

*Southern Gardens Grow* 

# *Freedom Greenhouse*



The *Freedom Greenhouse* line is a revolution in hobby greenhouse growing. Through innovative ventilation designs, automatic watering benches, and solar panels, Maine Garden Products has created the world's first *self-contained* and *self-tending* hobby greenhouse.

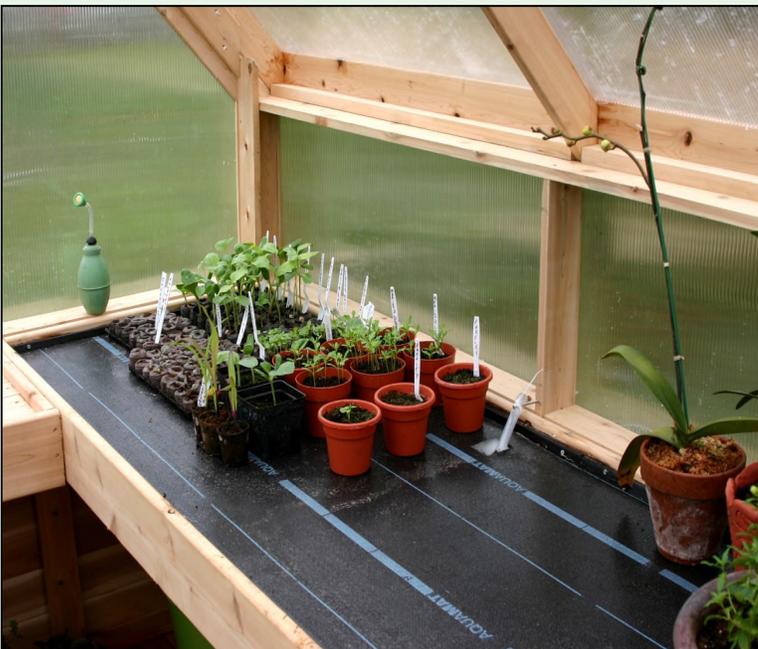
# Ventilation



Temperature regulation through natural ventilation is achieved by literally “raising the roof” off the gable ends on one side of the greenhouse. Ventilation occurs through *Natural Convection*, which is the rising of warmer air above cooler air. This allows the warmer air to escape through the roof peak and cooler air to be drawn in through the lower section of the roof opening. *Natural Convection* ventilation is extremely effective and requires no external power source.

The *powered* model includes a solar panel, battery, and 12 volt motor. The *powered* model is automatically controlled by a high quality commercial greenhouse thermostat. The *manual* model consists of an arm that is moved manually to open and close the roof.

## Automatic Watering Systems



Automatic watering is achieved through the option of either a *capillary mat bench* or a *flood bench* system.

*Capillary mat benches* work by transferring water from the moisture carrying mat up through the holes in the bottom of your pots.

*Flood benches* are filled (and drained) to a pre-set water depth thru the use of 12 volt timer. This “sub-irrigation” is a common economical growing method.

Both automatic watering systems offered are fed with water from a solar powered 12v pump and customer supplied water reservoir.

# Solar Powered

The Freedom Greenhouse line of hobby greenhouses are completely self-contained and require no additional electricity to operate.

The roof opening gear motor, and irrigation systems are powered by a 12 volt battery that is charged by the solar panel.

The 12 volt charging system includes a battery, a 5 or 15 watt solar panel, and a desulfation controller for battery regulation and optimizing charge rates.

Charging system is guaranteed to never over charge battery. Full time desulphation pulses safely extends life and performance of all batteries.



## Bench Options



There are 4 types of benches available for the *Freedom Greenhouses*. The *capillary mat* bench and the *flood* bench are automatic watering benches. The other two have cedar slat tops or wire mesh tops for manual watering applications. Benches are available for one or both sides.

- Capillary Mat Bench System
  - Flood Bench System
  - Cedar Slat Benches
  - Wire Mesh Benches

### **Powered Roof model includes:**

- Thermostat
- Solar panel
- Battery charge regulator
- 12vdc battery
- 12v motor
- Fuse panel

### **Not included**

- Reservoir or barrel for water
- Flat and level base
- Plants and a green thumb

**Assembly note:** The Freedom house is shipped crated as fully assembled panel sections. Due to the nature of the roof opening mechanism, it is imperative to have a square and level base anchored to the ground to start the assembly process. This is the most important step in assembling your Freedom Greenhouse and will ensure years of satisfactory operation. Please enlist a landscape professional or other qualified assistance if you don't have the proper tools to create a flat and level base.