#### **Growmaster Procom** Precision Control, Multiple Zone Capability, Easy Operation



# Procom, simply the best environmental computer control choice for professional commercial growers and research greenhouses worldwide.

Years of research and development have resulted in the Growmaster Procom being the system choice for hundreds of commercial and research greenhouse growing operations throughout the world. From a single zone of operation, to complex multiple zone applications, the Procom delivers time and time again. The Procom features "state of the art" control algorithms based on internal conditions as well as outdoor weather conditions. Also included are four separate daily operation modes including DIF. Manual override switches are located on the front panel for ease of use. A large informative display constantly updates as to all greenhouse conditions and equipment operations. Enclosed in a NEMA 12, lockable non-metallic enclosure with a clear cover, the Procom is easy to use and easy to install on new and existing projects. Low voltage 24 VAC operation.

- Energy saving features for commercial growers.
- Precise automation for research applications.
- Sensor history record and display for 30 days.
- State of the art software and equipment operations.
- Irrigation and misting control based on time, or soil moisture.

- Accurate microprocessor control of your entire environment.
- Fully expandable with additional output modules.
- Add your PC to your Procom system for endless possibilities.
- Companion VPD irrigation and propagation system available

#### Growlink "Point, Click and Grow"



Take precision control of your entire greenhouse zones one step further by adding on the Growlink program. From the convenience of your office, home, or anywhere that you travel, you will be able to monitor your entire greenhouse operation. You may also change any of the control parameters remotely from your PC with a very easy to use "point and click" method. A wealth of information gathered by each Growmaster Series control system is captured for further review and analysis. Generate color graphs or spreadsheets of your sensor readings and equipment positions. You may even export all of the collected data to other programs such as Excel. The Growlink program is shipped to you with all custom screens created just for your own operations. Screen additions and changes are very easy and quick. The Growlink system works with any version of Microsoft Windows®, and will connect to our Growmaster Procom, Growcom, Water Pro, and Weathermaster control systems.

- Full color screens and easy to use "Point and Click" interface
- Works with all versions of Microsoft Windows®
- Incorporate digital photographs of your own greenhouse ranges
- Export your greenhouse data to Excel and other programs
- View and change settings from your office, home or anywhere
- Shipped completely programmed and ready to use

#### WeatherMaster



Protects greenhouse ventilation systems from high winds and rain damage. Each system may be used with Micro Grow controls, or as a stand alone system with other vent controls.

- Premier microprocessor based greenhouse weather station
- Monitors wind, speed & direction, rain, solar level, and outdoor temperatures
- Easily combines with new and existing greenhouse equipment
- Interfaces with Micro Grow's custom Growlink program.

**Growmaster Growcom** Single Zone Advanced Computer Control



Enjoy the same precision control of our Growmaster Procom in a single zone environment with our Growcom system. We have packed the most common environmental control equipment in use in a single zone control system. The Growcom can also be used with our Growlink Windows®-based software. A zone temperature sensor, as well as a solar sensor, come standard with the Growcom. The Growcom features four separate daily operation modes including DIF. Low voltage 24 VAC operation.

- Use as a stand alone system, or with your PC with our Growlink system
- Cooling, air circulation, ventilation, and shading equipment
- All heating equipment including hot water valves and boilers
- Optional fogging, and dehumidify with humidity sensor available
- Full alarm functions and sensor history record and display for 30 days

### **Ventmate Plus**

**Designed For Vented Structures and Retractable Roof Houses** 



The Ventmate Plus has the same enhanced features of the Growmate Plus system, yet it is designed for use with ventilation cooled structures. Two separate ventilation outputs can control roof vents, side vents, roll up walls, or retractable roof ranges. Vents may be operated in up to eight separate stages of operation. Add on a <u>Weatherstat</u> or <u>Weathermaster</u> for wind and rain roof vent safety overrides. Separate day and night temperature settings, as well as DIF come standard. As on all of our control systems, manual override switches are a standard feature. Low voltage 24 VAC operation.

- Heating, ventilation and air circulation
- Accurate microprocessor control
- Large digital display
- DIF operations are standard

**Growmate** For Smaller Installations



The Growmate offers many of the very same features as the Growmate Plus. It is designed for smaller greenhouses, but offers exacting computer-based control of cooling, heating, and air circulation equipment. DIF settings, separate day and night temperature control, and manual override switches are standard features. Low voltage 24 VAC operation.

- Accurate microprocessor control
- Large digital display and convenient program switches
- Three cooling stages, two heating stages
- Air circulation output for HAF fans
- DIF operations are standard

**Growmate Plus** 

Affordable, Accurate, Control



If you think that computer based greenhouse control systems are expensive, the Growmate line of products will enlighten you. An affordable choice for many growing operations, the Growmate Plus puts the power of a microprocessor based control system in your hands at a price that anyone can afford. All temperature settings can be adjusted independently for day and night heating and cooling, as well as DIF settings. A large and informative display assists in programming, while providing a constant readout of all sensors. Manual override switches for all outputs are conveniently located on the front panel. Growmate Plus includes a temperature sensor and photocell. An optional humidity sensor is available for accurate and true dehumidify functions. Low voltage 24 VAC operations.

- Accurate microprocessor control
- Large digital display and convenient program switches
- Five cooling stages, two heating stages
- Air circulation output for HAF fans
- DIF operations are standard
- Optional humidity sensor available

# **Irrigation and Propagation Misting Controls**

A full complement of irrigation and propagation misting control systems are available from Micro Grow. Our top of the line Water Pro Control System is available in a soil moisture format, or a Vapor Pressure Deficit (VPD) configuration. Being a part of the Growmaster Series of controls, the Water Pro will also connect to your PC via our Growlink program for added reports, graphs, and interaction. For other irrigation needs, we offer a basic VPD irrigation and misting system in our Water Plus unit. We also offer some feature-enhanced systems based on standard timing and time of day needs. New to our line, is our Mini Mist system, a perfect choice for one or two station outputs. All systems are 24 VAC, and work with standard irrigation and misting solenoid valves.



Water Pro VPD Irrigation and Misting

A precision VPD sensor set monitors the crop environment at all times. Zone temperature, humidity, and simulated plant leaf temperature are monitored. An exact calculation of the current Vapor Pressure Deficit (VPD) level is made and accumulated. When the grower's set targets are reached, the specific irrigation or misting station will energize. Adjustments are made constantly for changes in the crop environment. Other features include crop aging adjustments, end of schedule alarm, and night watering disable functions. Twelve stations, expandable.

- Calculates actual water needs
- Includes a VPD sensor set
- Fully expandable and growlink compatible

# Growstat



Exacting control of individual heating or cooling needs. Will operate one stage of heating and cooling in a single zone, or two stages of either in a single zone. Fogging control version available using precise sensors for humidity, temperature, or both.

- Operates heating and cooling
- Fog control version available
- Day, night, DIF settings

• Automatic night photocell

#### Data Sheet Application Chart

# Ventstat



The Ventstat will operate any motorized greenhouse vent, roll-up, or retractable roof system. Up to eight stages of operation. Separate day, night, and DIF settings.

- Operates greenhouse vent motors
- Controls retractable roofs

• Automates side roll ups

#### Data Sheet Application Chart

#### Shadestat



The Shadestat will operate any motorized greenhouse shade system. Up to eight stages of operation. An energy saving mode will close the curtain at night.

- Operates shade systems
- Automatic solar level control
- Energy saving curtain feature