

# TEMPTRON T-607

## OPERATION MANUAL



Version B211

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The **Temptron T-607** is a stand alone climate controller that can control one heater, 5 groups of fans, 1 cooling system, and alarm for high and low temperature and electricity failure.

The fan groups are working as minimum ventilation with an on/off timer.

It is optional to connect the **Temptron T-607** to a PC for central management with the help of the WinChick software package.

### OPERATION

The **Temptron T-607** will display the average temperature of the connected temperature Sensors. It is possible to display each sensor separately.

Turn on power.

1. Each time power is connected to the unit “Agro Lo” will appear on the display.

The **Temptron T-607** is calibrating its connected sensors.

2. After 20 Seconds the average temperature will appear on the left display.

3. To display sensor 1, press on button “1”.

The temperature of Sensor 1 will be displayed.

4. To display Sensor 2, press on button “2”.

The temperature of sensor 2 will be displayed.

5. To display the humidity, push on “7” (Only if a Humidity Sensor is connected.).

## READING SET POINT

It is possible to read all the information on the **Temptron T-607** display. The right display indicates the function number. The left display shows the set point for each function.

Each set point has a code number (see menu on the front panel). It is possible to go into the code in two ways:

1. By pressing on the "DATA" button the code number display on the right side of the panel will increase. The preset information will appear on the data display on the left side of the panel.
2. By pressing on the "0" button, two lines will appear on the code display and "FUNC" on the data display.

### Example:

If you would like to see code no.8;

- a) Push on the "0" button.
- b) Push on "0" and than on "8" button.

On the code display will appear 08 and on the data display the information.

If a code number is higher than 10, push on "0" and than the code number.

### Example:

If you would like to see code no.12;

- a) Push on the "0" button.
- b) Push on 1 and 2 button.

On the code display will appear 12 and on the data display the information.

It is possible to continue from code "12" by pushing on the "DATA" button to the next code.

## CHANGE OF SET POINT

It is possible to change each set point.

1. Go into the desired code as explained above.
2. Push on "PROG" button. The code display will start to flash.
3. Use the keyboard to enter the desired data. The new data will appear on the data display.
4. Check the display to see if the information is correct. If yes, push on the "Enter" button. The code display will stop flashing to indicate that the new information has been stored into the unit's memory.

## SET POINTS

### Code

#### **01. Room Temperature**

The room temperature is the requested temperature in the house. All set points (except the cool temperature set point) are set as a differential from the requested room temperature.

#### **02 Heat**

Heat set point is the temperature differential below the requested room temperature that the heating system will turn on.

Example: **Heat** set point = 1.0

If the room temperature should drop 1.0° below the **Room temperature** (code 02) setting then the heating system will start to run.

#### **03. Fan 1**

Fan 1 set point is the temperature differential above the room temperature at which time fan 1 will turn on. Fan group 1 may be programmed to work as a minimum ventilation fan group (see hidden functions OP MODE) as long as the measured temperature is less than the required room temperature plus fan 1 set point. Fan 1 group will work in the minimum ventilation mode as set in code 08 -09. See example below.

#### **04. Fan 2**

Fan 2 set point is the temperature differential above the requested room at which time fan 2 will turn on. Fan group 2 may be programmed to work as a minimum ventilation fan group (see hidden functions OP MODE) as long as the measured temperature is less than the required room temperature plus fan 1 set point. Fan 2 group will work in the minimum ventilation mode as set in code 08 -09. See example below.

#### **05. Fan 3**

Fan 3 set point is the temperature differential above the requested room at which time fan 3 will turn on. Fan group 3 may be programmed to work as a minimum ventilation fan group (see hidden functions OP MODE) as long as the measured temperature is less than the required room temperature plus fan 1 set point. Fan 3 group will work in the minimum ventilation mode as set in code 08 -09. See example below.

#### **06. Fan 4**

Fan 4 set point is the temperature differential above the requested room at which time fan 4 will turn on. Fan group 4 may be programmed to work as a minimum ventilation fan group (see hidden functions OP MODE) as long as the measured temperature is less than the required room temperature plus fan 1 set point. Fan 4 group will work in the minimum ventilation mode as set in code 08 -09. See example below.

### **07. Fan 5**

Fan 5 set point is the temperature differential above the requested room at which time fan 5 will turn on. Fan group 5 may be programmed to work as a minimum ventilation fan group (see hidden functions OP MODE) as long as the measured temperature is less than the required room temperature plus fan 1 set point. Fan 5 group will work in the minimum ventilation mode as set in code 08 -09. See example below.

### **08. Fan On Time**

Fan on time is set in minutes. This is the length of time the minimum ventilation fans will run during minimum ventilation mode. See example below.

### **09. Fan Off Time**

Fan off time is set in minutes. This is the length of time the minimum ventilation fans will be off during minimum ventilation mode. See example below.

### **Example:**

<b>Code</b>	<b>Setting</b>
01. Room temperature	25.5°
03. Fan 1	1.0
04. Fan 2	2.0
05. Fan 3	3.0
06. Fan 4	4.0
07. Fan 5	5.0
08. Fan on time (minutes)	1
09. Fan off time (minutes)	2
OP-MODE	2

If the current average temperature in the house is 25° then the unit will be working in the minimum ventilation mode.

Fan 1 and fan 2 alternately will be working in minimum ventilation mode. In the first minimum ventilation cycle fan group 1 will operate. In the second cycle, fan group 2 will operate. The two groups will continue to operate in this fashion during the minimum ventilation cycle.

Fan 1 and 2 will run in an on/off mode. On for 1 minute (code 08), off for 2 minute (code 09).

Once the temperature reaches 26.5° (code 01 + code 03), fan 1 will run continuously. The unit will no longer be in the minimum ventilation mode.

When the temperature reaches 27.5° (code 01 + code 04), fan 2 will start. Now both fans 1 and 2 will be operating.

This procedure will continue with fan 3, 4 and 5 as the temperature raises.

The reverse procedure will apply when the temperature starts to drop.

### **10. Humidity Set**

Enter here a value in percent. If the humidity reading in the house is higher than This set percentage the cooling system will be turned off.

### **11. Cool On Temp.(ABS)**

Enter here the temperature that when reached in the house the cooling system will start to run in its cycle mode. This temperature is set as an absolute temperature. See example .

### **12.Cool On Time: mm:ss**

This is the ON time period, set in minutes and seconds, which the cooling system will run. See example .

### **13.Cool Off Time: mm:ss**

This is the off time period, set in minutes and seconds, which the cooling system will be off during the cooling system cycle. See example.

Example:

Code:	Value:
10. Humidity Set	70
11. Cool Temp. ABS	27.0°
12. Cool On Time mm:ss	02:00
13. Cool Off Time mm:ss	05:00

If the house temperature reaches 27° and the humidity reading is less then 70%, the cooling system will start to operate. The cooling system will run for 2 minutes (code 12), and be off for 5 minutes (code 13).

If the house temperature remains 27° but the humidity passes 70% then the cooling system will shut down.

### **14. Hot alarm**

Alarm high set point is the temperature differential above the requested room temperature.

Example: If 5.0° is entered in the alarm high function, then if the temperature raises 5.0° above the required room temperature (code 01), then the alarm relay will be activated.

### **15. Cold alarm**

Cold alarm set point is the temperature differential below the requested room temperature.

Example: If 5.0° is entered in the alarm low function, then if the temperature falls 5.0° below the required room temperature (code 01), then the alarm relay will be activated.

### **16. Water Counter**

If a water meter is attached to the unit then it is possible to see here the amount of water consumed in liters.

### **Hidden Set up functions**

Functions 17-25 are hidden functions and cannot be accessed unless the hidden function code is entered:

- A. Go to the Room Temperature function (function 01)
- B. Push on "PROG"
- C. Enter "996" and then press "Enter".

Now the hidden functions may be accessed.

### **17. Lock code**

It is possible to enter a 4-digit code, which will lock the **Temptron T-607**.

Enter a 4-digit code and press enter. This is the code necessary in order to enter information.

Once the code has been entered, after a ten minute period, if no information has been entered the unit will lock. It is possible to see all the information in the unit, but not possible to make any changes.

In order to unlock the unit, first enter the code and then continue in the usual manner to enter information.

If no code is desired enter in **0000** for the lock code.

### **18. Fan timer display**

Shown here is the countdown timer in seconds for the fan cycle time.

### **19. Cool system timer display**

Shown here is the countdown timer in seconds for the cooling system cycle time.

### **20. Alarm type**

Here is shown the alarm type in a numerical fashion.

Number 1 = Low alarm. Low alarm means its cold in the house (see function 14).

2 = High alarm. High alarm means its hot in the house (see function 15).

3 = Memory alarm. Memory alarm means that one or values in the control unit have been changed not by the user. Please recheck all values after an memory alarm.

4 = All sensors alarm. This alarm means that all the sensors have ceased to function. In order for the unit to operate at least one sensor is needed.

5 = One sensor alarm. If one sensor becomes faulty the alarm will be activated.

### **21. Sensor Average**

It is necessary to define the number of temperature sensors that will be used for the average temperature reading.

Enter the number of sensors. If 1 sensor is used enter the value 1. If 2 sensors are used enter the value 2. If 3 sensors are used enter the value 3. If 4 sensors are used enter the value 4.

### **22. Net Name**

It is possible to connect the **Temptron T-607** to a PC computer with the help of the "ChickPro" software package. Each unit needs a net name.

Set the net name 1 for house one, 2 for house 2 and so on.

### **23. Digital Input Readout**

This is a display of the current digital inputs being used.

### **24. Fan mode**

It is possible to program which group or groups will run in the minimum ventilation mode. It is possible to choose fan group 1 only or fan group 1 alternating with other fan groups. Example: If you enter here the value 1 then only fan group 1 will run in the minimum ventilation cycle. If you enter 2 then in the first minimum ventilation cycle fan group 1 will run. In the second cycle fan group 2 will run. The two fans groups will run alternately during the minimum ventilation cycle.

If you enter 3 then fan groups 1, 2 and 3 will run alternately during the minimum ventilation cycle.

If you enter 4 then fan groups 1, 2, 3 and 4 will run alternately during the minimum ventilation cycle.

If you enter 5 then fan groups 1, 2, 3, 4 and 5 will run alternately during the minimum ventilation cycle.

### **25. Version number.**

The control unit's program version number is displayed here.

## TROUBLE-SHOOTING

1. If a temperature sensor or its cable is disconnected, the sensor reading will show **OPEN**.

2. If a temperature sensor or its cable is shorted, the sensor reading will show **SHORT**

3. If both sensors are disconnected, the unit will show open as average and activate the alarm.

If one sensor is disconnected, the system will automatically work on the remaining sensor.

### Diagram

