

Microcomputer Thermostat Serial

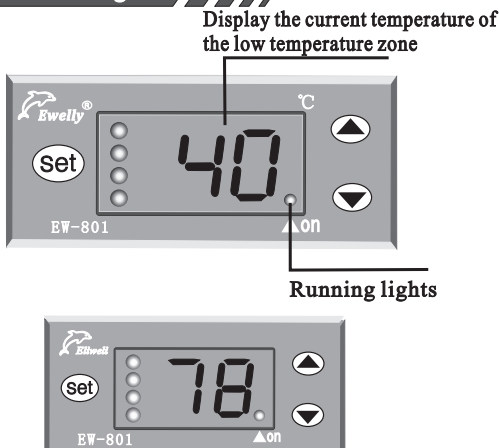
《EW-801AH Directions》

This product is mainly used in solar water heater equipment, the use of the temperature difference and temperature to control the output. This product has two-ways output control, one way to control the temperature difference between the two temperature zones, when the temperature difference reaches the set value, automatically run the pump cycle, the temperature of the two temperature zones to reach equilibrium, another way to control electric heating; when solar heating fails reached (low temperature) set temperature, the electric heating system is heated to a set temperature automatically start and automatic temperature control range values within a temperature difference.

Technical Specifications

1. Operating voltage: AC220V $\pm 10\%$ 50HZ/60HZ
2. Output Load: 5A/220V/AC
3. Power Consumption: $\leq 3W$
4. Working environment: $-10^{\circ}C \sim 50^{\circ}C$ RH $\leq 90\%$
5. Control of heating: $2^{\circ}C \sim 99^{\circ}C$
6. Control of thermal start-up: $3^{\circ}C \sim 50^{\circ}C$
7. Resolution: $1^{\circ}C$ Accuracy: $\pm 1^{\circ}C$
8. Input signal: two-ways sensors, 20KX1.5mX2
9. Overall Dimension: 76(L) \times 35(H) \times 76(D)mm
10. Hole Size: 71(L) \times 29(H)mm

Panel Diagram











In the non setting state, press  can see the current temperature of the high temperature zone.

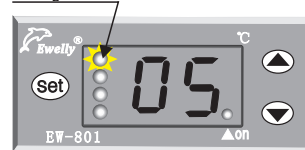
Demand of install

1. The voltage must accord with controller's demand. The voltage's deviation is no more than $\pm 10\%$.
2. The loop of sensor is possible to keep away from the loop of power.
3. The sequence of line's must have been connected Properly.

Brief on Controlling Procedure

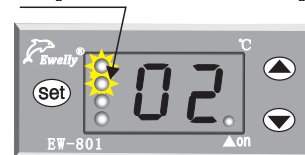
1. Low temperature zone temperature settings: Press  displays the temperature of low temperature zone, press  or  to change the controlling temperature. Without pressing any key when finished operating, it will automatic save memory setting parameters after six seconds.
2. Parameter setting: Holding  and  after six seconds to enter Setup, the corresponding indicator flashes, more than once every press  to run the next function indicators, then press  or  to change the parameters for each function. Without pressing any key when finish operation, it will automatic save memory setting parameters after six seconds.

Temperature difference between the started



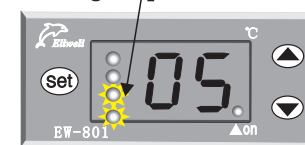
When two temperature sensor detects a temperature of two zones, the difference is greater than the value of the temperature difference between the set start value, the circulation pump relay ON, temperature difference setting range: temperature of the pump stopped+1 $^{\circ}C \sim 50^{\circ}C$.

Temperature difference of the pump stopped



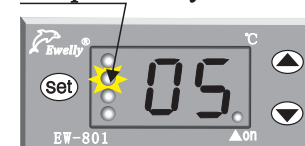
When the temperature difference between the two sensors is less than this value, the circulation pump stops, Range 1 $^{\circ}C \sim$ started temperature difference-1 $^{\circ}C$.
Note: When difference of the pump stops setting "0", once the circulation pump relay ON, circulation pump not stopped.

Heating temperature difference



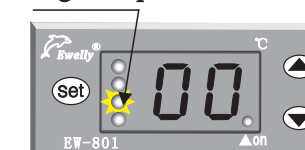
High temperature zone must be higher than the setting temperature difference. Equal or less than this value automatically start heating control. Heating temperature range: $0^{\circ}C \sim 20^{\circ}C$.

Temperature hysteresis



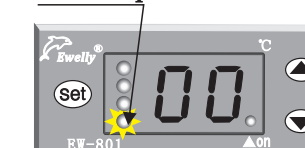
After reaches the set point and stop heating, temperature down, and then restart the difference between electric heating, temperature hysteresis setting range: 1 $^{\circ}C \sim 20^{\circ}C$.

High temperature zone temperature correction



When the thermostat detects the temperature of the high temperature zone and the actual value error, this feature can be amended. Correction range: $-10^{\circ}C \sim 10^{\circ}C$.

Low temperature zone temperature correction

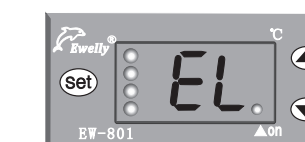


When the thermostat detects the temperature of the low temperature zone and the actual value error, this feature can be amended. Correction range: $-10^{\circ}C \sim 10^{\circ}C$.

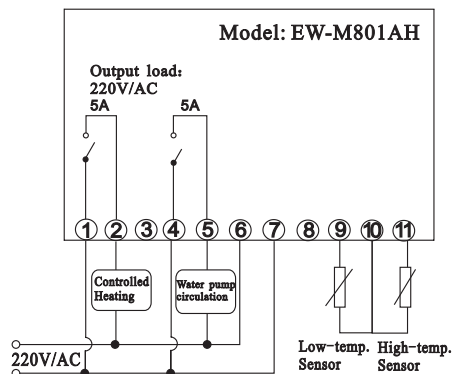
Sensor error self-test function



When the high temperature zone sensor circuit or open circuit will show "EH" symbol.



When the low temperature zone sensor circuit or open circuit will show "EL" symbol.



Trouble shooting

Failure	Causes	Precautions
No display when power is on.	Check if the power is broken or the thermostat failure. .	Check power supply and change fuse. Check if the input voltage is right or change the thermostat with our distributor.
Displaying but machine doesn't work	The setting temperature is lower than the present temperature. The heat protector is open circuit because the pressure is over loads.	Reset the necessary controlling temperature. Check the reasons for overload and overheating. After the trouble is solved, restart to work.
Displayed temperature is unstable or there exists misplay.	The sensor is interfered; or poor wiring; or Together with other power cord bundle ; or line damage.	Separate sensor wiring with power cables or change shielded lines or check if the contact is tight or not.
Measurement error between current temperature and displayed.	The installation position of the sensor is not correct; or the sensor's wiring is too long and its resistance is over; or the wiring connected poor; or the sensor is damaged	All sensors should be corrected at their locations. Enlarge the cross section of the expanded wires. Make sure the wires sealed is good. or Change the sensor.
Machine does not stop when the temperature reaches.	The sensor is not correctly installed and cannot measure the correct temperature. Compressor contactor fails.	Check if the sensor has accurately measured the temperature or not. Change compressor contactor.
Relay work with overload	Return difference value is too small or the setting for pressure protection is not correct.	Reset and enlarge return difference value. Adjust setting for pressure protection.
"EH" or "EL" is displayed	The sensor is opened or shorted circuit.	Check to see if the sensor wiring has good contact with coupling end or not.

Warnings

1. Please read this product instruction carefully and connect input/output plugs of power & sensor to the corresponding sockets strictly by following connection diagram, otherwise the usage & operations will be affected. Check again to make sure there is no mistake. Tighten all the screw of connection plugs again, and then connect it to the power for running.
2. Keep away this product from moist or corrosive air and high magnetic field. Otherwise the normal operation of this product will be affected.
3. All our products have passed strict quality inspections before leaving factory. We provide one-year quality guarantee (which is limited to product itself, and is not responsible for any other joint and several liability) period for this product.

Lights NO.	Function	Setting range	Ex-factory Value	Unit
NO.1 Indicator	Temperature difference start-up	Temp. difference of stopped pump+1~50	5	℃
NO.1.2 Indicator	Stop the pump temperature	1~temp. difference started-1	2	℃
NO.3.4 Indicator	Heating temperature difference	0~20	5	℃
NO.2 Indicator	Temperature difference	1~20	5	℃
NO.3 Indicator	High temperature correction	-10~10	0	℃
NO.4 Indicator	Low temperature correction	-10~10	0	℃

Note: When the temperature difference is set at 0, the electric power is entered into the heating state.

At the same time, press the set key and  key 6 seconds will restore the factory settings

If the products including but not limited to, the following is not the product itself quality problem caused by the damage, Install and use under the do not conform to the safe environment; That the load capacity is beyond the scope of product is allowed; Products by users to disassemble and change, change the internal components, etc., We will not be so and damaged products provide a replacement and maintenance services, regardless of whether its in the quality assurance period; Meanwhile, we will not assume so direct or indirect losses caused by the liability to pay compensation.

Product warranty date on the case is important basis of product quality assurance. Appeared including but not limited to full filling without permission, to change, to replace lost, damaged, scratched, dirty, and so on, we will not provide a replacement and maintenance services for these products.

If you have any doubt or problem concerning the electronic temperature or humidity controller made by us, please contact our distributors and we will provide you high-quality after-sale services. Thanks!