



## Microcomputer Thermostat Serial 《EW-181 Directions》

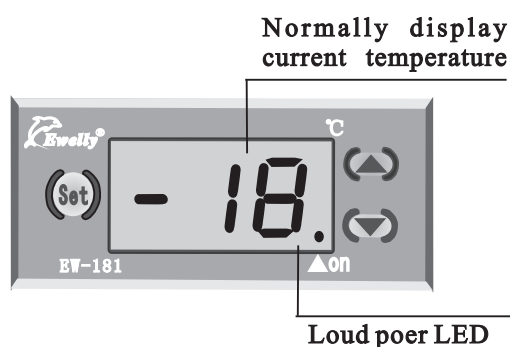
ELIWELI is an enterprise which is specialized in producing electronic controller. We always insist that quality of product and best service is our goal.

Our sensor is especially precisely made and sealed; it is moisture-proof, therefore its performances are more stable and reliable.

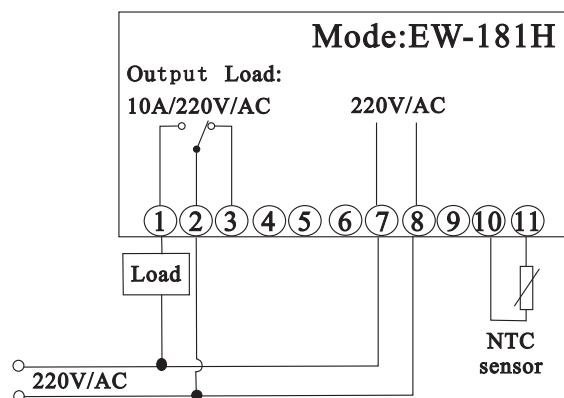
### Technical Specifications

- 1、Operating voltage: AC220V  $\pm 10\%$  50HZ/60HZ
- 2、Output Load : Compressor relay 10A/220V/AC
- 3、Power Consumption:  $\leq 3W$
- 4、Working environment:  $-10^{\circ}C \sim 50^{\circ}C$  RH  $\leq 90\%$
- 5、Input signal : one line NTC-sensor input. 20k $\times$ 1.5m
- 6、Control Range:  $-45^{\circ}C \sim 80^{\circ}C$
- 7、Resolving Power:  $1^{\circ}C$  Accuracy:  $\pm 1^{\circ}C$
- 8、Overall Dimension: 76(length) $\times$ 35(wide) $\times$ 76(high)mm
- 9、Hole Size: 71(length) $\times$ 29(wide)mm

### Brief on Operation



### Electrical Schematic diagram



### 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. Temperature setting: Press **(set)** gently to display controlling temperature. press **(▲)** or **(▼)** to change controlling temperature.
2. Data setting: Press **(set)** for 6 seconds for setting. On entering setting, **HC** will be displayed. Then Press **(▼)** or **(▲)** to set **HC - LS - HS - PL - CA - d**.



Hold **(set)**, then press **(▼)** or **(▲)** simultaneously. Choose **HC**, **H** represents Warm Mode, **C** represent Cold Mode.



Hold **(set)**, then press **(▼)** or **(▲)** simultaneously. Choose lowest temperature limits:  $-45^{\circ}C$  to Temperature control  $-1^{\circ}C$



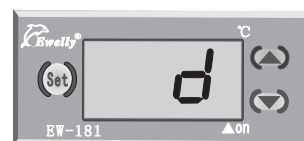
Hold **(set)**, then press **(▼)** or **(▲)** simultaneously. Choose highest temperature limits: Temperature control  $+1^{\circ}C$  to  $80^{\circ}C$



Hold **(set)**, then simultaneously press **(▼)** or **(▲)** to set delayed star time from 0 to 5 minutes.



Hold **(set)**, then press **(▼)** or **(▲)** simultaneously. Choose temperature correction:  $-15^{\circ}C$  to  $15^{\circ}C$



Hold **(set)**, then press **(▼)** or **(▲)** simultaneously. Choose return difference:  $1^{\circ}C$  to  $15^{\circ}C$



Error symbol : when the sensor is opened or shorted circuit. Code "EI" will be displayed.

## Feature descriptions

**Cooling:** When the current temperature  $\geq$  setting temperature + temperature hysteresis and delay the setting of the "delay time", the load relay On.

**Cooling stop:** When the real temperature  $\leq$  the set temperature, the load relay is Off.

**Heating system:** When the current temperature  $\leq$  the setting temperature - the temperature hysteresis and delay the setting of the "delay time", the load relay Off.

**Heating system to stop:** when the current temperature  $\geq$  setting temperature, the load relay is disconnected.

**Tips:** cooling and heating conversion set in the parameter H / C menu selection, H is the heating system, C is cooling.

## 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 and machine doesn't work	The setting temperature is higher 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.
"EI" 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) period for this product.

## Parameters for Procedure

Code	Function	Setting Range	Ex-factory Value	Unit
HC	Refrigerating /warming	H/C	C	—
LS	Alarm on low limit Temperature	-45℃ to Temperature control-1℃	-45	℃
HS	Alarm on high limit Temperature	Temperature control+1℃ to 80℃	80	℃
PE	Delayed Time	0~5	1	Min
CA	Temperature Correction	-15~15	00	℃
D	Temperature Return Difference	1~15	2	℃

**Attention:** The highest temperature limited (HS) and the lowest temperature limited (LS) have been locked. Please don't change.

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!

Guangzhou Eliweli Autocontrol Tech. Co., Ltd.  
<http://www.eliweli.com>