

INTRODUCTION

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

The Little Giant pump you have purchased is of the highest quality workmanship and material, and has been engineered to give you long and reliable service. Little Giant pumps are carefully tested, inspected, and packaged to ensure safe delivery and operation. Please examine your pump 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 LITTLE GIANT PUMP. KNOW THE PUMP'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



During installation, 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 supplied with a grounding conductor and/or grounding-type attachment plug. To reduce the risk of electric shock, ensure that it is connected to a properly-grounded, grounding-type receptacle. Do not remove the third prong from the plug.

For maximum safety, this pump should be connected to a three-prong grounded outlet equipped with a ground fault circuit interrupter (GFCI) device.

Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Pump should only be used with liquids compatible with pump component materials. Do not use in explosive atmospheres or hazardous locations as classified by the NEC, ANSI/NFPA70. Failure to follow this warning can result in property damage, personal injury, or death.

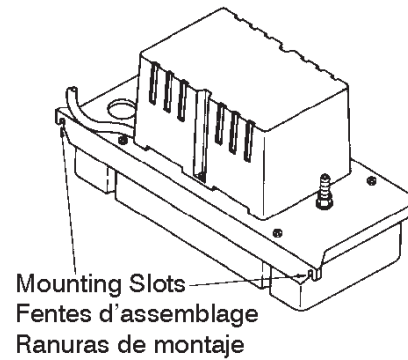
Do not handle a pump or pump motor with wet hands or when standing on a wet or damp surface, or in water. Failure to follow this warning can result in fatal electrical shock.

Make certain that the unit is disconnected from the power source before attempting to service or remove any component. If the power disconnect is out-of-sight, lock it in the open position and tag it to prevent unexpected application of power.

Periodically inspect pump and system components. Regularly check hoses for weakness or wear, making certain that all connections are secure. Perform routine maintenance as required and in accordance with the Service Instructions section.

In any installations where property damage and/or personal injury

Figure 1.



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.

DESCRIPTION

This Little Giant condensate pump automatically removes water that drips from an air conditioner evaporative coil. The pump is controlled by a float/switch mechanism, which turns on the pump when approximately 1" of water collects in its tank, and turns off the pump when the water in the tank drains to approximately 1/2".

INSTALLATION

1. Carefully unpack the pump. Remove the cardboard packing from the motor cover air slots. Carefully slide the packing away from the pump. This packing is used to prevent switch movement during shipment.
2. Mounting the pump: The tank has two slots provided to mount the unit (Figure 1). The slots are located on the end of the tank cover. The unit should be mounted either on the side of the air conditioner unit or nearby wall. Pump must be level and the inlet must be below the coil drain. Conduit fittings are not compatible with the plastic pump housing.
3. The pump should not be installed in a manner that will subject it to splashing or spraying.

Figure 2.

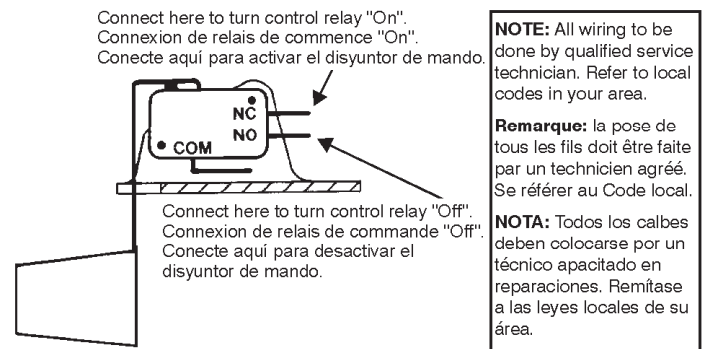
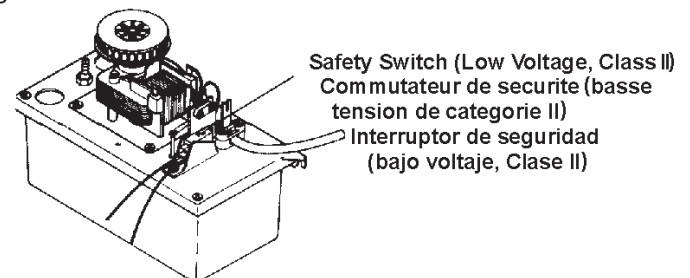


Figure 3.



ELECTRICAL CONNECTIONS



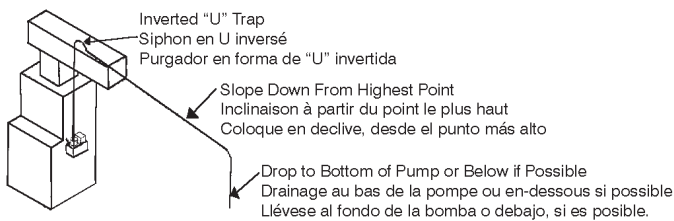
1. Shut off electrical power at fuse box before making any connections. All wiring must comply with local codes.
2. Line voltage: Connect power cord to line voltage specified on motor and nameplate. Power cord must be connected to a constant source of power (not a fan or other device that runs intermittently). If power cord does not have a plug, wiring is as follows: green (or green/yellow)—ground. Black (or brown)—line. White (or blue)—neutral.
3. Safety switch (Figures 2 and 3): The safety overflow switch should be connected to a class II low voltage circuit. Typical hook-up of "NC" circuits would be:
 - N.O.—When water rises, circuit opens to turn off heating or cooling equipment
 - N.C.—When water rises, circuit closes to activate a bell or alarm
4. If fused plug is used on 230V units, a 2.0 amp fuse is recommended.

PIPING

Figure 4.

Discharge Line Installation

Installation de la ligne d'écoulement
Instalación de la tubería de descarga.



1. Run flexible tubing or pipe from evaporator drain into pump inlet. Be sure inlet piping is sloped downward to allow gravity flow (Figure 4).
2. The outlet piping should be flexible tubing or pipe (3/8" I.D. maximum to prevent excessive flow back to unit). From condensate unit, extend discharge piping straight up as high as necessary. Do not extend this line above the head/GPH of the particular model being installed. From this high point, slope discharge line down slightly to a point above drain area; then turn down and extend to a point below or approximately level with the bottom of the condensate unit. This will give a siphoning effect which will improve efficiency of the condensate unit and will, in most cases, eliminate the need for a check valve. If it is not possible to slope discharge line down, make an inverted "U" trap directly above the pump at the highest point.
3. If debris collects in the check valve and prevents it from sealing properly, the volume of water draining back into the tank from the 3/8" tubing may cause the pump to cycle on and off continuously without lifting water the full height of the discharge tubing. In this event it is recommended that the 1/4" adaptor which is provided be used with 1/4" I.D. tubing. NOTE: Thread sealant must be used when using 1/4" adaptor. This will lower the discharge tubing volume below the pump cycle volume and result in full discharge lift.

SERVICE INSTRUCTIONS

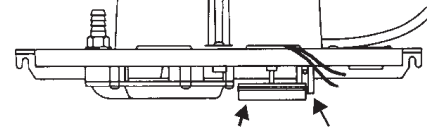


MAKE CERTAIN THE UNIT IS DISCONNECTED FROM THE POWER SOURCE BEFORE ATTEMPTING TO SERVICE OR REMOVE ANY COMPONENT!

1. Be sure the floats move freely. Clean as necessary.
2. Remove the volute and check for obstructions. Clean as necessary.
3. Clean the tank with warm water and mild soap.
4. Check inlet and outlet piping. Clean as necessary. Be sure there are no kinks in the line that would inhibit flow.

TESTING

Figure 5.



Motor Switch Float Safety Switch Float
Commutateur de Moteur de Flotteur Commutateur de Sécurité de Flotteur
Flotador del Interruptor del Motor Flotador del Interruptor de Seguridad

1. Turn on power.
2. Remove motor/tank cover assembly and hold level.
3. Test motor switch by raising motor switch float with finger (Figure 5). Motor should turn on just before circlip on stem contacts stem guide.
4. Test safety switch by raising safety switch float with finger. Safety switch should activate before float contacts cover.
5. Replace motor/tank cover assembly on tank.

This pump is suitable for gas furnace condensate applications. Caution must be taken to ensure acidity of condensate does not fall below the average pH of 3.4 (to prevent localized pocket of acid that acts like a battery causing pitting) by routinely cleaning or flushing tank with fresh water.