

# Cast Iron Sump Pumps Instruction Manual & Safety Warnings

## Models CIS-33V and CIS-50V



## Important Safety Instructions

**SAVE THESE INSTRUCTIONS.** This manual contains important SAFETY WARNINGS and OPERATING INSTRUCTIONS. You will need to refer to it before attempting any installation or maintenance.

**ALWAYS** keep these instructions with the unit so that they will be easily accessible. Failure to read and follow these warnings and instructions could result in property damage, serious injury, or death.

### **⚠ WARNING**

**Risk of electric shock. To reduce this risk, observe the following precautions.**

- **ALWAYS** disconnect the pump from the power source before servicing or making adjustments.
- **NEVER** handle the pump or motor with wet hands or when standing on a wet or damp surface while the pump is plugged into the power source.
- **MAKE SURE THERE IS A PROPERLY GROUNDED RECEPTACLE AVAILABLE.** This pump is wired with a 3-prong grounded plug. To reduce the risk of electric shock, be certain that it is only connected to a properly grounded, 3-prong receptacle. If you have a 2-prong receptacle, have a licensed electrician replace it with a 3-prong receptacle according to local codes and ordinances.
- **NEVER** bypass grounding wires or remove the ground prong from the plug.
- **DO NOT** use an extension cord. The electrical outlet should be within the length of the pump's power cord, and at least 4 feet above the floor level to minimize potential hazards from flood conditions.
- **DO** protect the electrical cord from sharp objects, hot surfaces, oil, and chemicals. Avoid kinking the cord.
- **MAKE SURE** the supply circuit has a dedicated fuse or circuit breaker rated to handle the power requirements noted on the nameplate of the pump.

### **⚠ CAUTION**

**To reduce the risk of hazards that can cause injury or property damage, observe the following precautions.**

- **DO NOT** use the power cord or strain relief to carry the pump. Use the pump handle.
- **DO NOT** operate the pump or control unit if it has been damaged in any way.
- **DO NOT** use sump pumps in pits handling raw sewage, salt water, or hazardous liquids. This pump is for ground water use only.
- **DO NOT** use in continuous duty applications such as fountain ponds. This pump is rated for intermittent use only.
- **DO NOT** disassemble the pump or float switch. When service is required, contact Glentronics technical support at 800-991-0466, option 3. Return the product to the manufacturer for any repairs at the following address:

**Glentronics, Inc., 645 Heathrow Drive, Lincolnshire, IL 60069**

Specifications	1/3 HP Model CIS-33V	1/2 HP Model CIS-50V
GPH @ 0'	4000	4300
GPH @ 10'	3200	3600
Pump diameter	9.5"	9.5"
Volts	115V, 60Hz	115V, 60Hz
Amps	5.0	6.0

## Items Included:

Pump with vertical float switch

## You may also need:

A 1-1/2" PVC pipe adapter to screw into the discharge hole on top of the pump

1-1/2" rigid PVC pipe to connect to the existing plumbing

A check valve or rubber union

PVC pipe cleaner and cement

Wire ties or hose clamps

## NOTICES

- When a check valve is used, a 1/8" (3.2mm) air bleed hole must be drilled in the PVC pipe above the pump. Drill the hole at a 45° angle toward the bottom of the sump to avoid splashing water outside the sump pit. Make sure the hole is above the water line, and below the check valve. If a hole is not drilled above the pump, an air lock may prevent the pump from operating.
- The control unit must receive 115V AC +/- 5% and 60 Hz from the AC outlet.
- Primary pumps will not provide protection during a power outage. With the risk of property damage from high water levels, the addition of a PHCC Pro Series battery backup sump pump system is highly recommended.
- After the initial installation, be sure to check the operation by filling the sump with water and observing the pump operation through several full cycles.
- In instances where the discharge line is exposed to freezing temperatures, the pipe must be sloped downward so any remaining water will drain out. Failure to do so will prevent water from exiting the sump and damage the pump if the line freezes.

## Installation Instructions

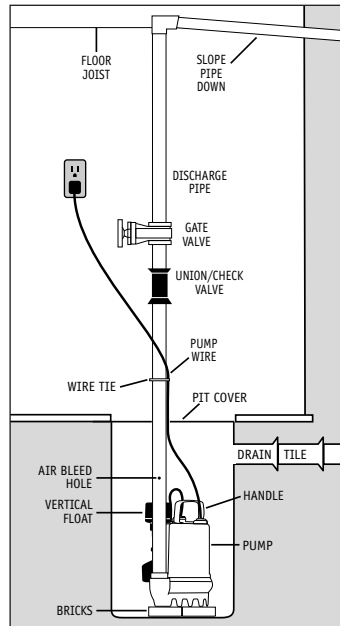
### Prior to Installation

1. Visually inspect your pump. Products may be damaged during shipping. If the product has been damaged, contact your place of purchase or Glentronics, Inc. before installation.
2. Thoroughly read the instructions provided to learn specific details regarding installation and use. This manual should be retained for future reference.

### ⚠ WARNING

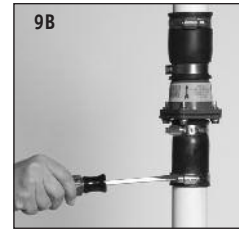
This installation must be in accordance with the National Electric Code and all applicable local codes and ordinances.

1. Use a pit that conforms to all local codes and is large enough to accommodate the pump and float switch. The minimum requirements are 10" in diameter and 14" deep. However, larger sump pits are preferred, since they will extend the discharge cycle and reduce the number of times the pump turns on.
2. Clean the pit of all debris. The pump's inlet must be kept clear.
3. The pump should not be set directly onto a clay, earthen, or sand base. You should install bricks or blocks under the pump to provide a solid base.
4. The pump should be level.
5. Install discharge plumbing according to local, regional and state codes. Rigid PVC pipe is recommended.
6. An in-line check valve is recommended to prevent back-flow. This check valve is mandatory when sharing a discharge line with another pump (i.e. a back-up pump or a second primary pump).



- (a) When a check valve is used, a 1/8" (3.2mm) air bleed hole must be drilled in the PVC pipe above the pump. Drill the hole at a 45° angle toward the bottom of the sump to avoid splashing water outside the sump pit. Make sure the hole is above the water line, and below the check valve. If a hole is not drilled above the pump, an air lock may prevent the pump from operating.
7. Install a gate valve or ball valve if required by any codes.
  8. In instances where the discharge line is exposed to freezing temperatures, the pipe must be positioned in a downward slope so any remaining water will drain away. Failure to do this will prevent water from exiting the pit and damage the pump if the line freezes.
  9. If you are replacing an old sump pump:
    - (a) Unplug the pump from the outlet.

- (b) Loosen the check valve or rubber union by unscrewing the bottom hose clamp. (If the existing system is installed without a check valve or rubber union, saw the pipe apart above the sump pit.)



- (c) Remove the old pump and unscrew the pipe and adapter.
- (d) If the adapter fits into the new pump, screw the pipe into the pump. If not, cut a piece of rigid PVC pipe and connect it to a 1-1/2" PVC adapter by cementing the two pieces together. (Follow the instructions on the PVC cleaner and cement.) Then screw the new piece into the pump.
- (e) Lower the pump into the sump by the handle.
- (f) To avoid debris pouring into the float, it should be positioned on the side of the discharge pipe opposite the drain tile. (See diagram).



## Connecting the Pump

### ⚠ WARNING

Make sure the outlet is single phase, 115V and 60HZ for all the pump installations.

Plug the pump directly into a properly grounded, 3-prong receptacle. For a neater installation, secure the power cord to the discharge pipe with wire ties or hose clamps. Keep any cords separated from each other on opposite sides of the pipe.

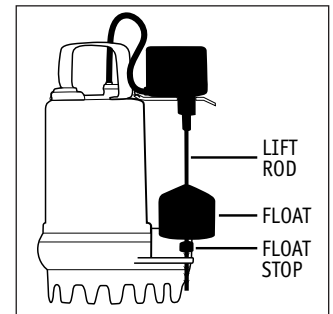
### Completing the Installation

1. After the initial installation, be sure to check the pump operation by filling the sump with water and observing the pump through several full cycles. *Note: The pump should have a "normal pumping" sound. Any abnormal sound, vibration, or lack of output from the discharge pipe is the signal of a problem. Stop the pump and refer to the troubleshooting guide.*
2. Replace the pit cover making sure not to pinch or crimp the pump wire with the cover. The pit cover either has a 'hole punch' that will allow the cord to be passed through or one can be drilled.

## Product Operation

### Vertical Float Switch

The vertical float switch contains a single large float. Water will lift the float to the top of the lift rod, raise the lift rod and activate the pump. As the pump evacuates the water from the pit the float will drop to the lower float stop, lowering the lift rod and turning off the pump. The position of the lower float stop is the "off-point". The pumping range can be adjusted by moving the lower float stop up lift rod. The lift rod has several barbs to hold the float stop in place. **DO NOT lower the float stop below the top barb or it will prevent the pump from shutting off and the pump will run continuously.** The lift rod must be able to move freely up and down to turn on and off the pump. The default position of the lower float stop is set for maximum pumping range. This will allow for longer pumping cycles and extend the life of the pump. After making any adjustments to the float stop be sure to check the operation by filling the sump with water and observing the pump operation through several full cycles.



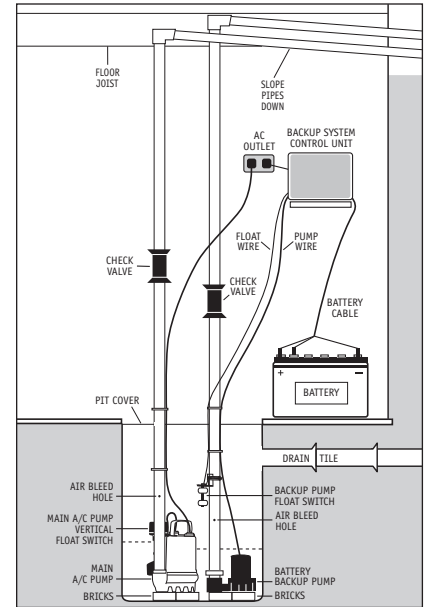
## Maintenance Check List

Maintenance should be performed 1-2 times per year.

1. Remove all debris from the bottom of the pit and the pump strainer.
2. Remove all debris floating in the water.
3. Remove all debris from the float switch and lift rod.
4. Remove all debris around the air bleed hole.
5. Fill the pit with water. Make sure pump turns on at the intended level.
6. While the pump is running, make sure pump is evacuating water at a good pace.
7. While the pump is running, make sure a stream of water is escaping from the air bleed hole. If not, clear the hole of any deposits or debris.

## Backup Installation

When the power goes out, the Main AC pump will not operate. For protection during a power outage, a PHCC Pro Series battery backup system can be installed. There are three systems with matching batteries that will provide protection. The illustration at right is an example of a typical battery backup installation.



Visit our website  
[www.stopflooding.com](http://www.stopflooding.com) for  
 more information about  
 PHCC Pro Series battery  
 backup sump pump systems.

## Troubleshooting (Always unplug the pump from the controller before performing any maintenance)

The pump will not start or run	Pump is not plugged in	Plug pump in properly (see instructions)
	Water is not high enough to activate the pump	Make sure float switch is positioned properly
	Open circuit	Check circuit breaker or fuse
	Poor power source	Check circuit line wires and cable*
	Low voltage	Check line wires and source voltage*
	Bad power cable	Replace with new cable*
	Locked impeller	Remove strainer and clear obstruction
	Defective float switch	Replace float switch with new float switch
Thermal protector tripping or not functioning	Defective pump	Replace pump with new pump
	Locked impeller	Remove strainer and clear obstruction
	Incorrect power supply	Check power supply source and voltage
	Overburdened due to heavy sand content in the water	Use water filter or replace with a higher wattage pump
Pump starts and stops too frequently	Pump running continuously with no water present	Check float switch
	Float stops are positioned too close together	Adjust the stopper on the lift rod
	Water flowing back from pipe	Install or replace check valve
Pump will not shut off	Clogged or frozen discharge	Clear blockage or thaw frozen line
	Blocked intake	Clear debris from intake
	Float switch is obstructed and can not drop down	Clear debris from the float and lift rod
	Check valve installed with no air bleed hole in pipe or pump	Drill a bleed hole in the discharge pipe, or clean debris from the existing hole in the pipe or pump
	Check valve is stuck or installed upside down	Reverse or replace check valve. Make sure the check valve is installed with the flow arrow pointing up and out of the pit.
Insufficient or no water volume	Check valve on secondary pump will not close and water re-circulates within the system	Replace the check valve on the secondary pump
	Partially blocked impeller	Clear obstruction
	Clogged or frozen discharge	Clear blockage or thaw frozen line
	Broken or leaking pipe	Repair piping
	Low power voltage	Check power voltage, wires and cable condition
	Check valve installed with no air bleed hole in pipe or pump	Drill a bleed hole in the discharge pipe, or clean debris from the existing hole in the pipe or pump
	Check valve is stuck or installed upside down	Reverse or replace the check valve. Be sure check valve is installed with flow arrow pointing up and out of the pit
	Pump is air locked	Remove debris from the air relief valve
Abnormal sound or vibration	Check valve on secondary pump will not close and water re-circulates within the system	Replace the check valve on the secondary pump
	Blocked intake	Clear debris from intake
	Broken impeller	Replace impeller with new one

\*Consult a licensed electrician.

If the above solutions do not solve the problem, contact Glenronics customer service 800-991-0466, option 3.

## Limited Warranty

By opening this package and using this GLETRONICS, INC. product, you are agreeing to be bound by the terms of the GLETRONICS, INC. limited warranty ("warranty") as set out below. Do not use your product until you have read the terms of the warranty. If you do not agree to the terms of the warranty, do not use the product and return it within the return period stated on your purchase receipt from the retail store or authorized distributor where you purchased it for a refund.

To the extent permitted by law, this warranty and the remedies set forth are exclusive and in lieu of all other warranties, remedies and conditions, whether oral, written, statutory, express or implied. GLETRONICS, INC. disclaims all statutory and implied warranties, including without limitation, warranties of merchantability and fitness for a particular purpose and warranties against hidden or latent defects, to the extent permitted by law. GLETRONICS, INC. will not be liable for any incidental, special or consequential damages for breach of any express or implied warranties on this product. In so far as such warranties cannot be disclaimed, GLETRONICS, INC. limits the duration and remedies of such warranties to the duration of this express warranty and, AT GLETRONICS, INC.'s option, the repair or replacement services described below. Some states (countries and provinces) do not allow limitations on how long an implied warranty (or condition) may last, so the limitation described above may not apply to you.

Any and all causes of action arising from, filed as a result of or in reference to, this warranty or the products described under this warranty shall be governed by and construed under the laws of the State of Illinois. Any cause of action arising from, filed as a result of or in reference to, this warranty or the products described under this warranty shall be filed only in the Circuit Court of the 18th Judicial District, Lake County, Waukegan, Illinois, or in the Northern District of Illinois if filed in Federal Court. The maximum liability for any product described in this warranty shall be the cost of product replacement only.

If any term is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

### What is Covered by this Warranty?

GLETRONICS, INC. warrants to the end purchaser that its pumps, switch and control unit products are free from defective materials and workmanship for the periods indicated below:

All parts and labor (excluding installation) for a period of:

- 3 years from the date of installation, when used intermittently as a sump pump

The defective product must be returned directly to the factory, postage prepaid with the original bill of sale or receipt to the address listed below. GLETRONICS, INC., at its option, will either repair or replace the product and return it postage prepaid.

### What is NOT Covered by this Warranty?

This warranty does not cover the cost or value of damaged property, including expressly any property that has been affected by water overflow, seepage or flooding. If GLETRONICS, INC. determines that a product is deemed defective under this warranty agreement, it will repair or replace the PRODUCT ONLY. GLETRONICS, INC. will not cover the cost to reinstall the product, nor will GLETRONICS, INC. pay the cost of having a plumber or contractor repair or replace the product.

GLETRONICS, INC. will not repair or replace a product that was installed incorrectly. A product shall be considered "installed incorrectly" when it deviates in any way from the instructions described in this manual.

This warranty does not cover product problems resulting from handling liquids hotter than 104 degrees Fahrenheit, handling inflammable liquids, solvents, strong chemicals or severe abrasive solutions; user abuse; misuse, neglect, improper maintenance, commercial or industrial use; improper connection or installation, damages caused by lightning strikes; excessive surges in AC line voltage; water damage to the controller; other acts of nature, or failure to operate in accordance with the enclosed written instructions.

### How to Obtain Warranty Service

Within thirty (30) days of the product's defective performance, the unit must be shipped, freight prepaid, or delivered to GLETRONICS, INC. to provide the services described hereunder in either its original carton and inserts, or a similar package affording an equal degree of protection. Products not received by GLETRONICS, INC. at the address indicated below within thirty (30) days of the product's defective performance will not be considered for warranty service. Products received after the above mentioned timeframe, fall outside of the timeframe for warranty service and will not be eligible for warranty service. The product must be returned to GLETRONICS, INC. for inspection in order to be considered for warranty service. If the product is not returned to GLETRONICS, INC. or the product is inspected by any person, plumber, contractor or business other than GLETRONICS, INC., this warranty shall no longer be valid. Prior to defective operation, the unit must not have been previously altered, repaired or serviced by anyone other than GLETRONICS, INC., or its agent; the serial number on the unit must not have been altered or removed; the unit must not have been subject to accident, misuse, abuse or operated contrary to the instructions contained in the accompanying manual. The dealer's dated bill of sale, or installer's invoice must be retained as evidence of the date of purchase and to establish warranty eligibility.

### Where are Products Sent for Warranty Service?

Glentronics, Inc., 645 Heathrow Drive, Lincolnshire, IL 60069

### How Can I Obtain More Information?

By calling 800-991-0466.