

Installation Instructions

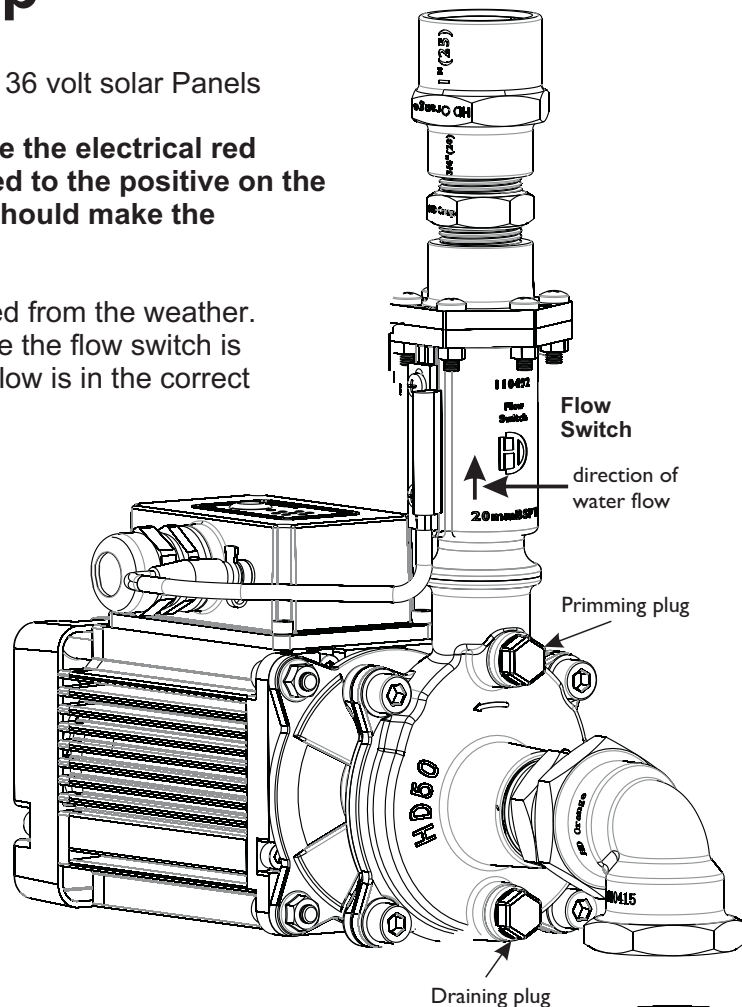
HD50 Solar Pump

The solar pump must be connected to 36 volt solar Panels

When connecting the pump make sure the electrical red pump lead on the pump is connected to the positive on the Solar Panels. The plugs provided should make the electrical connections correctly.

The pump and motor must be protected from the weather. When assembling the pump make sure the flow switch is plugged into the motor and the water flow is in the correct direction.

Assembly drawing



Installation

Pipe used on the suction and discharge should be 25mm if the pipe length exceeds 100 Metre then a pipe friction table should be checked and if required a larger pipe used.

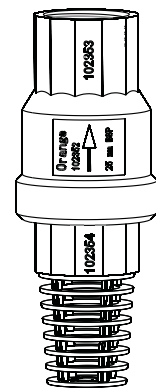
Care should be taken with the suction pipe. Suction pipes should be layed with an even gradient so that air trapped in the pipe is minimised when priming the pump. The vertical suction is limited to 6 metres at sea level.

A foot or check valve must be used in the suction pipe.

When first priming the pump it is easier to remove the flow switch and pour water directly in to pump outlet. Later the priming plug can be removed to bleed trapped air. All air has to be removed for satisfactory pump operation. Pipe should be buried to stop the sun from heating the water and effecting the suction ability of the pump.

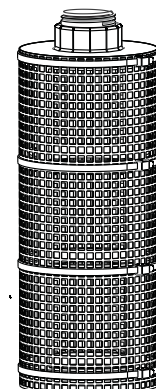
If sucking from a dam etc consideration should be given to floating the foot valve and using a large suction strainer to prohibit foreign matter entering the pump.

Foot or Check valve

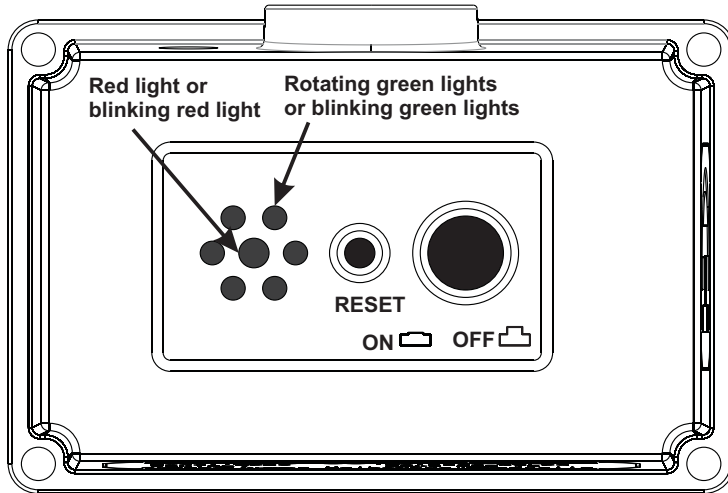


Remove strainer if using as a check valve

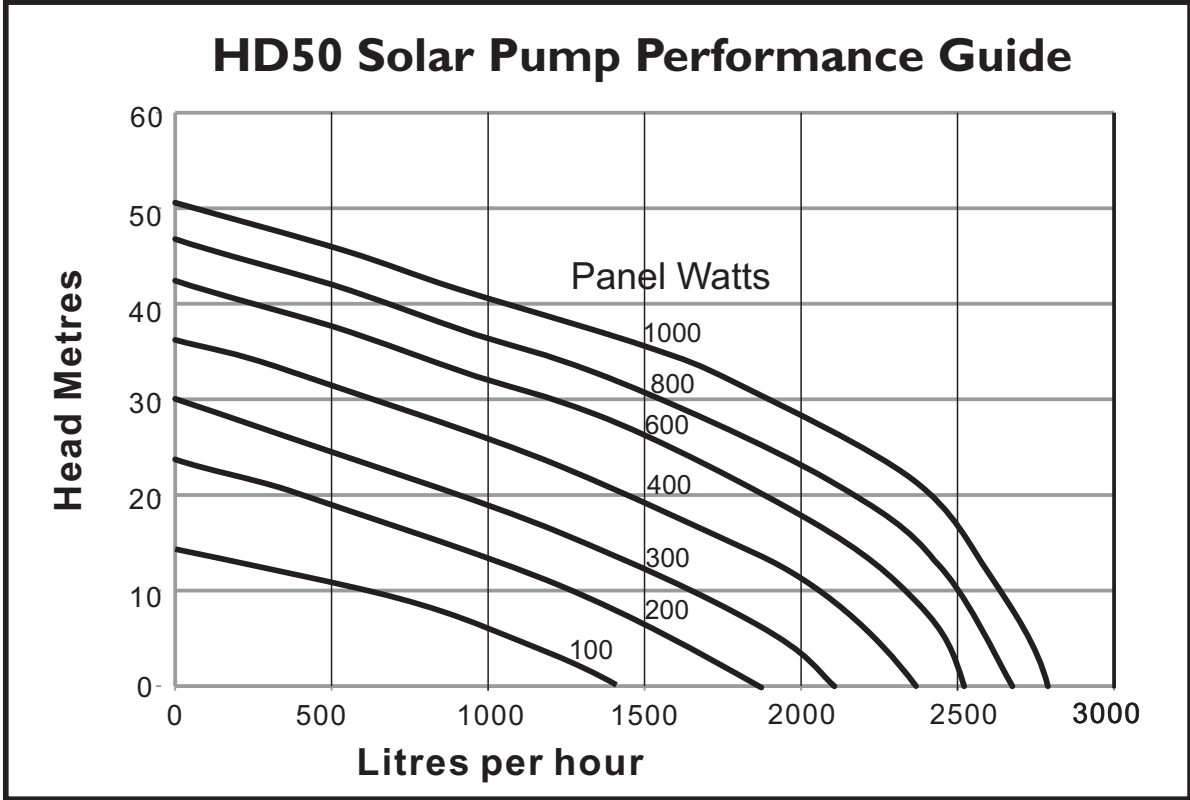
Remove strainer and replace with large suction strainer to help stop foreign matter entering the pump.



- **Control panel operation.**
- ON and OFF switch.
- The pump will operate automatically. If it stops it will wait for ~~10~~ minutes and then try to restart. For emediate restart push the reset button.
- If the green lights are rotating the pump is running normally if they are blinking there is something wrong, loss of prime, flow switch off, lack of sun light, etc
- If the red light is on the power is on, if it is blinking the motor is running hot.



Pumps can be tricky. If you do not have pump experience, seeking the advice of a pump specialist may save money and frustration. These instructions are a good guide but cannot take into consideration all possibilities.



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Solar Panels

Any type of solar panel can be used which has an operating voltage of about 36 volts and an open circuit voltage of 45 to 47 volts and combined wattage as chosen from the graph. If using panels in parallel you can buy our solar leads for plug in assembly.

If not using panels to this specification high voltage panels must not be used low voltage can probably be compensated for by using more panels.