



Sewage Pump

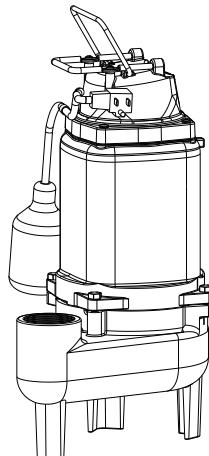
Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain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

Operating Instructions and Parts Manual

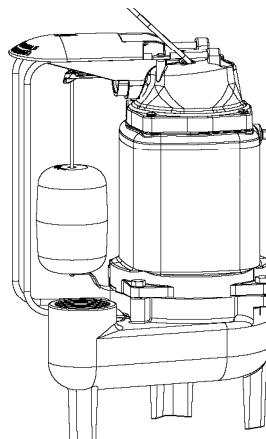
Sewage

SPECIFICATIONS

| | |
|----------------------------------|---|
| POWER SUPPLY REQUIREMENTS | 120 V, 60 Hz (T50SW, F50SW) 230 V, 60 Hz (200SW, 100SW, 75SW) |
| MOTOR | Single Phase, Dielectric Oil Filled (T50SW, F50SW) Permanent Split Capacitor (200SW, 100SW, 75SW) |
| HORSEPOWER | 2 HP.....(200SW) 1 HP.....(100SW) 3/4 HP.....(75SW) 1/2 HP.....(T50SW, F50SW) |
| CIRCUIT REQUIREMENT | 15 A (minimum) |
| DIMENSIONS | 16-5/8 in. high x 9-5/8 in. base (T50SW) 17 in. high x 10-5/8 in. base (F50SW) 18 in. high x 11 in. base (200SW, 100SW, 75SW) |
| ON LEVEL (FACTORY SET) | Approximately 19. in. (T50SW) Approximately 13 in. (F50SW) |
| OFF LEVEL (FACTORY SET) | Approximately 10-1/2 in. (T50SW) Approximately 8 in. (F50SW) |



T50SW (Tether Float Switch)



F50SW (Vertical Float Switch)

CONSTRUCTION

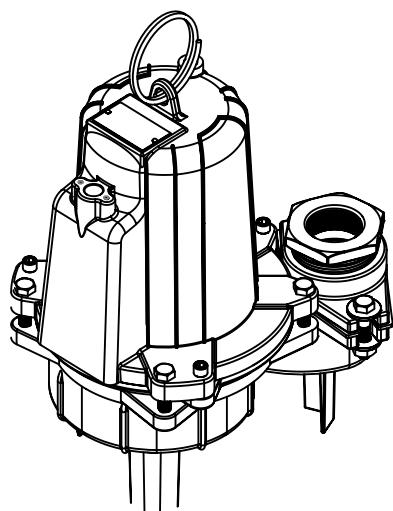
| | |
|----------------------|---|
| MOTOR HOUSING | Cast Iron (ALL MODELS) |
| VOLUTE | Cast Iron (ALL MODELS) |
| IMPELLER | Glass Reinforced Thermoplastic (T50SW, F50SW) Cast Iron (200SW, 100SW, 75SW) |
| SHAFT | Steel |
| DISCHARGE | 2 in. NPT (T50SW, F50SW) 3 in. NPT supplied 2 in. Adapter (200SW, 100SW, 75SW) |

PERFORMANCE GAL/HR

| Model | HP | Discharge Head (Lift Distance) | | |
|-------|-----|--------------------------------|-------|-------|
| | | 5 ft | 10 ft | 15 ft |
| T50SW | 1/2 | 7680 | 6600 | 1920 |
| F50SW | 1/2 | 7680 | 6600 | 1920 |

PERFORMANCE GAL/HR

| Model | HP | Discharge Head (Lift Distance) | | | | |
|-------|-----|--------------------------------|-------|-------|-------|-------|
| | | 20 ft | 25 ft | 30 ft | 35 ft | 40 ft |
| 200SW | 2 | - | 9600 | 6400 | 4000 | 2300 |
| 100SW | 1 | 9800 | 6300 | 3400 | 1300 | - |
| 75SW | 3/4 | 6700 | 3400 | 1400 | - | - |



200SW, 100SW, 75SW

Intended for Indoor Use Only

INSTALLATION MANUAL

SEWAGE PUMP DESCRIPTION

Sewage pumps are pumps used to remove waste water that contains solids up to 2 inches in diameter. The most common application is for draining bathroom waste water to a sewer or septic line.

Intended for indoor use only. Installation of this pump outdoors, unprotected from the weather, may cause hazardous conditions and will void warranty. If using outdoors, protect pump from direct weather elements such as sun, rain, sleet, snow, and extreme temperature changes. Water inside the pump may freeze, limiting its performance and damaging the pump and pipes.

UNPACKING

Inspect this unit before it is used. Occasionally, products are damaged during shipment. If the pump or components are damaged, return the unit to the place of purchase for replacement, or call Customer Support (888-636-6628).

IMPORTANT SAFETY INFORMATION CONSIGNES DE SÉCURITÉ IMPORTANTES

⚠ 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.

RISK OF ELECTRIC SHOCK. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:

RISQUE DE CHOC ÉLECTRIQUE. POUR RÉDUIRE CE RISQUE, TENIR COMPTE DES AVERTISSEMENTS SUIVANTS



SAFETY SIGNAL WORDS

This manual contains information that is very important to know and understand. This information is provided for **SAFETY** and to **PREPARE EQUIPMENT PROBLEMS**. To help recognize this information, observe all safety information labeled danger, warning, caution, and notice.

MAKE SURE THERE IS A PROPERLY GROUNDED RECEPTACLE AVAILABLE. This pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.

S'ASSURER QU'UNE PRISE DE MISE À LA TERRE EST DISPONIBLE. Cette pompe est fournie avec un conducteur et une fiche de mise à la terre. Pour réduire le risque de choc électrique, s'assurer qu'elle est branchée seulement à une prise de courant correctement mise à la terre.

FOR ADDED SAFETY the receptacle must be protected with a ground fault circuit interrupter (GFCI). All wiring must be performed by a qualified licensed electrician and comply with the National Electric Code and all applicable local codes and ordinances.

POUR PLUS DE SÉCURITÉ, la prise de courant doit être protégée par un disjoncteur de fuite à la terre. Tout le câblage doit être effectué par un électricien qualifié et être conforme au Code électrique national et à tous les codes et règlements locaux applicables.

NEVER REMOVE THE GROUND PRONG from the plug or bypass the grounding wires.

NE JAMAIS RETIRER LE CONNECTEUR DE MISE À LA TERRE de la prise ou contourner les fils de mise à la terre.

MAKE SURE THE POWER SUPPLY HAS A FUSE OR CIRCUIT BREAKER rated to handle the current (amps) noted on the pump nameplate or cord tag.

S'ASSURER QUE L'ALIMENTATION ÉLECTRIQUE EST MUNIE D'UN FUSIBLE OU D'UN DISJONCTEUR d'une valeur nominale appropriée pour supporter l'intensité du courant (ampérage) indiquée sur la plaque signalétique ou l'étiquette du cordon de la pompe.

ALWAYS DISCONNECT THE PUMP from power supply before installing, servicing or making any adjustments.

TOUJOURS METTRE LA POMPE HORS TENSION avant de procéder à l'installation, à l'entretien ou à des réglages.

DO NOT WALK on the floor when water is present until all power is turned off. If the electric panel is in the basement, call an electrician.

NE PAS MARCHER sur un sol mouillé avant que l'alimentation générale ne soit coupée. Si le tableau électrique est en sous-sol, appeler un électricien.

NEVER HANDLE A PUMP or motor with wet hands or when standing on a wet or damp floor while the pump is plugged into the power supply.

NE JAMAIS MANIPULER UNE POMPE ou un moteur de pompe avec les mains mouillées ou debout dans l'eau ou sur une surface humide.

RISK OF ELECTRIC SHOCK. This pump has not been investigated for use in swimming pool and marine areas.

RISQUE DE CHOC ÉLECTRIQUE. Cette pompe n'a pas fait l'objet de vérification pour une utilisation dans les piscines et les aires marines.

DO NOT USE TO PUMP FLAMMABLE OR EXPLOSIVE FLUIDS such as gasoline, fuel oil, kerosene, etc. Do not use in a flammable and/or explosive atmosphere. Pump should only be used to pump clear water. Personal injury and/or property damage will result and void warranty.

NE PAS UTILISER POUR POMPER DES FLUIDES INFLAMMABLES OU EXPLOSIFS tels que l'essence, le mazout, le kérosène, etc. Ne pas utiliser dans un environnement inflammable et/ou explosif. La pompe ne doit être utilisée que pour pomper de l'eau claire. Des blessures corporelles et/ou des dégâts matériels pourraient en résulter.

PUMPS ARE NOT DESIGNED TO TRANSFER WATER INTENDED FOR DRINKING. Do not use the pump for moving water that will be used for potable/drinking water. Pump should only be used in applications for which it is designed.

LES POMPES NE SONT PAS CONÇUES POUR L'ACHEMINEMENT D'EAU DESTINÉE À LA CONSOMMATION. Ne pas utiliser la pompe pour transporter de l'eau qui sera utilisée comme de l'eau potable/destinée à la consommation. La pompe doit être utilisée uniquement dans les applications pour lesquelles elle est conçue.

⚠ WARNING

DO NOT USE AN EXTENSION CORD OR SURGE PROTECTOR. Extension cords and/or surge protectors could present a safety hazard if not sized properly, become damaged or the connection falls into the sump. If receptacle is not within reach of the pump's power cord, contact a qualified licensed electrician to install a new receptacle.

⚠ WARNING

NE PAS UTILISER DE RALLONGE NI DE PROTECTEUR DE SURTENSION. Les rallonges et/ou les protecteurs de surtension peuvent présenter un danger pour la sécurité s'ils ne sont pas correctement calibrés, s'ils sont endommagés ou si le raccordement tombe dans le puisard. Si la prise n'est pas à portée du cordon d'alimentation de la pompe, contacter un électricien qualifié pour installer une nouvelle prise.

⚠ 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.

TO REDUCE THE RISK OF HAZARDS THAT CAN CAUSE INJURY OR PROPERTY DAMAGE, OBSERVE THE FOLLOWING WARNINGS:

POUR RÉDUIRE LE RISQUE DE DANGERS POUVANT CAUSER DES BLESSURES OU DES DÉGATS MATERIELS, RESPECTER LES MISES EN GARDE SUIVANTES :



IT IS THE INSTALLER'S RESPONSIBILITY TO MAKE SURE THE PUMPS AUTOMATIC SWITCH IS ABLE TO OPERATE WITHOUT ANY OBSTRUCTIONS WITHIN THE BASIN. It is recommended that the installer test and observe the pump's operation for several cycles after installation.

IL EST DE LA RESPONSABILITÉ DE L'INSTALLATEUR DE S'ASSURER QUE L'INTERRUPTEUR AUTOMATIQUE DE POMPE PEUT FONCTIONNER SANS AUCUN BLOCAGE À L'INTÉRIEUR DU SYSTÈME. Il est recommandé que l'installateur teste et observe le fonctionnement de la pompe pendant plusieurs cycles après l'installation.

INSTALLATION MANUAL

IT IS REQUIRED TO USE RIGID PIPING AND FITTINGS to secure the pump in the basin and reduce pump movement. Pump movement can prevent the switch from operating correctly. Do not use flexible hosing.

IL EST NÉCESSAIRE D'UTILISER DES TUYAUX ET DES RACCORDS RIGIDES pour fixer la pompe dans le système et réduire les mouvements de la pompe. Les mouvements de la pompe peuvent empêcher l'interrupteur de fonctionner correctement. Ne pas utiliser de tuyaux flexibles.

IT IS REQUIRED TO USE A CHECK VALVE with this pump to prevent the back-flow of water after each pump cycle.

Cette pompe **NÉCESSITE L'UTILISATION D'UNE VANNE DE CONTRÔLE** pour empêcher le reflux d'eau souterraine claire après chaque cycle de pompage.

DO NOT INSTALL OR OPERATE THE PUMP IF IT HAS BEEN DAMAGED IN ANY WAY.

NE PAS INSTALLER OU FAIRE FONCTIONNER LA POMPE SI ELLE A ÉTÉ ENDOMMAGÉE DE QUELQUE MANIÈRE QUE CE SOIT.

DO NOT LIFT OR CARRY THE PUMP BY THE POWER CORD. Use the pump's handle or lift ring.

NE PAS SOULEVER OU PORTER LA POMPE PAR LE CORDON D'ALIMENTATION. Utiliser la poignée ou la bague de levage de la pompe.

AN INDEPENDENT HIGH WATER ALARM OR BACK UP PUMP SHOULD BE USED when risk of property damage from high water levels exists.

UNE ALARME AUTONOME DE? NIVEAU D'EAU ÉLEVÉ OU UNE POMPE DE SAUVEGARDE DOIVENT ÊTRE UTILISÉES en cas de risque de dégâts matériels causés par des niveaux d'eau élevés.

REPLACE THE TETHER SWITCH EVERY TWO (2) YEARS. This required maintenance will reduce the risk of improper pump operation, switch failure and/or flooding.

REEMPLACER LE COMMUTATEUR TOUS LES DEUX (2) ANS. Cet entretien réduira le risque d'utilisation incorrecte de la pompe, de défaillance de l'interrupteur ou d'inondation.

⚠ 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 cancérogènes 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.

⚠ WARNING

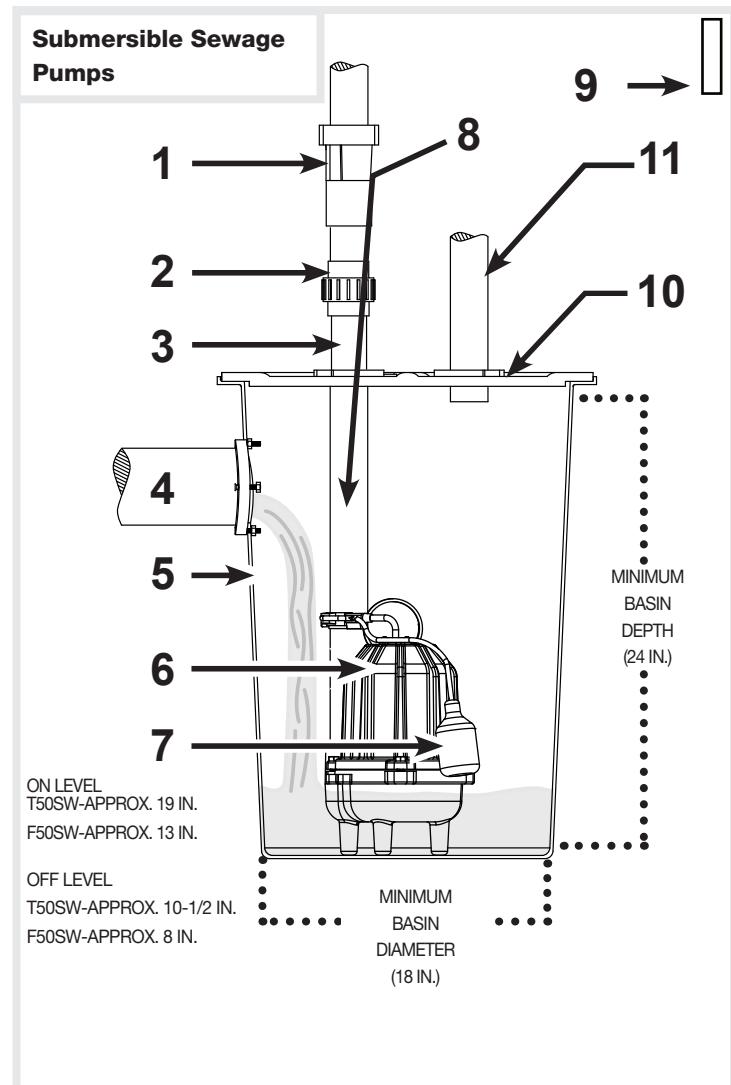
TETHER FLOAT SWITCH This float is not adjustable. By adjusting the tether switch it can affect the specifications of the application of the pump and can change the life expectancy of the unit.

⚠ AVERTISSEMENT

L'INTERRUPTEUR DU FLOTTEUR À AMARRE est réglable. L'ajuster peut affecter les spécifications d'utilisation de la pompe et peut en modifier la durée de vie.

TYPICAL SEWAGE INSTALLATION

1. This installation must be in accordance with the National Electric Code and all applicable local codes and ordinances.
2. Use a basin (5) that is large enough to accommodate the pump. The basin diameter should be a minimum of 18 inches and the depth a minimum of 24 inches.
3. Clean the basin of all debris.
4. Set the pump (6) on a solid, level surface. Do not place pump directly on clay, earth, gravel, or sand. A brick or block may be installed under the pump to provide a solid base.
5. Position pump (6) in the basin (5) so the tether switch (7) is away from incoming water. Verify the tether float switch has at least 1 inch clearance to the side wall of the basin and is free of any possible obstructions.
6. Install discharge plumbing according to local, regional and state codes. Do not reduce the discharge pipe (3) size below that which is provided on the pump (6).
7. A union (2) should be installed above the basin to allow easy removal of the pump (6) for cleaning and service.
8. Install a check valve (1) (required) to prevent back-flow. It should be installed above the union.
9. A gate valve or ball valve should be installed above the check valve if required by local, regional or state codes.
10. Connect remaining discharge pipe. Keep sections as short as possible with a minimum number of turns.
11. A vent pipe (11) is required. It removes gases and odors and should be installed as required by local, regional or state codes.
12. Secure power supply cord (8) to discharge pipe (3) using cable or zip ties to prevent possible switch entanglement.
13. Connect tether switch (7) piggyback cord to a ground fault circuit interrupter (GFCI) outlet (9) (required) then connect the pump power supply cord (8) into the piggyback cord.
14. Fill the basin with water. The pump will start when the water level has reached the switch-on level. Verify the pump is operating normally.
15. Install a basin cover and gasket (10) to prevent debris from falling into the basin, prevent personal injury, and to contain gases and odors.



*The pump shown in the diagram above is for illustration purposes only. All models (T50SW, F50SW, 200SW, 100SW, and 75SW) can follow this diagram and the sewage installation tips.

- | | |
|-------------------|----------------------|
| 1. Check Valve | 7. Tether Switch |
| 2. Union | 8. Power Supply Cord |
| 3. Discharge Pipe | 9. GFCI Outlet |
| 4. Inlet Pipe | 10. Gasket/Basin Lid |
| 5. Basin | 11. Vent Pipe |
| 6. Pump | |

INSTALLATION MANUAL

TROUBLESHOOTING WARNINGS

⚠ WARNING

ALWAYS DISCONNECT THE PUMP FROM POWER SUPPLY before installing, servicing or making any adjustments.

⚠ AVERTISSEMENT

TOUJOURS METTRE LA POMPE HORS TENSION avant de procéder à l'installation, à l'entretien ou à des réglages.

⚠ WARNING

LET PUMP COOL FOR A MINIMUM OF 2 HOURS BEFORE ATTEMPTING TO SERVICE. Submersible pumps contain oil that become pressurized and hot under normal operating conditions.

⚠ AVERTISSEMENT

LAISSEZ REFROIDIR LA POMPE PENDANT AU MOINS 2 HEURES AVANT D'ESSAYER DE LA RÉPARER. Les pompes submersibles contiennent de l'huile qui devient pressurisée et chaude dans des conditions normales de fonctionnement.

TROUBLESHOOTING

| Symptoms | Possible Cause(s) | Suggested Remedies |
|---|---|---|
| Pump will not start or run | 1. Water level too low 2. Blown fuse or tripped circuit breaker 3. Low supply voltage 4. Motor 5. Switch 6. Inlet clogged 7. Switch obstruction | 1. Water must be at the appropriate level to activate switch 2. If blown, determine cause and then either replace with proper sized fuse or reset breaker 3. Contact an electrician 4. Replace pump 5. Replace tether switch 6. Remove debris 7. Remove obstruction to verify free motion of switch |
| Pump starts and stops too often | 1. Back-flow of water from discharge pipe 2. Switch 3. Check valve not functioning properly or leaking | 1. Install check valve 2. Replace tether switch 3. Remove and examine check valve for proper installation and free operation. Replace check valve if necessary. |
| Pump shuts off and turns on independently of switch (trips thermal overload protection) | 1. Switch 2. Switch obstruction 3. Obstruction in discharge pipe 4. Low supply voltage | 1. Replace tether switch 2. Remove obstruction to verify free motion of switch 3. Remove obstruction in discharge piping 4. Contact an electrician. |

INSTALLATION MANUAL

TROUBLESHOOTING CHART (CONT'D)

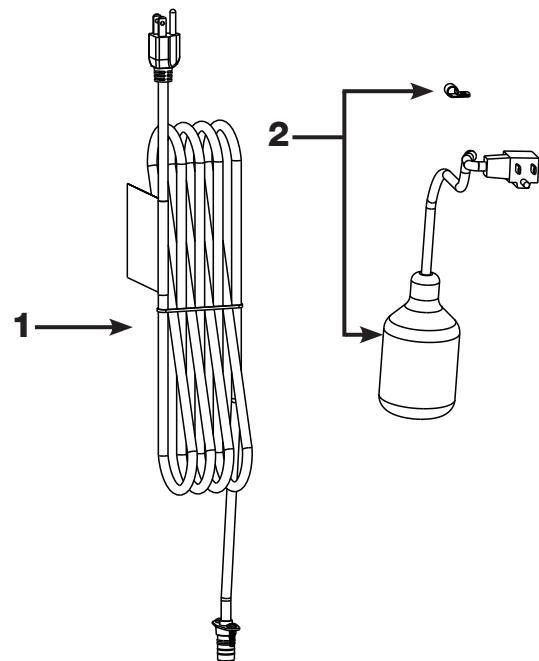
| Symptoms | Possible Cause(s) | Suggested Remedies |
|---|---|---|
| Pump trips GFCI | 1. Bad GFCI 2. Bad pump | 1. Contact an electrician to replace GFCI 2. Replace pump |
| Pump operates noisily or vibrates excessively | 1. Worn bearings 2. Impeller broken 3. Piping attachments to building structure too rigid or too loose | 1. Replace pump 2. Replace pump 3. Install rubber coupling (available at local hardware stores) to isolate pump vibration from discharge plumbing |
| Pump will not shut off | 1. Switch 2. Switch obstructions 3. Restricted discharge (obstruction in piping) 4. Excessive inflow or pump not properly sized for application | 1. Replace tether switch 2. Remove obstruction to verify free motion of switch 3. Remove obstruction from discharge piping 4. Recheck all sizing calculations to determine proper pump size |
| Pump operates but delivers little or no water | 1. Low supply voltage 2. Inlet clogged 3. Broken impeller 4. Pump not properly sized for application 5. Check valve stuck closed or installed backwards 6. Shut off valve closed | 1. Contact an electrician 2. Remove debris 3. Replace pump 4. Recheck all sizing calculations to determine proper pump size 5. Remove and examine check valve for proper installation and free operation 6. Open valve |

ROUTINE MAINTENANCE

The pump should be inspected 3-4 times per year for pump movement or buildup of debris on the switch or float. Reposition pump if it has moved. Remove any debris that could interfere with the operation of the switch. Lack of proper routine maintenance will void warranty.

- Make sure the pump is plugged in to a working ground fault circuit interrupter (GFCI) outlet and the cord is in good shape. In damp areas, GFCI breakers may trip, effectively shutting off the effluent pump. Check in on your sewage pump and reset the GFCI if necessary.
- Ensure the pump is standing upright. Vibrations during operation can cause it to fall or tilt onto one side. This can jam the float so it can't activate the pump.
- Pour a bucket of water into the pit to make sure the pump starts automatically and the water drains quickly once the pump is on. If the pump doesn't start, have it serviced or replaced.
- Replace the tether switch every two (2) years. This maintenance will reduce the risk of improper pump operation, switch failure and/or flooding.

WARRANTY & SERVICE PARTS SHEET - REPLACEMENT PARTS



REPAIR KITS

| REF. NO. | DESCRIPTION | PART NUMBER |
|----------|---|-------------|
| 1 | 20 FT. POWER CORD | 31006-WYN1 |
| 2 | Tether Float Switch Kit (T50SW Only) | 66051-WYN1 |

INSTALLATION MANUAL

**FOR REPLACEMENT
PARTS OR CUSTOMER SUPPORT,
CALL 1-888-636-6628**

ADDRESS PARTS CORRESPONDENCE TO:
Blue Angel Pumps
101 Production Drive
Harrison, OH 45030 U.S.A.

Please provide following information:

- Model number
- Serial number on cord tag (not to be removed)
- Part description and number as shown in parts list

Thank you for making Blue Angel Pumps a key part of your home maintenance program. If properly installed, maintained and operated in accordance with Blue Angel Pumps' written instructions, your pump should provide you with approximately (*) years of service.

| Product Warranty | (*) Expected Life |
|------------------|-------------------|
| 1 | 3 |
| 2 | 3 |
| 3 | 6 |
| 5 | 6 |

LIMITED WARRANTY

For three years for T50SW, F50SW, 200SW, 100SW, and 75SW models 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 Sewage 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 is not transferable. 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's written instructions.

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

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NOTES
