

Balcony Garden LIGHTING OPTIONS



Available Options:

- No lighting requirement. Balconies in full or almost full sunlight e.g. full southern exposure. Note: supplementary lighting nevertheless has two advantages: 1. lengthening short days when growing in fall and winter in warm climates, and 2. highlighting Gardens on dark balconies.
- Full spectrum total lighting. Garden located indoors
- Supplementary lighting. Gardens on balconies with insufficient solar intensity e.g. northern exposure. Depending on degree of sun exposure choose either one or two supplementary lamps

All options are simple to install

Indoor (full spectrum total) Lighting



Figure 2. MyGarden with a full spectrum LED grow lamp. Shown here on the standard Indoor MyGarden but installation and operation are identical on the Balcony MyGarden

Installation

Open and assemble the Top Rack/Lamp Support as illustrated in Figure 3. Insert the lamp support bars (smaller 1" bars) into their tees, making certain that the open eye bolts are on the downside of the bar as shown. Press firmly on all connections to ensure tight joints and avoid risking an expensive and catastrophic lamp fall.

Depending on how it was shipped you may have to make additional assembly connections on the Top Rack. Mirror Figure 3.



Figure 3. The Top Rack Lamp Support. Eyebolts are on the lower side and hold the lamp hooks. Shown here for the wider Indoor Garden. It will be identical but narrower for the balcony Garden.

Insert the 25" vertical pipes firmly into the 4 tees atop the 4 lower structure legs (Figure 4). Figure 4 shows an 11" extension on each 25" pipe in order to position the lamp 30" above the GroPipes as recommended for germination. See Figure 4 legend and the instructions that accompany the lamp.



Figure 4. The 25" Top Rack vertical supports are inserted firmly into the top tees on each leg. Figure 4 shows an 11" extension on each pipe in order to position the lamp 30" above the GroPipes as recommended for germination. Removing the 11" pipe sections positions the lamp about 19" above the GroPipes. Growers have had success at several heights and the brochure accompanying the lamp makes recommendations. Key considerations include height of plants and equal light distribution over the Garden's growing surface. Most gardeners will simultaneously have plants of differing heights. Feel free to experiment with different lamp heights. Purchase and cut to length schedule 200 (thin wall) 1 ½" PVC pipe available at either of the two big box hardware stores, or hang the lamp from a ceiling via the pulley system provided. Experimenting is fun! Lay the Top Rack on top of the 4 long vertical pipes and carefully and firmly push each corner elbow into its pipe. As with the base structure no gluing is required.

With a little practice the lamp is easy to hang. Balance it on one arm while guiding the holes on one side onto their hooks. Now let those 2 hooks support the weight while using your free hand to put the opposite 2 hooks into their holes.

Run the lamp wire over to, and down, the vertical support closest to the electrical box. Attach it with the cable ties (provided). Pass it through the hole in the box and plug it into the double outlet timer. The timer will simultaneously operate both the lamp and pump. The nutrient solution need not circulate when the light is off.

Outdoor (balcony) Supplementary Lighting

Understand how much sunlight plants will receive during a day on your balcony and decide on either one or two lamps. LED lamps are economical so when in doubt choose two. The warm spectrum GE Night Hawk is guaranteed for 14 years and puts out the equivalent of 150W while using only 17W. You won't even notice it on you electric bills.

Lamp packages include a vertical and a horizontal component and an extension cord. The only difference between the one and two lamp packages is in the horizontal supports. Supports are either 18" or 9" to correctly space one or two lamps respectively over the growing area.

The horizontal component has a lamp socket at one end and a cord and plug extending from the other end. Slip the elbow at the end of the horizontal pipe securely and tightly into either end of the longer post. Secure the long pipe tightly into the tee of the top bar above the inside front end leg (Figure 1). If pipe/fitting connections are tight the horizontal pipe(s) will be parallel to the growing surface. Plug the

white extension cord(s) into the horizontal pipe's cord(s) and attach it (them) neatly to the post(s) using the cable ties provided. The extension cord(s) pass under the **reservoir** support board and up through a hole just ahead of the **electrical box**. If installing one lamp only put it on the leg that provides the best view of the crop growing surface from inside the living area.

The lamp and pump are controlled by the same time clock because plants only transpire (lose water) in the light. Plug both lamp and pump cords into the timer. Plants in vegetative growth will usually keep growing around the clock and some growers set the timer on 24/7. However the Balcony Garden depends on incident sunlight for key wavelengths, and the lamp(s) provide supplemental light energy only in limited wavelengths. We leave it to you to experiment.



Figure 5. A lamppost assembled and installed. When all connections are tight it is centered over and parallel with the growing area. The GE nighthawk LED 17W (150W replacement) available at Lowes (Item # 952408 Model # 45893) and other lighting stores shown here.

The Garden depends on the incident sunlight for plant essential wavelengths (primarily reds and blues) so expensive grow lamps are not required. Any high intensity lamp can be used but the more red light the better hence a preference for warm-white lamps. We recommend the GE nighthawk LED very bright light 17W (150W equivalent) available at Lowes and other fine stores. Due to possible breakage in shipping a lamp is not included.