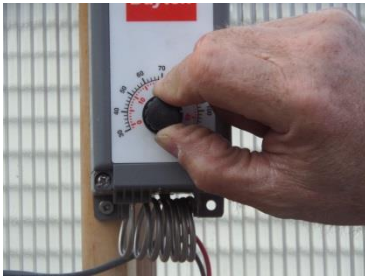




Freedom Greenhouse vent operation for roof and sidewall vented houses

Your Freedom greenhouse has thermostatically controlled roof and sidewall vents powered by a 12v battery. All greenhouses have a solar panel that (through a solar controller) keep the 12v battery charged. The 12v battery powers everything in your Freedom Greenhouse. If you have a charger included with the greenhouse it can be left connected to the battery and 120vac power as it will not overcharge.

There is a switch panel that controls power to the roof vents, the sidewall vents, and any other optional equipment like pumps for bench watering or led lights. There is a thermostat that controls both the roof and sidewall vents.



Vent operation: It is possible to operate the vents independently of each other. The roof vent can be operated without the sidewall vent or the sidewall vent can be operated without the roof vent. You can turn the roof or sidewall switches off when they are open or closed and they will stay in that position until the switch is turned on again. The thermostat will only control a vent when the matching switch is turned on (up position).



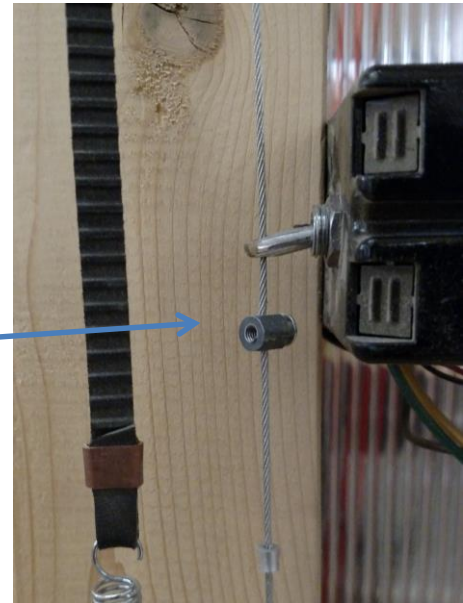
It is very important NOT to adjust the thermostat while either vent is in motion. This could cause a fuse to blow as a vent tries to instantly reverse direction. When replacing fuses be sure to use the same size as the one you are replacing. (There should be fuses taped behind your black switch panel).

Thermostat operation - Turning the thermostat **down** will cause the vent(s) to open. (The thermostat is asking the greenhouse to be **cooler**, so the vents will open. Turning it up will cause the vent(s) to close since you are asking the greenhouse to be warmer. Under the cover of the thermostat is a small slide



switch that adjusts the “differential” The differential is the difference in temperatures between the vent opening and closing. The range of the differential is from 4 degrees (min) and 14 degrees (max). It is recommended to leave it near the middle until you’ve developed some experience with your greenhouse venting and want to experiment.

Roof vent adjustment – There is an adjustable cable stop on the cable loop that controls the travel distance of the roof vent. It is below the switch lever. Do not move it lower than it’s maximum open setting. You can adjust the roof vents to open less than the maximum by adjusting the stop higher (closer to the switch lever). The sidewall vent opening is not adjustable.

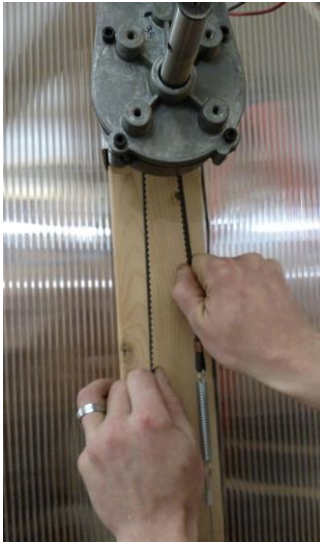


Troubleshooting tips –

- 1. Neither roof or sidewall vent will operate** – Check the voltage of the battery by pushing and holding the white “push” button near the bottom of the panel. The lights on the monitor box should light up. If only red is lit or none are lit the battery needs to be charged or replaced. If yellow or green are also lit the battery is OK and not the problem. Check the fuses by unscrewing the black round fuse holder cover and check the fuse. Each fuse has a small wire running from one end to the other inside the glass. If it’s not visible the fuse is blown. (There may be fuses taped to the back of your panel.)
- 2. If sidewall or roof operates, but not the other** - There are switches and fuses for both the roof and sidewall vents. Check that the switches are on and that the fuses are good. If they are all OK look behind the panel for any loose wires. It is easiest to do this by loosening the two screws at the top of the panel so the panel will pivot outward. Check any plugs and wires between the panel and the vent motors.



- 3. If the roof vent doesn't close completely** – The clamp on the upper side of the switch lever is the “stop” for the mechanism when the roof vent is closed. If the stop is against the switch (as show in the photo at the right) you will need to adjust the position of the cable. With your hands on the cable as shown in the larger photo below, lift on the right side and pull downward on the left side until the cable moves. It will move by jumping teeth on the sprocket on the gearmotor. With the stop moved away from the switch lift the switch lever up and the gearmotor should start and move the roof vent. Continue moving the belt one click of the sprocket at a time until the roof vent is firmly closed, but not straining.



For assistance call 207/ 613-2974 8am-4pm M-F EST.

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