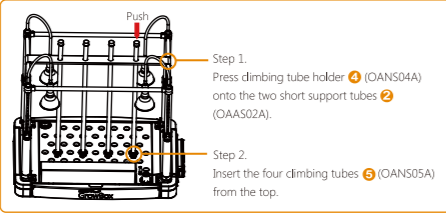
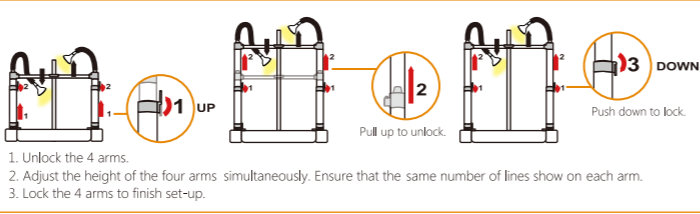






D. Troubleshooting

Issue/Questions	Suggestion
LED is not working	<input type="checkbox"/> 1.Please check if the power is "ON" <input type="checkbox"/> 2.Please confirm that the LED status in the control box is displayed "ON". <input type="checkbox"/> 3.If the LED is still cannot be light up, please replace a new one.
Abnormal of the equipment	<input type="checkbox"/> Please confirm the control status. Make sure that you can control LED lamp and motor in auto and manual mode. <input type="checkbox"/> If the LED lamp is failed, please follow the instruction of LED LAMP NOT LIGHTING UP. <input type="checkbox"/> If the motor is fail, please follow the instruction of Noise from motor. If the problems always exist, please contact us for more details.
The lamp or the pump stopped working after a few hours	<input type="checkbox"/> OPCOM Farm's control box is designed with Auto,HI and LOW cycles,which will turn the lamps and the pump on and off at certain intervals. This is to mimic an outside daily cycle, offer the best growing condition for your plants,and save you energy.

E. GrowBox Q&A

Question	Answer
What type of lamps can be used in the GrowBox?	The lamps provided with your GrowBox is standard E26 mount OPCOM 18W (L18B) LED Growth Lamp. This is suitable for most plants' growth. You may also use any standard E26 50W Bulb to accommodate special growth needs.
When should I use the insect net?	We recommend using the net if your product is in an environment where insects may be present. # The insect net is optional
How the Vine Plants climbing on Growbox	1.When plating Vines like tomato or Cucamber, please follow below instruction to ass climbing tube and adjust 4 Arms height to meet plants growth Install Climbing Arms for Vining Plants  Adjust The Height Of Support Arms For Higher & Climbing Plants  2.You can use Plant clip to fix the Vine plants on Climbing tube in each growth stage  Plant Clip x 10pc
How to keep humidity	The Plants is better to grow under humidity 55-65% RH environment, especial in air condition room with dry air, You may keep plant not close to air port and use water spray to keep humidity every day.  Water Spray x 1pc
How sponges application	There are 2 kind sponge, Grow sponge with center cross cut for seedling and sprout sponge for sprout plants grow purpose.  Grow Sponge 2 x 60pk (OASP001)  Sprout Sponges x 12pc (OAMS02A)

F1. Refill water

Please refill water and measure the pH and (EC) mentioned each week to make sure the water quality is in best condition.

F2. Replacing water

- 1.Please drain the whole water first, take out the waste and clean the equipment.
- 2.Please replace pure water and add nutrition for next planting.



F3. Notice for Using EC meter

- 1.Please clean the electrode with fresh water after each use.
- 2.While the EC meter is not in use, keep the electrode with cover.
- 3.Please shut down the power if you don't use the EC meter for a long time.

PATENT Acquired



GrowBox

Easy Grow



Manual



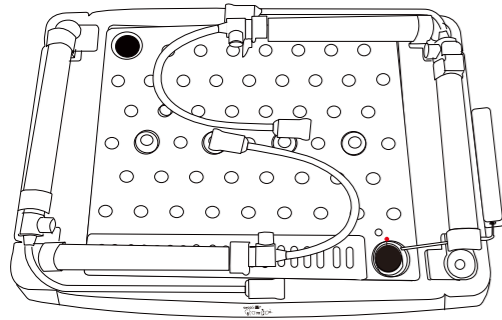
For more information, please visit www.opcomfarm.com



Thank you for purchasing OPCOM GrowBox, the indoor hydroponic growth system. It is designed with easy installation and high efficient growing system in one-touch AUTO mode. Please read the manual in detail before setting up. For further information, please visit our Official Website: www.opcomfarm.com

A. Assembly

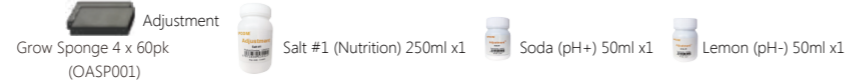
A1. Check all accessories first



Manual



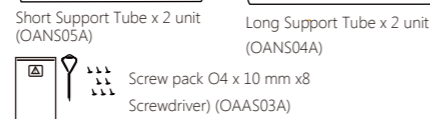
Grow Kit



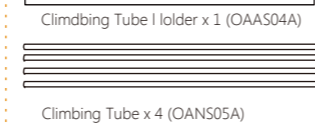
Planting Accessories



Lighting Support Kit



Climbing Tube Kit



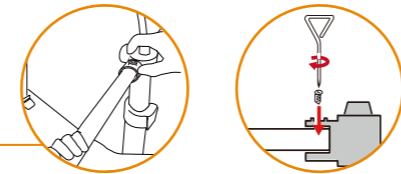
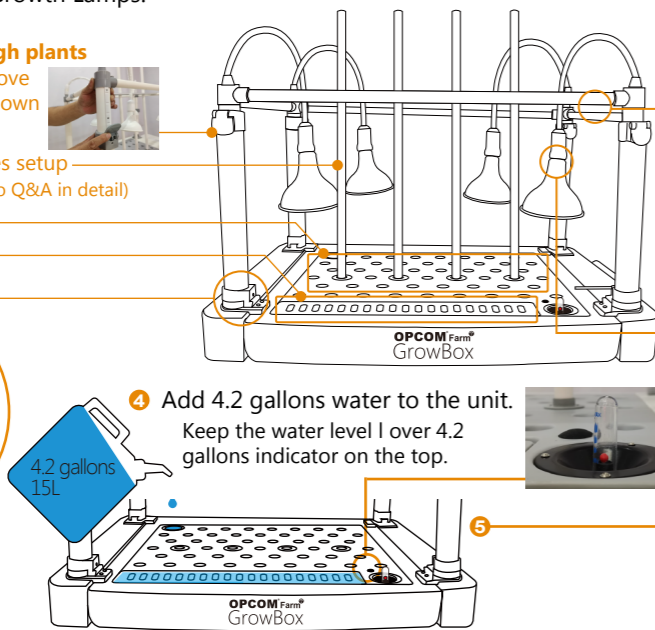
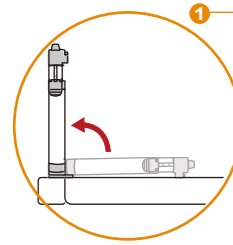
A2. Easy Set Up

- Stand the four Support Arms.
- Insert the Long and Short Supported Tubes.
- Set up the LED Growth Lamps.

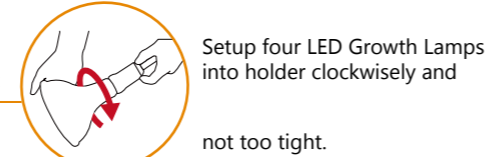
For Vines or high plants

- unlock to move 4 Arms up down
- 4 climb tubes setup (please refer to Q&A in detail)

Growth Zone
Sprout Zone (with top Cover)



Assemble tubes by using the contained screws and screwdriver. Caution: using power tools may damage the plastic.



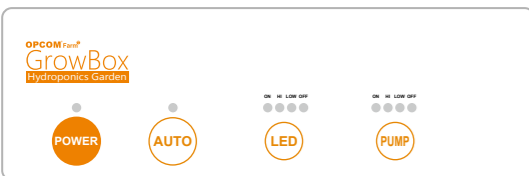
Setup four LED Growth Lamps into holder clockwise and not too tight.



4 Add 4.2 gallons water to the unit. Keep the water level I over 4.2 gallons indicator on the top.

5 Turn power on and test the unit.

Control Box Mode



Waking up:

When LED On, press Power button for 5 second LED will auto turn ON everyday at this press time

Sleeping time:

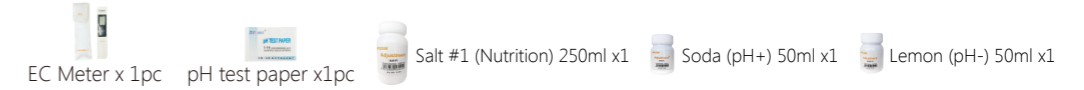
When LED Off, press Power button for 5 second LED will auto turn Off everyday at this press time

Fuction	Status	Operation	Light	Time(On/Off)	Note
Power	On	One Press	●	Follow last mode before turn off	
	Off	One Press	●	Off	
Auto	On	One Press	●	12Hr/day ON mode of LED and Pump	
	Off	One Press	●	Follow LED and Pump manual mode setting	
LED	Auto	One Press	●	12Hr/day	
	ON	One Press	●	24Hr/day	
	High	One Press	●	16Hr/day	
	Low	One Press	●	8Hr/day	
Pump	OFF	One Press	●	0Hr/day	
	Auto	One Click	●	12 Cycles/ day	* 30 mins/cycle
	ON	One Click	●	24 Cycles/ day	* 30 mins/cycle
	High	One Click	●	4 Cycles/ day	* 30 mins/cycle
	Low	One Click	●	2 Cycles/ day	* 30 mins/cycle
	OFF	One Click	●	0 Cycles/ day	

B. Planting

Ready to go

OPCOM Farm bundle with complete Growkit,Plating accessories with 3 cycle consumption needs to easy your plating experienced, and go with EC Meter(Nutrition concentration test),pH tester paper and Food grade Salt(for Nutrition),Lemon(for pH-)and Soda(for pH+),may Safety and Efficiency to take over plant's health grow,Please also try to keep in environment closer to 25 degree C and RH65% humidity of best condition



Nutrition:

The Nutrition water need maintain each week for each stage of pH and EC as below, is better to change new Nutrition water each 2 weeks up to each cycle.Please use pure water (better RO water or steam water,please do not use Tap water!)

pH:

Please Always keep pH between 6.0 (+/-0.5) in all plating period,use Lemon for pH- and Soda for pH+,maintain every week is better

Status	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.5	6.5-7.0	7.0-7.5
Soda#1	Add Ax1	Add Ax1	Add Ax0.5	Standard range		
Lemon#1				Standard range	Ax0.5	Ax1.5

A spoon=1g

EC:

EC meter purpose is testing the Nutrition concentration, Plant grow will consume the Nutrition and Concentration will reduce, also when plants grow, need more Nutrition to support, so that we need every week to adjust the EC according below instructin: Nutrition concentration may set on 1/1000,GrowBox Water with 15L, so that we just need add 15g Salt 1 for base Nutrition water, and use EC meter to fine test against add Salt 1 up to target setting number. you may add each tiem 1-2 spoon to fine adjustment against with EC meter

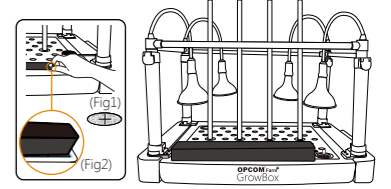
Seeds:

Local planting is best select to use local seeds to meet local weather environment,please refer opcomfarm web site products page for seed selection

B1. Germination Stage

- GrowBox can grow Lettuce 25 plants and silm plants liek Basil, herb for 50 plants, with 70% germination rate, you can caculate how many grow sponges you need: Example: Lettuce: 25/0.7=36 sponges Basil: 50/0.7=70 sponges -----(the Germination rate number may depends on your seed selection between 70-95%)
- Open Grow sponge package and keep label side up,Put 2-3 seeds in each sponge center Cross cut and under 5mm, put it into sprout Zone (Fig 1) soak the sponge into water for 5 seconds and wet the sponge completely.
- Keep water level on half of sponge to keep wet with seed moisturizing cover cloth, and not over to seed, top with Sprout cover and done,(Fig2)
- Cover the sprout for 3-7 days for germination and make sure the sponge wet during this stage. #Please keep the seeds in refrigerator or 41-50 degree F (5-10degree C)and please use all seeds ASAP, to not damage germination rate

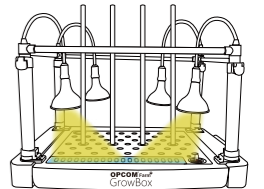
Control Box	Time after planting	LED Mode	Pump Mode
Germination	Day 0~Day 7	OFF	OFF



B2. Seedling Stage

- When the germination rate over 70% with green on seed, Please just keep one thickest root plant in each sponge and remove out all others(you also can select strong one to empty Sponge for continuously grow) You can take out the Sprout cover and move light on sprout zone with 24 hours to speed up the young plants growth.
- Adjust pH between 6.0+/-0.5 according above pH instructions
- Follow above B-pH instruction to keep pH between 6.0+/-0.5
- Follow above B-EC instruction to Add Salt 1 to keep EC between 0.8ms/cm -1.0ms/cm
- Adjust LED light to cover all Sprout Zone

Control Box	Time after planting	LED Mode	Pump Mode
Seedling	Day 7~Day 14	ON	ON

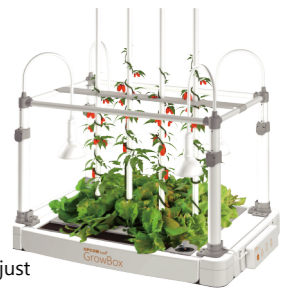


B3. Growing Stage

- When plants grow to 2-3inch become young plant, the leaf will no space to grow in sprout zone,is the time for transplant.
- Remove each plant to plating zone, keep one empty hole for Lettuce and full 50 plant holes for Basil or herb.
- keep spones top under hole top port.Fig 3
- Move LED direction to cover all plants
- Change LED and Pump setting to Auto
- You can adjust each plant distance depends one different plant size to reserve good enough space to continuously grow in all periof
- Please keep EC between 1.0-1.4 ms.cm every week, when leaf larger you can adjust hight EC level
- For vine plants like tomato and Cucumber, you may take more time for sprout(2-4weeks) and same nutrition as above leafy, just add more nutrition when flower stage and fruit stage between 1.6ms/cm-2.2ms/cm. and also can add extra flower/Fruit nutrition.
- The light condition can work regular 12 Hr per day in Auto mode, also can work 9Hr per day for working time and less nessary light plants with Low mode, also you can set high mode or ON for 16Hr/24Hr lighting, especial for Sprout young plant or flower, harvest stage
- OPCOM L18B grow light bulb design with UV,IR inside White and Red LED, to result full spectrum simulated to sun light,great for plants aggressive growth, the standard E26 mount also can become extra Grow light to regular bulb socket for additional applications

Control Box	Time after planting	LED Mode	Pump Mode
Growing	After Day 14	AUTO	AUTO

Gap for air (Fig3)



B4. Harvest Stage

Around 35-42 day, your lettuce can harvest and enjoy your own plating Salad!

Please visit OPCOMfarm web site for Plating video detaill <https://www.opcomfarm.com/webimage/websitevideo/OFG001-planting.mp4>



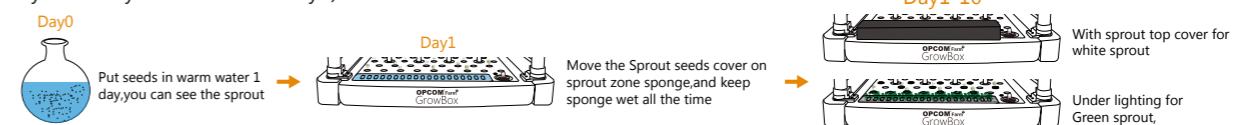
C. Optional

C1. Re Grow

When harvesting,cut out the larger leaves and allow the smaller ones to keep growing in your GrowBox. You can repeat the harvesting method weekly for the next 3-4 weeks without the need to re-seeding.

C2. For Sprout Production

Our free gift-sprout cover will make your GgrowBox not only a hydroponics system, but also a sprout equipment. (Every harvest cycle is about 7-10 days.)



Please visit our OPCOM Farm website at www.opcomfarm.com for further information, including User Manual, Planting Q&A, videos and the news.

