Notes:

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1 Square = 1 Foot/Feet

Sunlight Supply® Inc.
National Garden Wholesale®

VANCOUVER, WASHINGTON U.S.A.

www.titancontrols.net

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TITAN® CONTROLS

ATLAS® 1

Remote CO_2 Monitor/Controller
Instruction Manual

Sunlight Supply® Inc.
National Garden Wholesale®

VANCOUVER, WASHINGTON U.S.A.

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Atlas® 1 Remote CO$_2$ Monitor/Controller

Warnings & Cautions

• Do not put your controller in an area where it can get wet or sprayed.

• Mount your controller securely to the wall using hardware provided.

• When using "bug bombs" in area, cover controller completely to avoid corrosion.

• There are no serviceable parts in controller. Do not attempt to service the unit. Breaking seal will void your warranty and may cause injury.

• Do not put paperclips, tools, etc. into unit. Possible electrocution may occur.

• Plug controller into surge protector to avoid potential damage to the unit.

• Do not use controller for purposes other than the unit was designed to function.

• Make sure to verify your power source prior to plugging controller into outlet.

• This controller is designed for inside use only.

• Verify that all equipment that will be activated by this controller is the proper voltage.

• Keep vents free from obstructions to allow the controller to function properly.

• Read all instructions before operating controller.

• Ask your Dealer for tips and techniques regarding use of this controller.

• Avoid placing controller near heat generating sources.

• Use caution when operating controller in extremely humid environments.

• Use controller within defined environmental specifications.

• Be conscientious when disposing of any products.

• Enjoy your Titan Controls® CO$_2$ controller for years to come!

WARRANTY SERVICE: Please read warranty information first

If after reviewing the troubleshooting tips the unit will still not work, you should return it to the Dealer where you purchased it. They will be able to further evaluate the unit and test its various components and quite possibly will be able to identify and/or fix any problems. If the Dealer is unable to fix the unit, they will return it to us for factory repair.

If there are no Dealers in your area, you may contact us directly for technical support. If we cannot help you resolve the problem over the phone, we will issue you an RMA # (return merchandise authorization) authorizing you to return the unit to us for factory reconditioning (if the unit is under warranty). Contact the number below for an RMA # and shipping address. Complete the form below and include it with your unit. Also please write the RMA # on the outside of the box.

Please package the unit in its original packaging. If it is damaged in shipment we cannot be responsible.

Once we receive the unit back, we will repair it within 48 hours (business) and return it to you freight prepaid via UPS ground shipment.

Include the following if returning directly to Titan Controls®

• Proof of purchase   • This completed form   • RMA # on the outside of the box

Return Merchandise Authorization Number (Required): _____

Company Name: _____

Contact Name: _____

Address: _____

_____

Phone #: _____

Email address: _____

What is the nature of the problem? _____

_____

_____

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Send to your nearest location – shipping address will be given when the RMA # is issued:

www.titancontrols.net
For technical assistance call us at 1-888-80-Titan or 1-888-808-4826.
Representative available Monday – Friday, 8 a.m. – 5 p.m. PST.

Warranty Information

- Titan Controls® warrants the original purchase of this product against defects in material and workmanship under normal use for three (3) years from the date of purchase.

- During the warranty period, Titan Controls® will, at our option, and without charge, repair or replace this product if the controller or any of its components fail or malfunction.

- All returns or repairs must be accompanied by a Return Merchandise Authorization (RMA) number prior to any service of the product.

- This warranty is expressly in lieu of all other warranties, expressed or implied, including the warranties of merchantability and fitness for use and of all other obligations or liabilities on the part of the seller.

- This warranty shall not apply to this product or any part thereof which had been damaged by accident, abuse, misuse, modification, negligence, alteration or misapplication.

- Controllers with serial numbers or date tags that have been removed, altered or obliterated; broken seals or that show evidence of tampering; mismatched board serial numbers or nonconforming parts, are excluded from coverage.

- Titan Controls® makes no warranty whatsoever in respect to accessories or parts not supplied by Titan Controls®.

- Monetary refunds of the warranty will not be given.

- The Buyer assumes all responsibility regarding the use & installation of this controller.

- All warranty service is provided through the factory or an authorized service representative.

- This warranty shall apply only to the United States, including Alaska, Hawaii and territories of the United States and Canada.

- Defective controllers need to be returned with the "proof of purchase/receipt".

- For additional warranty information, contact your Dealer, or a Titan Controls® Technical Service Representative at 1-888-808-4826. Our normal business hours are Monday – Friday, 8 a.m. to 5 p.m. Pacific Standard Time. We are closed most major holidays.

- NOTE: Titan Controls® is a manufacturer of environmental controls. All sales offerings to the public are done through a nationwide group of Dealers. No sales offerings will be made directly to the general public.

Service and Repair Program

- For all service and repairs please contact one of our Technical Service Representatives for a Return Merchandise Authorization (RMA) number, at 1-888-808-4826. Our normal business hours are Monday – Friday, 8 a.m. to 5 p.m. Pacific Standard Time. We are closed most major holidays.

- All factory service & repairs will be completed within 48 hours of receipt of controller and after authorization by customer for repairs.

- Titan Controls® will, at its discretion, repair or replace the controller.

- Factory calibration services are available for all Titan Controls®. Returning Units: Please contact your retail store for returns.

Atlas® 1 Remote CO_2 Monitor/Controller Overview

The Atlas® 1 Remote CO_2 Monitor/Controller has an adjustable CO_2 set point, elevation correction adjustment and a user calibration feature. These adjustments are made with the "Increase" and "Decrease" buttons located on the front of the monitor/controller. The Atlas® 1 is also equipped with a photocell that detects day/night conditions and will automatically disable the load output of the CO_2 monitor/controller during nighttime conditions when CO_2 is not required in your garden. The Atlas® 1 provides up to 15 amps of capacity on a standard 120 volt circuit. A green LED located between the "Increase" and "Decrease" buttons will illuminate when the load output is "active". We recommend that you set the Atlas® 1 between 1000 PPM (Parts Per Million) and 1500 PPM. Settings at above 2050 PPM are NOT recommended. The Atlas® 1 Remote CO_2 Monitor/Controller is built with the highest quality components and will provide the user with years of trouble free service.

Instructions for Operation

- Using the CAT 45 cable included with your system, plug one end into the 'sensor input' on the Atlas® 1 Remote Sensor, then plug the other end of the CAT 45 cable into the 'sensor output' on the Atlas® 1 Monitor/Controller.

- Place your Atlas® 1 Remote CO_2 Sensor in your enclosure at approximately the height of your plants and away from any spray/water/mist, etc.

- The Atlas® 1 has a factory preset set point of 1000 PPM, and can be adjusted from 0 PPM to 2050 PPM.

- To adjust the **set point**:
    - Press and hold the "Increase" button for approximately 5 seconds until the display reads "rSEL".
    - Use the "Increase" or "Decrease" button to adjust your PPM set point to your desired level.
    - Set point adjustments are made in increments of 10 PPM.
    - After a few seconds without buttons being pressed, the Atlas® 1 will reset and the new set point is saved in memory.

The Atlas® 1 is calibrated at sea level and the calibration changes slightly with an increase in elevation. The "Elevation Adjustment" feature will compensate for these changes. It may be adjusted from 0 feet to 9999 feet above sea level.

- To adjust the **elevation**:
    1. Press and hold the "Decrease" button for approximately 5 seconds until the display reads "ELE".
    2. Use the "Increase" or "Decrease" button to adjust the elevation to the desired level.
    3. Elevation adjustments are made in increments of 100 feet.
    4. After a few seconds without buttons being pressed, the Atlas® 1 will reset and the elevation correction will be complete.

The Atlas® 1 has been factory calibrated and should NOT require calibration for approximately three (3) years. If you feel it is out of calibration and needs calibration, you have two options. Option 1: Send it back to Titan Controls® for factory calibration or Option 2: You may field calibrate the Atlas® 1. To check your calibration take the Atlas® 1 outdoors. The Atlas® 1 should read approximately 400 -600 PPM depending on your location.

To recalibrate the Atlas® 1:

1. Take the Atlas® 1 Remote CO_2 sensor outdoors in a cool, dry location and keep from direct sunlight.

2. Allow the Atlas® 1 approximately 30 minutes to stabilize the PPM reading.

3. DO NOT breathe directly on the Atlas® 1 remote sensor in calibration mode, otherwise you will disrupt the calibration process.

4. Using a non-metallic object (like a toothpick), press and hold the "Calibration" button for approximately 5 seconds until the display reads "U.CAL".

5. The Atlas® 1 will continue to display this message until the reading has stabilized. This will usually last about 2 minutes. The Atlas® 1 will then display the current CO_2 PPM reading.

6. The Atlas® 1 has recalibrated itself to an ambient setting of 450 PPM.

Troubleshooting Tips

If the Atlas® 1 Remote Monitor/Controller is not performing as expected, try the following:

1. Place the Atlas® 1 monitor/controller and remote sensor in an area away from CO_2 sources (cars, animals, people, etc.) and allow the controller to stabilize.

2. Verify your set point and elevation settings on the Atlas® 1 monitor/controller

3. Plug a test light/fan/etc. into the piggyback plug and plug into known functional 120 Volt power source.

4. Allow Atlas® 1 to cycle above and below set point by breathing directly into the Atlas® 1 remote sensor, thereby activating & deactivating the test light at the desired settings.

5. Check to make sure that the side vents on the remote sensor are not obstructed. If they are, use some canned air (from the local office supply store) to clear any material or debris from the vents.

6. The Atlas 1 monitor/controller will display the message, 'Err.' if it is not able to communicate with the remote sensor. Unplug from 120 Volt circuit for 5 seconds, then plug back into 120 Volt circuit. This should re-establish communication.

7. If you are still having problems with your Atlas® 1, please contact our Technical Service Representative at 888-808-4826 to assist you further.
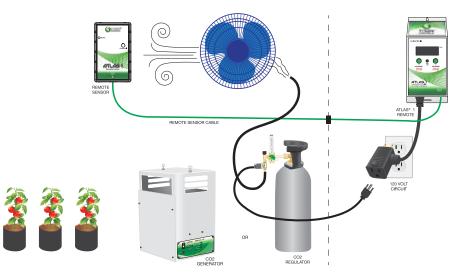
Controller Specifications:

• Sampling Method = Infrared Diffusion

• Measurement Range = 300 PPM to 5100 PPM

• Control Range = 0 PPM to 2050 PPM

• Accuracy: +/- 5% (total reading)

• Response Time: Approximately 45 seconds

• Fixed Hysteresis/Deadband = 50 PPM (centered)

• Signal Update: Displayed CO_2 PPM reading updates once every 3 seconds

• Warm-up Time: Approximately 30 minutes

• Recommended Calibration Interval = Every 3 years

• Stability: Typical Deviation ±75 PPM a year

• Operating Temperature = 32° F (0°C) to 120° F (50°C)

• Input Voltage = 120VAC, 60 Hz.

• Output Voltage = 120VAC, 60 Hz.

• Maximum Operating Amperage: 15 Amps

• RoHS Compliant = Yes

Installation Example

CONTROLLING A CO_2 TANK WITH REGULATOR

REMOTE SENSOR

REMOTE SENSOR CABLE

ATLAS® 1 REMOTE

120 VOLT CIRCUIT

CO2 GENERATOR

OR

CO2 REGULATOR