

## 1.5-MDQ-SC

### INTRODUCTION

This instruction sheet provides you with the information required to safely own and operate your product. Retain these instructions for future reference.

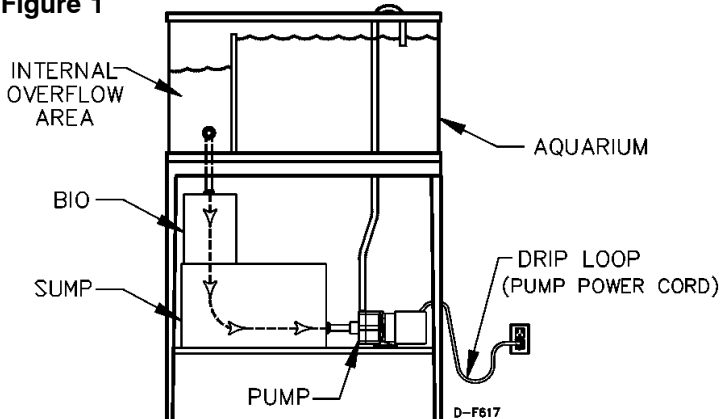
The product you have purchased is of the highest quality workmanship and material, and has been engineered to give you long and reliable service. This product has been carefully tested, inspected, and packaged to ensure safe delivery and operation. Please examine your item(s) carefully to ensure that no damage occurred during shipment. If damage has occurred, please contact the place of purchase. They will assist you in replacement or repair, if required.

**READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE, OR SERVICE YOUR PRODUCT. KNOW THE PRODUCT'S APPLICATION, LIMITATIONS, AND POTENTIAL HAZARDS. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH THESE INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE!**

### DESCRIPTION

This is a magnetically driven pump intended to provide water movement through aquarium filtration systems. This pump is installed external to the aquarium and filtration systems, and is 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.

Figure 1



### 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 pump to an authorized service facility for service or discard the pump.

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.

Do not handle pump with wet hands or when standing on a wet or damp surface, or in water.

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.

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.

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.

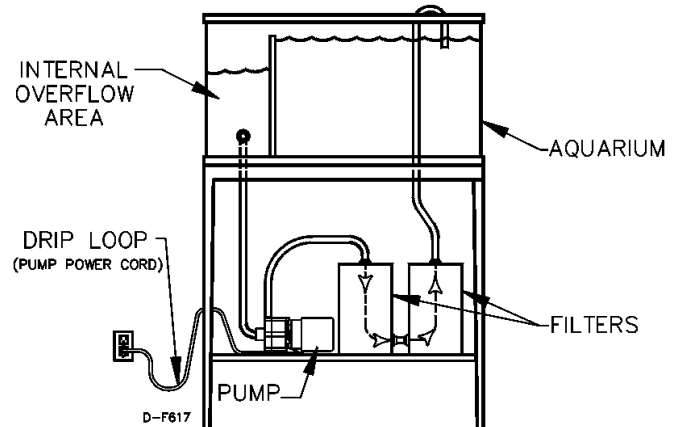
Do not handle the pump with wet hands or when standing on a wet or damp surface or in water.

If the pump falls into the water, DON'T reach for it! First unplug it and then retrieve it. If electrical components of the pump get wet, unplug the pump immediately (nonimmersible equipment only).

Carefully examine the pump after installation. It should not be plugged in if there is water on parts not intended to be wet.

Do not operate the pump if it has a damaged power cord or plug, if it is malfunctioning, or if it is dropped or damaged in any manner.

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. Create a drip loop (Figure 1) for each cord connecting



an aquarium pump to a receptacle. The drip loop is the 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, DO NOT unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the pump, then unplug the cord and examine the receptacle for the presence of water.

Close supervision is necessary when any pump is used by or near children.

Always unplug the pump from the receptacle when not in use, before putting on or taking off parts, and before cleaning. Never yank cord to pull plug from receptacle. Grasp the plug and pull to disconnect.

Do not use the pump for other than intended use.

Do not install or store the pump where it will be exposed to the weather or to temperatures below freezing.

Make sure the pump is securely installed before operating it.

Read and observe all the important notices on the pump.

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.

Ground the pump to minimize the possibility of electric shock. This pump uses a power cord with an equipment-grounding conductor and a grounding-type plug. The plug must be plugged into an receptacle that is installed and grounded in accordance with all appropriate codes and ordinances. This pump 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.

### 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 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 pump in liquid. Locate the pump 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 pump will be idle for a long period, follow the cleaning instructions outlined in the next section. Do not let the pump freeze in the wintertime. This may cause cracking or distortion that may destroy the pump.

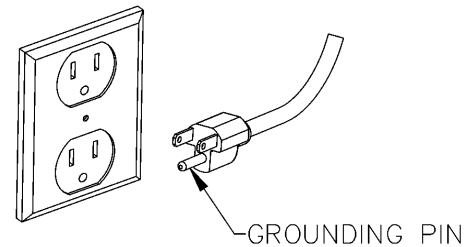
### SERVICE INSTRUCTIONS



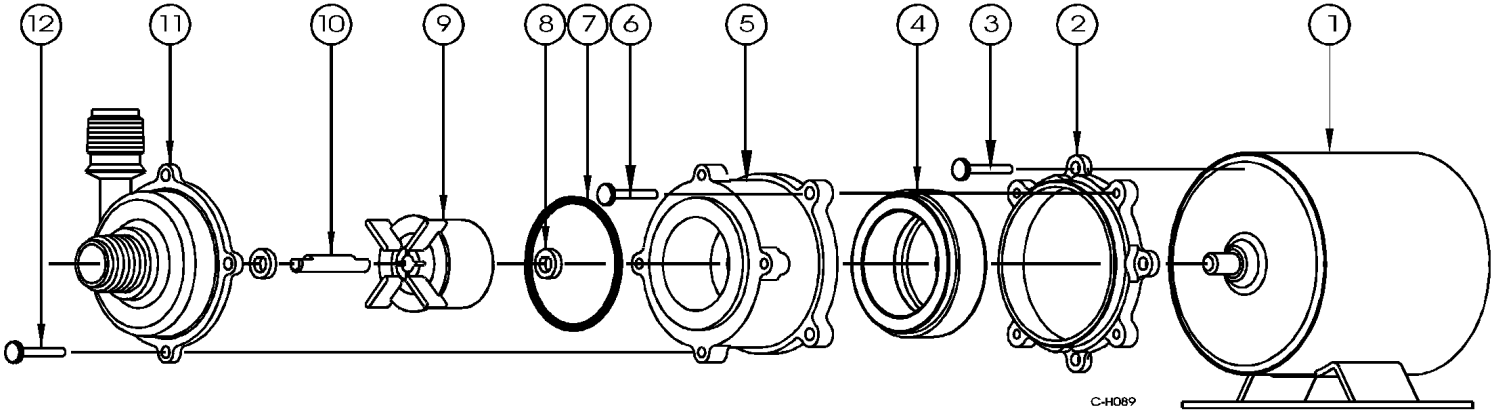
DISCONNECT THE PUMP FROM THE POWER SOURCE BEFORE ATTEMPTING TO SERVICE OR REMOVE ANY COMPONENT!

1. Lubricate the motor sleeve bearings every six months with two to three drops of SAE 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) that hold the volute to the housing. The pump head components can be replaced in the field if necessary.
3. Lightly clean any corrosion or debris that may clog the impeller.
4. If pump is tripping circuit breakers, a GFCI, or not operating properly after cleaning, return it to Little Giant or an authorized service center. DO NOT attempt repairs yourself.

Figure 2



**Figure 3**



C-H089

ITEM	PART NO.	DESCRIPTION	QTY
1	977467	Motor	1
2	189046	Mounting bracket	1
3	901434	Screw, machine, 8-32 x 3/8"	4
4	189023	Drive magnet	1
5	189047	Magnet housing	1
6	902443	Screw, tapping, 8-16 x 1/2"	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, 8-16 x 1/2"	4

**LIMITED WARRANTY**

Your 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 from date of purchase by the user.

Any product that should fail for either of the above two reasons and is still within the warranty period will be repaired or replaced at the option of Little Giant Pump Company, Inc. dba Franklin Electric Water Transfer Systems (hereafter "the Manufacturer") as the sole remedy of buyer. For our customers in the CONTINENTAL UNITED STATES: Please return the defective unit, postage paid, to the factory at 301 N. MacArthur, Oklahoma City, OK 73127-6616. All defective product returned under warranty will be fully inspected to determine the cause of failure before warranty is approved.

For our customers located elsewhere; it is not economical, due to duties and freight, to return the product to the factory for inspection. Please return the defective unit to any authorized distributor or dealer with a brief written explanation of the problem. If there are no apparent signs of customer abuse, unit will be repaired or replaced. If dispute arises over replacement of the product, the distributor or dealer is to segregate such items and hold for inspection by a representative of the Manufacturer or notify factory with details of the problem for factory disposition and settlement of warranty claim.

**DISCLAIMER:**

THE FOREGOING WARRANTY IS AN EXCLUSIVE WARRANTY IN LIEU OF ANY OTHER EXPRESS WARRANTIES. ANY IMPLIED WARRANTIES (INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) TO THE EXTENT EITHER APPLIES TO A PRODUCT SHALL BE LIMITED IN DURATION TO THE PERIODS OF THE EXPRESS WARRANTIES GIVEN ABOVE.

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.

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 the intended use, and user assumes all risk and liability whatsoever in connection therewith.

Some states and countries do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions 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 and country to country.

The National Electric Code (in the USA) and similar codes in other countries require a Ground Fault Circuit Interrupter (GFCI) to be installed in the branch circuit supplying fountain equipment rated above 15 volts. 115 volt GFCI's (with various cord lengths) are in stock, and we recommend each product be used with a GFCI.

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**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**

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