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INSTALLATION INSTRUCTIONS

MODEL 400401T SEWAGE PUMP

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

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.

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

APPLICATIONS

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

CAPACITY:

- 5' 4900 US GPH
- 10' 3900 US GPH
- 15' 3000 US GPH
- 20' 2200 US GPH
- 25' 600 US GPH

FRICITION LOSS IN
PIPE NOT INCLUDED

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.
- Mechanical type float switch, 15A.
- 1/2HP, 115VAC, 60Hz, 7A, oil filled.

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.

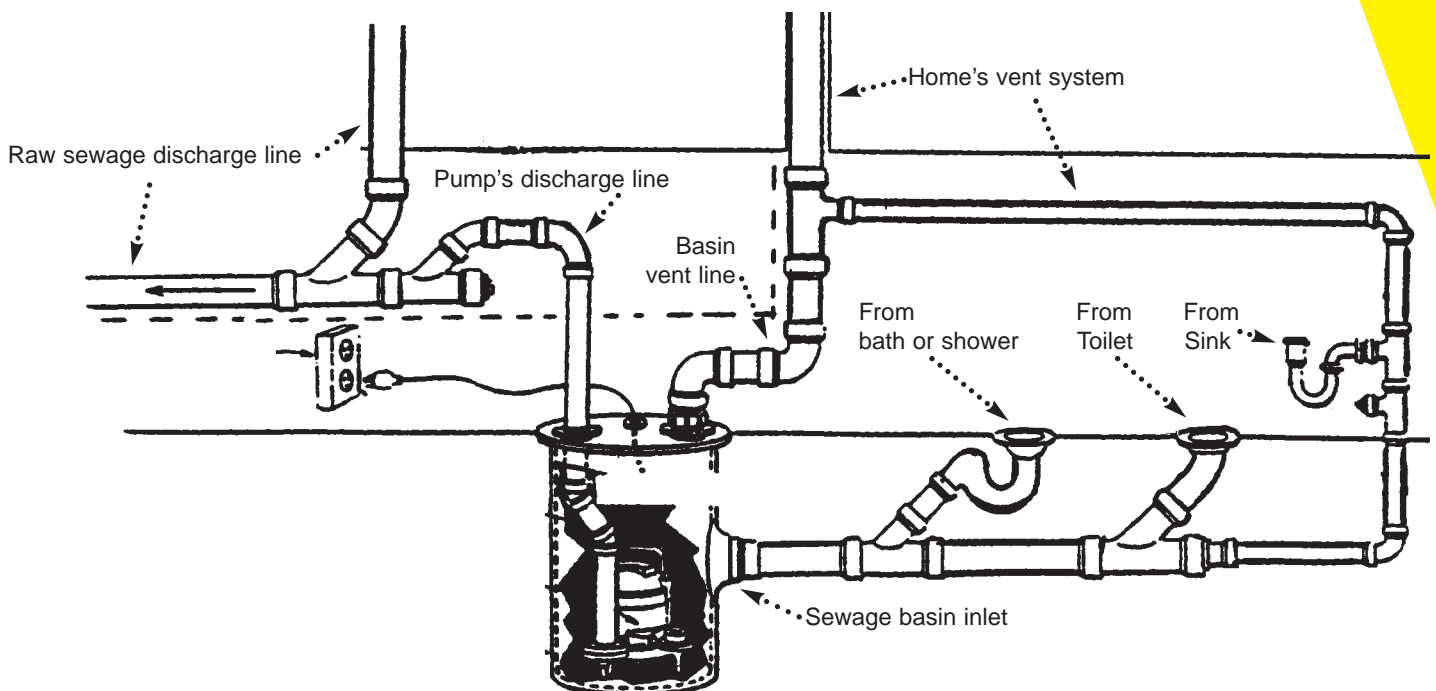
- STEP 2** For a new installation, install your sewage basin in the excavation you have provided in the basement floor of your home. Connect the necessary piping from your shower trap, toilet, etc., to the inlet of your sewage basin, with the proper pipe and fittings (see diagram).

- 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.

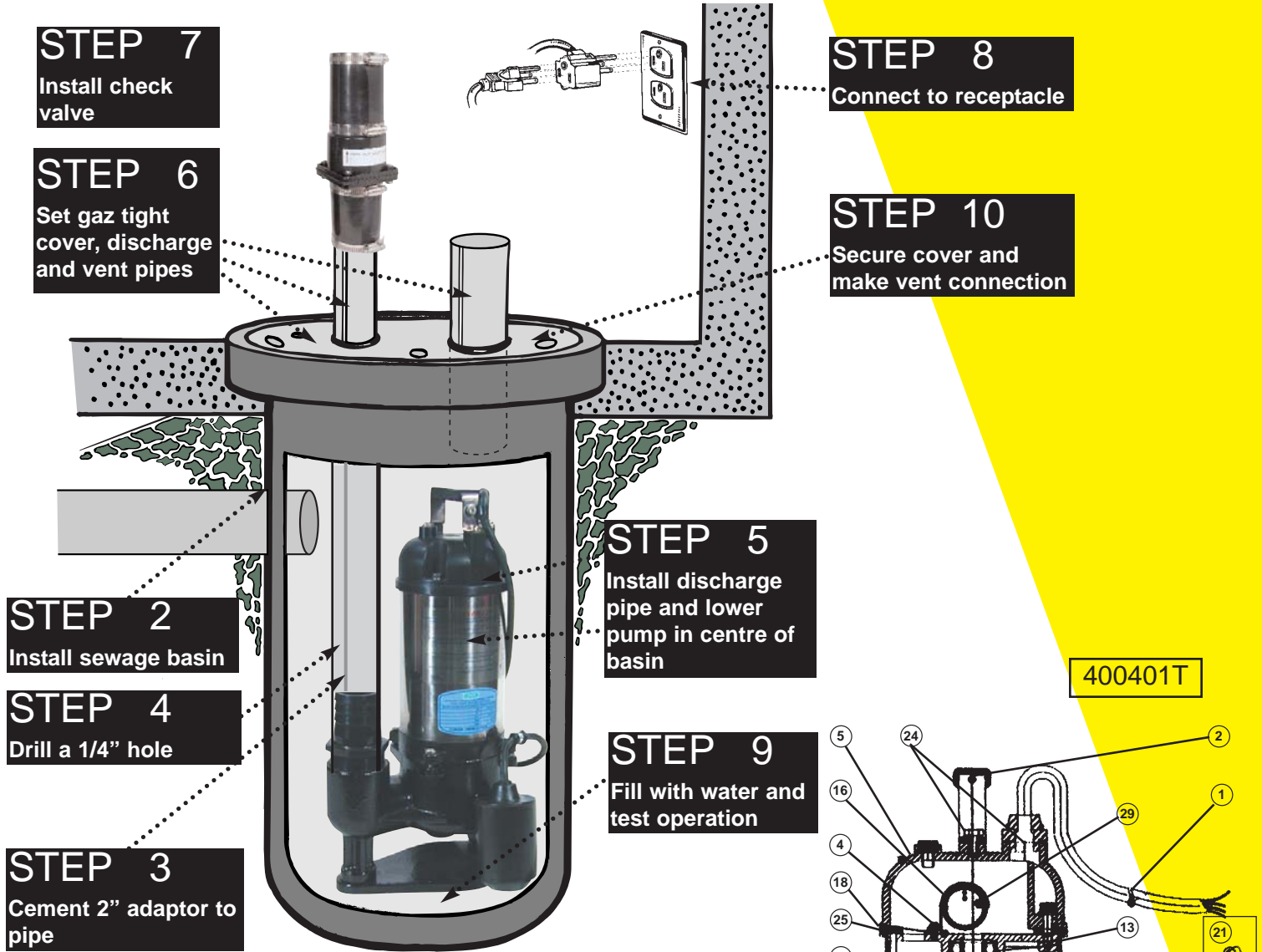
- STEP 4** With your drill, make a 1/4" hole in the adaptor previously glued. This hole will prevent any air locking wich might occur.

- 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



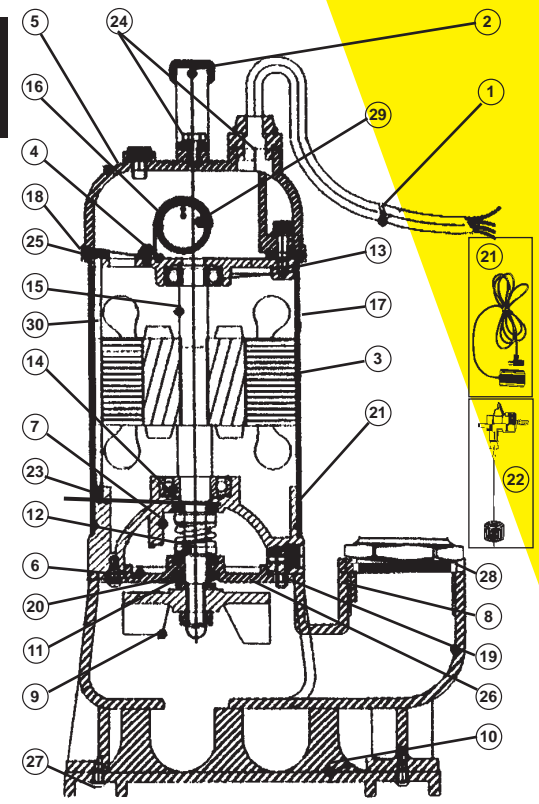
SEWAGE PUMP APPLICATION



400401T

REPAIR PARTS

REF	#ITEMS	DESCRIPTIONS	REF	#ITEMS	DESCRIPTIONS
1	400353	Power cable	16	400368	Capacitor
2	300487	Handle	17	400369	Motor casing
3	400355	Stator	18	400370	Top gasket
4	400356	Motor upper plate	19	400371	Seal plate "O" ring
5	400357	Motor cover	20	400374	Oil seal bushing
6	400358	Seal plate	21	450446	Vertical switch
7	400359	Motor base plate	22	450453	Mechanical switch
8	400360	Pump casing	23	400375	"O" ring motor base (2)
9	400361	Impeller	24	450700	Cable & screw of handle (4)
10	400362	Bottom plate	25	450701	Bolts housing & cover (8)
11	400363	Oil seal	26	450702	Screws (4)
12	400364	Mechanical seal	27	450703	Plate base screws (3)
13	350335	Upper bearing	28	300485	Discharge adaptor
14	506031	Lower bearing	29	450704	Capacitor clamp
15	400367	Rotor & shaft	30	450705	Long bolt (4)



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