

# UNIVENT

## PLEASE NOTICE :

1. Your automatic window opener is NOT suitable for use where the temperature will exceed 50°C / 122°F.
2. Ensure that your greenhouse window is able to open - and is not obstructed - otherwise damage may occur.

## TECHNICAL DATA:

- A: Maximum window opening is approximately 45 cm / 18 inches  
 B: Maximum opening at 30°C / 86°F depending on load and adjustment  
 C: Suitable for greenhouse vents weighing up to 15 kg / 33 lbs  
 D: Your automatic window opener can be adjusted to start opening at temperatures between 15-25°C / 60-77°F

## COMPONENTS:

See Fig.1

1. Cylinder
2. Piston Rod
3. Cylinder housing / threaded ring
4. Clutch T
5. Small hairpin
6. Big hairpin - only in use when reducing opening width
7. Arm K
8. Arm L
9. Sill bracket
10. Window bracket
11. Clamps
12. Pullback spring
13. Mounting bracket

## MAINTENANCE:

Lubricate all movable parts using a light oil : after fitting - each spring - and as required during the summer.  
 Apply petroleum jelly to the cylinder thread occasionally.

## WINTER STORAGE :

Remove the entire opener - or the cylinder only if this is easier. Store it in a dry place during the winter. Remember to lubricate the piston rod and the cylinders thread before remounting the following spring. Check that the piston rod moves smoothly !

## GUARANTEE

A correctly used opener is guaranteed for 1 year provided that it has been fitted and maintained in accordance with our instructions.

## FITTING INSTRUCTION:

Place the cylinder (part no 2) in a cool place (cold water or refrigerator) for at least 30 minutes at max. 10°C.

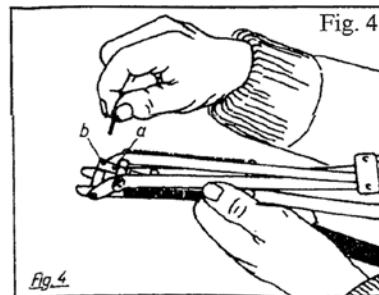
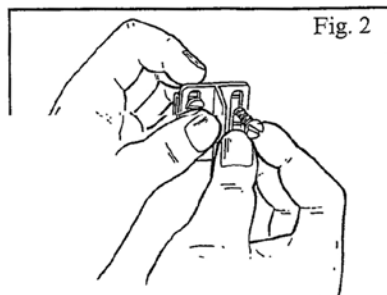
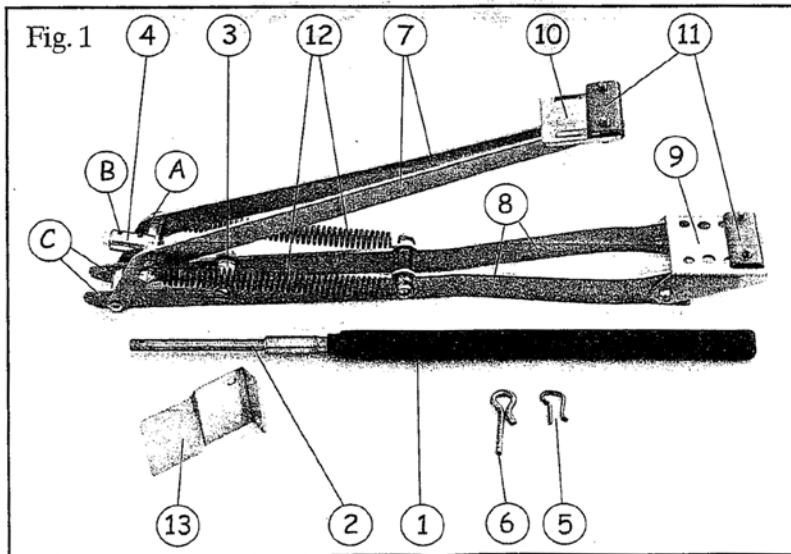
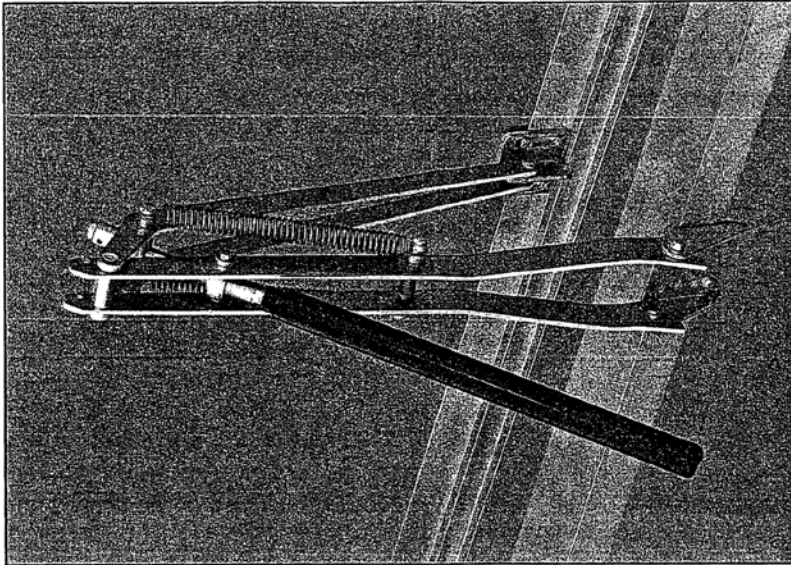
1. Check that the window in the greenhouse / cold frame opens freely and is not obstructed. Remove existing casement stays and arms from the window and from the sill.

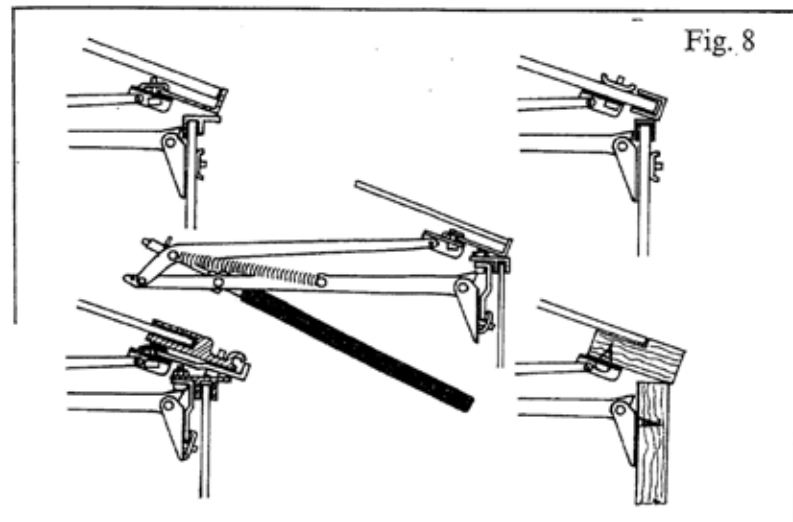
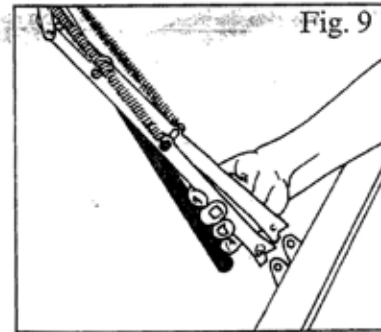
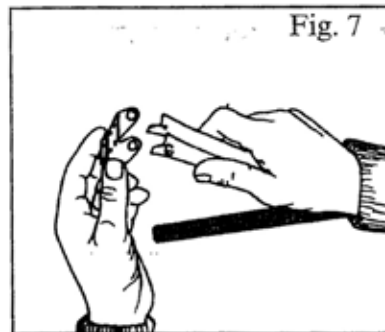
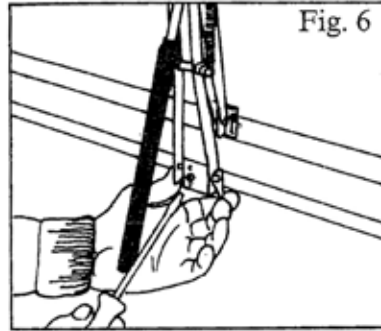
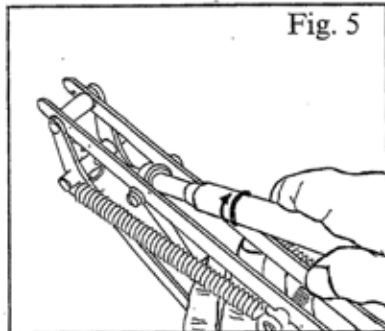
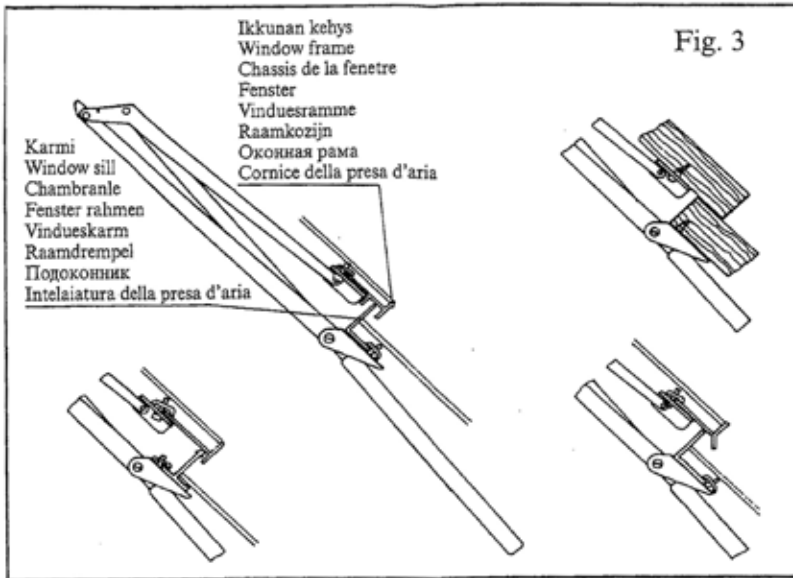
## GREENHOUSES

2. Ways of fitting the opener onto a greenhouse window and its sill :
  - 2a On most greenhouses made out of Aluminium fitting is done using the enclosed clamps (part no 11) - see Fig.3. Fit one clamp loosely onto the window brackets (part no 10) of the opener using the enclosed screws - see Fig.2. Choose the most suitable holes on the sill bracket (part no 9) of the opener, and fit the second clamp (part no 11) onto this. Make sure that the upper edge of the sill bracket is as close as possible to the edge of the windowsill.
  - 2b For greenhouses made out of wood get some screws for wood, and then follow our instructions outlined under pos. 3-4-5-6-7
  - 2c For Aluminium greenhouses where our clamps do not fit, read the manual supplied by the greenhouse manufacturer - and then follow our instructions outlined under pos. 3-4-5-6-7
3. Insert the piston rod (part no 2) of the cylinder (part no 1) into the clutch T (part no 4) and align the hole at the end of the piston rod with hole A in the clutch T - and lock it by inserting the small hairpin (part no 5) - see Fig.4.
4. Tighten the sill bracket of the opener onto the center of the windowsill - see Fig.6
5. Tighten the window bracket onto the window frame right above the sill bracket. The window must remain closed during this operation.
6. Open the window just enough to allow the thread on the cylinder to catch the thread inside the cylinder housing (part no 3). Now wind the cylinder on until equally much of the cylinders thread is visible on either side of the cylinder housing - see Fig.5
7. Check if the window can open freely as much as the opener allows it to. If not, the opening width of the opener should be reduced.

## REDUCING OPENING WIDTH:

- A. The opening width can be obstructed at a width of 32 cm (appr. 12½ inch) by inserting the big hairpin (part no 6) into hole C on the arm called L. The small hairpin MUST ALWAYS connect the piston rod with clutch T in hole B.





B. By assembling the piston rod and clutch T in hole B a small reduction of the opening width is gained, at the same time as the start-opening temperature is delayed. If the thread of the cylinder has been entered just a few rounds into the cylinder housing - and the locking is made by using hole B - then the opener begins to open at appr. 28°C.

#### COLD FRAMES MIST BENCHES

- Turn the sill bracket (Part no. 9) 90° around like shown on Fig 7
- The opener should be fitted as close to the edge as possible and in the middle of both the front and the lid.

Ways of fitting the opener :

#### A: FRAMEWORKS HAVING PLASTIC COVERING ON SIDE AND LID :

For fitting onto a plastic panel you will have to drill the necessary holes in the plastic yourself. Use the supplied Clamp (part no.11) as a "nut" for the supplied screws. Place the Clamp on the outside of the plastic panel (see Fig.8 top right and left).

#### B: ALUMINIUM FRAMEWORK WITH GLASS COVERING ON SIDE AND LID :

Follow step 2 as described for greenhouses - see Fig.8. If it is not possible for the window bracket or the sill bracket to reach close enough to the edges of the Framework then use the enclosed extra bracket (part 13). You may have to make a second similar bracket yourself too - see the illustration on Fig.8: down to the left and center.

#### C: WOODEN FRAMEWORKS :

On wooden frames the brackets can be fitted directly onto the wood work - see Fig.8: at the bottom - using screws especially meant for wood fixing.

Make your choice above - and then continue as follows :

- Do as described at Step 3 for Greenhouses
- Disconnect the sill bracket (part no.7) from the arms of the opener (part no.7) - and fit the bracket (part 10) to the front panel as close to the edge as possible.
- Fit the window bracket close to the edge of the lid in the same way.
- Clip the arms onto the sill bracket as shown on Fig.9 - and make sure that the lid can be both opened and fully closed. If not, you will have to adjust the position of the brackets.
- Open the lid just enough to allow the thread on the cylinder to catch the thread inside the cylinder housing (part no.3). Now wind the cylinder on until equally much of the cylinder's thread is visible on either side of the cylinder housing - see Fig.5. For adjustments : see below.

#### ADJUSTMENTS:

It is best to adjust the opener when the temperature inside the greenhouse or cold frame is constant, as it will take some time before the opener has reacted completely to a change in the temperature.

If you want the opener to begin opening at a different temperature, then turn the black cylinder :

Turning clockwise = an earlier start / higher opening  
Counter-clockwise = achieving a later start / lower opening

One twist of the cylinder equals about 0.5°C / 1°F. You should beware of that the temperature inside the greenhouse can vary greatly, including vary at the various windows.