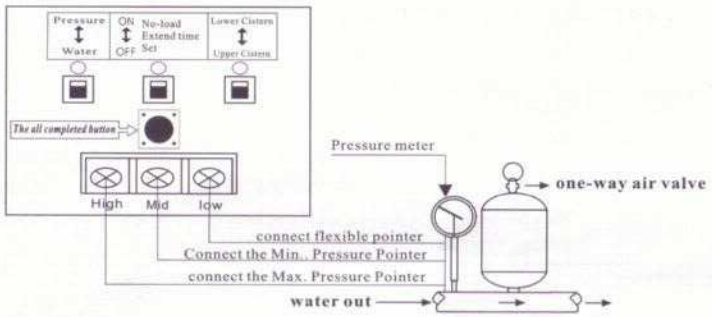
3. Stable-pressure connection



Note: When the switch of "Upper Cistern / Lower Cistern" is at the position of "Upper Cistern", pressurization will start when the hydraulic pressure reduces to be at the lower limit indicator, and will stop automatically when the pressure increase to the upper limit indicator. The moving indicator functions as loop. Proper pressure pot should be used since pump may start frequently if a too small pressure pot is used.

V Garantee Note

This controller is exchangable within one month and garantee maintenance within one year, not including the inresisterble reasons like natural disaster etc, or damage caused by inproper installment(like the airswitch, line-probe etc). The AC connector damage is not within the garantee maintenance.

Pump Controller

Operation Manual

Caution!

1、 Set overload the electrical currents must be consistent with normal operating current, Otherwise Can not be an effective overload protection.

2、 if the Controller did not bring the air switch, have to increase of air switches and leakage switch while use, otherwise short-circuit and No leakage protection, Likely to cause serious accidents!

3、 Such as the Motor frequent start or overload work, Must Choose than the Motor power a type bigger models of pumps intelligent controller, Otherwise have the possibility burnout electric motor or bring about an accident!

4、 When installs this controller, certainly must strictly observe the national electrician working instruction, please do not the live-wire work, please the specialized electrician install, Otherwise have electric shock accident appearing on possibility!

5、 The product can play arrive at protection role the motor under ordinary circumstances, In most cases the effective protection of motors, Cuts the motor products percentage of sent back for repair, but is not effectively in all situations can protect the electrical machinery not to burn down, For example: the motor itself quality issues or lightning.

6、 The company only to the product warranty or maintenance, such as use of the products, the motor still Appear failure or Burn machine, the company is not responsible for the maintenance or compensation!

7、 The controller assembles the environment request:
Plese install the controller indoor to avoid sunshine or rain.
Temperature: -10℃ - 40 ℃
Moisture: ≤ 90%
Height above sea level: ≤ 2000M

I Product Introduct

TypeManual	Probe	Install screw and plug
1 set	1set	4 for each

II Main technical index

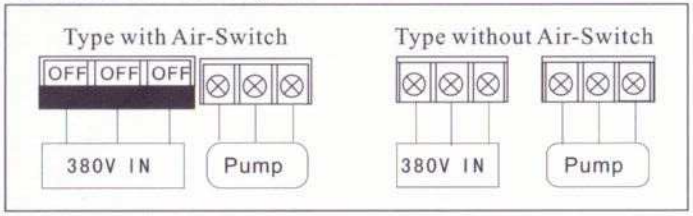
1. Static power is lower than 4.5W, Active power is lower than 10W.
2. Default out of factory:
   A.set the overload according to the maximum work rate hypothesis, for example,8A for three-phase 4KW;
   B.The idling supposing definite value is 00.1A, and it will recovery automatically after the idling protection, which needs 30 minutes.
3. The max. control distance:1000M.
4. Protect function anti-time-extending feature

Overload Time	1.2 times	1.5 times	2 times	3 times	5 times
Protecttime	50 seconds	30 seconds	15 seconds	6 seconds	1 second

III Install Instruction

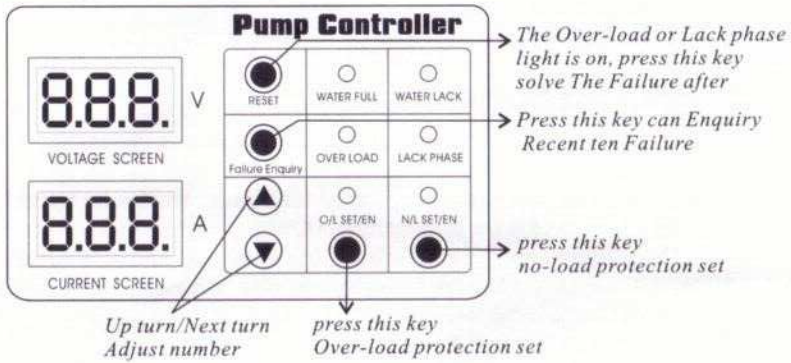
1. Fix the controller on the wall, open the line box, connect the power according to the label, pump and probe line. Notice that the probe lines can not be short circuit and can not touch the pool wall. If it's no-load protected, then the lower pool signal line can not be connected.

Power line connection legend:



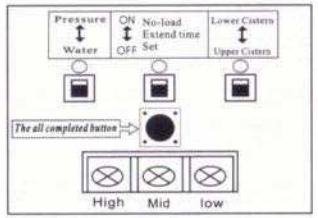
2. ***Switch on:*** after connecting all the lines, close the air-switch, and then switch to "ON" on the front-panel of the controller to switch on. Users can use the "ON/OFF" button of the controller front-panel to switch on the pump or stop the operation. Please pay attention to the safety as it's with power in controller.

Sketch of front-panel:



3. ***The all-completed button:*** After the water pump work normally, the controller can automatically set up overload and the idling electric current once the user press down the button, which is simple and convenient. User can also carry on the overload and the idling establishment on the kneading board manually.

SET: After 1 minute's normal work ,press down the "button". "the overload hypothesis/confirm" the indicating lamp "idling hypothesis/confirm" the indicating lamp 6 seconds normal work, which means it is ready. The all-completed button has memorized the overload and the idling electric current, and it will basically meet the operation requirements of the user communities. Higher request like idling the resetting time, over/Lowe pressure protection or the overload/idling manual hypothesis can be achieved according to below 6th, 7, 9 methods carried on the hypothesis.



4. ***Selection of upper / lower cistern:*** Switch the "Upper cistern / Lower Cistern" Switch above the terminal block of signal line to "Upper Cistern" position. The indicator light below will turn off indicating the selection of upper cistern. The three terminal blocks will be connected with signal line to control the upper cistern. When the switch is at the position of "Lower Cistern", the indicator light will turn on indicating selection of lower cistern. The three terminal blocks will be connected with signal line to control the lower cistern. (Factory default setting: upper cistern)
5. ***Lack-phase protection:*** the controller will switch off in 4 seconds when there is any phase of the 3 is off or lack.
6. ***Over-load protection:*** this controller has the feature of anti-time limit over load protection. (it means the more over-load current is over than the set value, the faster is the over-load protection)

SET: first switch on for normal operation and record the working current, then press"Over-load set/confirm", if the light above is on, then press "▲/▼" and adjust the current meter to the value you've just recorded, then press "Over-load set/confirm" again, at this time the light is off.

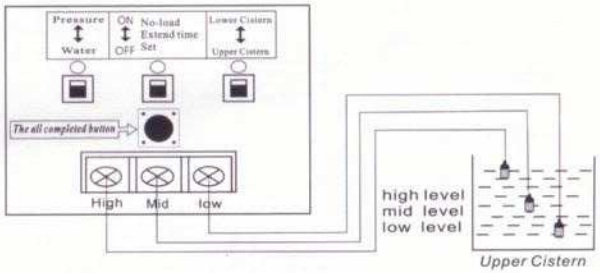
7. ***No-load protection:*** when there is lack of water in lower pool or pipe water is not supplied while it is pumping, the controller will auto switch off in 10 seconds. And when the water is full in lower pool or pipe water is re-supplied, the controller will auto reset for pumping. (if the lower pool is No-load protected, it will auto check every 30 minutes and will re-pump immediately once there is water.)

SET: stop the water first and switch on to run for about 1 minute, record the current at this time, then press "No-load Set/confirm", if the light above it is no, then press"▲/▼" and Adjust the current meter to the value you've just recorded, then press "No-load set/confirm" again, the set is done if the Light is off. No-load current can be set directly as 0.85 times of the normal operation current.

8. Combine the pressure and water-level control together, the user only needs to set switch to the pressure or water-level to get the pressure or water-level control function.
   Pressure Connect: Detailed see this manual 7 pages Stable-pressure connection
9. ***No-load reset time:*** The control will reset after the lower pool is lack-water protected, if it's not lack of water, it will pump, if no water, it will stop to show lack-water protect status. The reset time is 30 minutes, which users can set by themselves.
   SET: after running the pump, only need to switch the "no-load Extend time set" to "ON" above the signal probes, the current meter now shows the no-load reset time, the unit is minute, then press the "▲/▼" to adjust to the value you need, and then switch to "OFF", the value is automatically recorded. Suggest to set at 15-30 minutes. If the time is set too short, it will cause the pump resetting frequently. The default time is 30 minutes.
10. ***Failure Enquiry:*** This controller has the last 10 failure data record. Press the failure enquiry button, the pressure meter shows the item No., 01 is the last time failure, press ▲/▼ for other records. Current meter shows the failure detail and the fail-light will on. After pressing the failure enquiry button:
    a) if the over-load light on, the current screen shows over-load current;
    b) if the phase-lack light on, the current screen shows lack of phase: 011-phase A loss, 101 phase B loss, 110 phase C loss. If the current screen shows 111 with the light on, it means the in-line is not connected well, or thePressure is too low, which will cause re-set all the time.
11. ***Reset:*** the indication lights of power /current flashes, it means over loaded or lack phase, please solve the problems first, then press the "reset" button to operate normally.

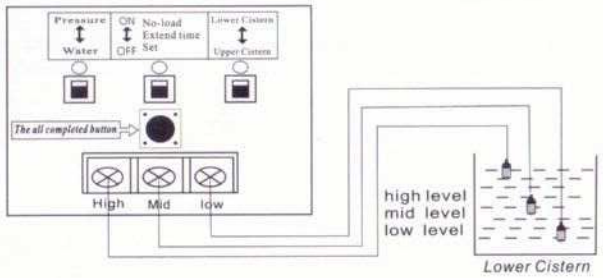
IV The Connecting Options

1. Connection of Upper/Lower Pool Water-supply



Note: When the switch of "Upper Cistern / Lower Cistern " is at the position of "Upper Cistern ", pumping will start when water storage reaches mid-water mark, and will stop when storage reaches high water mark. The signal line of low water level functions as loop.

2. Waste-Drainage Water supply connection



Note: When the switch of "Upper Cistern / Lower Cistern" is at the position of "Lower Cistern", draining will start when water storage reaches high water mark, and will stop when storage reaches mid-water mark. The signal line of low water level functions as loop.