

# LittleGIANT<sup>®</sup>

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## INSTALLATION INSTRUCTIONS & PARTS LIST LITTLE GIANT SUBMERSIBLE PUMP MODEL 1-EAYS 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	Fluoroelastomer (FKM)
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!**

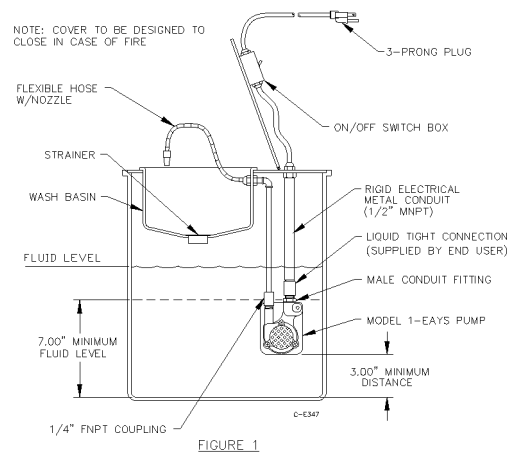
1. This unit is self-lubricating. Oiling is not required.
2. Periodic cleaning of the pump parts will prolong the LIFE and EFFICIENCY of the pump. Refer to Fig. 2 for the assembly and disassembly of the pumping head.
3. Lightly clean any corrosion or debris which may clog the impeller. Use a brush and 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.

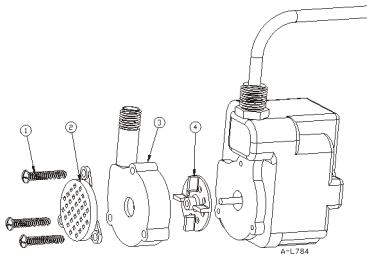
### TROUBLESHOOTING

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.

### 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	118403	Screen	1
3	101451	Volute	1
4	118442	Impeller	1

**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.

**LIMITED WARRANTY**

THIS WARRANTY SETS FORTH THE COMPANY'S SOLE OBLIGATION AND PURCHASER'S EXCLUSIVE REMEDY FOR DEFECTIVE PRODUCT.

Franklin Electric Company, Inc. and its subsidiaries (hereafter "the Company") warrants that the products accompanied by this warranty are free from defects in materials or workmanship of the Company that exist at the time of sale by the Company and which occur or exist within the applicable warranty period. Any distributor, sub-distributor, recipient, end-user and/or consumer agrees that by accepting the receipt of the products, the distributor, sub-distributor, recipient, end user and/or consumer expressly agrees to be bound by the terms of the warranty set forth herein.

**I. Applicable Warranty Period**

The products accompanied by this warranty shall be covered by this Limited Warranty for a period of 12 months from the date of original purchase by the consumer. In the absence of suitable proof of purchase date, the warranty period of this product will begin to run on the product's date of manufacture.

**II. Instructions Applicable to this Limited Warranty**

- Consumers wishing to submit a warranty claim must return the products accompanied by this warranty to the point of purchase for warranty consideration.
- Upon discovery of a defect, any personal injury, property damage or any other type of resulting damage, if applicable, shall be reasonably mitigated to the extent possible.
- At its discretion, the Company may inspect products either at its facilities, or in the field, and after determination of a warranty claim, will, at its option, repair or replace defective parts. Repaired or replaced parts will be returned freight prepaid by the Company.
- This warranty policy does not cover any labor or shipping charges. The Company shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or for any tools, supplies, or equipment needed to install, repair, or remove any product.

**III. Limitations Applicable to this Limited Warranty**

**THIS WARRANTY DOES NOT APPLY TO ANY OF THE FOLLOWING:**

- Brushes, impeller or cam on models with brush-type motors and/or flex-vane impellers.
- Any product that is not installed, applied, maintained and used in accordance with the Company's published instructions, applicable codes, applicable ordinances and/or with generally accepted industry standards.
- Any product that has been subject to misuse, misapplication, neglect, alteration, accident, abuse, tampering, acts of God (including lightning), acts of terrorism, acts of war, fire, improper storage or installation, improper use, improper maintenance or repair, damage or casualty, or to an excess of the recommended maximums as set forth in the product instructions.
- Any product that is operated with any accessory, equipment, component, or part not specifically approved by the Company.
- Use of replacement parts not sold by the Company, the unauthorized addition of non-Company products to other Company products, and the unauthorized alteration of Company products.
- Products damaged by normal wear and tear, normal maintenance services and the parts used in connection with such service, or any other conditions beyond the control of the Company.
- Any product that has been used for purposes other than those for which it was designed and manufactured.
- Any use of the product where installation instructions and/or instructions for use were not followed.
- Products connected to voltage other than indicated on nameplate.
- Products where the pump was exposed to any of the following: sand, gravel, cement, grease, plaster, mud, tar, hydrocarbons, hydrocarbon derivatives (oil, gasoline, solvents, etc.) or other abrasive or corrosive substances.
- Products in which the pump has been used to pump or circulate anything other than fresh water at room temperature.
- Products in which the pump was allowed to operate dry (fluid supply cut off).
- Products in which the sealed motor housing has been opened or the product has been otherwise dismantled by customer.
- Products in which the cord has been cut to a length of less than three feet.

The Company reserves the right at any time, and from time to time, to make changes in the design and/or improvements upon its product without thereby imposing any obligation upon itself to make corresponding changes or improvements in or upon its products already manufactured and/or previously sold. The Company further reserves the right to substitute parts or components of substantially equal quality in any warranty service required by operation of this Limited Warranty.

This written Limited Warranty is the entire warranty authorized and offered by the Company. There are no warranties or representations beyond those expressed in this document.

THIS WARRANTY AND REMEDY IS IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY SPECIFICALLY DISCLAIMED AND EXPRESSLY EXCLUDED. CORRECTION OF NON-COMFORMITIES, IN THE MANNER AND FOR THE PERIOD OF TIME AS SET FORTH ABOVE, SHALL CONSTITUTE FULFILLMENT OF ALL LIABILITY OF THE COMPANY TO THE PURCHASER WHETHER BASED ON CONTRACT, NEGLIGENCE, OR OTHERWISE.

**THE COMPANY SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES SUCH AS, BUT NOT LIMITED TO:**

**DAMAGE TO OR LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF USE OF EQUIPMENT, FACILITIES OR SERVICE, LOSS OF PROFIT OR SALES, COST OF PURCHASES OR REPLACEMENT GOODS, CLAIMS OF CUSTOMERS OF THE PURCHASER, FAILURE TO WARN AND/OR INSTRUCT, LOSS OF OTHER PRODUCTS, OR COSTS OF ENVIRONMENTAL REMEDIATION, OR DIMINUTION IN PROPERTY VALUE. THE REMEDIES OF THE PURCHASER SET FORTH HEREIN ARE EXCLUSIVE, AND THE LIABILITY OF THE COMPANY SHALL NOT, EXCEPT AS EXPRESSLY PROVIDED HEREIN, EXCEED THE PRICE OF THE PRODUCTS UPON WHICH SUCH LIABILITY IS BASED. DAMAGES AS SET FORTH IN THIS PARAGRAPH SHALL BE REASONABLY MITIGATED TO THE EXTENT POSSIBLE. THIS PARAGRAPH SHALL ALSO APPLY TO ALL DAMAGES RESULTING FROM CONDITIONS SET FORTH IN SECTION III ABOVE AND (1) DEFECTS IN PRODUCT PROTOTYPES OR REPLACEMENT PART PROTOTYPES THAT HAVE NOT BEEN PUT INTO PRODUCTION, CIRCULATED AND SOLD BY THE COMPANY, AND/OR (2) DEFECTS THAT WERE NOT FOUND AT THE TIME OF SALE DUE TO SCIENTIFIC AND TECHNOLOGICAL REASONS.**

This Limited Warranty gives you specific legal rights. You may have other rights, which vary according to the applicable laws and regulations. Where any term of this warranty is prohibited by such laws, it shall be null and void, but the remainder of this warranty shall remain in full force and effect.

DISCLAIMER: Any oral statements about the product made by the seller, the Company, the representatives or any other parties, do not constitute warranties, shall not be relied upon by the user, and are not part of the contract for sale. Seller's and the Company's only obligation, and buyer's only remedy, shall be the replacement and/or repair by the Company of the product as described above. Before using, the user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith.

**For technical assistance, please contact . . . . . 800.701.7894**

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