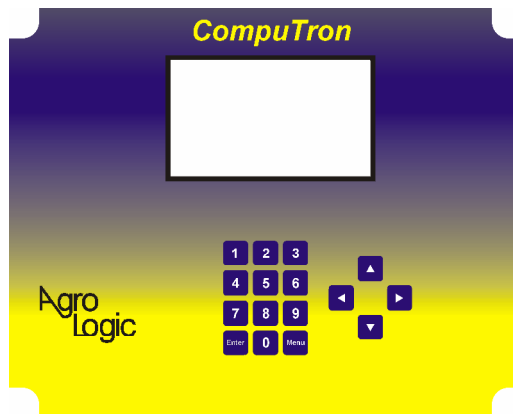


# CompuTron User's Manual

Version number: 34901

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## Introduction

The **CompuTron** is a stand-alone advanced information and alarm control unit. The **CompuTron** was designed in order to collect and save important information from the poultry and pig houses. It is possible to connect to the **CompuTron** temperature sensors, humidity sensors, negative pressure sensor, water meter, egg counters, live bird weighing plates and feed silo weighing.

Program the unit according to your needs and if there is any deviation from the set values the **CompuTron** will activate an alarm.

The **CompuTron** control unit can be connected to a central PC computer for central management of a large number of units using by the ChickPro™ software package.

As a standard the CompuTron includes the following input / outputs:

15 analog inputs for temperature, humidity and static pressure measurement.

20 digital inputs.

6 0-10V outputs.

4 inputs for live bird-weighing scales.

1 input for 2 silos or 1 batch weighing scale.

## Program

The CompuTron has been developed for use as an alarm system.

The CompuTron includes a program with the following alarms.

1. Low and high temperature alarms.
2. Internal memory alarm.
3. Temperature sensor malfunction alarm.
4. Water overflow / stoppage alarm.

The CompuTron has been developed for use as an central unit for collection of up to 16 egg counters.

## The System

### The Main Unit

On the main unit you will find the display screen, keyboard and the directional arrows. The **CompuTron** analog and digital inputs are located inside the main unit. The dry contact relay is also found inside the main unit.

### Installation

Read the instructions carefully, **before** connecting the system.

### Connecting the Main Unit

1. Carefully unscrew the four big screws on the front panel.
2. Remove completely the front panel by pulling out the plug in the button of the box.  
Note: The plug must be tipped clear by pulling out the two locking wings sideways.

3. Connect the box to the wall in a dry place at least 1 meter away from the main electrical enclosure.
4. Connect the 230 VAC and ground cable to its connector.

#### Analog inputs

Connect the 3 inside temperature sensors to the analog input clamps.

Connect sensor 1 to analog input 1 and GND (see diagram).

Connect sensors 2&3 to analog inputs 2&3 and GND.

The sensors may be placed up to 100 meters from the main unit using ordinary electrical wire.

#### Fast analog inputs

1. Connect the humidity sensor (optional) to the fast analog input clamp number 1F. Connect the brown wire to the +12V input, blue wire to GND and the yellow wire to the 1F analog input (see diagram).

#### Digital inputs

1. Egg counters. It is possible to connect 16 egg counters to the **CompuTron** using the digital inputs 1-16 and common.  
Connect egg counter number 1 to the digital input number 1 and common input.  
Connect egg counter number 2 to the digital input number 2 and common input.  
Connect up to 16 counters in the same manner.
2. If a water meter is connected to the CompuTron, connect the wires between the com. and digital input clamp 17.
3. Connect a dry contact relay to the lighting system using digital input 18 and common. Each time the lights come on in the house the input should be shorted out. This is used in conjunction with the water alarm to give the unit an indication that the lighting system is on.

#### Weighing plates

It is possible to connect up to 4 live in house bird-weighing plates.

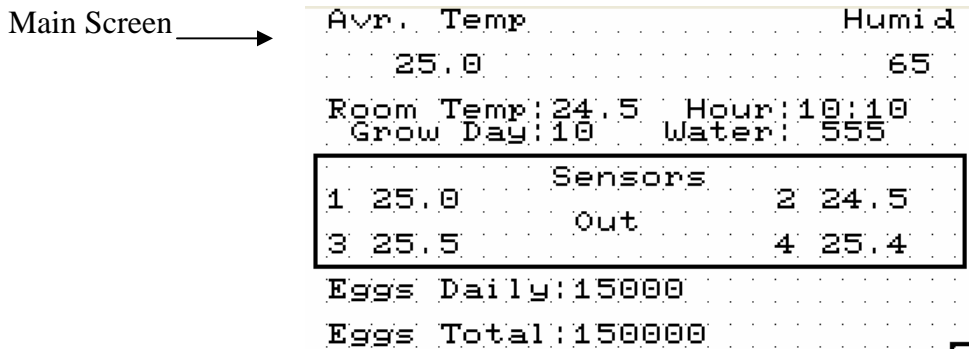
1. Connect a 3-wire cable going from the **CompuTron** to the desired location of the plate in the house.  
The brown wire (+) to the (+) input in the **CompuTron** Plate 1 input.  
The blue wire (0) to the 0 input in the **CompuTron** Plate 1 input.  
The yellow (out) to the S input in the **CompuTron** Plate 1 input.

Connect the panel with the plug back on the button of the box and close the panel with the four big screws.

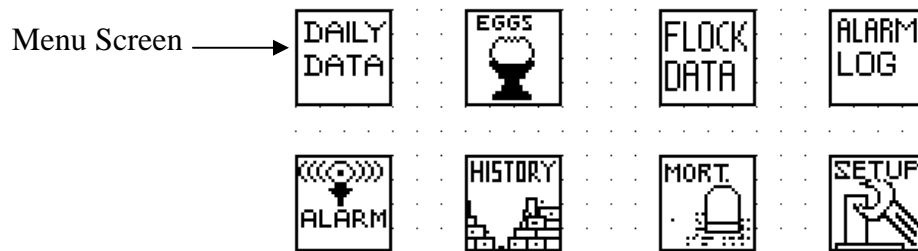
Screen Contrast:

The user, according to the light conditions in your house may adjust screen contrast. If the screen is to dark, while the **CompuTron** is in the main screen, press at the same time the enter button and the up↑ arrow button to increase the contrast. If the screen is to light, press at the same time the enter button and the down↓ arrow to decrease the contrast.

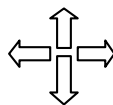
To reach a preset default setting, press enter and the right ⇒ arrow.



By pressing on the **MENU** button located on the front board of the CompuTron, the following screen will appear.



Navigate around the screen using the arrows on the front panel of the V911.



Navigate the cursor to the Icon subject that is to be set up and then press the ENTER button on the front panel of the V911.

Description of the different screens and their values.

Main screen

Avr. Temp	Humid
25.0	65
Room Temp: 24.5	Hour: 10:10
Grow Day: 10	Water: 555
Sensors	
1 25.0	2 24.5
Out	
3 25.5	4 25.4
Eggs Daily: 15000	
Eggs Total: 150000	

The main screen is the screen that the CompuTron will return to if the menu button is pressed twice.

#### Avr Temp.

Current inside average temperature in the house.

The sensors used to define the average temperature are set in the Setup screen.

#### Humidity

If a optional humidity sensor is installed in the house a display of the current humidity reading in percentage will be shown here.

#### Room Temp.

The current required temperature for the house as calculated in the Temperature reduction table(see set up screen / temperature reduction graph).

#### Hour

A display of the current time. In order to set the time, see Setup screen

#### Grow day

A display of the current.

#### Water

If a optional water clock is installed a display of the current daily water consumption is shown here. The display is reset to zero at reset time (see setup screen).

#### Sensors

A display of the current temperature readout for each of the 3 inside temperature sensors and the outside temperature sensor.

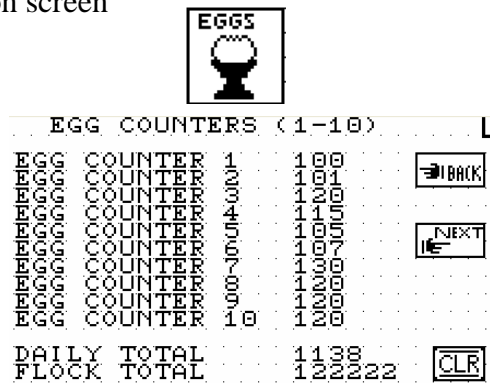
Eggs Daily

This is a display of the total daily amount of eggs collected. The display is reset to zero at reset time (see setup screen).

Eggs Total


This the total amount of eggs collected since the beginning of the flock.

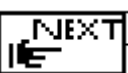
Egg collection screen




In this screen it is possible to see the current number of eggs collected from each egg counter.

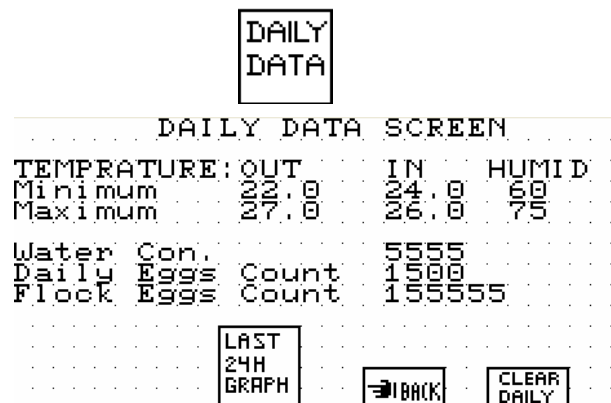
The daily total is shown as well as the total amount collected since the beginning of the flock.

Click on the  icon to go back to the menu screen

Click on the  icon to go back to the next screen containing egg counters 11-16.

Click on the  icon to clear the egg counters.

Daily data screen



### Temp. Out / In /Humidity

Displays the minimum and maximum inside and outside temperature and humidity over the last 24 hours. This time period is from reset time to reset time.

### Water Consumption


Displays the water consumption over the last 24 hours.  
This time period is from reset time to reset time.


### Daily Egg Count

Displays the total egg count over the last 24 hours.  
This time period is from reset time to reset time.

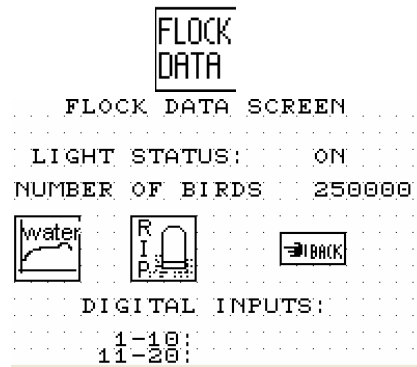
### Flock Eggs Count

Displays the total Eggs collected from the beginning of the flock.

Click on the  icon to clear the daily data information

Click on the  icon to go to the 24-hour graph screen. Located there are the icon links to the graph screens for water, humidity and inside / outside temperature graphs. It is possible to see the hourly water consumption, humidity reading per hour and the inside outside temperature reading also on a hourly basis.

## Flock data



## Light state

There are two states.

Lights on

When digital input 18 is shorted (NC) the status will be Lights On and the **CompuTron** will assume that the lights are on.

In this state the water alarm will be engaged.

Lights Off

When digital input 18 is not shorted (NO) the status will be Lights Off and the **CompuTron** will assume that the lights are off.


In this state the water alarm stoppage will be disengaged.


## Number of birds

The current number of birds in the house. This number will change along with the mortality entered in the mortality screen.

## Digital inputs

This is a readout of the currently used digital inputs. This is a binary number, It is used for Agrologic technical staff only.

Click on the  icon to enter the water consumption graph. This graph will show the water consumption on a daily basis.

Click on the  icon to see the daily mortality in a graph form.

## Mortality screen



```

..... Dead Screen .....
History Dead---Day:xxxxx
Group 1 ..... 0
Group 2 ..... 0
..... Daily Dead .....
Group 1 ..... xxxxxx
Group 2 ..... xxxxxx
..... Total Dead .....
Group 1 ..... xxxxxx
Group 2 ..... xxxxxx
Total ..... xxxxxx

```

## History dead---day:

Enter here the day in which to call up the mortality.

Group 1: The number of dead for group 1 on the chosen day.

Group 2: The number of dead for group 2 on the chosen day

## Daily dead

Group 1: Enter here the daily dead for group 1.

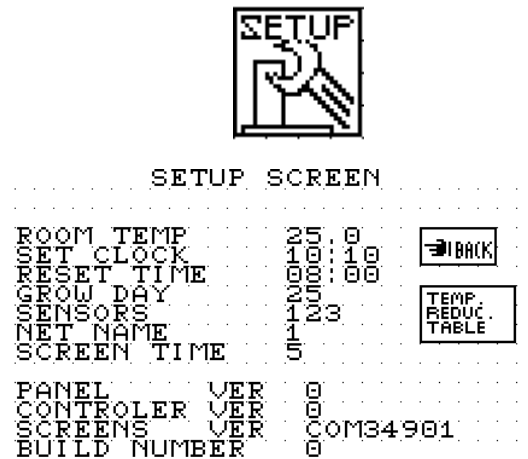
Group 2: Enter here the daily dead for group 2.

## Total dead

Group 1: The total number of dead in group 1 since the start of the flock.

Group 2: The total number of dead in group 2 since the start of the flock.

## Setup screen



Located in this screen are values needed for setting up the **CompuTron**.

## Room Temperature

This is the required house temperature according

## Set clock

Enter here the current time in a 24-hour format. This is the time that is used by the **CompuTron**.

## Grow Day:

A display of the current grow day. Grow day is updated according to the reset time and after midnight. If the grow day is set to the day 1, then **Requested Temp** will receive the value of 1st Day Temp as set in the Temperature reduction table.

## Reset Time:

The CompuTron collects all its information on a 24 hours basis. It is possible to set here the reset time. Enter here the desired reset time in 24-hour format.

## Net Name:

Enter here the number of the CompuTron unit as it is define in the ChickPro communication software. It is possible to enter up 99 units.

## Sensors

Enter here the combination of temperature sensor to be used to calculate the average temperature in the house.

Example: 123

In this example sensors 1,2,3 and will be used to calculate the average temperature in the house.

**Note: Do not include the outside temperature sensor (number 4) in the setup for the average temperature.**

```
          SETUP SCREEN
.....
ROOM TEMP      25.0
SET CLOCK      10:10  [BACK]
RESET TIME     00:00
GROW DAY       25
SENSORS        123   [TEMP.
NET NAME       1     REDUC.
SCREEN TIME    5     TABLE]
.....
PANEL VER      0
CONTROLLER VER 0
SCREENS VER    00M34901
BUILD NUMBER   0
```

**Panel Ver:**

This is the panel version of the **CompuTron**.

This is for technical references only.

**Controller Ver:**

This is the controller version of the **CompuTron**.

This is for technical references only.

**Screen:**

This is the screen version of the **CompuTron**.

This is for technical references only.

**Build No:**

This is the Build number of the **CompuTron**.

This is for technical references only.

Temp. Reduction table screen

**TEMP.  
REDUC.  
TABLE**

DAY	TEMP DIFF	CALC. TEMP	
xxxxxx	xxx, x	0	←BACK
xxxxxx	xxx, x	0	
xxxxxx	xxx, x	0	
xxxxxx	xxx, x	0	
xxxxxx	xxx, x	0	
xxxxxx	xxx, x	0	
xxxxxx	xxx, x	0	
xxxxxx	xxx, x	0	
xxxxxx	xxx, x	0	
xxxxxx	xxx, x	0	
GROW DAY		xxxxxx	
1ST DAY TEMP		xxx, x	
ROOM TEMP		xxx, x	

It is possible to set a temperature graph to reduce automatically the room temperature each day during the raising period. It is possible to set up to 10 Groups. Each Group can be reduced up to 9.9°F.

Days:

Enter here the age (day) of the birds for the first temperature reduction. This is the age that the birds will be at, at the end of the first reduction period.

Enter all rows not in use with the value zero.

**Important: If zero is entered in any of the day columns the temperature reduction will stop at this point.**

**Do not enter the value 0 or 1 in the first Day row.**

Diff:

Enter here the desired temperature reduction. This reduction will take place over the numbers of days as assigned in the Days column.

Enter all rows not in use with the value zero.

Calc. Diff:

This will display the calculated temperature reduction for each group of temperature reductions.

Grow Day:

Grow day is updated at reset time providing that midnight has passed first. If Grow day is set to the day 1, then Required Temp will receive the value of Day 1 Temp.

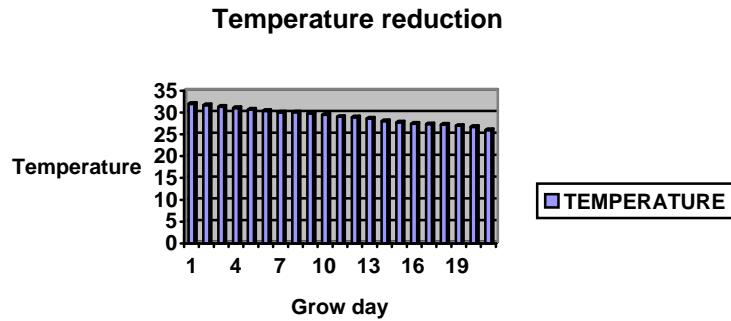
Day 1 temp is the Required Temp for the first day of growing. It is the temperature that will appear as required temp when **Day** is equal to day 1. The room temp will be reduced according to the temp. table

**Important:** When Grow Day is equal to 1 it is not possible to change Required Temp.

Example:

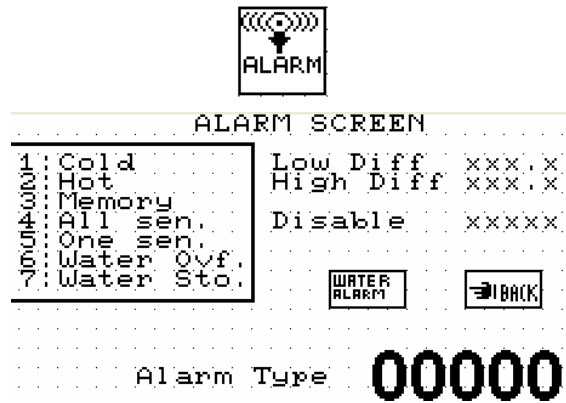
Temperature reduction  
 Grow day = 1  
 1<sup>st</sup> day temperature = 32.0°

Day	Temperature difference	Calculated temperature
7	2	30.0°
14	2	28.0°
21	2	26.0°



In this example the day 1 temperature is set at 32°.  
 Over the first 7 days there will be a gradual decrease in the house temperature. By the end of the day 7 the house temperature will have decreased to 30°  
 By the end of day 14 the house temperature will have decreased to 28°  
 By the end of day 21 the house temperature will have decreased to 26°

## Alarm screen



## Low Diff

A set point in degrees, below the required temperature. If the temperature drops below the average temperature plus this set point the unit will activate the alarm.

## High Diff

A set point in degrees above the required temperature. If the temperature rises above the average temperature plus this set point the unit will activate the alarm.

## Disable:

It is possible to disable an alarm. Enter the corresponding alarm number. If an alarm has been disabled then the CompuTron will not activate the alarm if is needed.

It is not possible to disable alarm numbers 1,2,3,4.

It is possible to disable up to 4 alarms.

## Alarm Type (1):

If there is an alarm the number of the alarm will appear here.

## List of alarms:

- 1.Cold:** The temperature has dropped below the **Low Diff** setting
- 2.Hot:** The temperature has risen above the **High Diff** setting
- 3.Memory:** If there is a problem with the memory of the V911 the unit will activate an alarm..
- 4.All Sensors:** If all the temperature sensors fail in the unit then an alarm will be activated. The V911 can run on 1 temperature sensor.
- 5.One Sensor:** If one of the temperature sensors fails then an alarm will be activated.
- 6. Water Overflow:** An alarm is activated if the water consumption is greater than the corresponding measurement yesterday plus the water add value as set in the Water alarm screen ( see water alarm screen).
- 7. Water Stoppage:** An alarm is activated if the water consumption is less than the set amount set in the Water Alarm screen ( see water alarm screen).

## Water alarm screen

```

      WATER ALARM SCREEN
Water Alarm Add: (OFL)  xxxxx
Minimum Water   (20MIN) xxxxx
Water Con.(Last 20MIN) 0
Water Alarm Table [←] [→] [BACK]
LIGHTS STATUS: OFF/ON

```

## Water Alarm Add:

If a water clock is installed then it is possible to monitor the water consumption. The unit records water consumption over 20 periods.

Enter here a value in liters.

The unit compares the same 20-minute period of today to yesterday, adds on the amount set in the Water Alarm Add. If the 20-minute consumption exceeds the two values added together then a Water overflow alarm is activated.

The overflow alarm condition will not be checked 40 minutes after lights come on. This is to compensate for high water consumption after the lights come on.

It is possible to compare today with yesterday by looking at the Water Alarm Table screen.

**For the first 24 hours, enter the value 0. This disables the alarm and gives the 24-hour period needed in order for the unit to record water consumption.**

## Water Consumption (last 20 min)

It is possible to see here the water consumption over the last 20 minutes. This gives you an idea of the current water consumption. This will help you decide how many liters to enter in the minimum water value

## Water Minimum :

Enter here a value in liters that represents a minimum water consumption that must be measured by the **CompuTron** over the recorded 20 minute time period. If less than this amount is consumed than the alarm relay will be activated.

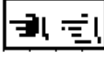
**Attention:**

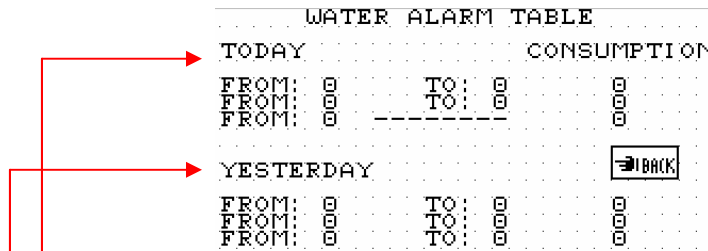
The water alarm works on the assumption that when the lights are on there is water being supplied to the house and when the lights are off the water is also turned off. Once the lights come on the **CompuTron** will wait up to 40 minutes before operating the water overflow alarm. This is to compensate for the sudden increase in water consumption when the lights come on..

In order for the **CompuTron** to operate the water alarms properly, it is necessary to connect a dry contact relay to the lighting system and the **CompuTron** digital input 1. Each time the lights go on the digital input should be shorted out. This will be the signal for the **CompuTron** that the water is on.

When the lights go off the digital input is opened and the **CompuTron** will assume there is no water in the house and will not operate the water stoppage alarm.

Water alarm table

Water Alarm Table 



The screenshot shows a terminal-style interface with the title "WATER ALARM TABLE". It is divided into two sections: "TODAY" and "YESTERDAY". Each section contains a table with columns for "FROM:" and "TO:" times, and a "CONSUMPTION" column. A "BACK" button is visible in the "YESTERDAY" section. Red arrows point from the text below to the "CONSUMPTION" column of the "TODAY" section and the "CONSUMPTION" column of the "YESTERDAY" section.

WATER ALARM TABLE			
TODAY		CONSUMPTION	
FROM:	0	TO:	0
FROM:	0	TO:	0
FROM:	0	TO:	0
			0
YESTERDAY		CONSUMPTION	
FROM:	0	TO:	0
FROM:	0	TO:	0
FROM:	0	TO:	0
			0

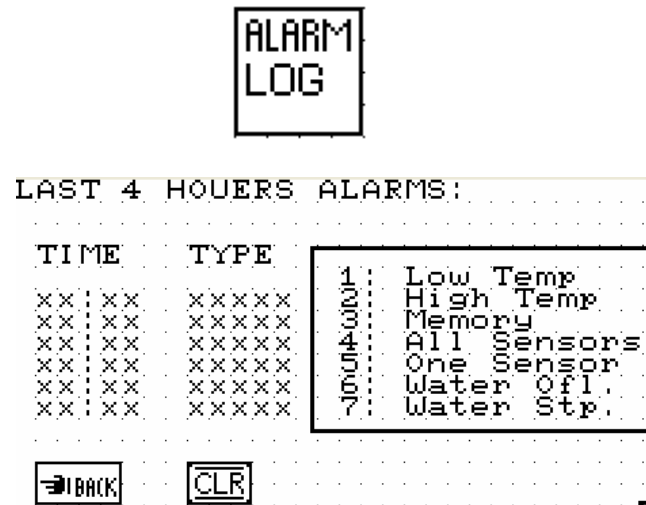
Is this screen it is possible to see and compare water consumption over 20 minute time periods of yesterday and today.

Today's water consumption can be see here.

Yesterdays water consumption can be see here.

This table helps you decide the correct Water add alarm setting and also in understanding the reason for a water alarm.

## Alarm log screen



The alarm log shows a display of the alarms over the last 4 hours.

The list shows the alarm type in number form and the time of the alarm.


In order to clear the list, bring the cursor to the CLR icon and press on enter.

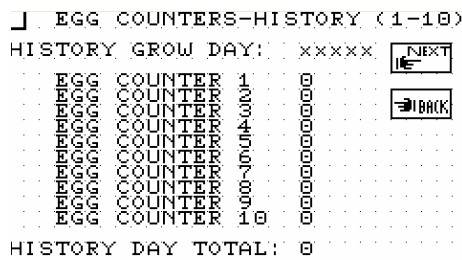
History screen



History Grow Day:

Enter here the desired grow day. The history for that day will be shown.

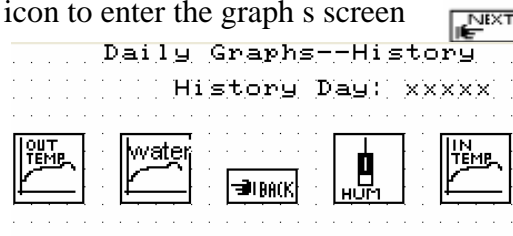
By clicking on the  icon it is possible to see the past history for the egg collectors according to the entered history day.



Enter the desired grow day in order to bring up the counter results for that day. Its possible also to see the total amount for the chosen day.

Click on the NEXT icon to see the history for egg counters 11 – 16

Click on the next icon to enter the graphs screen



History Day

Enter the day to be seen in the History day slot.

Chose the graph that is to be seen. The graph is relevant to the history grow day that was chosen in the History Day field. It is possible to information on an hourly basis.

## Trouble shooting

### Temperature sensor display variations (main screen)

Normal reading: A display of the temperature reading for each of the 3 inside and 1 outside temperature sensors.

9999: A short out on the wire or sensor has been detected. Check connecting wires.  
An alarm will be activated.

8888: No sensor is connected to the CompuTron. Check connections.  
An alarm will be activated.

6666 → temperature readout → 6666: If there is an alternating reading between the temperature readout and 6666, there is a problem with the temperature sensor. This will occur when the temperature readout is higher by 20°C (36°F) than the average calculated house temperature. In this case the faulty sensor will not be included in the average temperature.  
An alarm will be activated.

Wiring

**Digital Inputs**

1	Egg Counter 1	11	Egg Counter 11
2	Egg Counter 2	12	Egg Counter 12
3	Egg Counter 3	13	Egg Counter 13
4	Egg Counter 4	14	Egg Counter 14
5	Egg Counter 5	15	Egg Counter 15
6	Egg Counter 6	16	Egg Counter 16
7	Egg Counter 7	17	Water clock input
8	Egg Counter 8	18	Light input
9	Egg Counter 9	19	
10	Egg Counter 10	20	

**V output**

--

**Analog Outputs 0 – 10 Volt**

1		2	
3		4	
5		6	

**Analog Input - Temperature sensors**

1	Temperature Sensor 1
2	Temperature Sensor 2
3	Temperature Sensor 3
4	
5	
6	
7	Outside temperature Sensor

**Analog Input**

**DIP Switch Position:**

		U27		U25	
		Off	On	Off	On
1F	Inside humidity Sensor 1				
2F					
3F					
4F					
5F					
6F					
7F					
8F					