



Self-Priming* Portable Multi-Use Pump

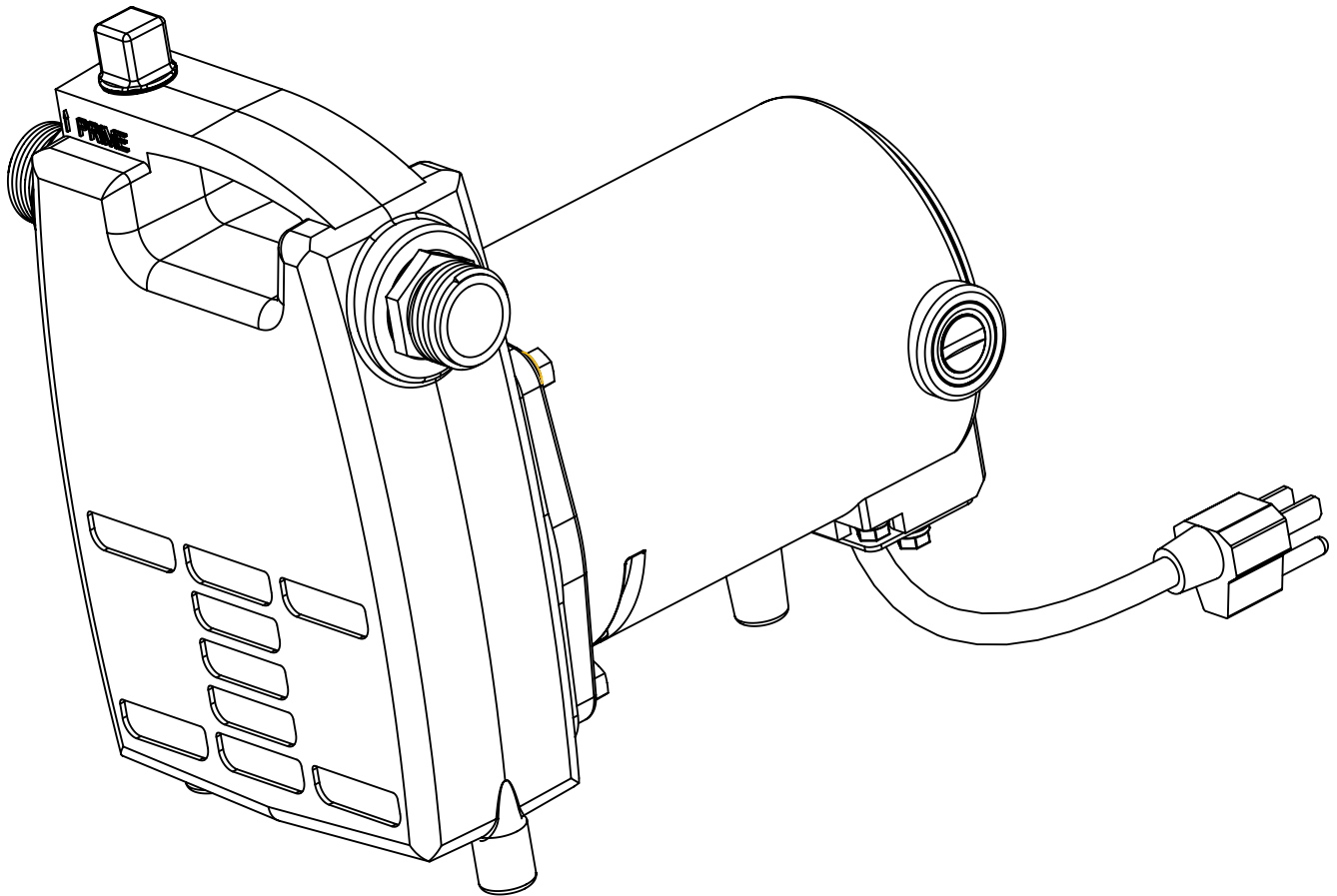
Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Operating Instructions and Parts Manual 50TK

SPECIFICATIONS	
POWER SUPPLY REQUIREMENTS	120 V, 60 Hz
MOTOR	Brush Type
HORSEPOWER	1/2 HP
CIRCUIT REQUIREMENT	15 A (minimum)
LIQUID TEMPERATURE RANGE	40° F- 120° F

CONSTRUCTION	
MOTOR HOUSING	Cast Iron
MOTOR SHAFT	Stainless Steel
IMPELLER	Thermoplastic
VOLUTE	Cast Iron
PUMP SUCTION	3/4 in. Brass Hose Fittings
PUMP DISCHARGE	3/4 in. Brass Hose Fittings

PERFORMANCE							
Model	HP	Discharge Head	10 ft.	20 ft.	40 ft.	60 ft.	80 ft.
50TK	1/2	Gal/hr	1600	1500	1240	950	660



Operating Instructions and Parts Manual

DESCRIPTION

This *self-priming portable Multi-Use pump is designed to be used as a transfer pump for such applications as emptying water heaters, livestock tanks, etc. The motor is air cooled; it is not designed to operate under water. This pump is not suitable for drinking water.

NOTE: This pump is not intended for permanent installation or long, extended periods of continuous operation.

*Self-Priming if used with a foot valve on suction hose or if gravity fed.

UNPACKING

After unpacking the Multi-Use pump, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts. If you need assistance, call our Customer Support Department at 1-888-636-6628.

SAFETY SIGNAL WORDS

This manual contains information that is very important to know and understand. This information is provided for **SAFETY** and to **PREVENT EQUIPMENT PROBLEMS**. To help recognize this information, observe the following symbols.

⚠ DANGER Danger indicates an imminently hazardous situation which, if **NOT** avoided, **WILL** result in death or serious injury.

⚠ DANGER La mention Danger indique une situation dangereuse imminente qui, si elle n'est pas évitée, **ENTRAÎNE** la mort ou des blessures graves.

⚠ WARNING Warning indicates a potentially hazardous situation which, if **NOT** avoided, **COULD** result in death or serious injury.

⚠ AVERTISSEMENT La mention avertissement indique une situation potentiellement dangereuse qui, si elle n'est pas évitée, risque d'entraîner des lésions corporelles graves ou même la mort.

⚠ CAUTION Caution indicates a potentially hazardous situation which, if **NOT** avoided, **MAY** result in minor or moderate injury.

⚠ MISE EN GARDE La mention mise en garde indique une situation potentiellement dangereuse qui, si elle n'est pas évitée, pourrait entraîner des blessures mineures ou modérées.

NOTICE Notice indicates important information, that if **NOT** followed, **MAY** cause damage to equipment.

⚠ This is the safety alert symbol. It is used to alert you to potential bodily injury hazards. Obey all safety messages that follow this symbol to avoid possible harm.

NOTE: Information that requires special attention.

GENERAL SAFETY INFORMATION

CALIFORNIA PROPOSITION 65

⚠ WARNING

This product can expose you to chemicals, including DEHP, which is known to the State of California to cause cancer, birth defects and reproductive harm. For more information, go to www.P65Warnings.ca.gov.

⚠ AVERTISSEMENT

Ce produit peut vous exposer à des produits chimiques, notamment du DOP, reconnus par l'État de Californie comme étant cancérigènes et à l'origine d'anomalies congénitales et de problèmes de l'appareil reproductif. Pour plus de renseignements, visiter le site www.P65Warnings.ca.gov.

⚠ DANGER Do not submerge motor or allow motor to be exposed to water. Personal injury and/or death **WILL** result, and void warranty.

⚠ DANGER Ne pas submerger le moteur ni laisser le moteur exposé à l'eau. Des blessures corporelles et/ou la mort pourraient en découler.

⚠ DANGER Do **NOT** use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do **NOT** use in explosive atmospheres. Pump only clear water. Failure to follow this warning **WILL** result in personal injury and/or property damage.

⚠ DANGER **NE PAS** utiliser pour pomper des fluides inflammables ou explosifs tels que l'essence, le mazout, le kérosène, etc. **NE PAS** utiliser dans des atmosphères explosives. Pomper uniquement de l'eau claire. Le non-respect de cet avertissement entraînera des blessures corporelles et/ou des dégâts matériels.



⚠ WARNING Risk of Electrical Shock! All wiring **SHOULD** be performed by a licensed or certified electrician.

⚠ AVERTISSEMENT Risque de choc électrique! Tout le câblage **DOIT** être effectué par un électricien qualifié ou certifié.

REMINDER: Keep your dated proof of purchase for warranty purposes! Attach it to this manual or file it for safekeeping.

GENERAL SAFETY INFORMATION (CONT'T)

⚠ DANGER Do NOT walk on wet areas until ALL power is turned off. Failure to follow this warning WILL result in fatal electrical shock.



⚠ DANGER Ne PAS marcher sur les zones humides jusqu'à ce que le courant est coupé. Le défaut de suivre cet avertissement entraînera une décharge électrique mortelle.

1. Read all instructions before operation.
2. Disconnect power and release all pressure within the system before servicing any component.
3. Drain all liquids from system before servicing.



⚠ WARNING Secure the discharge line before starting the pump. An unsecured discharge line MAY whip. Personal injury and/or property damage COULD result.

⚠ AVERTISSEMENT Fixer la conduite de décharge avant le démarrage de la pompe. Toute conduite de décharge non fixée pourrait donner fouetter. Des blessures corporelles et/ou des dégâts matériels pourraient en résulter.

4. Before each use inspect pump and system components, checking for weak and/or worn hoses. Insure all connections are secure.

⚠ WARNING Pump motor is equipped with an automatic resetting thermal protector and MAY restart unexpectedly. Protector tripping is an indication of motor overheating because of operating pump at low heads (low discharge restriction), excessively high or low voltage, inadequate wiring, excessive surrounding air temperature, inadequate ventilation, and/or defective motor or pump.

⚠ AVERTISSEMENT Le moteur de la pompe est doté d'un protecteur thermique à réinitialisation automatique et POURRAIT redémarrer de manière imprévue. Le déclenchement du protecteur est une indication de surchauffe du moteur à cause d'une utilisation de la pompe à faible hauteur de chute (restriction de faible décharge), d'une tension excessivement haute ou basse, d'un câblage inadéquat, d'un branchement incorrect du moteur, d'une température ambiante excessive, d'une ventilation inadéquate ou d'une pompe ou d'un moteur défectueux.

5. Provide a means of pressure relief in the case of an obstructed discharge line.
6. Protect electrical cord from sharp objects, hot surfaces, oil and chemicals. Do not operate with damaged or kinked cord.

INSTALLATION

⚠ DANGER ALWAYS disconnect power source before attempting to operate, service, or maintain the pump. NEVER handle a pump with wet hands or when standing on wet or damp surface or in water. Fatal electrical shock WILL occur.



⚠ DANGER TOUJOURS débrancher le cordon d'alimentation avant d'essayer d'installer, de réparer ou de faire l'entretien de la pompe. Ne JAMAIS manipuler de pompe avec les mains humides ou debout sur une surface humide ou mouillée, ou dans l'eau. RISQUE de choc électrique mortel!

1. A ground fault circuit interrupter (GFCI) is required.

⚠ DANGER Risk of electrical shock! This pump is supplied with a grounding conductor and grounding type attachment plug. A grounded receptacle in conformance with current NEC and local codes must be used.

⚠ DANGER Risque de choc électrique! Cette pompe est fournie avec un conducteur de mise à la terre et une fiche de terre. Utiliser une prise de courant mise à la terre conforme au CNE et aux codes locaux en vigueur.



2. This pump operates on 115V.
3. Use an extension cord only if necessary. Contact Customer Support (888-636-6628) for guidance.

⚠ DANGER Risk of fatal electrical shock. NEVER cut off the round grounding prong. Cutting the cord or plug WILL void the warranty and make the pump inoperable.

⚠ DANGER Risque de choc électrique mortel. Ne JAMAIS couper la broche de terre ronde sur le cordon. Couper le cordon ou les bornes de la batterie ANNULERA la garantie et rendra la pompe inutilisable.

4. Figure 1 shows a typical installation. Threaded adapters are furnished for attaching garden hose where conditions permit its use. In no case should the pump be more than 15 feet above or away from water source. Install a foot valve to keep it self-priming.
5. The inlet line may be galvanized pipe, plastic pipe, or reinforced hose. Small leaks in suction line greatly reduce efficiency of pump and may prevent priming.

Operating Instructions and Parts Manual

INSTALLATION (CONTINUED)

NOTICE

Ordinary garden hose will collapse under suction pressure and should not be used for the inlet line.

6. Use a foot valve when pumping from a creek, pond, or source where foreign objects may be sucked into the pump. The foot valve should prevent solids from entering the inlet line.
7. A regular garden hose may be used as a discharge line.

WARNING

Protect the pipe from damage by swimmers, wildlife, and debris.

AVERTISSEMENT

Protéger le tuyau contre les dommages causés par les nageurs, les animaux et les débris.

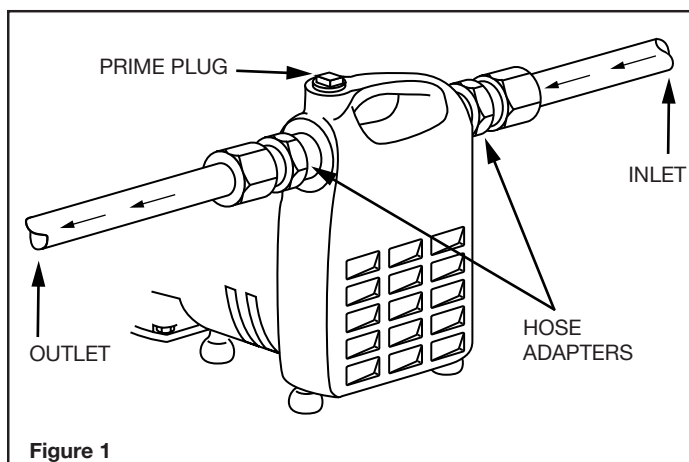


Figure 1

OPERATION

NOTICE

Pump must be filled with water before operation. Running the pump dry will cause damage to the shaft seal.

1. This unit is not waterproof or weatherproof and is not intended to be used in showers, saunas, or other potentially wet locations. The motor is designed to be used in a clean, dry location with access to adequate cooling air. Ambient temperatures around the motor should not exceed 104°F (40°C).
2. Remove priming plug and fill with water. Replace plug (plumbers seal tape should be used on priming plug to prevent air leaks).
3. Plug power cord into GFCI protected electrical outlet. The pump will prime in a few minutes depending on suction line length. Use of foot valve on suction line is recommended for self-priming.
4. Unplug cord to turn unit off.

MAINTENANCE

WARNING

Let pump cool for at least 20 minutes before attempting to service. Motor MAY be extremely hot. Personal injury MAY result.

AVERTISSEMENT

Laisser refroidir la pompe pendant au moins 20 minutes avant d'essayer de la réparer. Le moteur PEUT être extrêmement chaud. Des blessures PEUVENT en résulter.

1. Pump should be checked before each use for proper operation.

DANGER

ALWAYS disconnect the electrical supply before attempting to operate, service, or perform any maintenance. If the power source is out of sight, lock and tag in the open (off) position to prevent unexpected power application. Failure to do so WILL result in fatal electrical shock. Only qualified electricians SHOULD repair this unit. Improper repair WILL result in fatal electrical shock.

DANGER

TOUJOURS débrancher l'alimentation électrique avant d'essayer de faire fonctionner, d'entretenir ou d'effectuer toute opération de maintenance. Si la source d'alimentation est hors de vue, verrouiller et étiqueter en position ouverte (off) pour éviter une décharge électrique inattendue. Ne pas le faire ENTRAÎNERA un choc électrique mortel. Seuls les électriciens qualifiés DOIVENT réparer cet appareil. Une réparation incorrecte ENTRAÎNERA un choc électrique mortel.

BRUSH REPLACEMENT

NOTICE

Brushes for this pump should be inspected after 100 hours of operation.

Pumps with excess of 100 hours of operation may stop operating or fail to start. This could be due to worn brushes or carbon build-up. The brushes should be removed and carbon removed. Worn brushes are not covered under warranty. Replacement brushes may be available online.

- 1) Disconnect electrical cord from power supply.
- 2) Remove brush caps with screwdriver.
- 3) Remove old brush assembly.
- 4) Replace brushes, make sure springs do not pinch during assembly. Align/center tabs on the back of the brush spring with the flats on the brush holder. Ref. fig 2.
- 5) Replace brush caps.

For other problems, consult troubleshooting chart.

SERVICE PART REPLACEMENT

Instructional video available at www.blueangelpumps.com

1. Make sure the pump is unplugged and cooled down before disassembling the pump.
2. Release any pressure from the pump then disconnect any hoses or plumbing and drain the product.
3. Remove brush holder caps and brushes (make note of which side of the pump the brush was in also the orientation of the brush as you will want to put them back the same way they came out). Ref fig.3. Remove the (4) 1/4-20 screws and lock washers holding the volute to the motor housing. Ref fig.3

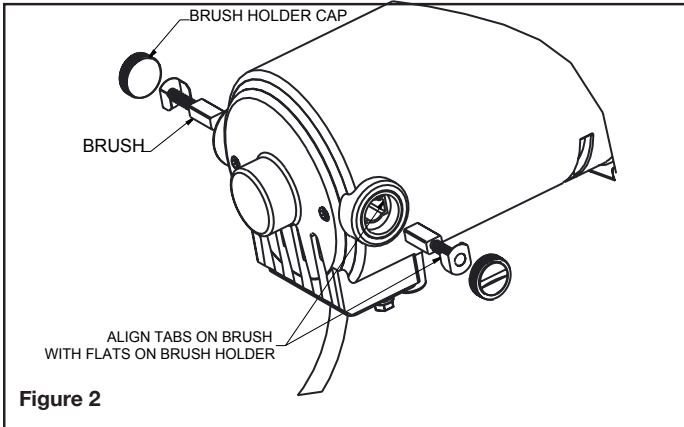


Figure 2

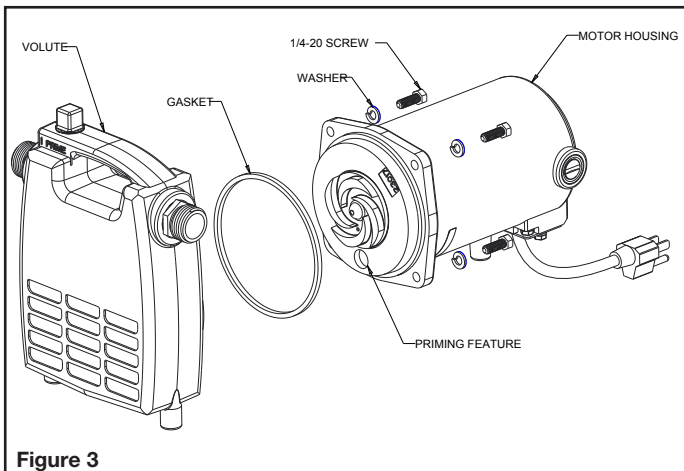


Figure 3

4. Remove the volute.
5. Remove the gasket and discard.
6. Remove the rotor assembly from the motor housing. There is a thrust washer in the bearing pocket at the back of the motor housing, if the thrust washer falls out make sure it is put back into the pocket before reassembling. Ref fig. 4

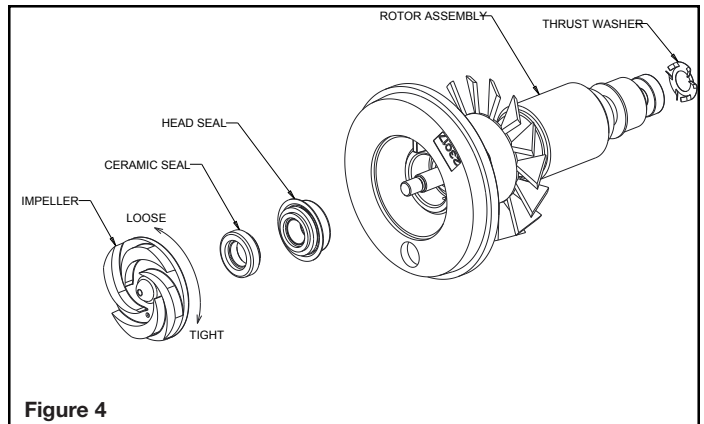


Figure 4

7. Holding the rotor assembly with one hand unscrew the impeller from the rotor shaft (do not use a vise or other such device to hold the rotor as it may damage the rotor).
8. Remove both parts of the seal assembly from the back head and impeller.
9. Push the new head seal (part with the blue metal housing) over the rotor shaft and into the back head making sure the flange on the seal seats against the back head and making sure the black carbon side of the seal is facing away from the back head towards the impeller.
10. Push the ceramic seal into the impeller pocket making sure the white ceramic surface faces away from the back of the impeller.
11. Holding the rotor with one hand thread the new impeller onto the rotor shaft making sure it is tight on the shaft and the white face of the ceramic seal contacts the black carbon face of the head seal.
12. Make sure the thrust washer is in the bearing pocket in the back of the motor housing and guide the rotor assembly back into the motor housing. Make sure the priming feature on the back head is on the bottom of the pump, the pump won't prime properly if this isn't in the correct location. Ref. fig. 3
13. Put the new gasket on the motor housing then reattach the volute to the motor housing using the four 1/4-20 screws and lock washers. Torque the screws to 75 in. lbs.
14. Replace the brushes and caps, make sure to put them back in the same way they came out. Make sure the springs do not pinch during assembly and align/center the tabs on the back of the brush spring with the flats on the brush holder. Ref. fig. 2
15. Test thoroughly and check for leaks before use.

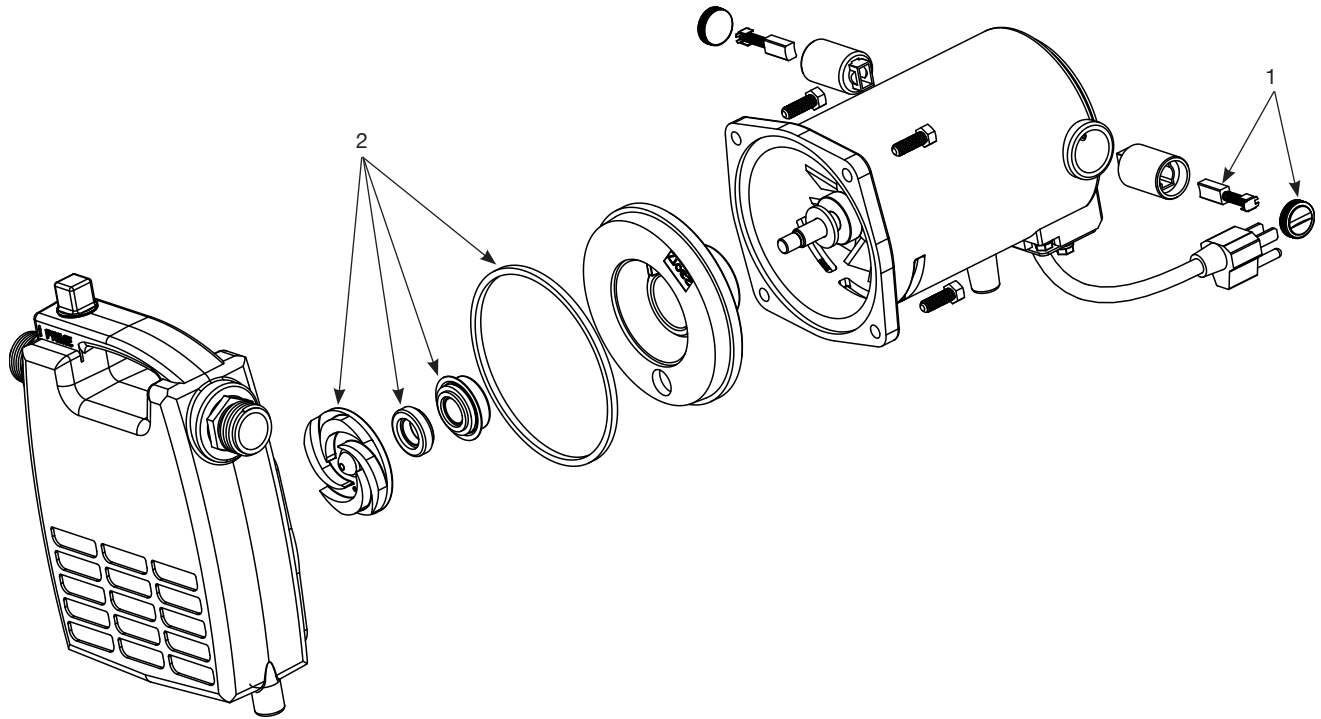
For Replacement Parts or Customer Support, Call 1-888-636-6628

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address any correspondence to:

Blue Angel Pumps
101 Production Drive
Harrison, OH 45030 U.S.A.



Ref. No.	Description	Part Number	Qty.
1	Brush kit	62015-WYN1	1
2	Impeller and seal kit	56671-WYN1	1

Note: Replacement parts are available in kit form only

LIMITED WARRANTY

For three years for 50TK model from the date of purchase, from an authorized dealer, Blue Angel Pumps will repair or replace, at its option for the original purchaser, any part or parts of its Multi-Use Pumps or Water Pumps ("Product") found upon examination by Blue Angel Pumps to be defective in materials or workmanship. Please call Blue Angel Pumps (888-636-6628) for warranty instructions. Be prepared to provide the model number and the serial number when exercising this warranty. All transportation charges on Products or parts submitted for repair or replacement must be paid by purchaser.

This Limited Warranty does not cover Products which have been damaged as a result of accident, abuse, misuse, neglect, improper installation, improper maintenance, or failure to operate in accordance with Blue Angel Pumps' written instructions.

THIS WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, OBLIGATIONS OR AGREEMENTS, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND ANY RIGHTS OR REMEDIES AGAINST ANY PERSON OR ENTITY UNDER THE UNIFORM COMMERCIAL CODE OR OTHERWISE WITH RESPECT TO THE SALE OF THE PRODUCT. THE REMEDIES AND OBLIGATIONS STATED IN THIS WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES OF AND OBLIGATIONS TO THE OWNER FOR ANY AND ALL MATTERS ARISING WITH RESPECT TO OR IN ANY WAY CONNECTED WITH THE PRODUCT, REGARDLESS OF THE SOURCE OR PROVIDER OF SUCH GOODS. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, SHALL BLUE ANGEL PUMPS OR ANY AFFILIATE BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

You **MUST** retain your purchase receipt along with this form. In the event you need to exercise a warranty claim, you **MUST** send a **copy** of the purchase receipt along with the material or correspondence. Please call Blue Angel Pumps (888-636-6628) for return authorization and instructions.

DO NOT MAIL THIS FORM TO Blue Angel Pumps. Use this form only to maintain your records.

MODEL NO. _____ SERIAL NO. _____ INSTALLATION DATE _____

ATTACH YOUR RECEIPT HERE

