

## MODEL 4-MD 5-MD

### 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!**

### SAFETY GUIDELINES



**WARNING:** To reduce the risk of electrical shock, remove the pump from power before attempting to service or remove any part.

Read all instructions and safety guide lines thoroughly. Failure to follow the guidelines and instructions could result in serious bodily injury and/or property damage.

Do not pump flammable liquids such as gasoline or fuel oil.

Make sure pump is grounded.

During operation, the area surrounding the pump may be covered with water; take care when handling the pump.

Do not disconnect plumbing connections when pump is in operation.

Do not stand in water when changing fuses.

### PUMP CONSTRUCTION

The patented magnetic drive pump design consists of a cylindrical drive magnet attached to the motor shaft, which rotates around a chemical-resistant plastic separator housing. Inside this housing is a

magnet fixed to the impeller. The impeller assembly is free to rotate on a spindle that is supported at both ends. The spindle is held captive and does not turn. Front and rear thrust washers are utilized as wear bearings. The washers are held captive and do not revolve. This prevents wear on the shaft. With the magnetic coupling the motor drives the impeller. This coupling eliminates the conventional shaft seal and its possibility of leakage.

### PUMP MATERIALS

The pump's plastic parts are made of glass-filled polypropylene. The spindle shaft and thrust washers are titanium. The impeller-driven magnet is uncoated Ceramagnet A (barium ferrite) type ceramic, and the static O-ring seal is Buna-N.

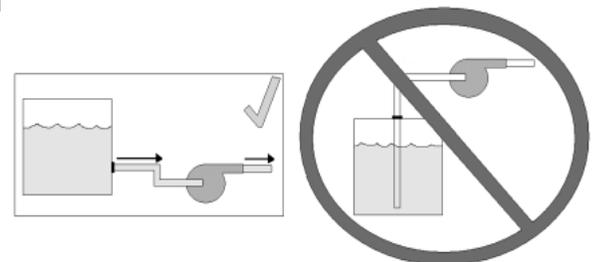
### INSTALLATION

This pump is assembled and tested at the factory, and is ready for immediate use. It may be installed in any position, including vertically with the pump head down. To ensure proper plumbing connections, see the SPECIFICATIONS table to determine the intake and discharge sizes of your pump. Use thread sealer on all pipe connections and hand-tighten only. Tighten all wing nuts before operating the pump. The motor nameplate lists all electrical data. Make sure the pump is connected to proper voltage before operating. When wiring a pump with no plug, the green (or green/yellow) wire is ground, and the other two are line (live).

Do not allow the pump to run dry (without liquid). This pump is not submersible; operate it only in the in-line mode. Do not put the pump into liquid. Install the pump in a dry area, protected from splashing. This pump is not self priming; it must be installed so that the pump head (volute) is flooded when the pump is started. That is, the inlet of the pump must be below the level of the surface of the liquid being pumped (Figure 1).

Do not restrict the intake side of the pump. Connections on the intake side should not be of smaller inside diameter pipe or tubing or hose than the intake inside diameter of the intake thread designation. If reduced flow is required, install a valve or other restriction device on the discharge side. When using a valve, the pump can be throttled to provide various flow rates and pressures without harming the motor or the pump parts.

FIGURE 1



### SPECIFICATIONS

MODEL	INTAKE SIZE	DISCHARGE SIZE	MOTOR							MOTOR TYPE**	MAX. PSI	SHUTOFF HEAD (FT.)	GALLONS PER MINUTE @ HEAD							DIMENSIONS			WEIGHT PACKED (LBS.)
			VOLTS	HERTZ	PHASE	H.P.	WATTS	AMPS	1'				3'	6'	9'	15'	18'	24'	H	W	L		
4-MD*	1/2" FNPT	1/2" MNPT	115	60	1	1/12	213	2.4	OPEN-FC	10.2	23.7	11.5	11.0	10.0	9.1	6.5	4.7	--	4.3"	4.0"	8.9"	8.5	
				50			214	3.1				7.1	16.4	13.3	12.7	11.8	10.0	4.3					--
5-MD	1/2" FNPT	1/2" MNPT	115	60	1	1/8	200	2.1	OPEN-FC PSC	15.0	34.6	15.1	14.6	13.3	12.5	10.6	9.6	7.3	5.6"	5.4"	8.3"	9.3	
				50			155	1.9				9.7	22.4	13.8	13.3	12.3	11.2	8.8					7.3

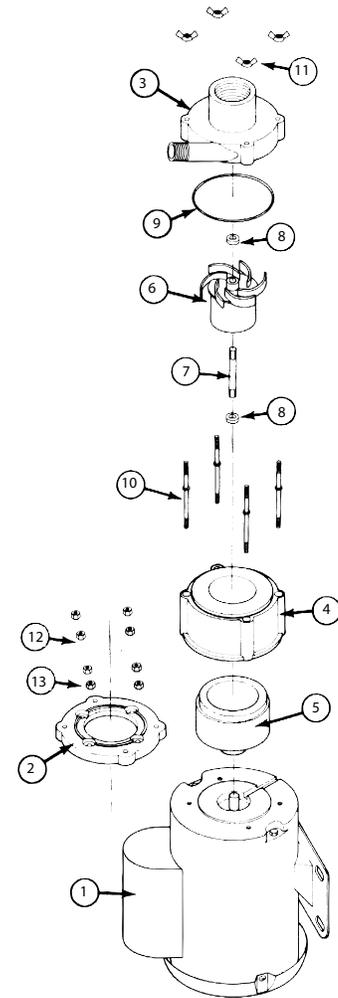
\*Not recommended for 50Hz operation. Possible motor overheating will occur in some applications.

\*\*Open = Open motor, FC = fan cooled, PSC = permanent split capacitor

NOTE: Data shown is catalog performance. 230V data is the same as 115V for each frequency.

ITEM NO.	PART NO.	DESCRIPTION*	MODEL AND CATALOG NUMBERS					
			4-MD			5-MD		
			582002 115V 60Hz	582012 230V 60Hz	582098 Pump less motor	583002 115V 50/60 Hz	583012 230V 50/60 Hz	583098 Pump less motor
1	977409	Motor, 115 volt	1	--	--	--	--	--
1	977909	Motor, 220/240 volt	--	1	--	--	--	--
1	977410	Motor, 115 volt w/sleeve bearing	--	--	--	1	--	--
1	977910	Motor, 220/240 volt w/sleeve bearing	--	--	--	--	1	--
2	180031	Adapter w/base	1	1	1	--	--	--
2	183031	Adapter	--	--	--	1	1	1
3	183070	Volute	1	1	1	1	1	1
4	182005	Housing, magnet	1	1	1	1	1	1
5	182602	Drive magnet assembly	1	1	1	--	--	--
5	183602	Drive magnet assembly	--	--	--	1	1	1
6	182137	Impeller/magnet assembly	1	1	1	--	--	--
6	183142	Impeller/magnet assembly	--	--	--	1	1	1
7	182056	Shaft	1	1	1	1	1	1
8	921067	Washer, thrust	2	2	2	2	2	2
9	924007	O-ring	1	1	1	1	1	1
10	911403	Stud, collared	4	4	4	4	4	4
11	920003	Nut, wing #8-32	4	4	4	4	4	4
12	920006	Nut, wing #8-32	4	4	--	--	--	--
12	920008	Nut, hex #10-32	--	--	--	4	4	--
13	921075	Washer, #8 plain	4	4	--	--	--	--

\*Applies to catalog numbers shown. Other models are available, but parts may vary. For other models, contact parts depot, factory, or distributor for replacement parts. Be sure to give the model and six-digit catalog number when requesting parts.



### 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 that 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 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.

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