



26' GROWING DOME VENT INSTALLATION STAGE 2

MATERIALS LIST

Included in the Growing Dome® kit for completing the vent installation (Stage 2) are the following:

- 2 – 6' nylon cord (restrainer cords for top vents)
- 2 – 3-1/2" nylon cords (restrainer cords for bottom vents)
- 4 – eye bolts, fender washers, and nuts
- 6 – screw eyes (2 per top vent / 1 per bottom vent)
- 1-3/4" bronze star drive screws (to attach hinges and crossbars)
- Crossbars – 2 @ 36" (for bottom vents with Bayliss openers) & 2 @ 36" (for top vents with Gigavents)
- Gigavent solar powered openers (for "A" top vents)
- Bayliss solar powered openers (for "E" bottom vents)
- Vent gaskets (cut to length)
- Hex head screws to attach vent gaskets

VENT GASKETS

The vent gaskets are used to create a weatherproofing seal when the vents close. It is easier to install the gaskets before installing the crossbar. See "Vent Gasket Installation" Video 10-V1. The vent gaskets are cut to length and may come as one piece or two pieces that are butted up to each other. Butting the gaskets doesn't lead to any problems but always place the shorter piece towards the hinge end as the gasket is harder to screw in closer to the point of the vent.

The hinged side of the vent does not need gaskets. Place the length of gasket in position with the rubber edge towards the vent itself and press up against the vent to make a tight seal. Mark the edge of the metal of the gasket with a pencil on the strut before you install it. You will need to open the vent in order to install the gasket and the pencil line will show exactly where you want the gasket to be located. Screw the gasket firmly in position with a 3/4" hex head screw in every hole. They are provided with the kit. (A new 1/4" magnetic hex bit will make the process much easier.)

VENT CROSSBARS

The vent crossbar is installed parallel to the strut that the vent is hinged on and in such a manner that the holes, which are drilled diagonally on the ends, follow the line of the struts. It is best to take measurements to ensure that the crossbar is indeed parallel to that strut. Use 1-3/4" bronze star drive screws through these holes to attach the crossbar. Both the two top vents and the two bottom vents use the 36" crossbars. The holes in the middle of the crossbars are pre-drilled for the specific openers which come with your dome kit. Note that the crossbars for the Gigavents and the Bayliss openers have different hole spacing, different size holes, and are on different legs of the crossbar angle. Make sure they are placed appropriately.

Be aware that once the openers are installed to the crossbars and the vents themselves, they will be trying to force the vents open as the inside of the dome heats (that's their purpose). You will need to make sure you untie the restraining cords so that the vents can open. After the openers are attached, you will need to re-tie the restraining cords per the instructions in "The Restraining Cord Stage 2" section at the end of this Step.

INSTALLING BAYLISS OPENERS

When installing a Bayliss opener, the first step is to make sure there are two holes 3/16" diameter 2-1/8" apart in the vent crossbar. The crossbar should come pre-drilled. See "Bayliss Opener Installation" Video 10-V2. Mount the opener to the crossbar, using the short #10-32 bolts provided in the kit, screwing through the holes in the

crossbar into the nuts provided. Fix the vent opener leg without the actuating tube (silver piston) onto the crossbar (see video) and place the other end of the actuating arm against the vent glazing making sure the pressure of the opener is acting in a straight line, side to side, not sideways. The Bayliss Hydraulicheck opener is designed to open slowly, so apply firm but constant pressure. Slide the slotted bracket up and down until the bend end of the opener (the end hanging down) is about 1" to 2" (two fingers worth) from the vent. Mark two holes through the slotted bracket and drill perpendicular through the vent glazing with a 3/16" bit. It is easier to have an assistant on the outside ready to put the short angle backing plate and the nuts on the long 1-1/4" x #10-32 bolts that are used to secure the Bayliss vent opener to the vent glazing. Use a wrench and screw driver to tighten these screws so that at no point does the actuator mechanism bind on the vent itself.

Take the knurled adjuster screw and slip it over the piston rod. Open the vent with one hand and screw the adjuster in until the unit holds the vent open 1/8" when you let go. If you wish for the vent to open at lower temperatures, simply screw the adjuster in further and vice versa for a higher temperature. If you wish to totally disable the Bayliss opener simply back out the knurled adjuster screw from the unit. Remember to place it in a safe and 'memorable' place.

INSTALLING GIGAVENT OPENERS

Before installing the Gigavent, it is best to remove the black ribbed piston and put it in the refrigerator to keep it cool. This helps when it comes time to install it.

When you examine the Gigavent, you will notice that there is a black piston with a "screw", called a relief bolt, in the end. See "Gigavent Opener Installation" Video 10-V2. This part of the Gigavent is attached to the underside of the crossbar. The Gigavent mechanism points away from the hinge side of the triangle. Attach the Gigavent bracket to the crossbar using two 1" x 1/4" nuts and bolts.

The Gigavent opener bracket has slots in it. Before tightening the nuts, pull the opener as far away from the hinge side as possible so the bolts go through the extreme end of the slots. Next open the mechanism so that the other bracket touches the vent glazing. You can keep it in this open position by screwing in the relief bolt. This makes it easier to mark and drill through the glazing two 1/4" holes. Before you mark and drill the holes, make sure the opener itself is horizontal. Drill the holes with a 1/4" drill bit and fix with the backing plate on the outside of the vent glazing and two 1-1/2" x 1/4" screws with stainless steel nuts.

The final step is to remove the relief bolt, open the vent as far as it will go and screw in the black ribbed piston to the middle of the threads. Be sure when you remove the relief bolt, to keep it in a safe, memorable place as you will need to use it if you remove the actuating piston to winterize the Gigavent.

THE RESTRAINING CORDS STAGE 2

Once the openers have been installed, it is necessary to re-tie all the restraining cords. At this stage the purpose of the restraining cords is to prevent a vent from being ripped off in windy conditions. With the bottom "E" vents, open the vent to the maximum opening that the vent opener will allow. Then, with one end of the cord knotted to the eyebolt, knot the other end of the cord to the screw eye so that the cord is tight. The same applies to the two "A" top vents. The exception is that they use the longer cord that goes through the eyebolt and is attached to two screw eyes, one on each leg of the vent frame. With the vent at its maximum opening, knot the end of one end of the cord to one of the screw eyes so that it is tight. Repeat for the other cord end.