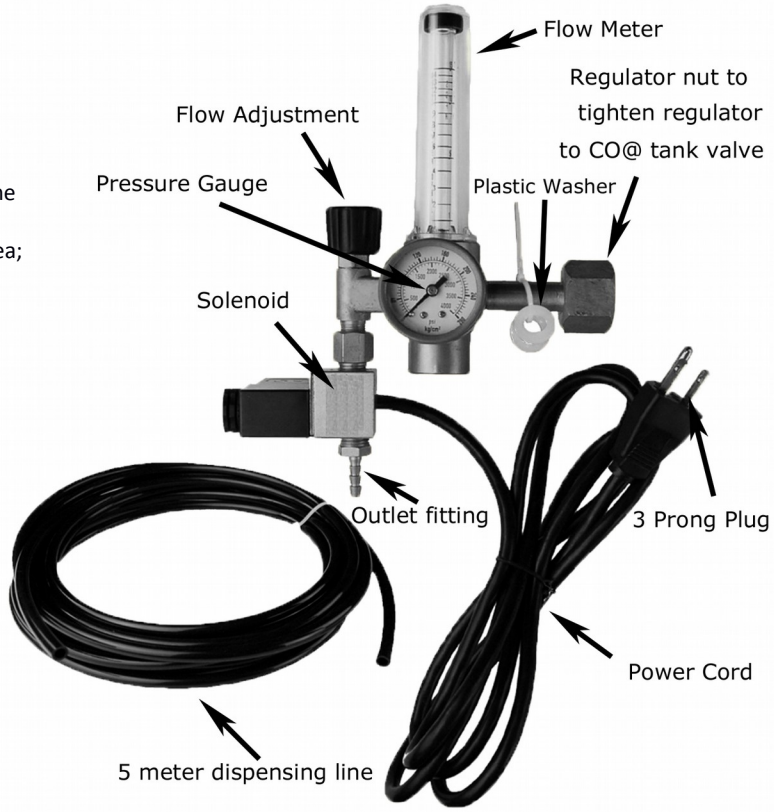
PRO CO2 REGULATOR

Thank you for purchasing the Bubblebagdude Pro CO2 Regulator. You have taken a great step toward a better garden. As you know, CO2 is a critical component to successful indoor gardening. Plants in an optimum CO2 enriched garden will grow faster & healthier and produce bountiful yields of fruits and flowers.

Now that you have the CO2 tank and CO2 regulator, it is time to consider a device to control your regulator. Keep in mind there are many variables in a given garden area; it is difficult to suggest how often a CO2 regulator should be turned on and off .

See the chart included to help with timer settings. Please note the chart is simply a guide and results will vary from garden to garden.



WARNING:

1) All CO2 tanks should be placed on a fl at surface and securely mounted to a permanent structure such as a wall, or metal frame. These tanks are under extreme pressure. Should one fall or be knocked over, personal injury may result.
2) Follow all local laws for transporting, storing and handling CO2.
3) PPM levels should be kept below 2500 PPM. Levels above 5000 PPM can be harmful.
4) Always completely turn off the tank valve before attaching or detaching the regulator.

INSTALLATION

WARNING: Using and transporting compressed gasses can be dangerous if mishandled. Follow your local regulations for transportation and storage of compressed gasses. Even though CO_2 is non-flammable, it is stored at very high pressures up to 1500 P.S.I.

INSTRUCTIONS:

1) There may be particulates or debris in the tank valve. Before the regulator is connected to the tank, this material needs to be cleared. This is done by opening the tank valve very quickly for 3 seconds and closing immediately. This should be performed each ti me a new tank is installed.
2) When attaching the regulator to the tank, do not hold on to the plastic flow meter. Putting this pressure on the fl ow meter will break the seal at the base and permanently damage the unit. This will not be covered under the warranty.
3) Insert one of the provided white plastic washers inside the large brass nut. This will help prevent leaks. We recommend replacing the white plastic washer with each tank change. This will ensure a tight fit, without leaks, each time. Replacement washers can be purchased at your local indoor gardening store.
4) Securely attach the regulator to the CO2 tank. Use a crescent wrench to make this connection. Do not use pliers or channel-locks to tighten the nut. Do not over-tighten the nut.
5) Do not use pipe thread tape or lubricants when making the connection to the tank.
6) Attach the provided clear tubing to the ¼" nipple on the CO2 regulator. Run the tubing from the regulator to the back of an oscillating

fan. Zip tie the tubing to the back of your fan. The fan will aid in the CO2 dispersion around your room.
7) Plug the 120 volt power cord into a CO2 monitor/control system A repeat cycle timer or standard wall timer may also be used.
8) Before opening the valve on the CO2 tank, slightly open (1/2 turn counter-clockwise) the fl ow adjustment knob on the regulator to relieve the pressure from the gas being released. Failure to do this can permanently damage the unit.
9) Open the valve on your CO2 tank 2 or 3 rotations. Check for CO2 leaks at all connections by using soapy water.
10) To set the fl ow rate, turn the brass Flow Adjustment Knob. The ball will move up and down inside the Flowmeter. Adjust the knob to your desired flow rate.

WARNING: Opening the Flow Adjustment Knob completely, where the ball moves past the top of the fl ow scale, can allow the CO2 to fl ow too fast. This can cause freezing of the regulator.

11) **Please note:** CO2 should be used during daylight hours when the lights are on. **Remember:** Light + CO2 = Photosynthesis

Making Connections

To determine how long in minutes it will take to increase the level of CO2 in your growing area, first calculate cubic feet are in your area by multiplying the rooms length x height x width. Compare your result with the numbers down the left side of the chart. When you find a number that closely matches your area, pick a flow gauge setting which will fill the room in a specified time, preferably in the green area, as that is where the you will get the best precision of a timed release. Be sure to have lots of air-movement around the plants to properly distribute and mix the CO2. Depending on how much air leakage you have, you may want to release CO2 every 3 hours or so. This is rather arbitrary, and so for best results, we recommend that you use a PPM level controller. If you are using a PPM Level controller, the Yellow areas are good to use.

FLOW GAUGE SETTINGS

CUBIC FEET/HOUR

AREA SIZE IN CUBIC FEET (L x H x W)	**0.5**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
50	7	4	2	1	1	x	x	x	x	x	x	x	x	x	x	x
100	14	7	4	2	2	1	1	1	1	1	x	x	x	x	x	x
200	29	14	7	5	4	3	2	2	2	2	1	1	x	x	x	x
400	58	30	14	14	10	7	6	5	4	4	3	3	3	2	x	x
600	87	43	22	14	11	9	7	6	5	5	4	4	4	3	3	x
800	115	58	29	19	14	12	10	8	7	6	6	5	5	4	4	4
1000	144	72	36	24	18	14	12	10	9	8	7	7	6	6	6	6
1200	137	87	43	29	22	17	14	12	11	10	9	8	7	7	6	6
1400	202	101	50	34	25	20	17	14	13	11	10	9	8	8	7	7
1600	230	115	58	38	29	23	19	17	14	13	12	11	10	9	8	8
1800	259	130	65	43	32	26	22	19	16	14	13	12	11	10	9	9
2000	288	144	72	48	36	29	24	21	18	16	14	13	12	11	10	10

NOT Recommended
OK
BEST
OK

This chart is based on an ambient level of 300 PPM of CO2 and a desired level of 1500 PPM.

Precautions

After making the compressed gas connections always check for leaks. .
DO NOT allow the CO2 level to rise above 2500 PPM. Levels above 5000PPM can be extremely dangerous.
The Pro Co2 regulatoe should be connected to a suitable CO2 controller to regulate the CO2 level in PPM.
Using and transporting compressed gasses can be dangerous if mishandled. Follow your local regulations for transportation and storage of compressed gasses. Even though CO2 is non-flammable, it is stored at very high pressures up to 1500 P.S.Please make us a binding offer for the following deliveries.
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