel Power Center (with mounting brackets) (6614AP shown). Requires purchase of Purelink Cell Kit either PLC700 or PLC1400.

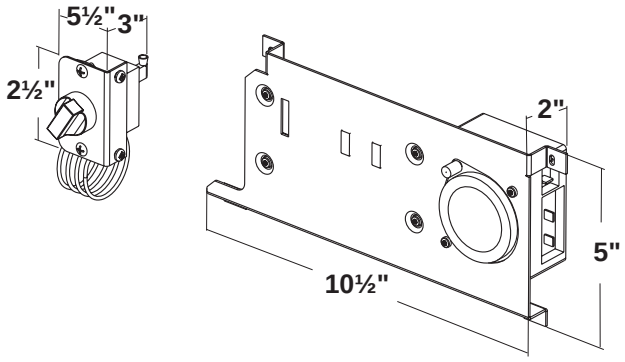
2.2 System Component Specifications and Dimensions

Table 1

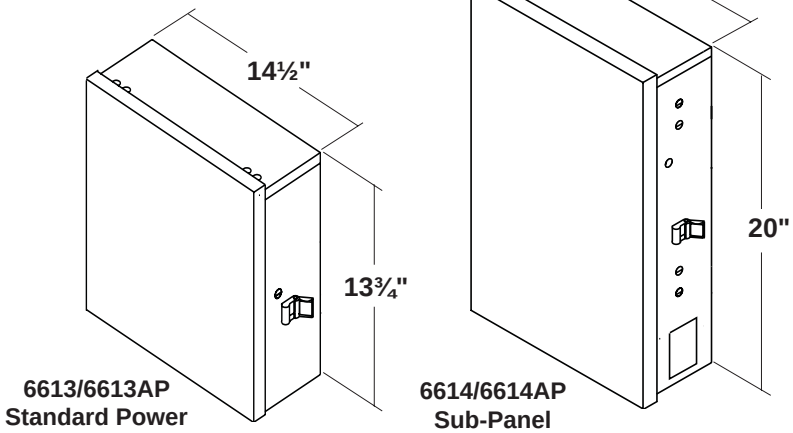
Specifications (USA and Canada)	
Power Supply	120 VAC; 60 Hz; 3 A
Contact Rating	High voltage - 25 A; 3HP @ 240 VAC 1½ HP @ 120 VAC 1500 Watts Incandescent Low Voltage - Class Two, 1 A @ 24 VAC
Service Switch	All Circuits (located at Power Center)

Dimensions

Pool Link Control System



Power Centers (required and sold separately)



6613/6613AP Standard Power Center

6614/6614AP Sub-Panel Power Center

Suitable Listed Breakers (Available Locally)						
Manufacturer	CIRCUIT BREAKER					
	Single	Double	Twin	Quad	GFCB	Filler Plate
Cutler-Hammer	BR	BR	BR	BQC	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

Section 3. Installation

3.1 Pool Link Control System Mounting

1. The Pool Link and Power Center should be located at or near the equipment pad. Locate the Pool Link and Power Center at least five (5) feet or more away from pool/spa and five (5) feet off the ground. All national, state, and local codes are applicable.

NOTE For Canadian installations, the Power Center must be at least three (3) meters (9.8 feet) away from the pool/spa and 1.5 meters (5 feet) above the ground.

2. Use the mounting brackets and instructions provided with the Standard Power Center or Sub-Panel Power Center.

3. Sub-Panel Power Centers have special code requirements. Be sure to follow all applicable local and state codes to insure safe installation.

NOTE The Pool Link is not to be considered as suitable for use as Service Equipment. Therefore, it is required to have the appropriate means of disconnection, circuit isolation, and/or branch circuit protection installed ***upstream*** of the Power Center.

3.2 Attach Labels

3.2.1 Wiring Diagram Label

The Wiring Diagram label covers the existing wiring diagram label on the inside of the power center door. Attach the label by removing the backing and placing it over the existing wiring diagram.

NOTE Be careful to only cover the wiring diagram, not the warning label or the installation instruction portion of the label.

3.2.2 "What The Switches Do" Label

The "What The Switches Do" label covers the existing printing on the dead panel. Attach the label by removing the backing and placing it over the existing "What The Buttons Do" printing.

NOTE For the Purelink 6614AP Power Center, align the top portion of the label with the top printed line of the text box and fold the bottom portion under the edge.

3.3 High Voltage Wiring

3.3.1 System Power

⚠ WARNING

Potentially high voltages in the Pool Link Control System can create dangerous electrical hazards, possibly causing death, serious injury or property damage. Turn off power at the main circuit of the Pool Link Control System to disconnect the Pool Link from the system. To properly and safely wire the system, be sure to carefully follow the applicable requirements of the National Electrical Code (NEC), NFPA 70 or the Canadian Electrical Code (CEC), CSA C22.1. All applicable local installation codes must also be adhered to.

Depending on which equipment is being controlled, run ½" or ¾" conduit from the power supply panel to the bottom of the Pool Link Control System. If you are using the Sub-Panel Control System, wire power to the appropriate breakers. Pull in appropriate wire for equipment. Each piece of equipment requires its own high voltage relay. Connect 120 volts to the transformer and Pool Link Timer Motor terminals. Connect equipment ground(s). See Figures 1 and 2.

3.3.2 3HP (Standard) Relays

For each piece of **120 volt** equipment, ***connect power to a line terminal*** and ***connect equipment to a load terminal*** on the same relay. Refer to the wiring diagram on the inside of the control center door. For common Pool Link Control installations, refer to Figures 3 and 4.

NOTE The following are the contact ratings for 3HP (Standard) Relay. DO NOT exceed any ratings. 3 HP @ 240 VAC; 1½ HP @ 120 VAC; 25 Amps; 1500 Watts.

3.3.3 Bonding the Pool Link

Install a bonding lug to the Pool Link enclosure. Do not use sheet metal screws to attach the bonding lug; use the appropriate hardware to securely and positively install it. Connect the bond lug, using a #8 solid copper core wire, to an approved earth ground (an approved ground stake, grid, or conducting metal water pipe buried to a sufficient depth). See Figure 5.

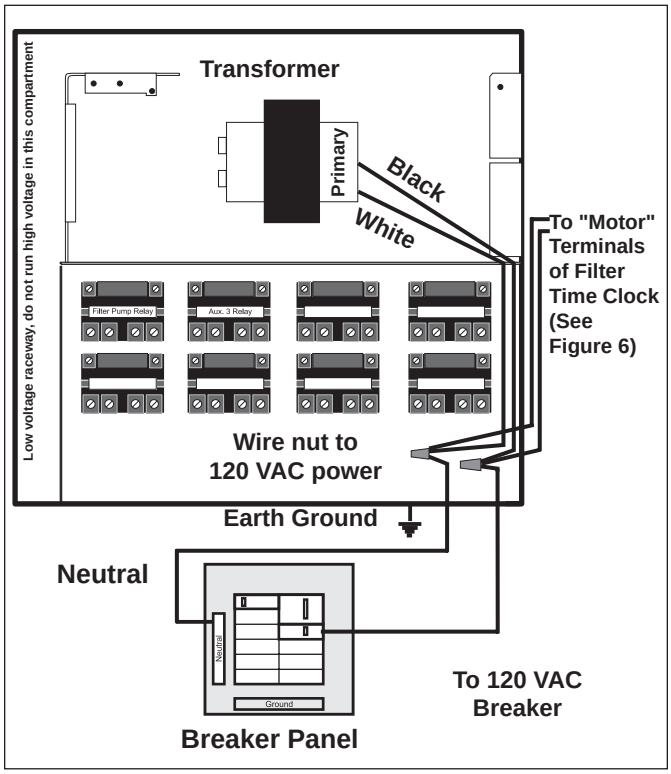


Figure 1. Control System with Power Center, 6613, 6613AP

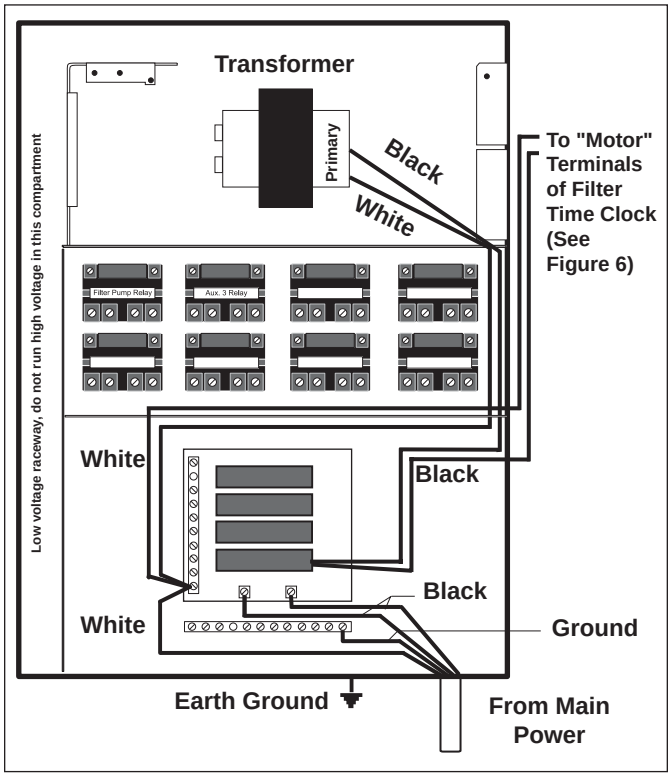


Figure 2. Control System with Power Center, 6614, 6614AP

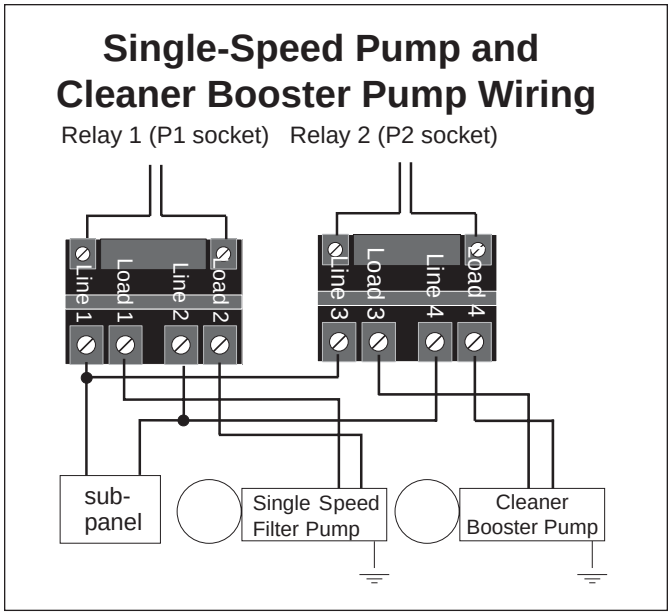


Figure 3. Single-Speed Pump and Cleaner Booster Pump Wiring Diagram

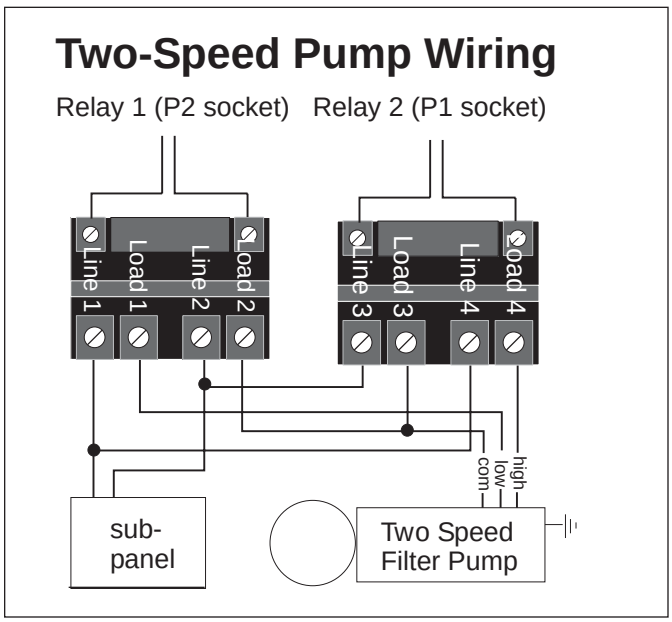


Figure 4. Two-Speed Pump Wiring Diagram

3.4 Low Voltage Wiring

3.4.1 Wire Relays to Printed Circuit Board

Connect the coil connectors of the equipment relays to their appropriate sockets on the printed circuit board. Make sure coil connector wires are wired through the mouse hole between the low and high voltage compartment.

3.4.2 In-Floor Cleaning System

For the Pool Link, plug the in-floor cleaning system JVA into P6 (refer to Figure 6). Note: The JVA is activated when the filter pump time clock turns the system on. The JVA will rotate every 20 minutes until the time clock turns the filter pump off.

3.4.3 Wire Time Clock to Printed Circuit Board

Connect the Filter Pump Time Clock to the P3 socket on the printed circuit board according to the wiring diagram on the inside of the control center door.

3.4.4 Connect Heater to Printed Circuit Board

Connect two 18-gauge wires, designed for use in hot environments, to terminals 5 and 6 on the printed circuit board as shown in Figure 6. Run the two heater wires from the printed circuit board over to the heater and wire nut in series with the heater circuitry as if you were wiring a Fireman's Switch or a heater delay. Turn the heater thermostat to desired

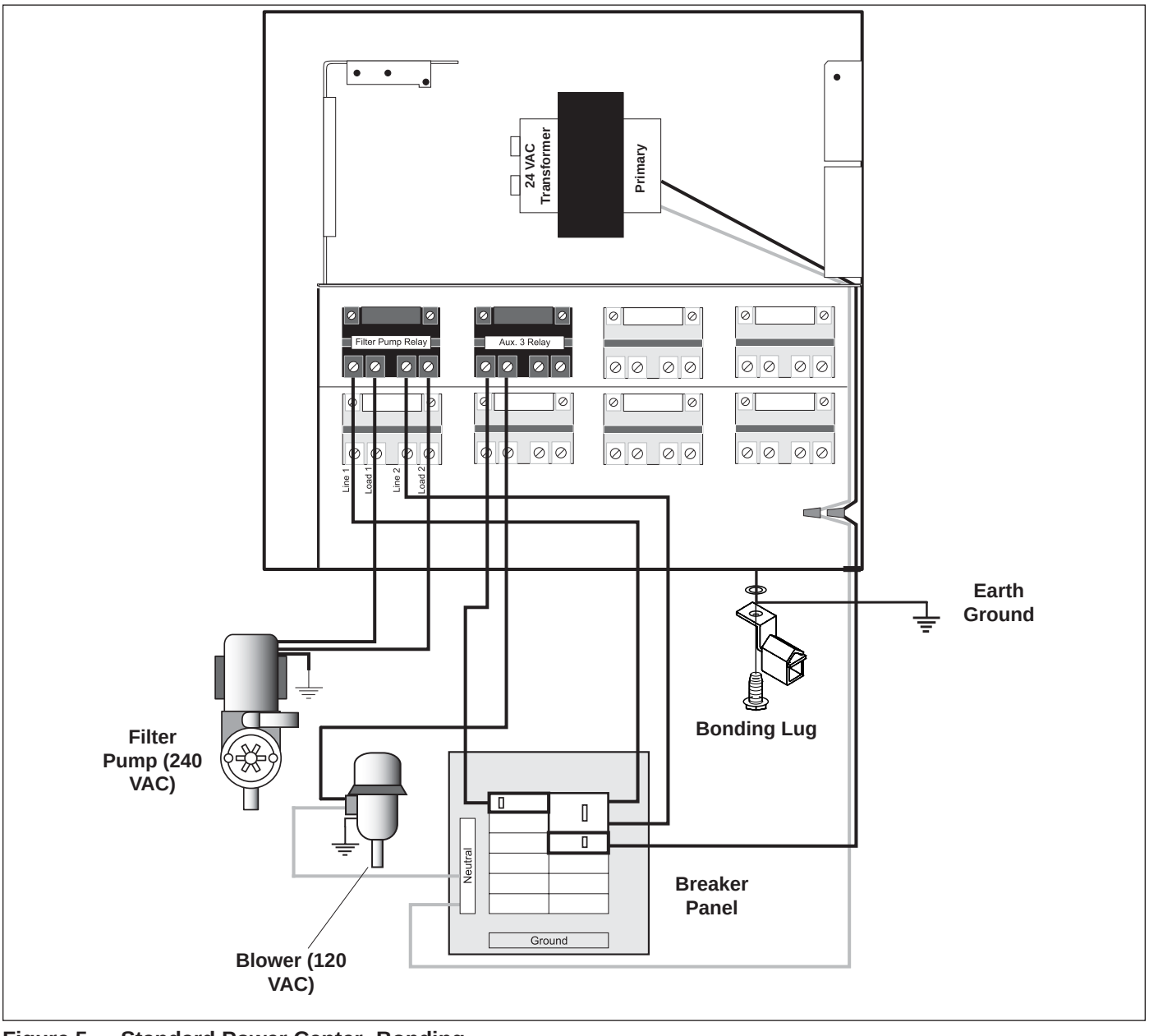


Figure 5. Standard Power Center- Bonding

pool temperature and the heater toggle switch on. Do not disconnect high limit or pressure switches. The heater will only fire when time clock turns on the filter pump.

3.4.5 Connect Freeze Protection Sensor to Printed Circuit Board

Carefully uncoil copper tube and feed it through bottom of the enclosure without kinking the capillary tube. Expose the capillary tube to outside air. Ensure that wires from sensor are connected to Pins 1 and 2 on the terminal block. Set sensor to 38°. Refer to Figure 6.

3.4.6 Set Jumpers and Diode

The system default from the factory is set up for a single-speed filter pump. Set jumpers according to your pump setup by following Figure 7 below. A diode stored in pin 3 of the terminal block must be placed into the diode location for two-speed filtration pump installation.

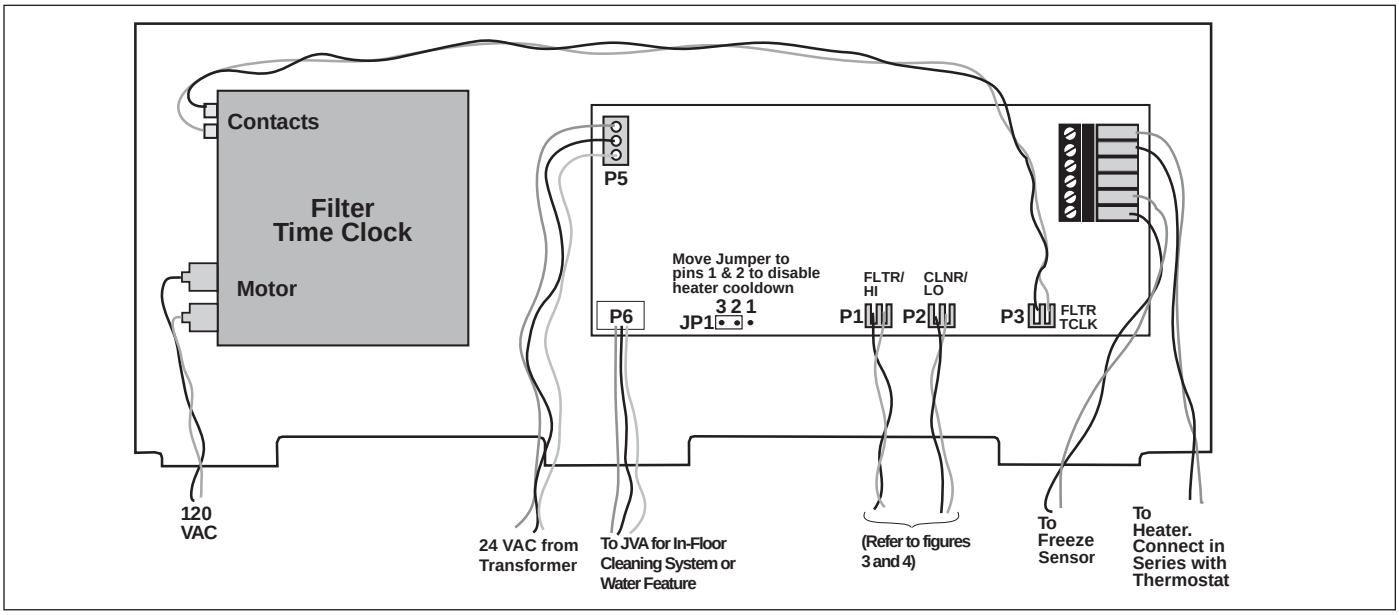


Figure 6. Pool Link Wiring Diagram

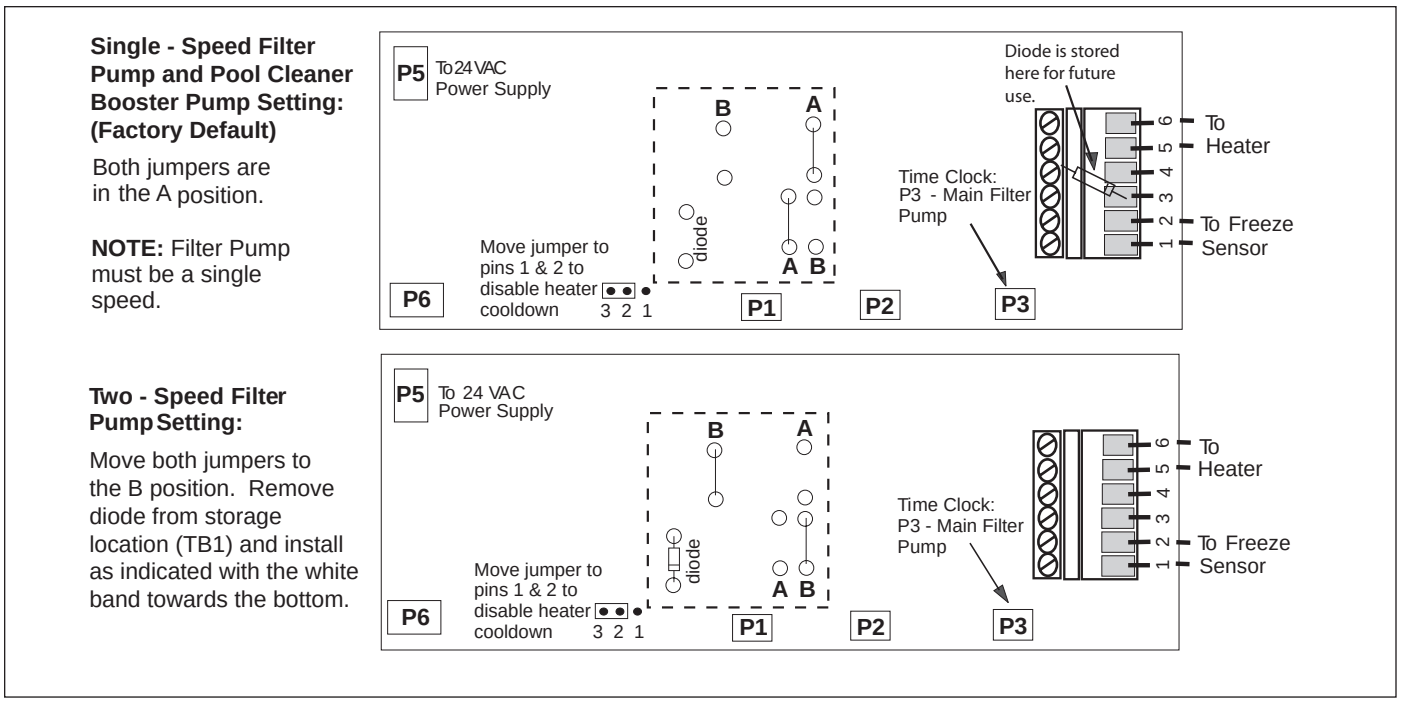


Figure 7. Jumper Settings Diagram

3.4.7 Connect System Power to Printed Circuit Board

Plug the three-pin 24 VAC plug from the transformer into the three-pin terminal P5 on the back of the Control System PCB (see Figure 8). Mount the Bezel to the Control System using the screws provided.

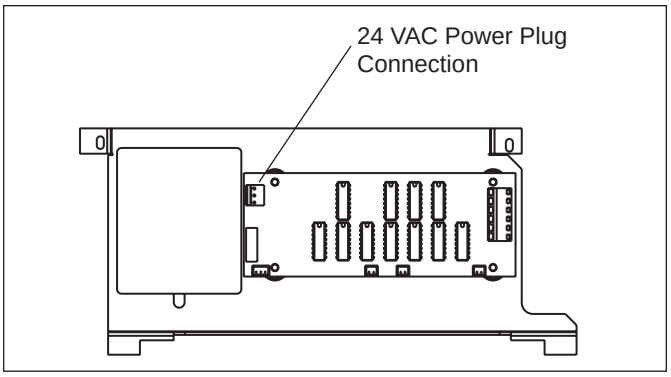


Figure 8. Pool Link Control Panel (Back View)

Section 4. System Startup

4.1 Set Time Clocks and Test Equipment

Follow the instructions on the faceplate to set Timers. Turn the Filter Pump Timer dial clockwise only. Test equipment by moving each of the Service Switches to MANUAL and confirming that the corresponding equipment turns on. Return both switches to AUTO after testing is complete.

4.2 Single-Speed Filter Pump Plus Cleaner Booster Pump Operation

The Filter Pump Timer represents the total duration of filtration. Each tab equals 30 minutes of filter time. The Secondary Timer (DIP Switches) represents the amount of time a Cleaner Booster Pump will run. DIP Switch 0 equals 2 minutes of operation. All other DIP Switches equal the number of hours. Turn on one and only one DIP Switch for cleaner timing.

4.3 Two-Speed Filter Pump Operation

The Filter Pump Timer represents the total duration of filtration. Each tab equals 30 minutes of filter time. The Secondary Timer (DIP switches) represents the amount of time the filter pump will be in high speed. DIP switch 0 equals 2 minutes of high speed operation. All other DIP switches equal the number of hours (e.g., DIP switch 4 equals 4 hours of high speed.) Turn on one and only one DIP switch for high speed.

4.4 Heater Cool Down

Whenever the time clock turns on, then off, the filter pump will remain on for 5 to 8 minutes. This is a cool down cycle which will occur even if a heater is not installed.

4.5 Freeze Protection

When freeze conditions exist, the filter pump will turn on and run until the time clock duration is reached. If freeze conditions still exist after the time has passed, the pump will remain on. Refer to Figure 9.

Important

Freeze sensor's capillary tube must be exposed to outside air at the bottom of the power center enclosure.

Important Information on Freeze Protection

Freeze protection is intended to protect equipment and plumbing for short periods of freezing only. It does this by activating the filtration pump and circulating the water to prevent freeze inside equipment or plumbing. Freeze protection does not guarantee that equipment will not be damaged by extended periods of freezing temperatures or power outages. In these conditions, the pool and spa should be shut down completely (e.g. drained of water and closed for the winter) until warmer weather exists.

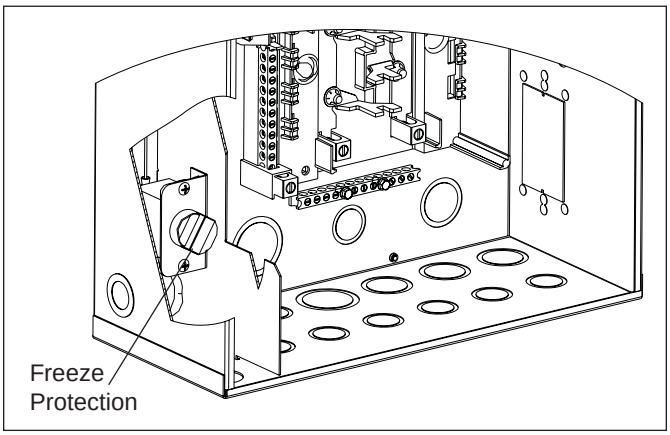


Figure 9. Freeze Protection

Notes

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 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 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 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.

Jandy®

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CONFORMS TO
UL STD 1563
CERTIFIED TO
CAN/CSA C22.2 NO. 218.1

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

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