

FLOAT SWITCH

Product ID: RWH-FL01



INSTALLATION INSTRUCTIONS

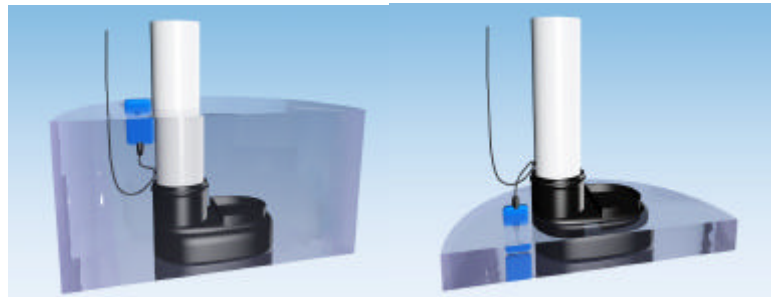
The float switch can be wired either to turn a pump off or to turn a pump on. Identify your application first, before proceeding to connecting the wiring. Correct connection of a float switch does require electrical knowledge and expertise.

E) SECURING AND ADJUSTING THE FLOAT SWITCH

The float switch must be mounted in the tank or water source so that it can rise or fall with the water level and turns off or on at the correct level. Before fitting, tip the float switch up and down, listening to the gravity switch moving inside the body, in order to satisfy yourself of the angle at which the switch moves. Secure the cable some distance from the float switch by one of two methods:

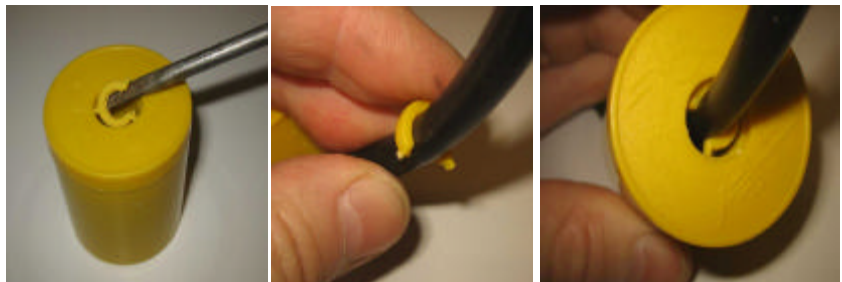
i) If a bulkhead or downpipe is available in the water source, secure the float switch cable to it with a nylon tie wrap or similar. Only drill a hole in the bulkhead or downpipe for the tie wrap if drilling does not compromise the water tightness of the tank.

The diagrams show this mounting method, with float switch cable attached to a 4 inch downpipe in a storage tank by nylon cable tie or similar. On the left, float switch is free to float in the presence of water and has turned a pump ON or OFF depending on wiring. On the right, float switch can flip to the other electrical position (OFF or ON) as the water level drops to "empty"



ii) If no such solid mount is available, the cylindrical counter weight (supplied with the float switch) can be used as an anchor, below which the float switch cable flexes.

Peel the plastic ring off the counterweight and place the ring round the float switch cable below the weight. Thread the cable through the weight so it hangs on the ring. Secure the cable in the right position at the top of the tank securely but making sure that the insulation of the cable will not rub and break (risk of short circuit).



iii) In either mounting method i or ii, adjust a) the position of the tie wrap or counterweight anchor and b) the length the cable after this point so that the float switch turns the appliance on or off at the correct water levels.

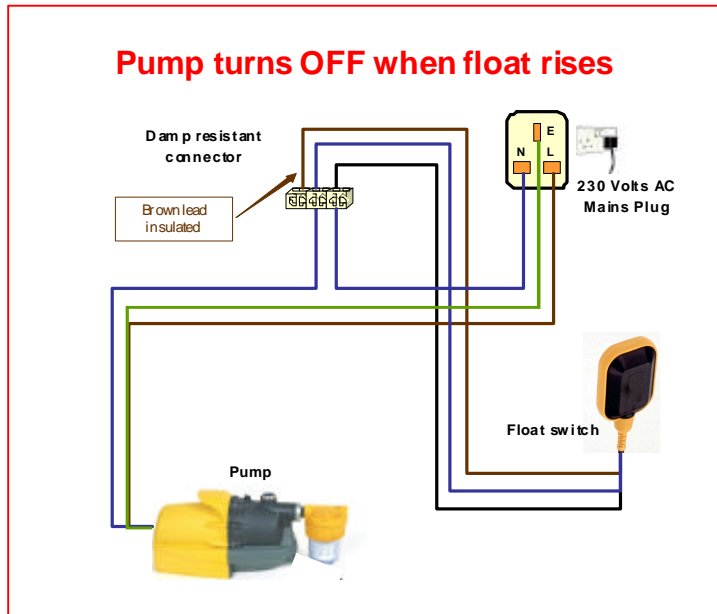
A) WIRING Pump turns OFF when float rises

This use of the float switch is typically

- i) keeping a header tank full by pumping from a storage tank
- ii) filling a storage tank, or backing up its rainwater supply, from a well, bore-hole, stream or spring, or
- iii) mains backup (in this case the float switch can be used to control a solenoid valve admitting mains water to a rainwater storage tank when rain runs out).

Wiring: if connecting a 230 Volts AC pump to turn OFF when the float rises, refer to the figure (right) and proceed as follows:

- a) identify the **black** lead from the float switch and connect it to the N (neutral) pin of the three pin mains plug,
- b) identify the **blue** lead from the float switch and connect it via a waterproof connector to the N (neutral) pin of the pump,
- c) Identify the **brown** lead from the float switch, which will not be used, and ensure it is well insulated in a dry place, and
- d) Connect the L (live or lead) pin of the three pin mains plug to the L pin of the pump. If the pump's cable is not identified by N or L then the polarity is not important.



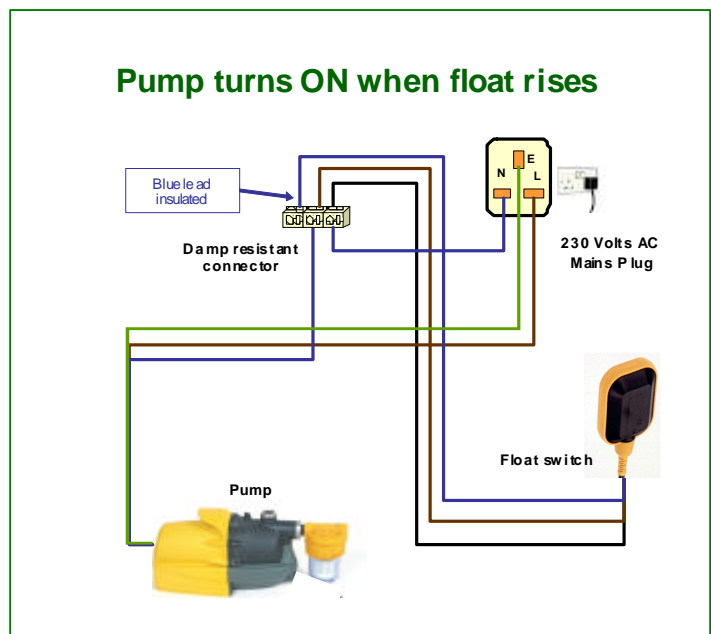
B) WIRING Pump turns ON when float rises

This use of the float switch is typically

- i) to prevent a tank from overflowing
- ii) to run a scavenge pump when all water must be pumped out, or
- iii) to protect a pump from dry running

Wiring: if connecting a 230 Volts AC pump to turn ON when the float rises, refer to the figure (right) and proceed as follows:

- a) identify the **black** lead from the float switch and connect it to the N (neutral) pin of the three pin mains plug,
- b) identify the **brown** lead from the float switch and connect it via a waterproof connector to the N (neutral) pin of the pump,
- c) identify the **blue** lead from the float switch, which will not be used, and ensure it is well insulated in a dry place, and
- d) Connect the L (live or lead) pin of the three pin mains plug to the L pin of the pump. If the pump's cable is not identified by N or L then the polarity is not important.



WIRING C) One pump turns OFF when float rises and another pump turns on

There are some specialist applications where the float switch can control two pumps. For example, one pump could be permanently pumping from one tank, and when this first tank is empty a second pump starts pumping from another source. Apply the detail of the two basic functions A and B above.

WIRING D) General information and warnings applicable to all functions

- i) The float switch cable can carry 230 Volts AC or other voltages at DC (direct current)
- ii) In the case of 230 Volts AC applications, ensure that there is no risk of the wire fraying and insulation breaking down. Ensure that connections are secure, dry and well insulated from short circuit and from contact with a maintenance person.
- iii) Do not connect the earth pin of the mains plug to any lead of the float switch. Only the earth lead of the pump (or solenoid valve or other appliance) should be connected to the earth pin of the mains plug.
- iv) The pump or appliance must be earthed as showed by the yellow and green striped cables in the wiring diagrams above.

F) TECHNICAL DATA

Rated voltage	125 to 250 volts AC or up to 24 volts DC
Maximum current	16 amps
Frequency	50-60 Hz
Maximum operating temperature	50°C
Protection Grade	IP68 hermetically-sealed

G) WARRANTY STATEMENT

In the case of manufacturing faults, the product will be repaired or replaced free of charge within one year from purchase, but no liability can be assumed by the manufacturer for damage caused to any other appliance or person as a result of such fault. The warranty does not apply to any defects caused by misuse, improper storage, incorrect installation or other lack of diligence and care by the client. The standard warranty terms of RainWater Harvesting Limited are applicable and they can be viewed at www.RainWaterHarvesting.co.uk.

This float switch Product ID: RWH-FL01 is manufactured outside the European Union for, and imported by, RainWater Harvesting Limited of Peterborough UK.

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