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INSTALLATION INSTRUCTIONS

MODELS

400405T
400406T
400409T

SEWAGE PUMP

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

ILLUSTRATED MODEL 400405T



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.

SAFETY INSTRUCTIONS:

This fine pump that you have just purchased is designed from the latest in material and workmanship.

Before installation and operation, we recommend the following 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** WE RECOMMEND THAT A SEPARATE CIRCUIT BE LEAD FROM THE HOME ELECTRICAL DISTRIBUTION PANEL PROPERLY PROTECTED WITH A FUSE OR A CIRCUIT BREAKER. WE ALSO RECOMMEND THAT A GROUND FAULT CIRCUIT BE USED. CONSULT A LICENSED ELECTRICIAN FOR ALL WIRING.
- C** THE GROUND TERMINAL ON THE THREE PRONG PLUGS SHOULD NEVER BE REMOVED. THEY ARE 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, REMOVE THE POWER PLUG FROM THE RECEPTACLE.

Material required for sewage pump application

- Desired length of ABS/DWV 2" pipe, to link up from pump discharge to waste or drain existing pipe.
- Required quantities of 2" ABS/DWV elbow(s) and/or other fitting(s) to run the discharge line.
- 1 only 2" ABS/DWV 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 like # 400420.
- Teflon tape and ABS cement.

NOTICE

This unit is not designed for applications involving salt water or brine .
Use with salt water or brine will void warranty.

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.

APPLICATIONS

- This domestic submersible sewage pump is designed and suitable for raw sewage applications where the total head requirements do not exceed 25,35 or 40 feet, including pipe friction losses.

CAPACITY:

FRICION LOSS IN
PIPE NOT INCLUDED

	400405T	400406T	400409T
5'	4200 US GPH	5700 US GPH	10200 US GPH
10'	3300 US GPH	4800 US GPH	9000 US GPH
15'	2400 US GPH	3900 US GPH	7800 US GPH
20'	1500 US GPH	3000 US GPH	6600 US GPH
25'	600 US GPH	2100 US GPH	5400 US GPH
30'		1100 US GPH	4200 US GPH
35'		400 US GPH	3000 US GPH
40'			1800 US GPH

FEATURES

- Vortex designed impeller made from cast iron.
- Rugged cast iron pump body.
- Stainless steel motor body.
- Stainless steel mechanical rotary type motor seal.
- 2" NPT pump discharge.
- Thermal and overload protection.
- 3/4HP, 115VAC, 60Hz, 9A, oil filled base.
- 1HP, 230VAC, 60Hz, 8A, oil filled base.
- 2HP, 230VAC, 60Hz, 15A, oil filled base.

INSTALLATION STEPS

see typical installation diagram in 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.

Assuming that you have a sump pit located in your basement floor... Your sump pit should be constructed from concrete, brick, tile or more recently a sump basin made from plastic and/or fiberglass. The minimum size of your sump pit must be 18" in diameter and no less than 25" deep. When pit is ready, proceed to next step.

Friction losses in the discharge pipe must be taken into consideration when many elbows and fittings are installed in the discharge line. Each elbows and fittings must be considered as 1 feet 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 NEVER BE SLOPING DOWNWARD EXCEPT WHEN CONNECTING TO SAME.

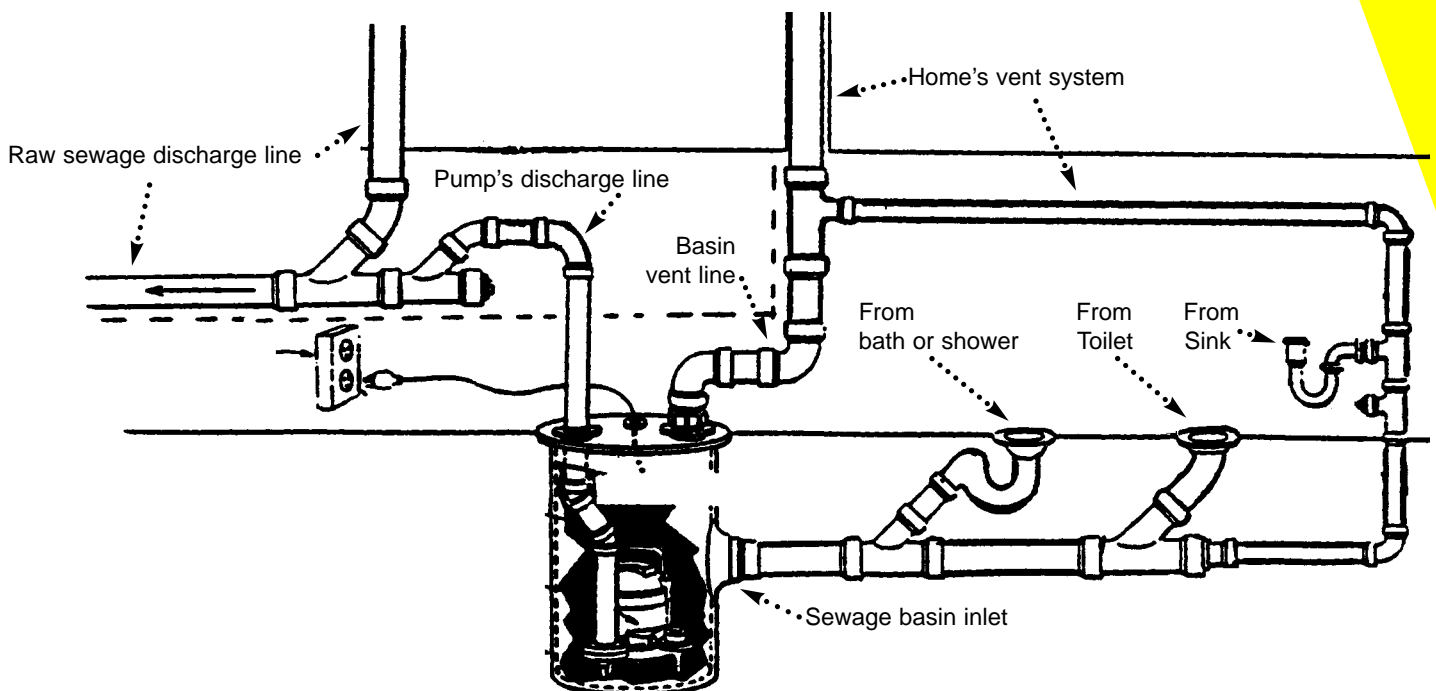
- STEP 2** For a new installation, install your sewage basin in the excavation you have provided in the basement floor of your home. Connect the necessary piping from your shower trap, toilet, etc., to the inlet of your sewage basin, with the proper pipe and fittings (see diagram).

- STEP 3** Cut a length of 40" to 42" of 2" ABS/DWV pipe. Cement the 2" ABS/DWV 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 wich 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 centre of basin will keep mechanical float switch from rubbing on side of basin.
- STEP 6** When you are pumping raw sewage, you must have a gas tight cover on the basin and a vent pipe from basin, connecting to 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 opening in the cover provided.
- STEP 7** Install a 2" check valve (model 450457) union type 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 waste sewer line. Secured the check valve with the provided clamps. Be sure that the arrow on valve are pointing away from pump.
- STEP 8** Connect the 3 prong plug of the switch in a receptacle. Insert the motor 3 prong plug into female receptacle on exposed piggy-back of switch plug. The mechanical switch provided for automatic operation is preset to 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. Pump should start pumping when the water level reaches 12" to 15" above the bottom of the basin and above the pump. Allow the pump to go several "on-off" cycles to assure 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 vent connection to home's vent system.

SEWAGE SYSTEM TYPICAL PIPING



SEWAGE PUMP APPLICATION

STEP 7

Install check valve

STEP 6

Set gas tight cover, discharge and vent pipes

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 2

Install sewage basin

STEP 4

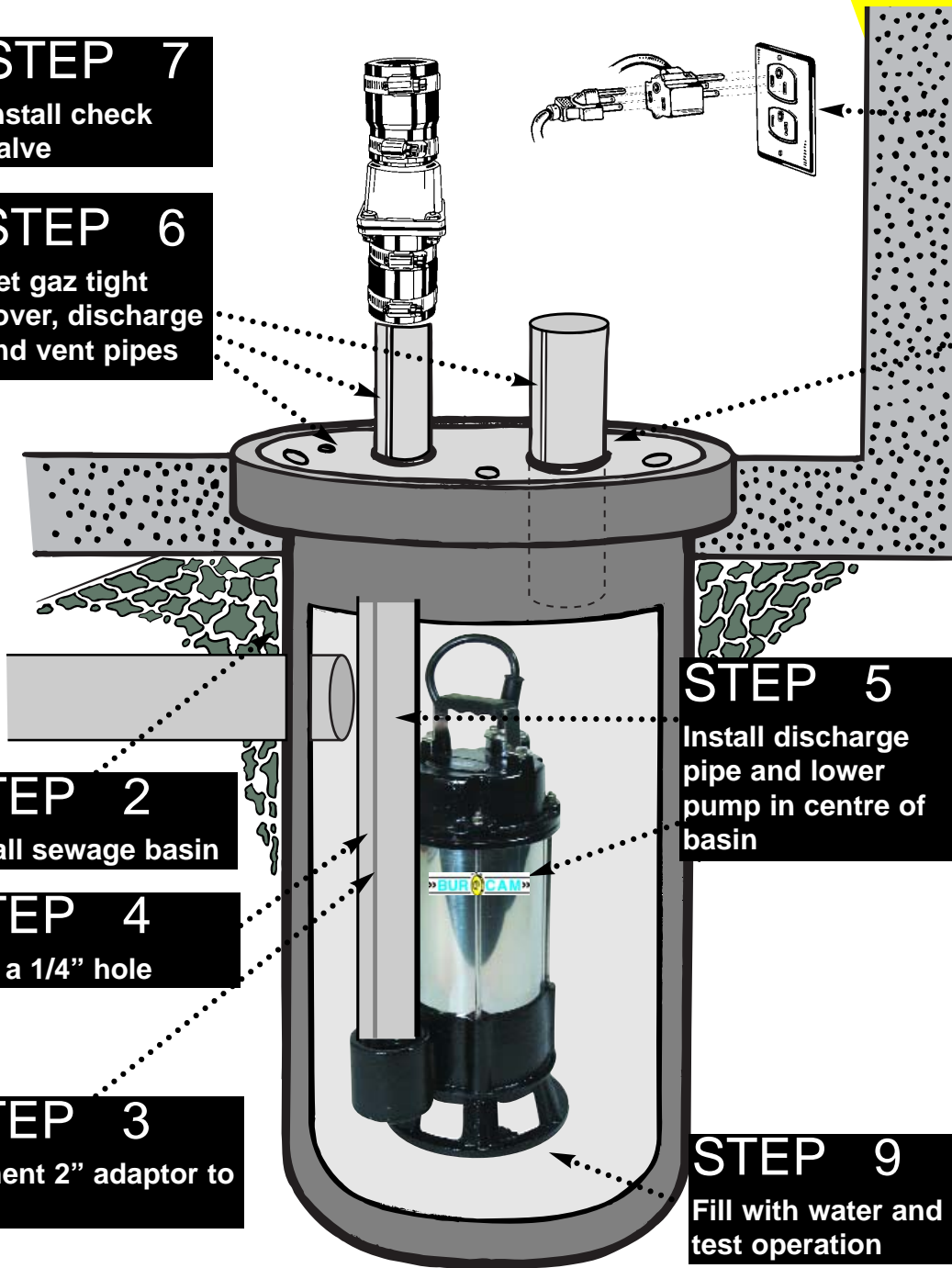
Drill a 1/4" hole

STEP 3

Cement 2" adaptor to pipe

STEP 9

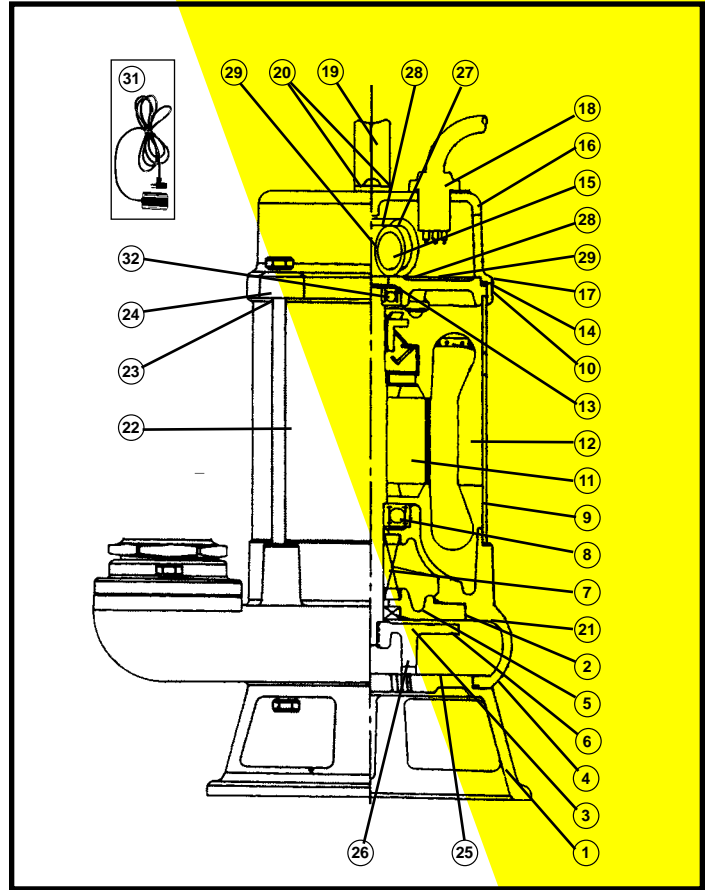
Fill with water and test operation



REPAIR PARTS

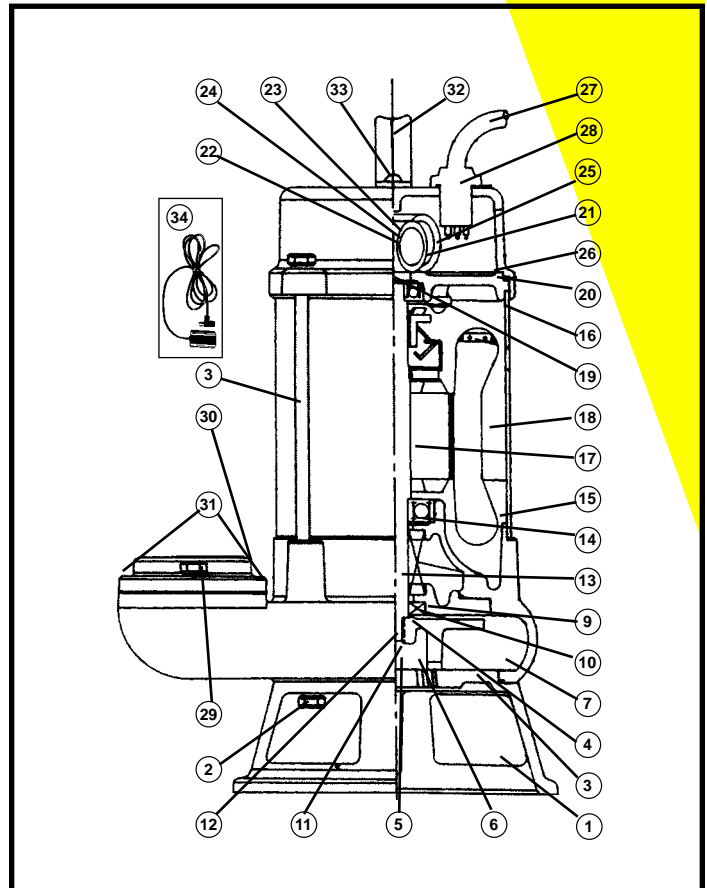
MODEL 400405T

#	ITEM	DESCRIPTION
1	450331	Strainer
2	450332	Oil cover "O" ring
3	400447	Impeller
4	450333	Pump casing
5	400450	Oil cover
6	400449	Oil seal
7	400448	Mechanical seal
8	506032	Lower bearing
9	450335	Motor casing
10	450336	Motor housing "O" rings (2)
11	400453	Rotor shaft
12	400454	Stator
13	506031	Upper bearing
14	450338	Inside cover
15	400451	Capacitor
16	450340	Head cover
17	450341	Inside cover "O" ring
18	400446	Power cable
19	300487	Handle
20	310312	Handle bolts (2)
21	450702	Screws (4)
22	450020	Long bolts (4)
23	450021	Head cover nuts (4)
24	450022	Head cover snap rings (4)
25	450023	Impeller nut
26	450026	Plate capacitor screws (2)
27	450704	Capacitor clamp
28	310310	Capacitor screw clamp
29	450025	Capacitor plate
30	450024	Impeller snap ring
31	450453	Mechanical switch
32	450706	Centrifugal switch



MODEL 400406T

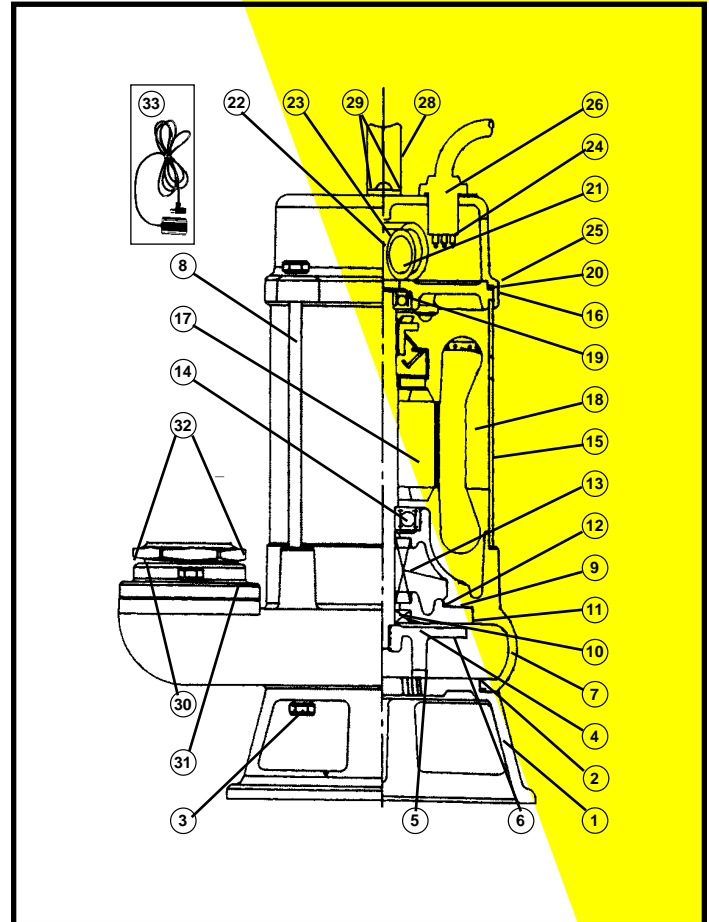
#	ITEM	DESCRIPTION
1	450345	Strainer
2	450712	Strainer bolts (4)
3	450346	Strainer packaging
4	400457	Impeller
5	450709	Impeller nut
6	450710	Impeller snap ring
7	450347	Pump casing
8	450708	Long bolts (4)
9	400461	Oil cover
10	400459	Oil seal
11	450702	Screws (4)
12	450332	Oil cover "O" ring
13	400458	Mechanical seal
14	450348	Lower bearing
15	450349	Motor casing
16	450350	Motor casing "O" ring
17	400464	Rotor shaft
18	400465	Stator
19	506032	Upper bearing
20	450352	Inside cover
21	400462	Capacitor
22	450707	Capacitor plate
23	310309	Capacitor clamp
24	310310	Capacitor plate screws (3)
25	450353	Head cover
26	450354	Head cover packaging
27	400456	Power cable
28	450711	Power cable screws (2)
29	450713	Discharge clamp
30	450714	Discharge gasket
31	450715	Discharge bolts (2)
32	300487	Handle
33	310312	Handle bolts (2)
34	450478	Mechanical switch 230V



REPAIR PARTS

MODEL 400409T

#	ITEM	DESCRIPTION
1	450360	Strainer
2	450361	Strainer packaging
3	450717	Strainer bolts (4)
4	400438	Impeller
5	450709	Impeller nut
6	450710	Impeller snap ring
7	450362	Pump casing
8	450716	Long bolts (4)
9	400441	Oil cover
10	400440	Oil seal
11	450332	Oil cover "O" ring
12	450702	Screws (4)
13	400439	Mechanical seal
14	450348	Lower bearing
15	450364	Motor casing
16	450350	Motor casing "O" ring
17	450366	Rotor shaft
18	400444	Stator
19	506032	Upper bearing
20	450369	Inside cover
21	400462	Capacitor
22	310309	Capacitor clamp
23	310310	Capacitor clamp screw
24	450353	Head cover
25	450354	Head cover gasket
26	400456	Power cable
27	450711	Power cable screws (2)
28	300487	Handle
29	310312	Handle bolts (2)
30	450718	Discharge clamp
31	450719	Discharge gasket
32	450715	Discharge bolts (2)
33	450478	Mechanical switch 230V



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, REMOVE THE POWER FROM THE RECEPTACLE.

TROUBLE	PROBABLE CAUSE	ACTION
Motor does not run.	<ul style="list-style-type: none"> Switch is off position Blown fuse Tripped breaker Disconnected plug Corroded plug Float stuck Defective switch Defective motor 	<ul style="list-style-type: none"> Turn switch to on position Replace Reset Re-install Clean Check movement Replace Replace
Motor runs but no water is delivered.	<ul style="list-style-type: none"> Improper voltage Pump may be airlocked Pump discharge head too high Clogged inlet/impeller 	<ul style="list-style-type: none"> Check voltage Check drilled hole in discharge pipe Wrong pump selection (over 25') Clean
Pump does not deliver to full capacity.	<ul style="list-style-type: none"> Improper voltage Pump may be airlocked Pump discharge head too high Clogged inlet/impeller 	<ul style="list-style-type: none"> Check voltage Check drilled hole in discharge pipe Wrong pump selection (over 25') Clean
Pump does not shut off.	<ul style="list-style-type: none"> Defective switch Missing check valve Clogged check valve in open position Float obstruction 	<ul style="list-style-type: none"> 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.