Climate Control Systems

a nebula group company

FERTIGATION MANAGER™

The Most Advance **Feed Management** and **Irrigation Control** System.

FERTIGATION MANAGER™

The Fertigation Manager™ is a precise fertilizer blending and delivery system that allows the grower to create various fertilizer feeding formulas for all types of crops including hydroponic, aeroponic and traditional growing methods.

- The Fertigation Manager™ delivers the exact amount of irrigation water to each plant, irrespective of the amount of water required or the frequency of the watering

- The Fertigation Manager™ completes mixing and remembers the exact amount of water and nutrients required for each recipe

Growers depend on fertilizer programs to irrigate flower and vegetable crops on a daily basis. The Fertigation Manager™ allows growers to create and distribute different feeding formulas and was the first system to fully integrate to the internet allowing for remote control and monitoring.

The perfect tool for dealing with the difficulties of irrigating plants with a variety of nutrient recipes.

MODES OF OPERATION

The Fertigation program allows growers to control each fertilizer solution injected into the pressurized irrigation water line by (1) EC and pH control or (2) proportional to water flow control.

- The EC control program injects fertilizer in the irrigation water until the set EC level is reached, then the injectors slow down to maintain the EC level and pH level.

- The Fertigation Program allow you to pre schedule up to 20 Fertilizer recipe programs and can be assigned to specific irrigation zones.

A MANAGER FOR EVERY CROP

Save money on fertilizer and water usage by treating and recycling waste irrigation water. This water recycling program includes a special strategy for treating collected irrigation water.

The program conditions water for desired EC and pH before it is sent to the Fertigation Manager™ for further treatment.

The Fertigation Manager™ control program is a powerful tool for fertigation management, water recycling and climate control for any sized indoor grow operation. These smart controllers are accessible via the Internet. Technical support is available from anywhere the Internet is accessible.

SIMPLE/EASY TO USE SOFTWARE

The program works with up to 12 injectors and up to 128 irrigation valves. Various feed formulas can be pre-programmed to satisfy various vegetable and flower crops.

Climate Control Systems offers a unique measurement and control instrumentation for EC, pH and water flow meters that have field programmable features to help growers manage the production of crops.

#	Recipe Name	Start Date (yyyy-mm-dd)	End Date (yyyy-mm-dd)	Days	Begin (hh.mm)	End (hh.mm)	Rest (mm.ss)	Trigger (mm.ss)	Solar D.L.I.	WC (%)	DB +/-
1.	Recipe #1	2020-05-26	2020-06-25	30	8.00	18.00	15.00	60.00	0.00	25	2.0
2.	Recipe #2	2020-06-26	2020-08-12	47	0.00	0.00	0.00	0.00	0.00	0	0.0
3.	Flowering #1	2020-08-13	2020-08-30	17	0.00	0.00	0.00	0.00	0.00	0	0.0
4.	Flowering #2	2020-09-01	2020-09-10	9	0.00	0.00	0.00	0.00	0.00	0	0.0
5.	Flush	2020-09-11	2020-09-13	2	0.00	0.00	0.00	0.00	0.00	0	0.0
						Active Values:	0 s	604 s	0.00	84	

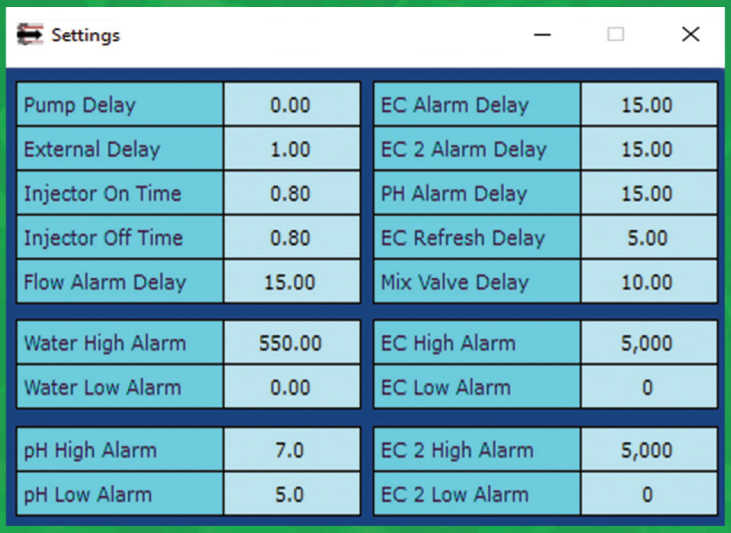
There are 20 irrigation programs where one can assign specific irrigation valves. Schedule irrigation based on time intervals, live solar conditions set in u/Moles, by substrate/soil moisture sensors or by external trigger.

- The timer counts down in seconds to indicate seconds left until the next irrigation start cycle
- The Solar Sensor provides accumulated solar levels in µmoles to trigger irrigation on set solar levels

	Program Name	Timer	Solar	WC		Program Name	Timer	Solar	WC
1.	Flower Room 1	3,451	3.70	34	11.	Program #11			
2.	Flower Room 2	9,106	6.75	37	12.	Program #12			
3.	Veg Room 1	10,186	2.16		13.	Program #13			
4.	Veg Room 2	9,198	2.66		14.	Program #14			
5.	Greenhouse 5				15.	Program #15			
6.	Program #6				16.	Program #16			
7.	Program #7				17.	Program #17			
8.	Program #8				18.	Program #18			
9.	Program #9				19.	Program #19			
10.	Program #10				20.	Program #20			

MANAGE WATER AND FERTILIZER

The Fertigation Manager™ is a key component in this engineered water recycling system in conjunction with the Ozone Pro water sterilization system.

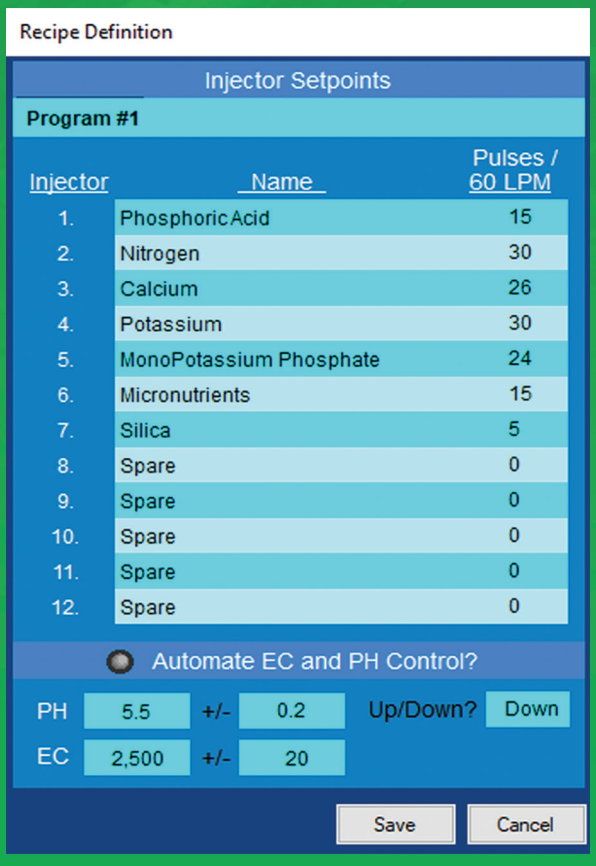


- Complete turn-key water collection and recirculation system
- Saves the grower up to 40% on water and fertilizer costs
- Recycles 100% of the fertilized irrigation wastewater

ONE CENTRAL MACHINE FOR MULTIPLE RECIPES

The Fertigation Manager™ uses anywhere from **3 to 12 fertilizer tanks** to create many different fertilizer formulas required for different crops.

The software program allows you to automatically mix many different feeding recipes and send them directly to the irrigation zone.



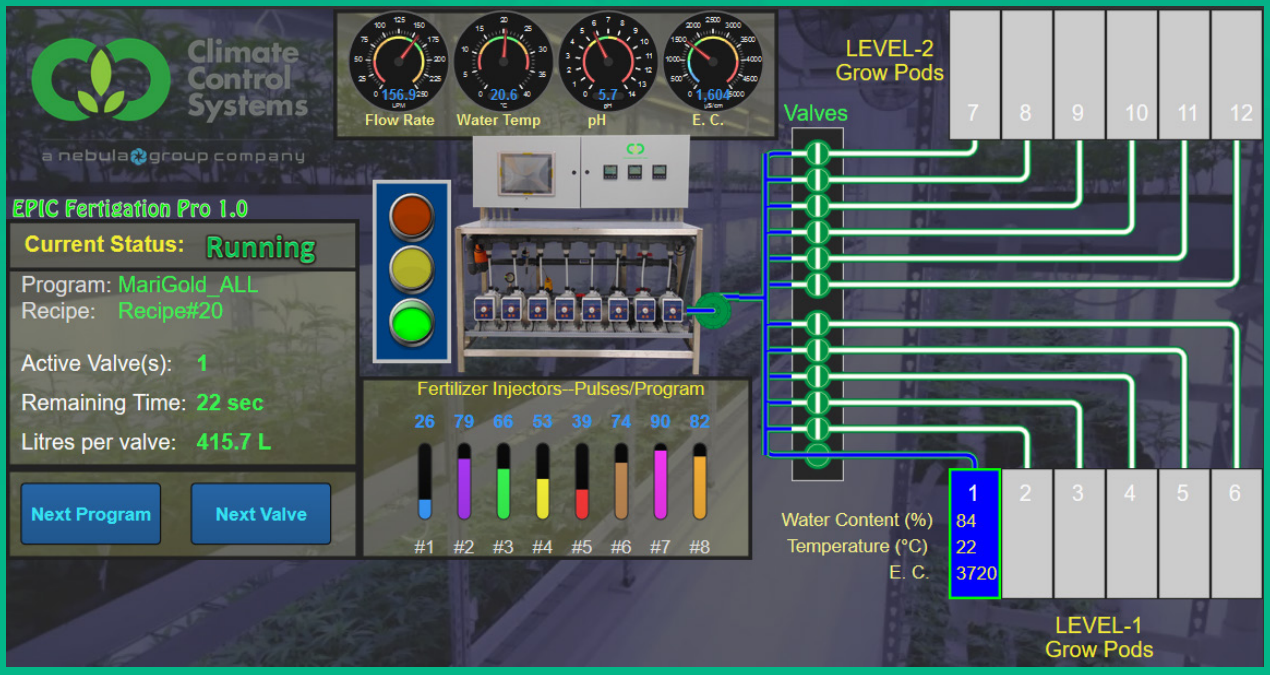
EPIC CONTROLLER

COMING FALL 2020

The Groov Epic is the next generation of fertigation control programs. It offers real time readings in custom graphics programs, data collection, and graphs for all monitored conditions for:

- EC
- pH
- Water flow
- Water temperature
- Root zone temperature
- Solar levels
- Substrate EC levels
- Substrate moisture levels
- And much, much more!

Any alarm conditions or customized event triggers can be texted or emailed to your personal device. The Epic controller software supports all web browsers on smart phones, tablets, laptops, and desktop computers.



EPIC CONTROLLER

EXPANDABLE • CUSTOMIZABLE • ACCESSIBLE

Powering a web-based app, the EPIC controller provides **instant access, anywhere** to the Fertigation Manager.™ With more power, comes more possibilities... The EPIC controller serves as the ideal platform for expandability, so your Fertigation Manager can be truly customized to supply you with the data you need to optimize your growth.

INSTRUMENTATION AND CONTROL

- Optional relays for process control and alarms
- Field programmable 4 - 20 mA or 0 - 20mA for computer interface
- Hi-Low alarm level set points, pump start, injector control, alarm dialer trigger, & more

Water Flow Meter/Controller

0515 Water flow sensor from ½" line to 12" lines
2536 Water flow sensor from ½" line to 12" lines

Conductivity Meter/Controller

2821 Conductivity Sensors

pH, ORP, Oxygen Meter/Controller

2726 pH sensor (round bulb)
2724 pH sensor (flat sensor)

Water Level Meter/Controller

2250 Water Level Sensor

- Programmable tank level indication
- Programmable in gallons or liters

Temperature Meter/Controller

2350 TemperatureSensor

- Temperature in degrees Celsius or Fahrenheit
- Optional relays for process control and alarms

Creating consistent growing environments for **healthy crop growth and quality control.**

Climate Control Systems

a nebula group company

Climate Control Systems Inc. has been manufacturing greenhouse automation systems around the globe since 1985.

Our greenhouse automation software and solutions work around the clock to optimize greenhouse climate, increase crop yields and reduce water, energy and fertilizer costs.

We provide complete solutions for your growing operations. Our solutions help achieve a better crop while saving you precious time and overhead costs.

nebula group

Nebula Group's primary mission is to profitably expand leadership in food production and safety in a localized manner through the decentralization of the food supply chain via sustainable resources, modernized technology systems, and self-sufficient processes. Learn more at nebulagroup.co.

CONTACT US TODAY FOR A CUSTOM QUOTE

DEALERSHIP AND AGENT INQUIRIES ARE WELCOME

P +1-519-322-2515

E contact@climatecontrol.com

W www.climatecontrol.com

Climate Control Systems

a nebula group company