

# Little GIANT® Pump Company

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## INSTALLATION INSTRUCTIONS & PARTS LIST

### LITTLE GIANT SUBMERSIBLE PUMP MODEL 1-EAYS

Recognized under the component program of Underwriters Laboratories.

518020 115V 60 HZ

ATTENTION: READ CAREFULLY BEFORE INSTALLING, OPERATING OR SERVICING YOUR LITTLE GIANT SUBMERSIBLE PUMP. KEEP THIS INSTRUCTION SHEET FOR FUTURE USE!

**CAUTION: Improper use of any power equipment can result in property damage, and/or injury. Protect yourself and others by using common sense and by observing the safety information in this publication.**

#### INSTALLATION (Fig. 1)

1. Thread power cord of pump through conduit (extending from under the wash basin) and attach the conduit to the conduit fitting at cord outlet. Rigid metal conduit stand pipe must be attached to the conduit fitting in order to protect the electrical cord. Be sure that the discharge of the pump is in line with the flexible tubing (extending from under the wash basin). **WARNING:** Power cord supplied with this pump should not be in contact with the solvent. The solvent can dissolve the cord insulation causing an electrical short which can lead to possible injury.
2. Attach the flexible tubing to the 1/4" NPT discharge; tighten the threaded coupling securely.
3. This pump is equipped with a three-wire power cord with a grounding wire for your protection against shock hazard and should be connected to a three-pronged plug or wired directly to an on/off power switch (whichever is used on the parts washer). Consult nameplate data for proper voltage and frequency. Please note, the black and white or blue and brown wires are live and the green or green/yellow wire is the ground wire.
4. Place pump/wash basin properly on holding tank; be sure that the pump is submerged in the cleaning solvent. See parts washer instruction for proper level of cleaning solvent. These pumps were tested while operating dry and within an enclosure. The resulting temperature rise may require a low liquid level cut-off to be present in this end use application.

#### DESCRIPTION

This pump is intended for indoor use pumping combustible liquids typically used in UL listed parts cleaners. For use only in products where the acceptability of the combination is determined by Underwriters Laboratories, Inc.

Little Giant 1-EAYS epoxy encapsulated, centrifugal pump is designed to be used for submerged parts washer application only. The 1-EAYS can handle unheated liquids up to 100° F. that are compatible with the pump material, such as UL Classified Metal Parts Cleaning Solvents with 100° F. flash point or greater.

**Caution:** The low flash point of these solutions presents a potential fire hazard; the entire pump must be fully submerged while operating. For solvent handling precautions, consult the safety data sheet (Form OSHA-20, or equivalent) for the particular cleaning solution. The motor is epoxy encapsulated with a polyester case.

## PERFORMANCE (115V 60HZ)

Model	Gallons Per Hour				Shut-Off (PSIG)
	1 ft.	3 ft.	5 ft.	7 ft.	
1-EAYS	170	140	100	Shut-Off	3.0

## SPECIFICATIONS

Model No.	1-EAYS
Suction Inlet	Smooth Opening Approx. 1/2" I.D.
Discharge Outlet	1/4" NPT (Male)
Cord Length	Approx. 6 Feet (SJTO)
Pipe Connector Around Cord	Male Conduit Fitting
Pump Housing (Volute)	Nylon
Motor Plate	Epoxy Coated Die Cast Aluminum
Motor Case	Epoxy Filled Polyester
Impeller	Nylon
Pump Screen	Polyethylene
Pump Shaft Seal	Viton
Motor Shaft	440 S.S.
Volute & Pump Screws	410 S.S. or 18-8 S.S.
Overall Dimensions	3.2" L x 2.8" W x 3.6" H
Maximum Liquid Temperature	100° F.

## MAINTENANCE

**CAUTION: UNPLUG THE UNIT BEFORE ATTEMPTING TO SERVICE OR REMOVE ANY COMPONENT!**

1. This unit is self-lubricating. Oiling is not required.
2. Periodic cleaning of the pump parts will prolong the LIFE and EFFICIENCY of the pump. Refer to Fig. 2 for the assembly and disassembly of the pumping head.
3. Lightly clean any corrosion or debris which may clog the impeller. Use a brush and penetrating oil and lightly scrape. Note: Do not allow sediment (from parts being washed) to build up to more than 2" below the pump.
4. Turn the impeller by hand to make sure it is free. Plug the unit in for a few seconds to see if the impeller will turn. If it does, replace the front, and the unit should operate as good as new.

## TROUBLE SHOOTING

1. Should the unit fail to operate, check the following:
  - a. Power supply connections.
  - b. Is the pump below liquid level?
  - c. Is air trapped in the pump head?
  - d. Is there sediment build-up over pump inlet?
2. An air lock or bubble will prevent the unit from pumping. Trapped air can usually be removed by:
  - a. Turning the pump off and restarting.
  - b. Ensuring that the discharge line is sloping upward to prevent formation or air pockets
3. If for any reason these operations do not restore the unit to full service, call your dealer or service man.
4. Do not, in any case, open the sealed portion of the unit.

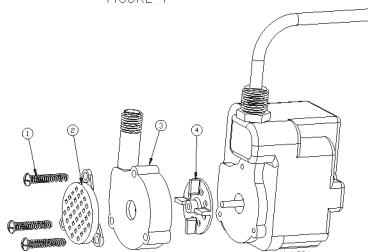
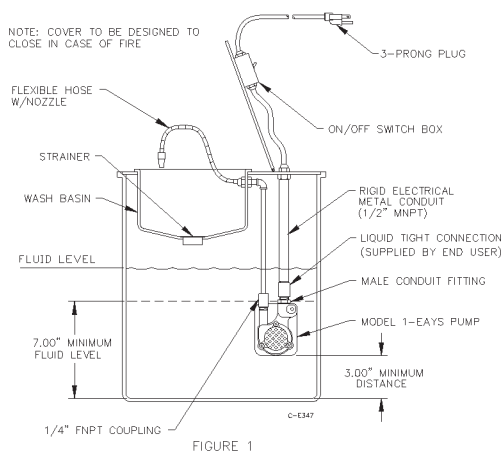
## WARRANTY

This pump is fully warranted against defective material or workmanship for a period of one (1) year from date of purchase when used in a parts washer pumping UL Classified Metal Parts Cleaning Solvent with a minimum flash point of 100°F. Any unit which should fail during normal operation within one (1) year from purchase while pumping the above fluids will be repaired or replaced, at our option, if returned prepaid to our factory, F.O.B. Oklahoma City, Oklahoma 73112.

Running the pump dry or pumping fluids other than unheated UL Classified Metal Parts Cleaning Solvents with 100° F. flash point or greater will void this warranty.

# TYPICAL INSTALLATION (See Fig. 1)

PUMP TO BE EITHER WIRED INTO ON/OFF SWITCH BOX OR A 3-PRONG PLUG ATTACHED TO PUMP CORD AND PLUGGED INTO ON/OFF RECEPTACLE.



## REPLACEMENT PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	902408	Screws 8-18 x 1-1/8"	3
2	118903	Screen	1
3	101351	Volute	1
4	118442	Impeller	1

Highly flammable fluids such as gasoline, some chlorinated solvents, alcohols, acetones, or toluol should not be used and will void this warranty if used. These fluids are dangerous and can cause explosions and fire.

For fluids other than those mentioned, please contact your representative or Little Giant Pump Company.

## SAFETY INFORMATION

- Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
- This pump is for use with 110V AC to 120V AC, and is equipped with an approved 3-conductor cord for your protection against shock hazards.

It should be wired with a 3-wire system, the brown lead being the live, blue neutral, and the green/yellow wire being the ground. **This pump should be grounded while in use to protect the operator from electric shock.** The pump must be securely and adequately electrically grounded. This can be accomplished by attaching green/yellow conductor to a grounded metal race-way system, a properly grounded water pipe or other suitable means. To ensure a proper ground, the grounding means must be tested by a qualified electrician.

- This pump is **not** recommended for use with flammable liquids with low flash points such as gasoline (see warranty).
- Do not run the pump without liquid in the pumping head; doing so will damage the seal and shorten the life of the pump.
- Plug unit into 115V 60Hz grounded outlet only!
- It is anticipated the fluid handled in the end-product application will be limited to UL Classified Metal Parts Cleaning Solvents PJQU found in UL's Gas and Oil Equipment Directory. These products are basically refined petroleum distillates for use with equipment intended to clean metal parts essentially at room temperature. They are free from tendency to heat spontaneously and have a flash point (closed cup) not lower than 100°F.
- When working around solvents, caution must be used. Fire and toxicity are the greatest hazards encountered when using solvents. All solvents should be stored in metal containers and must be used in metal containers. Adequate ventilation should be provided to prevent accumulation of vapors or fumes. No solvents should be used close to open flame or heaters with open coils. Operators should exercise caution when exposing skin to solvents. Protective gloves could be used to prevent extraction of natural oils from the skin, which would cause cracking of the skin and dermatitis. For solvent handling precautions, consult the safety data sheet (Form OSHA—20, or equivalent) for the particular cleaning solution.
- Always disconnect power source before working on the pump. If the power disconnect point is out of sight, lock in the open position and tag to prevent unexpected application of power.
- Keep work area clean. Cluttered areas and benches invite accidents.
- Wiping or cleaning rags and other combustible waste materials must be placed in a tightly closed metal container and disposed of later in the proper fashion.
- All visitors should be kept a safe distance from the work area.
- Make workshop tamper-proof with padlocks, master switches, or by removing starter keys.
- Use safety glasses. Also, use face mask or face protection to keep liquids from splashing on your skin or eyes. **Caution:** Some solvents can cause burns which can result in blindness. An eye wash solution should be nearby and properly maintained.