

ADVANCED USER GUIDE

PRODUCT OVERVIEW



Advanced User Guide - Table of Content

<u>Section</u>	<u>Content</u>	<u>Page</u>
1	Temperature Control with a Fan – Low Temp and High Temp limits	2
2	Temperature and Humidity Control with a Fan	3
3	Humidity Control	4
4	CO2 Enrichment with a burner or a tank	5
5	Output Priorities and Fail States	6
6	Factory Settings and Alternate Settings	7
	Accessing the factory / alternate setting edit mode.	9
	• Changing the CO2 Elevation Parameter	10
	• Changing the OUTPUT CONTROL Parameter	11
	• Changing the PRIORITY AND FAIL STATES Parameter	12

IMPORTANT NOTICE

Basic information on this product are found in the **QUICK START USER GUIDE** shipped with the unit also available online at [www.grozonecontrol.com](http://www.grozonecontrol.com).

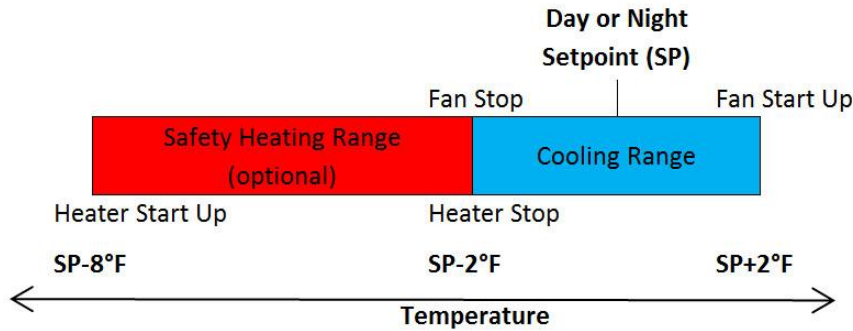
Quick Start User Guide - Table of Content

<u>Section</u>	<u>Content</u>
1	Output Descriptions
2	LED Indicators
3	Knob Settings
4	CO2 Sensor Calibration
5	Temperature Control with Fan (and Optional Heater)
6	Temperature and Humidity Control with Fan (and Optional Heater)
7	Humidity Control with a Humidifier or Dehumidifier
8	CO2 Enrichment with a Burner or a Tank

# 1- TEMPERATURE CONTROL WITH FAN (AND OPTIONAL HEATER)



To use this mode, you connect your cooling Fan into the FAN 120V Output, set the **Slide Switch** to “Cooling” position.



## COOLING

CONTROL ACTION	DAY OPERATION	NIGHT OPERATION
<b>BASIC OPERATION (lowest priority)</b>	<b>START / STOP THE FAN</b> To maintain the temperature around the DAY SETPOINT (+/- 2°F or +/- 1°C)	<b>Same as Day</b>
<b>ACTION OF HIGHER PRIORITY</b>	<b>STOP THE FAN TEMPORARILY</b> When CO2 output is activated	<b>None</b> , CO2 is enabled during the Day only
<b>ACTION OF HIGHER PRIORITY</b>	<b>RESUME FAN OPERATION AFTER A 10-MINUTE ON-DELAY</b> When CO2 output is deactivated when CO2 level is reached	
<b>ACTION OF TOP PRIORITY</b>	<b>MAINTAIN THE FAN ON</b> in the unlikely event of a temperature sensor failure	<b>Same as Day</b>

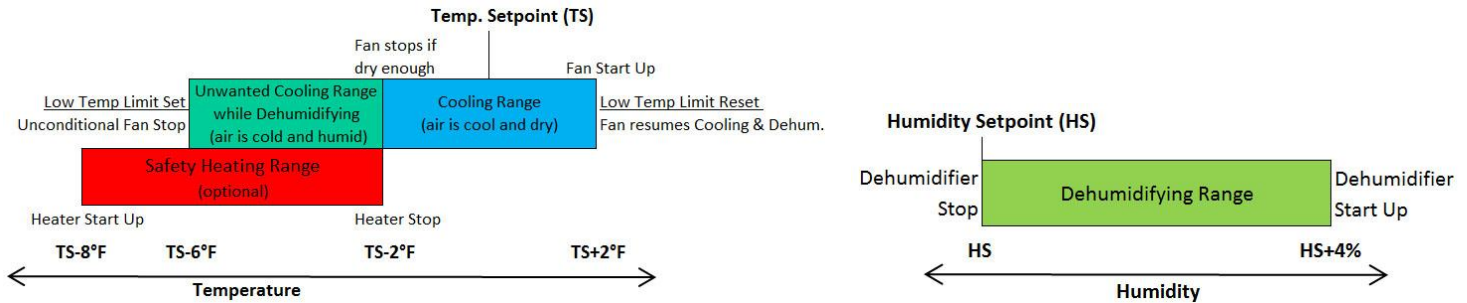
## OPTIONAL SAFETY HEATING

CONTROL ACTION	DAY OPERATION	NIGHT OPERATION
<b>BASIC OPERATION (lowest priority)</b>	<b>TURN ON / TURN OFF THE HEATER</b> To save your plants if the lamps alone are not able to ensure a minimum temperature in your room in a cold weather.	<b>Same as Day</b>
<b>ACTION OF HIGHER PRIORITY</b>	<b>NONE</b>	<b>Same as Day</b>
<b>ACTION OF TOP PRIORITY</b>	<b>MAINTAIN THE HEATER OFF</b> in the unlikely event of a temperature sensor failure	<b>Same as Day</b>

## 2- TEMPERATURE AND HUMIDITY CONTROL WITH FAN (AND OPTIONAL HEATER)



To use this mode, you connect your cooling Fan into the FAN 120V Output, set the **Slide Switch** to “Cooling & Dehumidifying” position.



### COOLING

### DEHUMIDIFYING

CONTROL ACTION	DAY OPERATION	NIGHT OPERATION
<b>BASIC OPERATION (lowest priority)</b>	<b>START / STOP THE FAN</b> To maintain the temperature and humidity around the DAY SETPOINTS (+/- 2°F or +/- 1°C for temperature, and +/-2% for humidity)	<b>Same as Day</b>
<b>ACTION OF HIGHER PRIORITY</b>	<b>STOP THE FAN TEMPORARILY</b> When CO2 output is activated	<b>None</b> , CO2 is enabled during the Day only
	<b>RESUME FAN OPERATION AFTER A 10-MINUTE ON-DELAY</b> When CO2 output is deactivated when CO2 level is reached	
<b>ACTION OF HIGHER PRIORITY</b>	<b>STOP THE FAN</b> When <b>Low Temperature Limit</b> is reached in the event of excessive cooling caused by cold and humid air intake not allowing to reach the dehumidifying setpoint, even though cooling setpoint has been reached already.	<b>Same as Day</b>
<b>ACTION OF TOP PRIORITY</b>	<b>USE THE FAN FOR COOLING ONLY</b> in the unlikely event of a humidity sensor failure	<b>Same as Day</b>
<b>ACTION OF TOP PRIORITY</b>	<b>MAINTAIN THE FAN ON</b> in the unlikely event of a temperature sensor failure	<b>Same as Day</b>

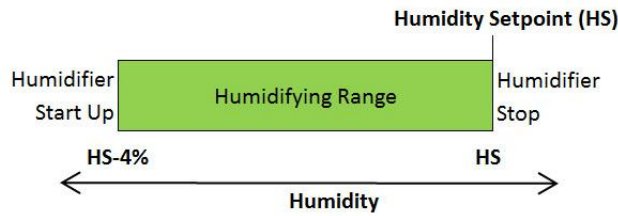
### OPTIONAL SAFETY HEATING

CONTROL ACTION	DAY OPERATION	NIGHT OPERATION
<b>BASIC OPERATION (lowest priority)</b>	<b>TURN ON / TURN OFF THE HEATER</b> To save your plants if the lamps alone are not able to ensure a minimum temperature in your room in a cold weather.	<b>Same as Day</b>
<b>ACTION OF HIGHER PRIORITY</b>	<b>NONE</b>	<b>Same as Day</b>
<b>ACTION OF TOP PRIORITY</b>	<b>MAINTAIN THE HEATER OFF</b> in the unlikely event of a temperature sensor failure	<b>Same as Day</b>

### 3- HUMIDITY CONTROL WITH A HUMIDIFIER OR DEHUMIDIFIER

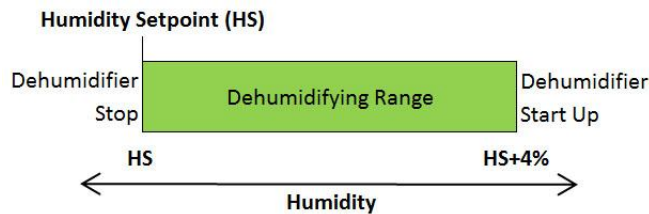
To use this mode, you connect your Humidity Equipment (Humidifier or Dehumidifier) into the HUMIDITY 120V Output, set the Slide Switch to either “Humidifying” or “Dehumidifying” according to your equipment type.

#### HUMIDIFYING - SLIDE SWITCH TO TOP POSITION



CONTROL ACTION	DAY OPERATION	NIGHT OPERATION
<b>BASIC OPERATION (lowest priority)</b>	<b>START / STOP THE HUMIDIFIER</b> To maintain the humidity around the DAY SETPOINT	Same as Day
<b>ACTION OF HIGHER PRIORITY</b>	NONE	Same as Day
<b>ACTION OF TOP PRIORITY</b>	<b>MAINTAIN THE HUMIDIFIER OFF</b> in the unlikely event of a humidity sensor failure	Same as Day

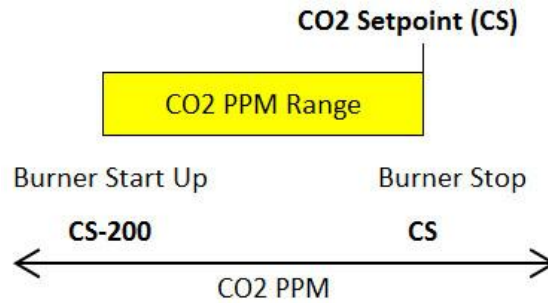
#### DEHUMIDIFYING - SLIDE SWITCH TO BOTTOM POSITION



CONTROL ACTION	DAY OPERATION	NIGHT OPERATION
<b>BASIC OPERATION (lowest priority)</b>	<b>START / STOP THE DEHUMIDIFIER</b> To maintain the humidity around the DAY SETPOINT	Same as Day
<b>ACTION OF HIGHER PRIORITY</b>	NONE	Same as Day
<b>ACTION OF TOP PRIORITY</b>	<b>MAINTAIN THE DEHUMIDIFIER OFF</b> in the unlikely event of a humidity sensor	Same as Day

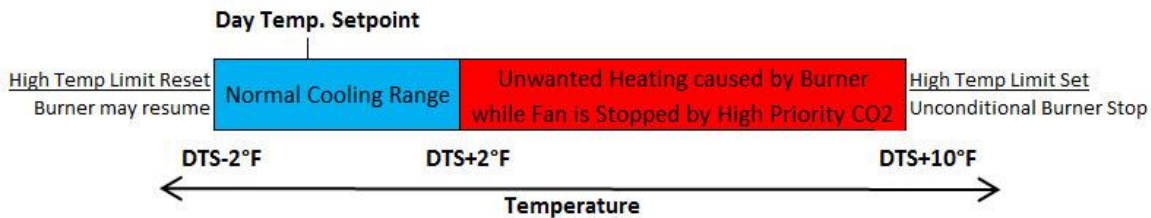
#### 4- CO2 ENRICHMENT WITH A BURNER OR A TANK

To use this mode, you connect your CO2 Generator into the CO2 120V Output. CO2 Enrichment will work during the DAY ONLY.



### CO2 ENRICHMENT

CONTROL ACTION	DAY OPERATION	NIGHT OPERATION
<b>BASIC OPERATION (lowest priority)</b>	<b>START / STOP THE BURNER OR TANK</b> To maintain the CO2 PPM level around the DAY SETPOINT	<b>NONE (Disabled at Night)</b>
<b>ACTION OF HIGHER PRIORITY</b>	<b>STOP THE BURNER OR TANK</b> When <b>High Temperature Limit</b> is reached in the event of excessive heat caused by the burner in your room. See Chart below)	<b>NONE (Disabled at Night)</b>
<b>ACTION OF TOP PRIORITY</b>	<b>MAINTAIN THE BURNER OR TANK OFF</b> in the unlikely event of a <b>CO2 Sensor Failure OR a Temperature Sensor Failure.</b>	<b>NONE (Disabled at Night)</b>



#### CO2 EMPTY TANK DETECTION:

The SCC1 is able to detect a defective CO2 enrichment period, during which the CO2 PPM level never builds up. The SCC1 will declare a “CO2 Empty Tank” fault in two conditions:

##### Condition 1: High Temp limit has been reached twice in a row while CO2 PPM remains low.

When the High Temp Limit is reached while the CO2 level is still low (below setpoint – 200 ppm), the SCC1 assumes the CO2 tank is empty (CO2 tank or propane/natural gas burner tank); if this condition is met at the end of two consecutive “enrichment” cycles, the SCC1 will declare an empty tank condition.

##### Condition 2: a 30-minute time has elapsed while CO2 PPM remains low.

The second method is time based. If the CO2 output is ON for 30 minute and the CO2 PPM level is still low after this delay, the SCC1 will also declare an empty tank condition.

##### Effect of CO2 Output:

When an empty tank condition is met, the SCC1 will DISABLE the CO2 Output and the CO2 Output indicator will flash as long as this condition is present.

##### Resetting the Empty Tank Condition:

CLICK the CALIBRATION button to reset this fault. However the fault will appear again if the tank has not been refilled.

The condition will reset automatically if the CO2 PPM level rises in the room up to the CO2 setpoint and every morning when the lights turn ON to allow the controller to validate whether the tank has been replaced or not.

## 5- OUTPUT PRIORITIES AND FAIL STATES

Every CONTROL ACTION taken by the SCC1 is given a priority level. A higher priority action WILL ALWAYS SUPERSEDE any lower priority action. Output Priorities can be modified with the Alternate Settings. See Section 6- on next page.

### SUMMARY OF CONTROL PRIORITIES AND RELATED ACTIONS (Factory Settings)

PRIORITY LEVEL	ACTION NAME	DESCRIPTION OF ACTION ON OUTPUTS
<u>LOWEST</u> <b>FAN, HUMIDITY and HEATER OUTPUTS</b>	CONTROLLING THE TEMPERATURE and HUMIDITY IN YOUR ROOM	<b>ALL OUTPUTS ARE AFFECTED:</b> FAN, HUMIDITY and HEATER Outputs are controlled according to Knob Settings.
<u>MEDIUM</u> <b>CO2 OUTPUT</b>	GIVING CO2 OUTPUT PRIORITY OVER FAN OUTPUT	<b>ONLY FAN OUTPUT IS AFFECTED:</b> The FAN Output is turned OFF when the CO2 Output is turned ON to avoid wasting CO2 outside. FAN Output resumes operation after a 10-min delay following the CO2 enrichment (timer starts when CO2 Output is turned Off). This delay allows plants to absorb the injected CO2 before re-starting the cooling FAN. <b>IMPORTANT NOTICE:</b> The CO2 Output priority is suspended while the Output Indicator is flashing during 2 conditions: 1- the High Temp limit has been reached, 2- the Empty tank condition has been met. Refer to Section 2D of the <b>Quick Start User Guide</b> for further details.
<u>HIGH</u> <b>TEMPERATURE LIMITS</b>	LOW TEMPERATURE LIMIT	<b>ONLY FAN OUTPUT IS AFFECTED:</b> The FAN Output is turned OFF in the “Cooling and Dehumidifying” mode when fan is unable to reach the HUMIDITY SETPOINT while room temperature is getting too cold. <b>The Low Temperature Limit is set to 6°F below TEMPERATURE SETPOINT.</b> Using “Cooling and Dehumidifying” mode is NOT RECOMMENDED when outside air is cold and humid, so cooling action is possible but dehumidifying action is impossible.
	HIGH TEMPERATURE LIMIT	<b>ONLY CO2 OUTPUT IS AFFECTED:</b> The CO2 Output is turned OFF whenever the temperature gets too high while using a burner that generates excessive heat in the room. Since CO2 Output is given priority over the Fan Output, the fan will always be OFF while the burner is ON. If your burner is oversized, high temperature condition (10°F above TEMPERATURE SETPOINT) is likely to occur. If using a tank, the high temperature limit is not likely to be reached, <b>UNLESS YOUR TANK IS EMPTY.</b>
<u>TOP</u> <b>SENSOR FAILURES</b>	TEMPERATURE SENSOR FAILURE	<b>FAN OUTPUT IS AFFECTED:</b> The FAN Output is maintained ON if a temperature sensor failure is detected (damaged, short-circuited or disconnected). This ensures a proper ventilation at all times. <b>HEATER OUTPUT IS AFFECTED:</b> The HEATER Output is maintained OFF if a temperature sensor failure is detected (damaged, short-circuited or disconnected). <b>CO2 OUTPUT IS AFFECTED:</b> The CO2 Output is maintained OFF if a temperature sensor failure is detected (damaged, short-circuited or disconnected). (To enable CO2 Output while Temp Sensor Failure, use alternate setting)
	HUMIDITY SENSOR FAILURE	<b>HUMIDITY OUTPUT IS AFFECTED:</b> The HUMIDITY Output is maintained OFF if a humidity sensor failure is detected (damaged, short-circuited or disconnected). <b>FAN OUTPUT IS AFFECTED if Slide Switch set to “Cool &amp; Dehumidify”:</b> The FAN Output will keep working in Cooling mode ONLY. This ensures a proper ventilation at all times.
	CO2 SENSOR FAILURE	<b>ONLY CO2 OUTPUT IS AFFECTED:</b> The CO2 Output is maintained OFF if a CO2 sensor failure is detected (sensor not responding or responds with a value below 250 ppm). <b>This is a factory setting.</b>

**Note: in case of a LIGHT SENSOR FAILURE, the SCC1 is likely to detect a NIGHT at all times, so DAY operation will be disable.**

## 6- FACTORY SETTINGS AND ALTERNATE SETTINGS

When shipped from the factory, the SCC1 is set with factory settings. These settings are those that a vast majority of users will be using during their growing experiences. Advanced users may need to change some settings in order to fix control problems or to improve control performances in some specific set-ups.

Review below the settings that can be changed by the users.

To make these changes, refer to section below: **ACCESSING THE FACTORY / ALTERNATE SETTING EDIT MODE.**

The settings that can be changed are:

- 1- the CO2 ELEVATION
- 2- the Fan Output Control DIFFERENTIAL
- 3- the Humidity Output Control DIFFERENTIAL
- 4- the CO2 Output Control DIFFERENTIAL
- 5- the Aux Heater Output Control DIFFERENTIAL
- 6- the LOW TEMPERATURE LIMIT
- 7- the HIGH TEMPERATURE LIMIT
- 8- the Fan And CO2 Outputs PRIORITY MANAGEMENT
- 9- the Fan Output ON-DELAY
- 10- the Fan Output FAIL STATE
- 11- the (optional) AUX Fan Output FAIL STATE

1 CO2 ELEVATION	FACTORY SETTING	ALTERNATE SETTING
	Sea level (or 0-ft elevation)	500-ft to 10 000-ft elevation in step of 500 feet.

2 FAN OUTPUT CONTROL DIFFERENTIAL	FACTORY SETTING	ALTERNATE SETTING
	<p><u>Cooling only:</u> Starts +2°F above setpoint Stops -2°F below setpoint</p> <p><u>Cooling &amp; Dehumidifying:</u> Starts +2°F OR +4% above setpoints Stops -2°F below temp setpoint AND at humidity setpoints</p>	<p><u>Cooling only:</u> Starts +4°F above setpoint Stops -4°F below setpoint</p> <p><u>Cooling &amp; Dehumidifying:</u> Starts +4°F OR +4% above setpoints Stops -4°F below temp setpoint AND at humidity setpoints</p> <p>(NOTE: See below <b>Humidity Output Control Differential</b> to set alternate Humidity Differential value)</p>

3 HUMIDITY OUTPUT CONTROL DIFFERENTIAL	FACTORY SETTING	ALTERNATE SETTING
	<p><u>Dehumidifying:</u> Starts +4% above setpoint Stops at setpoint</p> <p><u>Humidifying:</u> Stops at setpoint Starts -4% below setpoint</p>	<p><u>Dehumidifying:</u> Starts +8% above setpoint Stops at setpoint</p> <p><u>Humidifying:</u> Stops at setpoint Starts -8% below setpoint</p> <p>(NOTE: this alternate value will apply to <b>Cool &amp; Dehumidify as well</b>)</p>

<b>4</b> <b>CO2</b> <b>OUTPUT</b> <b>CONTROL</b> <b>DIFFERENTIAL</b>	<b>FACTORY SETTING</b>	<b>ALTERNATE SETTING</b>
	<u>DURING THE DAY ONLY</u> Stops on setpoint, Starts <b>-200</b> ppm below setpoint	<u>DURING THE DAY ONLY</u> Stops on setpoint, Starts <b>-400</b> ppm below setpoint

<b>5</b> <b>AUX HEATER</b> <b>OUTPUT</b> <b>CONTROL</b> <b>DIFFERENTIAL</b>	<b>FACTORY SETTING</b>	<b>ALTERNATE SETTING</b>
	<u>Competing Equipment Auto Detection is NOT Set</u> Starts -8°F below setpoint, stops -2°F below setpoint	<u>Competing Equipment Auto Detection is Set</u> Starts -8°F below setpoint, stops -2°F below setpoint or (* Starts -12°F below setpoint, stops -6°F below setpoint to avoid Fan and Heater to compete  (* will use these values if Low Temp Limit set to Alternate Setting

<b>6</b> <b>LOW</b> <b>TEMPERATURE</b> <b>LIMIT</b>	<b>FACTORY SETTING</b>	<b>ALTERNATE SETTING</b>
	While using fan to cool & dehumidify, it stops the fan if temperature reaches <b>6°F below setpoint</b> even if it is still too humid, to avoid freezing the crop. Limit resets when temperature reaches <b>setpoint</b> .	While using fan to cool & dehumidify, it stops the fan if temperature reaches <b>10°F below setpoint</b> even if it is still too humid, to avoid freezing the crop. Limit resets when temperature reaches <b>setpoint</b> .

<b>7</b> <b>HIGH</b> <b>TEMPERATURE</b> <b>LIMIT</b>	<b>FACTORY SETTING</b>	<b>ALTERNATE SETTING</b>
	<b>Relative to setpoint Temperature Limit:</b> While injecting CO2, CO2 output is stopped if the temperature reaches <b>10°F above setpoint</b> because of excessive burner heat, then fan will restart immediately. Limit resets when temperature reaches <b>setpoint</b> .	<b>Absolute Temperature Limit:</b> While injecting CO2, CO2 output is stopped if the temperature reaches <b>90°F</b> because of excessive burner heat, then fan will restart immediately. Limit resets when temperature reaches <b>setpoint</b> .

<b>8</b> <b>FAN AND CO2</b> <b>OUTPUTS</b> <b>PRIORITY</b> <b>MANAGEMENT</b>  (3 alternate settings)	<b>FACTORY SETTING</b>	<b>ALTERNATE SETTING</b>
	The <b>CO2 Output has a higher priority</b> than the FAN Output. The <b>FAN stops</b> when the CO2 output is ON. FAN resumes operation <b>following a ON-DELAY</b> when CO2 Output turns OFF.  RESETTING THE ON_DELAY: the <b>ON-DELAY is reset</b> to allow the FAN output to turn ON immediately when CALIBRATION pushbutton is pressed during normal operation.	<ul style="list-style-type: none"> <li>The CO2 Output has a higher priority than the FAN Output. The FAN stops when the CO2 output is ON. FAN resumes operation <b>immediately (NO DELAY)</b> when CO2 Output turns OFF.</li> <li>The <b>FAN Output has a higher priority</b> than the CO2 Output. The <b>CO2 stops</b> when the FAN output is ON. CO2 resumes operation <b>immediately (NO DELAY)</b> when FAN Output turns OFF.</li> <li>The <b>CO2 and FAN Outputs work independently</b>.</li> </ul>

<b>9</b> <b>FAN OUTPUT</b> <b>ON-DELAY</b>  (3 alternate settings)	<b>FACTORY SETTING</b>	<b>ALTERNATE SETTING</b>
	The FAN Output ON-DELAY (started as soon as the high priority CO2 output turns OFF) is <b>10 minutes</b> .  RESETTING THE ON_DELAY: the <b>ON-DELAY is reset</b> to allow the FAN output to turn ON immediately when CALIBRATION pushbutton is pressed during normal operation.	The FAN Output ON-DELAY (started as soon as the high priority CO2 output turns OFF) is either <ul style="list-style-type: none"> <li><b>5 minutes.</b></li> <li><b>20 minutes.</b></li> <li><b>30 minutes</b></li> </ul>



10 FAN OUTPUT FAIL STATE	FACTORY SETTING	ALTERNATE SETTING
	The FAN Output is <b>turned ON</b> when a Temperature Sensor Failure is detected, regardless of DAY and NIGHT Temperature Setpoints.	The FAN Output is <b>turned OFF</b> when a Temperature Sensor Failure is detected, regardless of DAY and NIGHT Temperature Setpoints.

11 AUX FAN OUTPUT FAIL STATE	FACTORY SETTING	ALTERNATE SETTING
	The AUX FAN Output (optional OB1-V) follows the regular FAN Output (ON or OFF) in the event of a Temperature Sensor Failure, regardless of DAY and NIGHT Temperature Setpoints.	The AUX FAN Output (optional OB1-V) sets the OB1-V at IDLE SPEED in the event of a Temperature Sensor Failure, regardless of DAY and NIGHT Temperature Setpoints. IDLE SPEED value is set directly on OB1-V module through an adjustment on the side of the enclosure.

### ACCESSING THE FACTORY / ALTERNATE SETTING EDIT MODE

**Step 1**- Follow the procedure to enter CO2 Sensor Calibration...

- Day Enrichment Knob to CAL
- Lock/Unlock Slide Switch to UNLOCK
- HOLD pushbutton

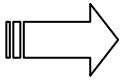
**...BUT YOU HAVE TO ABORT the Calibration AFTER 5 SECONDS** (one blink per second) **by moving the Slide Switch back to the LOCK position.** Then let the pushbutton go.

**Step 2** - You are now given access to the FACTORY / ALTERNATE SETTING EDIT MODE. **TO EXIT this mode**, simply return the Slide Switch to UNLOCK position.

**Step 3** - The 11 settings that can be changed are grouped in 3 different PARAMETERS. One PARAMETER can include up to 6 settings. **Make sure to select the right PARAMETER from these 3 choices.**

	SETTING NAME	PARAMETER TO EDIT
1	CO2 Elevation	<b>CO2 ELEVATION</b> (SEE PAGE 10)
2	Fan Output Control Range (also called Differential)	<b>OUTPUT CONTROL</b> (SEE PAGE 11)
3	Humidity Output Control Range (also called Differential)	
4	CO2 Output Control Range (also called Differential)	
5	Aux Heater Output Control Range (also called Differential)	
6	LOW TEMPERATURE LIMIT	
7	HIGH TEMPERATURE LIMIT	<b>PRIORITY AND FAIL</b> (SEE PAGE 12)
8	Fan And CO2 Outputs PRIORITY MANAGEMENT	
9	Fan Output ON-DELAY	
10	Fan Output FAIL STATE	
11	AUX Fan Output FAIL STATE (optional)	

## Step 4 - Understanding the FACTORY / ALTERNATE SETTING EDIT MODE



**IMPORTANT:** in this mode, the **KNOBS** and **LED INDICATORS** take other meanings.

- Day Temperature Knob: to select the **PARAMETER** (among 3).
- Temperature Indicators: to indicate the selected **PARAMETER**.
- Pushbutton: to select the right setting (up to 6 settings per **PARAMETER**)
- Day Humidity Knob: to change the setting values.
- Humidity and CO2 Indicators (A to F): to indicate the setting values.



### CHANGING THE CO2 ELEVATION PARAMETER

- Turn the **SELECT** knob (*Day Temperature*) to position 1. The top **PARAMETER** indicator will lit.
- **CLICK** the Pushbutton to select the **VALUE** Indicator (A to F) you need to turn **ON** (Lit) or **OFF**.
- Rotate the **SET/RESET** knob (*Humidity Temperature*) to turn **ON/OFF** the selected indicator (selected indicator is flashing; flashing will stop once value has been set or reset).
- To **EXIT** and **SAVE**, make sure to move through all 6 indicators. Successful saving will blink the **VALUE** indicators 4 times.

Indicator Name	Effect	Indicator Name	
Add 500 ft	Add 500 ft to Sea Level if Indicator is Lit	Add 4000 ft	Add 4000 ft to Sea Level if Indicator is Lit
Add 1000 ft	Add 1000 ft to Sea Level if Indicator is Lit	Add 8000 ft	Add 8000 ft to Sea Level if Indicator is Lit
Add 2000 ft	Add 2000 ft to Sea Level if Indicator is Lit		



Ex. Elevation has been set to 5000 ft, valid for Denver Colorado area.

## CHANGING THE OUTPUT CONTROL PARAMETER

- Turn the SELECT knob (*Day Temperature*) to position 2. The two top PARAMETER indicators will lit.
- CLICK the Pushbutton to select the VALUE Indicator (A to F) you need to turn ON (Lit) or OFF.
- Rotate the SET/RESET knob (*Humidity Temperature*) to turn ON/OFF the selected indicator (selected indicator is flashing; flashing will stop once value has been set or reset).
- To EXIT and SAVE, make sure to move through all 6 indicators. Successful saving will blink the VALUE indicators 4 times.



Indicator Name	Effect on Settings (Factory Setting in Bold)	Indicator Name	Effect on Settings (Indicator OFF is Factory Setting)
<b>COOL Control Range</b>	Indicator is Off : +/- 2°F around setpoint Indicator is Lit : +/- 4°F around setpoint	<b>HEAT Control Range</b>	Indicator is Off : Fixed range, -8°F to -2°F below setpoint  Indicator is Lit: Auto range, -8°F to -2°F OR -12°F to -6°F below setpoint to avoid competing equipment to operate simultaneously
<b>HUMIDITY Control Range</b>	Indicator is Off : +/- 2% around setpoint Indicator is Lit : +/- 4% around setpoint	<b>CO2 Control Range</b>	Indicator is Off : +0 / - 200 ppm below setpoint Indicator is Lit : +0 / - 400 ppm below setpoint
<b>Low Temp Limit</b>	Indicator is Off : -6°F below setpoint Indicator is Lit : -10°F below setpoint	<b>High Temp Limit</b>	Indicator is Off : +10°F above setpoint Indicator is Lit : 90°F regardless of setpoint



Ex. COOL, HUMIDITY and CO2 Control Ranges have been set to alternate settings.

## CHANGING THE PRIORITY AND FAIL PARAMETER

- Turn the SELECT knob (*Day Temperature*) to position 3. The three PARAMETER indicators will lit.
- CLICK the Pushbutton to select the VALUE Indicator (A to F) you need to turn ON (Lit) or OFF.
- Rotate the SET/RESET knob (*Humidity Temperature*) to turn ON/OFF the selected indicator (selected indicator is flashing; flashing will stop once value has been set or reset).
- To EXIT and SAVE, make sure to move through all 6 indicators. Successful saving will blink the VALUE indicators 4 times.



Ex. for FAN having priority over CO2 and FAN Fail State to OFF.

Indicator Name	Effect on Settings (Factory Setting in Bold)	
	FAN/CO2 (1)	FAN/CO2 (2)
FAN/CO2 (1) and FAN/CO2 (2)	<b>OFF</b>	<b>OFF</b>
	The CO2 Output has a higher priority than the FAN Output. The FAN stops when the CO2 output is ON. FAN resumes operation following a ON-DELAY when CO2 Output turns OFF.	
	<b>OFF</b>	<b>ON</b>
	The CO2 Output has a higher priority than the FAN Output. The FAN stops when the CO2 output is ON. FAN resumes operation <b>immediately (NO DELAY)</b> when CO2 Output turns OFF.	
	<b>ON</b>	<b>OFF</b>
	The FAN Output has a higher priority than the CO2 Output. The CO2 stops when the FAN output is ON. CO2 resumes operation <b>immediately (NO DELAY)</b> when FAN Output turns OFF.	
	<b>ON</b>	<b>ON</b>
	The CO2 and FAN Outputs work independently (no priority).	
ON DELAY (1) and ON DELAY (2)	<b>ON DELAY (1)</b>	<b>ON DELAY (2)</b>
	<b>OFF</b>	<b>OFF</b>
	<b>10 MINUTES</b>	
	<b>OFF</b>	<b>ON</b>
	<b>5 MINUTES</b>	
	<b>ON</b>	<b>OFF</b>
	<b>20 MINUTES</b>	
	<b>ON</b>	<b>ON</b>
<b>30 MINUTES</b>		
AUX FAN FAIL STATE and FAN FAIL STATE when the temperature sensor fails.	<b>AUX FAN FAIL STATE</b>	<b>FAN FAIL STATE</b>
	<b>OFF</b>	<b>OFF</b>
	AUX FAN FAIL STATE is similar to FAN FAIL STATE (either ON or OFF)	FAN FAIL STATE is "ON at all times"
	<b>ON</b>	<b>ON</b>
	AUX FAN FAIL STATE is IDLE SPEED	FAN FAIL STATE is "OFF at all times"