



AquaPure® Ei™ Series Replacement Kits for Models APURE35/35C

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. In the event no such state or local requirement exists, the installer or 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 will void the warranty. Improper installation and/or operation can create unwanted electrical hazard which can cause serious injury, property damage, or death.

These instructions are to be used with the following Jandy Replacement Parts:

- R0512100 -- R-Kit, Power PCB Assembly**
- R0512300 -- R-Kit, Control PCB Assembly**
- R0512400 -- R-Kit, Controller Cover Assembly**
- R0512500 -- R-Kit, Output Cable Assembly**

1. Introduction

This document gives instructions for replacing various components on the Jandy AquaPure Ei chlorine generating device.

The instructions were written with safety as the priority and must be followed exactly. Not following the written procedure or taking shortcuts may increase the risk of personal injury. Read through the instructions completely before starting the procedure.

Before starting the procedure, use the parts list at the back of these instructions to identify the parts that are in your kit. If any parts are missing from the kit please call your local Jandy distributor for assistance. For technical assistance, please contact our Technical Support Department at 1.800.822.7933.

2. Ordering Information

To order or purchase parts for the Jandy AquaPure Ei chlorine generating device, contact your nearest Jandy dealer or distributor. If they cannot supply you with what you need, call Zodiac Pool Systems, Inc. at 1.800.822.7933. In Canada call Zodiac Pool Systems Canada, Inc. Customer Support Department at 1.888.647.4004.

3. Installing Power Pack R-Kits

⚠ WARNING

Disconnect power to the system at the main circuit breaker before performing this procedure to avoid risk of electric shock which can result in property damage, severe injury or death.

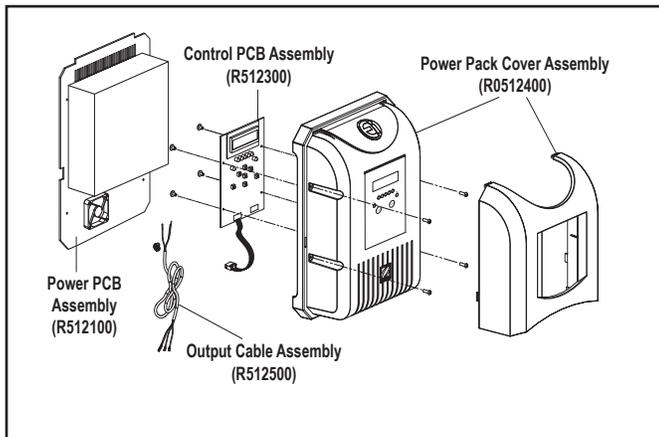


Figure 1. Power Pack R-Kits

A. Replacing the Power Pack Cover Assembly, and the Control PCB Assembly

Disassemble to the component that needs replacement.

1. Ensure that all power to the power pack and the controller is disconnected/turned off at the circuit breaker.
2. Detach the outer dress cover from the power pack by pressing on each of the sides and lifting up (see Figure 2).

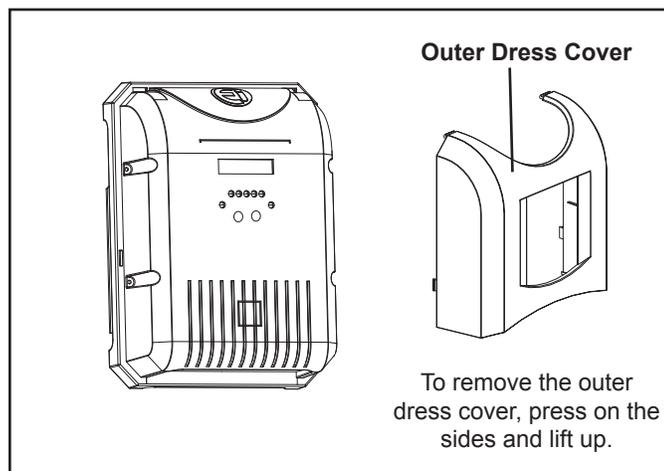


Figure 2. Power Pack Installed

3. Remove the screws attaching the cover to the back plate and prop the cover up to expose the terminals. Unplug the ribbon cable from the Power PCB (see Figure 3).

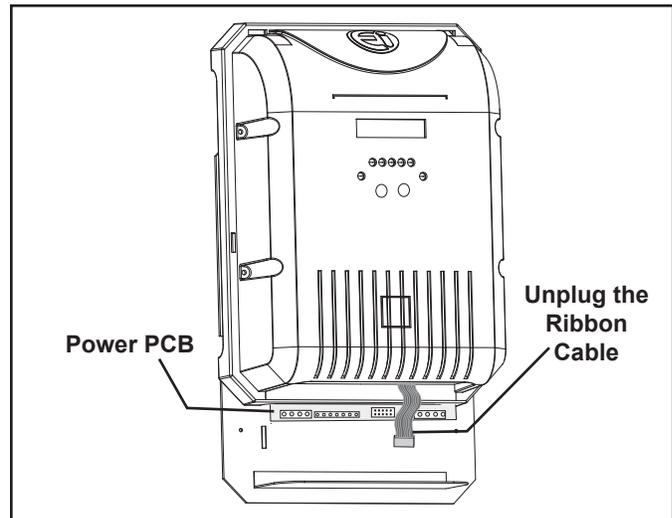


Figure 3. Unplug Ribbon Cable

4. Remove the power pack cover from the back plate. Turn the cover over and remove the four (4) screws attaching the Control PCB to the cover.
5. Attach the new Control PCB to the cover using the four PCB mounting screws provided in the kit (see Figure 4).

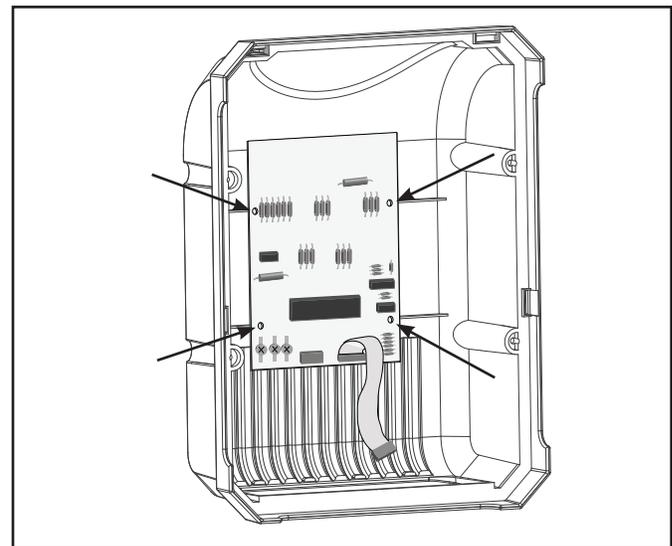


Figure 4. Control PCB Installed

6. Plug the ribbon cable into the Power PCB.
7. Reattach the cover to the back plate using the four (4) mounting screws.
8. Reattach the outer dress cover.
9. Reconnect the power.

B. Replacing the Power PCB Assembly

1. Ensure that all power to the power pack and the controller is disconnected/turned off at the circuit breaker.
2. Detach the outer dress cover from the power pack by pressing on each of the sides and lifting up (see Figure 2).
3. Remove the screws attaching the cover to the back plate and prop the cover up to expose the terminals. Unplug the ribbon cable from the Power PCB (see Figure 3).
4. Remove the power pack cover from the back plate.
5. Disconnect all the wires from the Power PCB.
6. Keeping the wires threaded through the Power PCB Bracket, detach the bracket from the back plate by removing the two (2) screws and three (3) washers (see Figure 5).

IMPORTANT Do not discard the Power PCB Bracket as it will be installed on the new Power PCB Assembly.

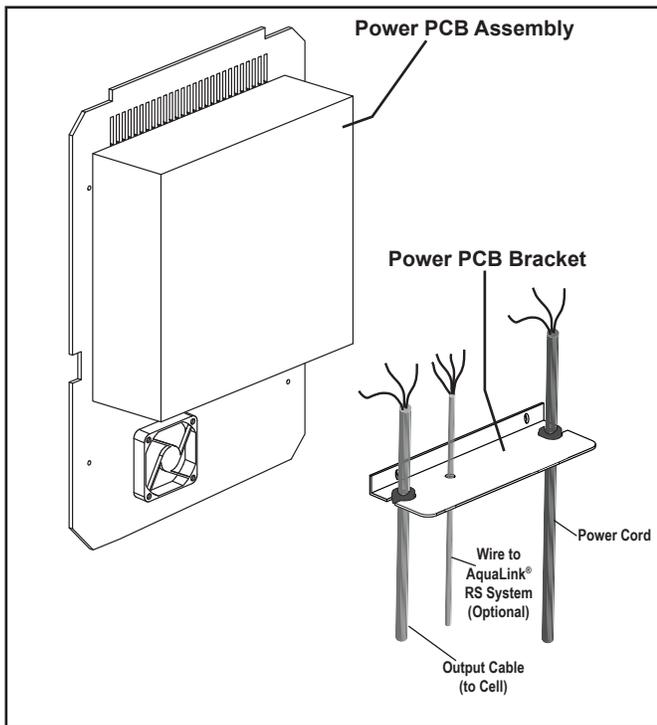


Figure 5. Removing the Power PCB Bracket

7. Attach the Power PCB Bracket to the new Power PCB Assembly. Attach the left side of the bracket (next to fan) using one (1) screw and two (2) washers. Attach the right side of the bracket using one (1) screw and one (1) washer. The extra washer on the left side will prevent the screw from hitting the fan guard on the other side.

8. Connect the wires to the Power PCB (see Section 4: Power Pack Wiring Instructions).
9. Plug the ribbon cable into the Power PCB.
10. Reattach the cover to the back plate using the four (4) mounting screws.
11. Reattach the outer dress cover.
12. Reconnect the power.

C. Replacing the Output Cable Assembly

1. Ensure that all power to the power pack and the controller is disconnected/turned off at the circuit breaker.
2. Remove the terminal cap from the cell and disconnect the cell leads.
3. Detach the outer dress cover from the power pack by pressing on each of the sides and lifting up (see Figure 2).
4. Remove the screws attaching the cover to the back plate and prop the cover up to expose the terminals (see Figure 3).
5. Disconnect the Output Cable from the Power PCB (see Figure 6).

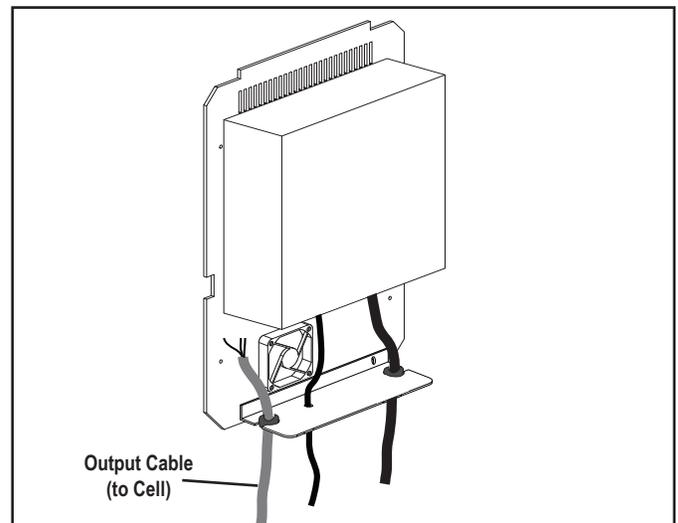


Figure 6. Output Cable Assembly Detached

6. Remove the grommet and the cable from the Power PCB Bracket.
7. Thread the new Output Cable assembly through the Power PCB Bracket and secure it in place using the grommet.

8. Connect the Output Cable wires to the Power PCB (see Figure 12).
9. Securely connect the cell leads to the like colored terminals (see Figure 7).

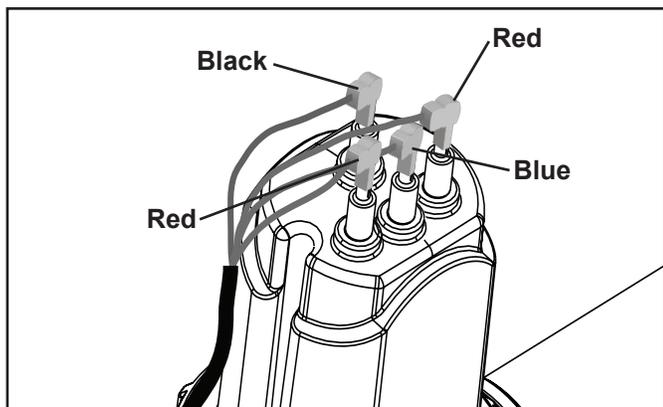


Figure 7. Connecting Cell Leads

10. Reattach the terminal cap.
11. Reattach the cover to the back plate using the four (4) mounting screws.
12. Reattach the outer dress cover.
13. Reconnect the power.

4. Power Pack Wiring Instructions

WARNING

When using electrical products, basic precautions should always be followed, including the following:

- **DANGER: RISK OF ELECTRIC SHOCK WHICH CAN RESULT IN SERIOUS INJURY OR DEATH.** Before attempting installation or service, ensure that all power to the device is disconnected/turned off at the circuit breaker. Connect only to a circuit protected by a ground-fault circuit-interrupter (GFCI).
- Grounding is required. The unit should be installed by a qualified service representative and should be properly grounded and bonded (See Section 4.B, Bonding).
- To avoid property damage, serious injury or death, never use the chassis backplate of the power pack to ground any other equipment.
- Install to permit access for servicing.
- Please read all cautions and safety instructions in the Important Safety Instructions section of the Jandy® AquaPure® Ei™ Series owner's manual (H0331400). **Before attempting any electrical wiring, be sure to read and follow safety instructions. Wiring should only be attempted by a qualified professional.**

A. Wiring the Power Pack to the Power Source

1. Wire power pack to pool pump power source using 3.3 mm² (12 AWG) insulated wire and conduit. The power pack should be connected to the pump motor switch or automatic timer (pool pump timer) as shown in Figure 12.
2. Attach the third wire (ground) from the electrical panel to the ground point inside the power pack. Bonding per Section 4.B must also be accomplished to ensure personal safety and safety of equipment.

B. Bonding

1. The National Electrical Code® (NEC®) requires pool equipment to be bonded to each other. Check your local codes to determine if the NEC and/or other local installation codes are enforced by the Authority Having Jurisdiction (AHJ). A solid, copper 8.37 mm² (8 AWG) wire is recommended, per the NEC, for bonding the power pack to a permanent bonding connection that is acceptable to the local AHJ. Refer to your locally enforced codes for the acceptable bonding wire gauge. Attach the bonding point located on the bottom of the chassis backplate to a common bonding point. Do not use the power pack 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. There should be one bonding connection to the power pack. In Canada, the Canadian Electrical Code (CEC) dictates that the bonding conductor be, minimum 13.3 mm² (6 AWG).

C. Connection to an AquaLink® RS Control System or PDA (Optional)

The Jandy AquaLink RS or PDA is a multi-function pool controller which can fully control the function of the Jandy AquaPure Ei chlorine generating device. Adjustment of the chlorine production rate can be controlled from the main menu of the Jandy AquaLink RS or PDA. The AquaLink RS or PDA offers individual pool and spa settings for output percentage. Refer to the AquaLink RS or PDA Owner's Manual for more information.

NOTE The Jandy AquaPure Ei chlorine generating device will communicate with all AquaLink models Rev. K or later.

D. Verify the Controller Type on the Power Pack is Set Correctly

Before wiring to an AquaLink® RS Control System, the controller type must be set to JANDY L/M to allow communication between the power pack and the AquaLink RS Control System. The default controller type setting on the power pack is Jandy L/M. Follow the instructions below to verify the controller type is set correctly.

NOTE The controller type must be set correctly before making the wiring connection between the power pack and the AquaLink, otherwise the power pack may be locked out of the AquaLink.

To verify the controller type is set correctly:

1. Apply power to the power pack.
2. Wait for the start-up sequence to complete.
3. Press and hold the OUTPUT button for approximately four (4) seconds. After four (4) seconds, a controller type will be displayed on the screen.
4. Verify that the JANDY L/M controller type appears on the display. If the controller type is not set to JANDY L/M, keep the OUTPUT button pressed to toggle through the list of controllers. Each controller will be displayed on the screen for two (2) seconds. Release the OUTPUT button when JANDY L/M appears on the display.

E. Wiring TRI/Ei TVSS PCBA to the Power PCB

1. Wire TRI/Ei TVSS PCB Assembly to Green 4-pin connector (see Figure 8).
 - a. Into Green 4-pin connector, insert the Blue Wire into Pin #2 (120v Or Neutral).
 - b. Into Green 4-pin connector, insert the Brown Wire into Pin 4 (120v).
2. Wire incoming Main Power to the TRI/Ei TVSS PCB Assembly (see Figure 8).
 - a. Into "Line 2", insert LINE 2 (for 240v incoming), or NEUTRAL (for 120v incoming).
 - b. Into "Line 1", insert LINE 1 (for 240v incoming), or HOT (for 120v incoming).

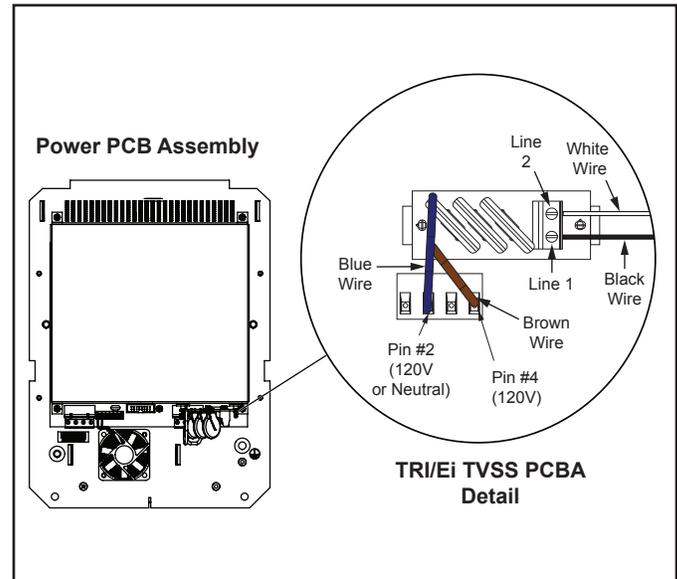


Figure 8. Power PCB with TRI/Ei TVSS PCBA

F. Wiring to the AquaLink RS Control System or PDA

1. Ensure that all power to the power pack and the controller is disconnected/turned off at the circuit breaker.
2. Detach the outer dress cover from the power pack by pressing on each of the sides and lifting up (see Figure 2).
3. Remove the screws attaching the cover to the back plate and prop the cover up to expose the terminals (see Figure 3).

NOTE: Be careful not to pull the ribbon cable that is connected to the Power Supply and the Cover.

4. Remove the white cap covering the comm hole (see Figure 9).
5. Thread the controller cable through the hole. A grommet may be necessary depending on the size of the cable being used.
6. Attach a cable tie to the controller cable as shown (see Figure 9).

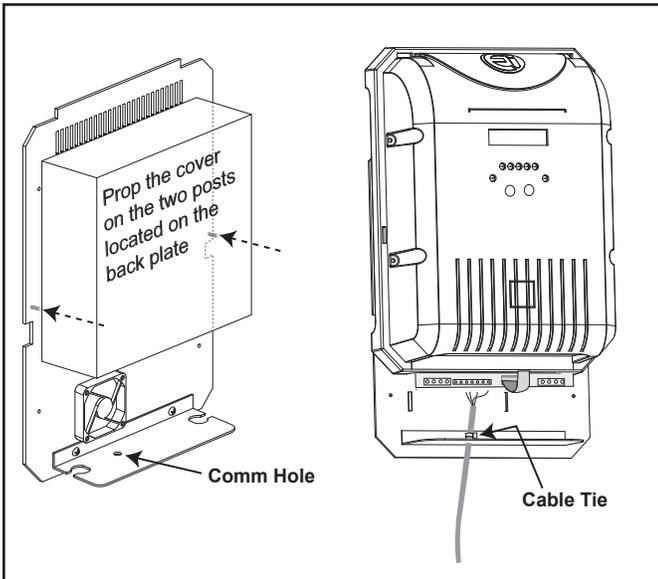


Figure 9. Accessing and Wiring to the Power PCB

7. In the AquaLink RS or PDA power center, wire the power pack directly to the LOAD SIDE of the filter pump relay (see Figure 10 and 12).
8. The AquaLink RS or PDA and power pack use a four (4) wire connection to communicate and can be wired up to 500 feet apart. Any outdoor rated four conductor cable, minimum 22 AWG, can be used. Locate the appropriate screw terminals on the circuit board and wire the power pack to the AquaLink RS or PDA red 4-pin terminal bar (see Figure 11).

NOTE The screw terminals on the AquaLink RS or PDA are removable to aid in installation.

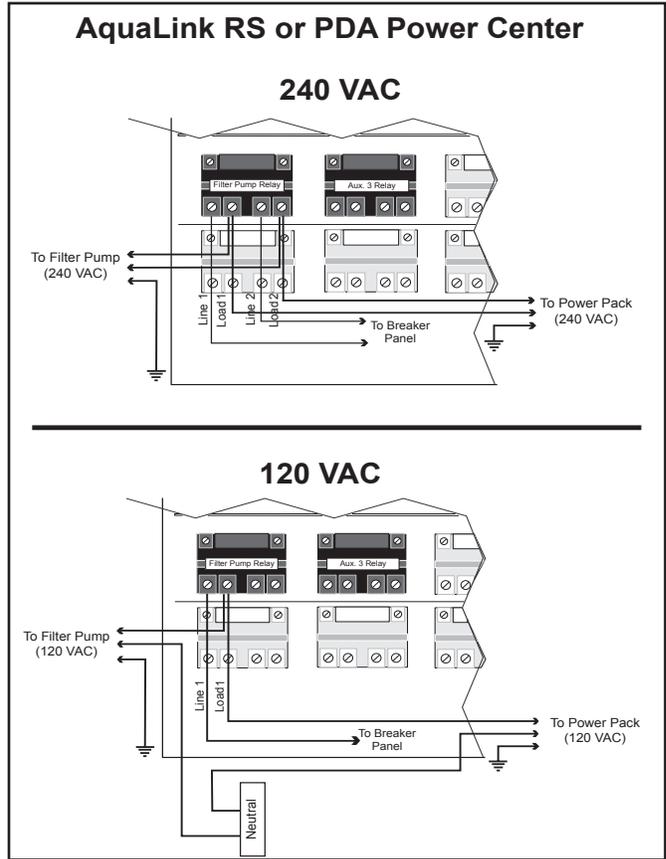


Figure 10. Wiring Power Pack to an AquaLink RS or PDA Power Center (240 VAC and 120 VAC)

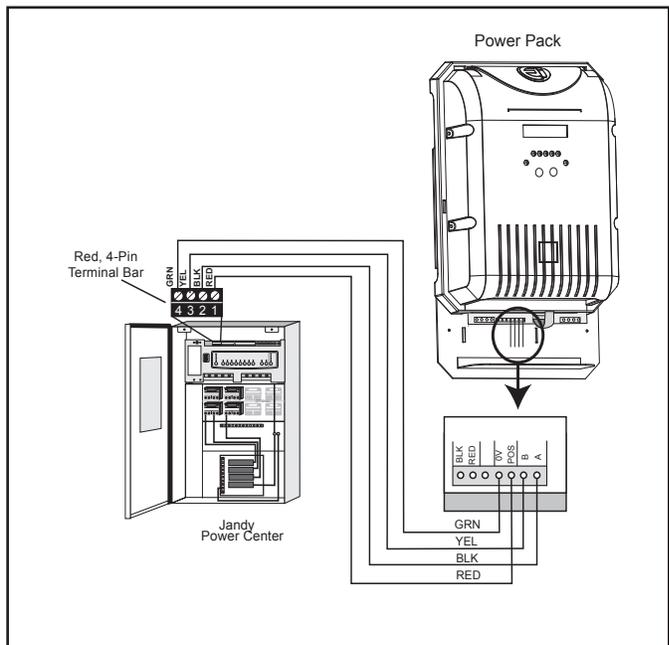


Figure 11. Communication Wiring between Power Pack and AquaLink® RS Control System or PDA Network

G. Testing the Connection

Once the power pack has been wired to the AquaLink RS Control System or PDA, follow these steps to test the connection:

1. Apply power to the power pack and the AquaLink RS Control System or PDA.
2. Wait about 20 seconds. If the connection was successful, a **F** symbol will appear in the top right corner of the power pack display.

NOTE If the power pack does not connect to the controller, turn the power off to both devices and repeat steps 1 and 2. If the power pack still does not connect to the controller, re-check the wiring connections (see Figure 10) and the controller setting on the power pack (see Section 4.D).

5. Parts List

The following table is for your reference. To order additional parts, please contact your local Jandy Distributor.

	R0512100	R0512300	R0512400	R0512500
Description				
Power PCB Assembly	1	--	--	--
Controller PCB Assembly	--	1	--	--
Output Cable Assembly	--	--	--	1
Power Pack Covers	--	--	1	--
Control PCB Mounting Screws	--	1	--	--
Power Supply Cover Screws	1	--	--	--

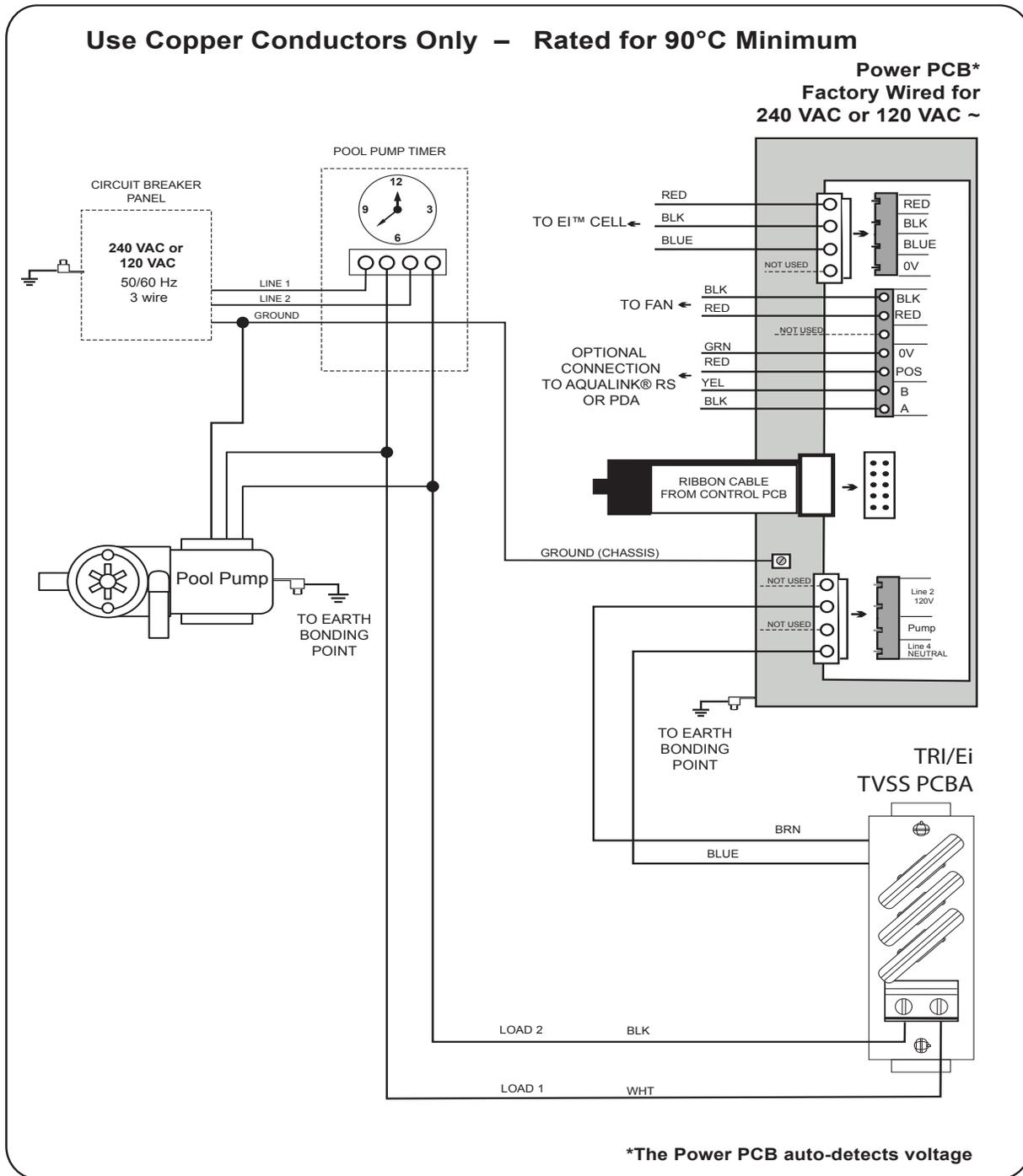


Figure 12. 240 VAC or 120 VAC Wiring Diagram

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H0342700 Rev A



ETL Listed
 Conforms To
 UL STD 1081
 Certified to
 CAN/CSA C22.2 NO. 218.1