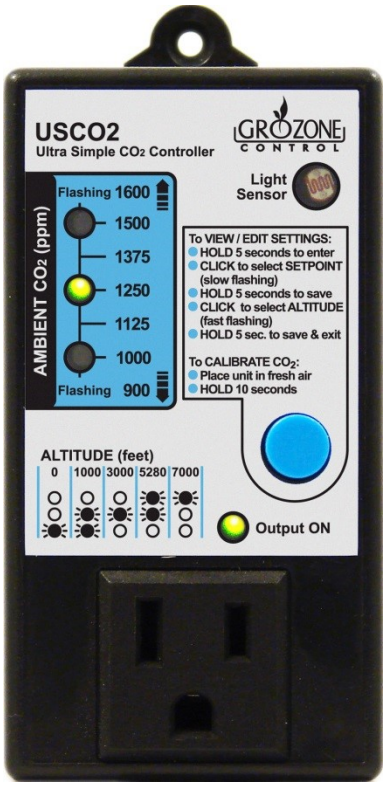
GROZONE CONTROL

USER GUIDE

USCO2

Ultra simple
CO_2 Controller



www.grozonecontrol.com

TABLE OF CONTENTS

SAFETY NOTICE	**3**
PRODUCT DETAILS	**4**
INSTALLATION & OPERATION	**5-6**
CO_2 LEVEL SETTING	**7**
ALTITUDE SETTINGS	**98**
CO_2 SENSOR CALIBRATION	**9**
ERROR CODES	**9**
QUICK TROUBLESHOOTING GUIDE	**10-11**
COMPLETE TROUBLESHOOTING GUIDE	**12-13**
WARRANTY & CUSTOMER SERVICE	14-15

SAFETY NOTICE

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

DANGER
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
CAREFULLY FOLLOW THESE INSTRUCTIONS.

To reduce the risk of electric shock, disconnect power to the 120V electrical outlet before installing or removing the unit. When removing the electrical wall plate, it may fall across plug pins or become displaced.

To reduce the risk of electric shock, this product has a grounding type plug that has a third (grounding) pin. This plug will only fit into a grounding type power outlet. If the plug does not fit into the outlet, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

PRODUCT DETAILS

Operation and Specifications

CO_2 PPM and elevation settings are factory set to **1250 PPM** and **sea level** respectively. Ambient CO_2 level is displayed in five ranges from 900 to 1600 PPM. Alternate settings are available.

- Alternate CO_2 setpoints are 1000, 1125, 1250, 1375 and 1500 PPM.

- Alternate elevation setpoints are 1000, 3000, 5280 and 7000 feet above sea level.

A built-in photocell detects day and night cycle within 8 seconds. The USCO2 ensures CO_2 enrichment during day cycles only, it will cycle the output ON and OFF to maintain the CO_2 level between the setpoint and 200 PPM below setpoint.

Example: If the setpoint is 1250 PPM, the USCO2 will turn the CO_2 generator at 1050 PPM and will turn it OFF at 1250 PPM.

Input/output voltage: 120V.

Output current: 5A for inductive load.

CO_2 sensor: Sense Air K-30.

Electrical Specifications: See the rating label on your product.

INSTALLATION & OPERATION

Installation:

This controller has to be installed on a wall, ideally at the plants canopy, plugged into a 120V electrical outlet. The CO_2 generator or CO_2 bottle is connected to the USCO2 front outlet. Make sure to place your controller at a minimum distance of 4 to 8 feet from the CO_2 generator. You may use a power cord if needed.

Power-up:

When plugged in, the 4 LED's indicators (including Output ON) turn ON for 3 seconds, then the 3-LED display (Ambient CO_2) will flash for 30 seconds until a valid CO_2 reading is available. When the indicators stop flashing, the ambient CO_2 level is displayed.

INSTALLATION & OPERATION

Ambient CO_2 level reading

The controller will display up to 7 CO_2 ranges:

	Approximate CO_2 PPM Value	LED Status
	Over 1600	TOP LED Flashing
	1500	TOP LED steady ON
	1375	TOP and MIDDLE LED's steady ON
	1250	MIDDLE LED steady ON
	1125	MIDDLE and BOTTOM LED's steady ON
	1000	BOTTOM LED steady ON
	Less than 900	BOTTOM LED flashing

** The LED status for CO_2 level reading and setpoint are the same.*

CO_2 LEVEL SETTING

- Press the blue button for 5 seconds (less than 10 seconds).

- Repeatedly press the blue button to select the CO_2 level (refer to the chart at the ***Installation and Operation*** section), until the LED is flashing at the desired setpoint : 1000 ppm, 1125 ppm, 1250 ppm, 1375 ppm or 1500 ppm.

- Press and hold the blue button for 5 seconds until the LED's stop flashing then release it. The 3-LED display will flash 4 times to confirm that the settings have been saved. Then, the LED's will start flashing rapidly meaning that you are now in the altitude setting mode.

ALTITUDE SETTING

* *At all time, the altitude setting must be done right after the CO_2 level setting.*

- Repeatedly press the blue button to select the altitude level (refer to the chart below), until the LED's are flashing at the desired level.

- Press and hold the blue button for 5 seconds then release it. The 3-LED display will flash 4 times to confirm that the settings have been saved.

The controller is back to normal operation and is displaying the ambient CO_2 level.

Altitude (feet)

0	1000	3000	5280	7000
○	○	○	●	●
○	●	●	●	○
●	●	○	○	○

* Black circle = LED On
White circle = LED Off

CO_2 SENSOR CALIBRATION

* *To calibrate the CO_2 sensor, bring the controller outdoor in a well ventilated area.*

- Plug in the controller and wait approximately 5 minutes.
- Press and hold the blue button for 10 seconds.
- Release the blue button and wait for a moment, the controller will automatically recalibrate itself to 400 PPM.
- The 3-LED display will flash 4 times to indicate that the calibration was successful and the USCO2 will go back to normal operation.

ERROR CODES

	Displayed on Controller	**Description**
	TOP and BOTTOM LED's are flashing	**CO_2 Sensor problem:** Turn power off and retry. If problem persists, bring your controller outdoor for a CO_2 sensor calibration. For any assistance, call Grozone Control at 1-855-262-1800 or email at service@grozonecontrol.com.

Quick Troubleshooting Chart

Product Model: USCO2

BEFORE YOU START

Perform test in a bright room

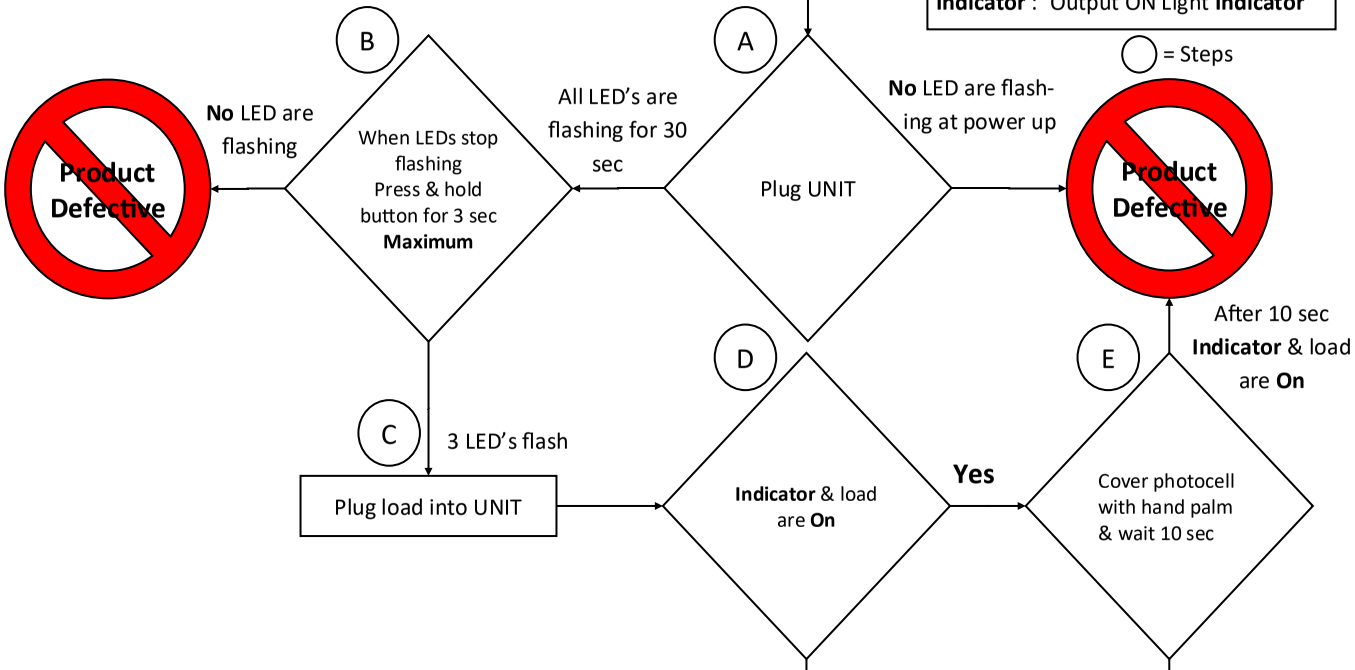
Adjust setpoint to 1500 ppm *

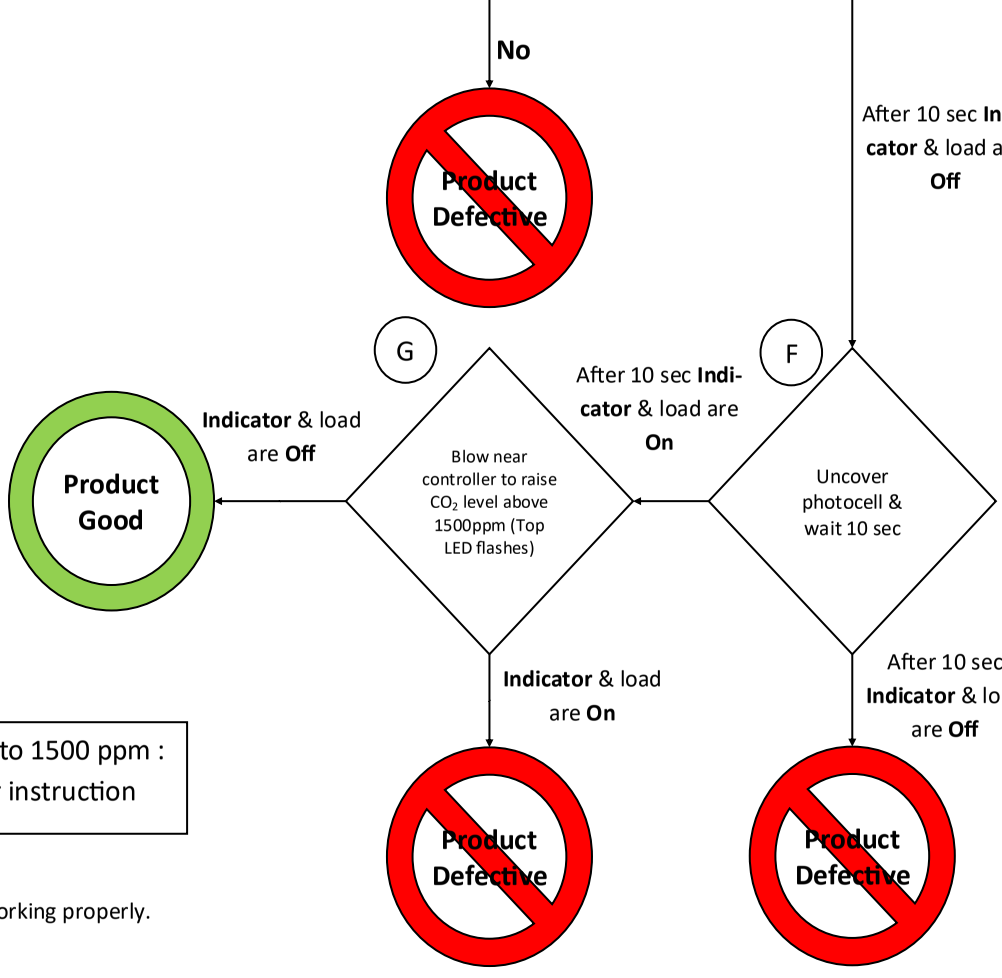
You will need a load to plug into UNIT**

Perform test in low CO_2 level room (under 1000ppm)

DEFINITION

Indicator : Output ON Light **Indicator**





*How to adjust setpoint to 1500 ppm :
Refer to User Guide for instruction

**Before test, check if load is working properly.

COMPLETE TROUBLESHOOTING GUIDE

CO_2 Controller
USCO2

1 – Before you start

*****IMPORTANT: READ AND FOLLOW THESE INSTRUCTIONS BEFORE STARTING THE TEST.**

- LIGHTING: Perform this test in a room with enough light for the controller to detect a DAY condition. A dark location should be avoided.
- The room where the test is performed should have a low CO_2 reading. (If CO_2 reading seems erratic, please refer to the "**calibration section"** of the user guide).
- You will need a lamp or night light to perform the test.
- Adjust setpoint to 1500 PPM. (Refer to user guide for instruction).

2 – Test

STEP	ITEM	HANDLING AND TEST DESCRIPTIONS	EXPECTED RESULTS
1	LED's	• Plug in the controller into an electrical outlet.	All 4 LED's turn ON for 3 seconds then the 3 LED's on the left side will flash for 30 seconds.
2	Button	• Press the button for 3 seconds and release. * **Release button before 5 seconds.**	3 LED's on the left side will flash.

COMPLETE TROUBLESHOOTING GUIDE

STEP	ITEM	HANDLING AND TEST DESCRIPTIONS	EXPECTED RESULTS
3	CO_2 Sensor	• Plug a lamp into the controller output.	Only the bottom LED should be ON or flashing. The lamp should turn ON immediately.
4	Photocell	• Cover the photocell. • Uncover the photocell.	The output light indicator and lamp will turn OFF. The output light indicator and lamp will turn ON.
5	120V output	• Blow near the controller to raise up the CO_2 level above 1500 PPM.	The output light indicator and lamp will turn OFF.

WARRANTY & CUSTOMER SERVICE

DO YOU HAVE A PROBLEM WITH YOUR CONTROLLER ? **PLEASE READ THESE INSTRUCTIONS CAREFULLY AND SAVE THEM FOR FUTURE REFERENCE.**

1. **I think my controller is damaged, or it simply does not work as indicated in the user guide, what should I do?**

- Please refer to the troubleshooting steps. Follow these instructions carefully, step by step. The controller should work as described in the "Expected results" column of the Complete Troubleshooting Guide.

Do you need assistance on executing the Troubleshooting steps?

1. Contact us at 1-855-262-1800
2. Send us an EMAIL at service@grozonecontrol.com
3. VISIT our Technical Support Center at
www.grozonecontrol.com/techsupport.html

Technical Support is available Monday through Friday, from 8:00 AM to 8:00 PM, Eastern Time.

WARRANTY & CUSTOMER SERVICE

2. I've been through the troubleshooting steps. What do I do if I meet a problem at any of these steps? Is my product covered by the WARRANTY?

- Grozone controllers are covered by a 3-year warranty (*). We will replace any DAMAGED PRODUCT WITH A BRAND NEW PRODUCT.

- Covered or not covered? We do not authorize the replacement of fully working products nor altered (tampered) products. The Troubleshooting steps will help you identify a damaged product. Do not hesitate to contact us or contact your retailer to make sure the controller is not fully working or damaged before returning it to the store.

- My product is not fully working or damaged, I want a replacement unit: in order to get a replacement product, **you MUST return all modules and applicable accessories to the retailer**. To avoid being charged for the accessories, be sure to include all pieces. Thanks for your cooperation.

- Any Grozone Control product that is returned with obvious signs of user neglect will not be covered by the warranty. Grozone Control exercises the right to make final decisions in these matters.

(*)The warranty period begins from the date of purchase at the retail level. The retailer/consumer must keep their proof of sale/purchase. Otherwise, Grozone Control will consider the manufacturing date to apply the warranty coverage.

IMPORTANT MESSAGE TO RETAILERS
Retailers must call Grozone Control to get authorisation to replace the defective product and a RMA number.
1-855-262-1800

GROZONE
CONTROL

Rev. 3.0

www.grozonecontrol.com