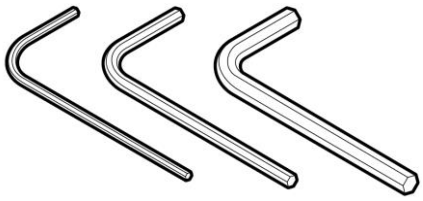
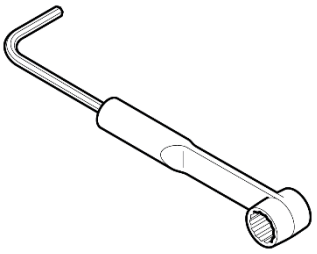
Why Adjust Hardware?

Over time, building settlement or wear of operating components can affect the functionality and performance of installed windows and doors. Innotech products have adjustable hinges and locks that allow you to correct operating problems if they occur. The following adjustments apply to inswing or outswing terrace swing doors installed after July 1, 2015. All adjustments are performed from the hinge side of the door.

Tools Needed

Clearance Adjustments	Locking Tightness Adjustments
3 mm Hex Key 5 mm Hex Key 8 mm Hex Key 	4 mm Hex Key and 11 mm Wrench OR Combination Hex-socket Tool (4 mm Hex Key, 11 mm Socket Wrench) 

Clearance Adjustments

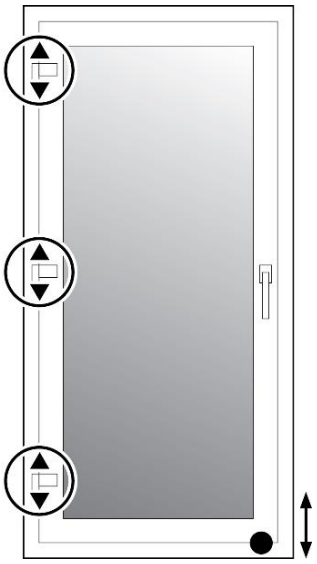
To correct sashes that catch the frame when opened and closed use one or more of these adjustments:

- Hinge up/down
- Hinge side to side
- Hinge in/out

In the diagrams, the black dot shows the location where the sash catches against the frame or against one of the locking points. The circled area is where the adjustment is to be made.

> **TIP:** Before many any adjustments, find the problem. Finding the cause of the problem will point you to the right adjustment that needs to be made.
>
> Most problems can be fixed with minimal adjustments. Never make more than one adjustment at a time. After each adjustment, operate (open, close and lock) the door to determine if the adjustment made has fixed, improved or worsened the problem. If the problem is worse, undo the adjustment made *before* making a second adjustment.
>
> If you are unsure what adjustment(s) need to be made or if you have any questions, contact your Innotech Dealer or our head office at 604.854.1111 or 1.866.854.1122.

HINGE UP/DOWN



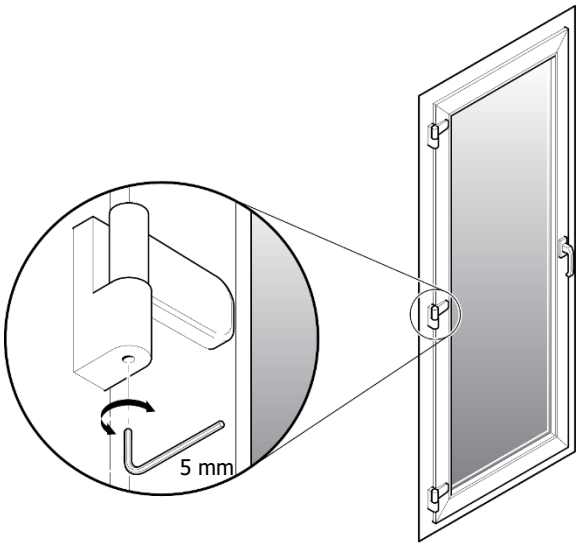
This adjustment moves the sash up or down. Use it to raise the sash if it catches the frame at the bottom.

Performing this adjustment on one hinge will raise the door. Adjust all three hinges the same amount to avoid premature hinge wear.

1. Open the sash partially.

2. Insert the 5 mm hex key into the recessed screw head in the bottom of the hinge.

3. Rotate the screw in a clockwise direction to raise the sash. Rotate the screw in a counter-clockwise direction to lower the sash.



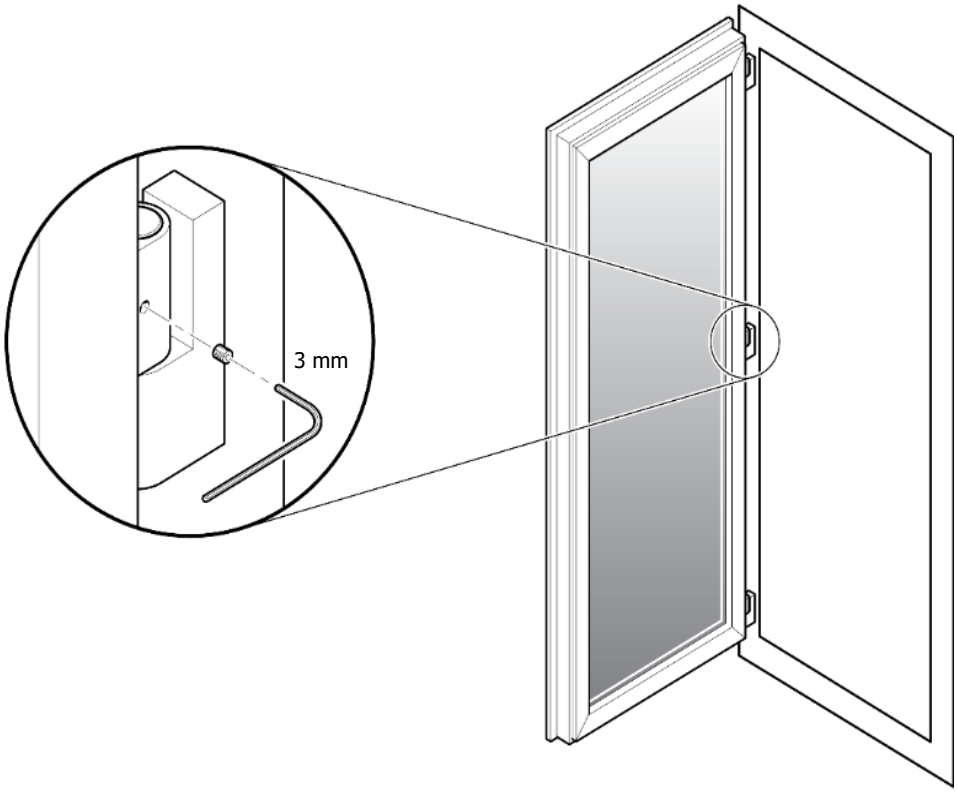
This adjustment raises the sash as much as 5 mm (3/16 in.) from the factory setting. However, raising the sash more than 3 mm (1/8”) can cause the sash to catch against the frame at the top.

HINGE SIDE TO SIDE

This adjustment moves the sash side to side. Use this adjustment to move the sash toward the hinges if the sash catches the frame at the handle side. Adjust each of the hinges the same amount to keep the sash from becoming misaligned.

1. Open the sash as wide as you can and locate the security cover screw on the back side of the hinge body.

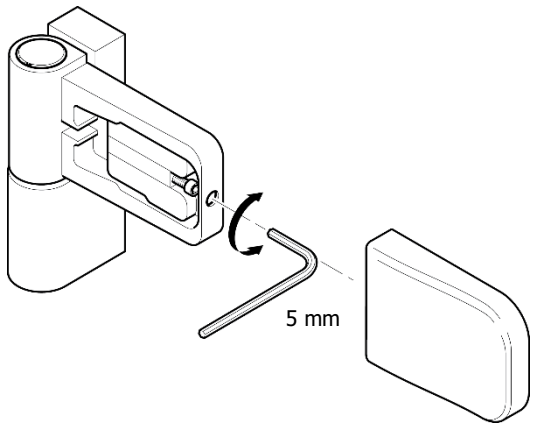
2. Use the 3 mm hex key to remove the security set screw.



3. Swing the sash around so you are facing the hinge cover.

4. Gently pry the cover away from the hinge. Use a flat head screwdriver or a stiff blade with masking tape on the end so you don't damage the painted finish.

5. Insert the 5 mm hex key into the recessed screw head on the edge of the hinge body.



6. Rotate the screw in a clockwise direction to move the sash away from the hinge. Rotate the screw in a counter-clockwise direction to move the sash toward the hinge.

CAUTION: Do not adjust the sash more than 2 mm in either direction or you may reduce the coverage of the sealing gaskets. To see how far you are moving the hinge: close the sash and draw a pencil line on the frame in line with the edge of the sash. Each time you adjust the screw, you can close the sash to see how far you have moved it.

7. Replace the hinge cover and secure it with the set screw removed in step 2.

HINGE IN/OUT

This adjustment moves the sash closer to or away from the frame. Use this adjustment to reduce air leakage on the hinge side. Adjust each of the hinges the same amount to keep the sash from becoming misaligned.

1. Remove the plastic cap from the top of each hinge using a small knife blade or a small flat head screw driver. Pry the cap up using one of the shallow grooves.

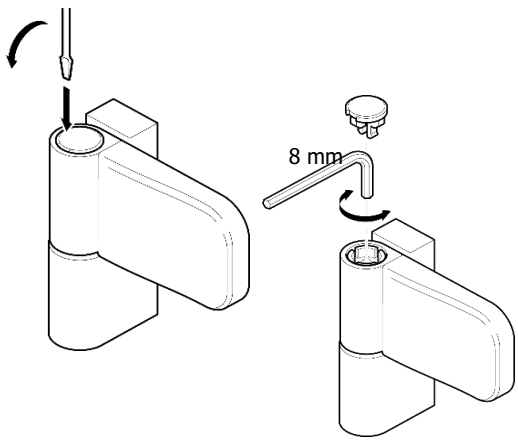
2. Open the sash.

3. Insert the 8 mm hex key into the recessed screw

head on the top of the hinge pin.

4. Rotate the screw in a clockwise direction to move the sash away from the hinge. Rotate the screw in a counter-clockwise direction to move the sash toward the hinge.

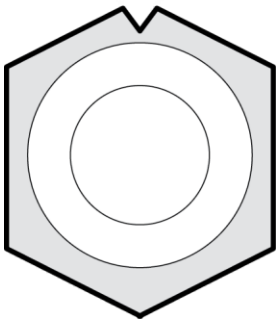
5. Replace the plastic cap on the top of each hinge pin.



Adjust all three hinges by the same amount.

CAUTION: Do not adjust the sash more than 2 mm in either direction or you may reduce the compression of the sealing gaskets.

Locking Tightness Adjustments



If you discover air leaking around a closed and locked sash or have difficulty rotating the handle to the locked position, use these adjustments to make the sash lock more or less tightly.

If there is noticeable air leakage, adjust the locking cam that is closest to where the air leaks in. If there is still some air leakage after you have made the adjustment, adjust the cams on either side. Do not adjust the cams any more than necessary or you may make the handle more difficult to operate.

If the handle is difficult to operate, use these adjustments to decrease the sash locking tightness.

FLAT HEAD CAM ADJUSTMENT

Flat head cams, also known as mushroom locks, are locking pins that engage when the handle is operated to open and close the sash. There are typically five flat head cams on a sash. There are a minimum of three flat head cams on the handle side of the sash and a minimum of one flat head cams on the top and bottom of the sash near the outer corners. Depending on the height, width and sill option of your door, you may have additional cams.

Do not adjust all of the cams at once. Always adjust one cam at a time then operate (open, close and lock) the door to determine if the problem has been fixed, improved or worsened.

TIP: If you look closely at the cam, you will see an index groove cut out at the base of the cam. When you adjust the cam, it rotates it around this index groove. Use the index groove to measure how much the cam moves with each adjustment.

Flat head cams can be adjusted with the socket head of the combination hex-socket tool. You can also adjust the hexagonal base with an 11 mm wrench.

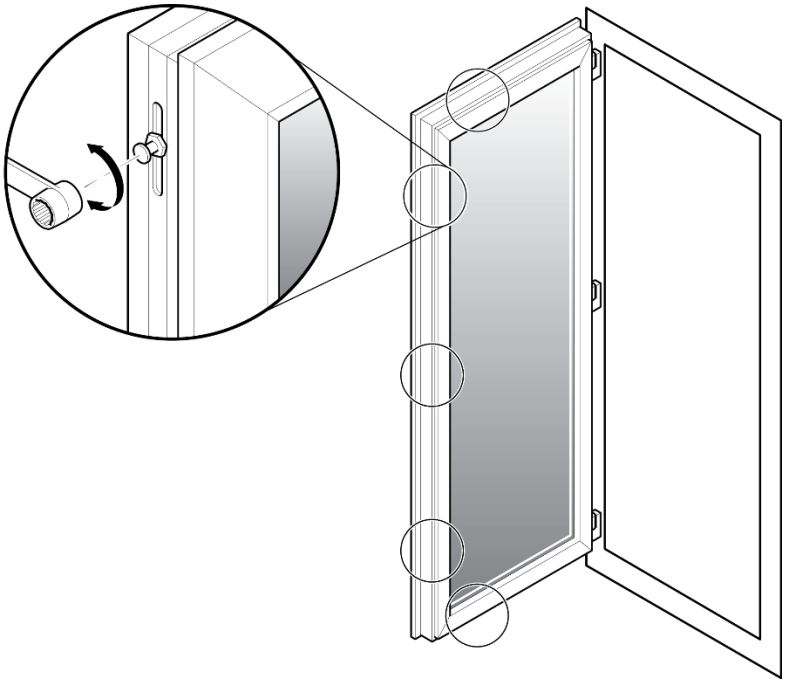
1. Open the sash to swing open to one side.

2. Find the cam you want to adjust.

3. Use the socket head of the combination hex-socket tool or an 11 mm wrench turn the cam 90° clockwise to increase the locking tightness. Turn the cam 90° counter clockwise to decrease the locking tightness.

NOTE: turn the cam in 1/4 turn increments, then check the sash operation to make sure the adjustment does not make the sash difficult to lock.

This adjustment moves the sash as much as 1 mm (1/32 in.) toward or 1 mm (1/32 in.) away from the frame.



SNAPPER HEIGHT ADJUSTMENT

On doors with a half lock or with an exterior handle only, you also have the option of adjusting the height of the snapper. You may need to adjust the snapper if the door does not smoothly latch closed (latch overly hits the frame). The snapper is located 76 mm (3 in.) above the handle on the sash.