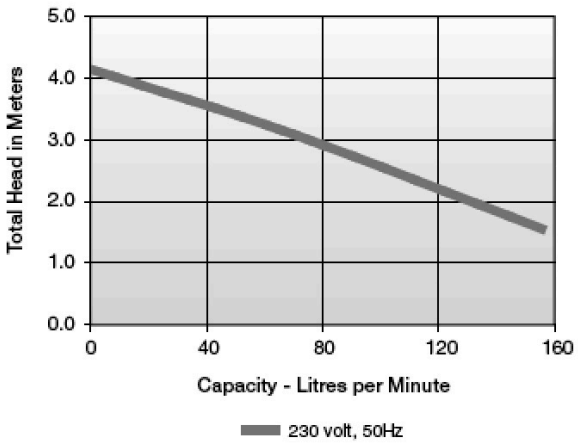
6-CIA Cast Iron Submersible Sump Pump

Basement sumps, dewatering, water transfer

- 1/3 HP shaded pole motor
- Designed for continuous duty
- Epoxy-coated cast iron housing
- 32 mm garden hose adapter available
- Carbon/ceramic shaft seal
- Upper and lower sintered sleeve bearings
- IP 68

Capacity:	156 LPM @31m
Shut Off:	4.1m
Discharge:	38mm
Electrical:	230V, 50/60Hz, 4.5A, 720W
MODEL:	**506166**

Performance Curves



Little GIANT
Little Giant
P. O. Box 12010
Oklahoma City, OK 73157-2010
405.947.2511 • Fax: 405.947.8720
www.LittleGiant.com
customerservice@lgpc.com

6-CIM • 6-CIA

GB INTRODUCTION

The Little Giant pumps are carefully packaged, inspected and tested 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 that you purchased the pump from. They will assist you in replacement or repair, if required.

SAFETY GUIDELINES

1. CAUTION: To reduce the risk of electrical shock, pull plug before servicing this pump.
2. Read all instructions and Safety Guidelines thoroughly. Failure to follow the guidelines and instructions could result in serious bodily injury and/or property damage.
3. Check local electrical and building codes before installation. The installation must be in accordance with their regulations.
4. During normal operation the sump pump is immersed in water. Also, during rain storms, water may be present in the surrounding area of the pump. Caution must be used to prevent bodily injury when working near the pump:
   a. Electrical power should be disconnected prior to touching, servicing or repairing the pump.
   b. To minimize possible fatal electrical shock hazard, extreme care should be used when changing fuses. Do not stand in water while changing fuses or insert your finger into the fuse socket.
5. Do not run the pump in a dry sump. If the pump is run in a dry sump, the surface temperature of the pump will rise to a high level. This high level could cause skin burns if the pump is touched and will cause serious damage to your pump.
6. Do not oil the motor. The pump housing is sealed. A high grade dielectric oil devoid of water has been put into the motor housing at the factory. Use of other oil could cause serious electric shock and/or permanent damage to the pump.
7. This pump's motor housing is filled with a dielectric lubricant at the factory for optimum motor heat transfer and lifetime lubrication of the bearings. Use of any other lubricant could cause damage and void the warranty. This lubricant is non-toxic; however, if it escapes the motor housing, it should be removed from the surface quickly by placing newspapers or other absorbent material on the water surface to soak it up, so aquatic life is undisturbed.

SAFETY GUIDELINES

⚠WARNING⚠

WARNING: Risk of electric shock. 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.

LITTLE GIANT QUALITY

Every pump has been factory tested for capacity, control operation and electrical continuity to assure maximum performance and safety. Little Giant automatic sump pumps have a high volume pumping capacity with a pressure activated switch. The switch engages in 7" - 10" water.

The motor section of your pump is permanently lubricated and sealed - do not attempt to open this section. Special equipment and knowledge is required for proper servicing of this part of your pump and may only be accomplished by an Authorized Service Center or the factory. Your warranty will be void if the motor section is opened by unauthorized persons.

ELECTRICAL CONNECTIONS

1. Your sump pump is supplied with a stripped wire cord end. The end of the power cord is to be wired in an electrical enclosure. Be sure that electrical connection cannot be reached by rising water. Under no circumstances should the outlet box be located where it may become flooded or submerged by water.

   The power cord is color coded as follows, green or (green/yellow)-ground, black or (brown)-line, and white or (blue)-neutral.
2. A separate branch circuit is recommended. Do not use extension cords.
3. Automatic power cord contains a breather tube. Be sure power cord is not pinched so that breather tube is obstructed. Non-restrictive air flow in breather tube is required for proper operation.

Test the pump after all electrical connections have been made. Run water into area where pump is to be placed. Do not attempt to run the pump without water; this could result in permanent damage to the pump. Fill the area to a normal "on" level and allow the pump to remove water to a normal "off" level.

WARNING: Always disconnect the electrical power before touching the pump or discharge when water is present in the area of the pump. Failure to do so can result in hazardous electrical shock.

INSTALLATION (FIG. 1)

1. Clean any debris from sump pit and set pump in center of pit. A solid bottom will prevent clogging of the pump from sand and dirt.
2. Connect discharge piping and run it to the nearest sewer or surface outlet. Use pipe joint compound at all connections. Sump pumps can be piped to discharge into the house drainage system, to a dry well, splash block or to a a storm drain, depending on local plumbing codes.

   The discharge pipe should be as short as possible and contain as few elbows as possible. The discharge pipe should be the same diameter as the discharge size to reduce pipe friction losses. Smaller pipe will restrict capacity and reduce pump performance. The sump pump comes with 1½" female pipe thread discharge, and 1¼" FNPT reducing bushing.
3. Always install a union in the discharge line, just above the sump pit, to allow for easy removal of the pump for cleaning or repair.
4. In situations where the piping is long, the vertical discharge is above 7 or 8 feet, or a small pit has been provided, use of a check valve is recommended to prevent backflow of water into the sump. When a check valve is used, drill a relief hole (1/8" or 3/16" diameter) in the discharge pipe. This hole should be located below the floor line between the pump discharge and the check valve. Unless such a relief hole is provided, the pump could "air lock" and will not pump water even though it will run.
5. Tape power cord to discharge line with electrician's tape. This will protect the cord from damage and will prevent the pump's being pulled from the sump by its power cord.
6. TEST THE PUMP AFTER ALL CONNECTIONS HAVE BEEN MADE. Run water into sump. Do not attempt to operate the pump without water; this will damage the seals and bearings and could result in permanent damage to the pump. Fill sump to normal "on" level and allow pump to remove water to the normal "off" level (see fig. 1).
7. Place cover over sump. This cover will prevent solid debris from filling the pit, prevent odors, and guard against accidental injury.

⚠WARNING⚠

Always disconnect the electrical power before touching the pump or discharge when water is present in the sump. Failure to do so can result in hazardous electrical shock.

TROUBLESHOOTING INFORMATION

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
Pump will not shut off. Note: Before trouble shooting automatic control check to see that pump operates on manual control. To do this, create slight vacuum on breather tube (near plug), then close off tube with thumb, plug into wall outlet. If pump works, proceed to check switch; if not, fault is in pump or power supply.	Diaphragm switch	Replace switch
	Weak or hardened rubber diaphragm	Replace rubber diaphragm
	Dirt or sediment lodged between retainer ring and rubber diaphragm causing contacts to remain closed.	Clean area around rubber diaphragm
	Pump is air locked	Shut power off for approximately 1 minute, then restart. Repeat several times to clear air from pump. If system includes a check valve, a 3/16" hole should be drilled in discharge pipe approximately 2" above discharge connections
	Liquid inflow matches pump capacity.	Larger pump required
	Defective switch	Disconnect switch, check w/ohmmeter, Open-infinitive resistance, closed-zero.
	Loose connection in level control wiring	Check control wiring
Pump runs but does not discharge liquid	Check valve installed backwards	heck flow indicating arrow on check valve body to insure it is installed properly.
	Check valve stuck or plugged	Remove check valve and inspect for proper operation
	Lift too high for pump	Check rating table
	Inlet to impeller plugged	Pull pump and clean
	Pump is air locked	(See corrective action above.)