BLUEPRINT
Controllers

Thank you for choosing to grow with Blueprint Controllers! Your satisfaction and success are important to us. For best results, carefully read the following instructions before using your Blueprint CO_2 Controller.

Features of your Blueprint CO_2 Controller, BCC-1
• Precisely controls CO_2-generating devices
• Remote sensor on 15' cable accurately monitors CO_2 levels
• Photocell control deactivates CO_2 generation at night
• CO_2 levels adjustable from 400-2500 ppm
• Adjustable deadband from 50-250 ppm
• Wall-mountable
• 3-year warranty

Specifications
Input Voltage: 120V
Maximum Amperage: 14.5A @ 120V
CO_2 Sensor Type: NDIR (Nondispersive Infrared)
CO_2 Accuracy: ± 60 ppm
Dimensions: 3" x 6" x 3.5"

Installation
• Plug the Controller into a NEMA 5-15 wall outlet with a 120V power supply. Mount the remote sensor to the wall at plant height and plug the cable into the unit. To install the Controller permanently, secure the mounting tab at the top of the unit to the wall.
• Plug the CO_2-generating device to be controlled by the Controller into the receptacle on the front of the Controller. Ensure the device being connected to the Controller has the proper voltage and will not exceed the maximum amperage rating of the Controller.

⚠ **CAUTION**   Do not expose the Controller to water.

Reading CO_2 Levels
Allow the unit to warm up for about 5 minutes. When the unit is ready, the red "x1k" and yellow "x100" LEDs will flash. The red LED flashes once for each 1,000 ppm of CO_2 in the air and the yellow LED flashes once for each 100 ppm. Example: If the red LED flashes once and the yellow LED flashes three times, the CO_2 ppm reading is 1240 - 1360 ppm.

Adjusting CO_2 Levels
Setpoint: Select the desired CO_2 level using the knob labeled "Setpoint ppm." When the CO_2 level drops below the CO_2 set-point, the unit will turn on the CO_2 device. Recommended setting is 1,100-1,600 ppm.

Deadband: Adjust the deadband set-point using the knob labeled "Deadband." The deadband is the amount over the CO_2 set-point the CO_2 must rise before the unit will turn off the CO_2 device. Recommended setting is 50-150 ppm.

Calibrating the CO_2 Sensor
To calibrate the sensor, operate the unit and sensor normally outside for about 10 minutes. Then turn the "Setpoint" knob fully counterclockwise and the "Deadband" knob fully clockwise. After 3 seconds, the Controller will enter calibration mode and the red LED will illuminate. Stand away from the unit during calibration. After 3-6 minutes, the yellow LED will illuminate, indicating calibration is complete. Disconnect the unit from power, and adjust to desired settings before reconnecting the Controller.

FAQ
• ***How do I know if the photocell is working correctly?***
The LED labeled "Daytime" on the top right edge of the unit will illuminate when the photocell is in Day mode. The photocell changes status on a 30-second delay.

Troubleshooting
• ***The Controller seems to be measuring CO_2 levels inaccurately.***
Ensure proper air circulation around the CO2 sensor. To verify the sensor's accuracy, isolate the unit and sensor outside for 10 minutes. The unit should read 300-400 ppm. If the unit gives a different reading, recalibrate the unit and sensor.
• ***The yellow LED flashes after calibration.***
The calibration procedure did not work. Restart the calibration procedure.
• ***The red and yellow LEDs remain on.***
The CO_2 sensor is malfunctioning.
• ***The red and yellow LEDs blink continuously.***
The unit has experienced power overload and has shut down. Reduce the amperage load and reset the unit by unplugging it for five seconds.
• ***The connected device is not being powered.***
Ensure the device to be controlled is working correctly by plugging the device into a reliable power source. Verify the Controller is being supplied the correct voltage.

Blueprint 3-Year Limited Warranty

All Blueprint CO$_2$ Controllers are protected against manufacturer defect by a limited 3-year manufacturer's warranty.

Limited 3-Year Warranty Terms

Sunleaves Garden Products warrants that the Blueprint CO$_2$ Controller will remain free from appearance of defects in workmanship and materials for 3 years from date of original retail purchase. This warranty is subject to the following limitations: (a) manufacturer's liability is limited to the replacement or repair of the unit, as decided by the manufacturer; (b) a defective unit must be returned, prepaid, with proof of purchase to the point of purchase or as instructed below; and (c) this warranty does not apply to defects resulting from the alteration, abuse, accidental damage, unauthorized repair or misuse of the unit. This warranty is given in lieu of all other warranties, guarantees and conditions on manufacturer's part, and the manufacturer shall have no tortious or other liability in respect to this Blueprint CO$_2$ Controller.

Blueprint CO$_2$ Controller Warranty Is Void If:
- NOT ACCOMPANIED BY THE ORIGINAL PROOF OF PURCHASE.
- BLUEPRINT CO$_2$ CONTROLLER HAS BEEN USED IN A NONSTANDARD WAY, INCLUDING GENERAL MISUSE AND OUTDOOR USE.
- BLUEPRINT CO$_2$ CONTROLLER HAS BEEN DAMAGED AS A RESULT OF ACCIDENT, IMPROPER INSTALLATION, ALTERATION, OR FIRE, FLOOD OR OTHER NATURAL DISASTER.

Sunleaves Garden Products
7854 North State Road 37   Phone: 888-464-9676
Bloomington, IN 47404   Email: info@sunleaves.com

Sunleaves Product Warranty Claims

To obtain warranty service in the unlikely event that your product fails to operate, return the product to the place of purchase. Often the retailer will be able to examine the product in closer detail, determine the problem and even fix the product on site.

If the retailer is unable to resolve the problem:

1. Call our toll-free number at 888-464-9676 or email info@sunleaves.com to receive warranty information and your RMA number if the product is being returned.

2. In the unlikely event you must return the defective product to Sunleaves, carefully package the problem product.

3. Complete the form below and enclose it with your shipment along with a legible copy of your properly dated sales receipt. You must write your RMA number on the outside of the package. Because Sunleaves is not responsible for products damaged in shipping, we recommend insuring your package.

Don't forget to include the following items if you are returning your Blueprint CO$_2$ Controller to the place of purchase:

- Legible copy of your properly dated sales receipt
- This completed form

Sunleaves.com

Name: . . . .

Address: . . . .

Phone #: . . . .

Email Address: . . . .

RMA #: . . . .

Explain the problem: . . . .
. . . .
. . . .