

## Platinum Plus, Junior, XL, and Junior XL Controllers



**User Manual (Precision)**  
P/N: 110016

[www.rotem.com](http://www.rotem.com)

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## **Warranty & Limitation of Liability**

1. ROTEM warrants that the product shall be free of defects in materials or workmanship and will conform to the technical specification for a period of 1 (one) year from the date of initial installation on site (the "warranty period").
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**Software Version:** 3.0X, 4.0X  
**Document Version:** 3.2

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# 1 FRONT MATTER

This section includes information on the manual and general information.

## 1.1 Introduction

Rotem manuals provide easy-to-use information regarding the installation, operation, long/short term planning and parts listing (this manual may not deal with all of the above subjects). The table of contents is an outline of the relevant information in this manual.

Read this manual before operating your Rotem product. Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury.

If you have any questions or comments regarding your product, please contact your local Rotem dealer.

## 1.2 Conventions

**NOTE:** Notes provide important details regarding specific procedures.

**CAUTION** Cautions alert you to potential damage to the controller if the procedures are not followed carefully.

**WARNING!** Warnings alert you to potentially hazardous situations that, if not avoided, could result in death or personal injury.

➡ This symbol means that certain functions must be defined before a screen can be used.

## 1.3 Contact Information

Rotem Control and Management

Email: [support@rotem.com](mailto:support@rotem.com) URL: [www.rotem.com](http://www.rotem.com)

## 1.4 Document Information

Revision History

Rev Level / Date	Section Affected	Description
2.0 / Jan 2011	Entire Document	Ver 3.02 Rotem template
2.1/ June 2011		3.03 Release; added light sensor support, light table for feed and no feed days, feed cycles, light parameters (correlating with feed timing), support for 4 water lines and meters, revised attic control parameter, changed setting for 2 <sup>nd</sup> pressure set point, changed Scale menu, changed Bird Scale settings
2.2 / Aug 2011	2.3/5.9/9.13/7.12	4.03 release, corrected Main Screen
2.3 / Aug 2011	5.5/ 6.4 / 9.5	Feeder Off definition changed /Light screen: changed numbers to the right/ Feed Bin Settings: reworded definitions
2.4 / Dec 2011	Page 78	Corrected note on attic sensor
2.5 / Jan 2012	Section 3.4.4	Added Ventilation by Weight
2.6 / Feb 2012	6.2.1	Added help section
2.7 / June 2012		Updated to 4.05
2.8 / July 2012	4.3.1/6.2.1	XL Picture/corrected parameter/corrected parameter
2.9 / Aug 2012	4.12/3.2/7.2	WOD/2 humidity sensors
3.0 / Dec 2012	2.2	Added product pictures
3.1 May 2013		Corrected formatting and graphics
3.2 / Nov 2013	3.2.1, 3.3.1/ 4.9.2/4.13/6.1	Co2 and Humidity Fan/Feed Plan, Feed Scale

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## 2 INTRODUCTION TO PRECISION MODE

This document describes the **Platinum Plus**, **Platinum Junior**, and **Platinum XL** Precision Mode operation. For greater simplicity and ease of use, you can opt to use the Standard Mode; documentation is provided in the Standard Mode manual.

Computerized Electronic Controllers such as the Platinum advance the producer's ability to grow high quality poultry by accurately controlling the environment. Instead of struggling with individual thermostats for heat zones and ventilation, Platinum brings them all together into one convenient place with great accuracy. In Precision Mode, the Platinum optimizes and precisely applies your equipment and energy sources to most benefit from the accuracy of your computer and sensors.

Where **Simplicity** and **Ease of Use** are important benefits of Standard Mode, **Features** and **Precise Application** characterize Precision Mode. The Platinum coordinates your ventilation equipment in precise levels of ventilation to provide the optimal fresh air balanced with heating costs. The light and feed clocks provide additional channels for greater capability. Besides advanced Cooling Pad methods, you benefit from superior stir fan programs to recover ceiling heat and other features. Precision Mode's additional features enable you to improve your profitability significantly.

Platinum provides a variety of management and history utilities. You can choose from simple overviews, or fully detailed *by the minute* records of minimum, maximum and average temperatures for each individual sensor. The unique **Table of Events** records the moment of every significant action taken by the Platinum and, optionally, its operator.

Communication software is available to customers who wish to access their Platinum controllers locally or remotely at **Rotem's** website, [www.rotem.com](http://www.rotem.com). Rotem provides technical support on the website, as well as through the large dealer and agent network.

- Precision Ventilation - A Quick Look, page 9
- Front Panel, page 11
- Keypad, page 12
- Relay Switches, page 12
- Hot Screens, page 13
- Standard Display, page 14
- Main Menu Icons, page 16
- Version History, page 16

### 2.1 Precision Ventilation - A Quick Look

Rotem's Precision Ventilation works by giving the Platinum many finely spaced levels of ventilation from which to choose. This enables it to find the right ventilation for the conditions present. A typical change in ventilation from one level to the next in Precision Mode is 20%, compared to as much 1,000% in Standard Mode (for example, when the Minimum Ventilation Timer setting is 30 seconds on, 270 seconds off).

Consider the following simplified Ventilation Levels example:

Ventilation Level	Diff °F	On Time Seconds	Off Time Seconds	Cycle Fans	Comments
...	0	...	...	...	Lower Levels ...
5	0	60	240	1 and 2	1 Minute out of 5 on Timer Fans

Ventilation Level	Diff °F	On Time Seconds	Off Time Seconds	Cycle Fans	Comments
6	0	75	225	1 and 2	Current Level, 25% more than Level 5
7	0	90	210	1 and 2	1½ Minutes out of 5, 20% more than Level 6
...	...	...	...	...	... Higher Levels

The Platinum is currently at Level 6, which in this example means two cycle or timer fans run 1¼ minutes out of five. If required, the Platinum moves to Level 5 or Level 7 to maintain the Target Temperature.

In this example, the Differential Temperature for each level is **Zero**. This means that all these levels occur at the **same temperature!** In Precision Mode, the Platinum finds that level of ventilation that precisely maintains the target temperature.

Besides maintaining more accurate and precise temperatures, Precision Mode has other benefits. A few examples:

- **Increased Reliability:** Can 'rotate' minimum ventilation timer fans so that all of your fans get a turn.
- **Save Fuel while Ventilating More Efficiently:** Can automatically decrease ventilation as fuel use increases, and increase ventilation whenever outside temperatures allow economical use of free air. See the 'Soft Min Vent' section.
- **Recapture Free Heat:** On-board features to reclaim lost heat back to the birds where it benefits them. See the 'Stir Fans' sections.

## 2.2 Units



Figure 1: Platinum Junior XL



Figure 2: Platinum XL





Figure 3: Platinum Junior



Figure 4: Platinum Plus

## 2.3 Front Panel

Figure 5 shows the Platinum Junior XL front panel and its elements.

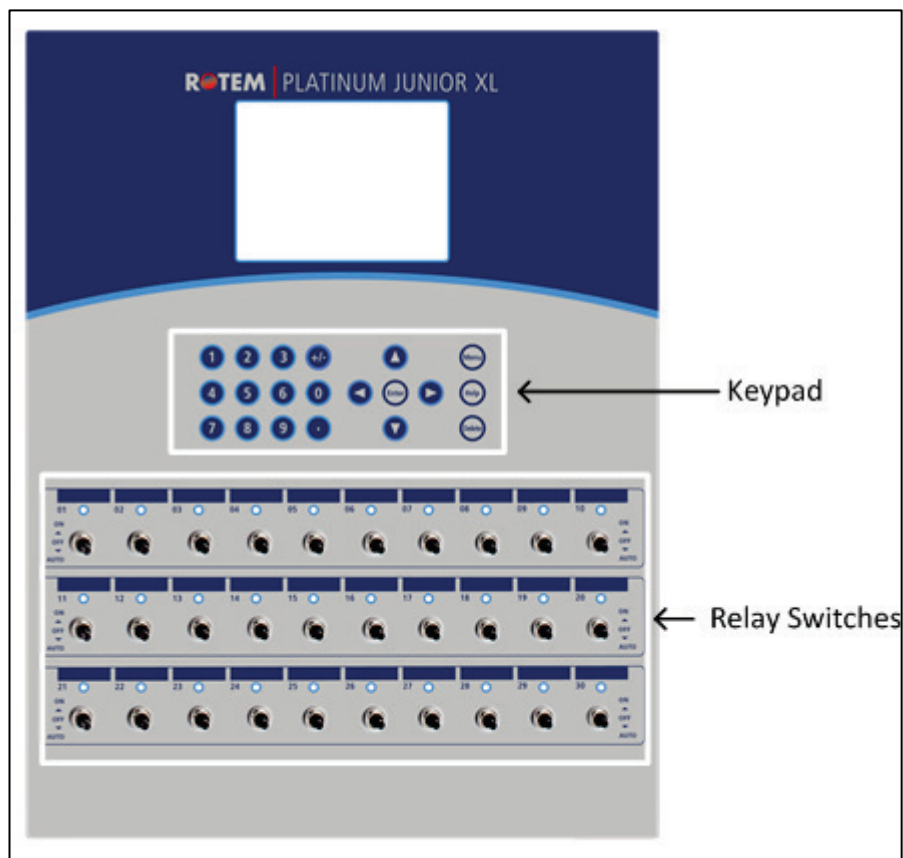


Figure 5: Platinum Junior XL Front Panel

The following sections detail the front panel elements.

## 2.3.1 Keypad

Menu

Enter main menu, also acts as "ESC" or "Back" keys

Help

Access help screens and graphs

Delete

Erase typing mistakes

Enter

Enter menus, values, open windows

▲

◀

Enter

▶

▼

Scroll up, down, left and right

1	2	3	+/-
4	5	6	0
7	8	9	.

Enter values, select options and make selections

+/-

Toggle between positive and negative values and mark check boxes.

**NOTE:** Only Platinum Versions 4.X (and higher) support the graphic view of historical data.



## 2.3.2 Relay Switches



**Figure 6: Standard Relay Switches**

Figure 6 illustrates a row of standard relay switches. Set each relay to:

- **On:** Always on
- **Off:** Always off
- **Auto:** The relay operates according to its set parameters.



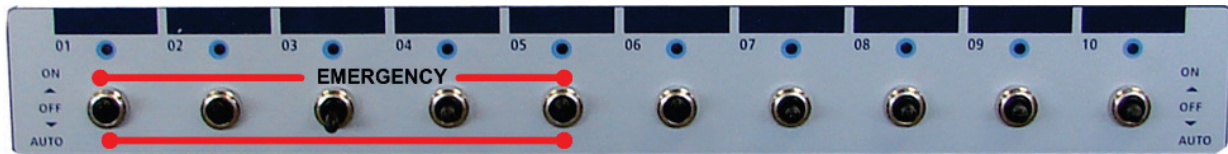


Figure 7: Emergency Relay Switches



Figure 8: Winch Switches

### 2.3.3 Hot Screens

Many of the keys serve as shortcuts. Here are the main ones:

-  Software version
-  Return to standard main screen
-  Temperature, Humidity Status, and Wind Chill Temperature
-  Curve Status
-  Curtain Position
-  Bird Scale and Feed Bin Status
-  Light Status
-  Analog Output Status
-  Lock password protected controller
-  Scan through Hot Screens for five seconds each
-  Air Status (refer to Weight Hot Screen, page 29 for details on this screen)



Feed Scale Status

**NOTE:** Increase/Decrease Offset from Temperature Setting from the Standard display only (hold both keys) – defined in the [TEMPERATURE CURVE HELP | SET](#)

**NOTE:** In Versions 3.06/4.06, if two humidity sensors are installed, Hot Screen 2 displays their average.



Increase/ decrease offset from temperature setting from the standard display only (hold both keys) – defined in the [TEMPERATURE CURVE HELP | SET](#)



## 2.3.4 Standard Display

The main screen consists of the following parts.

SENSORS		AV. TEMP.	ACTIVE	
Temp1	37.9°	27.5°	Heat	1
Temp2	16.2°		Heat. Hi	1
Temp3	28.2°		Tun. Fan	
E. Tmp1	28.8°		Exh. Fan	
E. Tmp2	28.4°		Stir	
Press.	23		Cool P.	
Out T.	23.9°		Fogger	
Hum. In	58.7%		Curt. 1	100%
Hum. Out	61.9%		Curt. 2	100%
Weight	0.000		Feeder	
Weights	0		Auger	
			Valve	
			Alarm	
4 MESSAGES				
(2) Low Feed At Bin 2				

1. Displays individual sensor readings. Temperature sensors marked with dark squares form the current average temperature.

- **Filled square:** Indicates the sensor participates in the average calculation.
- **Empty square:** Indicates the sensor does not participate in the average calculation.



SENSORS	
Temp1	37.9°
Temp2	16.2°
Temp3	28.2°
E. Tmp1	28.8°
E. Tmp2	28.4°
Press.	23
Out T.	23.9°
Hum. In	58.7%
Hum. Out	61.9%
Weight	0.000
Weights	0

**NOTE:** Go to Table 3: Sensor Readings page 94, to view all the possible sensors.

2. Reports the current average temperature. This example is in Celsius, but yours may be in Fahrenheit.

AV. TEMP
27.5°

3. Displays the output relay list. The filled black boxes indicate active outputs. Controller also informs the position of inlets and curtains, as well as the number of operating heaters or fans.

ACTIVE	
Heat	1
Heat. Hi	1
Tun. Fan	
Exh. Fan	
Stir	
Cool P.	
Fogger	
Curt. 1	100%
Curt. 2	100%
Feeder	
Auger	
Valve	

**NOTE:** Go to Table 4: Output List (Active), page 94 to view all the available readings (ACTIVE).

**NOTE:** The **ACTIVE** screen shows rectangular markers by the outputs. Filled rectangles indicate operating outputs; empty rectangles indicate outputs that are off.

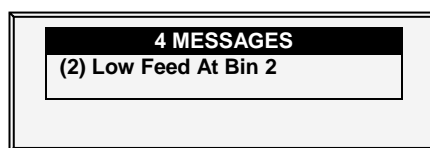
4. Status Window provides important general information such as the time and ventilation mode.

#### EXAMPLE

STATUS	
Time	08:53:06
Temp set to	Day: 2
Controller State	Set: 25.0
	Level: 3
	Min. Vent
	FanOff: 176
	Growth day
	Current level of ventilation
	Time until cycle ends operation

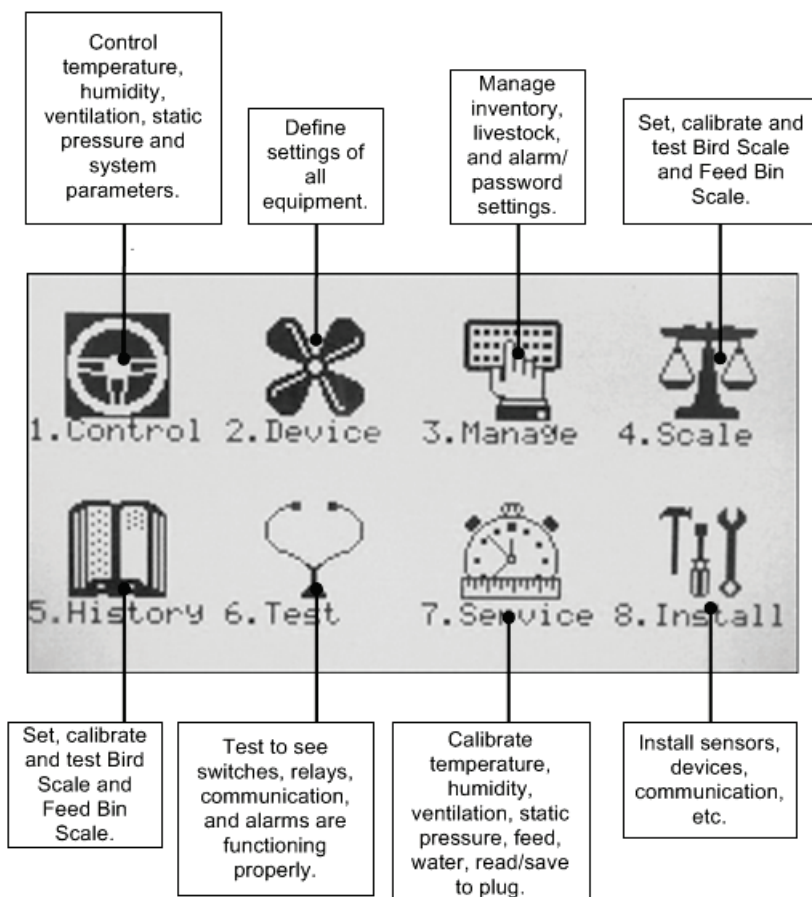
**NOTE:** Go to Table 3: Sensor Readings, page 94 to view all the available readings.

5. Displays important messages/alarms. The title bar displays the number of important messages, and if there are several messages, they each appear in turn.



## 2.3.5 Main Menu Icons

1. To enter the Main Menu screen, press **Menu**.
2. To select an option, press **Enter**.



## 2.4 Version History

The following section details the various versions of the Platinum Controllers mentioned in the manual.

**NOTE:** Only Platinum Versions 4.X (and higher) support the graphic view of historical data.

Version 3.02 supports:

- CO2 Treatment (refer to CO2 Treatment, page 23; CO2, page 68; Analog Sensors, page 90)

Version 3.03 supports:

- Light Sensor Support (refer to Light Help | Set Definitions, page 47; Light Sensor Calibration, page 78)
- Setting the light table based on feed/no feed days (refer to Light, page 45)
- Four water meters (refer to Digital Sensors, page 90)

Version 4.03 supports:



- Based on Version 3.03
- Current Sense Relays (refer to Relay Current, page 60; Power Consumption, page 70; Current Sense Relay Calibration)
- Version 4.04 supports:
- Ventilation by Weight (refer to By Weight, page 27)

Version 4.05 supports:

- Four variable speed stir fans (refer to Stir Fan Levels, page 38; Auger Empty Alarm, page 56)
- Feed calibration using Current Sense (refer to Feed Calibration, page 78; Feed, page 69)
- Four feed bins (refer to Feed Inventory, 53; Scale Layout, page 61; Feed, page 69; Feed Bin Calibration, page 67)
- Four auger and feed lines (refer to Output Function List, page 87)
- Four variable speed stir fan outputs (refer to Stir Fan Levels, page 38; Analog Output, page 91)
- 3 x Stir fan program controlled by sensor differentials or independent (refer to Stir Fan Program Help | Set Definitions Version 4.05, page 40)
- Wind chill hotkey

Version 3.06/4.06 supports:

- Water on Demand (refer to Water on Demand, page 52)
- Variable Heat Control (refer to Variable Heater Help | Set Definitions, page 21)
- Two humidity sensors

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**NOTE:** **Version 3.06** refers to Platinum Controllers equipped with an XA CPU. **Version 4.06** refers to Platinum Controllers equipped with an ARM CPU.

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## 3 CONTROL MENU

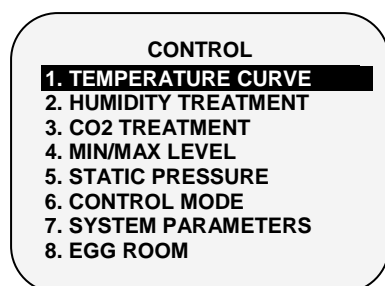
The following sections detail the following functions:

- Temperature Curve, page 18
- Humidity Treatment, page 22
- CO2 Treatment, page 23
- Min/Max Level, page 25
- Static Pressure, page 30
- Control Mode, page 32
- System Parameters, page 32

### 3.1 Temperature Curve

This screen sets the temperature targets according to the bird age.

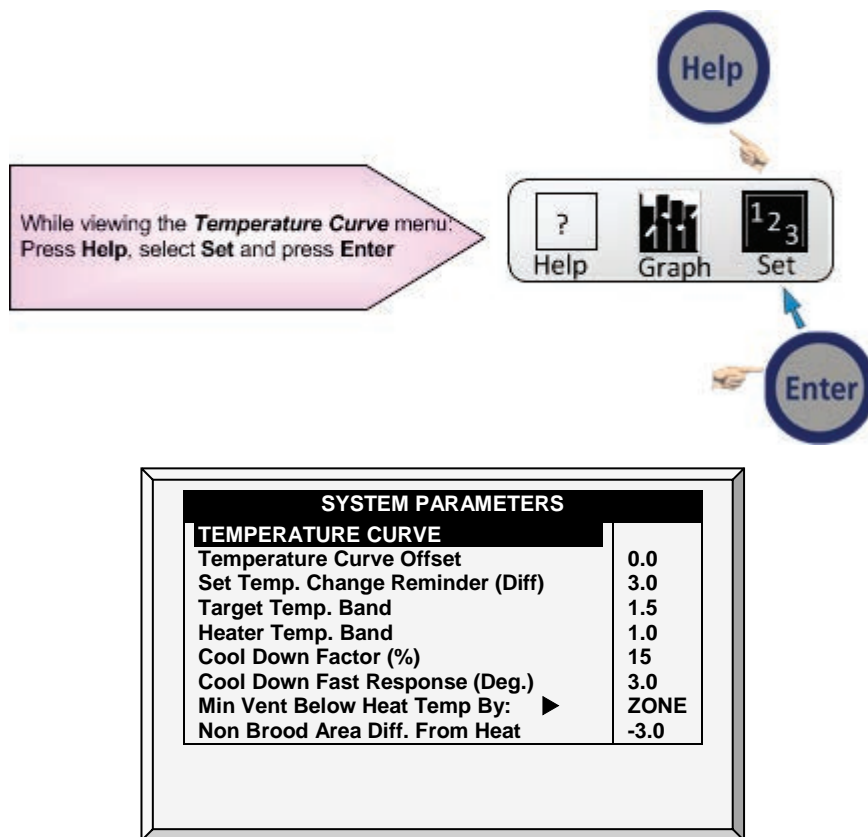
1. In *Install > Analog Sensors* (refer to Analog Sensors, page 90), designate the required number of sensors as temperature sensors. When using more than one sensor, Platinum begins treatments based on the average.
2. If required, go to *Service > Temperature Calibration*, calibrate the sensors (refer to Temperature Calibration, page 75).
3. In *Install > Temperature Definition* (refer to Temperature Definition, page 92), assign specific sensors brood setups, heater zones, and devices. If a zone does not have an assigned sensors, calculations are based on the current average temperature.
4. In *Control > Temperature Curve*, define the required target temperature curve
  - Set up to 20 lines, 999 growth days. When a curve is not required (for example when growing layers), enter temperatures in the first line only.
5. If required set the:
  - Temperature Curve Help | Set Definitions, page 19
  - Radiant Heaters Help | Set Definitions, page 20
  - Variable Heater Help | Set Definitions, page 21



TEMPERATURE CURVE					
Day	Target	Heat	Tunnel	Alarm	
				Low	High
1	89.0	89.0	100.0	84.0	102.0
2	89.0	89.0	99.0	84.0	102.0
3	87.0	87.0	97.0	82.0	95.0
7	84.0	83.0	91.0	80.0	95.0
15	82.0	81.0	89.0	78.0	93.0
21	79.0	78.0	86.0	75.0	90.0
28	76.0	74.0	81.0	71.0	87.0
35	72.0	70.0	77.0	67.0	84.0
42	70.0	68.0	75.0	63.0	83.0
48	68.0	66.0	73.0	60.0	83.0

- **Day:** Sets growth day. You can program negative growth days up to -2 for pre-warming. To enter a negative growth day, type the day number followed by the ± key.
- **Target:** Set the desired temperature.
- **Heat:** Set the temperature to stop heat.
- **Tunnel:** Set the temperature for Tunnel ventilation to begin.
- **Alarm Low & High:** Set average temperature alarm limits. See [Manage | Alarm Settings](#) for zone alarm settings.

### 3.1.1 Temperature Curve Help | Set Definitions



- **Temperature Curve Offset:** Adjusts all temperature curves by this amount. You can use this to temporarily adjust all temperatures up or down for special circumstances. The curve appears in the [Status Window](#), and you can use the [ENTER and Up](#) or [ENTER and Down](#) hot key combinations to change the offset.
- **Set Temp. Change Reminder (Diff):** Sets the change in set temperature that triggers a reminder for you to set backup thermostats. Often producers forget to set backup thermostats as their birds grow from baby chicks to market age, so the Platinum reminds you. When you press Enter to acknowledge the reminder, the Platinum logs it in the Table of Events.
- **Target Temp. Band:** The size of the target temperature zone. This "Happy Zone" is between Target Temperature and (Target Temperature + Band).
- **Heater Temp. Band:** Heaters turn on at 'Band' degrees below Heat, and turn off at the Heat Temperature.

**NOTE:** Heaters operate at minimum level only; however, Radiant Heaters can operate at any temperature or level below Tunnel.

- **Cool Down Factor (%):** Minimum percentage correction towards target during each increase [ventilation level delay](#). If average temperature does not improve by this amount, the Platinum increases ventilation by one level.
- **Cool Down Fast Response (Deg.):** Set a limit to the maximum degrees per minute of cooling. If Average Temperature drops more than this in one minute, the Platinum decreases ventilation one level to avoid overshooting.

**NOTE:** Avoid making this parameter too small or the normal temperature variation caused by timer fans reduces the ventilation level.

- **Min Vent Below Heat Temp By:** Tells controller to go directly to Min Level in some cases. Select from the following choices:
  - None: Operate by the normal level decrease time delay rule.

- Zone: Go directly to minimum level if any active temperature sensor reaches heat temperature.
- Avg.: Go directly to minimum level if the average temperature reaches heat temperature.
- **Non Brood Area Diff. From Heat:** Set differential temperature for non-brood heaters. You normally use this to set temperatures in unoccupied areas.

**NOTE:** When set at -99° F the heaters are effectively disabled, since it will probably never go to 99° F below the heater temperature. Putting this parameter at 0° sets the non-brood areas to the heater temperature.

## 3.1.2 Radiant Heaters Help | Set Definitions

SYSTEM PARAMETERS	
TEMPERATURE CURVE	
Temperature Curve Offset	0.0
Set Temp. Change Reminder (Diff)	3.0
Target Temp. Band	1.5
Heater Temp. Band	1.0
Cool Down Factor (%)	15
Cool Down Fast Response (Deg.)	3.0
Min Vent Below Heat Temp By:	ZONE
Non Brood Area Diff. From Heat	-3.0
RADIANT HEATERS	
Rad. Low -Diff from Heat Set	0.0
Rad. High -Diff (Below Low Set)	1.0
Radiant Ignition Time (sec)	30

### To configure the radiant heaters:

1. In *Installation > Relay Layout* define at least one relay as a radiant heater (Relay Layout, page 87).
2. Configure the following parameters:
  - **Radiant Low – Differential from Heat Set:** Set degree of difference from Heat for LOW Radiant Heaters to begin working. This differential can be positive or negative. (default: 2.0)
  - **Radiant High – Differential (Below Low Set):** Set number of degrees below Radiant Low Heaters for HIGH Radiant Heaters to begin working (default: 1.0). To ensure proper heater ignition, Radiant High Heaters remain on for the Radiant Ignition Time along with the Radiant Low Heaters.
  - **Radiant Ignition Time (sec):** Set number of seconds to power radiant ignition (default: 30).

**NOTE:** The Heater Temperature Band applies to radiant heaters as well. For example, if the Heat Temperature is 80° F and the Heater Temperature Band is 1° F, then heaters turn on at 79° F and off at 80° F. If the Radiant Low Differential is at 2.0° F, then radiant heaters turn off at 82° F, and on 1° F below that at 81° F. However, a Radiant High Heater turns on regardless of its temperature setting for the Radiant Ignition Time whenever the corresponding Radiant Low Heater turns on. This feature ensures proper flame ignition.



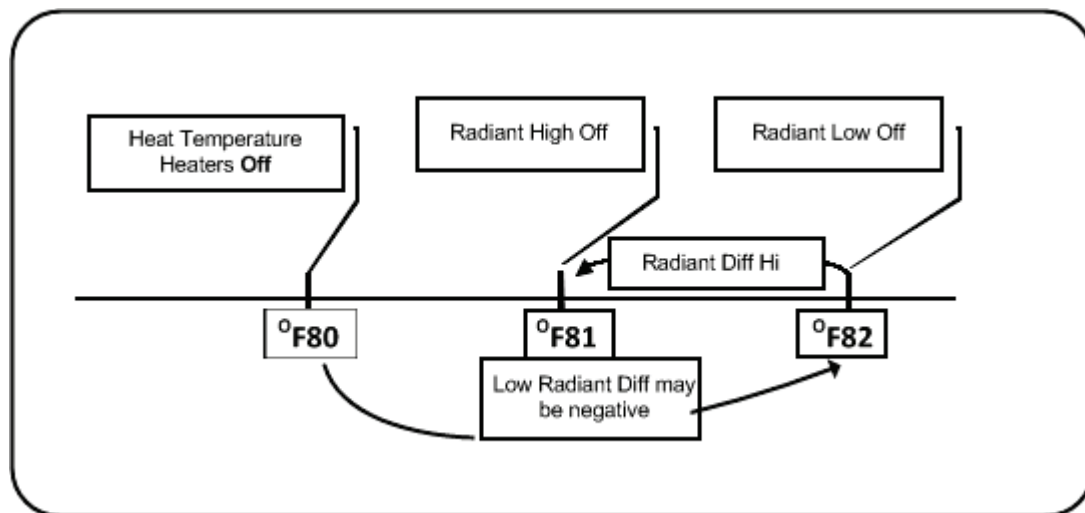


Figure 9: Radiant Heater Differentials

### 3.1.3 Variable Heater Help | Set Definitions

SYSTEM PARAMETERS	
Target Temp. Band	1.5
Heater Temp. Band	1.0
Cool Down Factor (%)	15
Cool Down Fast Response (Deg.)	3.0
Min Vent Below Heat Temp By: ►	ZONE
Non Brood Area Diff. From Heat	-3.0
RADIANT HEATERS	
Rad. Low -Diff from Heat Set	0.0
Rad. High -Diff (Below Low Set)	1.0
Radiant Ignition Time (sec)	30
VARIABLE HEATER	
Low Diff Below Heat	0.5
High Diff Below Heat	4.5

The Platinum Controller enables configuring up to eight variable heaters. The output of the heaters changes as the temperature increases or decreases.

#### To configure the variable heaters:

1. In *Installation > Analog Output* configure:
  - a. up to eight analog outputs as variable heaters
  - b. the minimum and maximum voltage output for each heater

ANALOG OUTPUT			
Out No.	Output Function	Min V. Out	Max V. Out
1	Var. Heater 1	1.0	10.0
2	Var. Heater 2	1.0	10.0
3	Var. Heater 3	1.0	10.0
4	Var. Heater 4	1.0	10.0
5	Var. Heater 5	1.0	10.0
6	Var. Heater 6	1.0	10.0
7	Var. Heater 7	1.0	10.0
8	Var. Heater 8	1.0	10.0

2. In *Control > Temperature Curve > Help*, scroll down to Variable Heater. Configure the
  - **Low Diff Below Heat Tmp**: Temperature at which the variable heater begins to function.
  - **High Diff Below Heat Tmp**: Temperature at which the heater begins to operate at maximum output.

Figure 10 illustrates how a variable heater functions. The Target Temperature is 89° F. The Low Diff Below Heat Tmp is 0.5°, the High Diff Below Heat Tmp is 4.5°.

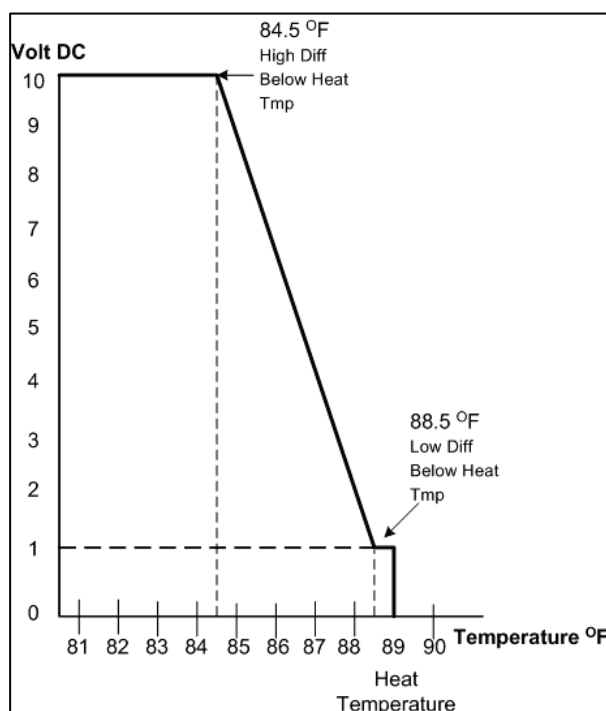


Figure 10: Variable Heater Example

## 3.2 Humidity Treatment

Humidity treatment forces an increase in ventilation level when the humidity is too high. It holds the increase for 'Duration Seconds', and checks back after 'Interval Minutes' for another increase. After the duration, the ventilation level comes back down automatically.

1. In *Install > Analog Sensors* (refer to Analog Sensors, page 90), designate up one or two sensors as indoor humidity sensors (outdoor sensor is for information only). When using more than one sensor, Platinum begins treatments based on the average.
2. If required, go to *Service > Humidity Calibration*, and calibrate the sensors (refer to Humidity Calibration, page 76).
3. In *Control > Humidity Treatment* set the parameters as required.

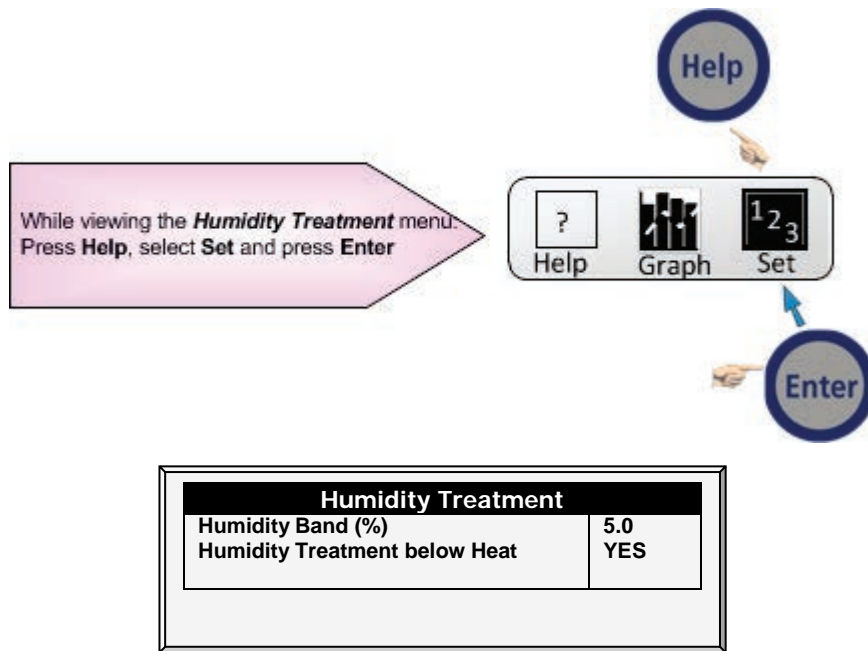
CONTROL
1. TEMPERATURE CURVE
<b>2. HUMIDITY TREATMENT</b>
3. CO2 TREATMENT
4. MIN/MAX LEVEL
5. STATIC PRESSURE
6. CONTROL MODE
7. SYSTEM PARAMETERS
8. EGG ROOM

HUMIDITY TREATMENT			
Day	Humidity	Delay (Min)	Duration (sec.)
1	70	10	130
7	75	7	150
14	80	5	180
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

- **Day:** Growth day. Can set multiple programs for same day (Maximum number of programs: 20)
- **Humidity:** Humidity at which to begin treatment
- **Delay Minute:** Amount of time the controller pauses before ventilating
- **Duration Seconds:** Number of seconds the controller maintains the increased level of ventilation



### 3.2.1 Humidity Treatment Help | Set Definitions



- **Humidity Band (%):** Hysteresis band for Humidity Treatment.
- **Humidity Treatment below Heat:** Select **YES** or **NO** for allowing Humidity Treatment when heaters are operating (set in [CONTROL | Temperature Curve](#)).

**NOTE:** The specification defined in Humidity and CO2 Fan also appears in CO2 Treatment. If there is a difference in the humidity and CO2 treatments' duration time, Platinum runs the more vigorous. For example, if the duration of one treatment is 60 seconds and the other is 120 seconds, Platinum runs the treatment for 120 seconds.

## 3.3 CO2 Treatment

**NOTE:** Versions 3.02 and higher support this feature.

CO2 treatment forces an increase in ventilation level when the CO2 level is too high. It holds the increase for 'Delay Seconds', and checks back after 'Interval Minutes' for another increase. After the duration, the ventilation level may come back down automatically.

If during treatment, the CO2 level drops below the **Stop Value** parameter, the ventilation level automatically returns to that level used before CO2 treatment was initiated.

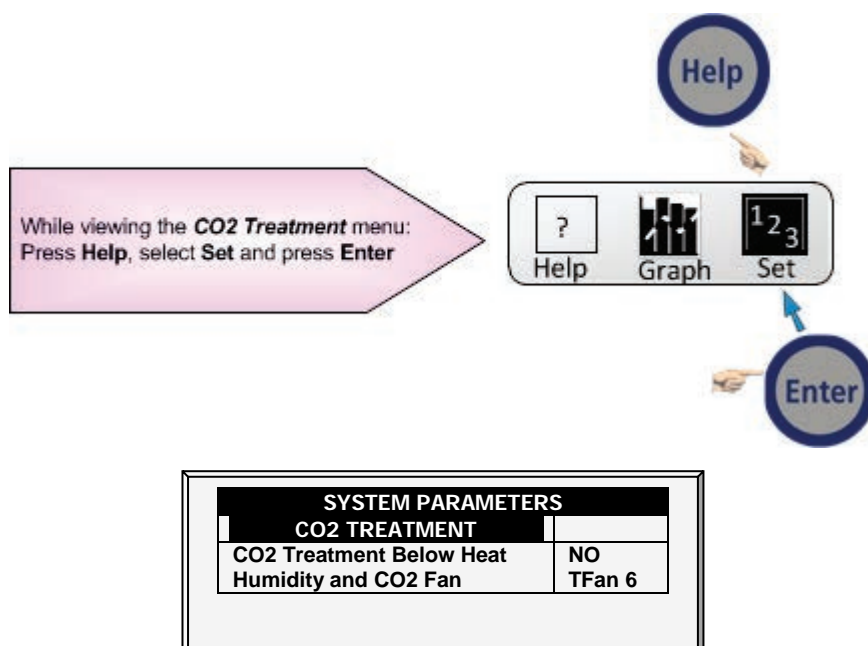
1. In *Install* > *Analog Sensors* (refer to Analog Sensors, page 90), designate one sensor as a CO2 sensor.
2. If required, go to *Service* > *CO2 Calibration*, calibrate the sensors (refer to Analog Sensors, page 90).
3. In *Control* > *CO2 Treatment* set the parameters as required.

CONTROL	
1. TEMPERATURE CURVE	
2. HUMIDITY TREATMENT	
<b>3. CO2 TREATMENT</b>	
4. MIN/MAX LEVEL	
5. STATIC PRESSURE	
6. CONTROL MODE	
7. SYSTEM PARAMETERS	
8. EGG ROOM	

CO2 TREATMENT				
Day	Start Value	Stop Value	Delay (Sec)	Duration Sec.
1	3000	2500	120	130
7	2700	2200	120	150
14	2500	2000	90	180
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

- **Day:** Growth day. You can set multiple programs for same day (maximum number of programs: 20)
- **Start Value:** CO2 value at which to begin treatment
- **Stop Value:** CO2 value at which to end treatment
- **Delay (Sec):** Number of seconds the controller pauses before ventilating
- **Duration (Sec):** Number of seconds the controller maintains the increased level of ventilation

### 3.3.1 CO2 Treatment Help | Set Definitions

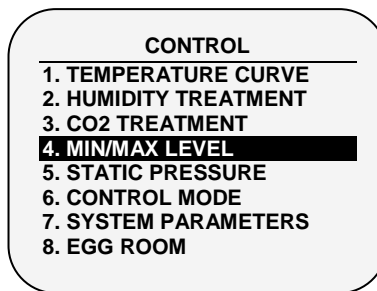


- **CO2 Treatment below Heat:** Select **YES** or **NO** to enable CO2 treatment when heaters are operating (set in [CONTROL | Temperature Curve](#)).





## 3.4 Min/Max Level



➡ **IMPORTANT:** Before setting Min/Max level, go through and set up the Device Settings, especially the [ventilation levels](#).

Once you have entered the ventilation levels, use the Min/Max to select the range of levels to apply to your situation. Typically, Platinum increases the minimum ventilation level as litter conditions deteriorate and the birds require greater amounts of fresh air. You can also restrict the maximum level to prevent excess airflow on young birds.

Set the Min/Max levels using one of the following

- By Day and By Days Curve
- By Time
- Day Soft Min.
- By Weight

➡ To select the method employed, go to Control Mode, page 32.

### 3.4.1 By Day and By Days Curve

MIN/MAX LEVEL		
Day	Min	Max
1	1	16
3	2	16
6	3	16
10	4	16
14	5	21
21	6	21
35	7	21
0	0	0
0	0	0
0	0	0

- **Day:** Set growth day
- **Min:** Set minimum ventilation level for controller
- **Max:** Set maximum ventilation level for controller
  - BY DAYS CURVE generates an incremental increase/decrease between the defined days
  - BY DAYS simply operates according to the min/max values of the day until the following day defined is reached.

### 3.4.2 By Time

MIN/MAX LEVEL		
From	Min	Max
06:00	1	6
10:00	4	8
13:00	6	12
18:00	8	15
21:00	1	3
00:00	0	0
00:00	0	0
00:00	0	0
00:00	0	0
00:00	0	0

- **From:** Set time of day (hh:mm) in 24 hour format
- **Min:** Set minimum ventilation level for controller
- **Max:** Set maximum ventilation level for controller

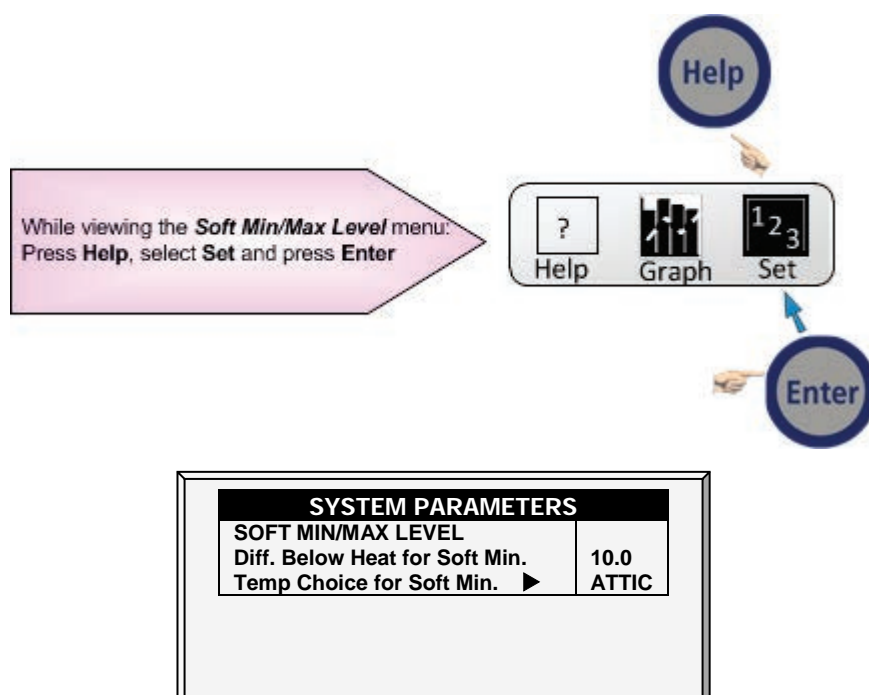
### 3.4.3 Day Soft Min.

SOFT MIN/MAX LEVEL			
Day	Min Soft	Min	Max
1	1	11	16
3	2	11	16
6	3	11	16
10	4	11	16
14	5	11	21
21	6	11	21
35	7	11	21
0	0	0	0
0	0	0	0
0	0	0	0

- **Day:** Set growth day
- **Min Soft:** Set minimum ventilation level for when temperature drops below heat temperature
- **Min:** Set minimum ventilation level for when temperature is above heat temperature
- **Max:** Set maximum ventilation level for controller



### 3.4.3.1 Soft Min/Max Level Help / Set Definitions



- **Differential Below Heat for Soft Min:** Set the degree of difference from heat temperature (set in [CONTROL | Temperature Curve](#)) to switch minimum level from **Min.** to **Soft Min.**
- **Temp Choice for Soft Min:** Select inside/outside/attic temperature to control Minimum Level changes. The minimum level adjusts towards the Soft Min as this temperature falls. Above the heat temperature, the minimum level is at the Min setting.

As temperature rises, **INSIDE** and **ATTIC** stay at lowest ventilation level reached until average temperature gets to the heat setting, and then changes instantly. With the **OUTSIDE** selection, the minimum ventilation level increases gradually as temperature rises to the heat setting. This means inside and attic soft min vent choices to latch to the lowest level reached as long as the temperature remains below the heat setting.

### 3.4.4 By Weight

The By Weight option enables controlling the minimum air flow depending on the number of birds, their weight and the current outside temperature. When using the Weight option, Platinum takes several parameters and calculates the air speed, level of ventilation and cycle time needed to supply the required volume. As opposed to the other ventilation methods, the Weight option is dynamic, with the ventilation changing according to the current parameters (quantity of air required, weight of birds and number of birds, outside air temperature). In addition, Ventilation By Weight sends out an alarm if the current ventilation is below the minimum required level.

**NOTE:** This option is available in Version 4.04 and higher.

#### To set up the Weight Option:

1. In the *Install > Setup* menu (page 86) enable Minimum Vent (Power).
2. In the *Install > Fan Air Capacity* menu, define the air capacity / hour (page 92).
3. In the *Scale > General Setting* menu, select the curve.
4. In the *Scale > Bird Curve menu*, define the growth days and weights as required.
5. In the *Control > Control Mode > Min. Max Level Control* menu, select **Weight**.
6. In the *Control > Min/Max Level* menu, set the parameters as required.

SOFT MIN/MAX LEVEL BY WEIGHT (OUT TEMP)				
Day	Min Level	Air Per Kg/Lb		Max Level
		Cold	Warm	
1	1	0.5	1.5	16
3	1	0.5	1.5	16
6	1	0.5	1.5	16
10	4	1.1	1.7	16
12	4	1.1	1.7	21
15	7	1.1	1.7	21
17	7	1.1	1.7	21
19	7	1.1	1.7	21
21	7	1.1	1.7	21
350	70	0	1.7	22

- **Day:** Set growth day
- **Minimum Level:** Set the minimum level of ventilation (refer to Levels of Ventilation, page 34)
- **Air Per Kg/Lb:** Volume of air per kilogram/pound per hour per bird.
  - Cold: Volume of air supplied when the outside temperature goes down to the *Cold Temperature* parameter (see the following section).
  - Warm: Volume of air supplied when the outside temperature reaches *Warm Temp. – Diff Below Heat* (see the following section).

**NOTE:** As the level rises between days (for example between day 6 and day 10 in the screen above), the air volume rises proportionally each day, once a day. For example, on Day 7, the Cold Air per Kg/Lb rises to 0.65; on Day 8, 0.8 and so on.

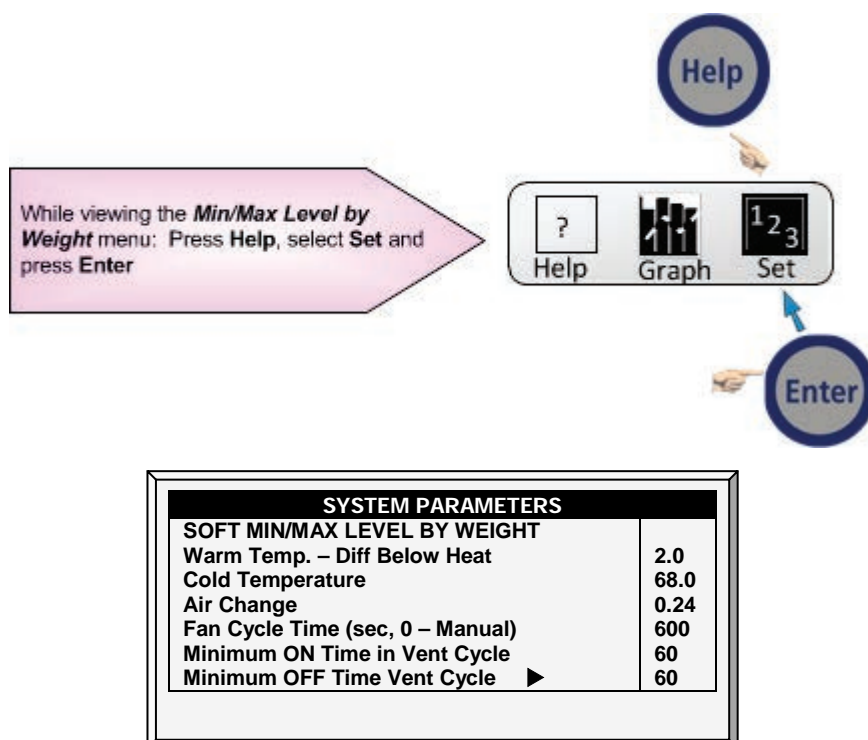
- **Maximum Level:** Set the maximum level of ventilation (refer to Levels of Ventilation, page 34).

7. In the *Management > Bird Inventory* menu, type the number of birds.

8. In the Help menu, define the parameters as required.

Ventilation by Weight is configured.

### 3.4.4.1 Min/Max Level By Weight Help / Set Definitions



- **Warm Temperature – Difference Below Heat:** Differential below the heat temperature (refer to Temperature Curve, page 18) that defines outside temperature as Warm in the Soft Min/Max table. For example, if the Heat Temperature is 78° F, Warm Temp. – Diff Below Heat is 2.0, then the outside temperature is defined as warm at 76° F.
- **Cold Temperature:** Outside temperature (or below) at which Air per Kg/Lb (Cold) capacity is reached.

When the outside temperature is between the Warm and Cold Temperature, the flow rate is calculated at a proportional rate.

- **Air Change:** As the temperature rises from the Cold Temperature parameter to the Heat Temperature (or drops from the Heat Temperature to the Cold Temperature parameter), the minimal air volume rises/falls proportionally. Air Change defines the minimal change in air temperature that must takes place to cause a change in the air supply.
- **Fan Cycle Time:** The total amount of time that the fans operate while operating under Minimum Ventilation. During this time, the fans supply the required volume of air at the minimum ventilation level required. Platinum adjusts the minimum ON time and OFF time as needed. If the fans cannot supply the required volume at a particular level of ventilation, Platinum automatically adjusts the minimum ventilation level.
  - Minimum ON Time in Vent Cycle: The minimum amount of time that the fans operate during a cycle. Platinum adjusts the actual fan time as needed.
  - Minimum OFF Time in Vent Cycle: The minimum amount of time that the fans do not operate during a cycle. Platinum adjusts the actual fan time as needed.

As the temperature rises, the actual Minimum OFF Time decreases until it reaches the minimum time. Only than does the Minimum On Time begin to rise.

**NOTE:** If the temperature goes about the Band Temperature, Power Ventilation begins and times are adjusted accordingly.

### 3.4.4.2 Weight Hot Screen

Selecting the Ventilation by Weight option enables an additional Hot Screen, the Air Status Screen. This screen displays the critical parameters involved in the Ventilation by Weight option.

AIR STATUS				
Inside Temp		24.1		
Outside Temp		21.3		
Humidity		46.7%		
Weight KG		0.468		
		Current	Min	Max
Level		2	1	2
Cycle On		30	30	30
Cycle Off		98	134	66
Total Air	M3/h	8347	6552	11232
M3/h				
Air/WGT	M3h/kg	0.9	0.7	1.20

- **Inside Temperature:** Current temperature inside the house
- **Outside Temperature:** Current temperature outside the house
- **Humidity:** Current relative humidity inside the house (requires a humidity sensor)
- **Weight KG:** Current average weight of the Bird Curve (page 64)
- **Level:** Displays the current, minimum and maximum level of ventilation.

**NOTE:** If the current level is below the minimum required level, Platinum displays an alarm "Below Min Air".

- **Cycle On/Off:** Displays the current, minimum and maximum fan on and off times.

- **Total Air M3/h:** Displays the current, minimum and maximum quantity of ventilation, per hour.
- **Air/WGT:** Displays the current amount of ventilation, per kilo/pound of bird weight.

## 3.5 Static Pressure

Set target parameters for Static Pressure at High and Low Outside Temperatures, as well as alarms for high and low static pressure.

- Refer to Static Pressure Calibration, page 77 and Static Pressure, page 73.

CONTROL
1. TEMPERATURE CURVE
2. HUMIDITY TREATMENT
3. CO2 TREATMENT
4. MIN/MAX LEVEL
<b>5. STATIC PRESSURE</b>
6. CONTROL MODE
7. SYSTEM PARAMETERS
8. EGG ROOM

STATIC PRESSURE	
<b>Minimum Ventilation</b>	
S.Press. At Low Temperature	0.120
S.Press. At High Temperature	0.080
Low Static Pressure Alarm	0.010
High Static Pressure Alarm	0.150
Static Pressure Band	0.040
<b>Tunnel Ventilation</b>	
Target Static Pressure	0.080
Low Static Pressure Alarm	0.010
High Static Pressure Alarm	0.150
Static Pressure Band	0.040
<b>Attic</b>	
Target Static Pressure	0.050

### Minimum Ventilation

- **Static Pressure at Low Temperature:** Set desired static pressure for low outside temperature conditions. Be sure that there is proper airflow at this setting.
- **Static Pressure at High Temperature:** Set desired static pressure for high temperature conditions. Normally this pressure is lower to obtain a larger air inlet opening.

**NOTE:** Controller interpolates between the LOW and HIGH Temp. If Static Pressure exists, then it is controlled by the outside temperature sensor, otherwise the average temperature.

- **Low Static Pressure Alarm:** Set alarm for low static pressure. If you disable it by setting zero, the Platinum warns you and enters a record in the Table of Events.
- **High Static Pressure Alarm:** Set alarm for high static pressure.
- **Static Pressure Band:** Set desired band for the target pressure.

### Tunnel Ventilation

- **Target Static Pressure:** Set required Static Pressure for Tunnel Ventilation Mode.
- **Low Static Pressure Alarm:** Set alarm for low static pressure.
- **High Static Pressure Alarm:** Set alarm for high static pressure.
- **Static Pressure Band:** Set required band for pressure in tunnel ventilation mode.

### Attic

- **Target Static Pressure:** Set required Static Pressure when in attic mode.
- **Static Pressure Band:** Set required band for attic ventilation mode.

### 3.5.1 Disabling the Static Pressure Sensor

To disable the static pressure sensor:

1. Go to *Installation > Setup*.
2. Set the Static Pressure Unit to **None**.



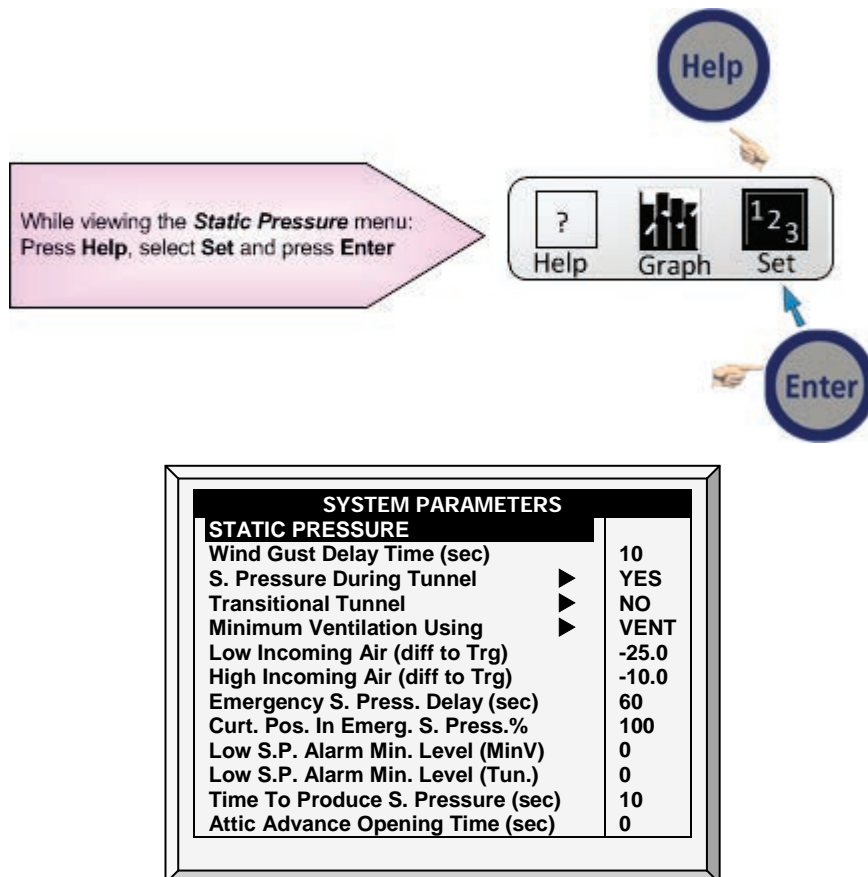


The main screen stops:

- displaying the pressure
- displaying High Pressure and Pressure Sensor Failure alarms

**NOTE:** If either of these alarms were active before disabling the sensor, the main screen continues to display the alarms. Reset the alarms one time to cease the display.

### 3.5.2 Static Pressure Help | Set Definitions



- **Wind Gust Delay Time (seconds):** Set length of time in seconds before starting Static Pressure control after an unexpected change in air pressure.
- **Static Pressure During Tunnel:** Select **YES** or **NO** for using Static Pressure control when in Tunnel mode.
- **Transitional Tunnel:** Select **YES** or **NO** for using tunnel curtains when static pressure is high and vents are already at 100%.
- **Minimum Ventilation Using (vent/curtain):** Select **VENT** or **CURTAIN** for controlling static pressure when in minimum ventilation.
- **Low Incoming Air (Difference to Trigger):** Define low temperature for static pressure control.
- **High Incoming Air (Difference to Trigger):** Define high temperature for static pressure control.
- **Emergency Static Pressure Delay (seconds):** Set length of time in seconds before initiating an emergency opening when pressure exceeds high alarm setting.
- **Curtain Position in Emergency Static Pressure (%):** Set the desired curtain position (in percentage) when an emergency pressure event occurs.
- **Low Static Pressure Alarm Minimum Level (MinV):** Below this level, the controller ignores low static pressure alarms.
- **Low Static Pressure Alarm Min. Level (Tunnel):** Below this level, the controller ignores low static pressure alarms while in tunnel mode.

- **Time to Produce Static Pressure (seconds):** Enter the length of time to reach target pressure when minimum ventilation fan cycle is on.
- **Attic Advance Opening Time (seconds):** Define the amount of time for the attic inlets to open before minimum vent cycling fans turn on.

### 3.6 Control Mode

Select house-operating modes, turn temperature curves on or off and select which type of min/max CO2 level method to use.

CONTROL MODE	
House Mode	FULL
Empty House Mode	HOUSE
Temperature Curve	HOUSE
Min. Max. Level Control	BY WEIGHT

- **House Mode:** Select whether the house is in one of the brood set ups, or in full house.
- **Empty House Mode:** Select YES in order to disable alarms.
- **Temperature Curve:** If you select OFF, temperature settings become fixed values until midnight on the next setting in [CONTROL | Temperature Curve](#) (page 18).
- **Min. Max. Level Control:** Set ventilation control method (By Days, By Days Curve, By Time, By Soft Min, and Weight). Refer to Min/Max Level, page 25 for more details)

### 3.7 System Parameters

System Parameters consolidates all of the **HELP | SET** menus into one scroll screen.

CONTROL
1. TEMPERATURE CURVE
2. HUMIDITY TREATMENT
3. CO2 LEVEL
4. MIN/MAX LEVEL
5. STATIC PRESSURE
6. CONTROL MODE
<b>7. SYSTEM PARAMETERS</b>
8. EGG ROOM

SYSTEM PARAMETER	PAGE
Temperature Curve Help   Set	19
Radiant Heaters Help   Set	20
Humidity Treatment Help   Set	23
Day Soft Min.	27
Disabling the Static Pressure Sensor	30
Levels of Ventilation Help   Set	35
Vent & Curtain Levels Help   Set	37
Cool Pad Help   Set	43
Foggers Help   Set	45
Light Help   Set	47
Feed Inventory Help   Set	54
Emergency Setting Help   Set	51
Alarm Setting Help   Set	57



## 4 DEVICE MENU

The Platinum can have many closely spaced levels of ventilation enabling it to find the optimum average airflow for the poultry facility. Many of the levels are at exactly the same temperature setting, so there may be a question as to how the Platinum chooses the correct level.

The menus in this section apply levels to ventilation, variable speed fans, curtains and so on. The levels in the various menus are consistent with each other so that a level in one menu corresponds with that level in any other menu.

The rules that apply here are:

- **Rule 1:** If the temperature is at target (in the Happy Zone) stay at the current level.
- **Rule 2:** If the temperature moves outside the Happy Zone; have some patience.
- **Rule 3:** After some patience increase or decrease level appropriately.

You can find the 'patience' factors under [HELP | SET](#) in this menu. They are the *increase level delay* and *decrease level delay* parameters. The factory default values are 180 seconds for an increase and 60 seconds for a decrease.

The factory default values bias the Platinum slightly toward warmer temperatures, as would be appropriate for young birds. The level increase delay is longer than the level decrease delay. You may wish to reverse these values by the time you have market age broilers, since they are more sensitive to heat stress than to cold.

Although many of the levels have 0.0 differential temperatures, certain levels should have differentials to account for wind chill on the birds. The first tunnel level accounts for wind chill by switching to the tunnel temperature instead of target temperature. Higher tunnel levels require an additional wind chill because of the increased airflow.

In addition, the last few levels before entering tunnel can form a transitional region. You may want to build differentials from target temperature just before the first tunnel level.

The controller obeys both the time delay rules and the differential temperature rules when changing levels. Tunnel exit has several additional rules, such as outside temperature restriction and the tunnel exit delay described under [HELP | SET](#). In addition, there are Cool Down and change to Min Vent on reaching the Heat temperature features described in [Control | Temperature Curve | HELP | Set](#) parameters.

The following sections detail the menu functions.

- Levels of Ventilation, page 34
- Variable Speed Fan Levels, page 36
- Vent & Curtain Levels, page 36
- Stir Fan Levels, page 38
- Stir Fan Program, page 39
- Cool Pad, page 42
- Foggers, page 44
- Light, page 45
- Water & Feed, page 48
- Extra Systems, page 49
- Emergency Setting, page 50
- Water on Demand, page 52

## 4.1 Levels of Ventilation

The Precision Ventilation table provides up to 30 ventilation levels. To program this table, start with the minimum ventilation used in the first level and increase ventilation gradually. A reasonable rule of thumb is to increase the airflow about 25% at each level. Increases in airflow up to 50% work satisfactorily with factory default settings.

1. In *Install > Relay Outlet*, define at least one relay as a Tunnel Fan or Exhaust Fan.
2. In *Device Setting > Levels of Ventilation* configure the parameters as required.
3. Configure the Help Set parameters as required.

**DEVICE SETTING**

**1. LEVELS OF VENTILATION**

2. SPEED FAN LEVELS

3. VENT & CURTAIN LEVELS

4. STIR FAN LEVELS

5. STIR FAN PROGRAM

6. COOL PAD

7. FOGGERS

8. LIGHT

9. WATER & FEED

10. EXTRA SYSTEMS

11. EMERGENCY SETTING

12. WATER ON DEMAND

13. FEED PLAN

LEVELS OF VENTILATION																			
No	Diff Deg.	On Sec	Exhaust			Tunnel													
			1	2	3	1	2	3	4	5	6	7	8	9	0	1	2		
1	0.0	30																	
2	0.0	40																	
3	0.0	50																	
4	0.0	65																	
5	0.0	80																	
6	0.0	100																	
7	0.0	125																	

Air Capacity: 300

Chill Range: ---

-Continuous

-Cycle

-Rotate

Tunnel Level: **1**

1. **Ventilation Level:** Read-only
2. **Differential Temperature:** Triggers next level according to difference from target temperature (time delays remain in effect).
  - a) The first several levels normally have differential temperatures set to 0.
  - b) If the ventilation level is below tunnel, the differential temperature is relative to the Target temperature given in [CONTROL | Temperature Curve](#).
  - c) If the ventilation level is a tunnel level, the differential temperature is relative to the Tunnel temperature given in [CONTROL | Temperature Curve](#).
3. **Cycle timer ON:** Set ON time for fans for that ventilation level.
4. **Cycle timer OFF:** Set OFF time for fans of that ventilation level. This parameter disappears if cycle time is set in the [HELP | SET](#) Parameters to something other than 0 and the controller calculates the "Cycle timer OFF" automatically.
5. **Exhaust:** Control exhaust fans according to **Continuous, Cycle, and Rotate**.
6. **Tunnel:** Control tunnel fans according to Continuous, Cycle, and Rotate.



**Continuous:** Works constantly without a break



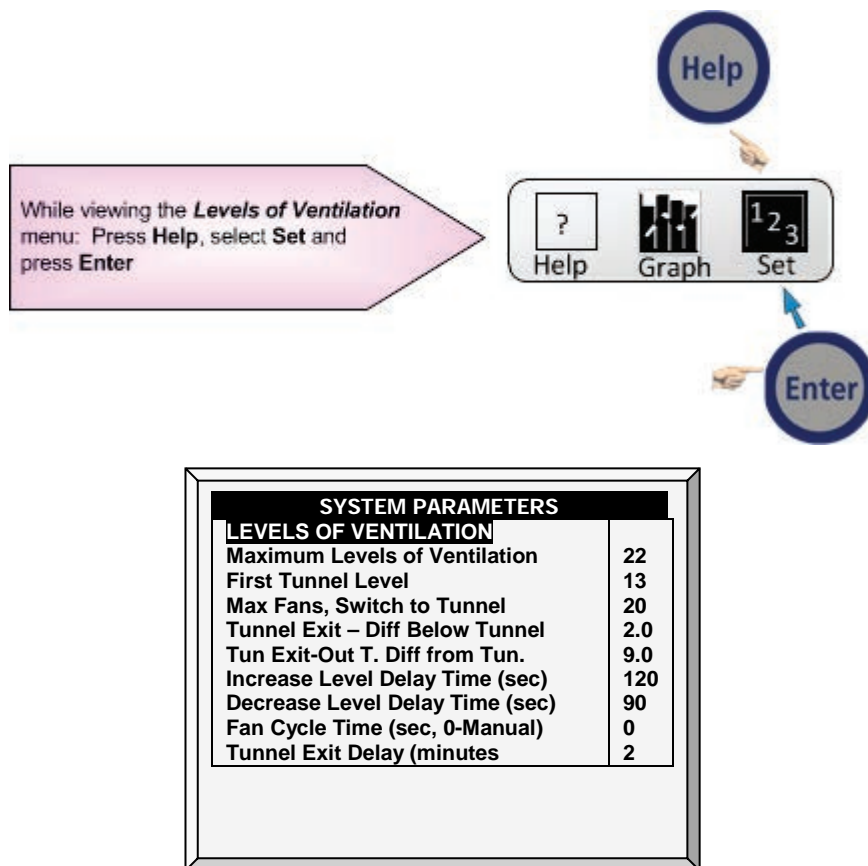
**Cycle:** Operates according to ON/OFF timer



**Rotate:** Operates according to ON/OFF timer; in each cycle a different fan operates



### 4.1.1 Levels of Ventilation Help | Set Definitions



- **Maximum Levels of Ventilation:** Set the maximum number of levels.
- **First Tunnel Level:** Set the entry point to tunnel mode.
- **Max Fans, Switch to Tunnel:** Set the maximum number of fans allowed to operate when entering tunnel mode.
- **Tunnel Exit – Differential Below Tunnel:** Set degree of difference below Tunnel temperature (set in [CONTROL | Temperature Curve](#)) to Exit Tunnel mode.
- **Tunnel Exit – Outside Differential from Tunnel:** The outside temperature must read below this (Tunnel + Differential) to allow exiting from tunnel mode.
- **Increase Level Delay Time (sec):** Set length of time in seconds before transitioning to next level.
- **Decrease Level Delay Time (sec):** Set length of time in seconds before transitioning to lower level.
- **Fan Cycle Time (sec):** If set to 0, set on and off times for each level manually. If you are using a fixed cycle time, such as 300 seconds, enter it here and enter only the **On** time at each level. Default: 0
- **Tunnel Exit Delay (minutes):** Set length of time in minutes before exiting Tunnel mode. This time begins once all other parameters are satisfied.

## 4.2 Variable Speed Fan Levels

In the Variable Speed Fan Level table you set the speed in percentages for up to four groups of fans by level

1. In *Install > Analog Output* (refer to Analog Output, page 91), define at least one output as a variable speed fan.
2. In *Device Setting > V. Speed Fan Levels*, define the fans' working percentages.

DEVICE SETTING	
1. LEVELS OF VENTILATION	
<b>2. V. SPEED FAN LEVELS</b>	
3. VENT & CURTAIN LEVELS	
4. STIR FAN LEVELS	
5. STIR FAN PROGRAM	
6. COOL PAD	
7. FOGGERS	
8. LIGHT	
9. WATER & FEED	
10. EXTRA SYSTEMS	
11. EMERGENCY SETTING	
12. WATER ON DEMAND	

VARIABLE SPEED FAN LEVEL				
Level	-1-	-2-	-3-	-4-
1	30	30	30	30
2	45	30	30	30
3	30	30	45	45
4	45	45	45	30
5	45	60	45	60
6	60	60	60	60
7	60	75	60	75
8	75	75	75	75
9	90	90	90	90
10	100	90	100	90

- ➡ This function requires an Analog Output card in the controller. This card sends a low voltage control signal to a Variable Speed controller to run the variable speed fan. Several kinds of speed controllers are available, such as TRIAC Control, and Variable Frequency 3 Phase drives.

## 4.3 Vent & Curtain Levels

Set the curtain levels to correspond with the ventilation levels.

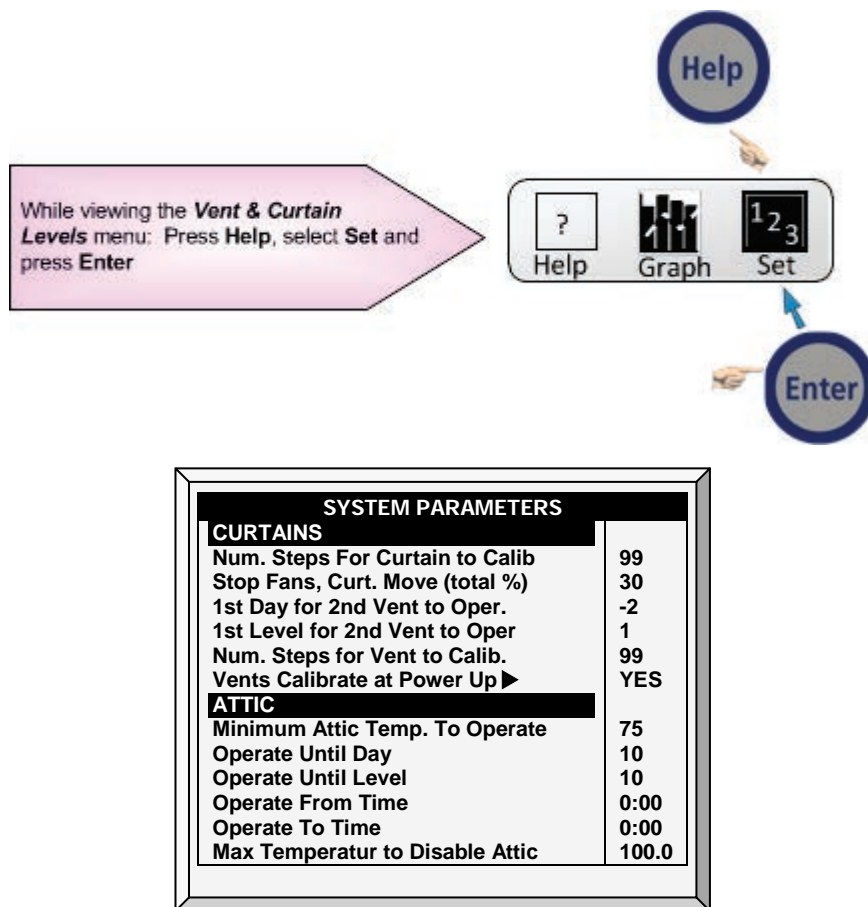
1. In *Install > Relay Outlet* (refer to Relay Layout, page 87), define at least one relay as a Curtain Open, Tunnel Open, or Vent Open.
2. In *Install > Setup*, enable Natural Ventilation (refer to Setup, page 86).
3. In *Device Setting > Vent & Curtain Levels*, define the fans' working percentages.
4. Set the Help Set parameters as required.

DEVICE SETTING	
1. LEVELS OF VENTILATION	
2. SPEED FAN LEVELS	
<b>3. VENT &amp; CURTAIN LEVELS</b>	
4. STIR FAN LEVELS	
5. STIR FAN PROGRAM	
6. COOL PAD	
7. FOGGERS	
8. LIGHT	
9. WATER & FEED	
10. EXTRA SYSTEMS	
11. EMERGENCY SETTING	
12. WATER ON DEMAND	
13. FEEDING PLAN	

VENT & CURTAIN LEVELS		
Level	Tunnel	Vent
1	0	15
2	0	15
3	0	15
4	0	15
5	0	15
6	0	15
7	0	15
8	0	15
9	0	15
10	0	15

1. **Ventilation Level:** Read-only.
2. **Tunnel/Curtain/Vent:** Set position for the tunnel curtain by level. If you have Static Pressure in Tunnel turned on ([Control](#) | [Static Pressure](#) | [Help](#) | [Set](#)), this becomes the minimum position for the tunnel inlet.

### 4.3.1 Vent & Curtain Levels Help | Set Definitions



#### Curtains

- **Num. of Steps for Curtain to Calibrate:** Set calibration point for curtain after desired amount of curtain opening/closing (steps). During calibration, if the curtain is open more than 50% it opens to 100%, calibrates, and returns to the previous position. If the curtain is open less than 50% it closes to 0%, calibrates, and returns to the previous position. Default: 99.
- **Stop Fans, Curtain Move (total %):** Commands controller to stop fans during curtain movements when total of all curtains is less than the total percent set in this parameter. For example, 3 curtains at 40% each total 120% for this parameter. Default: 30%
- **1<sup>st</sup> Day for 2<sup>nd</sup> Vent to Operate:** Set the day the second vent begins operating. Default: 1.

**NOTE:** You can set negative days.

- **1<sup>st</sup> Level for 2<sup>nd</sup> Vent to Operate:** Set the level the second vent begins operating. Default: 1
- **Num. Steps for Vent to Calibrate:** Set calibration point for vent after desired amount of opening/closing (steps). During calibration, vent opens to 100%. Default: 99.
- **Calibrate at Power Up:** This parameter instructs the Platinum to perform automatic calibration of air inlets when recovering from a power outage. In many installations the backup system, such as Rotem's RBU-27, may have opened the air sources. When the Platinum takes over control again, the air inlets are incorrectly positioned. The calibration at power up feature synchronizes the actual position and the controller.

#### Attic

- **Minimum Attic Temp. To Operate:** Set the minimum temperature to activate the Attic operation.
- **Operate Until Day:** Set the last day for attic operation.
- **Operate From/To Time:** Set the time frame for attic operation.

**NOTE:** If one of the above options is relevant, the Attic is enabled.

- **Max Temperature to Disable Attic:** Set the maximum attic temperature to stop using attic ventilation. This setting can prevent the heating effect in the growing space being too high resulting in overheating.

## 4.4 Stir Fan Levels

1. Do one or both of the following:
  - In *Install > Relay Outlet* (refer to Relay Layout, page 87), define at least one relay as a Stir Fan or
  - In *Install > Analog Output* (refer to Analog Output, page 91) define one function as Variable Stir Fan.
2. In *Device > Stir Fan Levels*, define the parameters as required.



STIR FAN LEVELS					
Level	Var. Fan				Stir Fan No.
	1	2	3	4	1 2 3 4
1	50	60	50		
2	70	80	70	80	◀ ◊ ▶
3	70	80	70	80	◀ ◊ ▶
4	70	80	70	80	◀ ◊ ▶
5	100	100	100	100	◀ ◊ ▶
6	100	100	100	100	◀ ◊ ▶
7	100	100	100	100	◀ ◊ ▶
8	0	0	0	0	◻ ◻ ◻
9	0	0	0	0	◻ ◻ ◻

●-Continuous ◀-Cycle On ○-Cycle Off

In the Stir Fan Level table set the speed in percentage that you want the variable speed fan to work at (by levels). For each level, program the stir fans' cycle. Configure the actual speed in Analog Output, page 91.

1. **Ventilation Level:** Read only.
2. **Variable Speed Fan-1, 2, 3, 4:** Set variable speed fan operation in percentages.
3. **Stir Fan:** Control stir fans according to Continuous, Cycle On, Cycle Off (ventilation cycles are the same as previously set in [Levels of Ventilation](#). Press +/- to set the operation cycle.

- ◼ Continuous: Constantly works without a break.
- ◀ Cycle: Operates according to ON/OFF timer.
- ◻ Rotate: Operates according to ON/OFF timer; in each cycle a different fan operates

**NOTE:** The Stir Fans operate according to the levels you program in this menu, and according to the programs you select in the Stir Fan Program. The fan turns on if any program or level requests ON; all programs and levels must be OFF for the Stir Fan to be off.

**NOTE:** Version 4.05 and higher supports four variable speed fans. Previous versions support two fans.





## 4.5 Stir Fan Program

This section contains five different programs that you can assign to each stir fan. Check the programs applying to each fan by using the '+/-' key (further explained in [STIR FAN PROGRAM HELP | SET](#)).

**NOTE:** If the same variable stir fan is selected for different programs, the program having the highest fan speed operates.

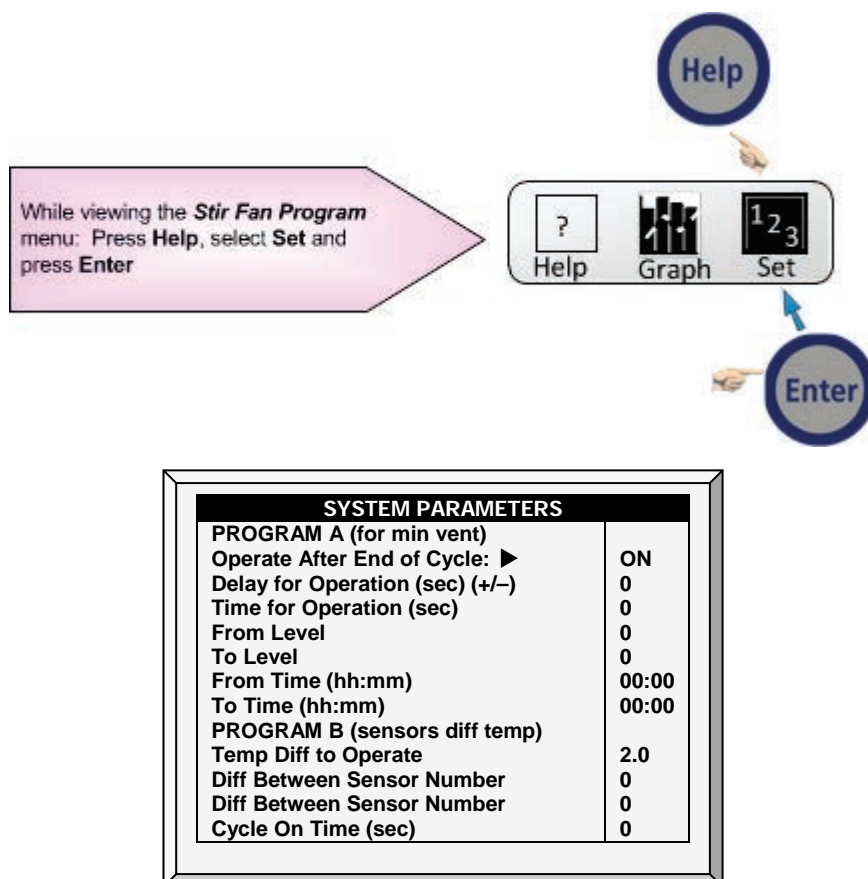
**DEVICE SETTING**

1. LEVELS OF VENTILATION
2. SPEED FAN LEVELS
3. VENT & CURTAIN LEVELS
4. STIR FAN LEVELS
5. STIR FAN PROGRAM
6. COOL PAD
7. FOGGERS
8. LIGHT
9. WATER & FEED
10. EXTRA SYSTEMS
11. EMERGENCY SETTING
12. WATER ON DEMAND
13. FEEDING PLAN

STIR FAN PROGRAM					
Fan No.	-A-	-B-	-C-	-D-	-E-
1	✓	✓	■	■	■
2	✓	■	✓	■	✓
3	■	✓	✓	✓	■
4	■	■	✓	✓	✓
5	■	■	■	■	■
6	■	■	■	■	■
7	■	■	■	■	■
8	■	■	■	■	■
<b>ACTIVE</b>	■	□	□	□	□

- A (heaters):** This program corrects temperature variations lengthwise in the building. Insert diff and sensor numbers.
- B (for min vent):** This program helps mixing minimum ventilation air for buildings having stir fans to mix the air **coming in with warm inside air**
- C, D & E (sensors diff temperature):** These options create three stir fan groups which operate according to sensor differentials.

## 4.5.1 Stir Fan Program Help | Set Definitions Version 4.05 and Above



### Program A (for Heaters)

- **Diff below Target to Operate:** Set the degree of difference below the target temperature for stir fans to operate.
- **Cycle On time (sec):** Define the length of time in seconds you would like the stir fan to operate during the cycle.
- **Cycle Off time (sec):** Define the length of time in seconds you would like the stir fan to be off during the cycle.
- **From/To Level:** Limit the program to operate between the levels defined.
- **From/To Time:** Define the time frame for the program to operate (24-hour format).
- **Stop During Fan Operation:** Select **YES** run the heaters when the fans are operating.

### Program B (for Min Vent)

- **Operate after End of Cycle:** Set when stir fan begins operating. It can be at the end of the ON cycle or the OFF cycle set in the [DEVICE | Levels of Ventilation](#).
- **Delay for Operation (sec) (+/-):** Define length of time in seconds from the end or start of cycle you chose in **Operate after end of cycle** above, for the stir fans to operate.
- **Time for Operation (sec):** Define length of time in seconds for the stir fans to operate.
- **From/To Level:** Limit the program to operate between the levels defined.
- **From/To Time:** Define the time frame for the program to operate (24-hour format).



### Program C, D, E (Sensors Diff Temp or Independent)

- **Temp Diff to Operate:** Set the degree of difference between sensors for stir fans to begin operating.

**NOTE:** If this parameter is set to 0 (zero), the variable stir fan runs independently of the sensors.

- **Diff between Sensor Number:** Select a sensor to define one temperature reading.
- **Diff between Sensor Number:** Select a second sensor to define a temperature reading from a different area.
- **Cycle On time (sec):** Define the length of time in seconds you would like the stir fan to operate during the cycle.
- **Cycle Off time (sec):** Define the length of time in seconds you would like the stir fan to be off during the cycle.
- **From/To Level:** Limit the program to operate between the levels defined.
- **From/To Time:** Define the time frame for the program to operate (24-hour format).
- **Stop During Fan Operation:** Select **YES** run the heaters when the fans are operating.
- **Variable Stir Fan:** Select the stir fan to be used
- **Min/Max Variable Stir Fan Speed:** Enter the minimum and maximum speed (in percentage).

## 4.5.2 Stir Fan Program Help | Set Definitions Version 4.03 and Below

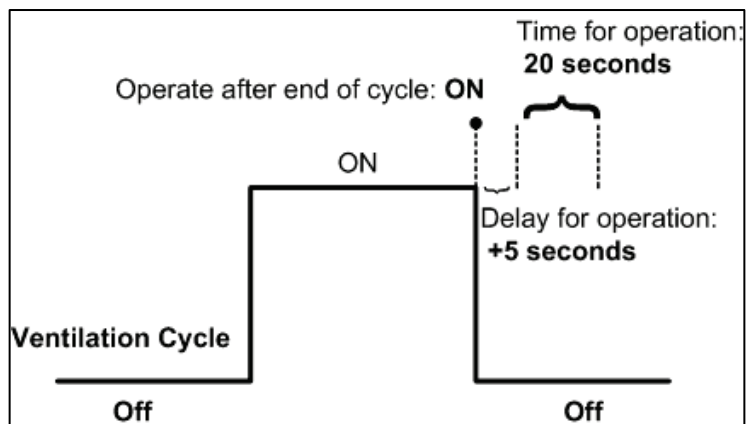
### Program A (for Minimum Ventilation)

- **Operate after End of Cycle:** Set when stir fan begins operating. It can be at the end of the ON cycle or the OFF cycle set in the **DEVICE | Levels of Ventilation**.
- **Delay for Operation (sec) (+/-):** Define length of time in seconds from the end or start of cycle you chose in **Operate after end of cycle** above, for the stir fans to operate.
- **Time for Operation (sec):** Define length of time in seconds for the stir fans to operate.
- **From/To Level:** Limit the program to operate between the levels defined.
- **From/To Time:** Define the time frame for the program to operate (24-hour format).

**NOTE:** See the examples below. They show how the various delays work with respect to the minimum ventilation fan timers defined in **DEVICE | Levels of Ventilation**.

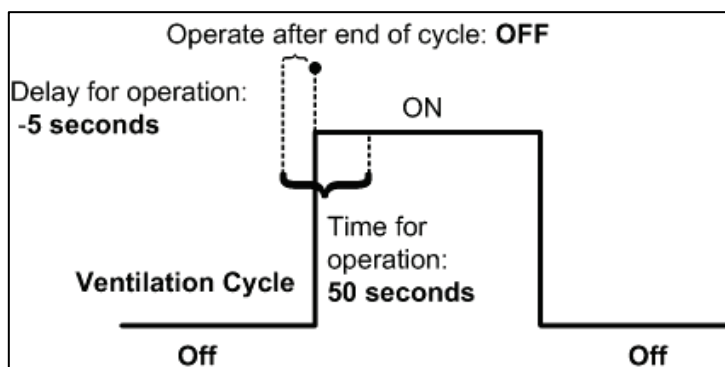
#### Example 1 of Program A:

SYSTEM PARAMETERS	
PROGRAM A (for min vent)	
Operate After End of Cycle: ►	ON
Delay for Operation (sec) (+/-)	5
Time for Operation (sec)	20
From Level	0
To Level	0
From Time (hh:mm)	00:00
To Time (hh:mm)	00:00
PROGRAM A (sensors diff temp)	
Temp Diff to Operate	2.0
Diff Between Sensor Number	0
Diff Between Sensor Number	0
Cycle On Time (sec)	0



## Example 2 of Program A

SYSTEM PARAMETERS	
<b>PROGRAM A (for min vent)</b>	
Operate After End of Cycle: ►	OFF
Delay for Operation (sec) (+/-)	-5
Time for Operation (sec)	50
From Level	0
To Level	0
From Time (hh:mm)	00:00
To Time (hh:mm)	00:00
<b>PROGRAM A (sensors diff temp)</b>	
Temp Diff to Operate	2.0
Diff Between Sensor Number	0
Diff Between Sensor Number	0
Cycle On Time (sec)	0



### Program B (Sensors Different Temperature)

- Temp Diff to Operate: Set the degree of difference between sensors for stir fans to begin operating.
- Diff between Sensor Number: Select a sensor to define one temperature reading.
- Diff between Sensor Number: Select a second sensor to define a temperature reading from a different area.
- Cycle On time (sec): Define the length of time in seconds you would like the stir fan to operate during the cycle.
- Cycle Off time (sec): Define the length of time in seconds you would like the stir fan to be off during the cycle.

**NOTE:** The other parameters are explained in the program above.

### Program C (for Heaters)

- Diff below Target to Operate: Set the degree of difference below the target temperature for stir fans to operate.

**NOTE:** Additional parameters are the same as in Programs A & B, explained above.

### Program D & E (Independent)

Programs D and E enable you to set the desired cycle, level range, and time range for the stir fans to operate. They do not rely on ventilation cycles or temperature readings, thus making them independent.

## 4.6 Cool Pad

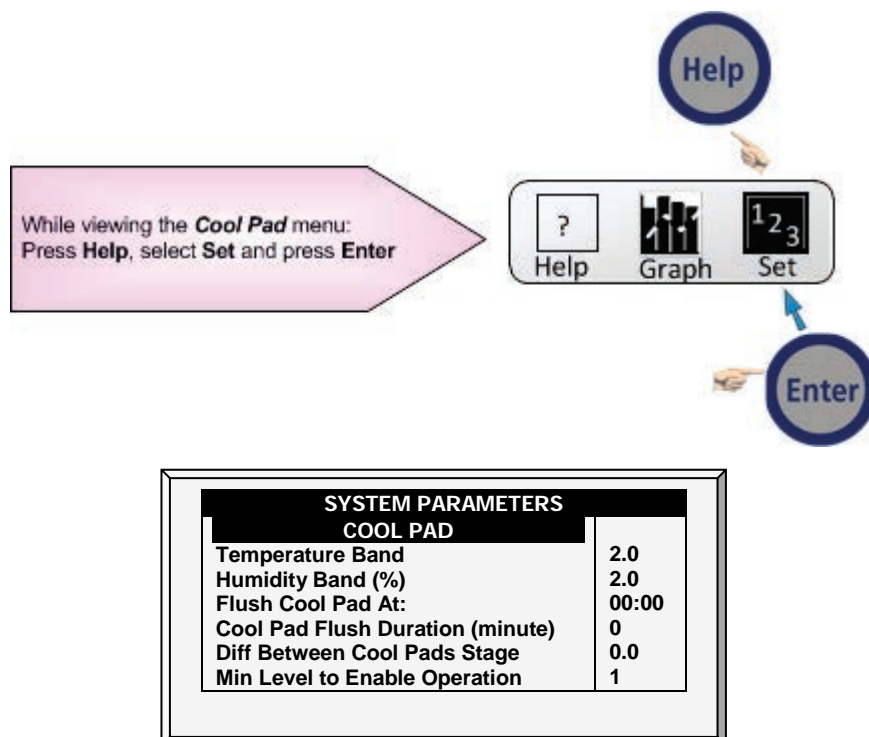
This menu sets the operating conditions for Cool Pad.

DEVICE SETTING	
1. LEVELS OF VENTILATION	
2. SPEED FAN LEVELS	
3. VENT & CURTAIN LEVELS	
4. STIR FAN LEVELS	
5. STIR FAN PROGRAM	
<b>6. COOL PAD</b>	
7. FOGGERS	
8. LIGHT	
9. WATER & FEED	
10. EXTRA SYSTEMS	
11. EMERGENCY SETTING	
12. WATER ON DEMAND	
13. FEEDING PLAN	

COOL PAD						
Day	Start Time	End Time	Tunnel Diff	To Hum	On sec	Off sec
1	10:00	21:00	3.0	99	15	285
7	10:00	21:00	3.0	99	15	285
7	10:00	21:00	5.0	99	45	255
14	10:00	21:00	2.0	99	15	285
14	10:00	21:00	3.0	99	30	270
14	10:00	21:00	4.0	99	45	255
14	10:00	21:00	5.0	99	60	240
14	10:00	21:00	6.0	99	75	225
14	10:00	21:00	7.0	99	100	200
14	10:00	21:00	8.0	99	200	100

- **Day:** Set growth day.
- **Start Time:** The cool pad begins operating at this time.
- **End Time:** The cool pad ceases to operate at this time.
  - It is possible to set multiple start and stop times for a single day.
  - In the screen above, growth day jumps from day 7 to day 14, the cool pad continues to work according to day 7 settings from growth day 7 through growth day 14.
- **Tunnel Differential:** Set difference from tunnel temperature to use this setting. You can use negative differential temperatures.
  - Note the settings for Day 14. The Platinum uses the maximum temperature differential that applies to choose the correct settings.
- **To Humidity:** Set maximum humidity allowed before stopping cool pad. You can enter 100%.
- **On Sec:** Set the maximum on time for each cycle of cool pad operation.
- **Off Sec:** Set the minimum off time for each cycle of cool pad operation.

#### 4.6.1 Cool Pad Help | Set Definitions



- **Temperature Band:** Define the on/off hysteresis relative to temperature.
- **Humidity Band (%):** Define the on/off hysteresis relative to humidity.
- **Flush Cool Pad At:** Set time of day (hh:mm) to start continuous water application to remove deposits from the cool cells.
- **Cool Pad Flush Duration (minutes):** Set the length of time in minutes for flushing. If this parameter is set, flush is applied without regard to ventilation level or operating mode.
- **Diff Between Cool Pads Stage:** Platinum supports four cooling pad stages. The controller activates the first stage when the temperature reaches the Tunnel Temperature (*Control* > *Temperature Curve*) plus the Tunnel Differentiation (set in the Cool Pad screen). Each additional stage begin when the temperature reaches the Tunnel Temperature plus the Tunnel Differentiation plus this differentiation.

For example, if:

- Tunnel Temperature = 80°
- Tunnel Diff = 2

- Diff between Cool Pads Stage = 3  
Stage 1 starts at 82°, Stage 2 at 85°, Stage 3 at 88°, and Stage 4 at 91°.
- **Min Level to Enable Operation:** Select the minimum ventilation level to operate the cool cells. This does not apply to the flush functions.

**Example: Cool Pad ON temperature = 80°, Diff set to 2° F:**

Cool Pad #	Assigned Sensor	Diff Between Cool Pads Stage	Actual ON temperature
1	Average	0.0	80°
2	Average	2.0	82°
3	Temp Sensor 2	0.0	80°
4	Temp Sensor 2	2.0	82°

## 4.7 Foggers

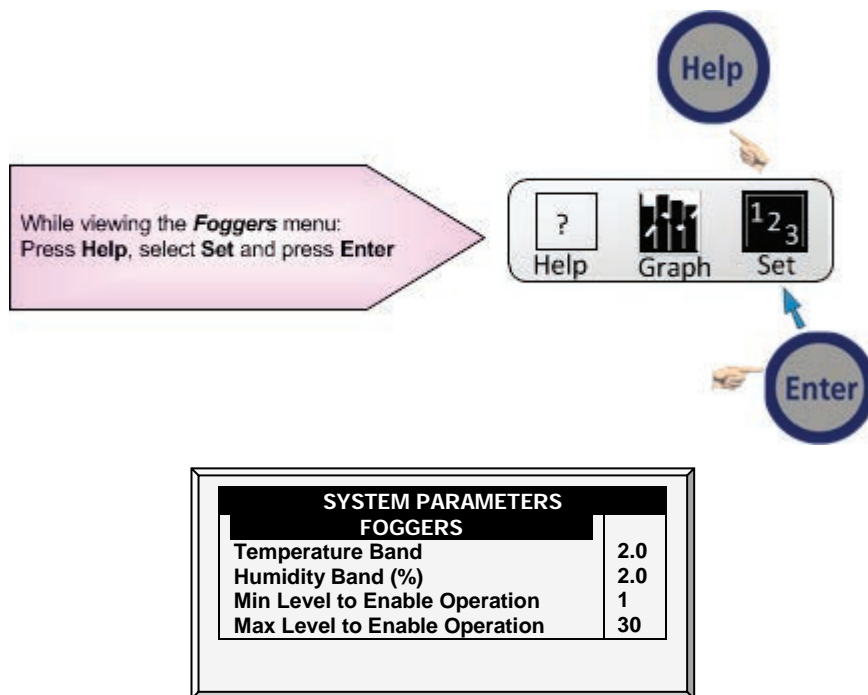
This menu sets the operating conditions for the Foggers. The main difference between the Fogger Menu and the Cool Pad Menu is the different temperature reference point. The Fogger Temperature Differentials are relative to the target temperature instead of the tunnel entry temperature.

DEVICE SETTING
1. LEVELS OF VENTILATION
2. SPEED FAN LEVELS
3. VENT & CURTAIN LEVELS
4. STIR FAN LEVELS
5. STIR FAN PROGRAM
6. COOL PAD
<b>7. FOGGERS</b>
8. LIGHT
9. WATER & FEED
10. EXTRA SYSTEMS
11. EMERGENCY SETTING
12. WATER ON DEMAND
13. FEEDING PLAN

FOGGERS						
Day	Start Time	End Time	Target Diff	To Hum	On sec	Off sec
47	12:00	21:00	18.0	99	300	600
47	12:00	21:00	20.0	99	300	300
0	00:00	00:00	0.0	0	0	0
0	00:00	00:00	0.0	0	0	0
0	00:00	00:00	0.0	0	0	0
0	00:00	00:00	0.0	0	0	0
0	00:00	00:00	0.0	0	0	0
0	00:00	00:00	0.0	0	0	0
0	00:00	00:00	0.0	0	0	0
0	00:00	00:00	0.0	0	0	0
0	00:00	00:00	0.0	0	0	0

- **Day:** Set growth day
- **Start Time & End Time:** Time of day you want foggers to start and stop.
  - It is possible to set multiple start and stop times for single day.
  - In the screen above, the first programmed line is at day 47. The foggers do not operate before growth day 47 in this case. Since there are no entries other than day 47, the day 47 program lines apply from then on.
- **Target Differential:** Set difference from target temperature to trigger foggers.
- **To Humidity:** Set maximum humidity allowed before stopping foggers.
- **On Sec:** Set the maximum on time for each cycle of fogger operation.
- **Off Sec:** Set the minimum off time for each cycle of fogger operation.

## 4.7.1 Foggers Help | Set Definitions



- **Temperature Band:** Define the on/off hysteresis relative to temperature.
- **Humidity Band (%):** Define the on/off hysteresis relative to humidity.
- **Min Level to Enable Operation:** Select the minimum ventilation level to operate the foggers.
- **Max Level to Enable Operation:** Set the maximum ventilation level for fogger operation.

## 4.8 Light

This menu sets the operating conditions for lights. The controller has a capacity for up to four channels of *On/Off Lights* and up to four channels of *Dimmer Lights*. In addition, this menu enables using a light sensor.

1. In *Install > Analog Output* (refer to Analog Output, page 91) define up to four outputs as light dimmers.
2. In *Device Setting > Light*, define the parameters as required.

DEVICE SETTING
1. LEVELS OF VENTILATION
2. SPEED FAN LEVELS
3. VENT & CURTAIN LEVELS
4. STIR FAN LEVELS
5. STIR FAN PROGRAM
6. COOL PAD
7. FOGGERS
<b>8. LIGHT</b>
9. WATER & FEED
10. EXTRA SYSTEMS
11. EMERGENCY SETTING
12. WATER ON DEMAND
13. FEEDING PLAN

LIGHT						
Day	Time	Light			Intensity (%)	
		1	2	3	1	2
1	00:00	✓	✓	■	100	0
12	00:00	✓	■	✓	45	45
12	01:00	■	■	■	0	0
12	03:00	✓	■	✓	45	45
12	21:00	■	■	■	0	0
25	00:00	■	■	■	0	0
25	03:00	■	■	■	35	35
25	20:00	■	■	■	0	0
25	23:00	■	■	■	35	35
0	00:00	■	■	■	0	0

**NOTE:** Version 3.03 and higher support setting the light table based on feed days.

The configuration of this menu is dependent on the Water & Feed (page 48) configuration:

- If you select Daily, the above screen appears when you select Light; configure the Light menu once.
- If you select 2 – 6 Days or Week, the screen below appears.



1. Select Feed and press **Enter**. The Light parameters screen appears. These parameters configure the Light functions on feed days.
2. Configure the parameters.
3. Select No Feed and press **Enter**. The Light parameters screen appears. These parameters configure the Light functions on non-feed days.
4. Configure the parameters.

- **Day:** Set Growth Day

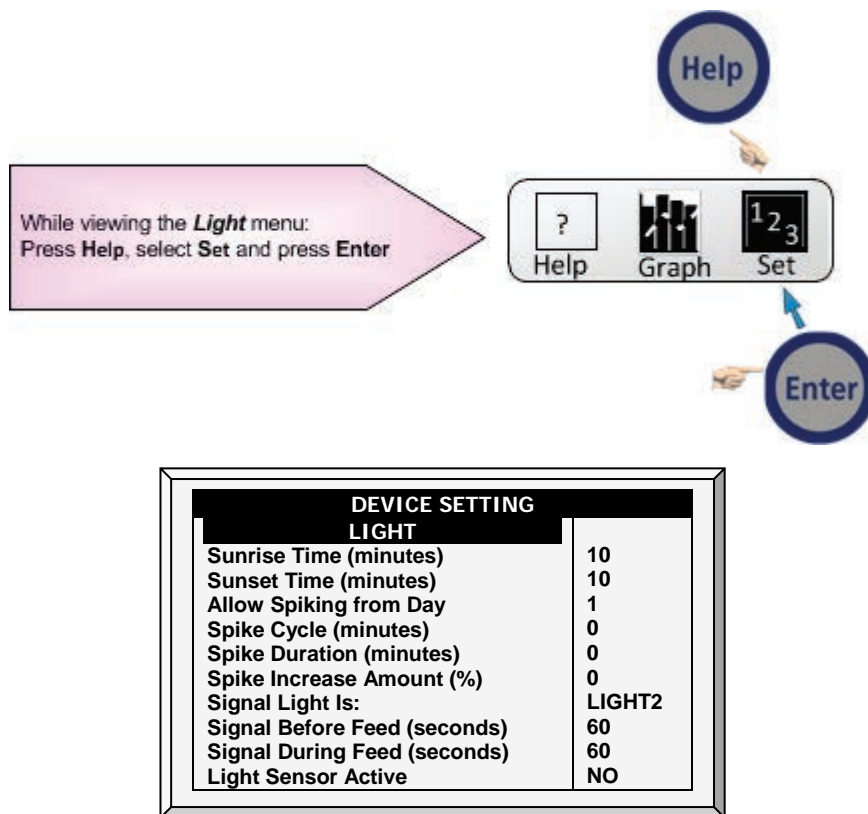
In the example, the brood lights (channel 1) and bright center lights (channel 2) turn on from day 1, while the grow end lights (channel 3) are off. The example shows two channels of light dimmer, Channel 1 at 100% and Channel 2 at 0% (for baby chicks in the brood zone).

- **Time:** Set event times for the lights.
  - On day 12, the center lights turn off, and the dimmer lights go to 45%. There are two periods of darkness: from 01:00 to 03:00 in the morning, and 09:00 PM to midnight. This program repeats until day 25.
  - From day 25 the on/off lights stay off, and the dimmer lights provide dim light during the on periods, and go out fully for two periods of darkness. The dark periods total 6 hours, being from midnight to 03:00 AM and from 08:00 PM (20:00) to 11:00 PM (23:00).
- **Light:** Check mark the desired light(s) to turn on. Apply dots for lights you would like to turn off. Switch between check marks and dots by pressing the +/- key.
- **Intensity (%):** Set intensity in percentage for light dimmer(s). Dimmer lights start to brighten if the intensity increases, and complete dimming if the intensity decreases at the set time. That is, they start dimming the 'sunset time' in advance of the set time (see **Help | Set** below).





## 4.8.1 Light Help | Set Definitions



- **Sunrise Time (minutes):** The amount of time required for the light intensity to rise from 0% to the designated level.
- **Sunset Time (minutes):** The amount of time required for the light intensity to decline from the designated level to 0%.
- **Allow Spiking from Day:** The day spiking begins.
- **Spike Cycle (minutes):** The time length that the spike is at its maximum level. Reaching the maximum level and returning to the preset level both take one minute. For example if the spike duration is 10 minutes, the spike cycle is 8 minutes.
- **Spike Durations (minutes):** The total amount of time of the spike cycle, including the rise and fall times.
- **Spike Increase Amount:** Set the increase in intensity for the spike in relation to the current light intensity.
- **Signal Light Is:** Only one light operates during feeding times. Select which light is lit or choose "None".

**NOTE:** After the feeding period ends, all lights selected in the Light Parameters screen relight.

- **Signal Before Feed (seconds):** Amount of time, before the feeding starts, that all other lights go off.
- **Signal During Feed (seconds):** Amount of time that the selected light remains on after feeding ends.

**NOTE:** The above two parameters are disabled on no feed days.

- **Light Sensor Active:** The light sensor turns off all lights when sufficient outside lights exists. If a light sensor is installed, enable this option to turn off the light during feeding time when there is sufficient outside light. Refer to Light Sensor Calibration, page 78 for details.

**NOTE:** Versions 3.03 and higher supports light sensor.



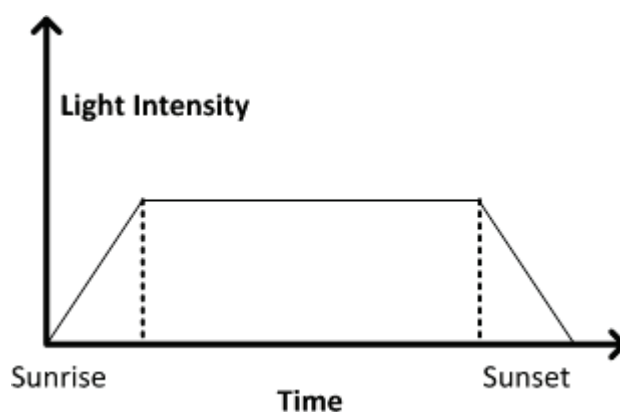


Figure 11: Lighting without Spiking

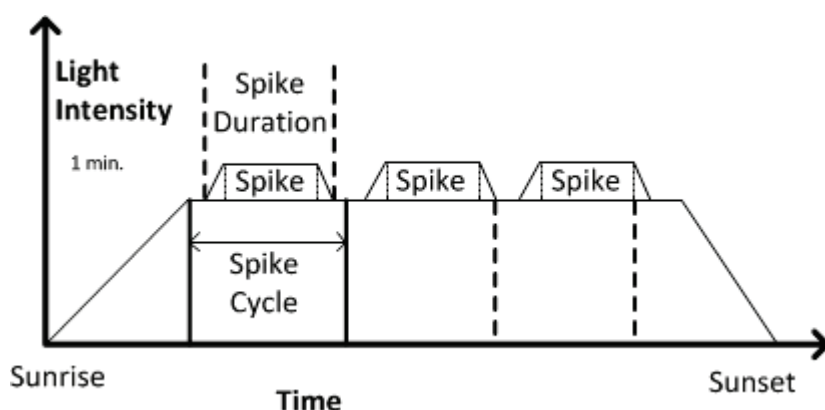


Figure 12: Lighting with Spiking

**NOTE:** The initial reference time for the Spike Cycle is the end of Sunrise. The spike begins Spike Duration minutes before the end of the Spike Cycle, and has one minute up and down ramps in intensity. If Sunrise Duration is set to zero, no spiking occurs.

## 4.9 Water & Feed

This menu sets the operating conditions for water, feed, and auger devices

1. In *Install > Relay Layout*, define the water, feeder, and auger relays as required.
2. In *Device > Water and Feed*, define the parameters as required.

DEVICE
1. LEVELS OF VENTILATION
2. SPEED FAN LEVELS
3. VENT & CURTAIN LEVELS
4. STIR FAN LEVELS
5. STIR FAN PROGRAM
6. COOL PAD
7. FOGGERS
8. LIGHT
<b>9. WATER &amp; FEED</b>
10. EXTRA SYSTEMS
11. EMERGENCY SETTING
12. WATER ON DEMAND
13. FEEDING PLAN

WATER & FEED					
Day	Time hh:mm	Water 1 2		Feeder 1 2	
1	01:00	✓	■	✓	■
12	10:00	✓	✓	✓	✓
25	14:00	✓	✓	✓	✓
46	00:00	✓	✓	■	■
48	00:00	■	■	■	■
0	00:00	■	■	■	■
0	00:00	■	■	■	■
0	00:00	■	■	■	■
0	00:00	■	■	■	■
0	00:00	■	■	■	■

- **Day:** Set growth day. Growth days stay at the defined parameters until the next defined day.
- **Time:** Set event times for water, feeder, or auger. Check marks indicate ON at the event time, and dots indicate OFF. Toggle between check marks and dots with the +/- keys.
- **Water:** Select a check mark to mark water lines to turn on, dot the ones to turn off.

- **Feeder:** Check mark feed lines to turn on, dot the ones to turn off.
- **Auger:** Check mark auger lines to turn on, dot the ones to turn off.

**NOTE:** You can implement mealtime, clean up meals and other options similarly as shown earlier in the light programs.

## 4.10 Extra Systems

This menu sets the parameters of other devices that are not listed in the controller.

DEVICE
1. LEVELS OF VENTILATION
2. SPEED FAN LEVELS
3. VENT & CURTAIN LEVELS
4. STIR FAN LEVELS
5. STIR FAN PROGRAM
6. COOL PAD
7. FOGGERS
8. LIGHT
9. WATER & FEED
<b>10. EXTRA SYSTEMS</b>
11. EMERGENCY SETTING
12. WATER ON DEMAND
13. FEEDING PLAN

EXTRA SYSTEMS				
System	1	2	3	4
Start Time	10:30	06:15	14:20	00:00
End Time	18:45	20:30	03:15	00:00
From Temp	75.5	85.5	60	0.0
To Temp	93.0	95.5	98.0	0.0
From Hum.	55	60	60	0
To Hum.	85	85	85	0
On (sec)	45	45	300	0
Off (sec)	300	300	2000	0

- **Start Time:** Time at which this Extra System starts.
- **End Time:** Time at which this Extra System stops.
- **From Temp:** Temperature above which Extra System operates.
- **To Temp:** Temperature below which Extra System operates.
- **From Humidity:** Humidity above which Extra System operates
- **To Humidity:** Humidity below which Extra System operates.
- **On (sec):** On time for the Extra System. If set to 0, the extra system does not operate.
- **Off (sec):** Off time for Extra System after completion of on time. If you have values in both **ON** and **Off**, the extra system cycles. If you have zero OFF time, and any ON time, the system simply stays on as long as the other parameters are satisfied.

**NOTE:** All parameters must be satisfied for an Extra System to operate. For example if the temperature is below the From Temperature or the Humidity below the From Humidity, the system is OFF. You can assign specific temperature sensors to an Extra System in [Install / Temp Definition](#). The Extra System uses the Inside Humidity, not the Outside Humidity. If there is no humidity sensor, the Extra Systems ignore the humidity parameters.

## 4.11 Emergency Setting

This selection applies to optional emergency cards. These cards are battery backed, and operate as standard switch and relay cards during normal operation. If an emergency occurs, the cards continue to operate according to their emergency settings.

➡ To use this function, install an emergency card

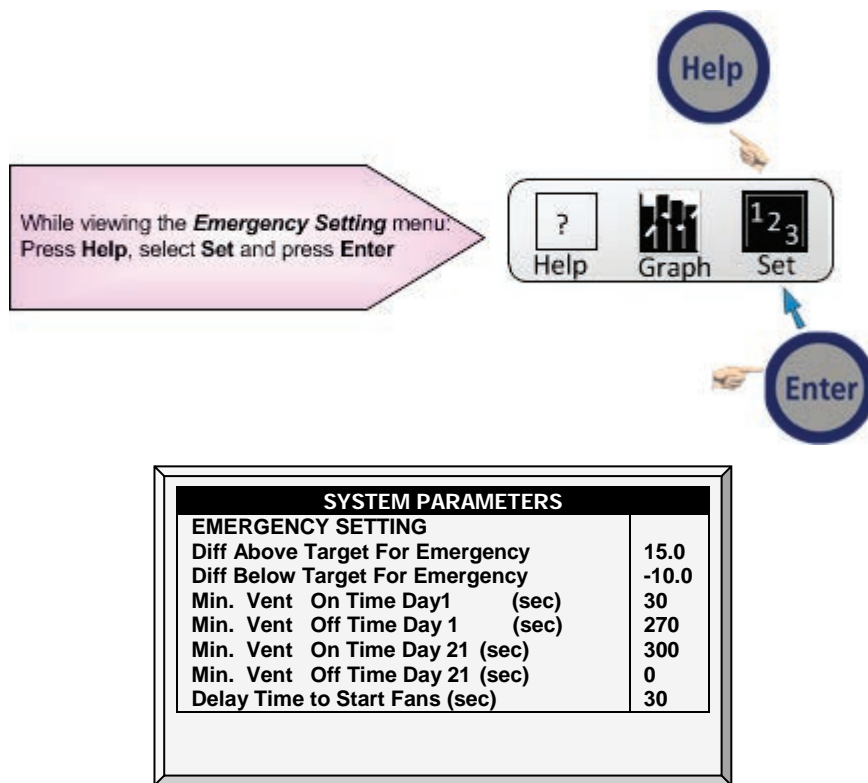
DEVICE
1. LEVELS OF VENTILATION
2. SPEED FAN LEVELS
3. VENT & CURTAIN LEVELS
4. STIR FAN LEVELS
5. STIR FAN PROGRAM
6. COOL PAD
7. FOGGERS
8. LIGHT
9. WATER & FEED
10. EXTRA SYSTEMS
<b>11. EMERGENCY SETTING</b>
12. WATER ON DEMAND
13. FEEDING PLAN

EMERGENCY SETTING				
Relay	Function	Diff	Day	Operate
31	Heat 4	-5.0	10	Min
32	Exh. Fan 1	0.0	20	Vent
33	Tun. Fan 6	2.0	30	Temp.
34	Tun. Fan 7	4.0	0	Temp.
35	Tun. Fan 8	6.0	0	Temp.

- **Relay:** The Platinum determines the relay numbers automatically from the position in the controller in which the Emergency Switch card is installed.
- **Function:** Assign the relay function in [Install | Relay Layout](#). Your selections will likely be different from the example above. The Platinum does not allow certain selections for the emergency functions.
- **Differential:** The difference from target temperature at which the device operates during emergency operation.
- **Day:** After this day, the device operates continuously without regard to temperature setting during emergency operation. In this example:
  - Exhaust Fan 1 operates up to the target temperature using the Min Vent timer calculated in [Help | Set](#) on the next page, and continuously above the target temperature. However, from Growth Day 10 forward, the fan operates continuously without regard to temperature.
  - Tunnel Fan 6 is off below 2.0° + Target, and operates continuously if the temperature is more than 2.0° above Target Temperature. However, if the Growth Day is 20 or greater, Tunnel Fan 6 operates continuously without regard to temperature during
- **Operate:** Choose whether the Minimum Vent timer applies to this device or only the temperature differential.



## 4.11.1 Emergency Setting Help | Set Definitions



- **Diff above target for emergency:** Set a value above temperature target at which the emergency card enters emergency operation.
- **Diff below target for emergency:** Set a value below temperature target at which the emergency card enters emergency operation.
- **Min. vent on time day 1 (sec):** Set the minimum ventilation on time for 1-day-old birds in this parameter. The card calculates on times between days 1 to 21.
- **Min. vent off time day 1 (sec):** Set the off time for minimum ventilation cycle timer during emergency for growth day 1.
- **Min. vent on time day 21 (sec):** Set the on time for minimum ventilation for three-week old birds.
- **Min. vent off time day 21 (sec):** Set the off time for minimum ventilation cycle timer during emergency for growth day 21.
- **Delay time to start fans (sec):** Set a delay time for the card to wait upon entering emergency before starting fans. This delay gives air inlet devices time to pre-position before fans turn on and build static pressure. Otherwise, the static pressure could cause air inlet curtains to stick to wire mesh barriers.

## 4.12 Water on Demand

The Water On Demand (WOD) function enables regulating the pressure of all nipple lines in the house from one central point, ensuring uniform pressure in all lines. The function also enables immediate transitioning between different preset pressures of all nipple lines in the house by closing and opening of valves at the central point (manual or solenoid according to the mode installed).

DEVICE
1. LEVELS OF VENTILATION
2. SPEED FAN LEVELS
3. VENT & CURTAIN LEVELS
4. STIR FAN LEVELS
5. STIR FAN PROGRAM
6. COOL PAD
7. FOGGERS
8. LIGHT
9. WATER & FEED
10. EXTRA SYSTEMS
11. EMERGENCY SETTING
<b>12. WATER ON DEMAND</b>
13. FEEDING PLAN

EMERGENCY SETTING			
Day	From Time hh:mm	To Time hh:mm	WOD
1	12:00	14:00	1
2	12:00	14:00	2
3	12:00	14:00	3
5	12:00	14:00	3
7	12:00	14:00	4
9	12:00	14:00	4

1. In *Installation > Relay Layout* designate up to four relays as WOD valves (relays 179 to 182). Refer to Relay Layout, page 87 for details.
2. In *Device > Water on Demand*, configure the following parameters:
  - o **Day:** Specifies the day to activate the selected WOD valve
  - o **From Time/To Time:** Specifies the time to activate and deactivate the specified WOD valve
  - o **WOD:** Specifies the WOD valve to be activated

**NOTE:** You can specify up to 50 time periods.

**NOTE:** Versions 3.06 and 4.06 and higher support the WOD function.



## 5 MANAGE MENU

The following sections detail the Management Menu.

- Bird Inventory, page 53
- Feed Inventory, page 53
- Time & Date, page 55
- Growth Day & Flock, page 55
- Alarm Setting, page 55
- Alarm Reset, page 58
- Fail Safe Setting, page 59
- Password, page 59
- Relay Current, page 60

### 5.1 Bird Inventory

Maintain your bird inventory by entering data into the controller.

MANAGEMENT
1. BIRD INVENTORY
2. FEED INVENTORY
3. TIME & DATE
4. GROWTH DAY & FLOCK
5. ALARM SETTING
6. ALARM RESET
7. FAIL SAFE SETTING
8. PASSWORD
9. RELAY CURRENT

BIRD INVENTORY			
	Male	Female	Total
Add Dead Birds	0	0	0
Add Culled	0	0	0
Birds Moved	0	0	0
Birds Placed	10000	5000	15000
Today's Dead Birds	35	33	68
Today's Culled	12	10	22
Total Dead Birds	35	33	68
Total Culled	12	10	22
Total Birds	1020	510	1530

- Maintain bird inventory by entering quantities in the upper half of the screen. There are separate columns for male and female. If you do not wish to keep separate data, simply enter the data into one or the other.
- Initially, enter the number of birds **placed**. Thereafter, enter the quantity found **dead**, **culled** (Add Culled) or **moved** as needed. The Platinum shows totals and subtotals in the lower portion of the screen.
- You can correct an error, so long as you correct it on the same day before midnight, by entering a negative quantity (press the +/- key after the number) to subtract the error. After midnight, the information transfers to the [HISTORY](#) Menu.

### 5.2 Feed Inventory

Maintain your feed inventory by entering data into the controller.

MANAGEMENT
1. BIRD INVENTORY
2. FEED INVENTORY
3. TIME & DATE
4. GROWTH DAY & FLOCK
5. ALARM SETTING
6. ALARM RESET
7. FAIL SAFE SETTING
8. PASSWORD
9. RELAY CURRENT

FEED INVENTORY					
No.	Date	1	2	3	4
1	2-Jan-08	7800	0	0	0
2	5-Jan-08	0	9000	15000	10000
3	13-Jan-08	8000	0	0	0
4	- -	0	0	0	0
5	- -	0	0	0	0
6	- -	0	0	0	0
7	- -	0	0	0	0
8	- -	0	0	0	0
Total Feed:		15800	9000	150000	10000
ACTIVE		√	√	√	√

## To enter feed inventory manually:

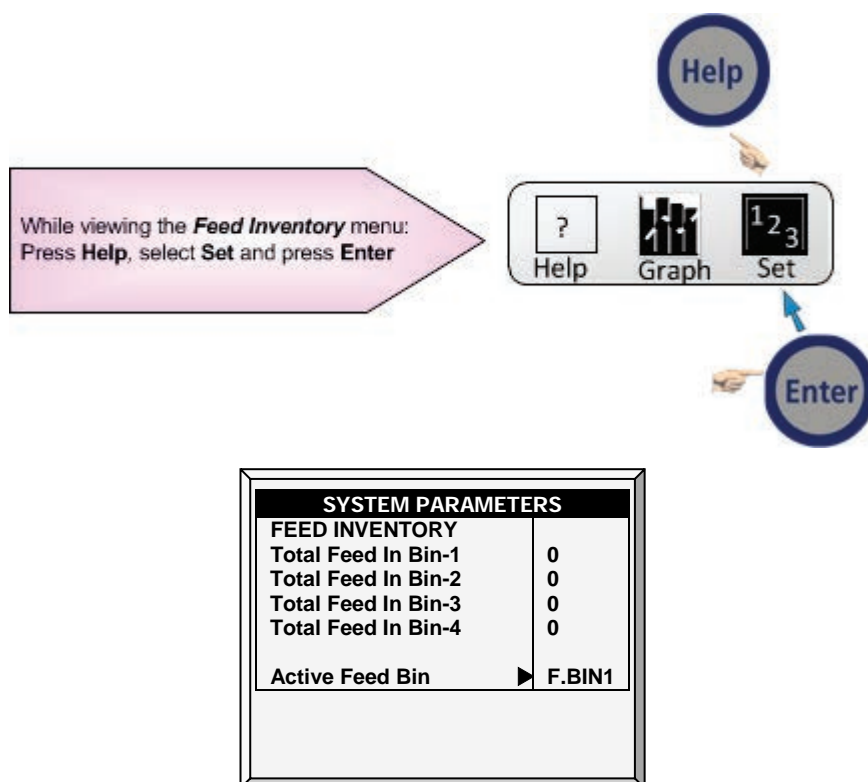
1. Type the day of the month and press **ENTER**.
2. Select the month and press **ENTER**.
3. Type the two-digit year and press **ENTER**.
4. Enter the feed quantity under the Feed Bins and press **ENTER**. The cumulative total appears in the **Total Feed** row.
5. To delete an entry, change the quantity to zero for all feed bins and press **ENTER**. Exit the menu and the entry disappears when you enter the menu again.

**NOTE:** Version 4.05 and higher supports four feed bins. Previous versions support two bins.

If you have installed load cells and connected feed bin scales to your Platinum, it automatically maintains feed inventory, including delivery dates and feed consumption data. You can monitor your fill system and maintain approximate feed inventory using the [Digital Inputs](#). In this case, you need to enter your own delivery dates.

This information transfers to the **HISTORY | Water & Feed** menus daily, or optionally as often as selected (by the minute) in History View.

## 5.2.1 Feed Inventory Help | Set Definitions



- **Total Feed in Bin-1/Bin-2/Bin-3/Bin-4:** Manually change or correct the amount of feed in the bins.
- **Active Feed Bin:** Select the desired feed bin for use. It is possible to select all of them.





## 5.3 Time & Date

This menu sets the current time and date for the controller.

TIME & DATE	
Current Time	09:19
Date	10-Mar-08
Day of the Week	THURSDAY

- **Current Time:** Enter the current time in 24 hour format.
- **Date:** Enter the date in day-month-year format.
- **Day of the Week:** Select the day of the week from the drop down menu.

## 5.4 Growth Day & Flock

This menu defines the number of growth days and flock number.

TIME & DATE	
Current Growth Day	27
Flock No.	1
New Flock	NO

- **Current Growth Day:** Enter current growth day, if necessary. It is possible to enter negative growth days up to -2. If you reset the growth day for a new flock using this tool, your old history data does not clear. Use New Flock function to clear out old history in preparation for new birds.
- **Flock No.:** The controller automatically increments the flock number each time you choose New Flock. You can edit the flock number. Since this field accepts six digits, some producers enter a flock number that is made of the day, month and year the birds arrived.
- **New Flock:** Use the new flock function on arrival of a new set of birds to set the growth day back to 1, 0, -1, or -2, and to clear out old history data.

## 5.5 Alarm Setting

This menu defines the various alarm settings.

MANAGEMENT
1. BIRD INVENTORY
2. FEED INVENTORY
3. TIME & DATE
4. GROWTH DAY & FLOCK
<b>5. ALARM SETTING</b>
6. ALARM RESET
7. FAIL SAFE SETTING
8. PASSWORD
9. RELAY CURRENT

ALARM SETTING	
Global Alarm Delay (sec)	1
Alarm Reminder (min., 0-Disable)	30
<b>SENSOR ALARM</b>	
Sensor Low Temp. Range	32.0
Sensor High Temp. Range	122.0
Sensor Alarm-Diff From Lo. Alarm	1.0
Sensor Alarm-Diff From Hi. Alarm	1.0
<b>ALARM</b>	
Alarm Test At Time: (hh:mm)	12:00
Day Of Alarm Test: ►	DAILY
Alarm Test Duration (sec)	0
<b>AUGER OVERTIME ALARM</b>	
Auger Overtime Delay (minute)	15

**NOTE:** See Fail Safe Setting.

- **Global Alarm Delay (sec):** Alarms without a separate alarm delay, use this global delay before signaling the alarm.
- **Alarm Reminder (min., 0-Disable):** Amount of time before a reminder is sent if the situation has not yet been corrected.

### Sensor Alarm

- **Sensor Low Temperature Range:** Sets the minimum reading a sensor can have to be considered a valid sensor reading. Sensor readings below this are rejected. This generates a sensor out of range alarm. This does not apply to the special Circuit Breaker Sensor or Outside Temperature Sensor.
- **Sensor High Temperature Range:** Sets the maximum reading a sensor may have to be considered a valid sensor reading. Sensor readings above this reading are rejected. This generates a sensor out of range alarm. This does not apply to the special Circuit Breaker Sensor or Outside Temperature Sensor.
- **Sensor Alarm-Differential from Low Alarm:** Individual sensor (or zone) alarm if any active sensor reads this much or more below the [Control | Temperature Curve | Low Alarm Temperature](#).
- **Sensor Alarm-Differential from High Alarm:** Individual active growth area sensors alarm if they read this much or more above the [Control | Temperature Curve | High Alarm Temperature](#).

### Alarms

- **Alarm Test at Time:** Schedule the alarm test time.
- **Day of Alarm Test:** Choose **Daily** or a particular **day** of the week for the scheduled alarm.
- **Alarm Test Duration (sec):** Choose the alarm test duration..

### Auger Overtime Alarm

- **Auger Overtime Delay:** Set the maximum auger run time for your cross fill system. If you have a monitor connected to the digital inputs programmed as Feeder-1 Overtime or Feeder-2 Overtime the Platinum sends an alarm after this delay.
- **Feeder Off During Overtime:** Choose whether to shut the feed systems off after a feeder overtime alarm. Options:
  - **No:** All augers and feeders remain on.
  - **All:** All augers and feeders shut down.
  - **Related:** Only the specific auger from which the alarm originated and its feeders shut down.

**NOTE:** If you choose **All** or **Related**, the feed system turns off and does not resume until you [Reset Alarm](#) in the Management Menu.

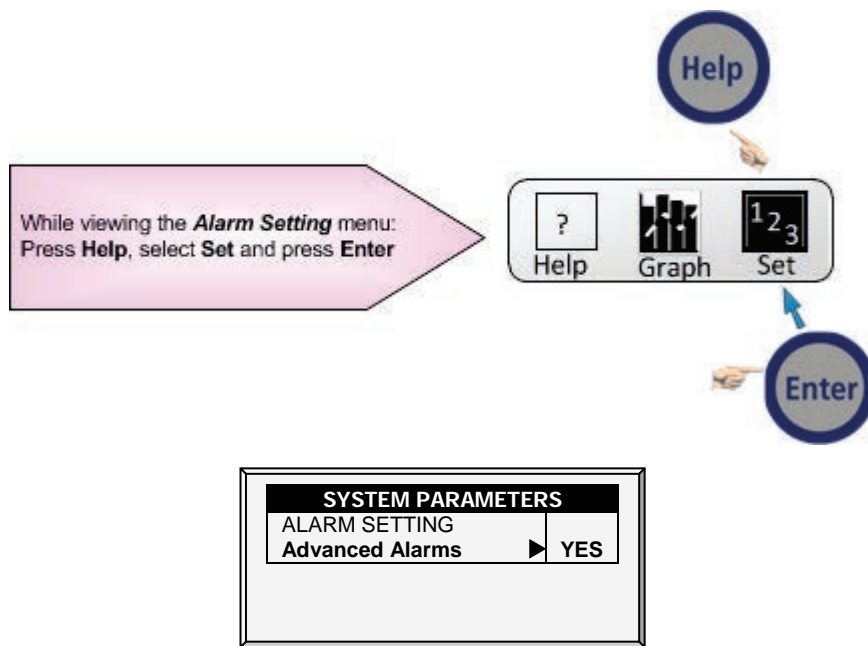
### Auger Empty Alarm

- **Condition Detection Delay (sec.):** Platinum sends an alarm when the current goes to the level set in the following parameter after this delay.
- **Below Nominal Current:** Send an alarm when the nominal current drops to this level.

**NOTE:** Version 4.05 and above supports the Auger Empty Alarm. This alarm is operative only if 1) Current Sense Relays are installed and calibrated 2) augers have been calibrated.



## 5.5.1 Alarm Setting Help | Set Definitions



- **Advanced Alarms:** When selecting YES, the following additional alarms appear on the ALARM SETTINGS screen (press MENU and then ENTER to reenter the screen):

### Feed Alarms

- **Allow Feed Alarm From/To:** Set a starting time from which the controller can send feed shortage alarms.
- **Bin 1/2/3/4 Low Feed Alarm Limit:** Alarm if feed in Bin 1/2/3/4 is below this limit and time is between From and To limits.

**NOTE:** Version 4.05 and higher supports up to four feed bins. Previous versions support two only.

### Water Overflow Alarms

- **According to Light Table:** Change overflow alarm level when the lights are off.
- **First Day:** Overflow on the FIRST day applies to the first day operation. You can define a first day at which to start increasing the overflow limit automatically. Days prior to the 'First Day' use the First Day overflow limit; days following the first day have an incremental curve toward the LAST DAY OVERFLOW parameter setting.
- **Overflow on First Day:** Number of gallons/liters per minute that generate an overflow alarm on the first day.
- **Last Day:** Set the last day for the overflow curve.
- **Overflow on Last Day:** Set the maximum overflow limit (gallons/liters) for those days following the last curve day.
- **Overflow At Dark:** Select overflow limit. When it is dark, controller checks every minute.
- **Overflow Alarm Delay:** Define delay time before the controller generates an overflow alarm.
- **Extra Delay At Light Start:** When the first light appears, define the amount of minutes before the controller begins to operate according to the set Overflow for that day.
- **Fogger Water Overflow:** Define the water overflow for foggers (per minute).

### Water Shortage Alarms

- **Allow Water Shortage Alarm From/To:** Set the period for which the controller generates water shortage alarms.
- **Shortage During Lights Off:** Select whether water shortage alarm are disabled when all lights are out.

- **Quantity for Shortage:** Minimum flow rate that must be maintained or a water shortage alarm is generated.
- **Shortage Alarm Delay:** Minimum period of time that the shortage must extend through before generating an alarm.

## Bird Scales Alarms

- **Allow Bird Scale Alarms From/To:** Set time frame for which the controller begins and ends generating alarms for the bird scale.

## Auxiliary Alarms

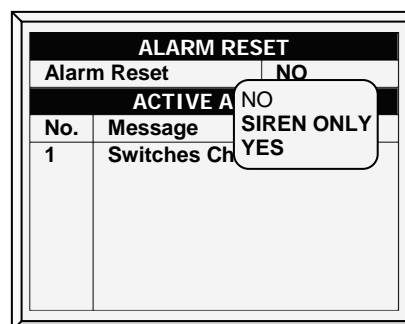
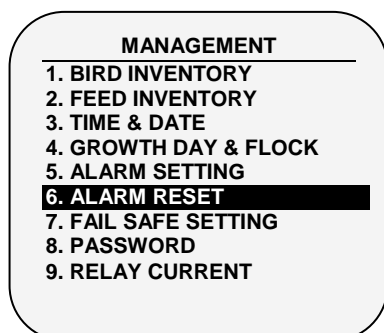
- Assign auxiliary alarms in the Install menu. Note that digital sensors, auxiliary alarm input with related relay must always match their relay status.
- Related Relay For Aux Alarm 1/2/3/4: Relay for Auxiliary Alarm 1/2/3/4.
- **AUX. Alarm Delay (sec):** Separate from the **Global Alarm Delay**. If there is a dry contact, the alarm is sent after the defined **AUX. Alarm Delay**.

## Circuit Breaker Alarm

- **Temperature for Circuit Breaker Alarm:** Set circuit breaker alarm temperature.

## 5.6 Alarm Reset

This menu functions as an alarm and siren reset.



- Alarm Reset:
  - **NO:** Does not reset alarms
  - **SIREN ONLY:** Resets only the siren, alarms remain
  - **YES:** Resets alarms

Selecting **YES:**

- Clears the alarm relay for all current alarms. The alarms may remain valid, but the unit does not register new alarms. If a new alarm occurs, or an existing alarm clears and reoccurs, the alarm relay signals again (after any appropriate delay).
- Restores normal operation after an emergency pressure or feed overrun incident. If the controller experiences a high-pressure alarm for too long, it enters emergency pressure operation by opening all known air sources. Curtains open to preset amounts as set in CONTROL | Static Pressure. If you select SIREN ONLY, the alarm relay returns to the no alarm condition, but the emergency pressure status continues.
- Restores normal operation after a feed overrun situation that calls for turning off the feeding system. If the feed monitor senses the cross auger runs too long, it trips a feed overrun alarm and optionally turns off the feed system. If you select SIREN ONLY, the alarm relay returns to the no alarm condition, but the feed overrun status continues.



## 5.7 Fail Safe Setting

When there is a problem such as extremely high air temperature, the Fail-Safe function immediately activates a backup system (for example the RBU-27) to ensure that adequate ventilation continues.

FAIL SAFE SETTING	
Alarm Type	Select
High Temp.	✓
Low Temp.	•
Low Static Pressure	✓
High Static Pressure	✓
Avg. Temperature Fail	•
AUX.	•

The Platinum has six options besides controller failure or power off to activate the fail-safe relay. Apply the additional settings by using the '+/-' key:

- **High/Low Temperature:** Select to trigger fail-safe when the temperature is exceptionally high/low.
- **Low/High Static Pressure:** Select to trigger fail-safe when the static pressure is exceptionally low/high.
- **Avg. Temperature Fail:** Select to trigger fail-safe when all sensors in house fail.
- **AUX:** Select to trigger fail-safe when auxiliary dry contact occurs.

## 5.8 Password

PASSWORD	
Owner Password	----
User-1 Password	----
User-2 Password	----
User-3 Password	----
User-4 Password	----
User-5 Password	----
Visitor Password	----

The owner can set new passwords for himself, all users and visitor. The owner cannot see user passwords once entered or changed by the users. The users can access the controller and make changes to all controller settings and their own password. A user can only see and change his own password. The visitor can access the controller, but cannot make changes. Each time someone accesses the controller with a password, an event is recorded in the [HISTORY | Table of Events](#).

**NOTE:** If your controller uses passwords, the controller also requires a password entry to acknowledge switch position changes. If the switch change is not acknowledged the controller signals an alarm.

## 5.9 Relay Current

**NOTE:** Version 4.03 and higher supports the Relay Current feature. The Relay Current feature supports **single phase electricity** only.

This menu configures the relay current sense parameters. You can configure:

- the minimum and maximum amperage flowing to the relays
- the relay current alarm
- voltage type

**NOTE:** Configuring the amperage is not required. The Platinum controller automatically configures default settings.

MANAGEMENT
1. BIRD INVENTORY
2. FEED INVENTORY
3. TIME & DATE
4. GROWTH DAY & FLOCK
5. ALARM SETTING
6. ALARM RESET
7. FAIL SAFE SETTING
8. PASSWORD
<b>9. RELAY CURRENT</b>

RELAY CURRENT SETTING						
Rly.	Function	Min	Nom	Max	Alr	Vlt
31	Heat 6	2.7	3.8	5.0	NO	110
32	Heat 7	2.7	3.8	5.0	NO	110
33	Heat 8	3.0	3.8	5.6	NO	110
34	Exh. Fan 5	2.7	4.3	5.0	NO	110
35	Exh. Fan 6	2.3	3.8	5.0	NO	110
36	Tun. Fan 1	3.0	4.3	5.6	NO	110
37	Tun. Fan 2	0.0	0.0	0.0	NO	110
38	Tun. Fan 3	0.0	0.0	0.0	NO	110

**NOTE:** Calibrate the relay before configuring these parameters. Refer to Current Sense Relay Calibration, page 84. Relays that are not calibrated (or if the relay is not a Current Sense relay) do not display amperage readings (see relays 37 and 38 in the above figure).

### To configure the relay current:

1. Using the arrow buttons, select a minimum or maximum amperage setting.
2. Configure the parameter as required.

**NOTE:** The minimum amperage must be greater than the default minimum and the maximum amperage must be less than the default maximum. For example, relay 35's amperage must be more than 2.3 and less than 5.0 amps. The Nom amperage is the parameter set when calibrating the relay (refer to page 84).

3. Configure the alarm:
  - No: Alarms are not sent in the event of low or high current
  - Yes: Alarms are sent in the event of low or high current
  - No at zero: The controller sends an alarm if the current is low or high, but not if power is cut off entirely.
4. Configure the voltage: Select 110 or 220 volts.

**NOTE:** All relays' minimum/maximum current settings per equipment type must be within 30% ( $\pm$ ) of the nominal value. However, the augers minimum can go down to 0.0 amperes.





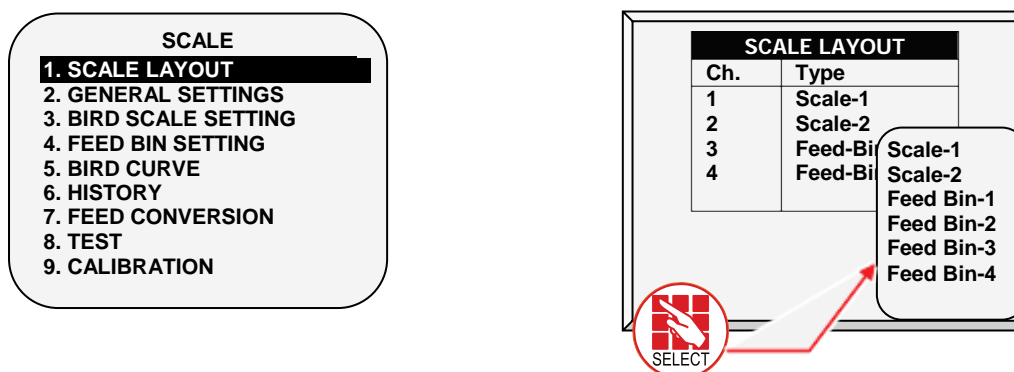
## 6 SCALE MENU

The following sections detail the weighing functions.

- Scale Layout, page 61
- General Settings, page 61
- Bird Scale Setting, page 62
- Feed Bin Setting, page 63
- Bird Curve, page 64
- History, page 64
- Feed Conversion, page 65
- Test, page 65
- Calibration, page 66

### 6.1 Scale Layout

Use Scale Layout to define the (bird) scales, feed bins, or feed scales connected to the controller.

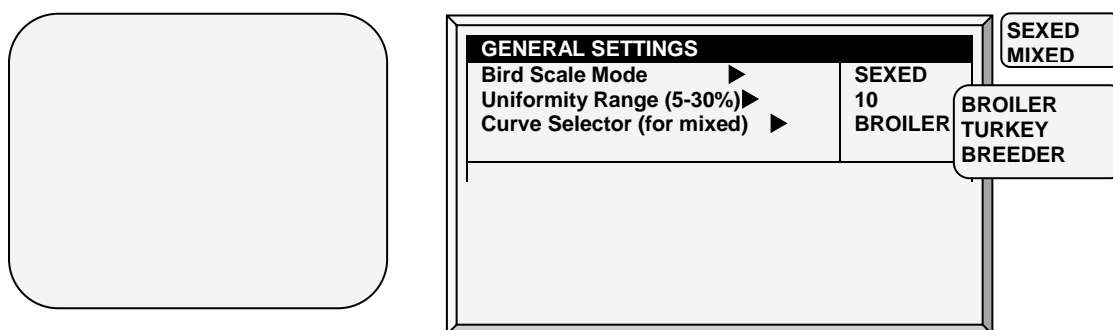


Define the weighing device attached to each channel of the scale option card. It is possible to program either bird scale and/or feed bin (silo) scale.

**NOTE:** Version 4.05 and higher supports up to four feed bins. Previous versions support up to two bins.

### 6.2 General Settings

This menu sets general weighing parameters.

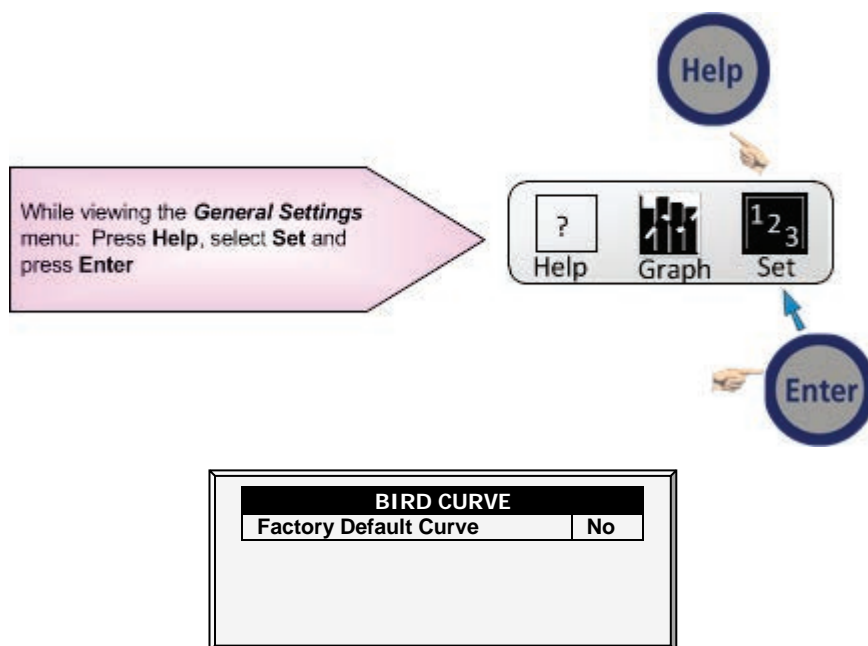


- **Bird Scale Mode:** Select the weighing method:
  - **SEXED:** Considers all birds to be the same sex or 'unisex' as in mixed broilers. It computes its own reference weight or acceptable range from the weighed birds.



- **MIXED:** Considers the flock to be mixed males and females, with the goal of identifying each bird weight as male or female, which is, classifying it according to a pre-programmed pair of expected weight curves.
- **Uniformity Range (5-30%):** Controller classifies bird weights within this percentage of the average as uniform. Default is 10%.
- **Curve Selector (for mixed):** There are three standard pairs of pre-programmed weight curves. If you use the mixed weighing method, edit the curves to match your expected growth profile (**BROILER**, **TURKEY**, or **BREEDER**).

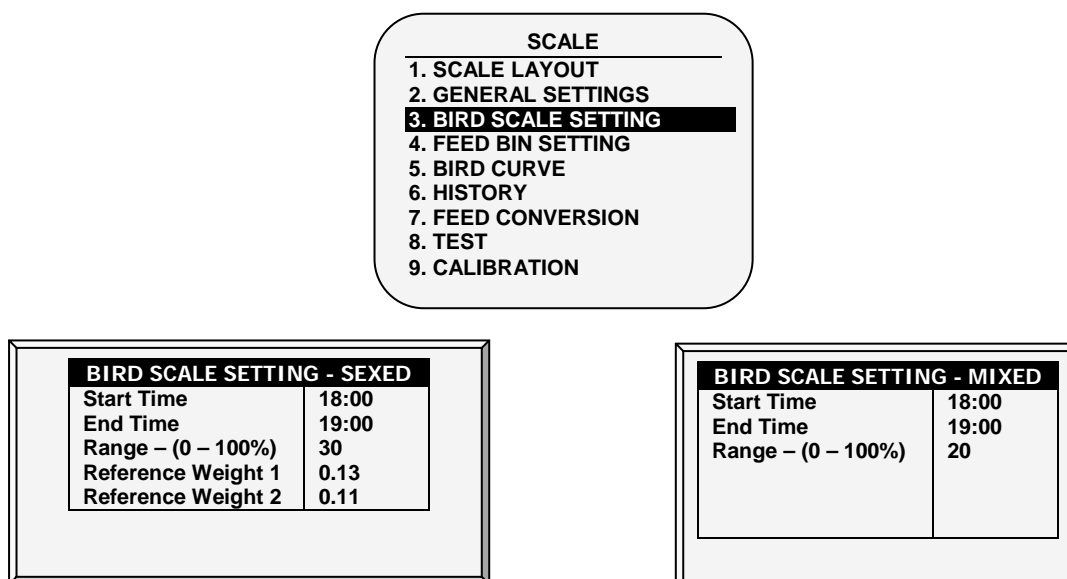
## 6.2.1 General Settings Help | Set Definitions



- **Factory Default Curve:** Select **YES** to return bird curves to the factory default settings

## 6.3 Bird Scale Setting

There are two different weighing options available; the option can be selected in the previous section [SCALE | General Settings](#).



- **Start Time:** Set the hour you would like the scale to begin weighing
- **End Time:** Set the hour you would like the scale to stop weighing
- **Range – (0-100%):** Band above and below reference weight
- **Reference Weight 1:** Starting out weight for scale 1
- **Reference Weight 2:** Starting out weight for scale 2
- **Start Time:** Set the hour you would like the scale to begin weighing
- **End Time:** Set the hour you would like the scale to stop weighing
- **Range – (0-100%):** Band above and below reference weight

## 6.4 Feed Bin Setting

These settings help you monitor your feed bin through weighing. There are two events that take place, emptying (feeding) and filling (loading).

**NOTE:** Feed Bins must be defined in **Scale Layout** for the following parameters to be functional.

SCALE
1. SCALE LAYOUT
2. GENERAL SETTINGS
3. BIRD SCALE SETTING
4. FEED BIN SETTING
5. BIRD CURVE
6. HISTORY
7. FEED CONVERSION
8. TEST
9. CALIBRATION

FEED BIN SETTING	
Minimum Empty Weight	20
Minimum Filling Weight	2000
Filling Detection Weight	300
Resume Time (minute)	5

- **Minimum Emptying Weight** (Default: 20 Kg): Define the accumulated emptying weight from the bin during feeding time for it to be recorded as an event. Once it has been recorded, the counter resets.
- **Minimum Filling Weight** (Default: 2000 Kg): Define weight required to be filled during loading to be recorded in **History – Feed**; **History – History View**; **Scale – Feed Conversion**.
- **Filling Detection Weight** (Default: 300 Kg): Define the weight you want your controller to detect a filling to stop augers.
- **Resume Time (minute)** (Default: 5 min.): Once loading is completed, define the time you want your controller to count down for the augers to resume normal operation.

The following is a typical scenario that will help in understanding how to define the Feed Bin Settings:

A loading truck will come to fill the bin. Define the **Filling Detection Weight** to stop the augers from operating during a loading event (Default: 300 Kg). Next, a **Minimum Filling Weight** needs to be defined in order to have the filling event recorded in the **Feed Inventory** (Default: 2000 Kg). Once the loading of the feed is finished, the timer begins to count down for the augers to resume normal operation (**Resume Time**, Default: 5 minutes) and for the filling event to be recorded as completed.

## 6.5 Bird Curve

This screen displays data according to growth day for **broilers, turkeys, or breeders**, previously set in [SCALE | General Settings](#).

SCALE
1. SCALE LAYOUT
2. GENERAL SETTINGS
3. BIRD SCALE SETTING
4. FEED BIN SETTING
<b>5. BIRD CURVE</b>
6. HISTORY
7. FEED CONVERSION
8. TEST
9. CALIBRATION

BIRD CURVE		
Day	Female Weight	Male Weight
1	0.11	0.13
7	0.31	0.35
14	0.66	0.70
21	1.26	1.54
28	2.07	2.73
35	3.15	4.27
42	4.45	6.15
49	5.95	8.22
Now	1.87	2.44

Edit the growth days and weights for the bird curves to fit individual preference.

## 6.6 History

The scale history shows bird weight statistics. You can review daily data for each scale, or separately. The unit records up to two-bird scale data; if you have more than one scale-1 or one scale-2, their data is combined.

SCALE
1. SCALE LAYOUT
2. GENERAL SETTINGS
3. BIRD SCALE SETTING
4. FEED BIN SETTING
5. BIRD CURVE
<b>6. HISTORY</b>
7. FEED CONVERSION
8. TEST
9. CALIBRATION

HISTORY					
Day	Avg.	NO.	S.D.	Unif.	C.V
17	0.000	0	0.000	0	0
18	0.000	0	0.000	0	0
19	0.000	0	0.000	0	0
20	0.000	0	0.000	0	0
21	0.000	0	0.000	0	0
22	0.000	0	0.000	0	0
23	0.000	0	0.000	0	0
24	0.159	1	0.000	100	0
25	0.000	0	0.000	0	0
26	0.000	0	0.000	0	0

- If you selected **SEXED** weighing, the history includes average data for the combined scales, and on the next screens separate data for each scale.
- If you select **MIXED** weighing, the history includes average data for all birds, and separate male and female data for Scale 1 and for Scale 2.
  - Use the arrow keys to scroll to the separated scale data, or up and down for data that is off screen.
  - The average and the number of weights are the usual definition. The Standard Deviation is the usual biased estimator (see a suitable textbook on statistical measurements). The Uniformity is the industry standard 10% uniformity (number of birds per 100 within 10% of the average weight), and the Coefficient of Variation or C.V. is the normalized standard deviation (standard deviation divided by average times 100 %.)



## 6.7 Feed Conversion

This screen displays the amount of feed converted into the bird's weight.

SCALE	
1. SCALE LAYOUT	
2. GENERAL SETTINGS	
3. BIRD SCALE SETTING	
4. FEED BIN SETTING	
5. BIRD CURVE	
6. HISTORY	
7. FEED CONVERSION	
8. TEST	
9. CALIBRATION	

FEED CONVERSION			
Day	Bird Weight	Daily Feed	Feed Conversion
17	0.00	0	N/A
18	0.00	0	N/A
19	0.00	0	N/A
20	0.00	0	N/A
21	0.00	0	N/A
22	0.00	0	N/A
23	0.00	0	N/A
24	0.16	0	0.00
25	0.00	0	N/A
26	0.00	0	N/A

## 6.8 Test

This section is a real time table to show the statuses of all scales connected to the controller.

1. In *Scale > Scale Layout* (refer to page 61), select the required scale types.
2. In *Scale > Test*, test the scales as required.

SCALE	
1. SCALE LAYOUT	
2. GENERAL SETTINGS	
3. BIRD SCALE SETTING	
4. FEED BIN SETTING	
5. BIRD CURVE	
6. HISTORY	
7. FEED CONVERSION	
8. TEST	
9. CALIBRATION	

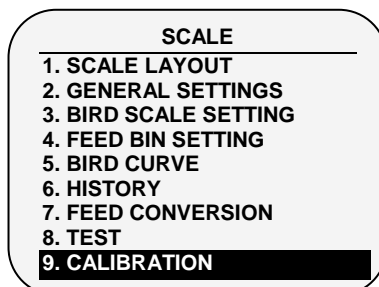
TEST				
	- 1 -	- 2 -	- 3 -	- 4 -
Type	Scale-1	Scale 2	Scale 3	Scale 4
A/D	2024	2010	1891	1893
Weight	0.222	35.768	0.000	0.000
Status	O.K.	O.K.	O.K.	O.K.

Make sure that all status are **O.K.** If any of them show a different status, the scale is not installed properly. Unused positions can also show O.K.

## 6.9 Calibration

This menu calibrates the scales and feed bins connected to the controller.

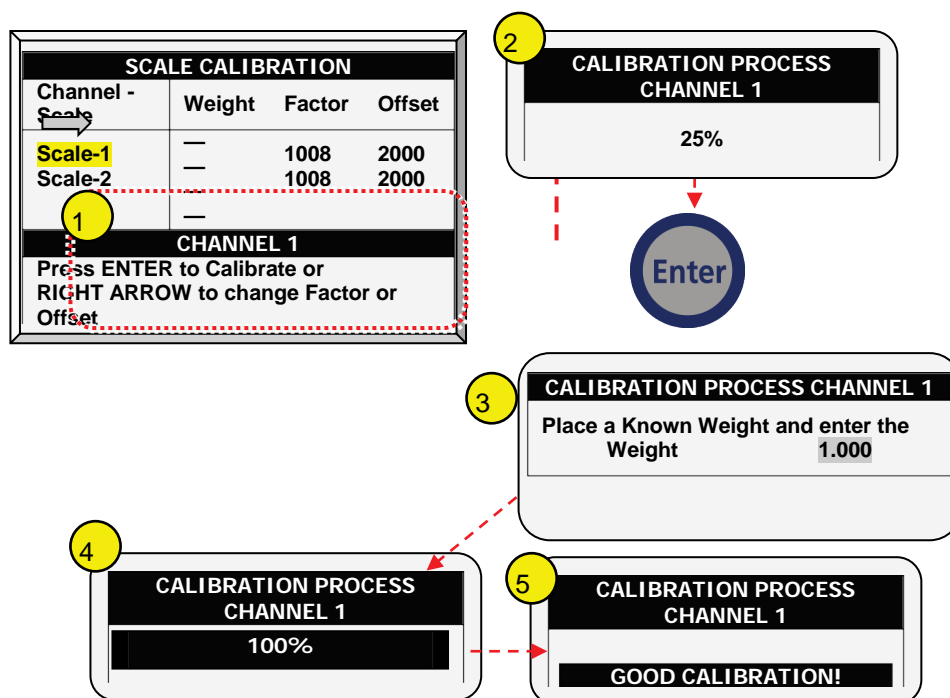
1. In *Scale > Scale Layout* (refer to page 61), select the required scale types.
2. In *Scale > Calibration*, calibrate the scales.



**CAUTION** Do not use scales while calibrating.

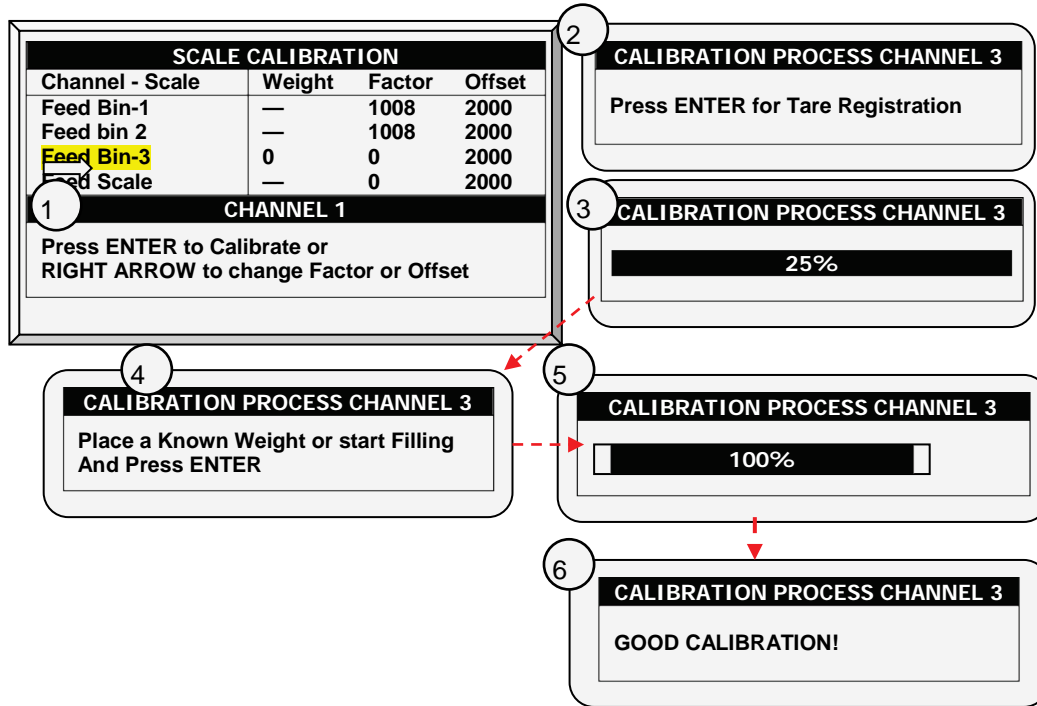
### 6.9.1 Scale Calibration

1. Follow instructions on the bottom section of the screen.
2. Wait until the progress bar displayed shows 100%.
3. Place a known weight on the scale and enter its weight.
4. Wait until the calibration progress bar reaches 100%.
5. Ensure **“Good Calibration.”**



## 6.9.2 Feed Bin Calibration

1. Follow instructions on the bottom section of the screens.
2. Wait until the progress bar displayed shows 100%.
3. Place a known weight or start filling the feed bin.
4. Wait until the calibration progress bar reaches 100%.
5. Ensure “**Good Calibration.**”





## 7 HISTORY MENU

In the History Menu you can view data regarding:

- Temperature
- Humidity
- CO2
- Water
- Feed
- Mortality
- Heaters
- Radiant Heaters
- Alarms
- Table of Events
- History View
- Power Consumption

### 7.1 Temperature

The temperature history menu stores minimum, average and maximum temperatures by growth day. The average is weighted, so if most of the day has been warm the average is closer to the maximum than the minimum.



### 7.2 Humidity

The humidity history menu stores minimum, average and maximum inside humidity by growth day. The average is weighted, so if most of the day has been humid the average is closer to the maximum than the minimum.

**NOTE:** In Version 3.06/4.06, if two humidity sensors are installed, this screen displays their average. The History View display shows reading of both sensors only if they have been selected for logging.

### 7.3 CO2

The CO2 history menu stores minimum, average and maximum inside CO2 levels by growth day. The average is weighed, therefore if most of the day has been high CO2 levels the average is closer to the maximum than the minimum.

**NOTE:** This feature is only available in Version 3.02 and higher.



## 7.4 Water

The water menu records daily water consumption and shows the daily differential change from the previous day in percent. You must have the water monitor digital inputs connected. You can monitor up to two drinking water meters, total drinking water, total water, cool pad, fogger and cool pad flush consumption.

## 7.5 Feed

The feed menu records daily feed consumption and shows the daily differential change from the previous day in percent for two feed bins/fill systems. You must have a feed silo weighing system installed for the feed system, or monitor the auger system.

**NOTE:** Version 4.05 and higher supports four feed bins. Previous versions support two bins.

The feed data can be based on one of the following inputs. If more than one input is installed, priority is according to the order of the bulleted list.

- **Feed Bin:** If feed bins (load cells) are installed, feed consumption data of each bin is based on the feed bin weight.
- **Current Sense:** If Current Sense Relays for Augers are installed and calibrated (refer to Current Sense Relay Calibration, page 84), feed consumption data of each auger is based on the current sense, calculation method settings, and actual auger run-time. The run-time is calculated based on the measured current, when the actual current is higher than the nominal value (refer to Relay Current, page 60).
- **Feed Count:** If a feed count sensor is installed feed consumption for each feed count input is based on the feed count method settings (refer to Digital Sensors, page 90).

## 7.6 Mortality

The mortality history menu maintains daily summaries of mortality, cull and total dead. It also shows the percentage dead and gives an updated count of bird inventory. The history is maintained separately for male, female and total. Use the left and right arrow keys to switch to the next screen.

## 7.7 Heaters

The Platinum maintains daily total run times of each heater. The table fills several screens; to view the off screen data, use the arrow keys to scroll. The data is in hours: minutes format.

## 7.8 Radiant Heaters

The Platinum maintains daily total run times of each radiant heater, including separate data for low level and high-level heaters. The table fills several screens; to view the off screen data, use the arrow keys to scroll. The data is in hours: minutes format.

## 7.9 Alarms

The alarm history records the growth day and time of each alarm. Alarms that are currently active show up as flashing on the screen. Alarm history is not reset when using *Management, Growth Date & Flock > New Flock*. The last 250 alarms are saved, and as the table is filled, new alarms push out the older alarms.

## 7.10 Table of Events

The Platinum records significant events with growth day and time stamp. The Table of Events is 1000 events long and is not reset when using *Management, Growth Date & Flock > New Flock*. New events push out the older events.

Typical events recorded are switch changes, entry into tunnel mode, natural or minimum ventilation, alarm resets, ventilation mode changes and more. The Table of Events is an excellent tool to determine whether your controller is going in and out of tunnel due to marginal settings as well as finding and identifying problems.

**NOTE:** Go to the Table 6, page 95 to view all the available events.

## 7.11 History View

The History View menu has detailed history on a variety of sensors and data. Go to *Help > Set* under History View to select the particular data to collect.

1. In *Install > Setup > History Resolution*, set the frequency of your data collection. Factory default collects one-hour data on a selection from the choices below.
2. Under **Help | Graph** you can select a variety of graphs of the detailed history.
3. In the **HISTORY VIEW | HELP | SET** menu, set the desired choice by using the '+/-'.

The options are as follows:

- Target Temp.
- House Temperature
  - Minimum, Average and Maximum
- Temp – 1-9
  - Minimum, Average and Maximum
- Attic Sensor
  - Minimum, Average and Maximum
- Outside Temperature
  - Minimum, Average and Maximum
- Humidity In/Out
  - Minimum, Average and Maximum
- Water Consumption
- Feed Consumption
- Level of Ventilation

**NOTE:** Altering choices erases old data and starts a fresh data set.

## 7.12 Power Consumption

This menu displays the daily power consumption (in kWh) of the heaters, fans, lights and other equipment and the change from the previous day.

**NOTE:** Current sense relays are required for this function to be enabled.

**NOTE:** Version 4.03 and higher supports this feature. The Relay Current feature supports **single phase electricity only**.



## 8 TEST MENU

The Test Menu screen shows internal information in order to verify that the Platinum is operating correctly. Moreover, it can help find broken wires or any other problems related to it.

- Switches & Relays, page 71
- Switches & Relays Extension, page 72
- Alarm, page 72
- Analog Sensors, page 72
- Digital Sensors, page 73
- Analog Output, page 73
- Static Pressure, page 73
- Communication, page 74
- Hardware Checklist, page 74
- Emergency Status, page 74

### 8.1 Switches & Relays

This menu displays a screen of identified switches and relays installed in the controller. Use this option to determine faulty hardware.

TEST	
1. SWITCHES & RELAYS	
2. SWITCHES & RELAYS EXT.	
3. ALARM	
4. ANALOG SENSORS	
5. DIGITAL SENSORS	
6. ANALOG OUTPUT	
7. STATIC PRESSURE	
8. COMMUNICATION	
9. HARDWARE CHECKLIST	
10. EMERGENCY STATUS	

SWITCHES & RELAYS									
01	02	03	04	05	06	07	08	09	10
Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut
11	12	13	14	15	16	17	18	19	20
Off	Off	Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut
21	22	23	24	25	26	27	28	29	30
Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut
31	32	33	34	35	36	37	38	39	40
On	Aut	On	Aut	Aut	Aut	Aut	Aut	Aut	Aut

On	When the switch is positioned 'on'
Off	When the switch is positioned 'off'
Aut	The usual state (Automatic)
XX	The relay referred to has a failure
--	No switches

## 8.2 Switches & Relays Extension

SWITCHES & RELAYS									
41	42	43	44	45	46	47	48	49	50
Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut	Aut
51	52	53	54	55	56	57	58	59	60
Off	Off	Aut	Aut	Aut	Aut	Aut	--	--	--
61	62	63	64	65	66	67	68	69	70
--	--	--	--	--	--	--	--	--	-
71	72	73	74	75	76	77	78	79	80
--	--	--	--	--	--	--	--	--	--

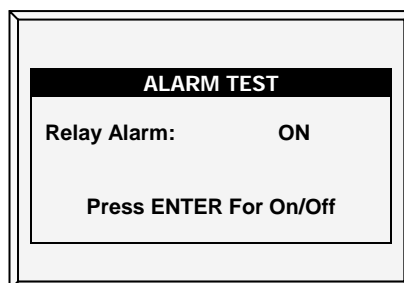
Test the operation of the on/off/auto switches and relays in the optional Extension Box. The Platinum supports a maximum of 40 switches/relays in the basic controller. You can add an external extension box to obtain up to 80 switches/relays total.

## 8.3 Alarm

Press **Enter** to toggle the Alarm Relay.

- ON means alarms are functioning
- OFF means alarms are not functioning.

Note that the alarm relay is powered for the 'NO ALARM' condition to provide automatic **Power Fail Alarm** in case of power failure to the Platinum. That is, the Normally Open side is closed during NO ALARM.



## 8.4 Analog Sensors

ANALOG SENSORS	
Input	Value
1	425
2	421
3	426
4	422
5	426
6	422
7	1023
8	1023
9	364

Observe the converter readings for analog sensors with this menu. The readings can vary from 0 to 1023. The values displayed in the 'Value' column indicate that the analog sensor is operating or not according to the following:

- If a very large value is shown (such as a four digit number) or a small value is shown (such as a one digit number): sensor is **not connected**.
- If the unit displays a 3-digit number, usually beginning with the digit '4': sensor is **operating**.

## 8.5 Digital Sensors

DIGITAL SENSORS							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0	0	0	0	0	0	0	0

Observe the state of the eight digital sensors. A '1' implies a shorted input, a '0' an open input. The digital sensors operate with dry contact inputs such as the Arad Water Meter, or micro-switches.

You can apply a short/open input to each channel; the response is then displayed.

## 8.6 Analog Output

This screen tests light dimmers, variable speed fans, and variable heaters.

1. Scroll to the required output.
2. Enter the test voltage and verify that the device is operating.

Analog Output	
Output	0-10V
1	0.0
2	0.0
3	0.0

## 8.7 Static Pressure

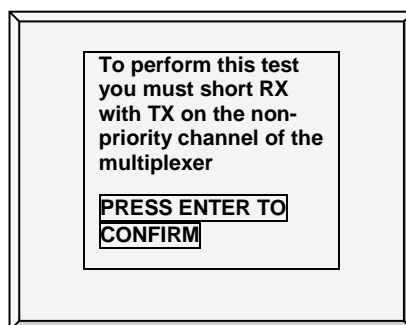
Observe the converter readings for the static pressure sensor. The nominal 'zero' pressure reading is 130. Remove the air hoses from the brass connectors on the left side outside of the controller to check this reading.

STATIC PRESSURE	
A/D Counts	126



## 8.8 Communication

This menu facilitates testing on communication networks. A multiplexer in loop back mode is used to test the communication. The Platinum follows its' own communication to check for failed hardware. Follow the instructions displayed on the screen.



## 8.9 Hardware Checklist

Check the installed hardware that has been identified by the Plug and Play system. The system detects all cards except communication. The standard optional communication card provides lightning protection, and does not have local computerized intelligence to identify itself to the system. Note that if a card is missing, turn the power OFF and then ON for a card rescan.

HARDWARE CHECKLISTE		
Description	Found	Relays
Analog Input	✓	
Digital Input	✓	
Analog Output	■	
Scales	✓	
Static Pressure	✓	
Alarm	✓	
N.C. Emergency Card	1	5
N.O. Switch Card	7	35
N.C. Switch Card	0	0
Vent Board/Curtain Card	0	0

## 8.10 Emergency Status

This screen displays the emergency cards' status (if installed).

EMERGENCY STATUS	
Emergency Card 1 Temp.	28.4
Emergency Card 2 Temp.	27.7
Set Temperature	24.7
Battery 1 Level	GOOD
Battery 2 Level	GOOD
Min. Vent Cycle On (sec)	57
Min. Vent Cycle Off (sec)	243

- Emergency card sensor temperature
- Current set or target temperature
- Backup battery level
- Minimum ventilation cycle timer ON/OFF time

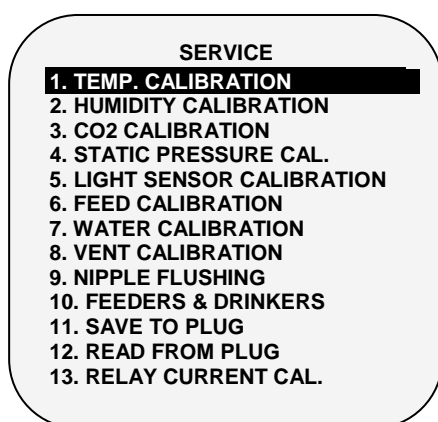
## 9 SERVICE MENU

The Service Menu items calibrate various Platinum functions.

- Temperature Calibration, page 75
- Humidity Calibration, page 76
- CO2 Sensor, page 76
- Static Pressure Calibration, page 77
- Light Sensor Calibration, page 78
- Feed Calibration, page 78
- Water Calibration, page 79
- Vent Calibration, page 79
- Nipple Flushing, page 80
- Feeders & Drinkers, page 82
- Save Settings to Plug, page 83
- Read from Plug, page 83
- Current Sense Relay Calibration, page 84

### 9.1 Temperature Calibration

The Platinum temperature sensors are typically accurate to approximately 0.5° F within the range of temperatures for poultry production. Calibrate them in this menu by adding/subtracting a constant correction factor to each sensor. Adjust the sensor of your choice with the left/right arrow keys.



TEMPERATURE CALIBRATION		
Sensor	Temp°	Factor
1	78.2	1.6
2	86.4	0.9
3	83.0	-1.5
4	86.2	0.8
5	85.2	-1.6
6	84.2	0.0

Calibrating against infrared or in air temperature sensors generally results in less accuracy than the basic sensors have without calibration.

**CAUTION** Only calibrate the sensors if you have reason to believe that they are producing inaccurate results.

#### To calibrate the sensor:

1. Obtain an accurate reference sensors and a pail of water at the approximate required temperature.
2. Stir the reference sensor together with the Platinum sensor vigorously in the bucket of water. Keep hands off the sensor itself, so that it responds accurately to the water temperature. Stirring is necessary to preclude stratification within the bucket of water.
3. Call out the accurate reading to a second person standing at the Platinum. Walkie-talkie radios may be a good idea.

4. The individual at the controller should double-check that you are calibrating the correct sensor. You might warm/cool the sensor temporarily to see which sensor changes temperature appropriately.
5. Once you determine the correct temperature and allow approximately one minute for stabilization in the water, adjust the sensor reading at the controller.
6. Offset the factor using the left/right arrow keys.
  - Refer to Temperature Curve, page 18.

## 9.2 Humidity Calibration

To calibrate the humidity level, obtain a suitable humidity test kit and use the procedures described there. They are commonly available via the Internet.

HUMIDITY CALIBRATION		
Sensor	Humidity°	Factor
In	58.9	2.3
Out	N/A	---

Press Left/Right Arrows to Calibrate

**CAUTION** Only calibrate the sensors if you have reason to believe that they are producing inaccurate results.

- Adjust the Platinum reading as needed using the left/right arrow keys.
- Refer to Humidity Treatment, page 22.

## 9.3 CO2 Sensor

To calibrate the CO2 level, obtain a suitable test kit and use the procedures described in the kit. Ensure that the house is well ventilated, either naturally or using fans.

**CAUTION** Only calibrate the sensors if you have reason to believe that they are producing inaccurate results.

CO2 SENSOR CALIBRATION	
	Value
PPM at 4 mA/1 VDC	26
PPM at 20 mA/5 VDC	3000
Factor (PPM)	22

CO2 (ppm):  
482

- **Ppm at 4 mA / 1 VDC:** Parts per million for 4 mA or 1 VDC
- **Ppm at 20 mA / 5 VDC:** Parts per million for 20 mA or 5 VDC
- **Factor (ppm):** (-/+) ppm shift from the current reading
- **CO2 (ppm):** Current CO2 readings
- Adjust the Platinum reading as needed using the left/right arrow keys.
- Refer to CO2 Treatment, page 23.

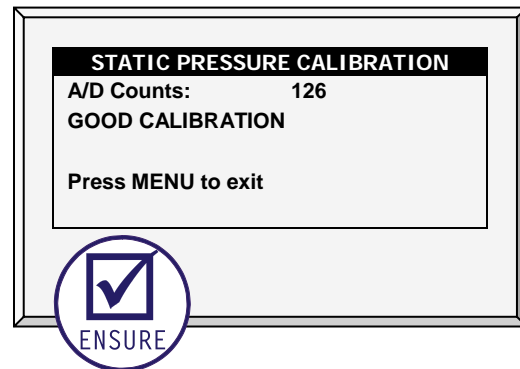
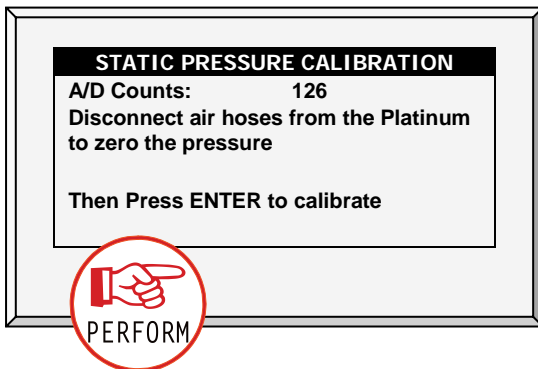
## 9.4 Static Pressure Calibration

The Static Pressure should be 0 when there is no ventilation and the house is closed. When the controller reads 130 A/D counts, this is zero (0) static pressure. Check for blocked air hoses or wind interference for inaccurate readings.

**NOTE:** Allow Platinum to run for a few hours so that the temperature in the box becomes stable and only then calibrate.

There are two ways of calibrating the sensor to 0:

- **Software calibration:**  $130 \pm 40$
- **Hardware calibration:** Adjust trimmer

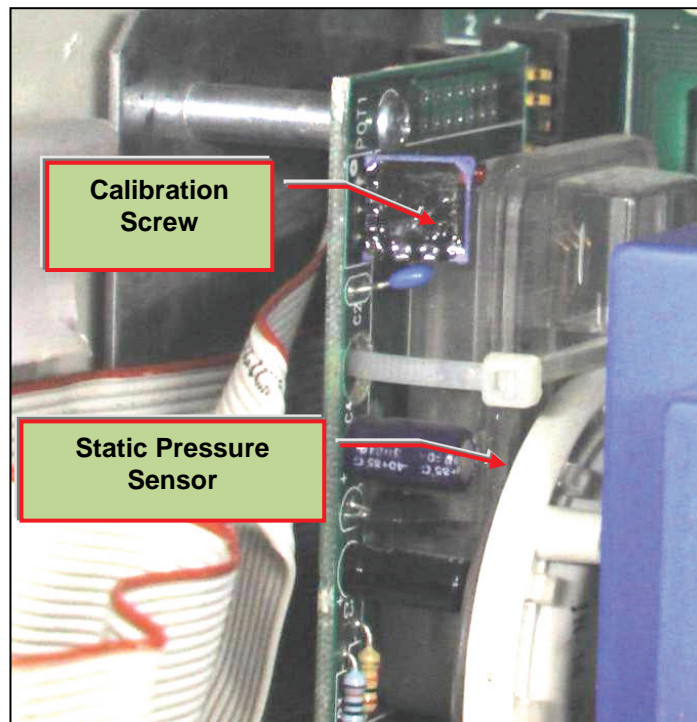


**NOTE:** A/D Counts of  $130 \pm 40$  is considered a good calibration.

Calibrate the static pressure physically using the calibration screw on the sensor card prior to completing the software calibration.

- **Hardware Calibration:** With air hoses removed, adjust the zero pressure reading to approximately 130 by turning the calibration screw with a small jewelers screwdriver.
- **Software Calibration:** After hardware calibration, follow the procedure given by the controller.

The calibration procedure adjusts the zero pressure reading. The static pressure sensor is located inside the controller in the upper left hand corner to the left of the power supply.



- Refer to Static Pressure, page 30.

## 9.5 Light Sensor Calibration

**NOTE:** Versions 3.03 and higher support this feature.

Installing a light sensor enables turning off the lights when there is sufficient outside light.

### To calibrate the light sensor:

1. Go to *Install > Analog Sensors* (page 90).
2. Define one sensor as a light sensor.
3. Go to *Device > Light* (page 45).
4. Press **Help**, highlight **Set**, and press **Enter**.
5. Scroll down to **Light Sensor Active** and set to **Yes**.
6. Place the sensor in the required location.
7. Go to *Service > Light Sensor Calibration*.
8. When the outside light is bright enough, press **Enter**

## 9.6 Feed Calibration

The Platinum can use feed bin scales or less expensive digital monitoring devices to keep track of your feed. This menu calibrates the digital monitoring devices.

### To calibrate the digital monitoring device:

1. Select the feed counting method. Your digital monitoring device may generate a dry contact pulse for each quantity of feed, or it may simply indicate that the feed is running.
2. Enter the quantity of feed per pulse in case you use a dry contact pulse. Otherwise, enter the amount of feed delivered per minute of auger operation.
3. Select one of the following:
  - **Pulse:** Weight per pulse
  - **Time:** Weight per minute
  - **Current Sense:** Motor run time when the auger contains feed



4. Enter quantity (weight per minute or per pulse).

FEED CALIBRATION				
Feed	1	2	3	4
Method	TIME	TIME	TIME	TIME
Factor	2.203	2.203	2.203	2.203
Method Pulse: Weight per Pulse				
Method Time: Weight per Minute				
Method Current: Weight per Minute				

**NOTE:** Version 4.05 and higher supports feed calibration using Current Sense.

## 9.7 Water Calibration

The Platinum supports up to four dry contact pulse output water meters. Enter the quantity of water per pulse for your water meters.

WATER CALIBRATION			
Water 1	–	Water Per Pulse	Time
Water 2	–	Water Per Pulse	Time
Cool Pad	–	Water Per Pulse	2.203
Fogger	–	Water Per Pulse	2.203

## 9.8 Vent Calibration

This menu enables calibrating the vent. After pressing ENTER on the desired vent to calibrate, WAIT for the vent to (1) fully close; (2) fully open; and (3) fully close again.



**VENT CALIBRATION**

	MIN	POS	MAX
1 <sup>st</sup> Vent	0	351	1000

Stop fans from running to avoid High Pressure

**VENT CALIBRATION**

	MIN	POS.	MAX
1 <sup>st</sup> Vent	0	351	1000

Closing Vent

Press MENU to Stop And Back To Menu

**VENT CALIBRATION**

	MIN	POS	MAX
1 <sup>st</sup> Vent	351	351	1000

Opening Vent

Press MENU to Stop And Back To Menu

**VENT CALIBRATION**

	MIN	POS	MAX
1 <sup>st</sup> Vent	351	544	544

Closing Vent

Press MENU to Stop And Back To Menu

**VENT CALIBRATION**

	MIN	POS	MAX
1 <sup>st</sup> Vent	249	249	520

Calibration Vent: 1

**VENT CALIBRATION**

	MIN	POS.	MAX
1 <sup>st</sup> Vent	574	527	574

**BAD Calibration Vent: 1**  
Check the Vent Connections  
Press MENU to Menu

☒

**ENSURE**

**Good Calibration**

## 9.9 Nipple Flushing

To use this selection, program the water solenoids using the following relay codes:

- **111 Water Main:** The control's supplementary for the usual water line
- **112 Water Bypass:** The control's supplementary to bypass the water pressure regulator
- **113 Water line 1 through 122 Water line 10:** Individual water line supplementary to select the line to flush

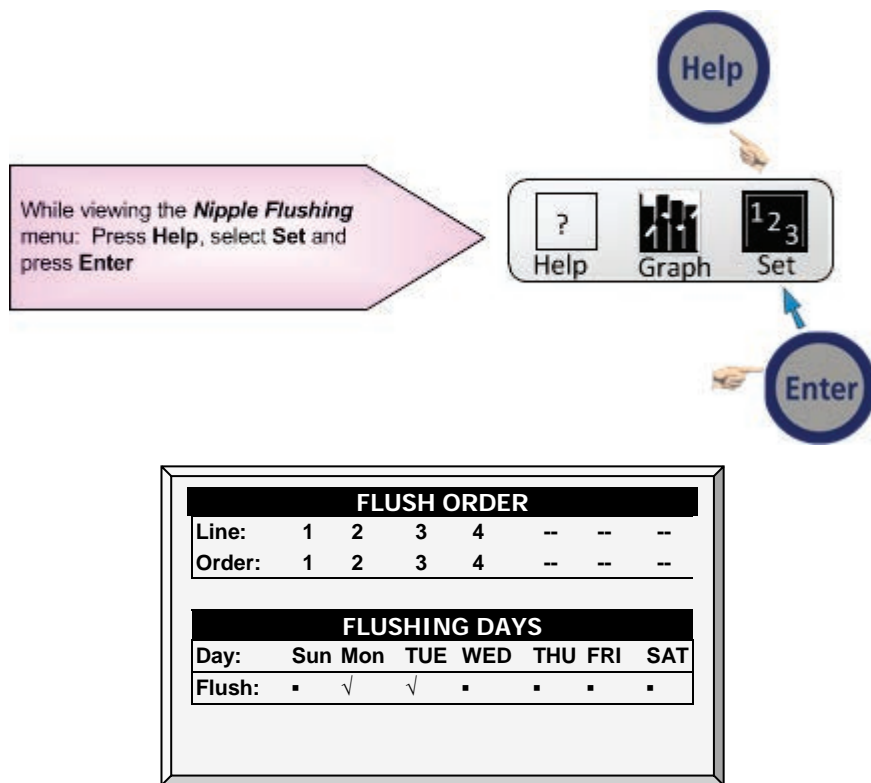
During normal operation, only relay 111 water main is active. During flushing relay, code 112 is active together with each of the individual water line relays in turn.

**NOTE:** Configure up to 20 flush times.

- Set start time/duration of water flushing (water lines as defined by relay layout)

<b>NIPPLE FLUSHING</b>		
Start Time	On Time (min)	Status
06:00	2	AUTO
15:40	1	AUTO
00:00	0	AUTO
00:00	0	AUTO
00:00	0	AUTO

## 9.9.1 Nipple Flushing Help | Set Definitions



- **Flush Order:** Set flushing according to line/order
- **Flushing Days:** Set flushing per day using '+/-' key

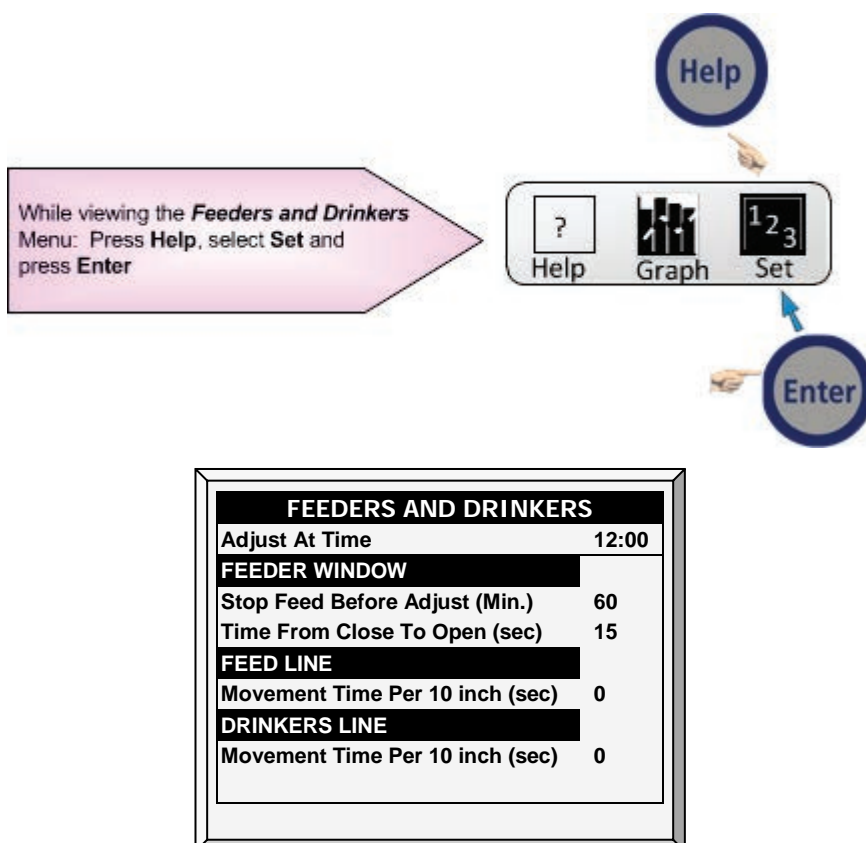
## 9.10 Feeders & Drinkers

This selection enables inserting relevant information regarding feeder and drinker lines.

FEEDERS AND DRINKERS			
Day	Window Pos (%)	Feeder-Line Lift (inch)	Drinker-Line Lif (inch)
15	90	0.0	14.0
20	50	15.0	3.0
0	0	0.0	0.0
0	0	0.0	0.0
0	0	0.0	0.0
0	0	0.0	0.0
0	0	0.0	0.0
0	0	0.0	0.0

- **Day:** Insert day number.
- **Window Pos (%):** Insert the percentage of window's position.
- **Feeder-Line Lift (Inch):** Define the specific feed line lift, measured in inches.
- **Drinker-Line Lift (Inch):** Define the specific drinker line lift, measured in inches.

### 9.10.1 Feeders & Drinkers Help | Set Definitions



- **Adjust at Time:** Set the desired time to adjustment.

#### Feeder Window

- **Stop Feed Before Adjust (min):** Set the amount of time to stop feeding before adjustment begins.
- **Time from Close to Open (sec):** Set the amount of time after stopping the feeding before opening the feeder's window.



## Feed Line

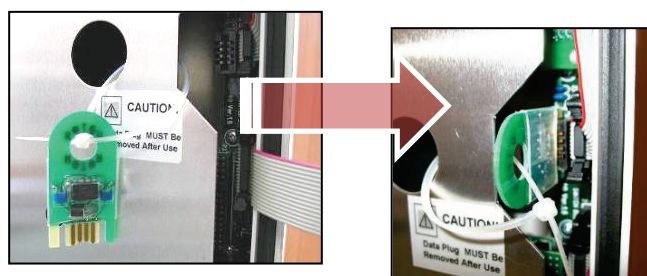
- **Movement Time per 10 inch (sec):** Set a number of seconds needed to move the feed line 10 inches.

## Drinker Lines

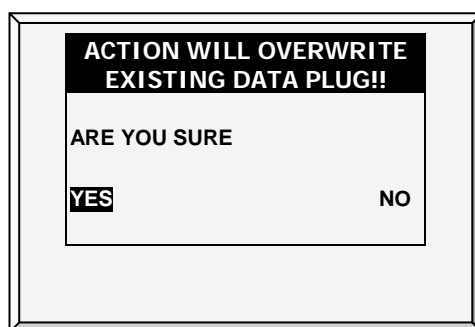
- **Movement time per 10 inch (sec):** Set a number of seconds needed to move the drinker lines in 10 inches.

## 9.11 Save Settings to Plug

This menu enables the user to save his program settings to the included data plug and transport them to another controller for quick programming.



1. **Insert** data plug as shown.
2. **Save** controller settings.

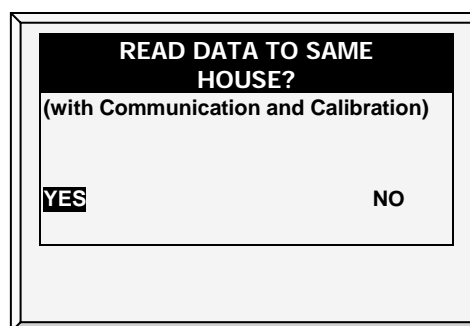
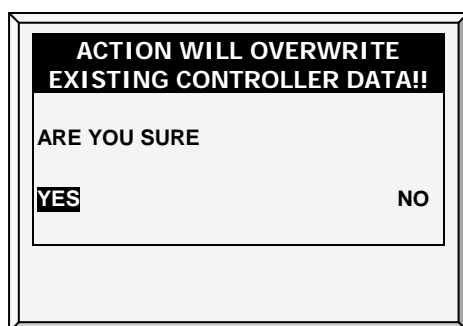


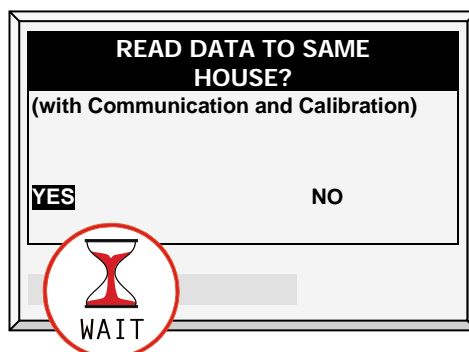
## 9.12 Read from Plug

This menu enables reading a saved program from a data plug into the controller quickly and reliably rather than configuring the settings manually.

**NOTE:** Make sure that the program data is identical to the relay layout of the controller.

- Follow the instructions given on the screen.





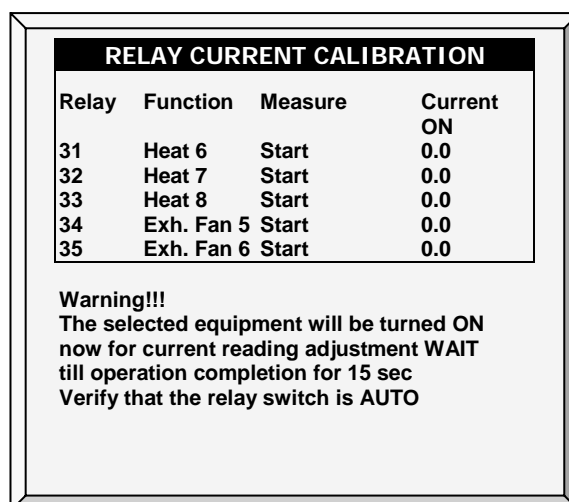
## 9.13 Current Sense Relay Calibration

**NOTE:** Version 4.03 and higher supports this feature. The Current Sense relays supports **single phase electricity** only.

This menu calibrates the amount of current that passes through Current Sense relays. Calibration enables configuring the minimum and maximum permissible currents.

**To calibrate the current sense relay:**

1. Define the relay (refer to Relay Layout, page 87).
2. Select *Service > Relay Current Cal.* The following screen appears.



3. Select a relay and click **Enter**.

**NOTE:** The relay must be set to Auto.

4. Repeat for each current sense relay.

RELAY CURRENT CALIBRATION			
Relay	Function	Measure	Current
			ON
31	Heat 6	Done	0.2
32	Heat 7	Done	0.2
33	Heat 8	Done	0.2
34	Exh. Fan 5	Done	3.8
35	Exh. Fan 6	Done	4.3

**Warning!!!**  
The selected equipment will be turned ON  
now for current reading adjustment WAIT  
till operation completion for 15 sec  
Verify that the relay switch is AUTO

5. To set the minimum and maximum voltages, alarms and 110/220 voltage, refer to Relay Current, page 60.

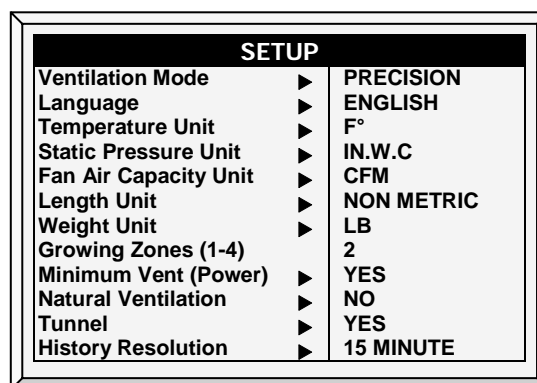
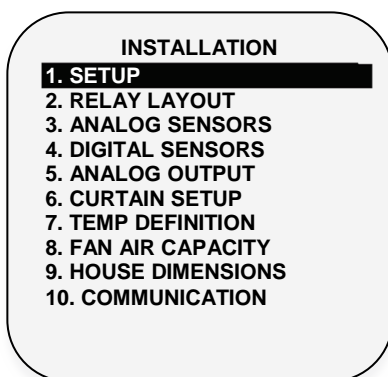


## 10 INSTALL MENU

The Install Menu items are used when installing input and output devices, as well as configuring critical parameters needed to run your controller properly.

- Setup, page 86
- Relay Layout, page 87
- Analog Sensors, page 90
- Digital Sensors, page 90
- Analog Output, page 91
- Curtain Setup, page 91
- Temperature Definition, page 92
- Fan Air Capacity, page 92
- House Dimensions, page 93
- Communication, page 93

### 10.1 Setup



Set the following:

- **Temperature Unit** Celsius / Fahrenheit
- **Static Pressure Unit** Milibar / Inches of WC (Water Column) / Pascal / cm of WC / mm of WC / None
- **Fan Air Capacity Unit** Cubic feet per minute (CFM) / Cubic meter per hour (M3/H)
- **Length Unit** Meter / Feet
- **Weight Unit** Pounds (LB) / Kilograms (KG)
- **Growing Zones** 1/2/3/4
- **Minimum Vent (Power)** YES (power) / NO
- **Natural Ventilation** YES / NO
- **Tunnel** YES / NO
- **History Resolution** 1 minute / 5 minute / 10 minute / 15 minute / 30 minute / 1 hour / 2 hours

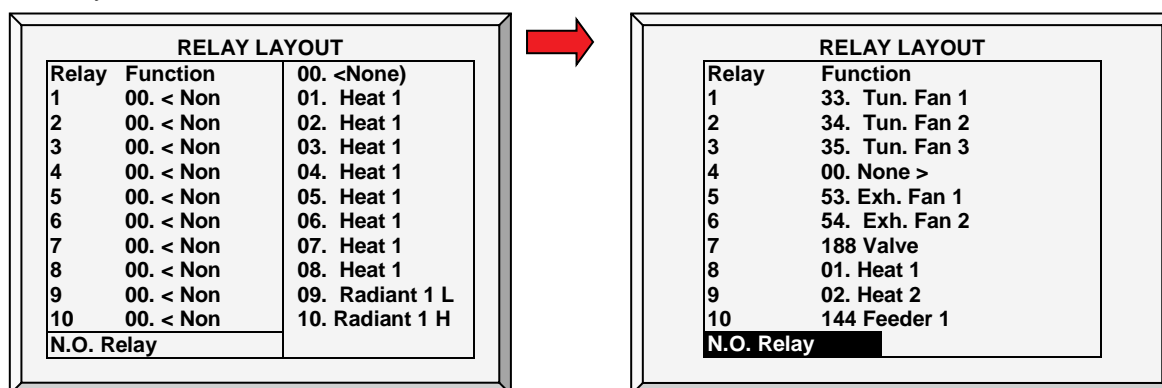


## 10.2 Relay Layout

Use this screen to define the devices connected to the controller. There are (up to) 40 available relays.

**NOTE:** Add up to 40 more relays by employing a Platinum Extension.

1. Select the requested choice from the menu list by using the up/down cursor keys (refer to Output Function List, page 87).
2. If the required code is 100 and above, use the '+/-' keys before selecting and then press a two digit number. For example 135 would be +/-35.
3. To duplicate relays use the 'As Relay # X' where 'X' stands for a relay number defined already in the system.



- Enter relays according to equipment installation (I/O list of technician) using up/down arrow keys.
- If you have installed Current Sense relays, Platinum defines them automatically. Current sense relays transmit to the user's PC the amount of the current being passed to the relay and send alarms when the current is too low or too high. In addition, you can view the daily electricity consumption in History. Refer to Current Sense Relay Calibration, page 84 for calibration instructions.

**NOTE:** Version 4.03 and higher supports this Current Sense Relays. The Current Sense Relays support **single phase electricity** only.

**NOTE:** Version 4.05 and higher supports four augers and four feed lines.

### 10.2.1 Output Function List

Table 1: Versions 4.04 and Below

Number	Output Function
1 – 16	Heaters 1 – 16
17 – 64	Radiant Heaters (Lo/Hi/Ign) 1 – 16
65 – 84	Tunnel Fan 1 – 20
85 – 94	Exhaust Fan 1 – 20
95 – 109	Stir Fan 1 – 15
110 – 113	Cool 1 – 4
114 – 117	Cool Pad 1 – 4
118 – 121	Fogger 1 – 4
122 – 129	Curtain 1 – 4 (Open/Close)

Number	Output Function
130 – 133	Extra System 1 – 4
134 – 135	Tunnel Curtain (Open/Close) 1 - 2
136 – 137	1st Inlet (Open/Close) 1 - 2
138 – 139	2nd Inlet (Open/Close) 1 - 2
140 – 143	Water 1 – 4
144 – 145	Feeder 1 - 2
146 – 149	Light 1 - 4
150 – 151	Auger 1 - 2
152 – 153	Feeder Window (Open/Close) 1 - 2
154 – 155	Feeder Line (Up/Down) 1 - 2
156 – 157	Drink Line (Up/Down) 1 - 2
158	Alarm (N.C.)
159	Water Main
160	Water Bypass
161 – 170	Water Line 1 – 10
171	Vent Speed
172 – 173	Attic Inlet (Open/Close) 1 - 2
174	Fail Safe
175 – 254	As Relay # 1 – 80

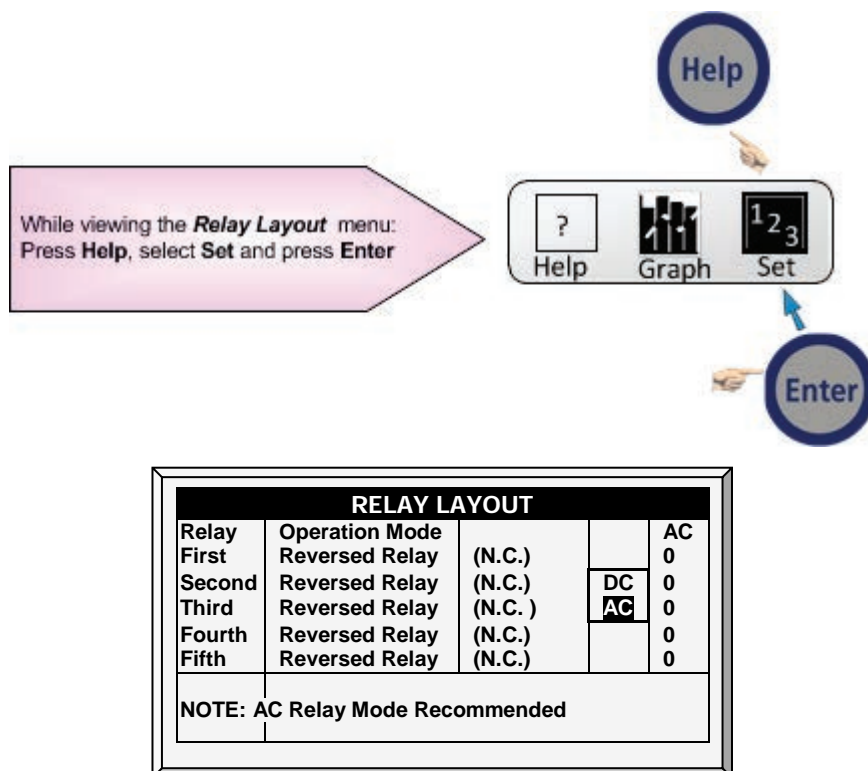
**Table 2: Versions 4.05 and Above**

Number	Output Function
1 – 16	Heaters 1 – 16
17 – 64	Radiant Heaters (Low/High/Ignite) 1 - 16
65 – 84	Tunnel Fan 1 – 20
85 – 94	Exhaust Fan 1 – 20
95 – 109	Stir Fan 1 – 15
110 – 113	Cool 1 – 4
114 – 117	Cool Pad 1 – 4
118 – 121	Fogger 1 – 4
122 – 129	Curtain 1 – 4 (Open/Close)
130 – 133	Extra System 1 – 4
134 – 135	Tunnel Curtain (Open/Close)
136 – 137	1 <sup>st</sup> Inlet (Open/Close)
138 – 139	2 <sup>nd</sup> Inlet (Open/Close)
140 – 143	Water 1 – 4



Number	Output Function
144 – 147	Feeder 1 – 4
148 – 151	Light 1 – 4
152 – 155	Auger 1 – 4
156 – 157	Feeder Window (Open/Close) 1 - 2
158 – 159	Feeder Line (Up/Down) 1 - 2
160 – 161	Drink Line (Up/Down) 1 - 2
162	Alarm (N.C.)
163	Water Main
164	Water Bypass
165 – 174	Water Line 1 – 10
175	Vent Speed
176 – 177	Attic Inlet (Open/Close) 1 - 2
178	Fail Safe (NC)
179 – 182	WOD 1/2/3/4

## 10.2.2 Relay Layout – Help | Set Definitions



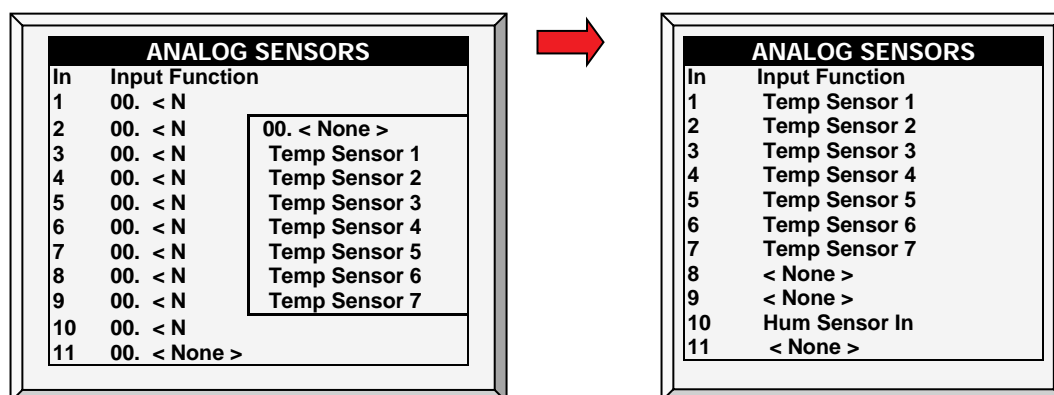
- Define relay operation mode: DC or AC.

**NOTE:** AC mode produces less heat in the controller box.

- Define five relays to be inversed by software.

## 10.3 Analog Sensors

This screen enables the user to install the analog sensors. The Platinum regards temperature, humidity, and CO2 sensors and circuit breaker as 'Analog sensors'. These sensors measure a continuous range rather than just on or off.



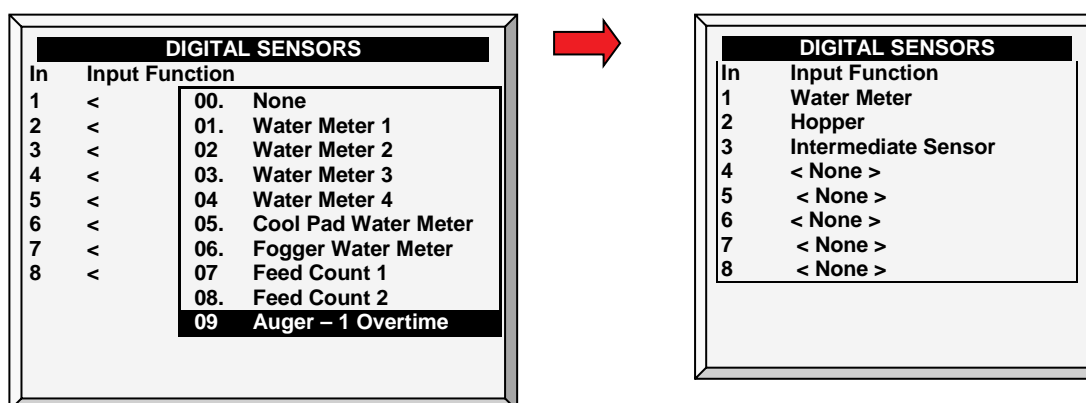
- Enter temperature / humidity sensors wired to each input (setup according to technician).

**NOTE:** If sensor numbers duplicate, the sensors average.

**NOTE:** Version 3.02 and higher support CO2 sensors.

## 10.4 Digital Sensors

This screen enables configuring the installed digital sensors. These sensors monitor both water and feed consumption if the building is equipped accordingly. Digital inputs include on/off and pulsing inputs such as auxiliary alarms, pulsing water meters and feed.




- Enter sensors wired to each input (setup according to technician)
- Example: Digital sensor installation

**NOTE:** Version 3.03 supports four water meters.



## 10.5 Analog Output

This screen controls light dimmers, variable speed fans and variable heaters. Select the required output function from the menu list and insert the approximate output voltages.



ANALOG OUTPUT			
Out No.	Output Function	Min V.Out	Max V. Out
1	Light Dimmer	05.	Light Dimmer 1
2	Light Dimmer	06.	Light Dimmer 2
3	< None >	07.	Light Dimmer 3
4	< None >	08.	Light Dimmer 4
5	< None >	09.	Var. Stir Fan 1
6	< None >	10.	Var. Stir Fan 1
7	< None >		
8	< None >		

ANALOG OUTPUT			
Out No.	Output Function	Min V.Out	Max V. Out
1	Light Dimmer	0.0	10.0
2	Light Dimmer	0.0	10.0
3	< None >	0.0	10.0
4	< None >	0.0	10.0
5	< None >	0.0	10.0
6	< None >	0.0	10.0
7	< None >	0.0	10.0
8	< None >	0.0	10.0

- Enter sensors wired to each input (setup according to technician).
- The above is an example of an analog output configuration.

**NOTE:** Version 4.05 and higher supports up to four variable stir fans. Previous versions support up to two fans.

- To configure the light dimmers, refer to Light, page 45.
- To configure the variable speed fans, refer to Stir Fan Levels, page 38.
- To configure the variable heaters, refer to Temperature Curve Help | Set Definitions, page 19.

## 10.6 Curtain Setup

Enter the number of seconds to open and close from limit to limit for each of the Vents and Curtains in your installation. The Platinum then calculates the percentage of open and closed time and adjusts the static pressure methods accordingly.

CURTAIN SETUP		
Curtain	Open (sec)	Close (sec)
Curtain 1	60	60
Curtain 2	60	60
Curtain 3	60	60
Curtain 4	60	60
Tunnel	60	60
1st Vent	60	60
2st Vent	60	60
Attic Vent	60	60

- Set full open/full close time (in seconds) for Curtains, Tunnel, 1<sup>st</sup> & 2<sup>nd</sup> Vent, and Attic Vent.

**NOTE:** Default is set at 60.



## 10.7 Temperature Definition

This screen assigns specific temperature sensors for various brood setups and for heater zones. Moreover, assigning sensors to particular devices is possible. Note that if the sensors selection remains blank, the default value is assigned.

Choose 1 to 18 temperature sensors for each item listed by using the '+/-' keys. The house, brooding and tunnel sensors cause the current average to apply to devices when no specific sensor is assigned to them. The current average substitutes for either failed or missing sensors.

**NOTE:** Sensors 10 – 18 require installing a second analog card.

TEMPERATURE DEFINITION	
Function	Temp. Sensor
	1 2 3 4 5 6 7 8 9
FULL HOUSE	✓✓✓ . . . . .
TUNNEL SETTING	. . . . . ✓ . . .
ATTIC	. . . . . ✓ . . .
OUTSIDE	. . . . . ✓ . . .

- Press **+/-** key to add/remove ✓ to assign temperature sensors to corresponding function.
- Refer to Temperature Curve, page 18.

**NOTE:** If you are using two (2) input analog cards, the screen displays Temp. Sensor(s) 1-18 (refer to above screen capture).

**NOTE:** When an attic sensor is not installed, the attic vent is disabled.

Assign Temperature Sensors as required in **Install | Temp Definition**. Devices that do not accept temperature sensors, such as Exhaust Fans, Tunnel Fans, Feed and Light do not appear.

Note that Exhaust Fans and Tunnel Fans do not appear because the Ventilation Levels defined in **Device | Levels of Ventilation** control their operation. Stir Fans appear even though the **Device | Stir Fan Levels** apply to them because they simultaneously operate according **Device | Stir Fan Programs** where specific sensor assignments are required in Program B and recommended in Program C.

## 10.8 Fan Air Capacity

This screen enables defining the fans' air capacity. Insert fan air capacity for both the exhaust and tunnel fans. The units are as chosen in **INSTALL | SETUP**.

FAN AIR CAPACITY	
Fan	CFM
Tun. Fan 1	24600
Tun. Fan 2	24600
Tun. Fan 3	29400
Tun. Fan 4	29400
Tun. Fan 5	29400
Tun. Fan 6	29400
Tun. Fan 7	29400
Tun. Fan 8	29400
Tun. Fan 9	29400
Tun. Fan 10	29400

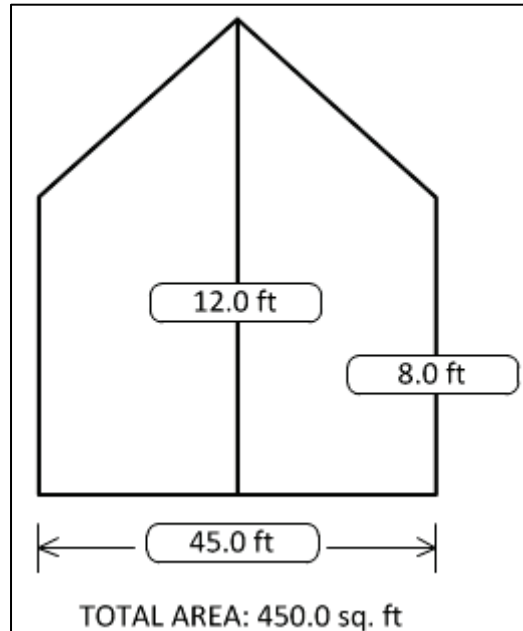
- Define air capacity for exhaust/tunnel fans (default setting shown above).

**NOTE:** This information enables the display of air capacity for each level in the Levels of Ventilation table (Precision ONLY).



## 10.9 House Dimensions

The screen allows the user to set its' house dimensions. Set it according to actual house size. These dimensions are used for calculating the wind chill factor (the chilling effect of the wind that can significantly lower the temperature).



- Define height, width, and length of house (Controller calculates total area).
- To set the dimensions in metric or non-metric units, go to *Installation > Setup* and scroll down to Length Unit.

**NOTE:** This information enables the calculation of the Wind Chill factor displayed in Hot Screen Key = 2 (Tunnel mode ONLY).

## 10.10 Communication

This screen defines the communication parameters.

COMMUNICATION SETUP		
Baud Rate	9600	
House Number	1	
	1200	
	2400	
	9600	
	19200	
	38400	

- **Baud rate:** This parameter is a measure of the communication speed for local or remote communications to a PC. The default is 9600 represents a data rate of approximately 1000 characters per second. If the connection fails at this speed, try a lower speed.
- **House number:** Each controller on a network must have a unique number so Rotem's communications software can distinguish individual controllers. Note that these numbers are from 1 to 64.

## 11 APPENDIX A: OUTPUT DATA

**Table 3: Sensor Readings**

Sensor	Definition
Temp	Displayed with the specific sensor number
Out T.	Outside temperature
Press.	Pressure
Hum. In	Inside humidity
Hum. Out	Outside humidity
Weight	Average weight
Weights	Number of weights
E. Tmp1	Temperature related to emergency card 1
E. Tmp2	Temperature related to emergency card 2
Breaker	Circuit breaker

**Table 4: Output List (Active)**

Output	Definition
Alarm	Can be either active or not. Note that this always appears last.
Heat	Indicates operating heat number
Heat. Hi	Indicates operating heat high number
Tun. Fan	Indicates operating tunnel fan number
Exh. Fan	Indicates operating exhaust fan number
Stir	Indicates operating stir fan number
Cool P.	Indicates operating cool pad number
Fogger	Indicates operating fogger number
Inlet	
Tunnel	
Curt.	Mentions opening percentage
Ext. Sys	Indicates operating external system number
Light	Note that these mention output percentage
Water	Indicates operating water number
Feed	Indicates operating feed number
Auger	Indicates operating auger number
Rad. Lo	Indicates operating radiant heat low number
Rad. Hi	Indicates operating radiant heat high number

**Table 5: Status Readings**

Status	Definition
Time	Specific time
Day	Growth day



Status	Definition
Set	Target temperature
Offset	Temperature Curve HELP   SET parameter
House mode	Control Mode HELP  SET parameter
Level	Level number
Tunnel, Natural, Min. Vent	The controller's state
Fan Off	How long the cycle ends its' operation
Fan On	How long the cycle begins its' operation
Curve off	Occurs when located in low curve temperature or when the Control Mode HELP   SET 'Temperature Curve' parameter is set to OFF.
Hum. Treat	Indicates when treatment occurs
Cool flush	Indicates when flush occurs
Nip. Flush	Indicates when flush occurs

**Table 6: Table of Events**

Event	Event Explanation
Power Off	Appears when power is off
Power On	Appears when power is on
Cold Start	Appears when cold start is done
Change level to vent	Changes according to a specific stage
Backup set reminder	HELP   SET: 'Set Temp. Change remainder (diff)' parameter
Alarm on	Appears when the alarm is on
Change in setting	
Change in switches	Relay switch setting changed
New flock	Appears when new flock is updated
Reset alarm	Appears when reset alarm is done
System message #	For Rotem's technicians only
Alarm card fail	Appears when the alarm card fails
Digital card fail	Appears when the digital card fails
Memory restore	Appears when the system does restore cause by noises
Minimum ventilation	Appears when minimum ventilation occurs
Natural ventilation	Appears when entering natural ventilation
Tunnel ventilation	Appears when entering tunnel ventilation
Alarm test	Appears when alarm test completes
Precision Mode	Switch to Precision Mode
Standard Mode	Switch to Standard Mode
Changed growth day	Appears when changing the growth day occurs
MinV L.P Alarm Dis.	Appears when minimum low pressure alarm is disabled
MinV L.P Alarm Ena	Appears when minimum low pressure alarm is enabled

Event	Event Explanation
<b>Tun. L.P Alarm Dis.</b>	Appears when tunnel low pressure alarm is disabled
<b>Tun L.P Alarm Ena.</b>	Appears when tunnel low pressure alarm is enabled
<b>Visitor Log in</b>	Appears when the visitor logs in with his password
<b>User #1-5 log in</b>	Appears when the user logs in with his password
<b>Owner log in</b>	Appears when the owner logs in with his password
<b>Change Visitor pass</b>	Appears when the visitor changed his password.
<b>Change User #1-5 pass</b>	Appears when the user changed his password
<b>Change Owner pass</b>	Appears when the owner changed his password
<b>Data read from plug</b>	Appears when data is read from plug
<b>System recover</b>	Appears when the system tries to recover itself, in cases such as noises
<b>System lock</b>	Appears when either using the correct password, or when using hot key '9,' or automatically after 5 minutes
<b>Empty house mode</b>	Appears when setting at a specific time

