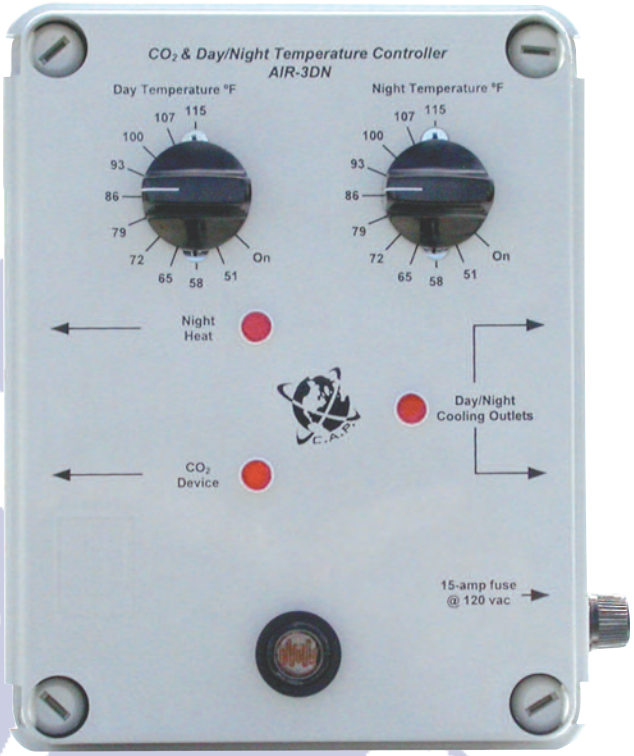
AIR-3DN Day/Night Temperature & CO_2 Control

Custom Automated Products offers a full range of equipment for the growing enthusiasts. . The AIR-3DN controls the Day temperature, Night Temperature and CO_2 production within the growing area. When the Exhaust turns on due to high temperature, the CO_2 outlet is disabled and the Exhaust fans run. The built-in photocell ensures the CO_2 outlet is activated only during the day.

Overview



The AIR-3DN integrates separate Day and Night temperature & CO_2. When the fans are running, the CO_2 is disabled.

External temperature probes are highly accurate & reliable.

Indicator lights verify day and night Exhaust on and CO_2 on.

CO_2 generators or valves operating on 120 volt plug into standard receptacles. CO_2 is only active during the "day".

The AIR-3DN has both night heat and night cooling outlets to allow for flexibility in environmental control.

The AIR-3DN is a solid & reliable unit with a 3-year warranty!

Connections & Operation

There are certain steps which should be taken to ensure a successful installation of your AIR-3.

1) Determine the desired location for the AIR-3DN. It should be at plant height and near a 120 volt power supply. Also consider the position of the light source to ensure proper operation of the photocell.

2) The external remote temperature probes can be uncoiled to place the probes up to 30" from the unit.

**** NOTE: DO NOT BEND TIGHTLY OR KINK THE SILVER CAPILLARY TUBES.***

3) Mount the AIR-3DN to a wall or other vertical surface. The ventilation slots must be positioned on the top and bottom of the unit.

4) Plug the exhaust fan or air conditioner into the receptacle on the right side. ***(Maximum 15 amps @ 120 volts)***

5) Plug your CO_2 valve or generator into the bottom outlet on the left side.

6) Keep the AIR-3 far from any CO_2 generator or other sources of high heat to eliminate faulty temperature readings.

7) Adjust the thermostats to the desired highest level you want to maintain.

8) Plug in your exhaust fan or air conditioner into the exhaust outlet, and/or your heater (if desired) to the night heat outlet.

**** NOTE: The night heat outlet is only used if you need to add heat to reach your desired night time temperature, otherwise, your exhaust fan or air conditioner is used to maintain your night time temperature.***

9) Connect the power cord to a source of 120 volt power. **** Maximum COMBINED load 15 amps.***

10) Once connected and powered up, the photocell may take up to 2 minutes to detect daytime light levels and activate the CO_2 and day temperature outlet.

**** NOTE: The AIR-3DN requires "free air movement" to maintain temperature and humidity accuracy. The top and bottom of the enclosure has ventilation slots to provide air-flow for the internal humistat. We recommend using an oscillating fan or similar air movement device to provide fresh air for the plants, and the sensors.***

Precautions

Do not expose the AIR-3 to water. Electrical shock may occur.

Do not disable the fuse or put in a fuse that is not rated for 15 amps at 120 volts.

Do not kink the capillary tubing! Your temperature will not read correctly.

Do not open the AIR-3DN. There are no user serviceable parts inside.

Troubleshooting

If you are having problems with this unit, refer to these troubleshooting hints.

Problem	*Suggested Action*
There are no lights and no function at all.	Check fuse or main power. Check the main power plug and replace the fuse if required with a 15 amp rated fuse. If the fuse blows repeatedly, verify that the devices connected to the unit are working properly and that they do not exceed a combined 15 amps.
The CO_2 outlet never comes on.	If the exhaust outlet is on, the CO_2 will not be allowed to run. Turn up the temperature and humidity to a higher setting. Make sure the photocell is receiving enough light to activate the CO_2 function. You can test the photocell by shining a small flashlight on the lens.
The exhaust fans are running so often, the CO_2 is hardly ever on.	You may have too much heat building up in your area or too small of an exhaust fan. Reduce the heat sources or increase your fan size. Air Cooled lighting may solve the problem. Heat from lighting is the number one problem with indoor growing.
My CO_2 consumption seems to be quite high.	Make sure your area is sealed. You may want to install a motorized damper to seal your exhaust fans when they are off. Consider connecting a cycle timer to the CO_2 outlet to cycle the CO_2 on and off.

Warranty

The AIR-3DN is warranted against defects in workmanship and parts for Three Years.

Specifications

Main power voltage:	120 volts	Maximum amperage:	15 amps
Temperature control range:	50-115° F	Temperature operating range:	32-120° F
Relay operating life:	100,000 electrical	Photocell operation:	Activate CO_2 during day

Published by R & M Supply, Inc.