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1 Square = 1 Foot

TITAN®
CONTROLS

KRONUS 4™

Temperature, Humidity, CO2,
Day and Night Controller
Instruction Manual

Sunlight Supply® Inc.
National Garden Wholesale®

VANCOUVER, WASHINGTON U.S.A.

www.titancontrols.net

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Kronus 4

- Warnings & Cautions
- Kronus 4- Temperature, Humidity, CO^2, Day and Night Controller
- Instructions for Operation
- Troubleshooting Tips
- Controller Specifications
- Installation Example
- Warranty Information
- Service and Repair Program

Warnings & Cautions

- Read all instructions before operating controller.
- 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 repair the unit.
- Breaking "warranty" seal will void your warranty.
- Do not put paperclips, tools, etc. into unit. Possible electrocution may occur.
- Plug controller into surge protector to avoid potential damage to the unit.
- Make sure to verify your power source prior to plugging controller into outlet.
- Check that all equipment that will be activated by this controller is the proper voltage.
- Verify that your equipment does not exceed a total of 15 amps.
- This controller is designed for inside use only.
- Avoid placing the controller near heat generating sources.
- Use caution when operating controller in extremely humid environments.
- Do not use controller for purposes other than the unit was designed to function
- Use controller within defined environmental specifications.
- Ask your Dealer for tips and techniques regarding the use of this controller.
- Be conscientious when disposing of any products.
- Enjoy your Titan Controls environmental controller for years to come!

Kronus 4 – Temperature, Humidity, CO^2, Day and Night Controller

The Kronus 4 is used to maintain the temperature, humidity and CO^2 during the day and night in your growing environment. Both the temperature and humidity can be adjusted by setting the dials on the front of the controller to your preferred settings. There is a convenient "Grow Zone" section on each dial to give the gardener an easy to use reference point for plant success. During the daytime hours the controller leaves the "CO^2 On" active until the temperature set point is exceeded. When this happens the 'CO^2 ON' is deactivated and then the controller begins a ten (10) minute, "environmental polling process". If after ten (10) minutes the temperature still exceeds the setting, then the 'Exhaust Fan Output' is activated and your fan will run until the temperature is lower than the set point. After the temperature has lowered below the selected temperature level, the 'CO^2 On' LED will light up and your CO^2 system is reactivated. This innovative function serves two purposes: One, this allows maximum CO^2 coverage with minimum CO^2 waste and

WARRANTY SERVICE

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 a RMA number (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 a 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 FedEx or UPS ground shipment.

www.titancontrols.net
For technical assistance call us at 1-888-80-Titan or 1-888-808-4826.

TITAN® CONTROLS

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.

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

- For additional warranty information, contact a Titan Controls Technical Service Representative or your Dealer.

- 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.

- 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.

two, your exhaust fan is working only when it is required - saving power and wear & tear on your equipment. At any time, if the humidity set point is exceeded the controller will activate the "Dehumidify Output" and reduce the humidity level under your preferred humidity setting. During the nighttime hours the controller turns the "CO² Output" off and activates the 'Night Only Output' outlet. The ' Night Only Output' may be used to run a circulation fan, garden maintenance night light or any other device that you would like only to run at night. If during the nighttime hours the temperature exceeds the preferred setting, then the " Exhaust Fan Output" is activated to lower the temperature to desired levels. If the humidity set point is exceeded, then the "Dehumidify Output" is activated to lower the humidity to desired levels. This provides the grower with 24 hour temperature and humidity control. Controllers created for our industry, by our industry!

The Kronus 4 allows up to 15 amps of maximum capacity on a standard 120 Volt circuit. The Kronus 4 is built with the highest quality components to provide the user with years of trouble free service.

Instructions for Operation

- Securely mount your Kronus 4 in your grow area and away from any moisture, spray, pesticides, etc.

- Plug your fan into the "Exhaust Fan Output' outlet.

- Turn the fan 'ON' to the highest setting possible.

- Plug your CO² Controller (Atlas 1) or a repeat cycle timer (Apollo 1) into the "CO² Output" outlet.

- Then, plug your CO² Generator or CO² Regulator/Tank into the CO² controller or repeat cycle timer (See Installation Example section for more information)

- Plug your dehumidifier into the "Dehumidifier Output" outlet

- Turn the dehumidifier 'ON' to the highest setting. This allows the controller to maintain precise control of the humidity.

- Plug your circulation fan, night light, etc. into the "Night Only Output".

- Turn the circulation fan, night light, etc. 'ON' to the appropriate setting for your gardens requirements.

- Set the 'Temperature' and 'Humidity' dials at the preferred temperature and humidity levels for your garden.

- Place the remote sensor in the grow area up to 25 feet away from the Kronus 4 at plant canopy height. Make sure that the photocell on the sensor is not covered or shaded and is receiving enough light to trigger the controller functions.

- The photocell on the remote sensor ensures that the CO² generator or CO² tank only activates when your lights are on. This is when your plants uptake CO². To save your CO², the 'CO² Output' is automatically disabled when your ventilation equipment is active or in the nighttime hours. The 'CO² Output' is active when the 'CO² On' LED is lit.

- When the 'CO² Output' is disabled during daytime conditions because of excessive temperature, the Kronus 4 begins a ten (10) minute delay process by polling the temperature level to confirm that ventilation is still required. If confirmed after 10 minutes, then ventilation process begins and continues until the temperature level is lowered to below the dial setting. However, if the temperature drops to within the dial setting during the ten (10) minute period, then the 'CO² Output' outlet is reactivated and resumes normal functioning.

- Plug the Kronus 4 into a 120 Volt – 15 Amp outlet.

- Use of a surge protection device is recommended to protect your Kronus 4 from potential damage.

- Turn the Kronus 4 power switch to the 'ON' position.

- Your Kronus 4 will now control your equipment at the desired settings.

Troubleshooting Tips

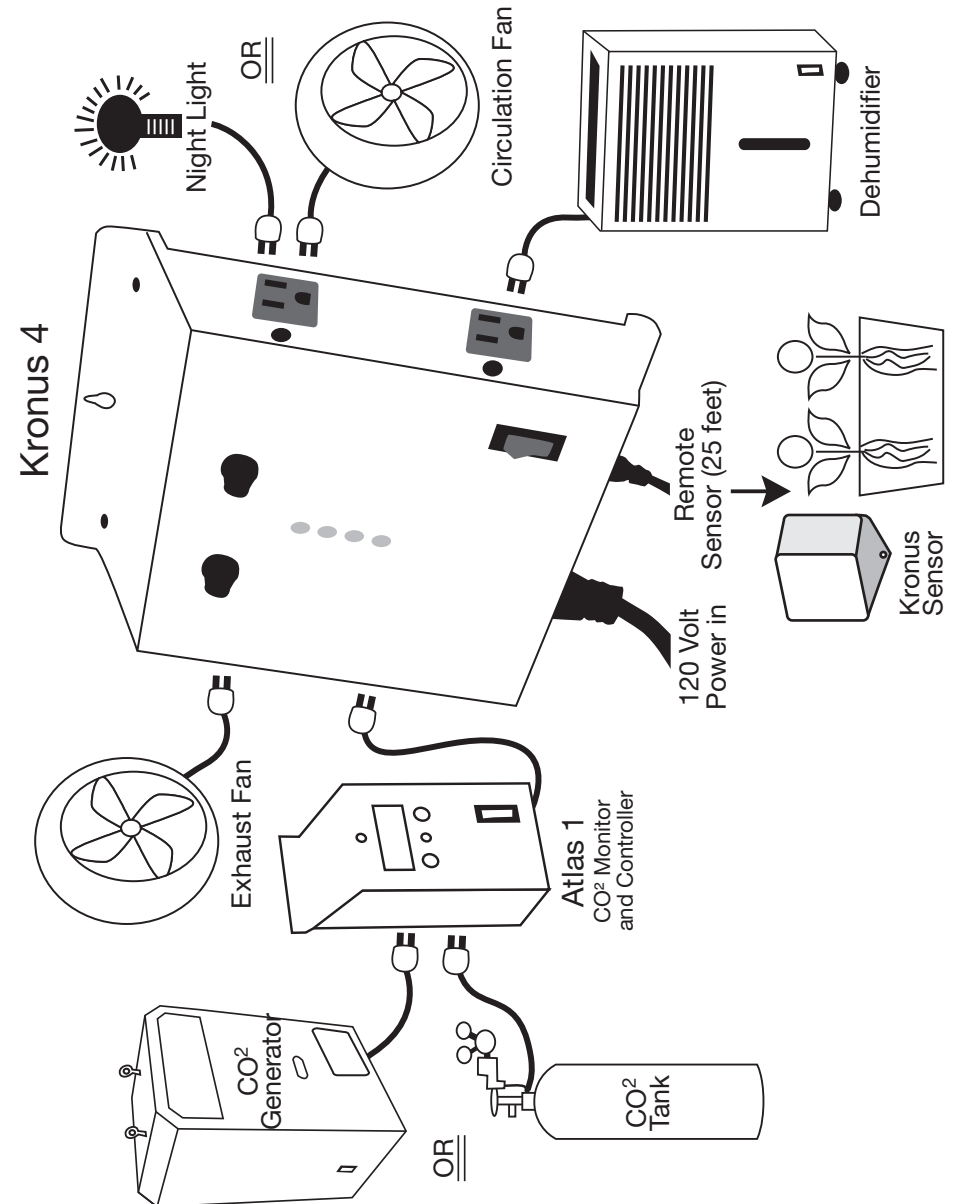**If the Kronus 4 is not performing as expected, try the following:**

a. Make sure that the power switch is lit and in the 'ON' position.

b. Confirm that your power input is active by using a voltage test meter, and providing 120 Volts to the controller.

c. Validate the voltage outputs of the Kronus 4 are active by setting the dials at the lowest settings, and using a voltage test meter, fan or 120 Volt light to verify power is flowing through the controller.

d. Ensure that the exhaust fan and dehumidifier are 'ON' and set to the maximum level.

e. Verify that the Kronus 4 is set at the proper levels to activate and deactivate equipment.

f. If your ventilation or dehumidification equipment does not turn off, verify that your exhaust fan and dehumidifier are the correct size for your grow area. Increase size of fan or dehumidifier (if necessary).

g. Make sure that the remote sensor is in a well lit area and not shaded or obstructed.

h. Inspect the remote sensor and make sure it is dry. If not, allow to dry prior to activating.

i. Check the remote sensor to verify that the green LED is steady 'ON' and NOT blinking.

j. If the green 'ON' LED on the Kronus Temperature and Humidity sensor is blinking, there is a communication problem between the sensor and the controller. Contact your Dealer or our Technical Service Representative to help you.

k. If you are still having problems with your Kronus 4, please contact our Technical Service Representative to assist you further.

Controller Specifications:

- Size = 9.5"H x 8.5"W x 2.5"D

- Weight = 3 lbs.

- Input Voltage = 120 Volts/AC

- Output Voltage = 120 Volts/AC

- Maximum Amperage = 15 Amps

- Operating Hertz = 60 Hz

- Minimum/Maximum Humidity Control Levels = 40% to 90% (non-condensing)

- Humidity Accuracy = ±5% of desired setting

- Minimum/Maximum Temperature Control Levels = 45° to 95°F (7° to 35°C)

- Temperature Accuracy = ± 2°F of desired setting

- RoHS compliant = Yes

- Cord set = 6 feet - 14/4 SWJ

- Remote Sensor Cable = 25 feet/Cat 5e/RJ45

- Storage Temperature = 32° to 135°F (0 to 58°C)

- Operating Temperature = 45° to 95°F (7 to 35°C)

Installation Example

Controlling a CO_2 Tank or CO_2 Generator, Circulation Fan, Exhaust Fan, & Dehumidifier

Night Light — OR — Circulation Fan — Dehumidifier

Kronus 4

Remote Sensor (25 feet) — Kronus Sensor

120 Volt Power in

Exhaust Fan — Atlas 1 CO_2 Monitor and Controller

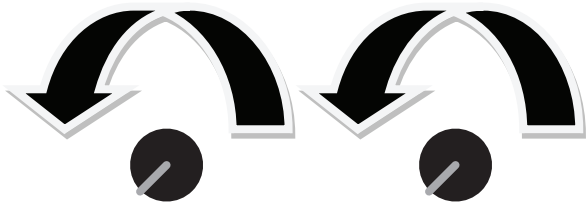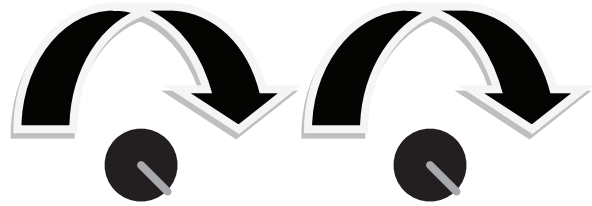CO_2 Generator — OR — CO_2 Tank

TITAN® CONTROLS

KRONUS® 2, 3, AND 4 REVISION

Due to user feedback we have now implemented a programming change for the Kronus® 2, 3 and 4 which allows the user to disable the 10 minute delay when switching from the CO_2 Output to the EXHAUST Output. They will now come programmed with NO delay meaning when the CO_2 outlet is defeated the EXHAUST outlet will activate immediately. The diagrams below will explain how to change the delay.
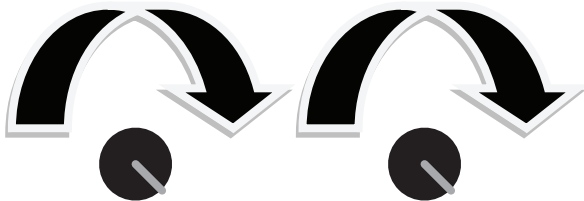
DELAY ON

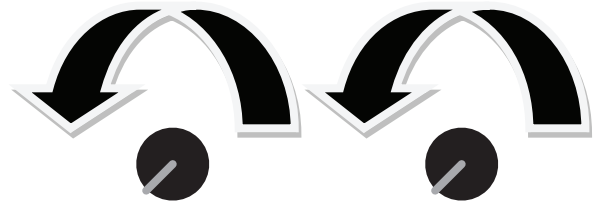Turn knobs to MIN position while system is OFF.

Turn knobs to MAX position within 5 seconds after turning system ON. The CO_2 and EXHAUST indicator LEDS will cycle to show that it was done properly.

DELAY OFF

Turn knobs to MAX position while system is OFF.

Turn knobs to MIN position within 5 seconds after turning system ON. The CO_2 and EXHAUST indicator LEDS will cycle to show that it was done properly.