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### **BPLA SERIES**

## INTRODUCTION

Enclosed with your Proven pump is an instruction sheet which provides you with information required to safely own and operate your Proven pump. The instruction sheet primarily covers the standard models of each pump series. The form is applicable to other models in the series not listed by catalog number in the replacement parts list section of the instruction sheet. If the catalog number of your pump is not listed in the replacement parts list section, then caution should be exercised when ordering replacement parts. Always give the catalog number of your pump when ordering replacement parts.

The Proven unit you have purchased is of the highest quality workmanship and material. It has been engineered to give you long and trouble-free service. The Proven pumps are carefully packaged, inspected and tested to insure safe operation and delivery. When you receive your pump, examine it carefully to determine that there are no broken or damaged parts that may have occurred during shipment. If damage has occurred, make notation and notify the firm that you purchased the pump from. They will assist you in replacement or repair, if required.

READ INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THE PROVEN PUMP. KNOW THE PUMP APPLICATION, LIMITATIONS, AND POTENTIAL HAZARDS. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE! RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

### **SAFETY GUIDELINES**



- 1. Make certain that the unit is disconnected from the power source before attempting to service or remove any component.
- Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in explosive atmospheres. Pump should only be used with liquids compatible with pump component materials.
- 3. Do not handle pump with wet hands or when standing on a wet or damp surface or in water.
- 4. **WARNING:** When attaching pump leads to battery terminals, be sure that the area is adequately ventilated to prevent an explosion or fire from explosive or flammable vapors that may be present. Consult the battery manufacturer for additional safety information.
  - a) Batteries emit hydrogen gas, which is explosive. Avoid smoking, sparks, or open flame anywhere in batteries' vicinity.
  - b) Explosion from battery can cause blindness. Shield eyes when working near any battery.
  - c) Batteries contain sulfuric acid. In case of contact with eyes, skin or clothing, flush immediately with large amounts of water and get medical attention.
  - d) Do not add acid or electrolyte to a battery.
  - e) Keep out of reach of children.
- 5. In any installation where property damage and/or personal injury might result from an inoperative or leaking pump due to power outages, discharge line blockage, or any other reason, a backup system(s) and/or alarm should be used.
- 6. Support pump and piping when assembling and when installed. Failure to do so may cause piping to break, pump to fall, motor bearing failures, etc.

# ELECTRICAL CONNECTIONS



- 1. Check the pump label for proper voltage required. Do not connect to voltage other than that shown.
- 2. For proper motor protection, install a 2.0 amp fuse in the circuit.
- 3. When using a battery as the power source, attach the red positive (+) lead wire to the positive (+) battery terminal, followed by attaching the black negative (-) lead wire to the ground (-) battery terminal. When disconnecting the pump, first disconnect the black negative (-) lead wire from the ground (-) battery terminal, and then disconnect the red positive (+) lead wire from the positive (+) battery terminal.
- 4. Be sure to use adequately sized wire for extension leads:

Distance from Power Source to Pump

1 – 15 feet 15 – 50 feet Recommended Minimum Wire Size

18 AWG 16 AWG DIEC



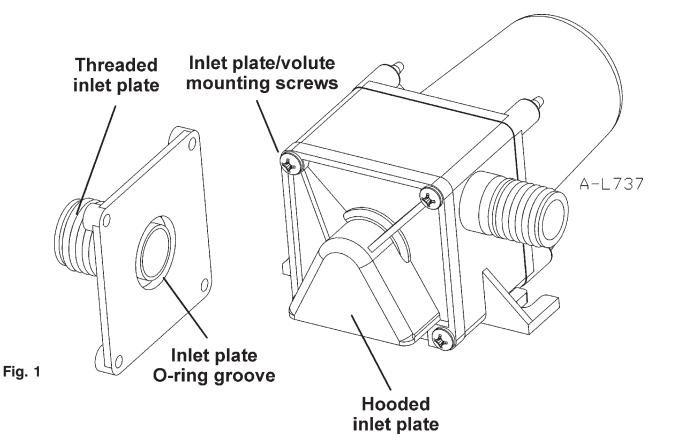
- 1. The BPLA Series pumps are designed to operate submerged or in-line. The pump can be positioned in any attitude below the water level when primed.
- 2. This pump is designed for intermittent use only (15 minutes on 45 minutes off).
- 3. Liquid temperature: 160°F maximum
- 4. To operate properly, pump must be connected to a steady 12-volt DC power source or a 12-volt battery in good condition. Low voltage power source may cause critical overheating and premature failures. To avoid this condition, be sure proper voltage is maintained, and use recommended wire size during installation (as shown on the chart under ELECTRICAL CONNECTIONS).
- 5. For submersible operation, use the hooded inlet plate. For in-line application, remove the inlet plate mounting screws and replace the hooded inlet plate with the threaded inlet plate. Make certain that the inlet O-ring seal is installed in the groove on the inlet plate before reassembly. Be careful in re-inserting the inlet plate screws to avoid cutting new threads and possibly stripping the screw holes.
- 6. When connected in-line, hose or pipe connection should be sloped upward from pump inlet to water supply. A flooded suction is necessary for pump to operate.
- 7. If the surface is dirt or sand, place pump on a flat surface such as a piece of wood or metal to prevent it from being clogged.
- 8. The weight of the pump must be supported adequately. DO NOT support the pump by the intake or discharge connections alone.
- 9. Do not attempt to restrict the intake side of these pumps. Restricting the intake may cause damage to the seal and may starve the pump. If you require reduced flow rates, then place a valve on the discharge side of the pump or if flexible vinyl tubing is used, a clamp can be used on the tubing to restrict the flow.
- 10. Do not let the unit operate dry. It is designed to be cooled by pumping fluid. You may damage the seal and the motor may fail if the pump is allowed to run dry.
- 11. If the unit is going to be idle for a period of time, follow the cleaning instructions outlined in the next section. Do not let the unit freeze in the wintertime. This may cause cracking or distortion that may destroy the unit.

### SERVICE INSTRUCTIONS



MAKE CERTAIN THE UNIT IS DISCONNECTED FROM THE POWER SOURCE BE-FORE ATTEMPTING TO SERVICE OR REMOVE ANY COMPONENT!

- 1. **CAUTION:** Disconnect from power source when making adjustments and repairs. First disconnect the black negative (-) lead wire, and then lastly disconnect the red positive (+) lead wire.
- 2. This unit is permanently lubricated. Oiling is not required. Do not, in any case, open the sealed portion of the unit or remove housing screws. The power leads on these units cannot be replaced. In case of damage the whole unit must be replaced.
- 3. Periodic cleaning of the pump parts will prolong the LIFE and EFFICIENCY of the pump. Refer to the assembly and disassembly of the pumping head.
- 4. First remove the volute from the pump by removing the volute mounting screws. (DO NOT remove other screws which may be exposed.)
- 5. Lightly clean any corrosion or debris which may clog the impeller. Use a brush and penetrating oil and lightly scrape to remove encrusted material.
- 6. Turn the impeller by hand to make sure it turns freely. Set pump down so the pump and impeller are not touching anything. Connect the unit to 12VDC power source for 10 seconds to see if the impeller turns; a) If it is rotating, unplug unit and install parts in reverse order in which they were removed. b) If it does not rotate or not operating properly after cleaning, return to Proven Pump or its authorized service center. DO NOT attempt repairs yourself.
- 7. Be certain power leads are in good condition and contain no nicks or cuts.



TROUBLESHOOTING INFORMATION		
PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
Pump fails to run.	No electricity or low voltage.     Impeller clogged.     Motor has open circuit.	1. Be sure correct voltage is available.     2. Clean impeller.     3. Replace pump.
Pump runs but no fluid flows.	1. Discharge height too great. 2. Inlet screen clogged. 3. Discharge valve closed. 4. Air trapped in pump. 5. No water in reservoir. 6. Pump inlet located above liquid level.	1. Lower the height. 2. Clean screen. 3. Open the valve. 4. Purge to eliminate air. 5. Refill. 6. Pump inlet must be below liquid level (flooded).
Flow rate is low.	<ol> <li>Low voltage.</li> <li>Impeller clogged.</li> <li>Inlet or discharge plumbing restricted.</li> <li>Discharge plumbing undersized.</li> <li>Discharge height too great.</li> <li>Polarity is reversed.</li> </ol>	1. Be sure correct voltage is available. 2. Clean impeller. 3. Clean plumbing. 4. Replace with larger plumbing. 5. Lower the height. 6. Reverse polarity.
Pump starts and stops pumping.	Impeller or inlet screen clogged.     Defect in motor.     Incorrect voltage or frequency.	Clean impeller and screen.     Replace pump.     Be sure correct voltage and frequency is supplied to pump.

#### LIMITED WARRANTY

Your Proven product is guaranteed to be in perfect condition when it leaves our Factory. It is warranted against defective materials and workmanship for a period of 12 months (90 day warranty on Models: BPLA, 360, 361, 365, 366, 370 and 371) from date of purchase by the user. No warranty on brush wear, impeller or cam in Models BPLA, 360, 361, 365, 366, 370 and 371.

Any product that should fail for either of the above two reasons and is still within the warranty period will be repaired or replaced at the option of Proven as the sole remedy of buyer. For our customers in the CONTINENTAL UNITED STATES: Please return the defective unit, postage paid, to the factory at 301 North MacArthur Blvd., Oklahoma City, OK 73127-6616. All defective product returned under warranty will be fully inspected to determine the cause of failure before warranty is approved.

For our customers located elsewhere; it is not economical, due to duties and freight, to return the pump to the factory for inspection. Please return the defective unit to any authorized distributor or dealer with a brief written explanation of the problem. If there are no apparent signs of customer abuse, unit will be repaired or replaced. If dispute arises over replacement of the pump, the distributor or dealer is to segregate such items and hold for inspection by a representative of Proven Pumps or notify factory with details of the problem for factory disposition and settlement of warranty claim.

DISCLAIMER: THE FOREGOING WARRANTY IS AN EXCLUSIVE WARRANTY IN LIEU OF ANY OTHER EXPRESS WARRANTIES. ANY IMPLIED WARRANTIES (INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) TO THE EXTENT EITHER APPLIES TO A PUMP SHALL BE LIMITED IN DURATION TO THE PERIODS OF THE EXPRESS WARRANTIES GIVEN ABOVE.

Warranty will be **VOID** if any of the following conditions are found:

- 1. Sealed motor housing opened.
- 2. Product connected to voltage other than indicated on nameplate.
- 3. Cord cut off to a length less than three feet.
- 4. Pump allowed to operate dry (fluid supply cut off).
- 5. Pump used to circulate anything other than fresh water, light oils, or other mild liquids at approximately room temperature.
- 6. Product abuse by customer.

Any oral statements about the product made by the seller, the manufacturer, the representatives or any other parties, do not constitute warranties, shall not be relied upon by the user and are not part of the contract for sale. Seller's and manufacturer's only obligation, and buyer's only remedy, shall be the replacement and/or repair by the manufacturer of the product as described above. NEITHER SELLER NOR THE MANUFACTURER SHALL BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE, DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS), ARISING OUT OF THE USE OR THE INABILITY TO USE THE PRODUCT AND THE USER AGREES THAT NO OTHER REMEDY SHALL BE AVAILABLE TO IT. Before using, the user shall determine the suitability of the product for the intended use, and user assumes all risk and liability whatsoever in connection therewith.

Some states and countries do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state and country to country.

The National Electric Code (in the USA) and similar codes in other countries require a Ground Fault Circuit Interrupter (GFCI) to be installed in the branch circuit supplying fountain equipment rated above 15 volts. We recommend each pump be used with a GFCI.