#### LIMITED WARRANTY

#### LITTLE GIANT WARRANTY STATEMENT

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, PPS-12, PPS-12, PPS-230 and Cooler King) from date of purchase by the user. No warranty on brush wear on Model 35-OM and impeller or cam in Models PP-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 irsk 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 A 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 name plate.
- 3. Cord cut off to a length less than three feet.
- 4. Pump allowed to operate dry (fluid supply cut off).
- 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.

#### **KEEP THIS FOLDER**

File this for safe keeping. It may be valuable to you for service under the term of the warranty.

Model #	Date of Purchase					
Catalog #						
Name of Dealer						



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INSTRUCTIONS AND REPAIR PARTS FOR 3X-MDX 3-MDX

• INSTALLATION

OPERATION

MAINTENANCEREPAIR PARTS

#### INTRODUCTION

This instruction sheet will provide you with information required to safely own and operate the Little Giant MD series pumps. The pump you have purchased is a magnetic driven pump. These "MD" series pumps handle most mildly corrosive fluids such as low concentrations of acids and alkalis in pH range of 5 to 9 at fluid temperatures up to 150°F. The pump head 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. 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 during 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 SERV-ICE THE LITTLE GIANT PUMP, KNOW THE PUMP APPLICATIONS, 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.

#### **SAFETY GUIDELINES**



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.

THE NATIONAL ELECTRIC CODE REQUIRES A GROUND FAULT CIRCUIT INTERRUPTER (GFCI) BE INSTALLED IN THE BRANCH CIRCUIT SUPPLYING FOUNTAIN EQUIPMENT, POOLS, ETC.

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.

	SPECIFICATIONS																				
			MOTOR									SHUT	GALLONS PER MINUTE				DIMENSIONS			WT.	
MODEL NO.	INTAKE SIZE	DISCH. SIZE	VOLTS	HERTZ	RPM	PH.	H.P.	WATTS	AMPS	MOTOR TYPE	MAX. PSI	OFF HEAD (FT.)	1 FT.	3 FT.	6 FT.	9 FT.	12 FT.	HT.	WD.	LG.	PACKED (LBS.)
3X-MDX	5/8" O.D.	5/8" O.D.	115	60	1550	1	1/50	67	.94	OPEN FC	3.0	7.0	5.8	5.0	3.3	_	-	5.13	3.75	7.63	6.2
3-MDX	5/8" O.D.	5/8" O.D.	115	60	3000	1	1/25	126	1.65	OPEN FC	8.2	19.0	7.6	7.0	6.8	6.0	5.0	5.13	3.75	8.38	7.0

KEY:OPEN=Open Motor—FC=Fan Cooled

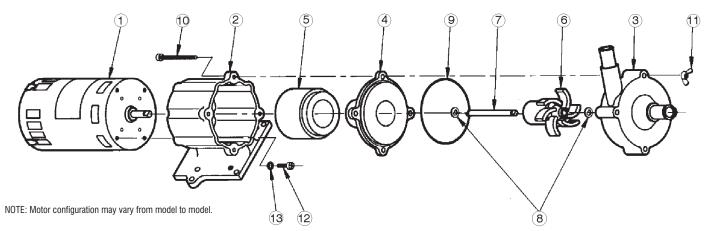
NOTE: Performance Data Shown In Table Above Is For 115 Volt 60 Hertz Operation

# ELECTRICAL CONNECTIONS 池 AWARNING A

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

If pump is supplied with a 3-prong electrical plug, the third prong is to ground the pump to prevent possible electrical shock hazard. DO NOT REMOVE the third prong from the plug. A separate branch circuit is recommended. Do not use an extension cord. Do not cut plug from the cord. If the plug is cut or the cord is shortened, then this action will void the warranty.

If the cord is equipped with stripped lead wires, such as on 230v models, be sure that the lead wires are connected to a power source correctly. The green/yellow wire is the ground, the other two are live.



### **OPERATION**

The pump is supplied completely preassembled and pretested from the factory. Make sure the wing nuts are tight before operating the pump.

Use a thread sealer on all pipe connections and hand tighten only.

The pump is not self priming. It must be operated with the volute intake below the liquid level.

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.

The weight of the pump must be supported adequately. DO NOT support the pump by the intake and discharge connections alone.

Do not allow the pump to run dry (without liquid). Heat build up caused by friction will damage the pump parts when dry.

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.

If the unit is going 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.

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.

All wetted parts can be serviced by removing the (4) wing nuts (item 11) which hold the volute to the housing. The pump head components can easily be replaced in the field if necessary.

Lightly clean any corrosion or debris which may clog the impeller.

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.

Be certain power cord is in good condition and contains no nicks or cuts.

		MODEL & CATALOG NO.				
ITEM NO.	MFR'S PART NO.	PART DESCRIPTION	QTY.	3X-MDX 581030	3-MDX 581031	
1	977314	MOTOR, 115V				
1	977313	MOTOR, 115V	1		•	
2	181411	MAGNET HOUSING BRACKET	1	•	•	
3	181211	VOLUTE	1	•	•	
4	181311	BACKPLATE SEPARATOR	1	•	•	
5	180602	DRIVE MAGNET ASSEMBLY	1	•	•	
6	181111	IMPELLER/MAGNET ASSEMBLY	1	•		
6	181112	IMPELLER/MAGNET ASSEMBLY	1		•	
7	180058	SHAFT	1	•	•	
8	921067	THRUST WASHER	2	•	•	
9	924007	O-RING	1	•	•	
10	901418	MACHINE SCREW, #8-32 X 11/2"	4	•	•	
11	920003	WING NUT, #8-32	4	•	•	
12	901424	MACHINE SCREW, #8-32 X ½"	4	•	•	
13	921059	LOCK WASHER, #8	4	•	•	

Parts list applies to products shown. Other models are available, however, parts may vary. For other models, contact Parts Depot, Factory or Distributor for replacement parts. Be sure to give the six digit product number and model number when requesting parts.