



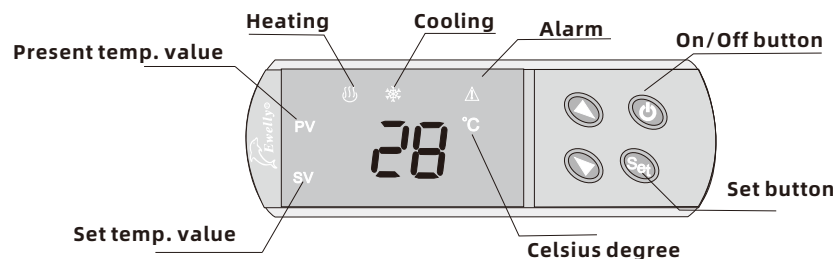
EW-183 Instruction Manual

EW-183 digital temperature controller is easy-to-operate, with strong versatility and stable performance. It has the functions of compressor delay protection, set temperature upper and lower limits, temperature calibration, sensor failure alarm. It adopts differential temperature control mode, and is suitable for freezers, refrigeration cabinet, seafood fish pond machine, chiller, and heating equipment, etc.

Specification

1. Operating voltage: AC220V $\pm 10\%$ 50/60HZ
2. Output relay: 10A/220V/AC
3. Power Consumption: $\leq 3W$
4. Working Environment: $-10^{\circ}\text{C} \sim 50^{\circ}\text{C}$ RH $\leq 90\%$
5. Control Range: $-50^{\circ}\text{C} \sim 80^{\circ}\text{C}$
6. Resolution: 1°C
7. Accuracy: $\pm 1^{\circ}\text{C}$
8. Input: 1-off temp. sensor ,NTC20Kx 2mx1
9. Overall Dimension: 82(W) $\times$ 35(H) $\times$ 70(D)mm
10. Mounting Size: 71(W) $\times$ 29(H)mm

Display Panel



Shutdown: Hold the on/off button for 2s while the instrument is running to shutdown, and all output relays will be disconnected.

Power on: After the instrument is turned off, hold the key for 1s to power on, the display will resume and the controller will return to normal running state.

Restore the default parameters: Do not enter the setting menu, press and hold "down" key for 6s, the display will flash and all parameters will be

Installation Requirement

1. Please make sure that the power supply voltage meets the required voltage of the instrument. The deviation should be less than $\pm 10\%$.
2. The sensor should be kept away from the power cable.
3. Strictly distinguish the interfaces of the sensor, power cable and the relay output

Operation instructions:

Version: EW-183-432-V1.1
EW-183-433-V1.1

1. Control temperature setting

a) Press "SET" to display set temperature, then press "UP" or "DOWN" key to change the

set temperature.

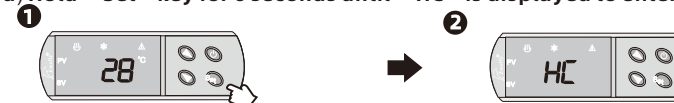
b) Press "UP" or "DOWN" key to adjust the parameter values.

c) Hold "UP" or "DOWN" key to quickly adjust the values.



2. Parameter setting

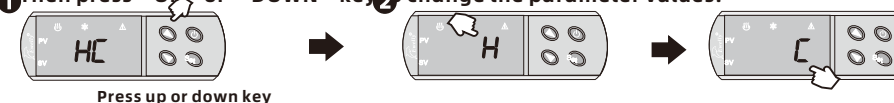
a) Hold "Set" key for 6 seconds until "HC" is displayed to enter the parameter set menu.



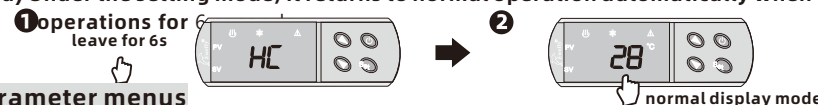
b) Then press "SET" key to select parameters. (The sequence of the parameters: HC-LS-HS-



1) Then press "UP" or "DOWN" key to change the parameter values.



d) Under the setting mode, it returns to normal operation automatically when there are no



Parameter menus

Code	Description	Setting Range	Factory Setting
HC	Cooling/Heating	H/C	C
LS	set temp. lower limit	$-51^{\circ}\text{C}/^{\circ}\text{F} \sim \text{set temp.} -1$	$-40^{\circ}\text{C}/^{\circ}\text{F}$
HS	set temp. higher limit	set temp. $+1 \sim 81^{\circ}\text{C}/181^{\circ}\text{F}$	80°C
Pt	compressor delay protection	0 ~ 10	1
CA	room temp. calibration	$-15^{\circ}\text{C}/-50^{\circ}\text{F} \sim 15^{\circ}\text{C}/50^{\circ}\text{F}$	0
d	temp. return difference	1 ~ $15^{\circ}\text{C}/50^{\circ}\text{F}$	$2^{\circ}\text{C}/5^{\circ}\text{F}$
CF	temp. unit switch	C/F	C

Functions description:

Heating and refrigeration mode can be set via the parameter code "HC", H is for heating and C is for cooling.

Refrigeration mode:

1. Compressor starts running:

When the current temperature $\geq$ the set temperature + Temperature return difference (d) and the set time delay (Pt) has been reached, relay of compressor connects, and indicator is on.

2. Compressor stops running:

When the current temperature $\leq$ the set temperature, relay of compressor disconnects. and indicator is off.

Heating mode:

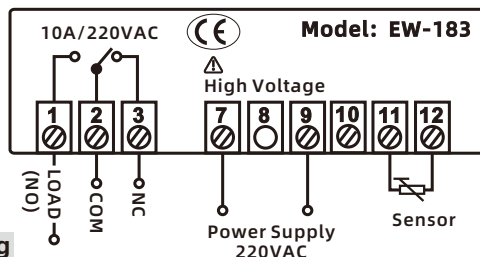
1. Heating equipment starts running:

When the current temperature $\leq$ the set temperature - Temperature return difference (d) and the set time delay (Pt) has been reached, relay of heating equipment connects, and indicator is on.

2. Heating equipment stops running:

When the current temperature $\geq$ the set temperature, relay of heating equipment disconnects.

Wiring Diagram



Trouble shooting

Failures	Causes	Solutions
No display with power supply	Check to see if the power is short circuit or the thermostat is faulty.	Check power supply if there is 220V power input.
With display but the load does not work	The set temperature is higher than the current temperature (cooling mode) The wiring is incorrect.	Reset the right temperature Check if it is overload or overheating. Check the wiring, make sure connect to the right terminals.
The current temperature is different from the real temperature	1. The locations of the sensors are incorrect or sensor wiring is extended too long. 2. The terminal wiring contact is poor 3. The sensor is damaged.	1. Sensors should be installed into the correct location. 2. Enlarge the cross section of the expanded wires. 3. Make sure the wiring is sealed properly, water-proof or moisture-proof. 4. Change sensor if necessary.
Compressor works with over-frequency	Return difference value is set too small	Reset the value of temperature return difference, normally is 2 to 3.
Machine does not stop when the temperature reaches set value	Check if the sensor has accurately measured the temperature or not. The relay of the compressor is malfunction.	Install the sensor correctly or check the sensor is damaged or not Check the relay of the compressor
With "E1" displayed	Sensor is under open or short circuit	Check the connection or change the sensor

Supplementary:

1. Please read this product instruction carefully and connect input/output plugs of power & sensor to the corresponding sockets by following wiring diagram strictly. Check again to make sure there is no mistake, tighten all the screw of connection plugs again, and then connect the power afterwards. Otherwise wrong connection will affect the usage and control, and even result in parts damage.
2. Keep this product from away moisture, 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 warranty for this product which is limited to product itself and our company is not responsible for any other joint and several liability.

If the product includes but not limited to the following damages caused by being used and installed in unsafe environment, being connected to the load exceeds the allowable range of the product, being disassembled and modified by the user, etc. Our company will not provide replacement or maintenance service within the warranty period. Meanwhile, we will not be liable for any direct or indirect damages caused.

The warranty certificate on the product is an important evidence for our product quality assurance. Any changes without authorization, damages, scratches and lose on the certificate, our company will not provide any replacement or maintenance service for these products.

If you have any problem regarding to our products, please contact our dealers and we will provide



Official website

Guangzhou Ewelly Automatic Control Co., Ltd.
<http://www.gzewelly.com>