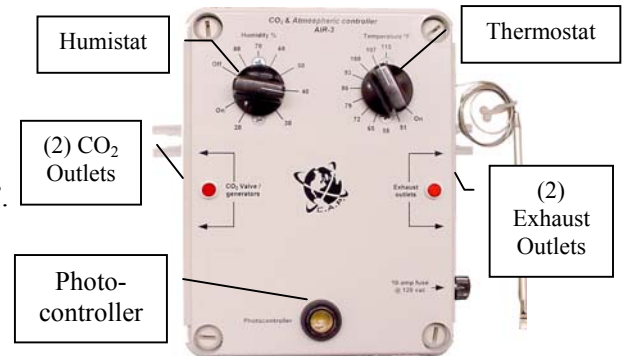




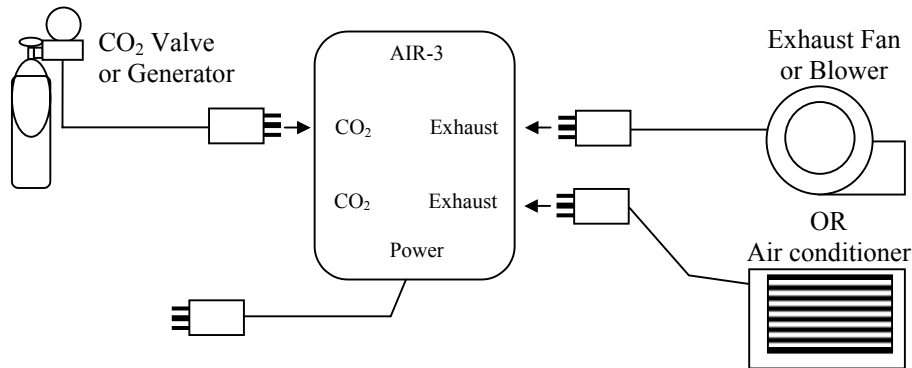
## AIR-3 Atmosphere / CO<sub>2</sub> Controller

CAP offers a full range of equipment for the growing enthusiasts. The AIR-3 controls the humidity, temperature and CO<sub>2</sub> levels within the growing area. When the Exhaust turns on due to high humidity or temperature, the CO<sub>2</sub> outlet is disabled and the Exhaust fans run. The built-in photocell ensures the CO<sub>2</sub> outlet is activated only during the "daytime".

- ✓ The AIR-3 integrates temperature / humidity & CO<sub>2</sub>. When the fans are running, the CO<sub>2</sub> is disabled.
- ✓ External temperature probe is highly accurate & reliable.
- ✓ (2) indicator lights verify Exhaust on and CO<sub>2</sub> on.
- ✓ CO<sub>2</sub> generators or valves operating on 120 volt plug into standard receptacles. CO<sub>2</sub> is only active during the "day".
- ✓ The AIR-3 is an extremely affordable method of integrating CO<sub>2</sub> generators or valves with temperature & humidity control.



### DEVICE LINE DIAGRAM



### CONNECTIONS & OPERATION

There are only a few requirements for a successful installation of your AIR-3.

- 1) Determine the desired location for the AIR-3. It should be at "plant" height and near a 120vac power supply. Also consider the position of the light source to ensure proper operation of the photocell.
- 2) The external remote temperature probe can be uncoiled to place the probe up to 30" from the unit.  
\* **NOTE: DO NOT BEND TIGHTLY OR KINK THE SILVER CAPILLARY TUBE.**
- 3) Mount the AIR-4 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(s) into the receptacles on the right side.
- 5) Plug the CO<sub>2</sub> valve or generator into the receptacles on the left side.
- 6) Keep the AIR-3 far from any CO<sub>2</sub> generator or other sources of high heat to eliminate faulty temperature readings.
- 7) Adjust the thermostat and humistat to the desired highest level you want to maintain.
- 8) Connect the power cord to a source of 120vac power. \* Maximum COMBINED load = 10 amps.
- 9) Once connected and powered up the photocell may take up to 2 minutes to detect Daytime light levels and activate the CO<sub>2</sub> outlet.

\* NOTE: *The AIR-3 requires "free air movement" to maintain temperature and humidity accuracy. The top and bottom of the enclosure has ventilation slots to provide airflow 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.*

## TROUBLESHOOTING

If you are having problems with this unit, refer to these troubleshooting hints. Also, refer to the connection diagram to ensure your devices are connected properly.

<u>Problem</u>	<u>Suggested Action</u>
◆ I have no lights and no function at all.	◆ Check fuse or main power. Check the main power plug and replace the fuse if required with the correct rated fuse. ◆ If the fuse blows repeatedly, verify the devices connected to the unit are working properly and that they are not too large for the AIR-3 to safely control.
◆ My CO <sub>2</sub> outlet never comes on.	◆ If the Exhaust outlet is ON, the CO <sub>2</sub> 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 <sub>2</sub> function. You can test the photocell by shining a small flashlight on the lens.
◆ The fans are running so often, the CO <sub>2</sub> 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. ◆ You may also consider using a "closed-loop" air conditioner to keep the temperature and humidity below the set points so that CO <sub>2</sub> is allowed to run for longer amounts of time.
◆ My CO <sub>2</sub> 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. Even though the AIR-3 can operate compressed CO <sub>2</sub> valves, it is recommended for use with LP or natural gas generators. ◆ Consider changing to a more sophisticated controller capable of timed or PPM control. You could also connect an ART-2 timer to the CO <sub>2</sub> outlet to cycle the CO <sub>2</sub> ON / OFF.

## PRECAUTIONS

- 1) DO NOT expose the AIR-3 to water. The plastic enclosure is corrosion-proof, it is not water-proof.
- 2) DO connect the AIR-3 to a source of dedicated 15-amp / 120 vac power.

## WARRANTY

The AIR-3 is warranted against defects in workmanship for THREE years.

## SPECIFICATIONS

Main power voltage	120vac
Maximum amperage	10-Amps @ 120vac
Photocell operation	Activate CO <sub>2</sub> during "daytime" only
Thermostat type / control range	External bulb, 7 degree F differential, adjustable 50-115°F
Operating temperature range	0-50° C
Humistat type / control range	Internal hygroscopic, 5% differential, adjustable 20-80% rH
Operating humidity range	0-99% rH (non-condensing)
Relay operations (minimum)	100,000 electrical / 1,000,000 mechanical
Weight	Less than 4 lbs
Dimensions	8" X 6" X 3.5"

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