

AURATON 2016

1. Introduction

AURATON 2016 is a programmable thermostat. It will serve your family for years and significantly save the energy cost. The large multi-data liquid crystal display allows you to operate the feature-rich design with a touch of a button.

2. Functional Requirements

- . AURATON 2016 is a thermostat which can operate in HEAT and COOL mode
- . Temperature sampling rate: once per 10 seconds
- . Key: COMF ECON D H M TEMP PROG PROG# OK. RESET
- . **Extra terminal block for external thermistor connection. No build-in thermistor**
- . Temperature control span: 1°C and 2°C selectable by user
- . Manual override by keyboard
- . Operating temperature: 0-50°C
- . Storage temperature: -25-60°C
- . Operating humidity: 5-90% non-condensing

3. Electrical Specifications

- . Temperature measurement range : 0-34.5°C(0.5°C step)
- . Temperature control range : 5-30°C(0.5°C step)
- . Temperature accuracy : +/-1°C
- . Clock accuracy : +/-1 minute/month
- . Program : 6 preset, 3 user programmable
- . Switching span : 1°C or 2°C selectable
- . Control mode : heating or cooling system user selectable
- . Minimum air-con cycle time : 5 minutes
- . Switching : 250VAC 50HZ 16A (resistive load)
- . Battery : AA size battery x 2
- . Operating voltage : 2.45-3.0VDC
- . Low battery range : 2.48-2.65VDC
- . Standby current : < 20uA(after reset power about 10 second)
- . Temperature sampling current : 200-250uA
- . Relay current : 65-70mA (at 3VDC)
- . Reference resistance for 27°C : 10K ohm at Terminal Block BL2

4. Input

- Button board input: Totally 9 buttons, they are 'COMF' 'ECON' 'D' 'H' 'M' 'TEMP' 'PROG' 'PROG#' 'OK' and 'RESET'
- Button function description
 - 'COMF' – change unit to comfort mode
 - 'ECON' –change unit to economy mode
 - 'D' – set the day of week
 - 'H' – set the hour of day
 - 'M' – set the minute of hour
 - 'PROG' – view and change program
 - 'PROG#' – change the distribution of program
 - 'OK' –return to normal mode
 - 'RESET' - to reset the thermostat

5. OUTPUT

Latching relay for on and off control

6.Initial Power Up

- Clock time is default to 00:00 Monday.
- Relay output is OFF.
- Temperature display 15°C and then refresh to current temperature after about 2 seconds.
- Operation mode is Time Setting Mode.

7.Display Mode

	indicator	functions
1	Day of week indicator	1. show the current day in normal mode 2. show the program day in program mode
2	Real time clock	1. show the current time 2. show the set time during program mode
3	Temperature	1. show the room temperature in the resolution of 0.5°C 2. show the set temperature during program mode
4	Program NO. Indicator	Show the current program number
5	Program indicator(bar)	Show the profile of the program during normal/program mode
6	COMF/ECON indicator	Show the set temperature displayed is comfort or economy set-point
7	Override indicator	Show that the current program is overridden
8	Antifreeze mode	Show that the unit is under antifreeze mode
9	Fan indicator	Comes out when relay is turned on
10	Low-batt indicator	Comes out when battery voltage is lower than a certain level

8.Operation Mode

8.1 Time Setting Mode

- Press the 'D' 'H' 'M' button to Set Time (Day Hour Minute).
- Press 'OK' to finish set time.
- Press 'Comf' and 'Econ' to set comfort and economy temperature hold time.
- Press and hold Comf' and 'Econ' to fast advances

8.2 Manual Mode

- Press "COMF/ECON" button at any operation mode will jump to Manual mode immediately (except Program Setting Mode).
- The Override Icon is on.
- All programs are neglect before the comfort or economy temperature hold time end.
- To exit Manual Mode, press 'OK' button (skip to normal mode).

8.3 Program Setting Mode

- There have nine program in the memory of the thermostat. The NO.0-NO.5 program are preset in the factory and remaining three are user changeable.
- Program 0 is a special program. It set the whole day to defrost temperature (7°C)
- Program 1,2,3 are some typical schedule of a day.
- **Program 4 set 22:00 – 06:59 and 13:00 – 15:59 to comfort temperature.**
- Program 5 set the whole day to economy temperature.
- Program 6,7,8 are user-define program. They can be modified to suit your need.

8.4 DIP switch setting mode

- DIP switch 1 ON Set unit to cooler mode
- DIP switch 1 OFF Set unit to heater mode
- DIP switch 2 ON Set unit to delay enable

DIP switch 2 OFF Set unit to delay disable

DIP switch 3 ON Set unit span to 2°C

DIP switch 3 OFF Set unit span to 1°C

Note : all three dip switches are set to “OFF” before delivery.