



## Harvest Master Features & Benefits Explained

### Choosing the right model for your customer.

There are 4 models available giving yet more choice when it comes to tailoring the sale to suit your customer's needs.

<u>Model</u>	<u>Relays</u>	<u>Temp/ Hum</u>	<u>CO2 Sensor</u>	<u>Input/ Outputs</u>	<u>RRP</u>
Climate	3	YES	No	8 Out	SEE YOUR
Climate+	3	YES	No	16 Out/ 8 In+ Modem option	LOCAL
Climate Pro	4	YES	Yes	8 Out	WHOLESALE
Pro Plus(+)	4	YES	Yes	16 Out/ 8 In+ Modem option	OR RESELLER

Climate or Climate Plus, can be sold by excluding the CO2 sensor and 4<sup>th</sup> Relay from a Pro/Pro+ unit. You could then purchase a climate and use these spare parts to make up a **Pro** on your next order, giving your customer 4 possible options to choose from.  
+ See more on inputs below.

### User Friendly

Harvest Master has been designed to be as user friendly as possible. Once all your appliances have been connected, it's a simple case of setting the time, then press "calibrate" on the menu. The Harvest Master will then calibrate the room for the user. Easy!!!

**The entire system is preset ready to go, "Out of the Box".** Settings can be changed as follows...

- **Temperature** – Alter the Max & Min Temp. Unit will stabilise at the middle range of these 2 temperatures. If Temperature falls outside these levels, the CO2 will disable and Fans will start.
- **High Temp Danger** and Low temp danger settings are provided. Turn OFF the lights if the Air conditioning / fans can't cope in bringing the temperature back under that level (39/40°C). You can also adjust the delay setting on how long before you fire up the lights again. Will turn ON your lights (if there is no heating) to raise the temp during a **very cold** night (2/4°C). A lot of people have stressed that this is bad for the plants and could cause a "fountain effect" to form. **But, it will not happen** if you have some sort of heating connected! It's designed to protect your crop if all else fails. Better than having no crop at all!! We have over 20 cases of crops saved for growers!
- The Harvest Master allows you to adjust the **Night/Day Temperature difference** (7°F) with ease. Some people mentioned you can reduce stretching of your plants by reducing this (4°F).
- **Humidity** – Simply alter the Max / Min Humidity levels. Harvest Master will stabilise in the middle of this range. If Humidity levels fall outside these levels, CO2 will disable and start the fans. Harvest Master also allows you to have increased humidity levels while running CO2 (extra 15%RH) before fans are turned on to end cycle. The Harvest Master gives the option of disabling/ running Humidity and Dehumidifier while fans are running.
- **CO2ppm** – Set at 1500-2000ppm (later versions 1500ppm), but can be lowered to around 1400ppm at a touch of a button. While in CO2 mode, it will self learn CO2 dispense times to prevent wastage. It will turn off if the Temp or Humidity levels fall outside the Min-Max range, and has to kick in the fans.
- **Time.** Midnight is when the dark period will begin. The 'time' can be set so that Darkness is during the hottest part of the day, Lights ON during the cooler periods.



## **Lighting**

There is no limit to the amount of Lighting you can attach to the Harvest Master! We have users with 70x 400w light systems.

Each 15amp relay can cope with;

- 220/240v (UK/EU/Asia/Aust/NZ). 3600w at 15amp/2400w at 10 amp. 2/3 x 1000 watts or 4/6 x 600w.
- 120v (USA/Canada). 1800 watts at 15amp. 4x 400watt, 3 x 600watt, 1 x 1000watt (plus 2 x 400w/1 x 600w).
- 240v 2pole. Each phase/pole is 15amp rated. 3 x 1000watts (or combinations to suit 3600watts)

These relays can be connected to the "RCA Multi Connector" for up to 7 relays, each using an RCA stereo lead, each relay connected to an individual plug socket. If the main fuse still doesn't meet your customers needs, we can also supply 32amp, 3 phase relays, giving you/your customer a further 96 amps from each one. These 3 phase relays are hard wired into the mains supply however and will need to be wired in to the home by a qualified electrician!

Many grow systems have their existing "high amperage light relay" switched on, by a single Harvest Master relay (i.e., switches 230v supply to the main box "contactor", which may switch 50-200amps!)

## **Growth Cycles**

The Harvest Master also has 3 "growth cycles" built in, which you can select at a touch of a button. These are pre-set as

- **Veg** – 18 on, 6 off.
- **Flowering** – 12 on, 12 off.
- **Fast Flowering** – 6 On, 12 off. (18 Hour day cycle.)

The Fast Flowering cycle is used in the commercial sector to bring a crop to harvest in a faster time frame. Running on an 18 hour day with CO2 means you still get fantastic yields, but fitting in extra whole crops into the year. Cultivating a 3 month crop, bringing in 4 crops a year normally, could now bring you in 5, with a lot lower electricity bill than normal. ;0).

Some people have startling results though!

*"Reduced a 16week cycle to 7.5wks". "I get 6 crops per year, each 130% of the original 3 crops per year".*

These 3 cycles can also be adjusted at a touch of a button. Some people have mentioned trying 24 on, 12 off, or even 10 on, 10 off.

Harvest Master allows you to adjust the amount of day/night at a touch of a button.

## **Watering**

The Harvest Master 8 Output unit has 8 watering intervals built in, allowing for flood and drain to run from the controller. Set these to suit your operation in the hh:mm you want it to operate.

Each interval can run for a duration (set from 1min to approx. 90 minutes).

If running on a shorter cycle, eg. Fast Flowering, any interval set after the end of the growth cycle will be ignored.

The Harvest Master 16 Output unit has even more watering/ timer features available to use!

- *Timer Output* – Enter start time, Enter stop time.
- *Periodic Output* – Enter the first start time, duration of cycle, period between cycles.
- *Input tied to periodic output* – Similar to the above but triggered by an input rather than a start time.

## **Harvest Master + models. (16 outputs, 8 Inputs)**

### **Inputs/ Outputs**

The Harvest Master Plus(+) models have 16 outputs and 8 inputs. They also accept the modem. Other features it has ...

- *Input tied output.* The output turns on or off depending on the state of an input. These additional 8 outputs could be used to come on when an input is triggered.
- *Input tied to periodic output* – Similar to periodic output (last page) but is triggered by an input rather than a start time.
- *Output controlled by two inputs* - Allows to be turned on by one, off by another. Designed for if running two float switches to control tank levels.
- *Input Controlled Burst Output* - The output is tied to an input in a similar way to the "Input tied output". When the input switches, the output comes on for a set burst of time. It won't come on again until the input has become inactive then active again.

### **Examples of use**

**Eg.** 12v Electronic float switches could be attached to an input to turn ON, a pump running off an output for the time it takes to refill the tank.

**Eg.** If running a CO2 burner off one of the outputs, you could attach a 12v electronic door sensor to an input to turn on a fan to remove any carbon monoxide build up which may occur while running such devices.

**Eg.** If a door sensor is activated, you could turn on an output to sound a house alarm, release a smoke bomb, start the tape player of the dogs barking downstairs. The possibilities are endless!!

One of the 8 outputs could be activated to come on through the use of your mobile phone. Send a message to the Controller modem to start a spray, start a nutrient pump (and automatically turn off in 8seconds for example) Modem can only be purchased for the + models.

### **The Modem!!!**

The modem works only on the + models and will allow you to request the "status" of your grow room by simply sending a text to the SIM card (inserted into the base of the modem). It will then send you the Temp, Hum and CO2ppm levels, Day (or Night) state and hour until changeover, Devices operating.

Text msg to your cellphone for Alarms could include DoorsWndws1, Door2, GrwRm, InfraRd1, InfraRd2, etc. (You preset what the alarm message is!).

It will also alert you if anything should happen; if the temp gets too high or too low, also allow you to turn on any of the outputs 9-16. If running a commercial farm outdoors with electric wind barriers, you could raise or lower them by simply sending a text.

Harvest Master can be purchased through Hydrogarden Wholesale Supplies (UK), Hydrofarm (USA), Megawatt, Homegrown Hydroponics, Green Planet (Canada), Accent Hydroponic (Aust). Resellers are listed on our website. Links. If you require any more questions on the product itself, you can contact us direct. <mailto:Sales@Harvest-Master.com>

