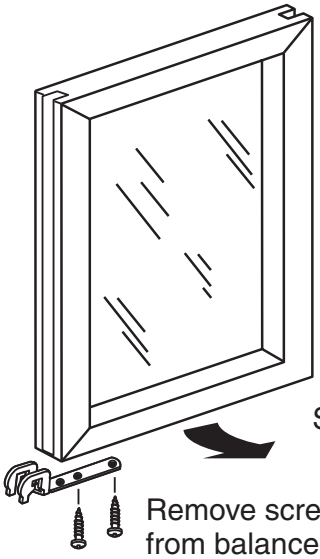
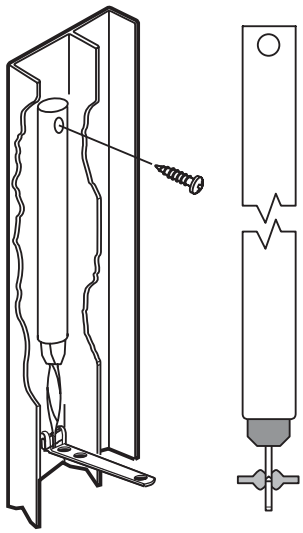
H-17 Spiral Balance (Non-Tilt) Instructions



Swing out window.

Remove screws
from balance foot.



Tension Tool For
Non-Tilt Balances

Non-Tilt Spiral Balances:

Most sprial balances have a colored nylon bushing (the color designates the weight of the sash for which the balance was designed) with a slot through which a spiral rod extends. Near the end of the spiral rod there may be a cross pin or a clip, depending on the system design. At the end of the spiral rod there is a small hole for attaching the winding or tensioning tool. The diameter of the balance may be either 3/8" or 9/16" (considered 5/8" in the trade).

Never remove the screw at the top of the balance. Always remove the tension on a balance from the bottom with a tensioning tool and don't release the tensioning tool from the rod until you are positive that all the tension is gone.

The internal portion of the balance is factory lubricated when new. To lengthen the life of the balances lubricate the spiral rod once a year.

When a sash does not hold its position and drifts down a few inches from where you originally set it, the balances need to retensioned. This can happen due to variations in temperature. When a balance does need to be replaced, the important specifications are the diameter and length of the tube, the length of the rod, the color of the bearing and whether a cross pin or clip is required. If the tension and adjustment applied when installing a balance is performed properly, the color of the bearing is not really critical. If your window system needs a balance, you should replace both of them at the same time.

Single Cross-Pin Balance

To remove the sash, the sash should be held or propped up in the uppermost position. Using a stick, cut to the proper length, can be used to support the sash. On many window systems with bottom mounted sash brackets, one of the brackets must be removed after the cross-pin has been disconnected from the bracket before the sash can be rotated out of the jamb. Some sashes cannot be rotated out of the jamb until after one of the balances has been removed.

On some windows needing repair, the spiral rod may already be hanging inside the jamb. Hook the point of the tensioning tool into the small hole at the end of the spiral rod. Pull the rod down with the tool about one inch. Slowly allow the spiral rod to unwind. This will release the tension and allow the rod to drop to the sill when the tool is disconnected. Repeat the procedure on the opposite side.

Remove the stick while holding the sash and lower it to the closed position. Remove the screw that fastens the balance to the jamb. Lift the balance out. If the balance accidentally drops below the top of the sash, use the hook on the end of the tensioning tool to retrieve the balance and lift it up. You should now be able to lift the sash a few inches and rotate it towards you. If you are having a problem, push the sash into the area vacated by the balance and rotate the other side of the sash. Remove the screw that holds the other balance to the jamb.

When installing new balances, make sure that the sash brackets are in good condition and replace them if necessary. If the sash has side mounted sash brackets, both of them can be installed prior to holding the sash in place. If the sash has bottom mounted sash brackets, the second bracket can only be installed if someone is holding the sash in place for you or if you have the sash propped up with a stick. Then hold the sash, remove the stick, and lower the sash to the sill.

The next step is to pull the complete length of the spiral rod out from the tube. Feed the spiral rod down the side of the sash. Next, screw the top of the balance along with any sash stops or dust covers to the jamb.

It might be easier to prop the sash up as far as it will go and mount both bottom sash brackets now. With both brackets mounted, the spiral rod can easily be positioned between the prongs of the bracket.

With the sash propped up and with both brackets mounted, hook the tensioning tool into the hole at the bottom of the rod. Then rotate the tool six complete turns. Allow the rod to retract so that the cross-pin seats into the prongs of the bracket securely. Repeat the procedure for the other side of the sash.

Now remove the stick and check the operation. If the sash does not stay in the raised position, mount the face guides and check the operation of the sash again. If the sash still does not stay in the raised position, replace the stick, unhook the rod and add a couple of more turns. Do this to both sides. When the sash does not stay in the down position or in a partial ventilating position, prop the sash up, unhook the rod and decrease the tension on both sides.

In summary, wear eye protection when tensioning balances. Always tension balances with the sash in the uppermost position. Make sure the window sash is secure when tensioning balances. Be sure that you have seated the cross-pin properly in the prongs of the carrier before unhooking the tension tool.

Broken cross-pins can not be replaced as they are no longer available as an individual item.

There is another window system in use that has side mounted sash brackets and uses the cross-pin balances. This system is tight fitting and there is nothing that can be removed which would allow some play so that the sash could be pivoted out. In order to replace a sash bracket or balance on this system, it is necessary to bend the jamb metal with pliers and pry the sash out. After the parts have been replaced, the sash positioned and the balance retensioned, one can attempt to bend the metal back to its original position using a block of wood and a mallet.