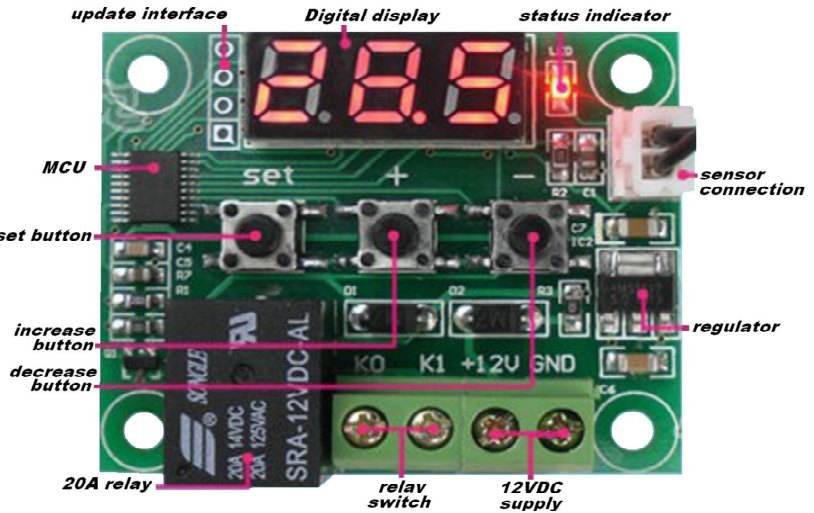**Shenzhen Global Technology Co., Ltd**

GLOBAL YI

Digital Display Thermostat High Precision Temperature Controller

Model: XH-W1209 / 170683

Specification:

Supply voltage: DC 12V

Static current: ≤35MA, attract current ≤65MA

Output voltage: DC 12V

Output power: 20A relay

Measurement input: NTC (10K 0.5%) Waterproof Sensor

Environmental operation: -10~60℃, Humidity 20%~85%

Dimensions: 48 x 40mm

Cable length: About 52 cm

Temperature control mode: ON / OFF

Temperature range: -50 ~ +110°C

Control accuracy: 0.1°C

Hysteresis accuracy: 0.1°C

Refresh rate: 0.5sec,

High temperature protection: 0 ~ 110°C

Resolution: -9.9-99.9 is 0.1℃; other range is 1℃

Display type: 7-Seg. red LED, 0.28 inch 3-digit display

Labels: update interface, Digital display, status indicator, MCU, sensor connection, set button, increase button, decrease button, regulator, 20A relay, relay switch, 12VDC supply, set, +, −, K0, K1, +12V, GND, SRA-12VDC-AL

Instruction:

Connect the power and the load, to power up the controller, the display will show the current temperature.

Press the **SET** button to enter the temperature setting, display will start to blink, press " + " or " − " keys to set desired temperature.

Press the **SET** key to confirm and exit.

At this time the controller will automatically performs a relay test on or off. please make sure the connection are correct.

Indicator LED 'Red': when relay is ON "closed" so will the LED, with relay OFF "open" and same with the LED.

Digital display: when it shows " **888** ", the sensor is open or not connected. When it shows " **HH** ", the temperature is out of the measuring range, the relay will disconnect also when it shows " – – – ", it is now high temperature protecting.

Parameter Setting Method: Hold down the " **SET** " key for 5 sec. to enter the main menu, press the " **+** " or " **−** " keys to switch P0 ~ P8.

TABLE SETTINGS			
Hold SET 'key for 5 seconds to enter main menu			
Code	description	Range	Default Vale
P0	Cooling / Heating	C/H	C
P1	Hysteresis	0.1 - 15 °C	2
P2	Upper limit	110 °C	110
P3	Lower limit	-50 °C	-50
P4	Error Correction, adjustment	-7.0 - +7.0	0
P5	Delay Start Timer	0 - 10 min.	0
P6	High Temp Alarm	0 - 110	OFF
P7	set max temp, disconnect	OFF-1 - 110	50.0
P8	H to reset	C/H	C

NOTE: 1 Always rerun to the **P_** display and wait 5 sec. for the settings to be saved other wise settings will not be saved.

NOTE: 2 If relay is not switching: Goto main menu **P5** to check if zero, return and save.

Return to **P_** display and wait for 5 seconds for values to confirm and returns to temperature display.

When Power UP and hold " + " and " - " key for 1sec. will reset to default values. Also see **P8** for soft method.

Table description:

P0 Set the temperature controller operation mode C- cooling or H-heating.

If set 'C' temperature controller will be activated relay when temperature is higher than the set point.

If set 'H' temperature controller will be activated relay when temperature is lower than the set point.

P1 Hysteresis or Return different set point

This device model can value set by 0.1°C and the lowest value is 0.1°C.This is a very useful feature for precise operation of the temperature controller. For example, if you set the value of 1°C and the desired temperature on the thermostat 20°C relay will be deactivated at 21°C (20°C+1°C). The relay is activated again when the temperature drops to 20°C

P2 Highest temperature limit, can be set a maximum temperature limit, less than 110°C.

P3 Lowest temperature limit, You can set minimum temperature limit more or as -50°C.

P4 Temperature correct or calibration, Very good feature that lets you set your thermostat by certified accurate thermometer.

If you do not have a certified thermometer leave the value at 0°C. Calibration allows you to adjust the temperature in 0.1°C increments

P5 Delay starting time, In this step, you set the start delay in minutes 1-10 min. If you set 1min relay is activated until one minute after reaching the set temperature to avoid any fluctuations.

P6 High temperature Alarm, Turns OFF or ON and press the SET, then set the temperature at which the alarm is activated.

When is alarm activated display will show " **– – –** ".

P7 Setting max temperature to disconnect relay, safety feature. Set to OFF if not needed.

P8 H to reset to default setting, select H return to P8, wait 10sec to clear. C for normal operation.