

GRANDIO®

G R E E N H O U S E S

Model GRA-AUTO-LVR

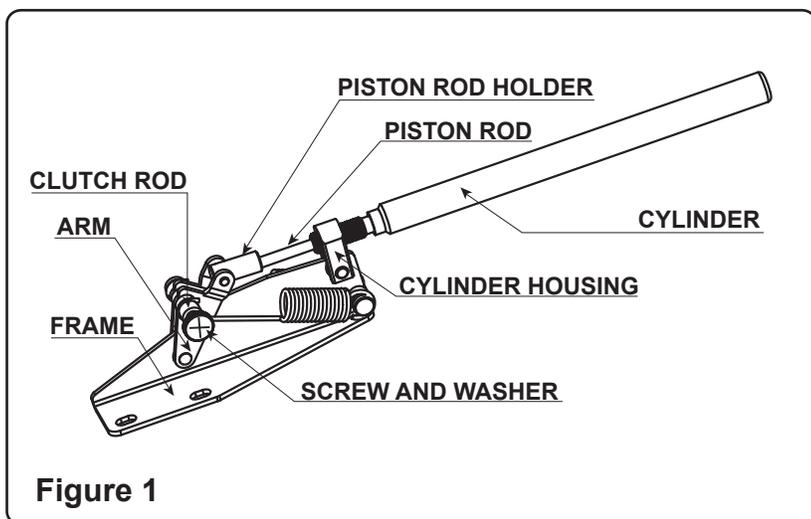


Figure 1

	S01 Screw	M4 x 6	2
	N01 Washer		2
	S05 Screw	M5 x 12	2
	ML05 Nut	M5 Nut	2
	S04 Screw	M6 x 14	4
	ML01 Nut	M6 Nut	4

Please Note:

1. The opener must not be heated to more than 122° F or 50° C.
2. The window must always be able to open, it must not be obstructed.

Maintenance

Lubricate all movable parts with light oil after fitting. Lubricate each Spring and intermittently during the Summer. Use grease or petroleum jelly for lubrication of cylinder thread.

Guarantee

A correctly fitted and used Louver Opener is guaranteed for 1 year.

Fitting Instructions

1. Place the cylinder in a cool place for at least 30 minutes at a maximum temperature of 50° F or 10° C, in cold water or in a refrigerator. This will make the Piston Rod retract into the Cylinder for installation.
DO NOT FREEZE!

2. Dismantle the handle on the louver window by removing the handle and freeing the stepped link arm. You will need to unscrew the screws shown in **Figure 2**. Place screws and washers in a safe location for the installation of the automatic opener.

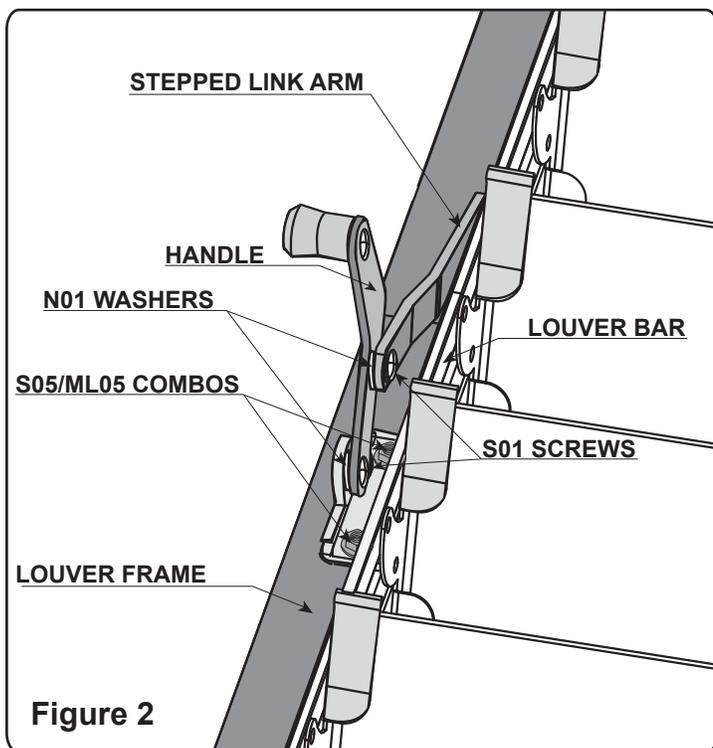


Figure 2

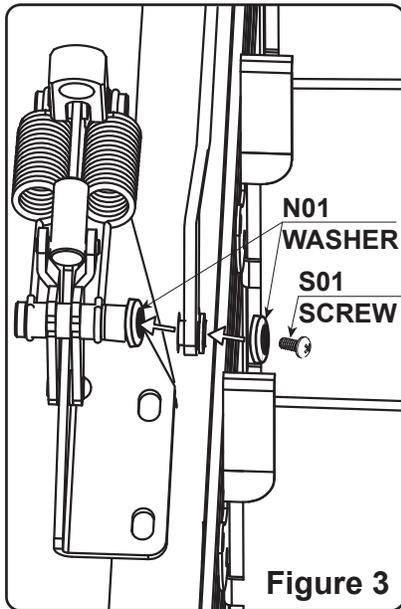


Figure 3

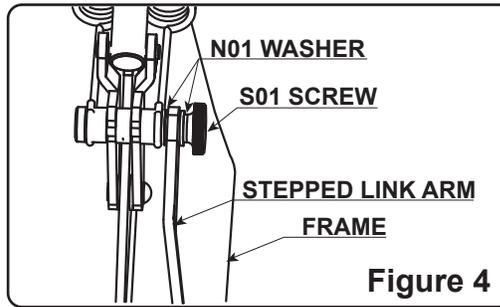


Figure 4

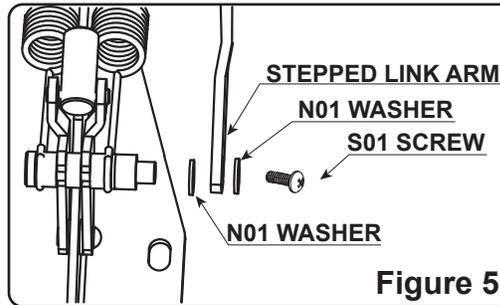


Figure 5

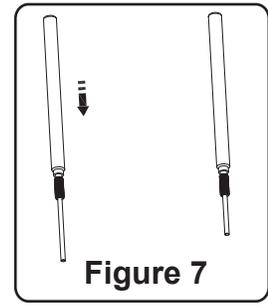


Figure 7

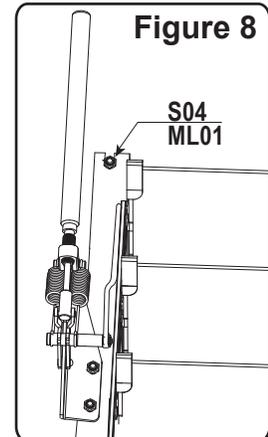


Figure 8

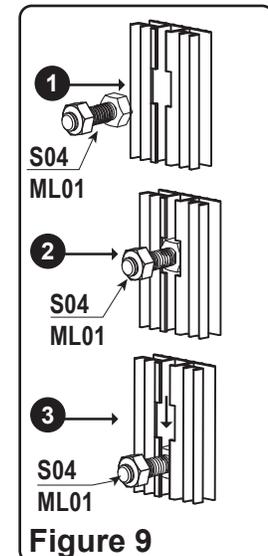


Figure 9

Fitting Instructions Continued

3. Ensure that the louver moves smoothly. Adjust if necessary and lubricate all moving parts with light oil.

4. Secure the **Stepped Link Arm** to the **Clutch Rod** with the screws and washers. See **Figure 3, 4 and 5**.

5. Lay the opener against the **Louver Frame**. Push the opener upwards until the window is fully closed. Make sure the opener is aligned with the **Stepped Link Arm**. See **Figure 3**.

6. Attach the **Frame** of the **Auto Opener** to the **Louver Frame** with the **S05/ML05** screw and nut. See **Figure 6**.

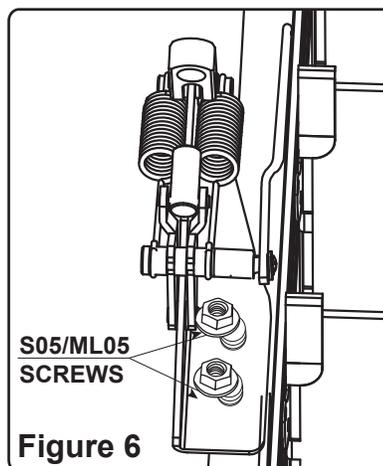


Figure 6

7. Place the **Louver Window Frame** into your greenhouse wall, use the prethreaded **S04/ML01** nut and bolt combo to attach the louver into place in the extrusion, then tighten the nut and bolt combo to lock into place. See **Figure 8 and Figure 9**.

8. Press the **Piston Rod** into the cooled **Cylinder**, see **Figure 7**. Screw the **Cylinder** into the **Cylinder Housing** and make sure the **Piston Rod** gets into the **Piston Rod Holder**. See **Figure 1**. Screw into the **Cylinder** until the threads are the same length on both sides of the **Cylinder Housing**. See **Figure 8** for final assembly view.

Adjustment

It is recommended that the **Louver Opener** be adjusted when the temperature in the greenhouse is constant. It takes some time for the opener to respond to the changed temperature. If you would like the opener to start opening the window at another temperature you will need to turn the **Cylinder**:

Turn Cylinder Clockwise: for lower opening temperature

Turn Cylinder Counter Clockwise: for a higher opening temperature

One turn corresponds to approximately 1° F or .5° C in temperature. You should not overlook the fact that the temperature might vary in the same greenhouse from window to window.