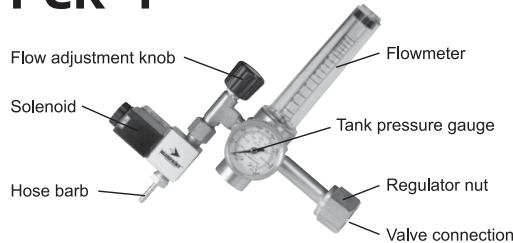




CO₂ REGULATORS

READ AND SAVE THESE INSTRUCTIONS

PCR-1



Specifications

Volts: 220
Amps: 0.04
Hertz: 60
Working Pressure (psi): 43.5
Maximum Input Pressure (psi): 4,000

Warning

- Ensure the power source meets the requirements listed in the product specifications.
- Do not operate the unit if the power cord or plug becomes damaged.
- Regulate CO₂ levels within a safe range. CO₂ levels above 2,500 parts per million (ppm) can cause symptoms of illness, and levels above 5,000 ppm are toxic.
- Follow local regulations for the transportation and storage of CO₂. Improper handling of highly pressurized gases can lead to personal injury or property damage.
- While the regulator is operating, open or close the flow adjustment knob so the flowmeter's ball is within the marked section of the meter. Excessive CO₂ flow rates can freeze the regulator, causing permanent damage.
- Cover the regulator when using sprays or foggers to avoid damaging it. Do not expose the unit to water.
- Only use the CO₂ regulator indoors.

Installation

For regulator installation, follow instructions for both connected CO₂ tank.

1. Before connecting the regulator to the CO₂ tank, install the tank on a flat surface and secure it so it cannot fall or tip over.
2. Ensure the tank valve is free of debris by opening the tank valve for three to five seconds. Reclose the valve securely.
3. Position the regulator so the flowmeter is fully upright. Do not hold the flowmeter when connecting the regulator. This could damage the seal at the base of the flowmeter.
4. Place an O-ring washer between the valve connection and the CO₂ tank valve to create a seal.
5. Hand-tighten the nut on the valve connection, then use a crescent wrench to ensure the connection is secure. Do not overtighten the nut.
6. Attach the provided tubing to the hose barb.
7. Slowly open the tank valve to allow CO₂ to flow to the regulator. Spray a soap solution on the connections to check for leaks. If bubbles appear, resecure the connections.
8. Rotate the flow adjustment knob on the regulator one-half turn counterclockwise. (Skipping this step could result in damage to the unit caused by excessive pressure.)
9. Plug the regulator into a timer or controller supplying 220-volt power.
10. Rotate the flow adjustment knob to adjust the flow rate of CO₂ through the tubing and into the growing area. The height of the ball in the flowmeter will indicate the flow rate setting in cubic feet per hour.

Timed Operation

Using a timer or controller to activate the regulator is the safest and most efficient way to ensure the CO₂ level in the growing area stays around the recommended 1,500 ppm. The average ambient CO₂ level is 400 ppm. The regulator will typically need to add about 1,100 ppm to the air every three hours to maintain a CO₂ level of 1,500 ppm.

Use the following formula to estimate how long the regulator should be activated to attain the desired CO₂ level. The actual time required will vary depending on environmental conditions in the growing area.

1. Divide the desired increase in CO₂ ppm by 1,000,000.
2. Multiply the result by the dimensions of the growing space in cubic feet (length by width by height).
3. Divide the result by the flow rate setting.
4. Multiply the result by 60 to find the time in minutes the regulator will need to be activated.

Example: Increase the CO₂ level by 1,200 ppm in a 500-cubic-foot space using a flow rate of 10 cubic feet per hour.

1. $1,200 \div 1,000,000 = 0.0012$
2. $0.0012 \times 500 = 0.6$
3. $0.6 \div 10 = 0.06$
4. $0.06 \times 60 = 3.6$

The regulator should be activated for about 3.6 minutes to increase the CO₂ ppm by 1,200.

Pro-leaf® CO₂ Regulator Limited Warranty

What This Warranty Covers

This warranty covers defects in materials and workmanship under normal use, with the exceptions stated below.

Who This Warranty Covers

This warranty applies to the original purchaser of this product with the original proof of purchase.

How Long Warranty Coverage Lasts

This warranty is in effect for a period of one year from the original date of purchase.

What This Warranty Does Not Cover

This warranty does not cover damage or defects resulting from the improper installation, alteration, abuse, accidental damage, unauthorized repair or misuse of this product. Misuse includes but is not limited to outdoor use. This warranty does not apply to cosmetic defects or other defects that do not affect the functionality of the product, and is void if the product has been damaged as a result of fire, flood, or other natural disaster. BWGS shall not be responsible for any incidental or consequential damages of any nature, including damage or injury caused to other products, machinery, buildings or property; loss of profits, time or product; or inconvenience. The original proof of purchase MUST accompany the Blueprint Controllers® product for this warranty to be valid. This warranty is given in lieu of all other warranties, express or implied, including without limitation merchantability and fitness for a particular purpose.

Some states do not allow the exclusion or limitation of incidental and consequential damages, or limitations on how long an implied warranty lasts, so the above limitation(s) may not apply to you.

What Pro-leaf Will Do

If Pro-leaf determines the warranted product is defective in materials or workmanship during the warranty period, then Pro-leaf, at its option, will either repair or replace the product. In no event shall the cost of repair or replacement exceed the original purchase price.

How to Obtain Warranty Service

Return this product along with the original proof of purchase to the place of purchase in accordance with store policy.

How State Law Applies

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.


Pro-Leaf®
The Original Climate System