



TABLE OF CONTENTS

SECTION.....	PAGE
Safety Information	3
General Information.....	4
Installation.....	5
Operation & Maintenance	6-7
Parts List.....	8
Troubleshooting	9
Warranty.....	10

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OVERVIEW

Install the pump on a hard, level surface (cement, asphalt, etc.). Never place the pump directly on earth, clay or gravel surfaces. Install the pump in a sump basin with a minimum diameter of 18" (46cm).

⚠ WARNING Do not lift pump by the power cord. See Cord Lifting Warning below.

PIPING INSTALLATION

Piping must not be smaller than the pump discharge size.

The pump is designed to operate partially or completely submerged in effluent liquids and pump semi-solid fluids up to 3/4" (51mm) in diameter.

When installed in an effluent system, the pipe must be capable of handling semi-solids of at least 3/4" (19mm) in diameter.

The rate of flow in the discharge pipe must keep any solids present in suspension in the fluid. To meet minimum flow requirements (2 feet per second in the discharge line), size the pipe as follows:

PIPE SIZED AT:	HANDLES A FLOW RATE OF:
_____	_____
_____	_____
_____	_____

When using in an effluent system, install a 2" (51mm) check valve in pump discharge to prevent backflow of liquid into sump basin. The check valve should be a free flow valve that will easily pass solids. Be sure check valve installation complies with local codes.

OPERATION

An automatic overload protector in the motor will protect the motor from burning out due to overheating/overloading.

When the motor cools down, the overload protector will automatically reset and start the motor.

If the overload trips frequently, check for the cause. It could be a stuck impeller, wrong/low voltage, or an electrical failure in the motor. If an electrical failure in the motor is suspected, have it

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3. Remove four screws from the top of the motor and pull the motor straight up to remove it from the seal plate.
4. Tap the stationary half of the seal out of the seal plate.
5. With a cardboard washer over the carbon face of the seal, press it straight down into the seal cavity in the seal plate.
6. CAREFULLY replace the motor in the seal plate, sliding the motor shaft through the seal without nicking or scratching the seal surface.
7. Replace the 4 bolts in the motor.
8. Slide the rotating half of the seal onto the shaft, carbon face first, being careful not to scratch, nick or chip the seal face.
9. Proceed to *Pump Reassembly* instructions below.

PUMP REASSEMBLY

1. Apply Loctite to the impeller and shaft threads being careful to not get any Loctite on the seal.
2. Screw the impeller onto the shaft (turn clock-wise). Hold the shaft with a screwdriver while you tighten the impeller.
3. Reattach the motor leads to the cord leads.
4. Reassemble the motor cover, motor and seal plate, and volute.
5. Fill the pump with about 1/2 gallon of clean dielectric oil (Part No. U197-8A).
Be sure the oil level is 1/4" above the top of the motor. Allow air space for expansion when the motor warms up.
6. Replace the oil fill plug. The pump is ready for service.

CHECK PUMP GROUND

1. Set the meter to Rx100.
2. Touch one lead to the grounding pin and the other lead to one flat prong of the plug. Repeat for the other prong.
3. Reading should be infinity for both prongs. If the reading is anything other than infinity, the stator must be removed, dried and rechecked.

A reading of "0" indicates a dead short. Return the pump

TROUBLESHOOTING

TROUBESHOOTING

⚠ WARNING **Sudden Starts.** If the power is on to the pump when thermal overload resets, the pump may start without warning. If you are working on the pump, you may get an electrical shock or the impeller may catch fingers or tools. Disconnect the power before servicing the pump.

SYMPTOM	CORRECTIVE ACTION
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Warning

Installation

NOTES
