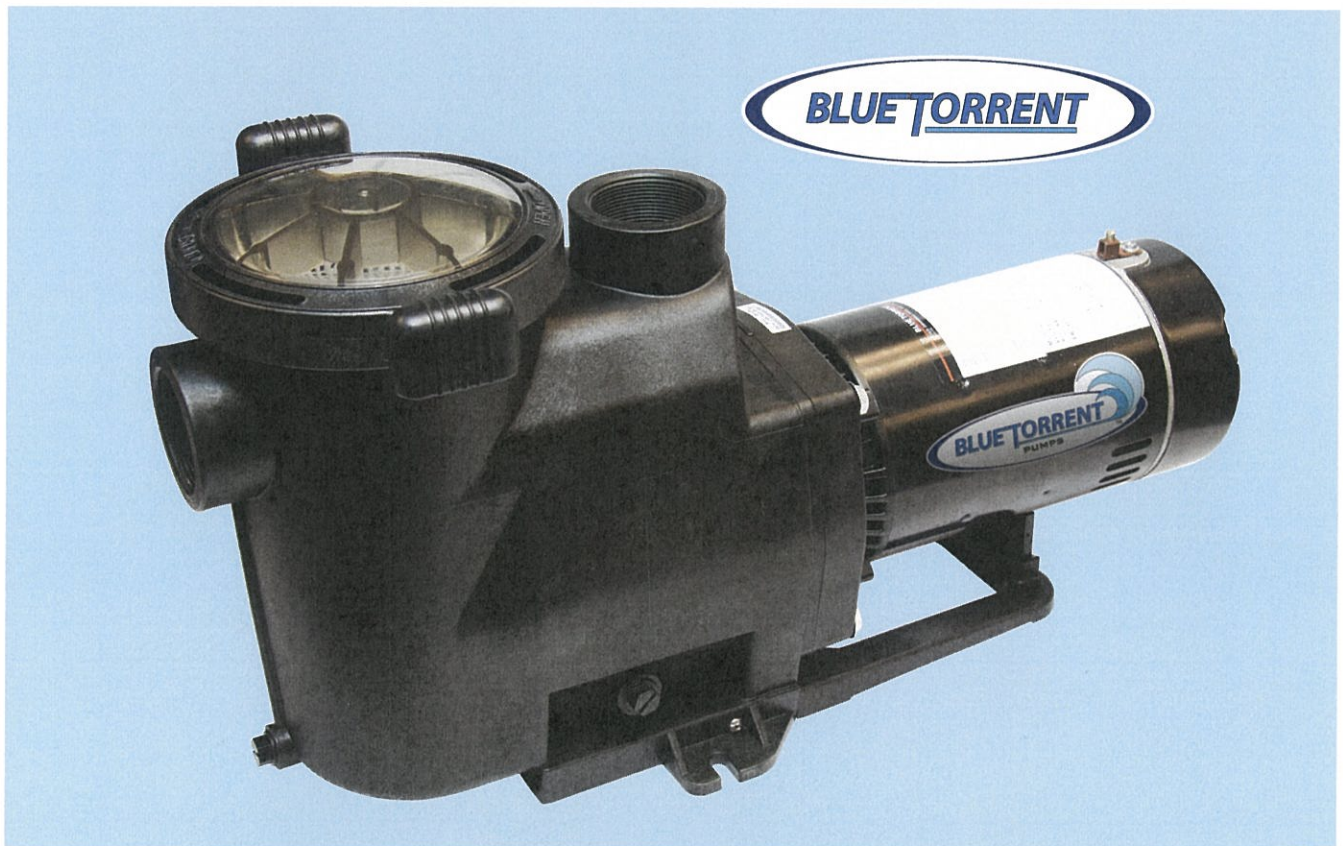


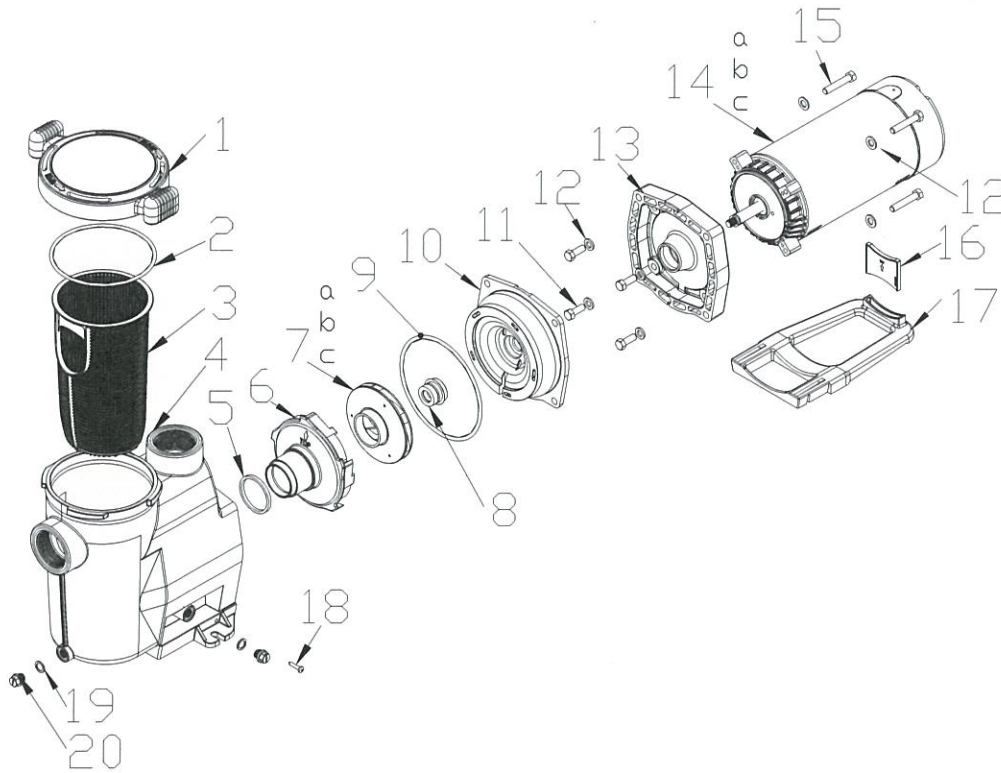
# BLUE THUNDER 48 FRAME POOL PUMP

## INSTRUCTION MANUAL



**READ THIS MANUAL CAREFULLY  
BEFORE USING YOUR POOL PUMP**

# BLUE THUNDER 48 PUMP PARTS BREAKDOWN



PART #	MODEL #	DESCRIPTION	QTY
1	AC 81361	Lid	1
2	AC 81396	O-Ring	1
3	AC 31887	Basket	1
4	AC 32816	Strainer Housing	1
5	AC 32824	O-Ring	1
6	AC 23493	Diffuser	1
7A	AC 23507	0.75 HP Impeller	1
7B	AC 23515	1.0 HP Impeller	1
7C	AC 23523	1.5 HP Impeller	1
8	AC 23531	Seal Assembly	1
9	AC 23558	O-Ring	1
10	AC 23566	Flange	1
11	AC 23574	Screw	4
12	AC 82597	Washer	8
13	AC 23582	Cover	1
14A	AC 50776	0.75 HP Motor (dual voltage)	1
14B	AC 50873	1.0 HP Motor (dual voltage)	1
14C	AC 51209	1.5 HP Motor (dual voltage)	1
15	AC 23590	Bolt	4
16	AC 32832	Adjust Foot	1
17	AC 23639	Bottom Brace	1
18	AC 81914	Screw	2
19	AC 81590	Gasket	2
20	AC 81620	Drain Plug	2



## IMPORTANT SAFETY INSTRUCTIONS

**NOTE** All wiring should be done by a qualified electrician in accordance to the National Electric Code and all Local Codes and ordinances.

When installing and using this electrical equipment, basic safety precautions should ALWAYS be followed.

## READ AND FOLLOW ALL INSTRUCTIONS



## WARNING

1. To reduce the risk of injury, do not allow children to use this equipment
2. Connect only to a grounding type receptacle that is protected by a ground fault circuit interrupter (GFCI).
3. Do not connect this equipment to an extension cord. To reduce the risk of electric shock, only connect the electric cord to a properly located outlet.
4. To reduce the risk of shock, connect ground wires to the grounding screw located in the motor.
5. To reduce the risk of shock, a bonding connector is provided for bonding to any metal within 5 feet of the swimming pool. All local points should be bonded with #8AWG (8.4mm<sup>2</sup>) wire.

**NOTE** To installer and/or operator of the Blue Torrent swimming pool pump: the manufacturer's warranty will be void if the pump is improperly installed and/or operated.

## PUMP INSTALLATION

1. When connecting plumbing fittings to the pumps threaded ports, it is recommended that thread seal tape (Teflon tape) be used. If the suction (intake) connection is not sealed correctly the pump will not prime properly and will pump only small volumes of water or no water at all.
3. Suction and discharge lines should be independently supported at a point near the pump to avoid strains being placed on the pump.
4. It is advisable to install a union in both the suction and discharge lines in the event the pump needs servicing or removal.
5. Before starting the pump for the first time remove the clear lid at the front of the pump. Fill the pump strainer with water until it is level with the suction port opening. Replace the lid making sure the lid is tight Hand tighten only.
6. **BONDING:** as required by the National Electrical Code Article 680-26 the pump must be electrically bonded to the pool structure by a solid copper conductor no smaller than #8 AWG via the external copper bonding lug on the motor.
7. **GROUNDING:** Permanently ground the pump motor using a conductor of appropriate size. Connect to the green headed screw provided inside the motor terminal box.

**NOTE DO NOT CONNECT MOTOR TO THE ELECTRIC POWER SUPPLY UNTIL IT IS PERMANENTLY GROUNDED.**

## PUMP MAINTENANCE

- The pump requires little to no maintenance other than reasonable care and cleaning of the strainer basket on a regular basis. The pump is equipped with a mechanical seal. This seal may eventually come loose over a period of time, depending on running time and water quality. If water continually leaks out, a new mechanical seal should be installed.
- The pump is equipped with a rubber gasket that seals the strainer basket lid. This gasket should be lubricated with water proof lubricant (O-RING LUBE) to ensure proper seal and extend gasket life. The gasket becomes cracked or worn (flattened) is will become necessary to replace.

## WINTERIZATION

- In areas subject to freezing temperatures, it is recommended that the pump be disconnected and stored indoors in a warm and dry location. Remove the drain plugs from the pump housing and place them in the strainer basket for storage.



## PUMP LOCATION

1. Locate the pump on a level surface as close to the pool as practical. Consult local codes for minimum distances between pool and pump if applicable.
2. The connection plumbing (hose or rigid pipe) should be direct and as free from turns and bends as possible. Take care not to kink flexible hose. Elbows and other fittings greatly increase friction losses.
3. Place pump on a solid foundation / base which provides a rigid and vibration free support.
4. Protect the pump against flooding and excess moisture. Protect the motor from foreign objects clogging the air circulation around the motor.
5. **NEVER** use gasoline or other flammable liquids or vapors in the vicinity of this pump.

**NOTE** DO NOT store pool chemicals near this pump.  
DO NOT remove any safety labels such as CAUTION / DANGER / WARNING from this pump. Keep labels in good condition and replace any damaged labels.

## DO NO BLOCK SUCTION

1. Pump suction is dangerous and can trap and drown or disembowel bathers.
2. Blocking suction with body may cause severe and/or fatal injury
3. Do not operate swimming pools, spas or hot tubs if a suction outlet cover is missing, broken or loose
4. Suction outlet must be replaced if cracked, broken or missing.
5. All suction outlets must have correctly installed screw fastened covers in place.



## WARNING

## RISK OF ELECTRICAL SHOCK

1. To avoid dangerous or fatal electrical shock, **TURN OFF** power to motor **BEFORE** working on electrical connections.
2. To reduce the risk of electrical shock, turn off circuit breaker before working on pump or motor.

**Keep labels in good condition and replace any damaged labels**

## TROUBLE SHOOTING GUIDE

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Pump will not Prime	Suction Air Leak	<p>Make sure see thru lid and gasket are clean, lubed and tightened. Tighten all hoses and pipes on the suction side of the pump.</p> <p>Be sure water level in the swimming pool is high enough to flow through skimmer. Be sure skimmer port is not plugged or blocked.</p>
	No Water in Pump	<p>Make sure strainer tank is full of water</p>
	Closed Valves or Blocked Lines	<p>Open all valves in system. Clean skimmer and strainer basket. Check for blockage in impeller</p>
	Low Voltage to Motor	<p>Check voltage at motor. If low, pump will not come up to speed</p>
Motor Does Not Run	No Power to Motor	<p>Check that all power switches are on. Be sure fuse or circuit breaker is properly set. Timer set correctly? Check motor wiring at terminals</p>
	Pump Jammed	<p>With power off, turn motor shaft. It should spin freely. If not disassemble and repair</p>
Low Flow	Dirty Filter	<p>Backwash filter. When pressure is high you must backwash or clean filter</p> <p>Clean skimmer basket.</p> <p>Clean pump basket</p>
Motor Runs Hot	<p>Motor is designed to run hot to the touch, this is normal. They are equipped with a thermal overload protector which will turn the motor off if there is an overload or high temperature problem. Excessive heat can be caused by:</p>	
	Poor Ventilation	<p>Do not enclose motor, be sure to have a proper air space around motor</p>
	Installed in direct sun	<p>Shield motor from direct sun</p>

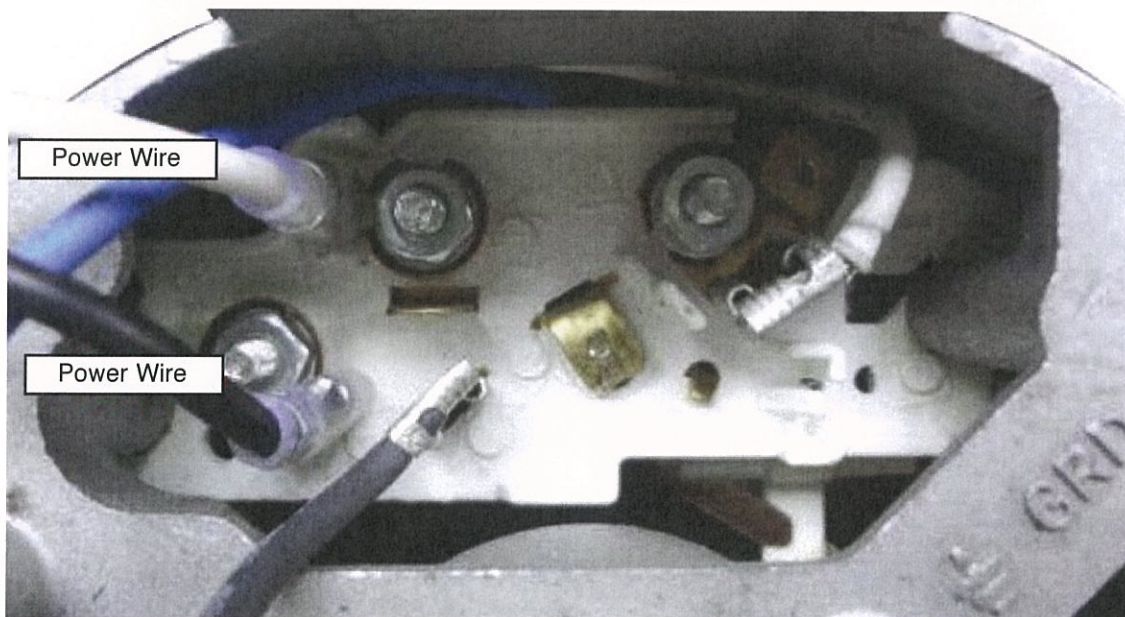


# ATTENTION LICENSED ELECTRICIANS STANDARD WIRING FOR 220V

— See Motor Label for Details —

If you are connecting your Blue Torrent Pump to a 220V power source follow these simple directions. Remove the rear housing to expose the electric connection plate

- 1 Your New Blue Torrent Pump is pre-wired for 220V operation
- 2 You will attach the 2 power supply wires and the ground wires as indicated below
- 3 One on the 2 power wires-line 1 (doesn't matter which one or what color) connects to the Top left connection hub — you can use a clip and slide it on or loosen the nut and attach the wire direct to the port
- 4 Connect second power wire (line 2) to the connection hub below the first connection. Again you can slide on a clip connection or loosen the nut and attach the wire direct. Once again the color of the line in does not matter
- 5 Attaching the ground wire (green) Take the 3rd wire from your power source (green) and attach it to the grounding screw located on the motor
- 6 Replace the housing cover



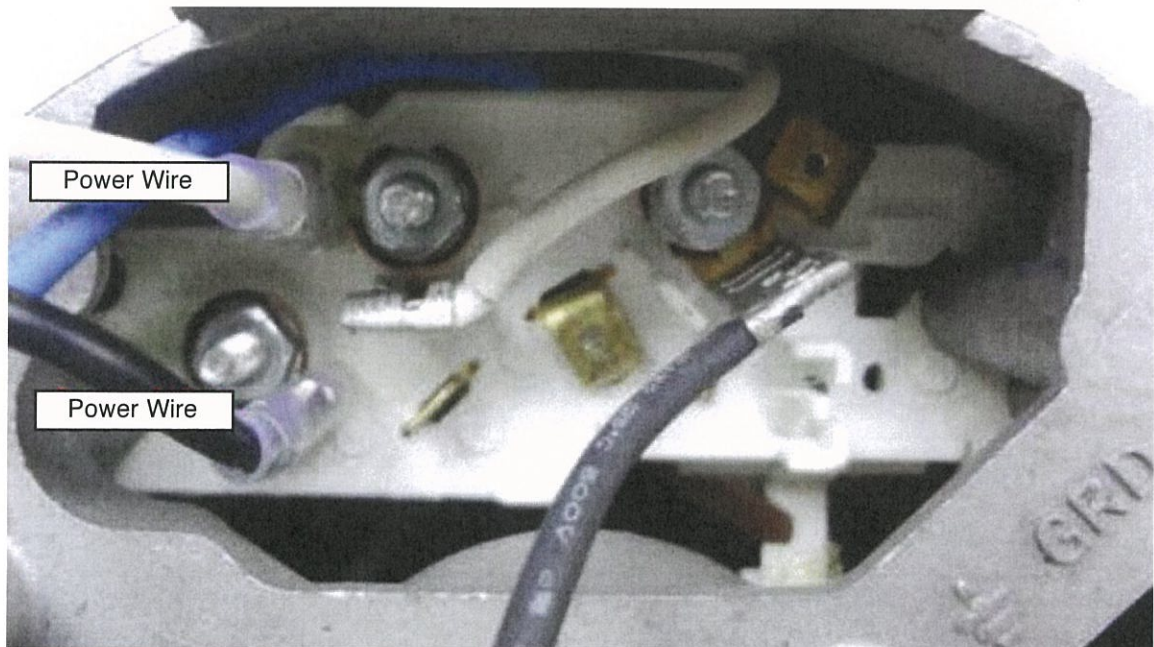


# ATTENTION LICENSED ELECTRICIANS STANDARD WIRING FOR 110V

— See Motor Label for Details —

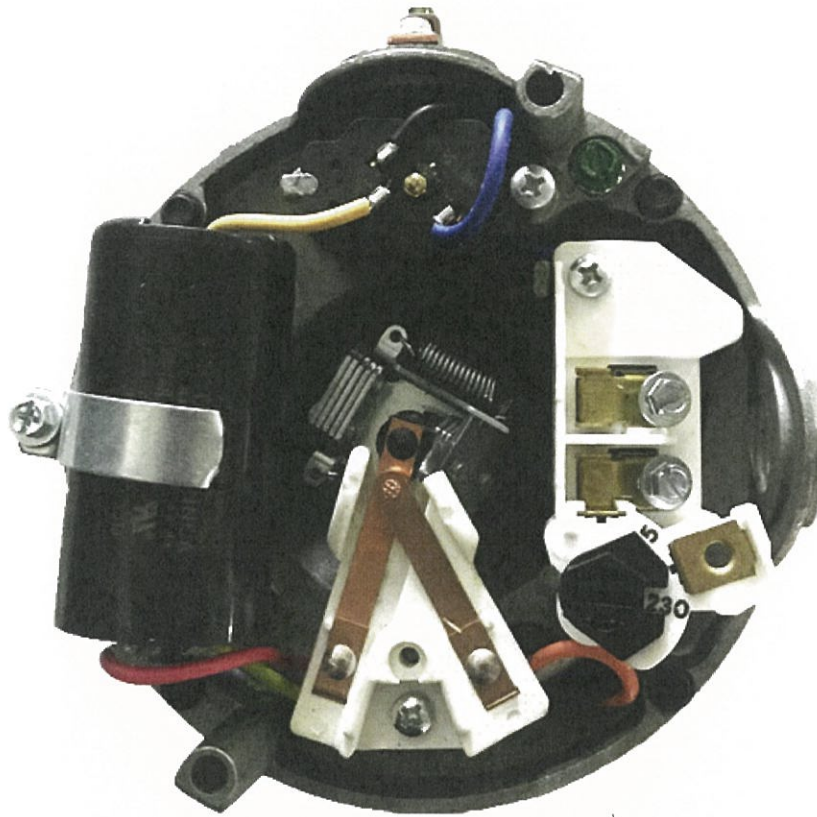
If you are connecting your Blue Torrent pump to a 110V power source follow these simple directions. Remove the rear housing cover to expose the electric connection plate

- 1** Move the white wire (not your power cord white) —the short white wire inside the motor housing- from the current location to the clip pin located in the center of the connection plate. You can use pliers to pull the clip from its original location and slide it onto its correct position
- 2** Move the black wire (not your power cord) —the short black wire located inside your motor housing- from its current location and slide it onto the hub located on the right side of the connection plate
- 3** Take one of your wire leads from the power source —the color does not matter (do not use ground green wire)— and connect it to the wire hub next to the existing white wire. If your power source wire has a clip on the end you can slide it onto the hub pin
- 4** Take the second power source wire and connect it to the hub below the first power wire connection
- 5** Take your power source ground wire (green) and connect it to the grounding screw located on the motor
- 6** Replace housing cover





## STANDARD WIRING FOR 115V/230V



## WHITE SWITCH PLATE STYLE 48 FRAME

1. Unscrew the cover over the back end of the motor
2. You will see a White Switch Plate with a black knob. You will turn that to the electric setting that the pump runs on.
3. If you are wiring 230V and AFTER the black knob shows 230, one wire will go to L1 terminal and the other to L2 terminal. The green wire is placed under the ground screw. The color wires going to terminal 1 and 2 do not matter what terminal they are posted on.
4. If you are wiring 115V and AFTER the black knob shows 115, attach the white wire to terminal 1 of line 1 (L1). Attach the black wire to terminal 3 of line 2 (L2). The green ground wire is in place under the ground screw.
5. Replace the back cover.

\* For models 2018 and up.