

# WINDOW VENT OPENER



**Model 92192**

## ASSEMBLY AND OPERATING INSTRUCTIONS



Shown installed on Sku 47712 - Greenhouse (sold separately).



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**For technical questions, please call 1-800-444-3353**

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## Specifications

Opening Temperature	59°-77° F
Maximum Temperature	122° F
Maximum Weight Lift	15 Lbs.
Maximum Opening Angle	90°

### IMPORTANT

**Harbor Freight Tools is not responsible for damage to any plants in the greenhouse due to malfunction of the vent opener.**

## Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

## Safety Warnings and Precautions

**WARNING: When using this product, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.**

**Read all instructions before using this product!**

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Keep work area well lit during setup.
3. **Keep children away.** Children must never be allowed in the work area during setup. Do not let them handle or play with this product.
4. **Use the right product for the job.** Do not attempt to force a small product to do the work of a larger product. There are certain applications for which this product was designed. Do not modify this product and do not use this product for a purpose for which it was not intended.
5. **Dress properly.** Protective, electrically nonconductive clothes and nonskid footwear are recommended during setup. Wear restrictive hair covering to contain long hair.
6. **Use eye protection.** Always wear ANSI approved impact safety goggles during setup.
7. **Stay alert.** Watch what you are doing, use common sense. Do not install any product when you are tired.
8. **Check for damaged parts.** Before using any product, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.
9. **Maintenance.** For your safety, service and maintenance should be performed regularly by a qualified technician.

## Safety Warnings and Precautions (continued)

10. **Do not setup the product if under the influence of alcohol or drugs.** Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not setup the product.
11. **This device cannot provide complete temperature control, it is only designed to provide slight temperature moderating.** This device cannot adjust the window opening enough to compensate for sudden temperature rises or drops. In some larger greenhouses more than one window opener may be required to better moderate the temperature. In addition, other factors, such as wind speed, will affect the actual temperature moderating effects of this unit.
12. **Maximum temperature: 122° F.** Exposure to temperatures this high can cause the unit to stop operating properly.

**Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.**

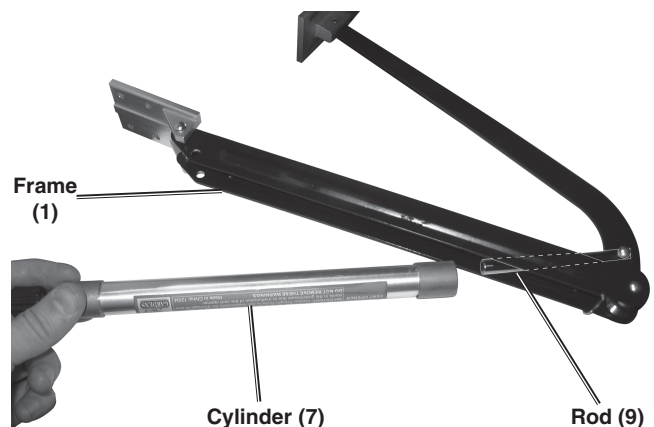
## Unpacking

When unpacking, check to make sure that all the parts are included. Refer to the Assembly section, and the Assembly Drawing and Parts List at the end of this manual.

If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.

## Assembly

1. Remove both Cylinder Screws (8) from the Cylinder (7).
2. While holding the Adjusting Knob end of the Cylinder (7), place the open end of the Cylinder over the Rod (9). **If the Rod does not insert easily, do not force it;** loosen the Adjusting Knob (2) as needed.
3. Swing the Cylinder (7) into the Frame (1) and line up the Cylinder Screw holes in the Cylinder with the holes in the Frame.
4. Attach the Cylinder (7) to the frame using the Cylinder Screws (8)



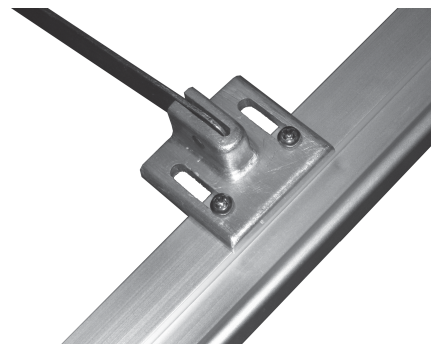
## Installation

1. Install this unit only on a window that can be opened with less than 15 lbs. of pressure. Be careful not to force this unit during installation. Forcing this unit open or shut may cause irreparable damage.
2. There are two methods of installation; either or both can be used on a given installation:

### Using Hardware

- a. For hardware installation, two predrilled holes are needed. The holes must be  $\frac{3}{16}$ " diameter or smaller, and spaced  $1\text{-}\frac{1}{16}$ " apart (center-to-center). Also, two screws (or bolt and nut pairs) appropriate for the mounting surface are also needed. Washers may also be necessary.
- b. Place the appropriate Bracket (3 or 4) up against the work surface (window frame for Upper Bracket (4) or window sill for Lower Bracket (3)).
- c. Install the hardware securely, being careful not to over-tighten. See Figure 1, right.

**Figure 1**

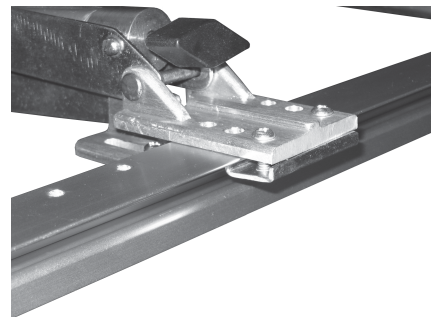


Unit shown from underneath, installed to the window of Sku 47712 - greenhouse - using the two predrilled holes and screws included with the greenhouse.

### Using Mounting Clamp

- a. Insert 2 Screws (5) through the appropriate Bracket (3 or 4) and thread into the Clamping Plate (6).
- b. The edge that this unit is mounted on cannot be thicker than  $\frac{1}{8}$ ".
- c. Fit the Clamping Plate (6) over the edge on the window (if the Upper Bracket (4) is being attached), or on the window sill (if the Lower Bracket (3) is being attached).
- d. Tighten both Screws securely. See Figure 2, right.

**Figure 2**



Unit shown from underneath, installed to the window sill of Sku 47712 - Greenhouse - using Clamping Plate (6) and Screws (5).

### **Installation (continued)**

3. After the unit is installed allow it to sit in the temperature that you want to be maintained in the greenhouse for at least 30 minutes.

4. Set the temperature:

**If the window is closed at the correct temperature,** tighten the Adjusting Knob (2) until the window just opens. Then, loosen the Adjusting Knob until the window is barely closed.

**If the window is opened at the correct temperature,** loosen the Adjusting Knob (2) until the window is barely closed.

**NOTE: Adjustments in temperature setting will not always be immediately noticeable. Adjust this device in small increments over periods of time to get accurate settings.**

5. Check the temperature and opening of the window in about two hours.

**If the temperature is too hot and the window is closed,** tighten the Knob (2) until the window just opens.

**If the temperature is too cool and the window is opened,** loosen the Knob (2) until the window just closes.

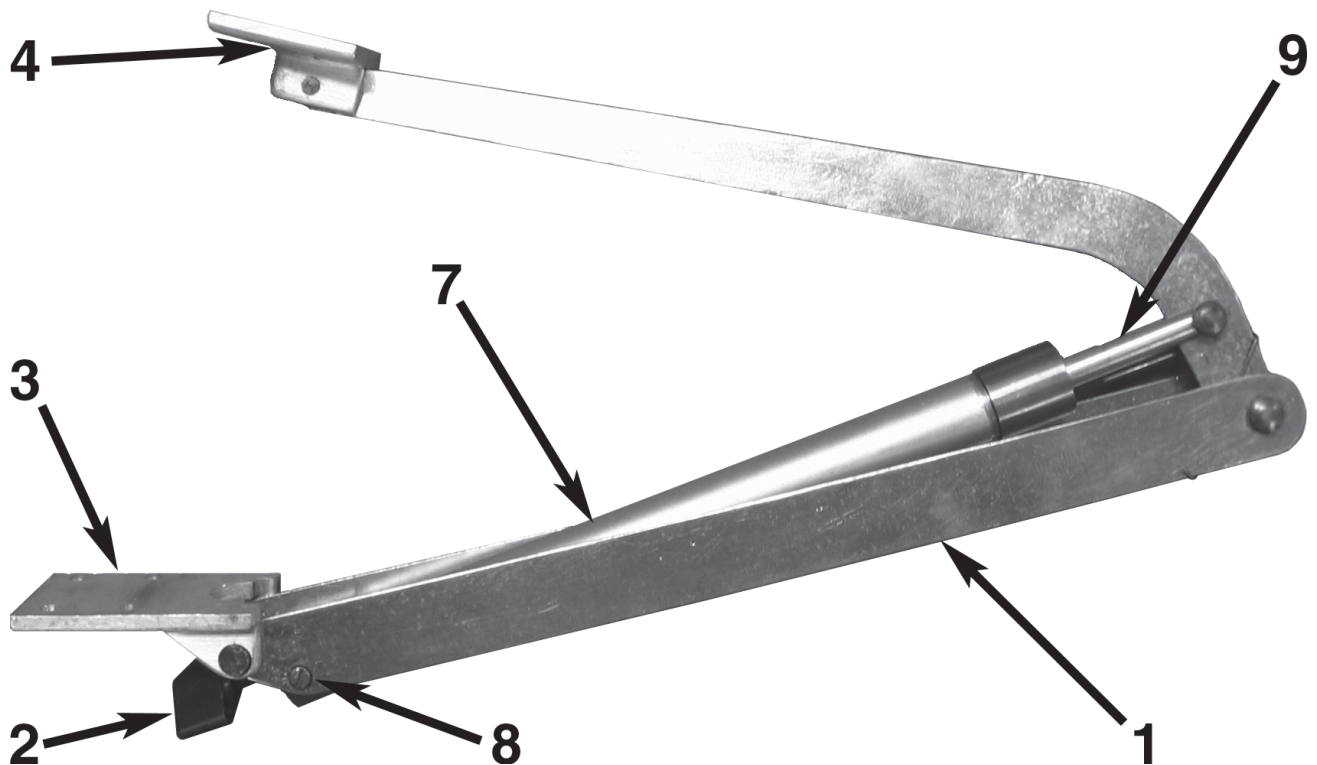
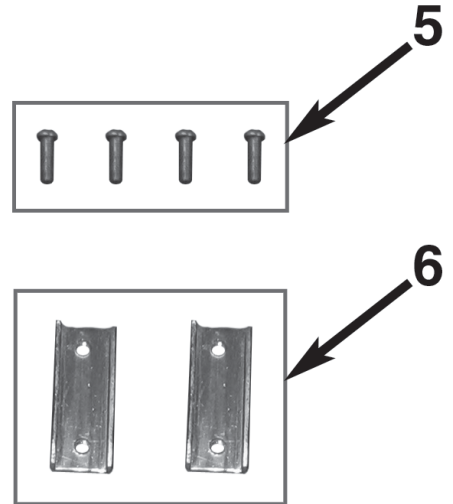
### **Maintenance**

1. Periodically inspect the unit's condition. Check for any broken parts or mounting fixtures; oil leaking from the cylinder; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.

2. Check on the greenhouse's temperature periodically according to the temperature sensitivity of the plants within the greenhouse.

## Parts List & Assembly Diagram

Part	Description	Q'ty
1	Frame	1
2	Adjusting Knob	1
3	Lower Bracket	1
4	Upper Bracket	1
5	Screw	4
6	Clamping Plate	2
7	Cylinder	1
8	Cylinder Screw	2
9	Rod	1



**NOTE:** Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts. Product design may vary slightly from that shown.

**PLEASE READ THE FOLLOWING CAREFULLY**

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.