SOLATEL CO_2 MONITOR (CO2-200) INSTRUCTIONS

This Solatel CO_2 Monitor is a microprocessor based, infra-red environmental CO_2 concentration sensor.

The Solatel monitor is intended to be used only with Plant Pro™ Mod. HGC-00X Controllers. For additional instructions, refer to the Plant Pro™ Owners Manual.

Specifications

Operating Principle	Non-dispersive infrared (NDIR)
Gas sampling method	Diffusion or sample draw
Measurement Range	0-2000 ppm CO2
Maximum drift (per year)	±75 ppm
Accuracy	±5% of reading or ±75 ppm, whichever is greater
Repeatability	±20 ppm
Recommended Calibration Interval	Five Years
Response time	Less than 1 minute
Operating temperature range	0 to 50 º C
Operating humidity range	0 - 99% rH (non condensing)
Storage temperature	-30 to + 70 º C
Power requirements	20 - 30 Vrms AC, 18 - 30 VDC
Power consumption	Less than 2.5 W @ 24 VAC
Dimensions	5.2" x 3.2" x 1.4"
Voltage output (linear)	0 - 10 VDC standard
Current output (linear)	4 - 20 mA
Warm up time	5 minutes
Weight	6.5 Oz. (.35 Kg)
Operating life expectancy	10 years typical
Warranty	One year parts and labor

INSTRUCTIONS

1. Mounting: Position monitor for good air circulation. Avoid dead air spaces where there is poor air circulation. Position the monitor some distance away from CO2 generator outlet such that the sensor will be measuring the "average" CO2 concentration in the growing space. Some experimentation may be required for best control.
2. Make sure the Plant Pro™ controller does not keep the vent fan running continuously because the temperature (or humidity) threshold settings have been exceeded. CO2 cannot be dispensed if the vent fan is running (it would just remove the CO2 before the plants could utilize it). Lower garden

temperature (or humidity) or raise threshold settings on Plant Pro™ to turn off vent. The good news is that higher temperatures can be tolerated by plants in a CO2 rich environment!

3. Plug in Power Adapter to supply power to the monitor. Allow to warm up and acclimate to environment for 10 - 15 minutes before first using.
4. Plug signal cable from monitor into the CO2 socket on side of Plant Pro™ .
5. Plug CO2 dispensing equipment into the CO2 AC power socket on the front panel of the Plant Pro™ (this could be a solenoid valve for bottled CO2 or a CO2 generator).
6. Turn the SELECT knob on the Plant Pro™ to the "CO2 PPM" position.
7. Turn the SET knob on the Plant Pro™ until the desired concentration of CO2 (in ppm (parts per million)) you wish to maintain in your garden appears on the display. A typical value is 1500 ppm for optimum growth.
8. Return the SELECT knob to the RUN position. That's it. The Plant Pro™ will now maintaining the desired CO2 concentration in your grow environment.
9. You can also view the actual CO2 level in the garden at any time by turning the SET knob (with the SELECT knob in the RUN position) until the PPM indicator lights up on the display window. The display now shows the environmental CO2 concentration in ppm (parts per million).
10. Note: As stated above, CO2 will shut off if ventilation is required and come back on when ventilation is not required. Higher temperatures may be used in a CO2 rich environment. See Plant Pro™ manual for additional information.
11. Be cautious when giving the monitor the "breath test". The breath contains more CO2 than you would imagine and can easily saturate the monitor, causing it to take several minutes to clear itself and function normally.
12. When calibration is required, contact a Solatel retailer for instructions.