

Installation Steps

- 1** Attach the hinges loosely to the door with the heads of the pivot pins toward the top.
- 2** Support the door adjacent to the hinge jamb in a position 90° to the frame. A wood block close in thickness to the undercut of the door makes a good support.
- 3** Align the hinges with the reinforcing on the jamb and insert the mounting screws beginning with the top hinge.
- 4** Tighten all screws in all hinges and close door to check clearances between door and frame.

Clearance Adjustments

If clearances at lock and hinge jambs need adjustment, remove screws (one leaf at a time) and insert narrow shims (3/8" wide by length equal to hinge height) as needed, to shift the door by small increments in desired direction. See figure 1 and 2.

NOTE:

If frame is square and plumb the clearances should be approximately 1/8" at the top, 3/32" at hinge and lock edges and 5/8" undercut at the floor.

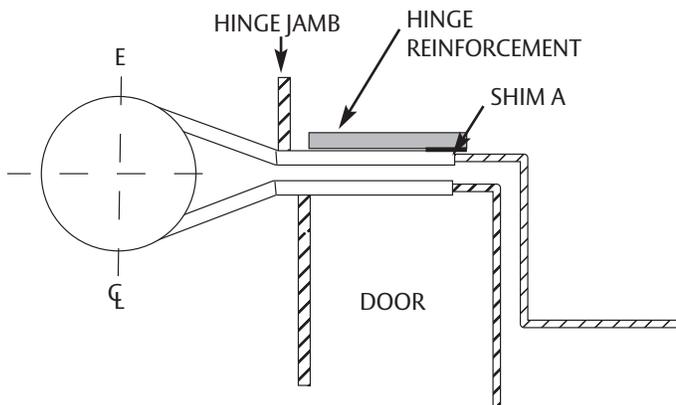


Figure 1

Using shim (A) only, will move both door and centerline of hinge barrel in direction of arrow "E".

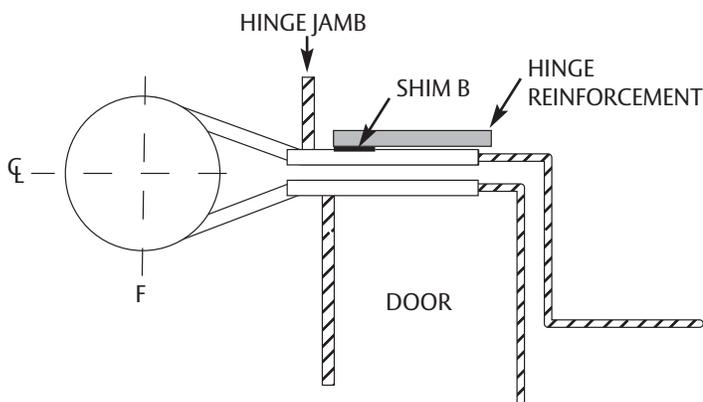


Figure 2

Using shim (B) only, both door and centerline of hinge barrel will move in the direction of arrow "F".

Clearance Adjustments (cont.)

SHIM INFORMATION

Various materials can be used for shims, from door packaging strapping to stock shim material. The more dense the shim material is (least compressible) the better, so as to decrease the possibility for screws loosening as the shim takes "set". The size should be 3/8" wide and 4-1/2" long for a 4-1/2" hinge or 5" long for a 5" hinge, etc.

Following are some typical clearance problems and hinge shimming methods which can be used to improve the situation. See page 3 for shim installation instructions.

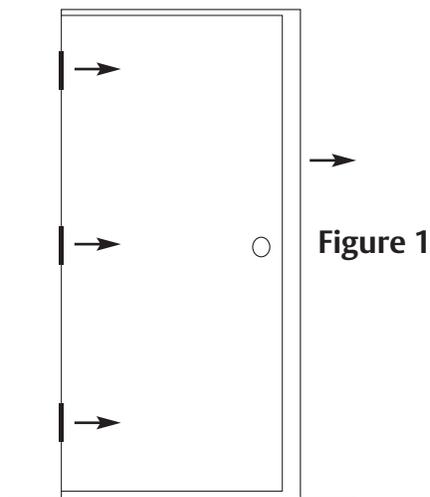


Figure 1

Tight hinge side clearance and/or excessive lock side clearance

Even but excessive clearance between the strike jamb and the lock edge of the door can be improved by placing equal sized shims (B) between each jamb hinge reinforcing and the hinge leaf to move the door and hinge barrel toward the strike jamb.

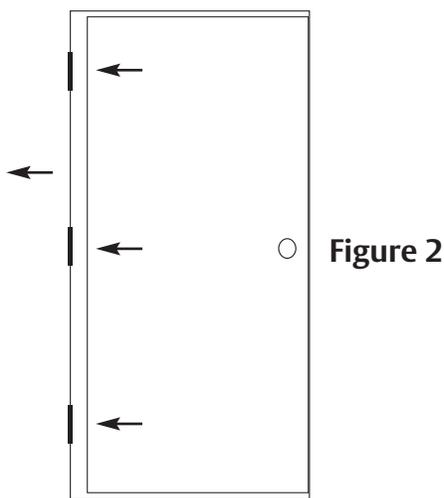


Figure 2

Tight Lock side clearance and/or excessive hinge side clearance

Even but tight clearance between the strike jamb and the lock edge of the door can be improved by placing equal sized shims (A) between each jamb hinge reinforcing and the hinge leaf to move the door and hinge barrel toward the hinge jamb. Further adjustments can be made by placing two equal sized shims (A) behind each door hinge reinforcing.

NOTE:

Shim (A) when too thick can cause hinge bind when the door is closed, especially when weatherstrip is applied to the hinge rabbet.

Clearance Adjustments (cont.)

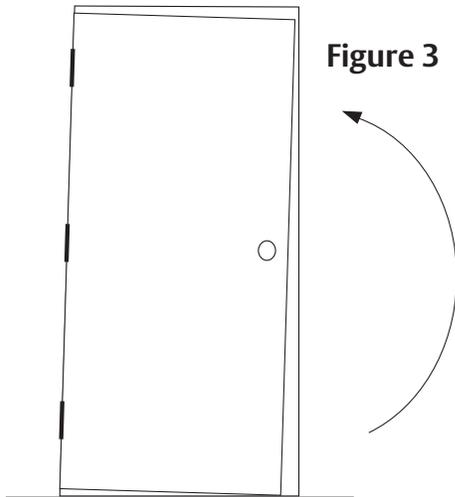


Figure 3

Out of square hinge jamb or strike jamb

Toe Out:

Frame openings which are wider at the base than at the head will cause wider clearance at the lower lock edge and at the top as shown in Figure 3. This condition can be improved by placing shim (B) between the jamb and door hinge reinforcings respectively at the bottom hinge leaves.

Further adjustment can be made by placing shim (A) behind the top hinge which will in effect rotate the door about the middle hinge.

If the strike jamb is toed out, try placing shim (B) at the middle hinge as well.

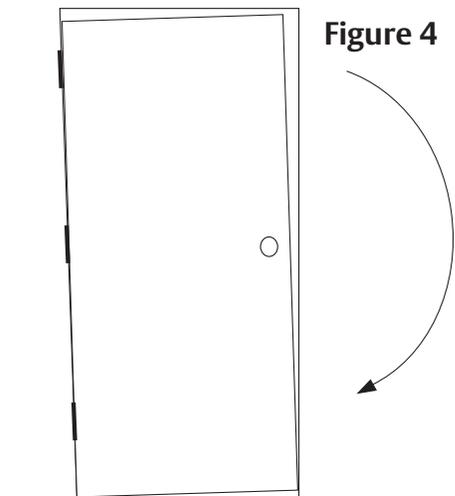


Figure 4

Out of square hinge jamb or strike jamb

Toe In:

Frame openings which are narrower at the base than at the head will cause tight clearance at the lower lock edge and at the top as shown in Figure 4.

This can be improved by placing shim (A) behind the bottom hinge and possibly the middle hinge as well.

Further fine adjustment can be made by placing thin shim (B) at the top hinge.