

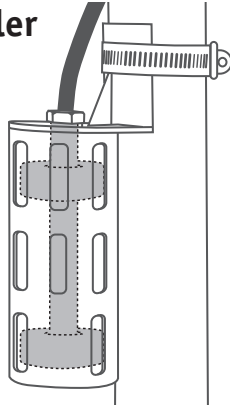
# Installation Instructions

## DFC2 Deluxe Dual Float Controller

### Dual Float Switch

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 evacuate the pit completely after the float drops. The float switch wire includes a connector that can be separated from the controller when the wire needs to be threaded through small openings.

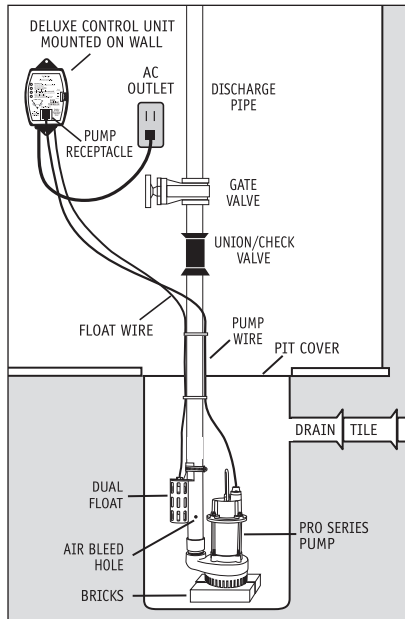
*Note: When mounting the float switch, position the bottom of the cage at the height you want the pump to activate.*



### Installing the Dual Float

The PHCC Pro Series dual 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 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. 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.



### The Deluxe Dual Float Controller Model # DFC2

The benefit of this controller is that it will sound an alarm when problems exist or maintenance is needed. The controller will also run the pump once a week for approximately four (4) seconds. This test will exercise the pump and help ensure the pump is working properly.

The PHCC Pro Series Deluxe Dual Float Controller features a series of warnings (audible and visual) that pinpoint potential problems with the pump, switch and power conditions. The controller will sound an alarm when power has been interrupted, when the pump has run for more than 10 minutes continuously, or when the 9V battery is low. The 9V battery (sold separately) runs the controller during a power outage, allowing it to sound an alarm if the circuit breaker trips, the controller is not plugged in securely, or the home's power is interrupted. *Note: The 9V battery will only power the switch, not the pump.*

### Installing the Deluxe Dual Float Controller

1. Mount the controller to the wall through the 4 holes on the cabinet using the proper mounting hardware for the application. The controller should be mounted at least 4' from the floor and within 4' of the outlet.
2. Open the plastic door on the top of the unit and using a flat head screwdriver adjust the dial 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. Install a 9V alkaline battery and replace the plastic door.
3. Plug the control box into a properly grounded, 3-prong receptacle (preferably with ground fault circuit interrupt). Then, plug the pump into the receptacle on the control box. Do not use an extension cord.
4. Make sure the Power Failure Alarm slide switch is in the ON position.

### 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 one full cycle. When using the dual float, the pump should run for 10 seconds after the float drops to its 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.

### Understanding the Warnings & Alarms

#### AC power is out

There are several causes for power failure. The most common causes are a power outage by the electric company or a tripped circuit breaker. Although the deluxe controller can not run the pump, it will sound an alarm indicating the loss of power. This will allow the homeowner to address the problem.

If this warning light and alarm are on, the control box is not receiving AC power for one of many reasons:

1. The control box is not plugged in
2. The power to the house is out
3. The circuit breaker to that outlet has been tripped
4. The ground fault interrupter on that outlet has been tripped
5. A power brownout is taking place

#### Power Failure Alarm slide switch

When the controller is not receiving AC power, the monitoring features and the audible alarms are powered by the 9-volt battery. This type of battery will power the controller for many hours, but not indefinitely. Once the source of the AC power alarm is determined, it is suggested that the Power Failure Alarm slide switch be turned to the OFF position until the power is restored. This will preserve the battery and silence the alarm. When AC power is restored, slide this switch back to the ON position.

*Note: If the AC power is restored and the slide switch is in the OFF position, the alarm and light for the 9-volt battery warning will activate, even if the battery is good. This is a reminder to reset the alarm. Slide the switch to the ON position. If the battery is good, the light will go out. If the alarm continues to sound, replace the battery.*

#### The system is operating

This light should be ON and flashing at all times. It is included to indicate that the system is monitoring the sump conditions. This light will not illuminate when:

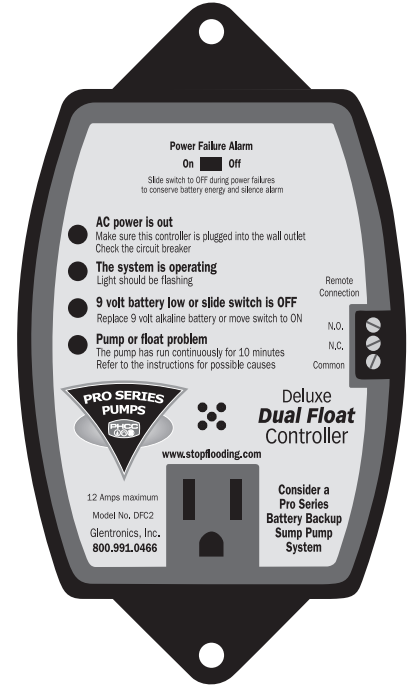
1. The power is out and the Power Failure Alarm slide switch is in the OFF position
2. The power is out and the 9V battery is discharged
3. The controller is not functioning. Contact the Glentronics service department

#### The 9-volt battery is low

1. The 9-volt battery located in the top of the control box is coming to the end of its useful life. Replace it with a new 9-volt alkaline battery.
2. The Power Failure Alarm switch is in the OFF position. It must be in the ON position at all times, except when silencing an actual power failure condition.

#### Pump or float problem

This key feature monitors the time that the float switch is up continuously or in the activated position. It is unusual for a pump run for 10 or more minutes continuously. This can occur for many different reasons. Either the float is stuck in the up position, there is a mechanical problem with the pump, or there is a problem with the plumbing connections. Please refer to the Troubleshooting Guide on the back.



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## 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, and GFI reset button
	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 switch mounted too low	Raise float switch
	Water flowing back from pipe	Install or replace check valve
Pump will not shut off	Malfunctioning float switch	Replace float switch with new float switch
	Clogged or frozen discharge	Clear blockage or thaw frozen line
	Blocked intake strainer	Clear debris from intake strainer
	One or both of the floats is obstructed and cannot drop down	Clear debris from inside the float cage (Loosen nut on top of float, then remove c-clip on bottom of float. Remove debris. Tighten nut on top of float, then replace c-clip on bottom of float.) When reassembling the float, the magnetic strip on the inside of the float should be facing down.
	Defective float switch	Replace float switch with new float switch
	Check valve installed with no air bleed hole in pipe or pump	An air bleed hole of 3/16" (4.76mm) needs to be drilled in the discharge pipe below the check valve and pit cover
	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
	Worn impeller	Replace impeller & adjust spacing between impeller and cover
	Partially blocked impeller	Remove strainer and 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	An air bleed hole of 3/16" (4.76mm) needs to be drilled in the discharge pipe below the check valve and pit cover
	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
Abnormal sound or vibration	Pump is air locked	Remove debris from the air bleed hole
	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 screen	Clear debris from intake screen
Pump unexpectedly turns off for 5 seconds	Broken impeller	Replace impeller with new one
	Pump is experiencing an anti air lock safety feature	Pump is frequently cycling on and off. The controller has a safety feature that turns the pump off for 5 seconds if it detects a possible air lock. This is normal. No action is required.

\*Consult a licensed electrician.

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

## Warranty

GLENTRONICS, INC. warrants to the end purchaser that its 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 purchase, when purchased individually for use with another brand of pump
- 3 years from the date of purchase, when purchased with the PHCC Pro Series S3 Series pumps
- 5 years from the date of purchase, when purchased with the PHCC Pro Series S5 Series pumps

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.

### Conditions

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.

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 installers invoice must be retained as evidence of the date of purchase and to establish warranty eligibility.

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.

GLENTRONICS, INC. WILL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTIES ON THIS PRODUCT. SOME STATES DO NOT ALLOW FOR THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL OR INDIRECT DAMAGE. THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS EXPRESS WARRANTY SHALL BE EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS CUSTOMER'S EXCLUSIVE REMEDY FOR BREACH OF THIS WARRANTY, OR OF ANY IMPLIED WARRANTY NOT EXCLUDED HEREIN, SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT.

### For information or service contact:

Glentronics, Inc., 645 Heathrow Drive, Lincolnshire, IL 60069 800-991-0466

Model No. DFC2

Serial No. \_\_\_\_\_

Purchase Date \_\_\_\_\_