

TITAN

DURO[®]
PROFESSIONAL SERIES

Submersible Sump Pumps

Models:

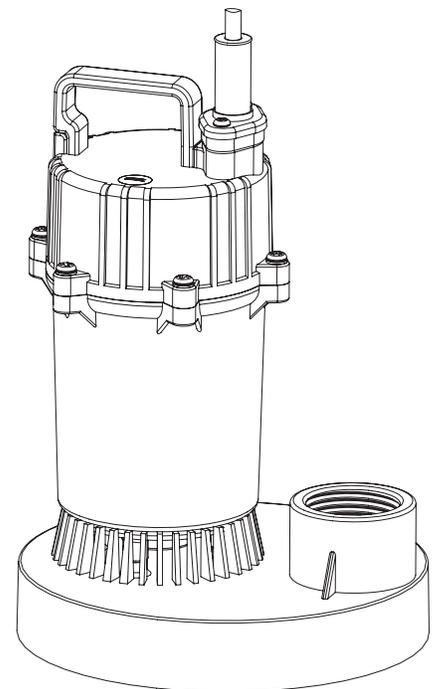
SBA025T1/SBA025V1 (1/4 hp)

SBA033T1/SBA033V1 (1/3 hp)

SBA050T1/SBA050V1 (1/2 hp)

Operating & Installation Instructions

Save these instructions & keep track of your product's serial#



This manual contains important safety and operating instructions.

Read all instructions and follow them when using this product. Failure to consider this information and follow these instructions, including those concerning maintenance, may result in property damage, injury and or death.

Canature WaterGroup Canada Inc. ("Canature") did not design or manufacture this product. Canature has no knowledge of and makes no representations or warranties respecting the product's design, manufacturing, testing, packaging, or inspecting. Canature has disclosed all known risks associated with the product within this manual but cannot disclose risks that are beyond its knowledge.

NOTICE: THIS MANUAL CONTAINS A LIMITED WARRANTY. BY INSTALLING AND OR USING THIS PRODUCT, YOU WAIVE CERTAIN LEGAL RIGHTS INCLUDING THE RIGHT TO SUE OR CLAIM COMPENSATION IN THE EVENT OF PROPERTY DAMAGE, INJURY, AND OR DEATH.

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READING THIS MANUAL

Save these instructions & keep track of your product's serial#



This manual contains important safety and operating information and instructions based on information known by Canature. Canature has no knowledge of and makes no representations or warranties respecting the product's design, manufacturing, testing, packaging and inspecting.

Read all information and instructions and consider all information and follow all instructions when using this product. Failure to consider this information and follow these instructions may result in property damage, injury and/or death.

Throughout this manual, certain conventions are used, including;

- **Hazard symbols** – For your own safety, please pay strict attention! Examples include:



Temperature



Electrical



Motor Restart

- **Hazard signals** – indicate the degree of harm that will or may occur, look like those below.



DANGER

White lettering with red background & safety alert symbol.



WARNING

Black lettering with orange background & safety alert symbol.



CAUTION

Black lettering with yellow background & safety alert symbol.

NOTICE

White lettering with bright blue background.



- **Warranty exclusions** – used to identify specific instructions that, where not followed, will void the warranty identified later in the manual

NOTE

Information being emphasized.

- **Notes** – help you take full advantage of the system and are used to emphasize installation, operation, or maintenance information which is important but does not present a hazard.

INTRODUCTION

The manufacturer is responsible for the design, manufacturing, testing, packaging and inspecting of this pump. Canature does not guarantee the manufacturer's design, manufacturing, testing, packaging and inspecting.

All pumps must be checked for damage prior to installation.

Should any damage be identified, notify your dealer.

This pump may be used to pump reasonably clean water only.



DO NOT pump chemicals, corrosive liquids, oils, sewage, effluents, any water that is not reasonably clean or any other item. Pumping prohibited items will void the warranty.

Please read all information and instructions before installing the pump. Failure to consider this information and follow these instructions may result in property damage, injury and/or death.

SAFETY GUIDELINES

Carefully read, understand, and follow all safety instructions in this manual.



This is the safety alert symbol. When you see this symbol, look for one of the following signal words:



Indicates a hazardous situation which, if not avoided, will result in death or serious injury and/or property loss or damage.



Indicates a hazardous situation which, if not avoided, could result in death or serious injury and/or property loss or damage.



Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury and/or property loss or damage.



Indicates important information, that if not followed, may result in damage to the equipment.

SAFETY INFORMATION

Read these warnings carefully. Know the application and limitations of this pump. Failure to follow these warnings could result in death, serious bodily injury and/or damage, and/or property loss or damage.



**RISK OF
ELECTRIC SHOCK**

Disconnect and lockout power supply before removing old pump, installing, or servicing this pump. 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.

SAFETY INFORMATION (CONTINUED)



The installation of this pump **MUST** be in accordance with the Canadian Electrical Code (CE Code), the National Plumbing Code of Canada (NPC), the International Plumbing Code (IPC), as well as all applicable local codes and ordinances.



Do **NOT** install this pump in any location classified as hazardous by the Canadian Electrical Code (CE code).



Do **NOT** use this pump to pump flammable or explosive fluids such as gasoline, kerosene, etc. Do **NOT** use this pump in flammable or explosive environments. Use only with liquids compatible with pump component materials.



RISK OF ELECTRIC SHOCK

This pump has **NOT** been investigated for use in swimming pool or marine areas.



RISK OF ELECTRIC SHOCK

Do **NOT** use the power cord to remove or lower the pump into the basin.

The cord may pull apart, exposing bare wires which could cause a fire or electrical shock. Use the handle supplied with the pump for installing and removing the pump from the basin.



Running the pump dry will void the warranty.

Do **NOT** run the pump dry. This pump relies on water for cooling. Running the pump dry can cause the pump to overheat and the possibility of burns to anyone handling the pump.



Do **NOT** use this pump for potable/drinking water. Use only in applications for which the pump is designed.



RISK OF FREEZING

Do **NOT** expose pump to freezing temperatures.

Discharge lines exposed to freezing temperatures should be positioned with a downward slope to prevent freezing.

SAFETY INFORMATION (CONTINUED)



RISK OF ELECTRIC SHOCK

Do NOT under any circumstances remove the ground pin.

The 3-prong plug **MUST** be inserted into a mating 3-prong grounded receptacle.

If the installation does not have such a receptacle, it **MUST** be changed to the proper type, wired and grounded in accordance with the Canadian Electrical code and all local codes and ordinances.



All wiring **MUST** be performed by a qualified electrician.



RISK OF SUCTION

To prevent injury, never insert fingers into pump while it is plugged in.



Basins must be vented according to local plumbing codes.



Do NOT handle this pump with wet hands or while standing in wet or damp surfaces or in water.



If a flexible discharge hose is used, make sure the pump is secured in the basin to prevent movement. Failure to secure the pump could result in flooding from switch malfunction.



RISK OF RESTART

This pump motor is equipped with an automatic resetting thermal protector and may restart unexpectedly.

SAFETY INSTRUCTIONS

The following safety rules should be followed to avoid serious injury or property damage.

NOTE

Always remove the plug from the electrical outlet before servicing this pump.

1. Check with your local electrical and plumbing codes to ensure you comply with the regulations. These codes were designed with your safety in mind – be sure to understand and follow the rules. Canature does not guarantee or represent that the product complies with specific local codes.
2. Canature recommends that a separate circuit be led from the home electrical distribution panel and properly protected with a circuit breaker. Canature also recommends that a ground fault circuit interrupter (GFI) be used. Consult a licensed electrician for all wiring.
3.  Do not stand in water when connecting or disconnecting the power cord from the outlet.
4. This product should be connected to a three-prong grounded outlet equipped with a ground fault circuit interrupter.
5.  Do NOT pump flammable liquids with this pump as an explosion or fire could result.
6.  Do NOT run this pump dry. Running this pump without water will damage the mechanical seal, reduce the life of the pump, and void the warranty.
7.  Do NOT touch metal motor housing for at least 30 minutes after pump has operated. A severe burn will result if pump is NOT allowed to cool.
8.  Do NOT lift the pump by the electrical cord.
9.  This product does NOT require lubrication. A special oil has been put into the motor housing at the factory for lifetime lubrication of the bearings. Use of any other oil can cause damage and void the warranty.

INSTALLATION INSTRUCTIONS

Read Before Installing or Operating Pump;

- This information is provided for your SAFETY and to PREVENT EQUIPMENT PROBLEMS based on the information known to Canature.
- Always wear appropriate safety gear, such as safety glasses, when working on the pump or piping.
- Only qualified personnel should install, operate, and repair pumps.
- Make sure the lifting handle is securely fastened each time before lifting.
- Do NOT lift pump by electrical cord.
- Do NOT exceed manufacturer's recommendation for maximum performance, as this may cause the motor to overheat.
- Secure the pump in its operating position so that it cannot tip over, fall, or slide.
- Keep hands and feet away from impeller when power is connected.
- Any wiring of pumps should be done by a qualified electrician.
- Cable should be protected at all times to avoid punctures, cuts, and abrasions. Inspect frequently.
- Do NOT remove cord and strain relief.
- **Canature is NOT responsible for losses, injury, or death resulting from a failure to observe these safety precautions, or misuse or abuse the pumps or equipment.**



Do NOT wear loose clothing that may become entangled in the impeller or other moving parts.

Pumps generate heat and pressure during operation. Allow time for pumps to cool before handling or servicing.

Never operate a pump with a power cord that has frayed or brittle insulation.

Sump Hole

The sump hole should be located at the lowest point in the basement (or bottom floor) below floor level. The sump hole should be plastic, concrete, fiberglass, or structural foam. If concrete tile is used as the sump hole five (5) centimeters or [1.5 inches] of cement should be poured in the bottom to provide a solid foundation and prevent erosion from the sump bottom.

A gravel bottom is unsatisfactory for this pump.

The bottom of the sump should be level for proper pump operation.

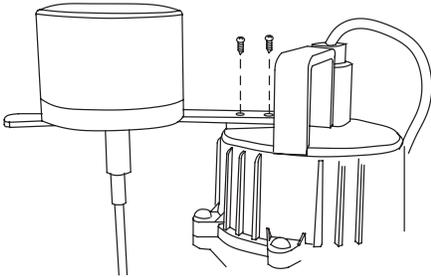
The larger the diameter of the sump hole, the less frequent the pump will have to operate. The pump float switch MUST have enough space to operate freely. A deeper sump provides added water capacity if the power goes out.

INSTALLATION INSTRUCTIONS (CONTINUED)

Pump Float Assembly

Model SBA025T1, SBA033T1, and SBA050T1 are supplied with tether float assemblies which are attached to the pump.

Models SBA025V1, SBA033V1, and SBA050V1 are supplied with vertical float assemblies. These vertical float assemblies must be attached to the pump. Refer to the following diagram for assembly.



Installation for Proper Pump Operation

The pump **MUST** be secured in a manner that prevents the pump from moving. If the pump is allowed to move, the float switch could be restricted by the sump wall, preventing the pump from turning on/off. The minimum diameter sump hole should be no less than 356 mm [14"] for a tethered float and 254 mm [10"] for a vertical float. The minimum depth should be no less than 457 mm [18"] for tethered models and 356 mm [14"] for vertically switched models. The tether length should be no shorter than 76 mm [3"] for proper operation. Do **NOT** increase the tether length on the float switch to more than 127 mm [5"] tether or the pump will **NOT** turn off.

To allow the unit to deliver maximum capacity, the sump should be kept free of accumulated sediment. A 32 mm [1 ¼"] discharge pipe will give best performance for this pump. The vertical distance from the pump to the highest point of discharge piping should **NOT** exceed 6 m [20 ft.]. Keep trash or other objects from interfering with the float.

Pump and Piping

The pump and piping should be positioned securely so that the float will not hang up on the side of the sump, the power cord, or the discharge pipe. The discharge pipe should be 32 mm [1 ¼"]. A union should be installed to facilitate installation and a check valve is recommended to prevent water from draining back into the sump and increasing pump operating frequency. The discharge pipe should be routed to the point of disposal with a minimum number of elbows to reduce losses.

A rigid discharge pipe is recommended to prevent the pump from moving. If a flexible discharge hose is used, the pump hose **MUST** be secured in a manner that prevents the pump from moving. If the pump is allowed to move, the float switch could be restricted by the sump wall, preventing the pump from turning on/off.

PUMP OPERATIONS

The pump will start when the water has filled the sump to a depth that engages the automatic float switch. The pump will stop when the water depth disengages the automatic float switch. The pump will recycle thereafter as required.

Allow pump to go through several cycles to assure satisfactory operation. If the pump does NOT operate properly, see troubleshooting checklist.

Refer to figure 1 for a typical installation.

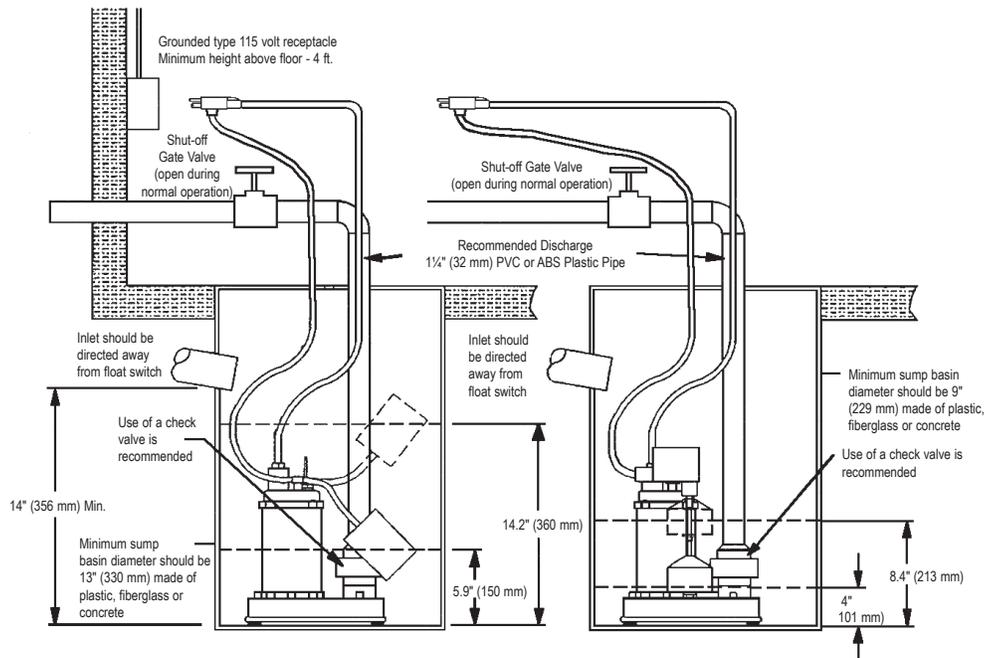


Figure 1 – Recommended Installation of a Sump Pump

ELECTRICAL INFORMATION

The pump operates on a 115 volt, 60 cycle AC, single phase and has a three-prong plug. The third prong is used to ground the pump to prevent possible fatal shocks. The third prong MUST NOT be removed. The fuse or circuit breaker used should be a 15- amp time delay type.



RISK OF ELECTRIC SHOCK

This pump is supplied with a grounding type attachment plug. To reduce the risk of electrical shock, be certain that it is connected only to a properly grounded type receptacle.

Automatic Thermal Overload Protection

The motor has a built-in automatic overload protector. It will cut the power to the motor before the temperature rises enough to damage the motor windings. Should the overload stop the pump operation, it will reset automatically. Operation will resume when the motor cools enough to close the overload switch.

MAINTENANCE INSTRUCTIONS

This product has been designed as a dewatering pump for flood protection in a residential home. The application of this product is for permanent installation.

Conduct annual maintenance of the product, along with periodic checks to be sure the pump is in operational condition. Failure to do so may result in property loss or damage, personal injury and/or death.

Periodic checks are monthly or more often in problem areas, they consist of activating the pump by raising the switch to ensure it turns the pump ON as intended.



Alterations to the power cord voids the warranty.



Do NOT use this pump, to pump liquids (water), in excess of 37.8 °C [100 °F].

For proper maintenance;

- The pump **MUST** be kept clean and free of debris.
- The inlet screen prevents the passage of dirt and other solid material from entering the pump, but it can be overwhelmed.
- Cleanings should occur often for pumps that run constantly.
- Inspectors should make sure that the float is not tangled or jammed in one position.
- A pump with a jammed float is useless because it will not sense when it should turn on and shut off.
- The pump can be tested by pouring water into the pit to ensure it activates and expels water.
- The homeowner should seek professional assistance if the pump does **NOT** activate.
- Do **NOT** lift up the pump by the power cord.
- Refer to troubleshooting checklist if pump does not operate properly.



Do NOT disassemble the motor housing. This motor has NO repairable internal parts, and disassembly may cause an oil leak or dangerous electrical wiring issues.



RISK OF ELECTRIC SHOCK

This pump is supplied with a grounding type attachment plug. To reduce the risk of electrical shock, be certain that it is connected only to a properly grounded type receptacle.

CLEANING THE PUMP

1. Always disconnect unit from power supply before any servicing is performed.
2. Disconnect discharge piping and remove pump from sump basin.
3. Submerge pump in a disinfectant solution (Clorox or chlorine) for at least one hour before disassembling pump.

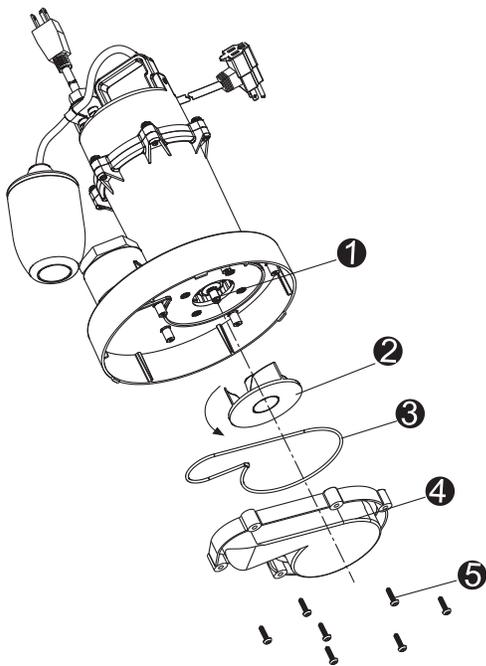


DO NOT remove countersunk screws holding seal plate to stator housing or warranty will be void.

4. Unscrew the seven (7) stainless screws and gently pry volute from seal plate using a screwdriver.
5. Use a flathead screwdriver to hold the shaft.

NOTE		
Do NOT remove the impeller from its shaft.		

6. Turn the impeller counter-clockwise to release the impeller.
7. Remove debris from around the shaft and on or under the impeller.
8. Reattach volute and reassemble.



Item	Description	Quantity
1	Shaft	1
2	Impeller	1
3	Seal Ring	1
4	Volute	1
5	Screw	7

TROUBLESHOOTING CHECKLIST

The following steps are for service and cleaning of the pump;

1. Pump does NOT run or hums

- a. Tripped breaker, blown or loose fuse or other interruption of power.
- b. Water level too low for float switch to operate
- c. Float may be stuck – it should operate freely in basin.
- d. Float tether too short. Minimum tether length is 76 mm [3"].
- e. Power cord not making contact at pump. Tighten locking nut on pump.
- f. Power cord not making contact in wall receptacle.
- g. Thermal protector switch opened. Allow pump to cool.
- h. Return for service.

2. Pump runs or hums but does NOT pump or delivers insufficient capacity

- a. Pump NOT properly sized for application.
- b. Incorrect voltage.
- c. Check valve stuck or installed backwards.
- d. Discharge restricted.
- e. Shut off valve closed.
- f. Impeller jammed or inlet screen plugged with debris.
- g. Pump may be air-locked. Start and stop pump several times.
- h. Return for service.

3. Pump will not turn off

- a. Float switch stuck in the up position. Make sure it is free in basin.
- b. Tether length too long. Maximum float tether length is 127 mm [5"].
- c. Excessive inflow or pump NOT properly sized for application.
- d. Return for service.

4. Fuse blows or circuit breaker trips when pump starts

- a. Fuse size or circuit breaker may be too small, need 15 amps.
- b. Impeller jammed or rubbing on debris.
- c. Return for service.

5. Pump cycles too frequent

- a. Check valve NOT installed or leaking.
- b. Float tether is too short. Minimum tether length is 76 mm [3"].
- c. Return for service.

WARRANTY



This product is guaranteed for a period of two (2) years from the date of original retail purchase against defects in materials and workmanship.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification) – at our option. We will bear only the cost of any repair or replacement and any costs of labour relating thereto.

The purchaser is responsible for communication of all necessary information regarding the application and use of product.

Under no circumstances will Canature be responsible for any other direct or consequential damages, including but not limited to travel expenses, rented equipment, outside contractor fees, unauthorized repair shop expenses, lost profits, lost income, labour charges, delays in production, idle production, which damages are caused by any defect in material and/or workmanship and/or damage or delays in shipment.

This warranty is expressly in lieu of any other express or implied warranty, including any warranty of merchantability or fitness for a particular purpose and excludes all other express or implied warranties to the extent permitted by law.

For clarity, where exclusion is not permitted by law, those express or implied warranties are not excluded by this warranty.

This warranty is subject to the following conditions and limitations:

1. A bill of sale verifying the purchase and purchase date must be provided.
2. This warranty will NOT apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect, or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or which is being used for industrial, professional, commercial, or rental purposes
3. This warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product which are expected to become inoperative or unusable after a reasonable period of use.
4. This warranty will NOT apply to any product that was sold to the original purchaser as a reconditioned or refurbished product unless otherwise specified in writing.
5. This warranty will NOT apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made by unauthorized person(s).
6. This warranty will NOT apply to normal deterioration of the exterior finish, such as, but not limited to scratches, dents, paint chips, or to any corrosion or discoloring by heat, abrasive, and chemical cleaners.

Additional Limitations

This warranty applies only to the original purchaser and may NOT be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss of damage, including; without limitation, any indirect, incidental, consequential or exemplary damages arising in connection with the sale, use, or inability to use this product.

This warranty shall NOT apply when damage is caused by;

1. Improper installation.
2. Improper voltage.
3. Lightning.
4. Excessive sand or other abrasive material.
5. Scale or corrosion buildup due to excessive chemical content.
6. Any modification of the original equipment.

We will NOT be responsible for loss, damage, or labor cost due to the interruption of service caused by defective parts. Neither will we accept charges incurred by others without our prior written approval.

This warranty is void if our inspection reveals the product was used in a manner inconsistent with normal industry practice or our specific recommendations.

Notice to Consumer

This warranty gives you specific legal rights and otherwise limits your legal rights to the extent permitted by law. By installing and/or using this product, you are accepting these limits on your legal rights.

Toll Free: 1-877-288-9888
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