

MODEL **400418T**

GRINDER PUMP

2190 Dagenais Blvd. West
LAVAL (QUEBEC)
CANADA
H7L 5X9

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Your pump has been carefully packaged at the factory to prevent damage during shipping. However, occasional damage may occur due to rough handling. **Carefully inspect your pump** for damages that could cause failures. Report any damage to your carrier or your point of purchase.

Please read these instructions carefully. **Failure** to comply with these instructions and the **designed** operation of this system may **void** the warranty.

INITIAL START UP PROCEDURES:

1. Inspect the pump and the sewage tank for any obvious condition that may require cleaning, correction, adjustment or repair.
2. Ensure that the pump is secure and vertical for proper operation.
3. Ensure that there is adequate clearance from any combustible materials or structure. Stored materials must be kept away from the pump. Shelves or cabinet structures must not be in close proximity over the pump.
4. Ensure that the motor is securely plugged into a proper 'GFCI' electrical outlet.
5. Test the 'GFCI' outlet by pressing its test switch. This should prove that the outlet is energized and will trip off to protect against a ground fault. Be sure to reset the 'GFCI' by pressing its reset switch. (Repeat this step monthly)
6. Lift the float to verify that the pump will start when required. (Step 7 below will test submersible pumps with enclosed floats).
7. Pour pails of water in the sewage tank to turn the pump on. Ensure that any check valve present will permit the sewage to flow.
8. Observe that the plumbing can pump the sewage safely out of the residence. (Repeat this step monthly)



SAFETY INSTRUCTIONS:

Before installation and operation, follow these procedures:

- A** Check with your local electrical and plumbing codes to ensure you comply with the regulations. These codes have been designed with your safety in mind. Be sure you comply with them.
- B** A separate circuit must be led from your home's electrical distribution panel and it must be properly protected by a fuse or a circuit breaker. We also require that a ground fault circuit be used as well as a 'GFCI' receptacle. Consult a licensed electrician for all wiring.
- C** The ground terminal on a three-prong plug should never be removed. It is supplied and designed for your protection.
- D** Never make adjustments to any electrical appliance or product with the power connected. Do not only unscrew the fuse or trip the breaker, you must unplug the unit from the receptacle.

ELECTRICAL CONNECTION:

For pumping systems using more than one pump, each pump needs to be connected to its own dedicated circuit protected by a fuse or breaker. The use of dedicated circuits will allow the other pumps to continue functioning even if the fuse or breaker of one of the pumps trips .

MATERIAL REQUIRED FOR SEWAGE PUMP APPLICATION:

- ☐ Desired length of ABS/DWV 2" pipe, to link up from pump discharge to the existing waste or drain pipe.
- ☐ Required quantities of 2" ABS/DWV elbow (s) and/or other fitting (s) to run the discharge line.
- ☐ 1 only 1 1/4" male adaptor to 2" slip, to connect the discharge pipe to the pump.
- ☐ Desired length of ABS/DWV 3" pipe and required quantities of 3" ABS/DWV elbow (s) and/or other fitting (s) to run the vent line.
- ☐ 1 only 2" union check valve # 450457.
- ☐ 1 only 18" X 30" minimum size sewage basin such as # 450448 or 24" X 24" # 450450.
- ☐ Teflon tape and ABS cement.

TOOLS:

Screwdrivers, hacksaw to cut pipe, knife to assist in pipe cutting, round file to smooth pipe ends, pipe wrench, adjustable wrench, 1/4" drill bit and drill.

Ensure that you have a gas tight cover for your sewage basin and 3" ABS/DWV vent piping.

NOTICE

This unit has been designed to pump sewage only. This unit is not designed for applications involving salt water, brine or any other liquids including petroleum products. Use with salt, brine or any other liquids including petroleum products will void the warranty.

APPLICATIONS:

- Designed for a permanent installation for homes and cottages application.

CAPACITIES:

HEAD	US GPH	HEAD	LPH
1.5m	7650	5'	29000
3.0m	6900	10'	26000
4.5m	5800	15'	22000
6.0m	5600	20'	21000
7.5m	4800	25'	18200
9.0m	3900	30'	14900
10.5m	2000	35'	7500
12.0m	1500	40'	5800

FRICITION LOSS IN
PIPE NOT INCLUDED.

- 1 HP
- 115 V AC
- 60 Hz
- 11.9 A (23 A at start)

IMPORTANT NOTICE:

The following are minimum requirements in order to protect your residence from flooding. It is a small investment but it is your personal responsibility to protect your home, family and valuables. Failure to comply with the following requirements will also void your warranty:

- Two (2) pumps have to be installed in the sewage basin. The first pump as a primary pump and the second pump as the backup unit.
- An Alarm system model 450454 has to be installed to advise you of any malfunctions.

Pump selection, proper and adequate installation are a must to comply with local by-laws and need to be adhered to.

INSTALLATION STEPS:

See typical installation diagram on page 4

STEP 1

We recommend that you install your pump and basin in a clean location where there is adequate room for servicing at a later date. Protection from freezing temperatures and good ventilation should be considered as well, to provide the pump an environment for long life. To replace an existing sewage pump, please ensure your sewage basin is at least 18" X 30" or 24" X 24".

Friction losses in the discharge pipe must be taken into consideration when many elbows and fittings are installed in the discharge line. Each elbow and fitting must be considered as 1 foot of head.

Never run the pump dry. Damage to the seal may occur.

The run of the pipe from the check valve to the existing waste or drain line must always be connected to the top of the drain line, never from underneath. (See diagram on page 4)

STEP 2

For a new installation, install your sewage basin in the excavation you have provided in the basement floor of your home. Connect the necessary piping from your shower trap, toilet, etc., to the inlet of your sewage basin, with the proper pipe and fittings.

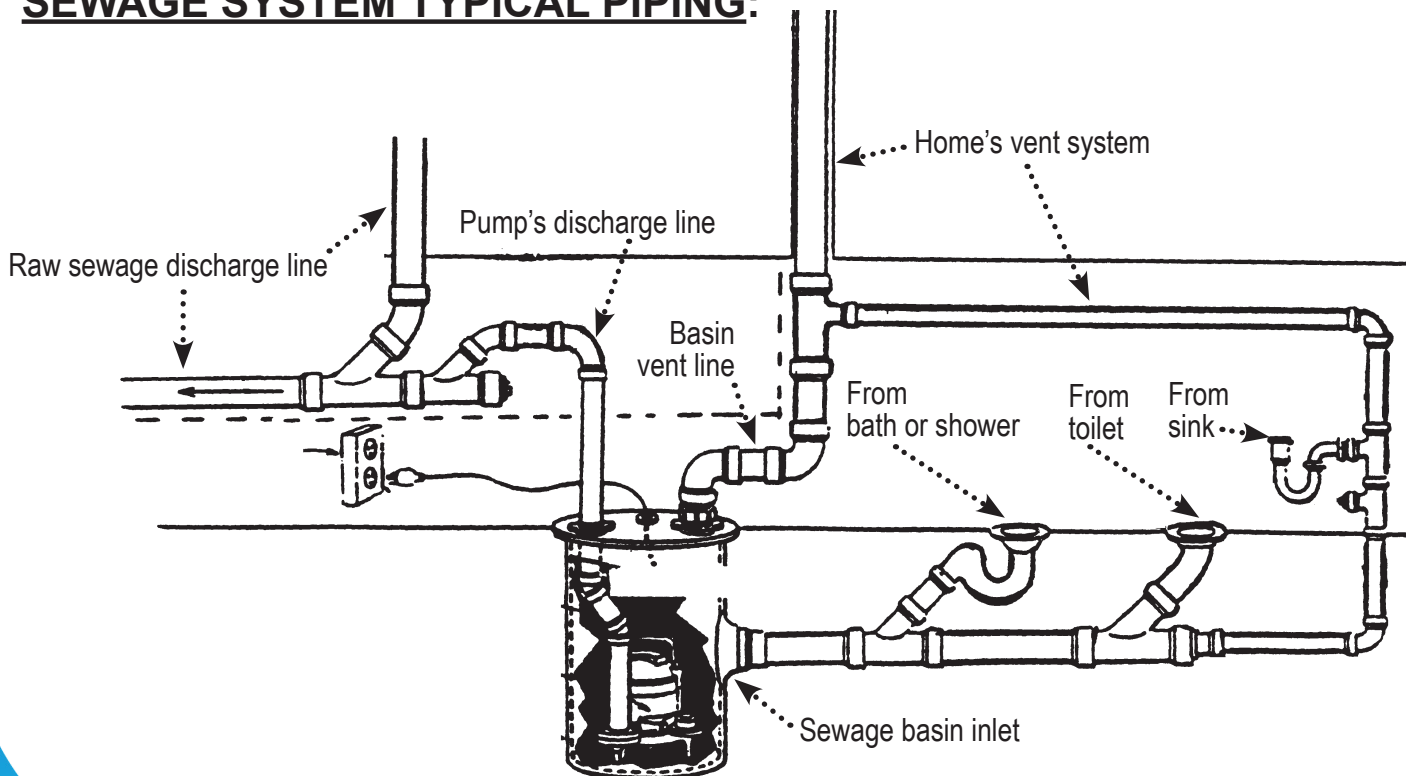
(See diagram)

STEP 3

Cut a length of 40" to 42" of 2" ABS/DWV pipe. Cement the 1 1/4" male adaptor to 2" slip to one end of this pipe.

- STEP 4** With your drill, make a 1/4" hole in the adaptor previously glued. This hole will prevent any air locking that might occur.
- STEP 5** Screw the pipe with the male adaptor into the 2" discharge opening in the pump. Lower pump with piping attached into the sewage basin. Make sure that the pump is as close as possible to the centre of the basin. Adjusting the pump in the centre of the basin will prevent the mechanical float switch from hitting the side of the basin.
- STEP 6** When you are pumping raw sewage, you must have a gas tight cover on the basin and a vent pipe from the basin, connected to your home's vent system (see diagram). Feed the 2" riser pipe from pump's discharge, through the 2" opening in the cover. Secure a 3" vent pipe to the cover and bring the switch and pump motor power cables through the designated opening in the cover.
- STEP 7** Install a 2" union type check valve (model 450457) to the 2" discharge riser pipe coming out of the cover, to a length of 2" ABS/DWV pipe, and run the discharge line as short as possible to the home's sewer line. Secure the check valve with the clamps provided. Be sure that the arrow on the valve is pointing away from the pump.
- STEP 8** Plug the 3 prong plug of the switch in a receptacle. Insert the motor 3 prong plug into the female receptacle on the exposed piggy-back of the switch plug. The mechanical switch provided for automatic operation is preset for the pump. No adjustments are necessary.
- STEP 9** Fill the sewage basin with water to test the operation of the submersible sewage pump and switch operation. The pump should start pumping when the water level reaches 12" to 15" above the bottom of the basin. Allow the pump to go through several "ON-OFF" cycles to ensure satisfactory operation.
- STEP 10** Secure the gas tight cover and the plug for electrical cords with the gaskets and screws provided with the cover. Make the vent connection to the home's vent system.

SEWAGE SYSTEM TYPICAL PIPING:



SEWAGE PUMP APPLICATION:

STEP 7
Install check valve.

STEP 6
Feed discharge riser pipe, vent pipe and power cables through gas-tight cover.

STEP 2
Install sewage basin.

STEP 4
Drill a 1/4" hole.

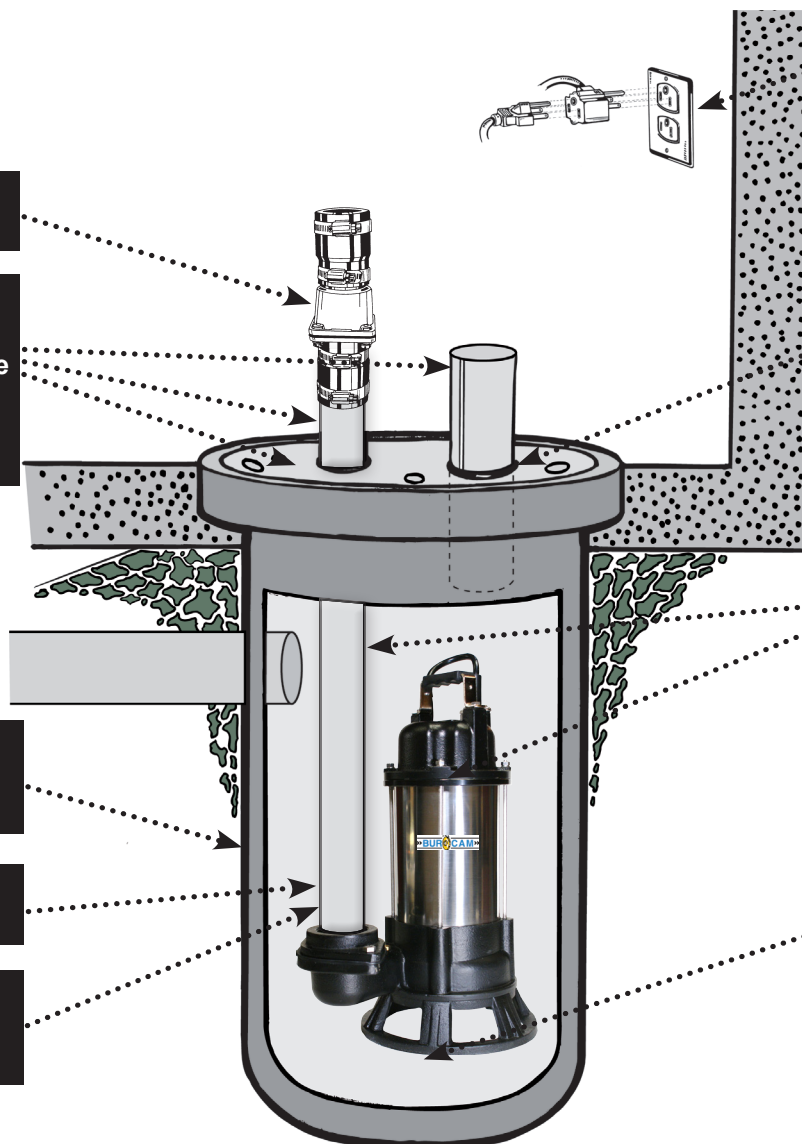
STEP 3
Cement 2" adaptor to pipe.

STEP 8
Connect to receptacle.

STEP 10
Secure cover and make vent connection.

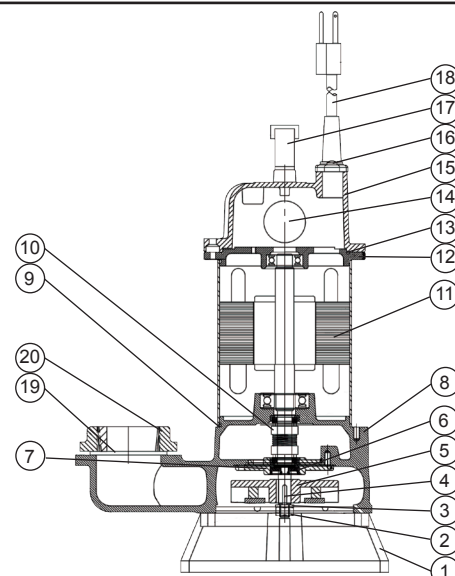
STEP 5
Install discharge pipe and lower pump in centre of basin.

STEP 9
Fill with water and test operation.



REPAIR PARTS:

#	REF.	DESCRIPTION	#	REF.	DESCRIPTION
1	410093	Base	14	410094	Capacitor
2	410104	Impeller Nut	15	410087	Motor Cap
3	410105	Impeller Washer	16	410103	Cable Screw
4	410096	Impeller Key	17	410101	Handle
5	410090	Impeller	18	410102	Cable
6	410097	Oil Seal	19	410099	Seal
7	410092	Oil Seal cover	20	410100	Discharge Flange
8	410091	Pump Casing			
9	410098	O-Ring			
10	410095	Mechanical Seal			
11	410088	Motor			
12	410089	Bearing Cover			
13	410098	O-Ring			



Repair parts may be ordered from your authorized point of sale or from BUR-CAM PUMPS

TROUBLE SHOOTING GUIDE CHECKLIST:

NEVER MAKE ADJUSTMENTS TO ANY ELECTRICAL APPLIANCE OR PRODUCT WITH THE POWER CONNECTED. DON'T JUST UNSCREW THE FUSE OR TRIP THE BREAKER, UNPLUG THE UNIT FROM THE RECEPTACLE.

TROUBLE:	PROBABLE CAUSE:	ACTION:
Motor does not run.	Switch is in 'OFF' position Blown fuse Tripped breaker Disconnected plug Corroded plug Float stuck Defective switch Defective motor	Turn switch to 'ON' position Replace Reset Re-install Clean Check movement Replace Replace
Motor runs but no water is delivered.	Improper voltage Pump may be airlocked Pump discharge head too high Clogged inlet/impeller	Check voltage Check drilled hole in discharge pipe Wrong pump selection (over 40') Clean
Pump does not deliver to full capacity.	Improper voltage Pump may be airlocked Pump discharge head too high Clogged inlet/impeller	Check voltage Check drilled hole in discharge pipe Wrong pump selection (over 40') Clean
Pump does not shut off.	Defective switch Missing check valve Clogged check valve in open position Float obstruction	Replace Install valve Clean debris Check for movement

TO THE END CONSUMER

If you have any problems with the product, before advising the store where you've purchased the pump, please contact us at **514 337-4415**, and ask for our sales department, and they will be pleased to help you with any questions you might have concerning your installation.