

# NA813A User Guide

## I . Panel Instruction:

LED	Extinguish	light	flash
Temperature upper limit	-	Set upper limit temperature	In the state of temperature upper limit setting (has been revised)
Temperature lower limit	-	Set lower limit temperature	In the state of temperature lower limit setting (has been revised)
Null	-	-	-
Heat	-	Heating	-

\*Flashing means external alarm occurs, here the controller will cut off the heat output.

## II. Main Technique Index and Function:

- Display Range: 0 — 200℃ , Resolution: 1℃
- Precision: ±1℃
- Power Supply: 10V AC
- Relay contact capability: 3A/380V
- Setting Range: 5— 195℃, adjustable
- Size(mm): 71×29
- **Main Function:** Temperature display, temperature control (heat singly), external alarm, temperature adjustment.

## III. Operating Guide

### How to set the upper limit and lower limit temperature?

Press the key “▲” or “▼” at the same time for at least 2 seconds, the Micro-controller displays temperature that is “upper limit”, also “upper limit” LED lights, then using the key “▲” or “▼” can adjust the parameter. After setting, press “▼”, then enter the “lower limit”, using the key “▲” or “▼” can adjust the parameter, press the key “▲” or “▼” at the same time again, then exit the state of setting parameter (the key“▲”adds 0.1℃, the key“▼”minuses 0.1℃, press and hold it over 0.5 seconds can add or minus rapidly) .

**Notice:1. In the state of temperature setting, it will exit the state of setting if no one presses the key within seconds.**

**2. The value can be only saved after exiting the state of setting. The value which has been set can not be saved if the power is off before exiting the state of setting.**

## IV. How to look over and set the parameters

1. Use the code to enter the state of parameter setting, the code is “up-down-up-down-up-up-down”, Press the key “▲”, “▼” continuously in the state of showing current temperature, and it must be finished within 3 seconds, if the code is right, you can enter the state of parameter setting, here the nixietube shows “Fxx”, there into xx is a number, it means parameter code.

2. Use “▲” or “▼” to select the parameter code, Pressing the both keys at the same time can make it to show the value of the parameter after select the parameter, here you use “▲” or “▼” to set the parameter, then press the both keys at the same time to return to the state of showing parameter code after finishing setting. (**Notice: The parameter which has been changed can be only saved after returning to the state of “Fxx” by pressing the both keys at the same time**)

Internal parameter code is showing below:

Sort	Code	Parameter Name	Range	Factory Setting	Remark
Temperature	F19	Temperature adjustment	-5 -- +5	0 ℃	“External alarm locked” means that when external alarm occurs, even if the external is withdrawn, the controller will keep alarm for some time until you press any key or reach the locked time.If the parameter is “0”, it means not lock the external alarm.
Alarm	F51	External alarm lock time	0 -- 120	0 minute	
Testing	F99	Check	-	-	
	F00	Exit	-	-	

## V. Basic Operation principle

### Temperature controlling

Temperature controlling can set according to “upper limit” and “lower limit” .If “upper limit” is 22℃, “lower limit” is 20℃, temperature sensor apperceives the temperature lower than 20℃, compressor runs, then the temperature higher than 22℃, compressor stops. Through this, temperature can be controlled between 20℃ and 22℃.

### External Alarm

The controller has one channel switching value alarm signal (Pin2,3) , and it can be set to forbidden, always open or always closed by F50. “Always open” means that external alarm signal is in the open state, and it generates alarm when closed. “Always closed” means it is on the contrary. The controller will cut off heat output when the external alarm occurs and no longer heating.

## VI. Note

1. The earth terminal of the controller should be connected with the earth terminal of the electric cabinet reliably, be sure to connect the earth well.
2. Please use the temperature sensors and transformer which are supplied by our company.
3. If you don't use the function of external alarm, please short the pin 2 and 3, otherwise the controller can not run normally.