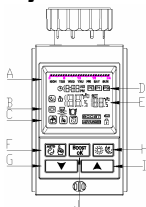


## Product Specifications

Power: 3*2 AA* 1.5V alkaline batteries	Maximum current: 90mA
Working temperature: 0~70°C/32~158°F	Display accuracy: 0.5°C
Range of temperature adjustment: 5~70°C/41~158°F	Probe sensor: NTC(10k)1%
Range of temperature display: 0~70°C/32~158°F	Thread size: M30*1.5
Insulating condition: Normal environment	Size(mm): 66*52*82+20mm
Running program: Set per 1 week as a cycle	Maximum route: 4.5mm

Description of function : This actuator will fine turning for valve status of opened ,according to room temperature and setting temperature ,to meet better status of power saving for put off the working life of battery

## Displays & Buttons



NO:	Display icon	
A	7days week programming and 24-hour heating display icon	
B	Energy saving mode☾, comfortable mode☼,Valve status☰,Ventilation mode☼	
C	Holiday mode☾,Manual Mode☼,Automatic Mode☼,Boost Mode,Advanced options <b>ADVANCED</b> ,Low battery🔋,Child lock🔒	
D	Clock🕒,manual program☰,setting 7days program☰1,setting 5+2 program☰2	
E	Indoor temperature📏,setting temperature <b>SET</b>	
NO:	key	represent
F		1 Automatic and manual keys, holiday mode. 2 Long press 3s to access programmable mode
G		1 Decreasing key 2 Force close valve : Press it until appear "OFF"on the screen
H		1 Short press to choose running comfort mode or energy saving mode 2 Press 3s ,using ▲or▼to set temperature for comfort mode.Press ☾☼again,using ▲or▼to set temperature for energy saving mode
I		1 Increasing Key 2 Force valve open: press it until appear "OP" on the screen
J		1 Short press ,using it with other key for confirmation function 2 It is BOOST function for using alone 3 Long press 3s to unlock

## Installation and initial commissioning

	3s After power-up, left icon is shown
time setting	
1 See 🕒 flashing , press <b>BOOST OK</b> to set ,minute, using ▲or▼to adjust number	
2 press <b>BOOST OK</b> to set hour , using ▲or▼to adjust number,	
3 press <b>BOOST OK</b> to set week, using ▲or▼to adjust number, then press <b>BOOST OK</b> to confirm, and remember	
In normal working condition after actuator was finished for adjustment, If you need to modify time.,please press📏 about 3s, to access setting interface, then short press📏 to switch to 🕒, flashing after chose, press"OK", to set time, method is the same as above	
4 "ADA" is shown on screen,press <b>BOOST OK</b> to adjust, If the battery and gear reducer and valve installation are no problem, 🕒 flashing	
Entry into the normal working interface after completion of the adjustment. 🕒 flashing ,	

Note: breakdown of adjustment: (After solved malfunction , can restart to adjust by pressing **BOOST OK**)

error code	Fault description
Er1	Route too short: in the adjustment process, the pin was stuck.which not reach position of 2mm away from terminus
Er5	The temperature sensor is open or damaged
	Low battery, icon of battery is flashing

## Function description

Mode	explain
<b>Automatic Mode</b>	press📏📏, Run the automatic mode, display main interface
<b>Manual Mode</b>	press📏📏, Run the manual mode, Display the main interface . In the unlocked state, press▲or▼to set temperature.
<b>Holiday mode</b>	press📏📏,see 🕒 is flashing, press <b>BOOST OK</b> to set temperature, First set temperature (▲/▼) ,next press <b>BOOST OK</b> set days, (From the start of the countdown, the end of the holiday to resume automatic mode operation) If you want to exit vacation mode, ,press📏📏again, can exit by selecting manual or automatic mode
<b>Run comfort mode</b>	Short press☼☼, then run comfortable mode
<b>Run energy saving mode</b>	Under comfortable mode, Short press☾☾, then run energy saving mode
<b>Comfort mode temperature and energy saving mode temperature setting</b>	press☼☼3s,choose☼, ☼flashing, then set temperature by press ▲/▼ (default is 21 ° C) ,press☼☼again ,to set temperature for energy saving mode by pressing ▲/▼ to adjust temperature. Next press ☼☼ to exit ,or auto exit s after 5st, and return back display interface.
<b>BOOST</b>	Short press <b>BOOST OK</b> ,then valve of fast heating is fully open,300s countdown, resume previous operation of state.after time is over .Press any key to exit this function and return to the previous working state. 300s can be set in the Advanced Options A7 option

<b>Force OFF</b>	Press  Until "OFF" appears. Close the valve, keep  to press , until "OFF" disappears, Cancel this mode.
<b>Force OPEN</b>	Press , until "OP" and  appears When "OP" disappears, Cancel this mode.
<b>Child lock</b>	If thermostat haven't been operated within 10 minutes, it will be locked automatically, key can't be used after locked, please press   about 5s to unlock.
<b>Ventilation and energy saving</b>	1: It is default that it is on closed for this function 2 When it is working status for this function ,if room temperature drop to critical valve which valve will be closed. ( adjustment range: 5 °C -25 °C), the valve will be closed for 15 minutes ( adjustment range: 5-60 minutes , The minimum adjustment unit for 5 minutes), Once time is over, immediately return back previously operation mode. Meanwhile valve will be fully open to up the temperature. If temperature is below trigger temperature of ventilation mode. Then actuator will continue run ventilation and energy saving mode

### Programming mode setting

Press about 3s, to access setting interface, short press to switch P0, P or P2. icon will flash after you chose

#### P0 manual programmable(default):

week	period	Default period	Default temperature
Working days	1	6:00-8:00	20°C
	2	8:00-11:30	15°C
	3	11:30—12:30	15°C
	4	12:30—17:30	15°C
	5	17:30—22:00	20°C
	6	22:00—6:00	15°C
Weekend	1	8:00-23:00	20°C
	2	23:00-8:00	15°C

using or to choose the programmable model (5+2 days ,6+1 days and 7 days ) .. press to confirm., then can set time and temperature. Factory default is 5+2 days programmable mode

#### P1 setting ,default is 7 days programmable

week	period	Default period	Default temperature
7 days per week	1	6:00-22:00	17°C
	2	22:10-6:00	21°C

#### P2 setting ,default is 5+2 days programmable

week	period	Default period	Default temperature
Working days	1	22:00—6:00	17°C
	2	6:00—8:00	21°C
	3	8: 00—16:00	17°C
	4	18:00—22:00	21°C
weekend	1	8:00-22:00	17°C
	2	22:00-8:00	21°C

### Advanced options

press about 3-5s, to access setting interface, short press to choose setting item, chose **ADVANCED**, next press to access advanced options, using or to adjust value, press to return to last interface. After set, stay for 10s to exit the setting

sym bol	Setting item	Parameter	default
A1	Measure the temperature correction	-9--+9 °C	0.5°C accuracy correction
A2	Window ventilation function, temperature value and time setting	Temperature threshold: 5-25 ° C Valve closing time: 0: 05-1: 00 (every press, change 5 minutes), timing from the valve when all closed.	1 Default critical value of valve: -- °C (close ventilation mode) 2 Temperature is 5 °C on shown when press , then mean open ventilation mode 3 0:15 mean time is 15min for valve of closed
A3	Child lock setting	0: open 1: close	0
A4	Regularly correct route	0: Turn off regularly correction correction route at 8 o'clock per Sunday , actuator automatically open and closed one time.operation normal mode after correction 1:Regular correction is open	0
A5	Set the minimum temperature limit	1-10 °C	5°C
A6	Set the maximum temperature limit	30-70 °C	35°C
A7	Extend BOOST running time, per press  to increase 100s,	100s-900s	300
A8	Check valve opening	100 mean valve opening 100% 5 mean valve opening 5% Each increment is 5%	
A9	Temperature hysteresis start setting	1-9	2
A0	Reset	Display A0, press wind   key whole show 88, using  or  to change to 00, press   to reset	

Default of controlling mode is auto mode and P2 programmable