THANK YOU FOR CHOOSING THE BC NORTHERN LIGHTS PRODUCER
Although this innovative product is very straightforward to use, the following manual contains a few guidelines to make your growing experience easier.
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Parts Checklist

The following accessories should be loose inside your unit:

#1001: 4 Airstones & 4 Airline Whips
#1002: Producer Keys
#1003: Raceway for Airlines

#1004: H2O Pump & Adapter
#1005: 3 - 3” Rockwool Sleeves
#1006: 49 - 1” Rockwool Cubes

#1007: 4ft Drain Hose
#1008: 18-3.5 inch Mesh Pots
#1009: Clone Dome (optional)

#1010: 125 Compact Flourescent (Optional)
#1011: 2 - 400W HPS Bulb
#1012: Tub & Syringe (Optional)
Tools Required

- Screwdriver (Robertson bit provided)
- CO2 regulator wrench (provided)
- Glass cleaner and cloth

Useful Tools

- Cordless Drill (Drill Bit provided. Used for removing top during bulb installation)
- Hair Dryer (Used for easier installation of pump adapters and air stones)
- Flathead Screwdriver (Setting up CO2 reg. to tank)
Chapter 1: Producer Assembly

A. Producer Chamber Assembly

1. Ensure that both the vegetation and flower rocker switches are off (down), (fig 1.1) this will ensure that the lights are off when the machine is plugged into the wall.
2. Remove all accessories and parts from inside the Producer. Ensure that clear airlines in the back of the chamber are still securely connected to the small black tees at the back of the tub.
3. Hook up four of the 12” air stones to 4 of the short 12” clear airlines (#1001) and lay them in the bottom of the tub (fig 1.2).
4. Hook the other end of the airlines to the small black tees located on the back of the flowering tub (fig 1.3).

5. Hook up the pump adapter to the ECO 132 pump (#1004) (fig 1.4).
6. Attach the other end of the pump adapter to the “Grey Tee” that protrudes from the bottom of producer tub lid (#1016) (fig 1.5) and lower the lid on the tub with the pump located at the back of the chamber (fig 1.6).

 Helpful Hints

- You may need to soak the adapter in hot water or warm it up with a hair dryer to make inserting easier.
- Make sure both the pump cord and clear airlines are placed in the notch at the back of the tub.
7. Insert the pump cord in the plastic white channel located in the back of the chamber (fig 1.7).

 Helpful Hint

 - The channel opens from one side (fig 1.8).

8. Ensure that the clear line is still connected to the small black tee at the back of the tub. (fig 1.9)

**Warning**

Only plug the pump in at the top of the chamber when water is in the tub, and you are ready to begin using the pump otherwise you risk damaging it.

B. Bulb Installation

9. Remove the Producer HPS light chamber lids (fig 2.0).
10. Clean glass and install two bulbs (#1011) Turn clockwise and do not over tighten (fig 2.1).
Helpful Hint

- Wipe finger prints off of the bulb with a clean dry cloth to ensure the full life of the bulb.

11. Install vent covers (#1024) by placing the cover over fan opening and bend tabs (fig 2.2).
12. Check fan connections (fig 2.3) and place lid back on machine (fig 2.4).
13. Attach the coco carbon filter at the air circulation fan located on the back right of the machine (fig 2.5a-b). Line the filter up with the 2 screws and turn clockwise.

Helpful Hint

- Only use your filter when odor is present. This will lengthen the life of your filter dramatically.

14. Plug your Producer into a 110V grounded receptacle with a 15 amp circuit breaker. This is the most common electrical outlet in a house; however you should check the rating of the circuit breaker before operation.

Warning

Only plug the water pump in at the top of the Producer chamber when water is in the tubs and you are ready to begin watering your pumps.
C. CO2 System Assembly

1. Attach the regulator provided (#1021) to the CO2 tank (not provided). Ensure the gasket is placed between the fitting and tank (fig 2.6). Tighten the regulator fitting with the wrench provided (fig 2.7).
2. Attach the free end of the CO2 clear hose located at the back of the machine (fig 2.8) to the brass fitting on the regulator (fig 2.9). Ensure you push the CO2 line all the way on the barb.

Helpful Hints

- You may need to warm up the CO2 line with warm water or a hair dryer to make insertion easier.
- Don’t begin to use CO2 until the second week of the flowering cycle and only use if your plants have a good root system and look healthy.

Warning

Please ensure that your CO2 tank is turned off until you are ready to begin using CO2. When you are ready to begin using CO2, refer to the CO2 Injection section.
Chapter 2: Machine Operation Overview

A. GroSmart Control Center Overview

BC Northern Lights has taken great pride in offering you the most state of the art control center available. After years of testing and research with data loggers, and other scientific instruments we are confident that all levels of the Producer are perfect. The GroSmart control center has already been pre-programmed for you and will ensure that throughout the day your plants will have optimal levels of light, air movement, CO2, and water/nutrient solution. Please see below on how to initialize your pre-programmed customized control center.

The GroSmart is the heart and soul of your Producer. Please make sure that before you plug the machine in that all switches are in the OFF position. Before you can start to enjoy using your new machine, you must first set the time. You can set the time on your Producer only when all of your switches are off.

Setting Time and Date on your Producer

The Producer control center is already pre-programmed with light and watering cycles, all you need to do is set the clock to your local time.

• To do this from the main display (screen A.) first press the OK key.
• From the sub menu (screen B.) use the up/down arrow keys to select SET CLOCK & press OK (screen C. will appear) SET CLOCK will be flashing.
• Press OK again to get to (screen D.) The last digit of the date will be highlighted & flashing, press OK. The number will begin to flash and it can now be changed (screen E.)
• Use the up/down arrow keys to change the day & the left/right arrow keys to move the cursor from left to right. Set the month & year the same way using up/down keys.
• When done use the left or right arrow key to move cursor to bottom line (screen E.) You can now use up/down keys to set the time

Helpful Hints

• Clock is in 24hr format*
• Example 4:20 pm = 16:20 / 4:20 am = 4:20 (add 12 after = 1:00pm)
• When clock is set press OK to confirm (screen F. will appear) If the time is correct then press OK (screen 3. will appear) From screen 3. press the ESC key twice to return to the main screen

You are now ready to use your machine. Please refer to machine operation overview in Chapter 2 for instructions on engaging your lights.
B. Producer Growing Chamber

This chamber allows you to grow 18 healthy plants at all stages of growth using various lighting schedules and different light color spectrums. The glass enclosed lighting area that houses the bulbs each have their own independent exhaust system to remove all heat created from the bulbs.

Lighting Schedule

The GroSmart is programmed to for you to choose 2 lighting schedules. The first is for your vegetation stage (for use with the veg upgrade option) that engages the compact fluorescent bulb. The second is your flowering schedule that engages the 2 HPS bulbs. The different schedules can be activated by turning the either the Veg or Flower switch to the on (up position).

<table>
<thead>
<tr>
<th>Flower Schedule</th>
<th>Vegetation Schedule</th>
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</thead>
<tbody>
<tr>
<td>9:00 AM</td>
<td>6:00 AM</td>
</tr>
<tr>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>9:00 PM</td>
<td>12:00 PM</td>
</tr>
<tr>
<td>OFF</td>
<td>OFF</td>
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</tbody>
</table>

**Warning**

Do not, under any circumstances, select the CLEAR PROGRAM option from the GroSmart menu. If you clear your program, you will have to purchase a programming chip from your reseller for $50.

Helpful Hint

- The exhaust fans next to the HPS bulb come on and off with the light.

Producer Reservoir Tub

When your plants have been successfully rooted they can be put in the 3.5” mesh pots and placed in the cutouts on the lid. You can vegetate your plants under the veg lighting schedule until they reach an approximate height of 10 inches where they can be flipped to the flowering mode and grown to maturity.

Flowering Irrigation Pump (ECO Plus 132)

An 132-gph pump is used to propel the nutrient mixture through the drip lines. The pump will cycle twice per day for 5 minutes. To manually override your pump simply push the water rocker switch up, the water pump will run for 20 minutes before the safety override engages (fig 5.1).
Helpful Hint

- Please ensure that there is always at least 3 gallons of water in the flowering reservoir when the machine is plugged in so that the pump does not run dry.

The drip lines in this chamber are on a restricted drip system with the emitters provided on the end of the drip line. There is also a flow adjustment switch located on the side of the pump. The irrigation system is programmed to come on every morning from 8:45am to 8:50am and 4:20pm to 4:25pm, allowing your plants to soak up all the water they need for day before the sun (your flower bulb) begins its daylight schedule. This 5 minute watering period ensures your rootball is thoroughly flushed of all salt buildups that may occur.

Producer Tub Air Supply

Oxygen is supplied to the water in the reservoir via the internally wired airpump and the 4 12 inch airstones located in the bottom of the reservoir (fig 1.2).

Helpful Hint

- It is imperative that the air pump be running at all times, as it provides the oxygen necessary for the roots to stay alive.
- Check airstones regularly for any hose disconnection and general salt build up. Airstones should be replaced each growing cycle for optimum oxygen supply to the roots.

C. CO2 Injection and Water Rocker Switches

The Producer features the ultimate easy to use CO2 injection system. The use of CO2 will dramatically increase the production of your plants. CO2 is programmed to inject automatically throughout the day to maintain a constant CO2 level of 1600 PPM.

The CO2 rocker switch override should only be used when initially setting your CO2 regulator, or instructed by BC Northern Lights technical support to control pests. If the CO2 switch has been left in the override up position by accident it will automatically shut off after 15 minutes as a safety feature not to suffocate your plants.

Helpful Hints

- The CO2 rocker switch must be in the down position for the control center to automatically inject your CO2.
- Don’t begin to use CO2 until the second week of the flowering cycle and only use if your plants have a good root system and look healthy.
The irrigation system is programmed to come on every morning from 8:45am to 8:50am and 4:20pm to 4:25pm, allowing your plants to soak up all the water they need for day before the sun begins its daylight schedule.

This ensures your plant receives an early morning watering to give the rootball the necessary nutrient dose and salt flush needed. The water rocker switch is only to be used to drain your tubs (see section on draining your tubs).

You can also utilize this switch to give your plants an extra dose of water during the final week of flowering to assist in the final salt flush. If for some reason the switch has been left in the override up position by accident, it will only run for 20 minutes to ensure you do not drown your roots.

 Helpful Hint

• The water rocker switch must be returned to the down position for the control center to automatically water your plants.
Chapter 3: Growing in your Producer

Before you begin using the Producer there are a few basic things you should know about growing in the machine in order to have successful yields.

The Producer can be used to achieve all stages of growth. One stage is used for vegetative growth and one stage is used for flowering your plants. Each stage of growth requires different light cycles and color spectrums. Vegetative growth requires 18 hours of sunlight in the blue color spectrum, while flowering requires 12 hours of light in the red color spectrum. The Producer has been designed to accomplish this. The plants should not be disturbed when they are in the darkness stage of their day.

A. pH Balancing

Plant growth occurs best when there is an optimal pH level. Anytime water is given to your plants it should be pH balanced. pH Balancing your water and nutrient mixture is of the utmost importance. It is recommended that a pH pen be used to monitor your pH levels to ensure productive healthy plants. First you will need to calibrate your pH pen.

Pour a couple of ounces of calibration solution (buffer 7.0) in a small cup or shot glass.

Turn pH pen on and place in solution.
Using the small screwdriver turn dial on the back of the pen until it reads 7.0

Discard calibration solution. Do not re-use.

Once you have successfully calibrated your pen you are ready to accurately measure the pH of any mixture you add to your plants. You should re-calibrate your pen every couple of weeks by repeating steps 1 through 4. When you are ready to add a nutrient mixture to your plants pH balance and adjust accordingly.

- Place pH pen in nutrient mixture.
- If pH reads above 5.6 you will need to add pH down. Add a few drops at a time until pH reads 5.6. Be careful not to pour too much in the mixture.
- If pH reads below 5.6 you will need to add pH up. Add a few drops at a time until pH reads 5.6. Be careful not to pour too much in the mixture.
- Turn off pH pen after using it and place in a couple ounces of calibration or storage solution. You do not want the probe to dry out.

**Warning**

Do not immerse your pH or PPM pen more than 1 to 2 inches into the nutrient or calibration solutions.

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**B. Oxygenating Your Roots**

Plant roots require water and oxygen in order to stay alive and flourish. This is accomplished in the Producer in 2 ways. The Air pumps placed at the back provides oxygen into the water in the tubs via the airstones that sit in the bottom.

**Helpful Hints**

- Liquid Oxygen or H2O2 can be added to the nutrient mixture. Always dilute liquid oxygen in water before adding to your tubs.
- H2O2 is not mandatory. It acts as a fail safe if the air pump dies. H2O2 should not be used with Voodoo Juice or organic nutrients.
C. Vegetation Stage (Optional Veg Upgrade)

All growth in this stage occurs under an 18 hour lighting period. When you are ready to grow your chosen plant you will need to grow firstly under the vegetation schedule. You can begin growing your plants in 2 ways. The first way is to grow from seed and the second is to grow from previously propagated seedling or cuttings. Each method requires a chosen period of time under the vegetation schedule to grow the plants to approximately 10 inches tall before you want to engage the flowering stage. This can be achieved by turning the veg rocker switch to the on (up) position.

Seed Germination

Seed germination is achieved in your clone dome (veg upgrade option - part #1013). The clone dome is placed on the white clone tray (part # 1025). The clone tray is mounted underneath the fluorescent bulb using the 2 bolts that are inserted in the back panel of the chamber. Simply unscrew the bolts and mount the tray. The tray should be removed when seed germination is completed.

1. Soak seeds in a cup of pH-balanced (5.6) water overnight. Do not let seeds soak more than 24 hours. Once soaked seeds are ready to be placed in your jiffy pellets or one inch rock wool cubes.
2. Soak rock wool or jiffy pellets in pH-balanced (5.6) water for 20 to 30 minutes. Give them a light squeeze to remove excess water.
3. Sew one seed in each jiffy pellet or rock wool cube. Place seed about 1⁄2 inch down center of cube or pellet.
4. Place rock wool cubes into the clone dome and place the clear lid on the tray. Keep pellets or rock wool moist. Do not over water. There should not be free standing water in the bottom of the tray.
5. Place tray in a warm dark location 80 to 90 degrees Fahrenheit.
6. The seedling will begin to germinate over the next few days. As soon as growth is visible it is important to place the clone dome on the white clone tray (part # 1025) underneath the fluorescent bulb and engage the vegetation light schedule. This can be achieved by turning the veg rocker switch to the on (up) position.
7. When seed has germinated you can water with a very mild grow mixture (refer to the nutrient feeding manual or applicable nutrient manufacturers instructions for seedlings). Be careful not to over water.
8. When root structure is visible growing out of your 1 inch rock wool cubes you can insert them into your 3 inch cubes. Place them into the 3.5 inch mesh pots an insert them in the cutouts on the producer tub lid.
9. Hand water your plants once or twice a week with a mild grow solution until roots are visible growing out of your 3 inch cubes at which point you can plug in your water pump into the receptacle at the top of the growing chamber (fig 5.3).

Helpful Hint

- Presoak your 3” Rock wool cubes in a mild grow solution before placing the 1 inch rooted cubes inside. This will act as your first watering.
• Do not turn on your water pump until you have a good root structure growing out of your 3 inch cubes. Remember to hand water once or twice a week until the roots emerge. This will reduce the chance of drowning your roots in the early stages of growth using the water pump.

• Fill the producer tub with 10 gallons of a mild grow solution even before you engage the water pump. The roots will sense that there is a body of water beneath them and will begin to “seek out” the water source. This will improve root development.

D. Flowering Stage

All growth in this stage occurs under a 12 hour lighting period. When you are ready to flower your chosen plant you will need to grow under the flowering schedule. Your plants should be at least 10 inches tall and have a good root structure growing out of the 3 inch cubes before you activate the flowering stage. This can be achieved by turning the flowering rocker switch to the on (up) position.

CO2 regulator and injection

CO2 is used any time after the second week of the flowering cycle when the lights are on. CO2 will inject automatically and maintain 1600 ppm. The regulator valve should be set so that the gauge reads 5 PSI. To accomplish this take the following steps:

1. Ensure your flower rocker switch is in the up position and your hPS bulbs are on (CO2 will not inject if your bulbs are not on).
2. Turn the CO2 rocker switch to the override (up) position.
3. Open the CO2 tank valve all the way.
4. Adjust flow using a screw driver on the regulator so the needle reads 5 PSI.
5. Turn off the CO2 override system by returning the rocker switch to the down position.

Helpful Hints

• The CO2 rocker switch must be in the down position for the control center to automatically inject your CO2 according to the program.
• Don’t begin to use CO2 until the second week of the flowering cycle and only use if your plant has a good root system and looks healthy.
• CO2 will not flow unless your HPS bulb is on.
Chapter 4: Draining and Filling Chamber Tubs

A. Producer Chamber Draining and Filling

We have teamed up with Advanced Nutrients to develop the ultimate feeding schedule for the Producer. If you have purchased an Advanced Nutrient Package from us refer to the nutrient instruction manual for mixing and filling your tubs. If you are using any other type of nutrient refer to the instructions below:

Mixing Nutrients

- Before adding water to your producer tub it is recommended that you find a container large enough to hold the entire contents of the Producer nutrient mixture. Approximately 14 gallons.
- pH balance to 5.6 (refer to section on pH balancing).
- Add desired nutrient to the water according to the manufacturer's instructions and stir pH balance to 5.6.
- Prop open your producer tub lid.
- Pour your nutrient mixture into the tub.

 Helpful Hints

- Remember that the vegetation stages and flowering stages require different nutrient mixtures.
- Nutrient strengths should begin mild and gradually increase in strength.
- The brand of nutrients that you are using should instruct you as to how much nutrient to add per gallon.

Draining Nutrient Mixture

Draining your Producer vegetation or flowering mixture should be done every seven days. You can accomplish this by taking the following steps.

1. Ensure the water rocker switch is in the down position.
2. Attach the draining hose provided to the fitting located on the front of each tub and open the ball valve. Draining into a bucket or pail is recommended.
3. Turn the water rocker switch to the override (up) position. Water should begin to flow.
4. When your tub is nearly empty turn the water rocker switch back to the down position.
5. Close the ball valve and remove your drain hose. You are now ready to refill your tub with the following weeks nutrient mixture.

Helpful Hint

• When draining your Producer tub the water pump will not completely pump out all of the water in the tub. If you want to get all the residual nutrient mixture out you can use a wet/dry shop vac. Be careful not to damage the roots.
Chapter 5: Maintaining Your Machine

A. Cleaning Your Machine

It is extremely important to keep your machine clean and sterile in order to prevent insects and diseases from invading your machine and destroying your crop. We recommend that the following precautions be taken to minimize the chance of problems:

- Always wash your hands with disinfectant soap.
- Try to wear freshly laundered clothes.
- In between crop cycles wash the walls and tubs with a 10% bleach solution.
- Run a 10% bleach solution through your irrigation lines. You can do this by turning on the irrigation override button which will run the pumps for 20 minutes before the safety override engages. It is recommended that you do this at least 3 times with the bleach solution, and then one final time with fresh water.
- Flush the lines thoroughly with fresh water.
- If your drip emitters have salt build up run hot water with an acid solution (50:1 ratio) through the lines. You can use vinegar or lemon juice mixed with water for the acid solution.
- Flush the lines thoroughly with fresh water. Turn the water rocker switch to the override (up) position. Water should begin to flow.

B. Important Reminders

- Never ever press clear program on your timer or you will have to order a $50 chip to reprogram your Producer.
- Remember to return the override rocker switches to their original position after use.
- Make all connections on machine first before plugging into wall.
- The fluorescent bulb should be put in the center mogul situated in the producer growing chamber only. The 400 watt HPS bulbs should only be placed in the glass enclosed light chambers only. Do not place bulbs in any socket other than their designated area.
- Ensure there is water in the tubs whenever the machine is plugged in. The pumps will burn out if run dry.
- Do not block the fans at the rear of the unit. It exhausts the heat that is created from the H.P.S. bulb and brings in fresh air for your plants. Leave at least 1 foot of clearance.
- Air pump should be running 24 hours a day.
- Do not unplug the machine from the wall without making sure the lights are off.
- Do not open the doors of the machine when the lights are “OFF” The plants are in their night cycle and will get confused if light interrupts their sleep.
• The internal temperature of the unit should be between 72 and 85 degrees when the lights are on and should not drop below 62 degrees when they are off.
• Ambient room temperature should be 68 to 72 degrees.
• The clones should be grown for approximately 7 to 10 days until roots are clearly visible. Using a rooting gel will improve your success rate dramatically. Try to create as much humidity as possible.
• Vegetative stage will take approximately 10 to 14 days depending on your strain.
• Once you have established a strain you are happy with you will have to experiment with the amount of time you want to grow your plants in the vegetative chamber. Some plants grow tall fast when others are bushier. If you leave the plants in the vegetative stage for too long they may grow into the glass during the flowering cycle, as they will continue to grow in height in the flowering stage.
• The flowering stage will take 6 to 8 weeks depending on your strain.
• Check reservoir water levels from day to day. The plants will use more water at different stages in growth and evaporation can be a factor. If the water levels are low just simply add pH balanced water until desired water levels are achieved.
Chapter 6: Frequently Asked Questions

1. How big are the machines?
Both the Producer and the BloomBox are approximately the size of a large freezer. The Producer and BloomBox measures 51 inches tall x 54 inches wide x 27 inches deep. The Mother Ship measures 47 inches tall x 28 inches wide by 26 inches deep.

2. How big is the dryer and how long does it take to dry?
The Dryer is approximately 2 feet tall X 2 feet wide X 2 feet tall. It holds 3 - 18” X 21” screens. Curing times vary depending on the food type. Generally 2 to 4 days is all you need.

3. Do you provide tech support?
Absolutely! You can call us toll free with any question you may have. (Any reference to the cultivation of marijuana or any other illegal substance will result in the immediate termination of the phone call).

4. What is the main difference between the Producer and BloomBox?
The Producer is essentially a full flowering unit that offers larger yields while the BloomBox is dual chambered, allowing simultaneous growth of the vegetative and Flowering stages. The BloomBox also houses a mother plant to provide cuttings for future cycles.

5. What is the Mothership used for?
The mother ship is a smaller unit that can be used to house up to 4 mother plants to take cuttings to supply multiple Producers and BloomBoxes or simply for those customers who do not require the larger yields of the Producer or BloomBox and just want to flower 4 mature plants.

6. Can you Flower in the Mothership?
Yes all stages of growth can be accomplished in this unit.

7. Can I use soil in the Producer or BloomBox?
Yes, the units can be purchased with or without the hydro option. You can easily alternate between the two.

8. Do you offer a warranty?
Yes, we offer a full 1 year warranty on all parts excluding bulbs. We cannot warranty light bulbs.

9. How easy are the Producer and BloomBox to set up and operate?
Quite simple! These units have been designed with the novice grower in mind. Setup time is minimal and everything is preprogrammed at the factory for ease of use.
10. How long does it take for my machine to arrive?
We ship on the 5th and 20th of every month. Shipping usually takes 5 to 7 business days.

11. What type of payment do you accept?
Visa, M/C, Cashiers check and International money orders.

12. How much power do these machines draw?
About the same as a refrigerator (Approximately 6 amps). This translates in about $15 to $20 per month.

13. How warm do the Producer and BloomBox get?
The Producer and BloomBox utilize 5 strategically placed fans throughout to ensure cooler operating temperatures. If the ambient room temperature is kept at 70 - 72 degrees Fahrenheit the chamber temperature will stay below 80 degrees.

14. Are the fans supposed to be running even though my lights are off?
Yes, the fans will run continuously as long as the machine is plugged in and the program is activated. This ensures constant negative pressure to reduce odor.

15. My pump is not turning on when it is supposed to.
Ensure that the pump rocker switch is in the down position. Ensure that the pump adapter is connected properly.

16. How do I manually engage my watering pump?
Turn the watering rocker switch to the up position. As a safety precaution the pump will automatically stop after 20 minutes. Remember to return the rocker switch to its down position or the pump will not water during its programmed cycle.

17. How often do my pumps cycle?
The pumps are programmed to cycle twice per day for 5 minutes.

18. How often do I change the water?
It is recommended that you change the water nutrient mix every 5 to 7 days. A pH pen and PPM tester are recommended to ensure water nutrient strengths are optimum.

19. Is it Ok that when I drain my tubs there is still a bit of water left?
Yes there should always be a few inches or water in your tubs to ensure the pumps don't run dry.

20. The CO2 is not injecting when it is supposed to.
Ensure the CO2 rock for switch is in the down position. Ensure the tank valve is open. Ensure the regulator is set to 5 psi.
21. How do I manually engage my CO2?
Turn the CO2 rocker switch to the up position. As a safety precaution CO2 will automatically stop injecting after 20 minutes. Remember to return the rocker switch to its down position or CO2 will not inject during its programmed cycle.

22. How often does CO2 inject?
CO2 will inject periodically throughout the daylight period to maintain an average of 1200 to 1600 ppm.

23. When should I begin to use CO2?
Begin to use CO2 at week 2 of the flowering stage only if your plants show vigorous health.

24. Where can I purchase a CO2 tank?
CO2 must be purchased locally at a beverage or hydroponics stores. We cannot ship CO2 tanks.

25. How long will a 20lb CO2 take last?
The tank should last for approximately 4 to 6 weeks.

26. What temperature should the inside of the chamber be?
Optimal internal temp should be 72 degrees Fahrenheit to 86 degrees Fahrenheit.

27. What temperature should the outside of the chamber be?
Optimal ambient room temp should be 68 degrees Fahrenheit to 72 degrees Fahrenheit.

28. How close should the plants be to the glass in the top of the flowering chamber?
Try and prune the tops of the plants so they are 2 to 4 inches below the glass.

29. What is the lighting schedule in each of the chambers in the Producer?
The smaller vegetation chamber should be set for 18 hours on and 6 hours off. The larger flowering chamber should be set at 12 hours on 12 hours off.

30. What is the lighting schedule in the Producer and can I vegetate my plants in this machine?
The Producer is primarily used as a full flowering machine however with the addition of the Fluorescent bulb option propagating plants can be achieved quite easily. The Producer is pre-programmed for a flowering cycle of 12 hours on and 12 hours off. If you choose the vegetation option for this machine the timers will need to be re-programmed to an 18 hour on and 6 hour off lighting period.

31. How tall should the plants be vegetated in the Producer before switching to the flowering cycle?
Plants should not spend much time in the vegetative stage with in the Producer. Plants normally 8 to 10 inches in height (depending on strain) with a good root structure before they are ready to switch to the flowering lighting schedule. The producer is designed to grow plants short but densely packed.
32. How tall should the plants be in the Producer before they are moved from the vegetation chamber to the flowering chamber? Depending on the strain the plants should be 8 to 10 inches tall before switching to the flowering side. More importantly good root development should be established.

33. What prevents the High Pressure Sodium bulb from making the unit too hot? The bulbs are located in a glass sealed chamber that houses its own separate exhaust fans to remove the heat immediately. One fan directs cool air across the bulb while the second exhausts the heated air created from the bulb.

34. How long does the filter last? The filter should last approximately 1-2 years.

35. How do I know what nutrients to use? Included with the unit are a set of nutrient mixing instructions and a set up manual. The nutrient mix is broken down into a week-by-week schedule to make the machine more user-friendly.

36. How long should the clones be propagated? The clones should be grown for 7 to 10 days or when roots are clearly visible.

37. How long should the plants be in the flowering chamber? Depending on the strain, 6 to 8 weeks.

38. What should the pH level read in my nutrient tank? pH levels should be between 5.5 and 6.5

39. What should the PPM read in my nutrient tank? PPM levels will vary depending on the stage of growth. Typical PPM levels are between 800 (Mild) and 2000 (Strong)

40. My drip emitters are clogged? Simply soak in a hot lemon juice solution.

41. How far down do I place the seed in the rock wool? Place the seed approximately 1 inch deep.
Contacts

Our knowledgeable staff are happy to answer any questions or comments you may have. For more information visit our website at: www.bcnorthernlights.com or by phone, email or mail.

Phone: 1-866-933-3269
Email: support@bcnorthernlights.com
Address: Unit 107 - 13060 80th Avenue
          Surrey, BC Canada V3W 3B2

Rhys Ext. 111 Cell. Ext. 211
Tech Support for plant and growing help. Rhys heads up product development and production for all products.

Jay Ext. 114
Tech support for machine operation, electrical, timers, lights, pumps and general machine operation or functional questions. Jay manages the manufacturing process and quality control. He is also involved in product development.

Tarren Ext. 112 Cell. Ext. 212
General tech support and sales. Tarren handles all purchase orders, initial sales calls, and management of all other sales related items. All co-op advertising and potential marketing are managed by Tarren.

Mike Ext. 113 Cell. Ext. 213
General tech support and sales. Mike handles all BCNL technical day to day as well as implementing new software and hardware.

Courtney Ext. 115
All Yellow Transport (Bloombox, Producer and Large Dryers) and UPS (Small dryers and accessories) shipments are processed through Courtney. Tracking #’s are given to each customer as well as an expected arrival date. Accounts Payable/Receivable are handled by Courtney as well.

Blair Ext 116
General tech support, sales and all accessory sales and reorders of nutrients are run through Blair. He is also involved in website design and development.

Gary Ext 118
General tech support and Sales - 18hrs a day, 7 days a week.

Jake Ext 119
General tech support, sales, live chat and forum moderator.