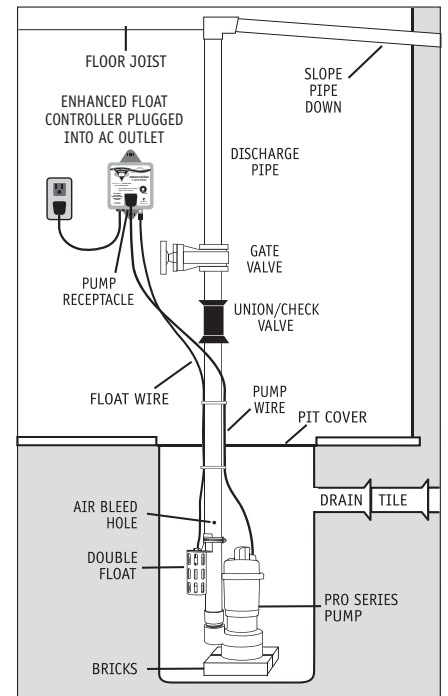# PHCC Pro Series Enhanced Float Switch & Controller
Instruction Manual & Safety Warnings

SAVE THESE INSTRUCTIONS. This manual contains important SAFETY WARNINGS and OPERATING INSTRUCTIONS for the PHCC Pro Series Enhanced Float Controller with dual float (DFC1.5), vertical float (VSC1.5) and tether float (TSC1.5) switch. 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 and float controller from the power source before servicing or making adjustments.
- **NEVER** handle the controller, float switch, pump or motor with wet hands or when standing on a wet or damp surface while the pump or controller is plugged into the power source.
- **MAKE SURE THERE IS A PROPERLY GROUNDED RECEPTACLE AVAILABLE.** This controller 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 controller.
- **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** expose the control unit to any type of moisture, water, rain or snow.
- **DO NOT** operate the pump or control unit if it has been damaged in any way.
- **DO NOT** use the caged dual float switch with pumps in pits handling raw sewage, salt water or hazardous liquids. This product is for ground water applications only.
- **DO NOT** use the vertical float or tether float switch with pumps in pits handling salt water or other hazardous liquids.
- **DO NOT** use in continuous duty applications such as fountains or ponds.
- **DO NOT** disassemble the pump or control unit. When service is required, contact Glentronics technical support at 800-991-0466. Return the product to the manufacturer for any repairs at the following address:

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

NOTICES

- The control unit must receive 115V AC +/- 5% and 60 Hz from the AC outlet.
- The controller 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.
- Prior to operation, be sure to check the float switch is properly connected to the controller.
- 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.
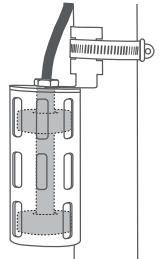
Installation Instructions

Prior to Installation

1. Visually inspect the product. 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.

Diagram labels: FLOOR JOIST, ENHANCED FLOAT CONTROLLER PLUGGED INTO AC OUTLET, SLOPE PIPE DOWN, DISCHARGE PIPE, GATE VALVE, UNION/CHECK VALVE, PUMP RECEPTACLE, FLOAT WIRE, PUMP WIRE, PIT COVER, AIR BLEED HOLE, DRAIN TILE, DOUBLE FLOAT, PRO SERIES PUMP, BRICKS

Dual Float Switch (Model DFC1.5)

The dual float switch contains two large floating rings enclosed within a protective cage. Water will lift the bottom float by a 1/4", which will activate the pump. If for any reason the lower float does not activate the pump, the water will rise and activate the second switch. As the pump evacuates the water from the pit, the floats will drop. The pump will run for an additional 10 seconds to extend the cycle after the float returns to its original position. The float switch wire includes a connector that can be separated from the controller when the wire needs to be threaded through small openings. The float switch connector has a safety locking pin. This pin will prevent the float switch from accidentally being disconnected from the controller. To remove the pin, push the pointed end of the pin into the float connector and pull it out from the other end. The float can now be disconnected from the controller. Make sure to reinstall the pin after the float is reconnected.

Note: When mounting the float switch, position the underlined bottom of the cage at the height you want the pump to activate.

Installing the Dual Float Switch (Model DFC1.5)

The PHCC Pro Series dual float switch is easy to install by using the enclosed metal hose clamp.

1. Hold the float switch to the discharge pipe so the cage is below the bracket.
2. Secure the float to the pipe with the enclosed hose clamp, but do not completely tighten the clamp at this time.
3. Position the float switch to a level where the bottom of the float cage is no lower than 3" above the bottom of the pump and no higher than 1" below the top of the pit. To avoid debris pouring into the float, it should be positioned on the side of the discharge pipe opposite the drain tile. *Note: It is important to mount the float below the drain tile that empties into the pit. Mounting it above the drain tile would allow water to fill the drain tile before the pump is activated to pump out the water.*
4. Once the float switch is in the desired position, tighten the clamp.

Vertical Float Switch (Model VSC1.5)

The vertical float switch contains a single large float. Water will lift the float by a $1/2$", which will activate the pump. As the pump evacuates the water from the pit, the float will drop. The pump will run for an additional 10 seconds to evacuate the pit completely after the float drops. *Note: There are two rubber stoppers on the float switch rod. Do **not** remove or alter their position as it will disrupt the timing of the controller and how long the pump runs.* The float switch wire includes a connector that can be separated from the controller when the wire needs to be threaded through small openings. Prior to operation, be sure to check the float switch is properly connected to the controller. *Note: When mounting the float switch, position the bottom of the float at the height you want the pump to activate.*

Installing the Vertical Float (Model VSC1.5)

The PHCC Pro Series float switch is easy to install by using the enclosed stainless steel hose clamp.

1. Hold the float switch to the discharge pipe so the float is below the bracket.
2. Secure the float to the pipe with the enclosed hose clamp, but do not completely tighten the clamp at this time.
3. Position the float switch to a level where the bottom of the float is no lower than 3" above the bottom of the pump. To avoid debris pouring onto the float, it should be positioned on the side of the discharge pipe opposite the drain tile. *Note: It is important to mount the float below the drain tile that empties into the pit. Mounting it above the drain tile would allow water to fill the drain tile before the pump is activated to pump out the water.*
4. Once the float switch is in the desired position, tighten the clamp.

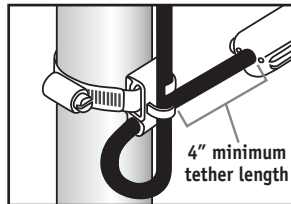### Tether Float Switch (Model TSC1.5)

The tether float contains a single float connected to a flexible tether. Water will raise the float to activate the pump. As the pump evacuates the water from the pit the float will fall and the pump will run for an additional ten seconds to empty the pit. The tether float switch includes a connector that can be separated from the controller when the wire needs to be threaded through small openings. Prior to operation, be sure to check the float switch is properly connected to the controller. *Note: The tether float switch must be moving freely at all times. If the float switch does not move freely the pump will not activate.*

Installing the Tether Float Switch (Model TSC1.5)

The tether float switch is easy to install with the enclosed stainless steel hose clamp and mounting bracket.

1. The tether length is set to 4". Do **not** adjust the tether length as it will disrupt the timing of the controller and how long the pump runs. Setting the tether length to less than 4" can also cause excessive stress on the cable or prevent the switch from operating.
   Note: To avoid debris pouring into the float, it should be positioned on the side of the discharge pipe opposite the drain tile.
2. Locate the desired activation height and secure the hose clamp to the discharge pipe. Be sure the bracket is positioned as shown at right. Do not overtighten the hose clamp. Overtightening may cause damage to the mounting bracket.
   Note: It is important to mount the float below the drain tile that empties into the pit. Mounting it above the drain tile would allow water to fill the drain tile before the pump is activated to pump out the water.

   4" minimum tether length

3. Check the pump operation by filling the sump with water and observing the pump through several full cycles. **The tether float switch must be moving freely at all times. Make sure the float switch does not come into contact with other pumps, wires, pipe or any other object that may be in the sump pit. The float switch must not come into contact with the sump pit floor or wall.** If the float switch does not move freely the pump will not activate.

Enhanced Float Controller (Model DFC1.5)

The Enhanced Float Controller is a piggy back type controller that powers either the caged dual float, vertical float or tether float switch. The Enhanced Float Controller will activate the pump when the float is lifted, and then shuts off automatically 10 seconds after the float drops.

Installing the Enhanced Float Controller

1. Mount the controller to the wall through the 2 holes on the cabinet using proper mounting hardware for the application. The controller should be mounted at least 4' from the floor and 1' from the outlet.
2. Using a flathead screwdriver, adjust the dial on the front of the controller to select the number of seconds that the pump will run after the float drops. The dial can be adjusted from 5-45 seconds. The manufacturer default is about 10 seconds.
3. Plug the control box into a properly grounded, 3-prong receptacle. Then plug the pump into the receptacle on the control box. Do not use an extension cord.

For a neater installation, secure the power cord from the pump and the float switch cord to the discharge pipe with wire ties. Keep the 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. The pump should run for 10 seconds after the float drops to the original position.
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 it, or a hole can be drilled in the cover.
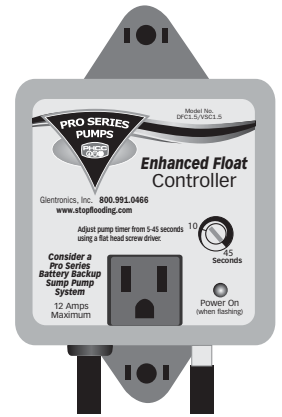
Maintenance Check List

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.
4. Fill the pit with water. Make sure pump turns on at the intended level and the float switch is moving freely.
5. While the pump is running, make sure pump is evacuating water at a good pace.

Visit our website www.stopflooding.com for more information about the full line of PHCC Pro Series products.

Glentronics, Inc. Lincolnshire, IL 60069 800-991-0466

www.stopflooding.com

Limited Warranty

By opening this package and using this GLENTRONICS, INC. product, you are agreeing to be bound by the terms of the GLENTRONICS, 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. GLENTRONICS, 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. GLENTRONICS, 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, GLENTRONICS, INC. limits the duration and remedies of such warranties to the duration of this express warranty and, AT GLENTRONICS, 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?

GLENTRONICS, 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:

• 1 year from the date of installation, when purchased individually for use with another brand of sump pump

• When purchased with a PHCC Pro Series pump, the Enhanced Float Controller and float switch are covered under the pump's warranty

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. GLENTRONICS, 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 GLENTRONICS, INC. determines that a product is deemed defective under this warranty agreement, it will repair or replace the PRODUCT ONLY. GLENTRONICS, INC. will not cover the cost to reinstall the product, nor will GLENTRONICS, INC. pay the cost of having a plumber or contractor repair or replace the product.

GLENTRONICS, 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 GLENTRONICS, 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 GLENTRONICS, 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 one (1) year from the date of purchase, fall outside of the timeframe for warranty service and will not be eligible for warranty service. The product must be returned to GLENTRONICS, INC. for inspection in order to be considered for warranty service. If the product is not returned to GLENTRONICS, INC. or the product is inspected by any person, plumber, contractor or business other than GLENTRONICS, 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 GLENTRONICS, 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.