#### **Spring Removal**

**Tools needed for this procedure:** Two 9/16" box end wrenches, Bilco spring tool, hammer, needle nose pliers

- 1) Open the cover of the door.
- 2) Using two box wrenches, remove the nut from the bolt, leaving the bolt in place. (Figures 1 and 2)



Figure 1



Figure 2

3) Using a Bilco spring tool for floor doors, compress the spring allowing the bolt to be freely removed. Note: With the bolt removed, there is nothing holding the spring back other than your force with the spring tool.



Figure 3

4) Slowly ease off the spring, allowing it to decompress. Once fully extended, remove the spring from the frame. (Figure 4)



Figure 4

#### **Spring Installation – Pre-Compressed Spring**

\*Note: The following steps are for installation of a pre-compressed spring. If you do not have a pre-compressed spring, skip to step 10 for installation of a spring with a spring tool.

5) Take the compressed spring and attach it to the frame by lightly tapping with a hammer as shown below. (Figure 5)



Figure 5

6) Rotate the spring upward so that it can be positioned in line with the bracket on the cover. You will have to slightly lower the cover in order for them to line up correctly. Once lined up, slide the bolt through the hole. (Figure 6)



Figure 6

7) Once the bolt is through the hole, put the nut on the other side and tighten it with the two box wrenches. (Figure 7)



Figure 7

8) Now that the spring is securely in place, break the plastic tie and use it to remove the pin that is holding the spring in a compressed state. (Figures 8 and 9)



Figure 8



Figure 9

9) Open and close the door several times to ensure that the spring is fully functional and secure. This concludes the installation.

#### **Spring Installation – Bilco Using Spring Tool**

\*Note: These steps are for a spring that has been decompressed and requires a spring tool in order in install. For compressed springs go back to step 5.

10) Take the small lower tube of the spring and attach it to the frame by using a hammer as shown below. (Figure 10)



Figure 10

- 11) Grease springs before inserting them into the tubes. Finally put the large upper tube onto the springs.
- 12) After putting the spring in the base and placing the large top tube back on top, compress the spring with the Bilco spring tool so that the hole lines back up with those on the bracket. (Figure 11)



Figure 11

13) While compressing the spring with the spring tool, slide the bolt through the hole. (Figure 12)



Figure 12

14) Once the bolt is through the hole, put the nut on the other side and tighten it with the two box wrenches. (Figure 13)



Figure 13

15) Open and close the door several times to ensure that the spring is fully functional and secure. This concludes the installation.

