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302 SERIES OUTSWING DOOR WITH FACE MOUNT HINGES HINGE ADJUSTMENT GUIDE



Figure 1 – Exterior view

Introduction

Adjustments can be made to any of the hinges. Each hinge has three adjustments for moving the sash (door leaf): (1) left or right, (2) up or down, and (3) inward or outward. The following pages detail the method for each adjustment.

Coordinated Adjustments

Coordinated adjustments are required for acceptable operation, and to avoid damage to the sash and frame. This is particularly important with left / right, and inward / outward adjustments. Since it is only possible to adjust one hinge at a time, adjustments will cause temporary internal stress on the sash and frame. Here is an example of this condition (illustrated with left / right adjustments) and the solution:

If adjustment is required to move the top of the door sash to the right, then the top hinge would be adjusted first. However, this would then place the sash under stress from the middle hinge(s), as they are still in their original position (figures 2A & 2B). The middle hinge(s) must be adjusted to relieve this stress. The amount of adjustment for middle hinge(s) is proportional to their position between top and bottom hinges.

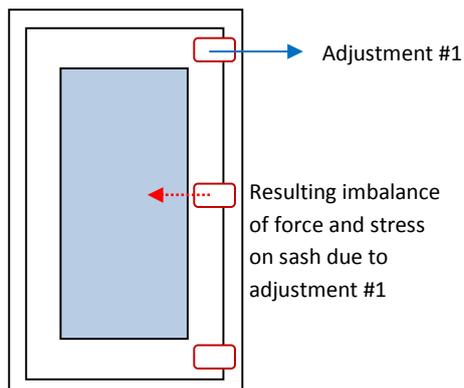


Figure 2A – Exterior view

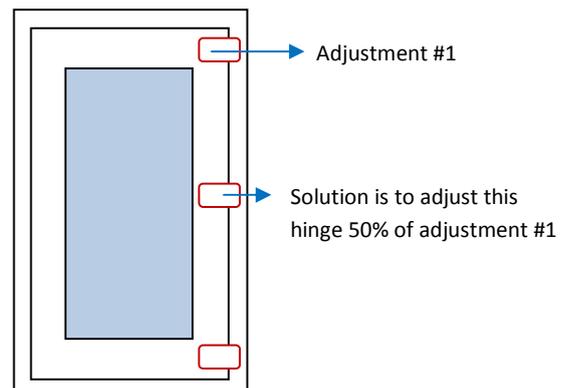


Figure 2B – Exterior view

Another solution to the above condition would be to adjust the bottom hinge an equal amount in the opposite direction to the top hinge, and not adjust the middle hinge. However, this would also have the effect of moving the bottom of the sash to the left, as well as the original intention of moving the top to the right.

Required Tools

Left / right adjustments:

- 4mm Allen wrench (a.k.a. "#4 hex wrench" or "#4 Allen key")

Up / down and inward / outward adjustments:

- 6mm Allen wrench (a.k.a. "#6 hex wrench" or "#6 Allen key")

Left | Right Adjustments

Each hinge can adjust the horizontal position of the sash (door leaf), relative to the frame. Ensure that horizontal adjustments are coordinated with all hinges, as described in the previous section '*Coordinated Adjustments*'.

Method

1. Remove the hinge cover cap by pulling it horizontally (only) away from the hinge (to the left in figure 3).
2. Insert #4 Allen key as shown (figure 4). Adjust the sash to the left or right by turning the Allen key. Observe the movement of the sash. Clockwise action moves the sash to the right (viewed from exterior), and counter clockwise action moves the sash to the left, regardless of which side of the sash the hinge is located on.
 - a. Tip: Count the number of turns you perform, in order to accurately coordinate adjustments at other hinges as required.
 - b. Note: Doors ship from the factory with an equal distance between the edge of the sash to the edge of the frame on both sides and the top, but not the bottom.



Figure 3 – Remove cover cap



Figure 4 – Rotate Allen wrench for adjustment

Up | Down Adjustments

Each hinge can adjust the vertical position of the sash (door leaf), relative to the frame. Ensure that equal vertical adjustments are performed on all hinges.

Method

1. Insert #6 Allen key as shown (figure 5). Adjust the sash up or down by turning the Allen key. Clockwise moves the sash up; counter clockwise moves the sash down.
 - a. Tip: Count the number of turns you perform, in order to accurately adjust all hinges by an equal amount.
 - b. Note: Doors ship from the factory with the hinge in the lowest position.



Figure 5 – Rotate Allen wrench for adjustment

Inward | Outward Adjustments

Each hinge can adjust the inward /outward position of the sash (door leaf), relative to the frame. This will cause the gaskets to compress more or less. Also, it may be possible to use this adjustment to compensate for installations which have caused a minor twist in the frame, resulting in the sash contacting the frame earlier in some locations than others during closing. Ensure that equal vertical adjustments are performed on all hinges.

Method

1. Remove plastic cap at top of hinge with a flat tool, such as a blade or flat head screwdriver. Perform this adjustment when the door is closed. Ensure that the door does not swing while the plastic cap is removed. This will cause random change in this adjustment.
2. Insert #6 Allen key as shown (figure 7). Adjust the sash inward or outward by turning the Allen key. The key can be turned in either direction to make an adjustment. The range from tightest to loosest occurs over 180 degrees of rotation. Past 180 degrees (in either direction) the direction of adjustment is reversed and returns to its original position at 360 degrees.
 - a. Tip: This adjustment moves in small increments; count the number of increments you adjust, in order to accurately coordinate the number of required adjustments for the other hinge(s).
3. Reinstall the plastic cap securely. If the cap is not fully reinstated, this adjustment will change randomly as the door swings open and closed.



Figure 6 – Remove cap at top with flat tool



Figure 7 – Rotate Allen wrench for adjustment