

# CO2 REGULATOR INSTRUCTIONS

## Setting up the System

1. Before attaching the regulator to the CO2 tank, slowly open the tank valve for 3 to 5 seconds to blow out any sediment that may be in the tank. Reclose the valve.
2. Use one of the washers to seal between the regulator and the tank and tighten with a crescent wrench.
3. Attach the provided tubing and install in circular pattern above your growing area.
4. Plug power cord into a grounded outlet, timer or CO2 controller
5. Very slowly open the tank valve until it is fully open.

## Programming the Timer and Flow Rate

1. Determine the cubic feet of your growing area, Height  $\times$  width  $\times$  length=cubic feet
2. Take your desired CO2 level (1500ppm) and substrate the average amount of CO2 in the air which is usually around 300 PPM.  $1500\text{PPM}-300\text{PPM}=1200\text{PPM}$
3. Multiply the cubic feet of your area from step 1 and  $\times .0012$  which represents the amount of CO2 needed from step2. Example:  $800 \text{ CUBIC feet} \times .0012 = .96$
4. Adjust the flow gauge ball to the proper level. Using our example you would set the ball to .96 or round up to the number 1 on the flow gauge.

## Setting the Timer

1. Following our example take the 1 cubic feet of CO2 and divide it up over the 3 hour average period into 1 hour increments. There are 3 one hour periods in 3 hours.  $1\text{CF} \text{ divided by } 3 = 1/3 \text{ CF of CO2 (0.333)}$ .
2. So every HR, an 800 CF room needs  $1/3$  (0.333) CF of CO2 to achieve the desired 1500 PPM. Because the timer is on a 15 Min. on and 15Min. off cycle, the flow rate setting should allow 0.1665 CF of CO2 to be emitted within each 15 Min. on cycle.
3. To achieve the proper flow rate setting you need to divide 0.333 by 2 to reach the flow rate per HR, EXAMPLE  $.333 \text{ divided by } 2 = 0.1665 \text{ CF per 15 minutes of flow}$ . Round this number up to 0.2 CF and this is the flow meter setting.