VKS CLIMATRON POULTRY HOUSE CLIMATE CONTROLLER OPERATION MANUEL
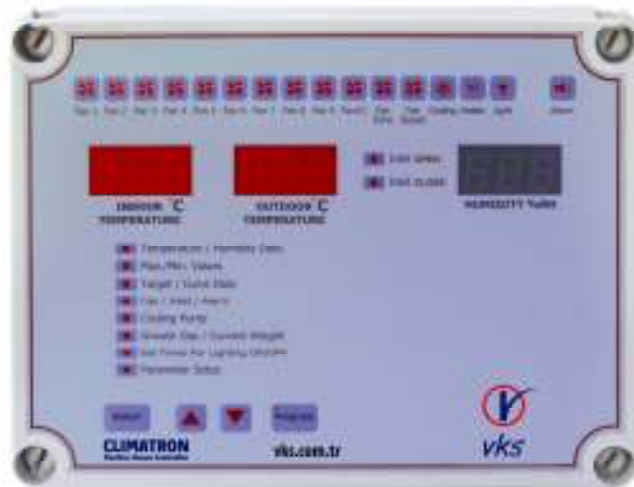
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SAFETY PRECAUTIONS AND WARNINGS

WARNING
Before installation and energizing of climate controller, please read safety precautions and warnings carefully!

- Imbalances in your electricity network (low and high voltages) might destroy the controller and stop it to work properly.
- There is high voltage electricity energy which can be dangerous for human health and the equipments. Interference to the panel or equipments connected to the controller without cutting out the energy might result serious damages for human health or equipments.
- Usage of the controller for long years depends on installing properly, operating and having periiodic maintanance by authorised personel.

ATTENTION
- Please inhibit unauthorised people especially children to reach and interference the controller.
- Please do not forget that all electrical equipments can cause fire. Because of this place the controller away from high temperature, fire and liquids. Do not put easy to fire materials near the controller like nylon, wood or chemicals.
- This controller can be used only with the equipments that are specified by VKS. Changes made without prior notice and approvel of VKS might cause serious damages.
- Please place this user's guide at an easy to reach place for all operators who might be have to operate the controller.

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1. GENERAL INFORMATIONS

This fan control panel that you have bought has been developed by long years of experience of VKS in the sector and by using all technologic improvements.

Poultry fan control panel is a control panel which is designed to provide the fresh air needed inside the house. It is possible to feed more bird in the

equiped houses than natural ventilated houses per square meter area. In summer, when the temperature inside the house increases, the fans start to work and make fresh air fill inside house by passing through ped panels and cool the house. The temperature is reduced to the desired value by this method. In winter the fans make fresh air come inside the house just to breathe fort he animals not to reduce the temperature. When the fans stops the shutters close and heating energy loss is minimised.

The microcomputer on the front cover of the panel is called VKS CLIMATRON. VKS CLIMATRON microcomputer makes the fans work according the house needs automatically.

In automatic mode number of working fans is determined by the microcomputer according the house needs and the parameters which will be adjusted by the operator.

When the panel is made to work in hand mode; the speed and number of working fans is controlled by the operator. In this mode the fans will work or will not work according to the comands of operator.

2. INSTALLATION

Open the front panel
1. Connect the VKS CLIMATRON to the wall in a dry place approximately 1 meter away from the electrical cabinet
Analog Input Connections
1. Temperature sensors
T1 is used for indoor temperature sensor 1. Use a two wire cable. Connect one wire to analog input T1 and second wire to the GND input.
T2 is used for indoor temperature sensor 2. Use a two wire cable. Connect one wire to analog input T2 and second wire to the GND input.
T3 is used for outdoor temperature sensor. Use a two wire cable. Connect one wire to analog input T3 and second wire to the GND input.
2.Humidity sensor
HUM is used for humidity sensor. Use a three wire cable. Brown to input 12V, Green to Gnd and White to HUM.
 Analog out Connections
A-OUT is used for the variable speed fan (driver)
Digital Inputs
Input 1 is used for the water clock dry contact signal. Use a two wire cable. Connect one wire to Digital Input 1 and the seconds wire to 0V. The signal from the water clock should be wired in such a way that when the water clock sends a pulse, the dry contact will be in a normally closed state (shorted).
Input 2 is used for the inlet dry contact signal. Use a two wire cable. Connect one wire to Digital Input and The second wire to 0V. The signal from inlet should be wired in such a way that when the inlet moves, the dry contact will be in a normally closed state (shorted).
Relay Connections
Connect the relay outputs to the various systems. All outputs are dry contacts, maximum 4 A/220V

Relay list

Relay number	Output
1	Fan group 1
2	Fan group 2
3	Fan group 3
4	Fan group 4
5	Fan group 5
6	Fan group 6
7	Fan group 7
8	Fan group 8
9	Fan group 9
10	Fan group 10
11	Fan group 11 / Inlet open
12	Fan group 12 / Inlet close
13	Cooling system
14	Cooling system 2 / Heating system
15	Lighting system
16	Alarm
17	Fan zone / Fan side

Connect a 220VAC cable to the 220V IN connector near the ALARM connector. This is the unit power input.
Note that there is no breaker (fuse) inside the VKS CLIMATRON for this relay output, and it must be installed externally.

1. OPERATION

VKS CLIMATRON 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 "1.0U" will appear on the display. This number is version number, and is unique for this program version.

2. The left display indicates the indoor temperature. The center display shows the outdoor temperature. And the right display shows the indoor humidity.

CHANGE OF SET POINT

It is possible to change each set point.

1. Push on "Select" button. For select the main function.

2. Push on " Δ" or "□" button. For select the sub function.

3. Push on "Program" button. The lamp program will on.

4. Push on " Δ" or "□" button. Enter the desired data. The new data will appear on the display.

5. Check the display to see if the information is correct. If yes, push on the "Program" button.

The lamp program will off. The new information has been stored into the unit's memory.

2. SET POINTS

Function

1. Temperature / Humidity Data

1.1 t.1 (∘C)

This is a reading of the current indoor temperature 1. It is possible here to adjust the temperature reading.

1.2 t.2 (∘C)

This is a reading of the current indoor temperature 2(∘C). It is possible here to adjust the temperature reading.

1.3 t.3 (∘C)

This is a reading of the current outdoor temperature. It is possible here to adjust the temperature reading.

1.4 Hu (%RH)
This is a reading of the current indoor humidity. It is possible here to adjust the humidity reading.
Note It will be necessary to calibrate the temperature and humidity.
A. Push on "Program" The display shows "_ P"
B. Enter "111" and press "Program"
C. Push on " Δ" or "□" button. Enter the desired data. The new data will appear on the display.
D. Check the display to see if the information is correct. If yes, push on the "Program" button.
The lamp program will off. The new information has been stored into the unit's memory.

1.5 inL (%)
This is a reading of the current inlet. It will be necessary to calibrate the inlet before the start of each flock
A. Push on "Program" The display shows "_ P"
B. Enter "111" and press "Program" to calibrate.
C. Enter "1" and press "Program" to calibrate inlet.

1.6 rFM
This is a reading of the required fan maximum. The required fan maximum will be increase daily according to the stage table.

1.7 rtH (○C)
This is a reading of the required temperature in the house. All set points fan are set as a differential from the requested room temperature in the house. The required temperature in the house will be from required temperature (function "rt") subtract reduced temperature from high humidity (function "drt,HHU").
Example:
rtH = rt – drt,HHU
rtH = 30.0○C – 1.0○C
rtH = 29.0○C

1.8 APH (km3/hour)
This is a reading of the minimum ventilation needed according to total bird weight in the house.
Minimum Ventilation
The controller can calculate the minimum ventilation need

according to bird weight (function "Cur,uu"),
Number of birds housed (function "nub,brd"), minimum cubic air
per kilo in the stage table and the maximum air per
hour of the variable speed fan (function "Cu,SPF"), the
maximum air per hour of the fan zone (function "Cu,SF" and
"nub,SF") and the fan group (function "Cu,FAn").
The controller will multiply the number of housed birds by the
weight of each bird (taken from the weight increase stage
table). The result gives the approximate total weight in
kilograms of the house. The controller then multiplies this amount by
the requested minimum cubic air per hour. We now
have the total amount of air needed for minimum ventilation per
hour.

1.9 ton (m.ss)
This is a reading of the time in minutes and seconds of the
minimum ventilation on cycle.

1.10 toF (m.ss)
This is a reading of the time in minutes and seconds of the
minimum ventilation off cycle.

1.11 tME (m.ss)
This is a reading of the time in minutes and seconds of the
minimum ventilation on-off cycle.

1.12 tun
This is a reading of the mode control.
Col = cold tunnel
Hot = hot tunnel

2. Max./Min. Values

2.1 –CThis
is a reading of the total water consumption water in the
house.

2.2.1 Ht1
This is a reading of the high indoor temperature in today.

2.2.2 Lt1
This is a reading of the low indoor temperature in today.

2.2.3 ht1
This is a reading of the high outdoor temperature in today.

2.2.4 lt2
This is a reading of the low outdoor temperature in today.

2.2.5 HH1
This is a reading of the high indoor humidity in today.
2.2.6 LH1
This is a reading of the low indoor humidity in today.
2.2.7 tH1
This is a reading of the longest time period,when there is a heat stress index today.
2.2.8 HS1
This is a reading of the highest value of the heat stress index today.
2.2.9 AH1
This is a reading of the amount of events when there time are the heat stress indexes today.
2.2.10 –C1
This is a reading of the water consumption in the house today.
2.3.1 Ht2
This is a reading of the high indoor temperature yesterday.
2.3.2 Lt2
This is a reading of the low indoor temperature yesterday.
2.3.3 ht2
This is a reading of the high outdoor temperature yesterday.
2.3.4 lt2
This is a reading of the low outdoor temperature yesterday.
2.3.5 HH2
This is a reading of the high indoor humidity yesterday.
2.3.6 LH2
This is a reading of the low indoor humidity yesterday.
2.3.7 tH2
This is a reading of the longest time period when there is a heat stress index yesterday.
2.3.8 HS2
This is a reading of the highest value of the heat stress index yesterday.
2.3.9 AH2
This is a reading of the amount of events when there are the heat stress indexes yesterday.
2.3.10 –C2
This is a reading of the water consumption in the house yesterday.

2.4.1 Ht3
This is a reading of the high indoor temperature two days ago.
2.4.2 Lt3
This is a reading of the low indoor temperature two days ago.
2.4.3 ht3
This is a reading of the high outdoor temperature two days ago.
2.4.4 lt3
This is a reading of the low outdoor temperature two days ago.
2.4.5 HH3
This is a reading of the high indoor humidity two days ago.
2.4.6 LH3
This is a reading of the low indoor humidity two days ago.
2.4.7 tH3
This is a reading of the longest time period when there is a heat stress index two days ago.
2.4.8 HS3
This is a reading of the highest value of the heat stress index two days ago.
2.4.9 AH3
This is a reading of the amount of events when there are the heat stress indexes two days ago.
2.4.10 –C3
This is a reading of the water consumption in the house two day ago.
3. Target / Curve Data
The left display indicates the required temperature for fan. The center display shows the required temperature for cooling system. And the right display shows the required humidity for cooling system.
A. Push on "Program" to function required (3.1).
B. Push on "□" to function stage table (3.2).
3.1.1 rt
The required temperature is the requested temperature for fan in the house. The required temperature for fan will be reduced daily according to the stage table.
3.1.2 rht
The required temperature is the requested temperature for heating system in the house. The required temperature for heating system will be reduced daily according to the stage

table. When the temperature in the house is above this value, the heating system will be deactivated.

3.1.3 rCP

The required temperature is the requested temperature for cooling system in the house. The required temperature for cooling system will be reduced daily according to the stage table. When the temperature in the house is above this value, the cooling system will be activated.

3.1.4 rHu

The required humidity is set in percentage. If the humidity level in the house rises above this value, the controller will automatically deactivate the cooling system.

3.2 Stage Table

Temperature Graph

It is possible to set a temperature graph to reduce automatically the house temperature each day during the raising period. It is possible to set up to 8 stages.

Weight Graph

It is possible to enter an automatic weight increase table to be used by the minimum ventilation system.

Fan Maximum Graph

It is possible to enter an automatic maximum fan increase table to be used by the maximum ventilation system.

Important: When Day is equal to 1 it is not possible to change current weight (function "Cur,uu"), required temperature for fan, heating system and cooling system (function "rt","rht","rCP").

3.2.1.1 dAY,St1

This is a one day old for first. It is not possible to change day.

3.2.1.2 t,St1 (∘C)

Enter here the temperature graph for fan for stage 1.

3.2.1.3 Ht,St1(∘C)

Enter here the temperature graph for heating system for stage 1.

3.2.1.4 CP,St1(∘C)

Enter here the temperature graph for cooling system for stage 1.

3.2.1.5 uu,St1 (x10g)

Enter here the weight graph for stage 1.

3.2.1.6 FM,St1

Enter here the maximum amount of fans for stage 1.

3.2.1.7 rA,St1 (m3/kg/hour)
Enter here the minimum amount of cubic air per kilo per hour
that is to be supplied to the house for stage 1.
3.2.2.1 dAY,St2
Enter here the day for first stage 2.
3.2.2.2 t,St2 (∘C)
Enter here the temperature graph for fan for stage 2.
3.2.2.3 Ht,St2(∘C)
Enter here the temperature graph for heating system for stage 2.
3.2.2.4 CP,St2(∘C)
Enter here the temperature graph for cooling system for stage 2.
3.2.2.5 uu,St2 (x10g)
Enter here the weight graph for stage 2.
3.2.2.6 FM,St2
Enter here the maximum amount of fans for stage 2.
3.2.2.7 rA,St2 (m3/kg/hour)
Enter here the minimum amount of cubic air per kilo per hour
that is to be supplied to the house for
stage 2.
3.2.3.1 dAY,St3
Enter here the day for first stage 3.
3.2.3.2 t,St3 (∘C)
Enter here the temperature graph for fan for stage 3.
3.2.3.3 Ht,St3(∘C)
Enter here the temperature graph for heating system for stage 3.
3.2.3.4 CP,St3(∘C)
Enter here the temperature graph for cooling system for stage 3.
3.2.3.5 uu,St3 (x10g)
Enter here the weight graph for stage 3.
3.2.3.6 FM,St3
Enter here the maximum amount of fans for stage 3.
3.2.3.7 rA,St3 (m3/kg/hour)
Enter here the minimum amount of cubic air per kilo per hour
that is to be supplied to the house for stage 3.
3.2.4.1 dAY,St4
Enter here the day for first stage 4.
3.2.4.2 t,St4 (∘C)
Enter here the temperature graph for fan for stage 4.

3.2.4.3 Ht,St4 (∘C)
Enter here the temperature graph for heating system for stage 4.
3.2.4.4 CP,St4 (∘C)
Enter here the temperature graph for cooling system for stage 4.
3.2.4.5 uu,St4 (x10g)
Enter here the weight graph for stage 4.
3.2.4.6 FM,St4
Enter here the maximum amount of fans for stage 4.
3.2.4.7 rA,St4 (m3/kg/hour)
Enter here the minimum amount of cubic air per kilo per hour that is to be supplied to the house for stage 4.
3.2.5.1 dAY,St5
Enter here the day for first stage 5.
3.2.5.2 t,St5 (∘C)
Enter here the temperature graph for fan for stage 5.
3.2.5.3 Ht,St5 (∘C)
Enter here the temperature graph for heating system for stage 5.
3.2.5.4 CP,St5 (∘C)
Enter here the temperature graph for cooling system for stage 5.
3.2.5.5 uu,St5 (x10g)
Enter here the weight graph for stage 5.
3.2.5.6 FM,St5
Enter here the maximum fan for stage 5.
3.2.5.7 rA,St5 (m3/kg/hour)
Enter here the minimum amount of cubic air per kilo per hour that is to be supplied to the house for stage 5.
3.2.6.1 dAY,St6
Enter here the day for first stage 6.
3.2.6.2 t,St6 (∘C)
Enter here the temperature graph for fan for stage 6.
3.2.6.3 Ht,St6 (∘C)
Enter here the temperature graph for heating system for stage 6.
3.2.6.4 CP,St6 (∘C)
Enter here the temperature graph for cooling system for stage 6.
3.2.6.5 uu,St6 (x10g)
Enter here the weight graph for stage 6.
3.2.6.6 FM,St6
Enter here the maximum amount of fans for stage 6.

3.2.6.7 rA,St6 (m3/kg/hour)
Enter here the minimum amount of cubic air per kilo per hour
that is to be supplied to the house for stage 6.
3.2.7.1 dAY,St7
Enter here the day for first stage 7.
3.2.7.2 t,St7 (∘C)
Enter here the temperature graph for fan for stage 7.
3.2.7.3 Ht,St7 (∘C)
Enter here the temperature graph for heating system for stage 7.
3.2.7.4 CP,St7 (∘C)
Enter here the temperature graph for cooling system for stage 7.
3.2.7.5 uu,St7 (x10g)
Enter here the weight graph for stage 7.
3.2.7.6 FM,St7
Enter here the maximum amount of fans for stage 7.
3.2.7.7 rA,St7 (m3/kg/hour)
Enter here the minimum amount of cubic air per kilo per hour
that is to be supplied to the house for stage 7.
3.2.8.1 dAY,St8
Enter here the day for first stage 8.
3.2.8.2 t,St8 (∘C)
Enter here the temperature graph for fan for stage 8.
3.2.8.3 Ht,St8 (∘C)
Enter here the temperature graph for heating system for stage 8.
3.2.8.4 CP,St8 (∘C)
Enter here the temperature graph for cooling system for stage 8.
3.2.8.5 uu,St8 (x10g)
Enter here the weight graph for stage 8.
3.2.8.6 FM,St8
Enter here the maximum amount of fans for stage 8.
3.2.8.7 rA,St8 (m3/kg/hour)
Enter here the minimum amount of cubic air per kilo per hour
that is to be supplied to the house for
stage 8.

Stage Table

Stage	Day	Temperature for Fan	Temperature for Heating System	Temperature for Cooling System ("CP")	Weight "uu"	Maximum Amount of Fan ("FM")	Maximum Amount of cubic air ("rA")
1	1	32	30	40	5	3	1,0
2	7	30	28	38	18	3	1,0
3	14	28	26	32	45	3	1,0
4	21	26	23	29	90	3	1,0
5	28	24	20	28	150	7	1,0
6	35	23	18	28	215	10	1,5
7	42	22	16	28	285	10	2,0
8	49	21	16	28	350	10	2,0

4. Fan / Inlet / Alarm
4.1 diF,F01
This is a number of degrees above the required temperature in the house (function "rtH") that fan 1 will be turned on. The fan1 used in the "Hot tunnel" mode only.
4.2 diF,F02
This is a number of degrees above the required temperature in the house (function "rtH") that fan 2 will be turn on. If the controller goes into "Cold tunnel" mode because of a low outdoor temperature (function "tS,trn") the unit will continue to open the inlet.
4.3 diF,F03
This is a number of degrees above the required temperature in the house (function "rtH") that fan 3 will be turned on.
4.4 diF,F04
This is a number of degrees above the required temperature in the house (function "rtH") that fan 4 will be turned on.
4.5 diF,F05
This is a number of degrees above the required temperature in the house (function "rtH") that fan 5 will be turned on.

4.6 diF,F06
This is a number of degrees above the required temperature in the house (function "rtH") that fan 6 will be turned on.
4.7 diF,F07
This is a number of degrees above the required temperature in the house (function "rtH") that fan 7 will be turned on.
4.8 diF,F08
This is a number of degrees above the required temperature in the house (function "rtH") that fan 8 will be turned on.
4.9 diF,F09
This is a number of degrees above the required temperature in the house (function "rtH") that fan 9 will be turned on.
4.10 diF,F010
This is a number of degrees above the required temperature in the house (function "rtH") that fan 10 will be turned on.
4.11 diF,SF
This is a number of degrees above the required temperature in the house (function "rtH") that fan zone will be turned on. The fan zone used in the "Cold tunnel" mode only.
4.12 dif,HAL
This is a number of degrees above the required temperature (function "rt") that if reached the controller will activate the alarm relay and high temperature alarm status will activate. Note: Enter "0.0" to disable this function.
4.13 diF,LAL
This is a number of degrees below the required temperature (function "rt") that if reached the controller will activate the alarm relay and low temperature alarm status will activate.
Note: Enter "0.0" to disable this function.
4.14 diF,HHu
This is a number of percentages above the required humidity (function "rHu") that if reached the controller will activate the alarm relay and high humidity alarm status will activate.
Note: Enter "0.0" to disable this function.
4.15 diF,tE
This is temperature differential from 2 indoor temperature sensor that if reached the controller will activate the alarm relay and differential temperature sensor alarm status will activate

Note: Enter "0.0" to disable this function.
The controller used 2 indoor sensors for control only
(Function "tSn").

4.16 diF,SPF
This is a number of degrees above the required temperature in
the house (function "rtH"). Once the house temperature reached this
temperature, the variable speed fan will start to increase in speed as
set in the band width (function "dif,bAn").

4.17 dif,bAn
This is the temperature differential above "dif,SPF". It
represents minimum (function "SPF,Lo") to maximum speed
(function "SPF,Hi")

4.18 SPF,Lo
This is the minimum speed set in percentage that the variable
speed fan will run.

4.19 SPF,Hi
This is the maximum speed set in percentage that the variable
speed fan will run.

Example:
"rtH" = 30.0∘
"diF,SPF" = 0.0∘
"diF,bAn" = 2.0∘
"SPF,Lo" = 10%
"SPF,Hi" = 100%
As long as the indoor temperature is below 30∘ ("rtH"+"diF,SPF")
the variable speed fan will be running at 10%.
When the temperature reaches 30∘ the variable speed fan will
start to increase in speed. Over the next 2∘ the variable speed
fan group will gradually increase in speed. By the time the
house temperature has reached 32∘ the variable speed fan will
be running at 100%.

4.20 inL,Lo
Enter here, in percentage, the minimum position of the inlet
when the controller is "Cold tunnel" mode.
Example: if 10% is entered here, then if the inlets close, they
will remain open 10%

4.21 inL,SF
Enter here, the in percentage that the inlet will open each time

the corresponding fan zone come into operation.

4.22 inL,SPF

Enter here, the in percentage that the inlet will open each time the corresponding variable speed fan come into operation.

4.23 inL,F1

Enter here, the in percentage that the inlet will open each time the corresponding fan1 come into operation.

4.24 inL,F2

Enter here, the in percentage that the inlet will open each time the corresponding fan2 come into operation.

4.25 inL,F3

Enter here, the in percentage that the inlet will open each time the corresponding fan3 come into operation.

4.26 inL,F4

Enter here, the in percentage that the inlet will open each time the corresponding fan4 come into operation.

4.27 inL,F5

Enter here, the in percentage that the inlet will open each time the corresponding fan5 come into operation.

4.28 inL,F6

Enter here, the in percentage that the inlet will open each time the corresponding fan6 come into operation.

4.29 inL,F7

Enter here, the in percentage that the inlet will open each time the corresponding fan7 come into operation.

4.30 inL,F8

Enter here, the in percentage that the inlet will open each time the corresponding fan8 come into operation.

4.31 inL,F9

Enter here, the in percentage that the inlet will open each time the corresponding fan9 come into operation.

4.32 inL,F10

Enter here, the in percentage that the inlet will open each time the corresponding fan10 come into operation.

Minimum ventilation be stable

When you want to use this function. Please stop function minimum ventilation from weight. Also enter 00 to function "nub,brd".

4.33 on,F01 (mm.s)
Enter here the time period in minutes and seconds (x10) that the fan1 will run once the house temperature has below the fan1 temperature (function "diF,F01"). The fan1 will run in an on-off cycle.

4.34 oFF,F01 (mm.s)
Enter here the time period in minutes and seconds (x10) that the fan1 will be off during the fan1 cycle.
Note: Enter "0.0" to disable this function.

4.35 on,F02 (mm.s)
Enter here the time period in minutes and seconds (x10) that the fan2 will run once the house temperature has below the fan2 temperature (function "diF,F02"). The fan2 will run in an on-off cycle.

4.36 oFF,F02 (mm.s)
Enter here the time period in minutes and seconds (x10) that the fan2 will be off during the fan1 cycle.
Note: Enter "0.0" to disable this function.

4.37 on,F03 (mm.s)
Enter here the time period in minutes and seconds (x10) that the fan3 will run once the house temperature has below the fan3 temperature (function "diF,F03"). The fan3 will run in an on-off cycle.

4.38 oFF,F03 (mm.s)
Enter here the time period in minutes and seconds (x10) that the fan1 will be off during the fan3 cycle.
Note: Enter "0.0" to disable this function.

4.39 on,F04 (mm.s)
Enter here the time period in minutes and seconds (x10) that the fan4 will run once the house temperature has below the fan4 temperature (function "diF,F04"). The fan4 will run in an on-off cycle.

4.40 oFF,F04 (mm.s)
Enter here the time period in minutes and seconds (x10) that the fan4 will be off during the fan4 cycle.
Note: Enter "0.0" to disable this function.

4.41 on,F05 (mm.s)
Enter here the time period in minutes and seconds (x10) that

the fan5 will run once the house temperature has below the fan5 temperature (function "diF,F05"). The fan5 will run in an on-off cycle.

4.42 oFF,F05 (mm.s)

Enter here the time period in minutes and seconds (x10) that the fan1 will be off during the fan5 cycle.

Note: Enter "0.0" to disable this function.

4.43 on,F06 (mm.s)

Enter here the time period in minutes and seconds (x10) that the fan6 will run once the house temperature has below the fan6 temperature (function "diF,F06"). The fan6 will run in an on-off cycle.

4.44 oFF,F06 (mm.s)

Enter here the time period in minutes and seconds (x10) that the fan1 will be off during the fan6 cycle.

Note: Enter "0.0" to disable this function.

4.45 on,F07 (mm.s)

Enter here the time period in minutes and seconds (x10) that the fan7 will run once the house temperature has below the fan7 temperature (function "diF,F07"). The fan7 will run in an on-off cycle.

4.46 oFF,F07 (mm.s)

Enter here the time period in minutes and seconds (x10) that the fan7 will be off during the fan7 cycle.

Note: Enter "0.0" to disable this function.

4.47 on,F08 (mm.s)

Enter here the time period in minutes and seconds (x10) that the fan8 will run once the house temperature has below the fan8 temperature (function "diF,F08"). The fan8 will run in an on-off cycle.

4.48 oFF,F08 (mm.s)

Enter here the time period in minutes and seconds (x10) that the fan1 will be off during the fan8 cycle.

Note: Enter "0.0" to disable this function.

4.49 on,F09 (mm.s)

Enter here the time period in minutes and seconds (x10) that the fan9 will run once the house temperature has below the fan9 temperature (function "diF,F09"). The fan9 will run in an

on-off cycle.

4.50 oFF,F09 (mm.s)

Enter here the time period in minutes and seconds (x10) that
the fan1 will be off during the fan9 cycle.

Note: Enter "0.0" to disable this function.

4.51 on,F10 (mm.s)

Enter here the time period in minutes and seconds (x10) that
the fan10 will run once the house temperature has below the
fan10 temperature (function "diF,F10"). The fan1 will run in an
on-off cycle.

4.34 oFF,F10 (mm.s)

Enter here the time period in minutes and seconds (x10) that
the fan1 will be off during the fan10 cycle.

Note: Enter "0.0" to disable this function.

5. Cooling Pump

When the indoor temperature is above requested the temperature for
cooling system. A line can be active only when
all the following condition are fulfilled: time and temperature.

Cooling Table

Period ("Pr_")	From Time (hh.m) ("on,Pr_")	To Time ("oF,Pr_")	Outdoor Temperature ("t3,Pr_")	On (mm.s) ("onP,Pr_")	Off (mm.s) ("oFP,Pr_")
1	09:00	21:30	27,0	01:00	10:00
2	09:00	21:30	28,8	01:00	05:00
3	09:00	21:30	30,0	01:00	02:00
4	12:30	16:00	32,5	01:00	00:00

Example: When the outdoor temperature is below 27∘, under the
assumption that the range of both time, the cooling system will not
operate when the outdoor temperature reached or rises above 27∘.
The cooling system operates according to the firstline when the
temperature rises above 28.8∘ the cooling system will operate
according to line 2 and so on.

5.1.1 on,Pr1
Enter here the cooling system on time for cooling table period 1. Use a real time mode.
5.1.2 oF,Pr1
Enter here the cooling system off time for cooling table period 1. Use real time mode.
5.1.3 t3,Pr1
Enter here an outdoor temperature for cooling table period 1.
5.1.4 onP,Pr1
Enter here the time period in minutes and seconds that the cooling system will run in an on-off cycle for cooling table period 1.
5.1.5 oFP,Pr1
Enter here the time period in minutes and seconds that the cooling system will be off during the cooling system cycle for cooling table period 1.
5.2.1 on,Pr2
Enter here the cooling system on time for cooling table period 2. Use a real time mode.
5.2.2 oF,Pr2
Enter here the cooling system off time for cooling table period 2. Use real time mode.
5.2.3 t3,Pr2
Enter here an outdoor temperature for cooling table period 2.
5.2.4 onP,Pr2
Enter here the time period in minutes and seconds that the cooling system will run in an on-off cycle for cooling table period 2.
5.2.5 oFP,Pr2
Enter here the time period in minutes and seconds that the cooling system will be off during the cooling system cycle for cooling table period 2.
5.3.1 on,Pr3
Enter here the cooling system on time for cooling table period 3. Use a real time mode.
5.3.2 oF,Pr3
Enter here the cooling system off time for cooling table period 3. Use real time mode.

5.3.3 t3,Pr3
Enter here an outdoor temperature for cooling table period 3.
5.3.4 onP,Pr3
Enter here the time period in minutes and seconds that the cooling system will run in an on-off cycle for cooling table period 3.
5.3.5 oFP,Pr3
Enter here the time period in minutes and seconds that the cooling system will be off during the cooling system cycle for cooling table period 3.
5.4.1 on,Pr4
Enter here the cooling system on time for cooling table period 4. Use a real time mode.
5.4.2 oF,Pr4
Enter here the cooling system off time for cooling table period 4. Use real time mode.
5.4.3 t3,Pr4
Enter here an outdoor temperature for cooling table period 4.
5.4.4 onP,Pr4
Enter here the time period in minutes and seconds that the cooling system will run in an on-off cycle for cooling table period 4.
5.4.5 oFP,Pr4
Enter here the time period in minutes and seconds that the cooling system will be off during the cooling system cycle for cooling table period 4.
5.5.1 on,Pr5
Enter here the cooling system on time for cooling table period 5. Use a real time mode.
5.5.2 oF,Pr5
Enter here the cooling system off time for cooling table period 5. Use real time mode.
5.5.3 t3,Pr5
Enter here an outdoor temperature for cooling table period 5.
5.5.4 onP,Pr5
Enter here the time period in minutes and seconds that the cooling system will run in an on-off cycle for period 5.

5.5.5 oFP,Pr5
Enter here the time period in minutes and seconds that the cooling system will be off during the cooling system cycle for cooling table period 5.

6. Growth Day / Current Weight
6.1 day
This is the current grow day of the flock. At the beginning of the flock enter here 1.

The requested temperature for fan will automatically receive the value as entered in stage 1 table.

The requested temperature for cooling system will automatically receive the value as enter in stage 1 table. The requested temperature for heating system will automatically receive the value as enter in stage 1 table.

6.2 Cur,uu
This is the current weight of one bird according to the weight increase graph. This value is used in calculating the minimum ventilation needed for the house as explained above.

6.3 nub,brd
Enter here at beginning of the flock the number of birds placed in the house. This value is used in calculating the minimum ventilation needed for the house as explained above.

7. Set Times For Lighting ON / OFF
7.1.1 onL,Pr1
Enter here the light on time for period 1. Use a real time mode.
7.1.2 oFL,Pr1
Enter here the light off time for period 1. Use a real time mode.
Example:
"onL,Pr1" = 06.0
"oFL,Pr1" = 18.0
"onL,Pr2" = 22.0
"oFL,Pr2" = 01.0
In this example the lights will go on at 06:00 and off at 20:00. At 22:00 the light will come back on and then go off at 01:00.

7.2.1 onL,Pr2
Enter here the light on time for period 2. Use a real time mode.
7.2.2 oFL,Pr2
Enter here the light off time for period 2. Use a real time mode.
7.3.1 onL,Pr3
Enter here the light on time for period 3. Use a real time mode.
7.3.2 oFL,Pr3
Enter here the light off time for period 3. Use a real time mode.
7.4.1 onL,Pr4
Enter here the light on time for period 4. Use a real time mode.
7.4.2 oFL,Pr4
Enter here the light off time for period 4. Use a real time mode.
7.5.1 onL,Pr5
Enter here the light on time for period 5. Use a real time mode.
7.5.2 oFL,Pr5
Enter here the light off time for period 5. Use a real time mode.

8. Parameter Setup
8.1 id
This is the formula number of the controller.
8.2 tSn
It is possible to use indoor temperature sensor for control.
To use 1 sensor enter the corresponding 1.
To use 2 sensor enter the corresponding 1_2.
8.3 tE1,AL
It is possible to enable temperature sensor 1 alarm
To disable an alarm enter the corresponding off.
To enable an alarm enter the corresponding on.
Note: If an alarm is disabled then the alarm relay will not be
activated when there is a problem.
8.4 tE2,AL
It is possible to enable temperature sensor 2 alarm
To disable an alarm enter the corresponding off.
To enable an alarm enter the corresponding on.
Note: If an alarm is disabled then the alarm relay will not be
activated when there is a problem.
8.5 tE3,AL
It is possible to enable temperature sensor 3 alarm

To disable an alarm enter the corresponding off.
To enable an alarm enter the corresponding on.
Note: If an alarm is disabled then the alarm relay will not be activated when there is a problem.

8.6 inL,AL

It is possible to enable inlet alarm
To disable an alarm enter the corresponding off.
To enable an alarm enter the corresponding on.
Note: If an alarm is disabled then the alarm relay will not be activated when there is a problem.

8.7 Fan,HYS

Enter here the number of degrees below the fan temperature that fan will be turn off.

8.8 CP,HYS

Enter here the number of degrees below the requested temperature for cooling system (function "rCP") that cooling system will be turn off.

8.9 Ht,HYS

Enter here the number of degrees below the requested temperature for heating system (function "rht") that heating system will be turn on.

8.10 Hu,HYS

Enter here the number of percentage below the requested humidity for cooling system (function "rHu") that cooling system will be turn on.

8.11 drt,HHU

Enter here the number of degrees for reduce required temperature for fan (function "rt") in case of high humidity(function "rHu").

8.12 on,drt

Enter here the time period in minutes and seconds that the reduced temperature for fan in case of high humidity (function "rHu") will run.

8.13 oF,drt

Enter here the time period in minute and seconds that the reduced temperature for fan in case of high humidity (function "rHu") will be off.

8.14 onP,HHu

Enter here the time period in minutes and seconds that the cooling system will run once the indoor temperature has reached the required temperature for cooling system and indoor humidity rises above required humidity. The cooling system will run in an on-off cycle.

8.15 oFP,HHu

Enter here the time period in minute and seconds that the cooling system will be off during the cool system high humidity cycle.

8.16 Cu,Fan

Enter here the total amount of cubic air per hour that fan 1 to 10 can supply divided by 1000. Example if fan 1 can supply 33,900 cubic meters of air per hour then enter here the value 33.9.

Note: This value is used in calculating the minimum ventilation needed for the house as explained above.

Cubic meter per hour = (cubic feet per minute / 2119) x 3600

8.17 Cu,SPF

Enter here the total amount of cubic air per hour that variable speed fan can supply divided by 1000. Example if variable speed fan can supply 33,900 cubic meters of air per hour then enter here the value 33.9.

Note: This value is used in calculating the minimum ventilation needed for the house as explained above.

Cubic meter per hour = (cubic feet per minute / 2119) x 3600

8.18 nub,SPF

Enter here the number of variable speed fan in the house. Example if variable speed fan can supply 33,900 cubic meter of air per hour and they have 2 number of fan zone then they can supply 67,800 cubic meters of air per hour.

Note: This value is used in calculating the minimum ventilation needed for the house as explained above.

8.19 CtL,SPF

It is possible to used control variable speed fan in the mode. To use in the "Cold tunnel" mode only enter the corresponding "Col".

To use in the all mode (cold and hot tunnel) enter the corresponding "All"

8.20 Cu,SF

Enter here the total amount of cubic air per hour that fan zone can supply divided by 1000. Example if fan zone can supply 15,200 cubic meters of air per hour then enter here the value 15.2.

Note: This value is used in calculating the minimum ventilation needed for the house as explained above.

Cubic meter per hour = (cubic feet per minute / 2119) x 3600

8.21 nub,SF

Enter here the number of fan zone in the house. Example if fan zone can supply 15,200 cubic meter of air per hour and they have 2 number of fan zone then they can supply 30,400 cubic meters of air per hour.

Note: This value is used in calculating the minimum ventilation needed for the house as explained above.

8.22 dLY,onF

Enter here the time period in minutes and seconds that the fan will delay turn on.

8.23 dLY,oFF

Enter here the time period in minutes and seconds that the fan will delay turn off.

8.24 tF,CYC

The time in minutes and seconds of the minimum ventilation on-off cycle

8.25 Fd,CYC

This is the calculated duty cycle (percent) of the fan cycle time according to the minimum ventilation mode. If this number is larger then the minimum duty cycle time then the fan will run this amount out of the fan cycle time. If the minimum duty cycle time is larger then the calculated duty cycle time the fans will run according to the minimum.

8.26 dLY,SYS

Enter here the time period in seconds that the controller will be delay turn on relay in case of power on.

8.27 PLS,Lit

Enter here the number of pulse per liter used in the water meter.

8.28 HS

Enter here the number of the heat stress index. When the indoor temperature plus indoor humidity in the house is above this value, the heat stress status will be activated.

8.29 AHS

Enter here the number of amount time in the heat stress. When amount time in the heat stress is above this value , the controller will activate the alarm relay and amount time heat stress alarm status will activate.

8.30 tHA

Enter here the time in minutes of amount time in the heat stress.

8.31 tHS

Enter here the time in minutes of time in the heat stress. When time period in the heat stress is above this value, the controller will activate the alarm relay and the time heat stress alarm status will activate.

8.32 on,AL

Enter here the time period in seconds that the alarm system will run. The alarm system will activate.

8.33 oF,AL

Enter here the time period in seconds that the alarm system will be off.

8.34 tdL

Enter here the time in minutes that the data logger will be record.

8.35 L-F,trn

Enter the last fan that the controller will run in "Cold Tunnel" mode. Once this fan is passed the controller will exit "Cold Tunnel" mode, meaning will close the inlet.

8.36 t5,trn

This is a temperature setting, which represents an absolute outdoor temperature, under which the controller goes into "Cold Tunnel" mode when the set point of fan 2 has been reached. In this mode the controller will continue to use inlet.

8.37 dLY,Vnt

Minimum time setting set in minutes and seconds that the unit would remain in the current ventilation mode.

Suggested time setting: 1.0 (60 seconds).

8.38 Hn

It is possible to connect the unit to a PC computer with the help of the "TEMPVIEW" software package. It is possible to mange up 99 units. Each controller needs a house number.

8.39 C_P

Enter here a change password.

8.40 UL

This function is copy formula in the controller to data loader. It is possible to connect the controller to a data loader with the help of the data loader manual.

8.41 trL

This is function for test relay. To be used by technicians.

8.42 tSP

This is function for test variable speed fan. To be used by technicians.

8.43 dd,dAY

This is a reading of the current day setting. It is possible here to adjust the day reading

8.44 MM,dAY

This is a reading of the current month setting. It is possible here to adjust the month reading.

8.45 YY,dAY

This is a reading of the year setting. It is possible here to adjust the year reading.

8.46 hh,tME

This is a reading of the hour setting. It is possible here to adjust the hour reading.

8.47 mm,tME

This is a reading of the minute setting. It is possible here to adjust the minute reading.

Flap Calibration

It will be necessary to calibrate the inlet before the start of each flock. This will start the calibration process. The inlet will first close to 0 percent and then open to 100 percent. the inlet will

then go to its required position.

TROUBLE-SHOOTING

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

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

If one sensor is disconnected, the system will automatically word on the remaining sensor **(tSN = 1_2)**.

3. If a humidity sensor or its cable is disconnected, the sensor reading will show **OPn**.

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