

# APCP 1700 Pool Cover Pump

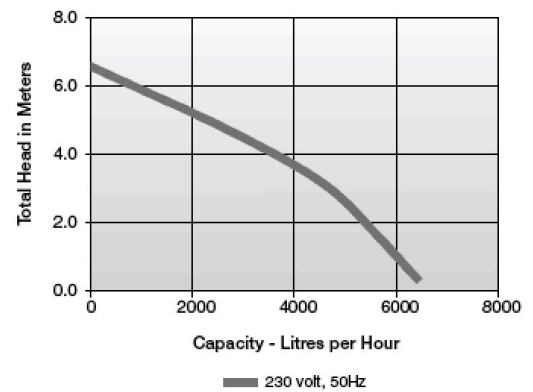
Ideal for removing water from all types of pool covers.

- Automatic pool cover drainage
- 6400 Litres per hours capacity
- Activates in approx. 50mm of water – Off Level approx 38mm of water
- 10m power cord
- Integrated handle for easy portability
- Wide base stability
- Mechanical float for dependability
- No assembly required
- Energy efficient motor
- 260 watts
- 25.4mm discharge w/garden hose adapter
- 6.5 maximum lift



<b>Capacity:</b>	6435 LPH @31m
<b>Liquid Temp:</b>	Up to 35°C
<b>Shut Off:</b>	6.55mm
<b>Discharge:</b>	25.4mm
<b>Electrical:</b>	230V, 50Hz, 1.2A, 270W
<b>MODEL:</b>	<b>577303</b>

Performance Curves



## APCP-1700 AutoMatic Pool Cover Pump

The Little Giant APCP-1700 Pool Cover Pump helps to protect your pool cover from prolonged accumulation of rain or melting snow. The APCP-1700 is certified for use on pool covers, and can attach to a standard garden hose for easy water removal.

The pump is controlled by a float switch mechanism. The pump automatically starts when approximately 2½" of water accumulates, and shuts off when the water level is reduced to approximately 1".

This product is covered by a Limited Warranty for a period of 36 months from the date of original purchase by the consumer. For complete warranty information, refer to [www.LittleGiant.com](http://www.LittleGiant.com).



### Specifications

Model	HP	Volts	HZ	Amps	Watts
APCP-1700	1/3	230	50	1.2	260

### Flow Rates

Litres per Hour					
1 FT (0.3 m)	5 FT (1.5 m)	10 FT (3 m)	15 FT (4.6 m)	20 FT (6.1 m)	Maximum Height
6490	5365	3745	2175	730	6.7m

## SAFETY INSTRUCTIONS

### Before Getting Started

This equipment should be installed and serviced by technically qualified personnel who are familiar with the correct selection and use of appropriate tools, equipment, and procedures. Failure to comply with national and local electrical and plumbing codes and within Little Giant recommendations may result in electrical shock or fire hazard, unsatisfactory performance, or equipment failure.

Know the product's application, limitations, and potential hazards. Read and follow instructions carefully to avoid injury and property damage. Do not disassemble or repair unit unless described in this manual.

Failure to follow installation or operation procedures and all applicable codes may result in the following hazards:

#### **⚠ DANGER**



**Risk of death, personal injury, or property damage due to explosion, fire, or electric shock.**

- Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc.
- Do not use in explosive atmospheres or hazardous locations as classified by the NEC, ANSI/NFPA70.
- When a pump is in its application, do not touch the motor, pipes, or water until the unit is unplugged or electrically disconnected.
- If the power disconnect is out of sight, lock it in the open position and tag it to prevent unexpected application of power.



## SAFETY INSTRUCTIONS Before Getting Started

### WARNING



#### Risk of severe injury or death by electrical shock.

- To reduce risk of electrical shock, disconnect power before working on or around the system. More than one disconnect switch may be required to de-energize the equipment before servicing.
- Wire pump system for correct voltage.
- Do not use an extension cord; provide a properly located outlet.
- Be certain that this pump is connected to a circuit equipped with a ground fault circuit interrupter (GFCI) device or a residual current device (RCD) having a rated residual operating current not exceeding 30 mA if required by code.
- Check electrical outlets with a circuit analyzer to ensure power, neutral, and ground wires are properly connected. If not, a qualified, licensed electrician should correct the problem.
- Pumps are supplied with a grounding conductor and grounding-type attachment plug. To reduce risk of electric shock, be certain that it is connected only to a properly grounded grounding-type receptacle. Do not remove the third prong from the plug. The third prong is to ground the pump to help prevent possible electric shock hazard.
- To avoid hazards when installing or servicing, install a double-pole disconnect near the pump installation.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Do not bury cord. Locate cord to minimize abuse from lawn mowers, hedge trimmers, and other equipment.
- Check local electrical and building codes before installation. The installation must be in accordance with their regulations as well as the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
- Do not use the power cord for lifting the pump.
- This pump has been evaluated for use with water only. The pump should only be used with liquids compatible with pump component materials. If the pump is used with liquids incompatible with the pump components, the liquid can cause failure to the electrical insulation system resulting in electrical shock.

### CAUTION



#### Risk of bodily injury, electric shock, or equipment damage.

- This equipment must not be used by children or persons with reduced physical, sensory or mental abilities, or lacking in experience and expertise, unless supervised or instructed. Children may not use the equipment, nor may they play with the unit or in the immediate vicinity.
- Equipment can start automatically. Always unplug the pump power cord and disconnect the electrical power before servicing the pump or switch.
- Make sure that the discharge line of the pump is secure before operating pump. If the discharge line is not secured it could move.
- Do not run pump dry. Running dry will cause serious damage to the pump.
- Do not let the unit freeze. Freezing may cause cracking or distortion that may destroy the unit.
- An inoperative or malfunctioning pump could lead to flooding, resulting in personal injury or property damage.
- Operation of this equipment requires detailed installation and operation instructions provided in this manual for use with this product. Read entire manual before starting installation and operation. End User should receive and retain manual for future use.
- Keep safety labels clean and in good condition.
- Keep work area clean, well-lit, and uncluttered.

### NOTICE

#### Risk of damage to pump or other equipment.

- Periodically inspect pump and system components. Regularly check hoses for weakness or wear, making certain that all connections are secure.
- Schedule and perform routine maintenance as required and in accordance with the Maintenance section of this manual.
- The pump's motor bearings contain a small amount of lubricant. In the event of product failure, pollution of the liquid could occur due to leakage of these lubricants.



This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

## INSTALLATION

### Pump Sizing Information

The 1700 GPH performance was obtained through a 1" I.D. tube, with friction losses neglected. Using a 50' long  $\frac{3}{4}$ " garden hose reduces this performance to approximately 500 gallons per hour due to friction losses in the garden hose. If your area frequently has heavy rainfalls, (1"– 2" per hour), it may be necessary to use 1" tubing. One inch ID hose should be available in most pool supply stores.

The number of gallons of water that your pool will collect in a rainfall of one inch per hour can be computed as follows: Cover overall length (ft.) x cover overall width (ft.) x 0.6234 = Gallons per Hour.

**NOTE:** This is cover dimension, and not pool dimension.

Examples:

A 16' x 32' pool cover would collect 319 gallons ( $16 \times 32 \times 0.6234 = 319$ ) in 1 hour, in 1" per hour rain.

A 20' x 40' pool cover would collect 499 gallons ( $20 \times 40 \times 0.6234 = 499$ ) in 1 hour, in 1" per hour rain.

### Physical Installation

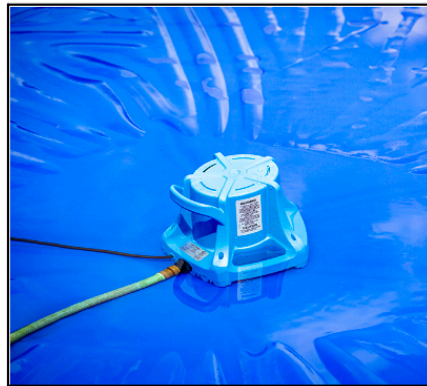
The electrical outlet to be used must meet the requirements of the National Electrical code, as well as local electrical codes, including grounding, and GFCI protection. Also verify that outlet is properly sized and located for this pump. Your installation may require a certified electrician, or plumber. See Electrical Connection section below.

If necessary, check your local plumbing codes to verify that final installation will be in compliance with their requirements.

1. If using a garden hose to discharge the water, install the garden hose adapter to the pump.
2. Connect a garden hose to the hose adapter, or use a 1" nipple and flexible PVC tubing secured to the pump discharge.

**NOTE:** The free end of the discharge hose must be secured so that it cannot blow back onto the pool cover in high wind or due to discharge water pressure.

3. Use the handle to gently lower pump onto the pool cover. Hold onto the discharge/garden hose if necessary. While positioning the pump, be certain that you do not pull power cord plug onto pool cover. The pump is equipped with an eyelet (opposite the discharge) for attaching a positioning rope (not included). Use rope and garden hose to position pump on the pool cover.
4. It is recommended that two people position the pump. One person should hold onto the electrical cord plug to prevent it from being pulled onto the pool cover while the second person positions pump at desired location on pool cover. Once in position, the pump is ready for connection to electrical supply.





## INSTALLATION

### Electrical Connections

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## Electrical Connections

The power cord must be connected to a constant source of power matching the voltage specified on the pump nameplate.

- The pump should be connected or wired to its own circuit, with no other electric receptacles or equipment in the circuit.
- The fuses or circuit breaker should be of ample capacity in the electrical circuit.
- Connect to a circuit equipped with a ground fault circuit interrupter (GFCI) device if required by code.

**IMPORTANT:** If the power cord is damaged, the whole unit must be replaced.

Always disconnect the electrical power before touching the pump, discharge or electrical plug when water is present in the area. Failure to do so can result in serious bodily injury and/or property damage. Always connect pump to grounded receptacle. See SAFETY INSTRUCTIONS.

1. The pump is supplied with a 3-prong electrical plug. The third prong is to ground the pump to help prevent possible electrical shock hazard. Do not remove the third prong from the plug.
2. A separate branch electrical circuit is recommended. The electrical power required is 5 amps at 230 VAC.
3. Be sure that electrical connection cannot be reached by rising water. Under no circumstances should the connection be located where it may become flooded or submerged by water.
4. If you have a GFCI outlet, test GFCI device per the GFCI manufacturer's instructions.
5. After all electrical connections have been made, test the operation of the pump system by following the instructions in "Operation" section of this manual. 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.

## Operation

Become familiar with the SAFETY INSTRUCTIONS throughout this manual. During the rainy season, check daily to confirm that the pump is functioning properly. Also, if high winds or excessive movement of the pool cover is experienced, be certain that the pump is still upright, with the discharge hose properly positioned. If you plan to be away from your pool for extended periods of time, arrange for someone to periodically check the pool cover pump, and verify that everything is still functioning properly. Be sure to review the SAFETY INSTRUCTIONS and electrical shock hazards with them!

To test the operation of the pump, run water into area where pump is placed until the pump is activated. Do not attempt to run the pump without water; this could result in permanent damage to the pump.

The pump is activated by an integral float switch. The pump should come on when the water level is approximately 2½" deep and remain running until the water level is approximately 1" deep. NOTE: Temperatures near freezing may cause the "ON" level to go as high as 4", and the "OFF" to be as high as 2".

Confirm that the pump and its control switch are functioning as intended. Confirm that the ON/OFF levels are within specification. Confirm that the discharge hose is positioned so that the discharged water does not run back onto the pool cover.

## MAINTENANCE

If service is required, proceed carefully. The pump and surrounding areas may be covered with water. Never plug or unplug the device while standing in wet or damp surfaces. If necessary, remove power at the Breaker Panel or have certified electrician remove power before attempting to service. Serious or fatal shocks could result if proper procedures are not followed. Disconnect the power at the main electrical service box by switching the appropriate circuit breaker or removing fuse. In applications where screw type fuses are used, remove using only one hand while the other hand and torso are free from contact with anything. Do not stand in water and do not touch any other conductive surfaces.

Icy conditions can cause unnecessary wear on pump. When these conditions exist it is recommended, but not required, to remove the pump from the pool cover. Alternatively, if pump is left installed during these conditions ensure power cord remains connected to a 230 VAC source. Do not let the unit freeze. This may cause cracking or distortion that may destroy the unit.

Before servicing the pump, disconnect the pump from electrical service, unplug cord, remove fuse, or turn off circuit breaker.

The motor housing of the pump is completely sealed and requires no service. Disassembly of the motor housing or alteration of the power cord voids all warranty.

The motor is a continuous duty type equipped with an automatic resetting thermal protector and may restart unexpectedly. Protector tripping is an indication of motor overloading/overheating, which can be caused by application issues such as an obstructed pump impeller, switch stuck in the ON position, pump running dry, pump air-locked, pump short cycling, excessively high or low voltage supply, or possibly a pump, motor, bearings, or seal that have reached the end of their useful life.

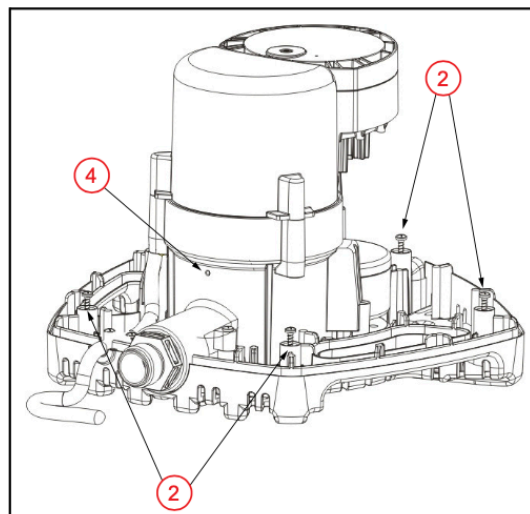
The pump can run against a restricted discharge without damage to the pump.

Keep pump clean and in a well maintained condition at all times. Pump should be thoroughly cleaned for summer storage.

If float becomes stuck, remove the float access cover on the bottom of the unit. Remove the cover by turning it towards the "OPEN" arrow as indicated on the cover. Clean as needed, then reinstall access cover.

This pump has an internal vent hole to prevent an air-lock condition. Periodically the vent hole can become obstructed and will require cleaning according to the following steps:

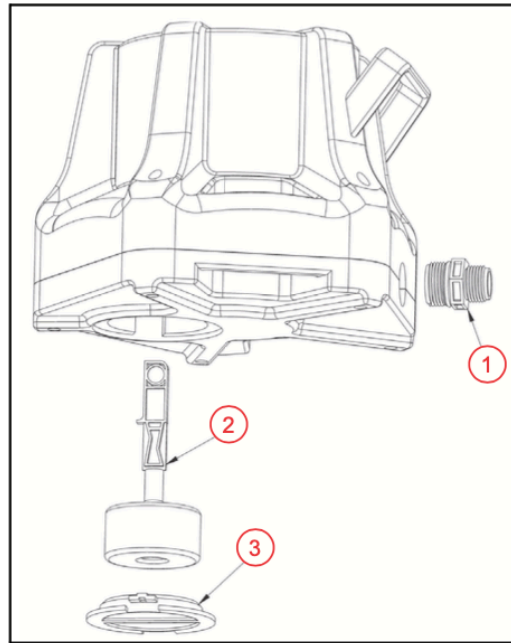
1. Disconnect the pump from electrical service.
2. Loosen and remove the five screws from the outer blue cover (four shown).
3. Remove the outer cover.
4. Clean debris from the vent hole.
5. Re-install the outer cover and screws.
6. Re-connect the pump to electrical service.



**MAINTENANCE**  
**Replacement Parts List**

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**Replacement Parts List**



Item	Part No.	Description
1	177343	Garden hose adapter
2	177344	Float/Stem assembly
3	177345	Float Access Cover



## MAINTENANCE Troubleshooting

### Troubleshooting

Problem	Probable Causes	Corrective Action
Pump does not turn on.	Pump is not plugged in.	Plug in the pump.
	Circuit breaker is off or fuse is removed.	Turn on circuit breaker or replace fuse.
	Accumulation of trash on float	Remove the float access cover. Clean float.
	Float obstruction.	Remove the float access cover. Clean float movement path. Remove any debris or obstruction.
	Defective switch.	Replace pump.
	Defective motor.	Replace pump.
Pump will not shut off.	Float obstruction.	Remove the float access cover. Check float movement path. Remove any debris or obstruction.
	Defective switch.	Replace pump.
	Pump is air locked	Shut power off for approximately 1 minute, then restart. Repeat several times to clear air from pump. If this does not resolve the problem, clean the vent hole according the MAINTENANCE section.
	Liquid inflow matches or exceeds pump output capacity.	Multiple or larger pump required. Refer to Capacity sizing.
	Frozen water in discharge hose.	Thaw hose or replace hose.
Pump runs but does not discharge liquid.	Lift too high for pump.	Check rated pump performance.
	Inlet to impeller plugged.	Pull pump and clean.
	Pump is air locked	Shut power off for approximately 1 minute, then restart. Repeat several times to clear air from pump. If this does not resolve the problem, clean the vent hole according the MAINTENANCE section.
	Outlet flow is blocked.	Check outlet tubing to ensure that it is not kinked or blocked. Clear blocked tubing of slime and debris. Clean inlet and outlet piping.
	Frozen water in discharge hose.	Thaw hose or replace hose.
Pump does not deliver rated capacity.	Lift too high for pump.	Check rated pump performance.
	Low voltage, speed too slow.	Check that supply voltage matches nameplate rating.
	Impeller or discharge pipe is clogged.	Pull pump and clean. Check pipe for scale or corrosion.
	Discharge hose diameter is too small.	Replace discharge hose with larger diameter hose. Refer to Capacity sizing.
Pump cycles continually.	No Check valve in long discharge pipe allowing water to drain back onto cover.	Install a check valve in the discharge line.
	Check valve leaking.	Inspect check valve for correct operation.
	Defective switch.	Replace pump.
	Volute clogged.	Clean screen and basket.
	Float obstruction.	Remove the float access cover. Clean float movement path. Remove any debris or obstruction.
	Thermal protector activated.	Allow pump to cool.
	GFCI device activated.	Inspect all electrical connections and reset the GFCI.