

## 1.5-MDQ-SC

### SAFETY GUIDELINES



**DANGER:** To avoid possible electric shock, special care should be taken in the use of aquarium equipment. For each of the following situations, do not attempt repairs yourself; return the appliance to an authorized service facility for service or discard the appliance.

### INTRODUCTION

This instruction sheet will provide you with information required to safely own and operate the Little Giant MDQ series aquarium pumps. The pump you have purchased is a magnetic driven pump intended for aquarium use, to provide water movement through filtration systems. The pumps are installed external to the aquarium and filtration systems, and are generally mounted below the aquarium in the cabinet that houses the filtration systems. The pump head parts are made of glass filled polypropylene. The spindle shaft and thrust washers are ceramic. The impeller driven magnet is coated ceramagnet A (barium ferrite) type ceramic. O-ring seals are nitrile. The motor is thermally protected.

This instruction sheet covers the standard models in this pump series. This form is applicable to other models in this series not listed by catalog number in the replacement parts list section of this pamphlet. If the catalog number of your pump is not listed in the replacement parts section, then caution should be exercised when ordering replacement parts. Always give the catalog number of your pump when ordering replacement parts.

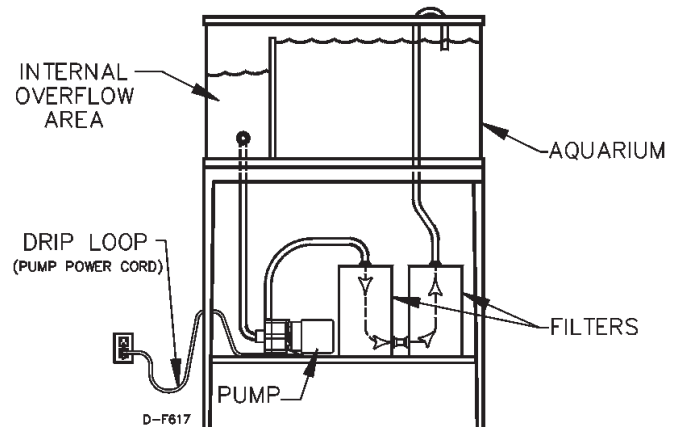
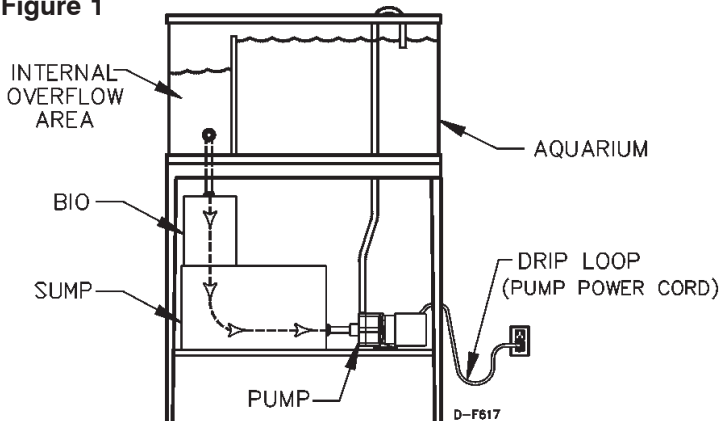
The Little Giant unit you have purchased is of the highest quality workmanship and material. It has been engineered to give you long and trouble-free service.

The Little Giant pumps are carefully inspected, tested and packaged to insure safe operation and delivery. When you receive your pump, examine it carefully to determine that there are no broken or damaged parts that may have occurred in shipment. If damage has occurred, make notation and notify the firm from which you purchased the pump. They will assist you in the replacement or repair, if required.

**READ INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THE LITTLE GIANT PUMP. KNOW THE PUMP APPLICATION, LIMITATIONS, AND POTENTIAL HAZARDS. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE! RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.**

1. DO NOT USE TO PUMP FLAMMABLE OR EXPLOSIVE FLUIDS SUCH AS GASOLINE, FUEL OIL, KEROSENE, ETC. DO NOT USE IN EXPLOSIVE ATMOSPHERES. PUMP SHOULD ONLY BE USED WITH LIQUIDS COMPATIBLE WITH PUMP COMPONENT MATERIALS.
2. DO NOT HANDLE PUMP WITH WET HANDS OR WHEN STANDING ON A WET OR DAMP SURFACE, OR IN WATER.
3. THIS PUMP IS SUPPLIED WITH A GROUNDING CONDUCTOR AND/OR GROUNDING-TYPE ATTACHMENT PLUG. TO REDUCE THE RISK OF ELECTRIC SHOCK, BE CERTAIN THAT IT IS CONNECTED TO A PROPERLY GROUNDED GROUNDING-TYPE RECEPTACLE.
4. IN ANY INSTALLATION WHERE PROPERTY DAMAGE AND/OR PERSONAL INJURY MIGHT RESULT FROM AN INOPERATIVE OR LEAKING PUMP DUE TO POWER OUTAGES, DISCHARGE LINE BLOCKAGE, OR ANY OTHER REASON, A BACKUP SYSTEM(S) AND/OR ALARM SHOULD BE USED.
5. SUPPORT PUMP AND PIPING WHEN ASSEMBLING AND WHEN INSTALLED. FAILURE TO DO SO MAY CAUSE PIPING TO BREAK, PUMP TO FAIL, MOTOR BEARING FAILURES, ETC.
6.
  - A. Do not handle the pump with wet hands or when standing on a wet or damp surface or in water.
  - B. If the appliance falls into the water, DON'T reach for it! First unplug it and then retrieve it. If electrical components of the appliance get wet, unplug the appliance immediately (nonimmersible equipment only).
  - C. Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
  - D. Do not operate the pump if it has a damaged cord or plug, or if it is malfunctioning or if it is dropped or damaged in any manner.
  - E. To avoid the possibility of the pump plug or receptacle getting wet, position aquarium stand and tank to one side of a wall mounted receptacle to prevent water from dripping onto the receptacle or plug. A "drip loop", shown in Figure 1, should be arranged by the user for each cord connecting

**Figure 1**



an aquarium pump to a receptacle. The “drip loop” is that part of the cord below the level of the receptacle or the connector if an extension cord is used, to prevent water traveling along the cord and coming in contact with the receptacle. If the plug or receptacle does get wet, DON'T unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the pump. Then unplug and examine for presence of water in the receptacle.

7. Close supervision is necessary when any pump is used by or near children.
8. Always unplug the pump from the outlet when not in use, before putting on or taking off parts, and before cleaning. Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect.
9. Do not use the pump for other than intended use.
10. Do not install or store the pump where it will be exposed to the weather or to temperatures below freezing.
11. Make sure the pump is securely installed before operating it.
12. Read and observe all the important notices on the pump.
13. If an extension cord is necessary, a cord with a proper rating should be used. A cord rating for less amperes or watts than the pump rating may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.

### ELECTRICAL CONNECTIONS

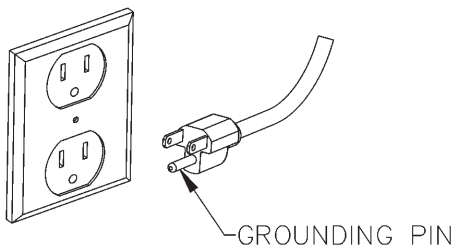


Check the pump label for proper voltage required. Do not connect to voltage other than that shown.

### GROUNDING INSTRUCTIONS

This appliance should be grounded to minimize the possibility of electric shock. This appliance is equipped with an electric cord having an equipment grounding conductor and a grounding type plug. The plug must be plugged into an outlet that is installed and grounded in accordance with all appropriate codes and ordinances. This appliance is for use on a normal 120 volt circuit and has a grounding plug that looks like the plug illustrated in Figure 2. This pump should not be used with a three to two grounding adaptor.

Figure 2



### AQUARIUM APPLICATIONS

When using this pump for aquarium filter applications, refer to the instructions and owner's manual supplied by the filter manufacturer.

### OPERATION

1. The pump is supplied completely preassembled and pretested from the factory.
2. Use a thread sealer on all pipe connections and hand-tighten only.
3. The pump is not self priming. It must be operated with the volute intake below the liquid level.
4. This pump is not submersible. Operate the pump only in the in-line mode. DO NOT put the unit in liquid. Pump should be located in a well ventilated area and away from where accidental water spillage would cause wetting of the pump.
5. The weight of the pump must be supported adequately. DO NOT support the pump by the intake and discharge connections alone.
6. Do not allow the pump to run dry (without liquid). Heat buildup caused by friction will damage the pump parts when dry.
7. Do not attempt to restrict the intake side of these pumps. Restricting the intake may cause damage to the pump head. If you require reduced flow rates, then place a valve on the discharge side of the pump or if flexible vinyl tubing is used, a clamp can be used on the tubing to restrict the flow.
8. If the unit is to be idle for a period of time, follow the cleaning instructions outlined in the next section. Do not let the unit freeze in the wintertime. This may cause cracking or distortion that may destroy the unit.

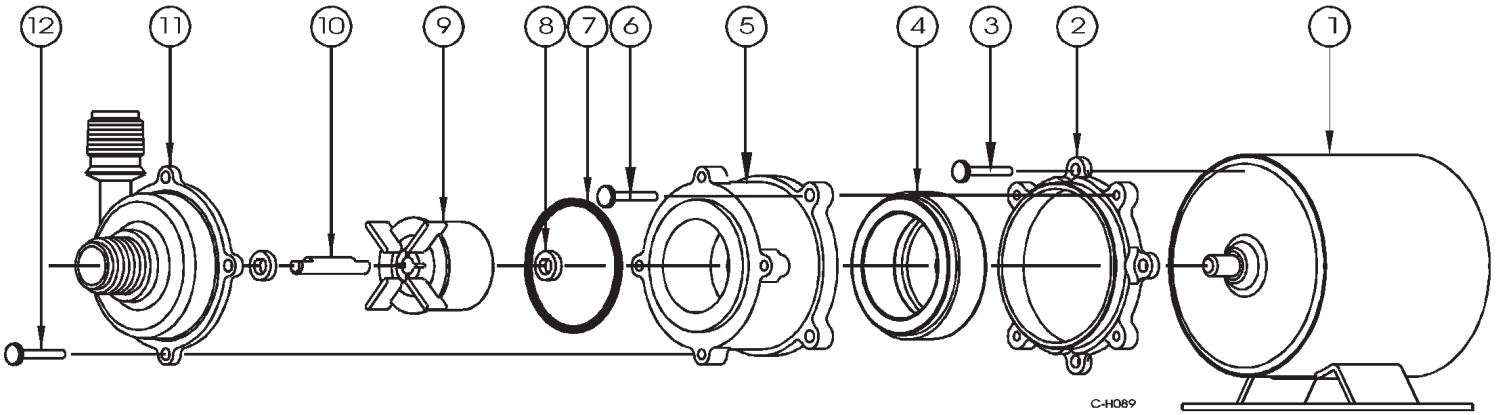
### SERVICE INSTRUCTIONS



MAKE CERTAIN THAT THE UNIT IS DISCONNECTED FROM THE POWER SOURCE BEFORE ATTEMPTING TO SERVICE OR REMOVE ANY COMPONENT!

1. The motor's sleeve bearings should be lubricated every six months with two to three drops of S.A.E. 20 weight non-detergent oil. The oil holes are located on top at each end of the motor.
2. All wetted parts can be serviced by removing the (4) screws (Figure 3, item 12) which hold the volute to the housing. The pump head components can easily be replaced in the field if necessary.
3. Lightly clean any corrosion or debris which may clog the impeller.
4. If pump is tripping circuit breakers, GFCI, or not operating properly after cleaning, return to Little Giant or its authorized service center. DO NOT attempt repairs yourself.

**Figure 3**



ITEM	L.G. P/N	DESCRIPTION	QTY
1	977467	MOTOR	1
2	189046	MOUNTING BRACKET	1
3	901434	SCREW, TAPPING	4
4	189023	DRIVE MAGNET	1
5	189047	MAGNET HOUSING	1
6	902443	SCREW, TAPPING	4
7	924134	O-RING, NITRILE	1
8	921077	THRUST WASHER	2
9	189010	IMPELLER	1
10	189042	SHAFT, CERAMIC	1
11	189002	VOLUTE	1
12	902443	SCREW, TAPPING	4

**LIMITED WARRANTY**

Your Little Giant product is guaranteed to be in perfect condition when it leaves our factory. It is warranted against defective materials and workmanship for a period of 12 months (90 day warranty on Models 1-AA-OM, GKPK-SC, PP-1, PPS-1, PP-12, PPS-12, PP-230 and Cooler King) from date of purchase by the user. No warranty on brush wear in Model 35-OM and impeller or cam in Models PP-1, PPS-1, PP-12, PPS-12, and PP-230. Any product that should fail for either of the above two reasons and is still within the warranty period, will be repaired or replaced if returned prepaid to our Factory. All defective products returned under warranty will be fully inspected to determine "CAUSE OF FAILURE" before any warranty is approved. Little Giant will honor the warranty within the warranty time period specified on satisfactory written proof of purchase.

DISCLAIMER: Any oral statements about the product made by the seller, the manufacturer, 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 manufacturer's only obligation, and buyer's only remedy, shall be the replacement and/or repair by the manufacturer of the product as described above. Neither seller nor the manufacturer shall be liable for any injury, loss or damage, direct, incidental or consequential (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss), arising out of the use or the inability to use the product, and the user agrees that no other remedy shall be available to it. 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. THE WARRANTY AND REMEDY DESCRIBED IN THIS LIMITED WARRANTY IS AN EXCLUSIVE WARRANTY AND REMEDY AND IS IN LIEU OF ANY OTHER WARRANTY OR REMEDY, EXPRESSED OR IMPLIED, WHICH OTHER WARRANTIES AND REMEDIES ARE HEREBY EXPRESSLY EXCLUDED, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Warranty will be VOID if any of the following conditions are found:

1. Sealed motor housing opened.
2. Product connected to voltage other than indicated on nameplate.
3. Cord cut off to a length less than three feet.
4. Pump allowed to operate dry (fluid supply cut off).
5. Pump used to circulate anything other than fresh water, light oils, or other mild liquids at approximately room temperature.
6. Product abuse by customer.

The National Electric Code requires a Ground Fault Circuit Interrupter (GFCI) be installed in the branch circuit supplying fountain equipment rated above 15 volts. Part number 599335, GFCI-1, is in stock and we recommend each pump be used with a GFCI.

---

**For parts or repair, please contact . . . . . 1.888.572.9933**  
**For technical assistance, please contact . . . . . 1.888.956.0000**

**www.LittleGiantPump.com**  
**CustomerService-WTS@fele.com**

---