

Fixing Frames that are Twisted or Out of Square



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A video demonstration of these procedures can be viewed at www.steeldoor.org.

Inspect the Opening



1. Close the door and inspect the clearances between the door edge and the frame to identify improper installation.
2. Remove the baseboard trim to access the sill straps.
3. Inspect the opening for missing or loose header attachment screws, compression anchors, and sill screws.
4. Tighten or replace as necessary.
5. Use a plumb bob or 6' level to make sure the frame jambs are plumb.
6. Use a 2' level to check if the head is level.
7. Use a setting spreader, PLS, or tape measure to verify if the jamb opening width is consistent.
8. Use a framing square to check if the jamb is out of square with the header.
9. Use the straight edge to span the hinge and strike jamb faces to determine if the jambs are twisted.

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1. Remove the door from the frame.
2. Remove the nails or screws that are securing the sill anchors to the wall. This will loosen the jamb and allow it to be squared and fix the twist.
3. If the frame is caulked in place, take a razor knife and score along the return of the frame and wallboard to cut any caulk or paint that has been used. Be careful not to damage the wallboard when cutting.
4. If the head was not level, this needs to be corrected first.
5. Determine whether to shim up the strike, hinge, or possibly both to relevel the head.
6. Loosen the compression anchor screw on the jamb that needs to be moved to square the head.

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7. Insert the temporary spreader between the jambs, ensuring that all rabbets contact the setting spreader. This will correct the door opening dimension by moving the jamb, rabbets, and faces into a parallel position.
8. Set the strike jamb first by adjusting the compression anchors and then checking squareness with the head. Then check that the jamb is plumb.
9. Install the base anchor loosely.
10. Set the hinge jamb next and repeat the previous step.
11. Once the jambs are correct, tighten the screws to the sill straps or frame face and also tighten the compression anchors.
12. Check for level and plumb before completely tightening.
13. Remove the spreader bar and hang the door back in the opening.
14. Verify that all perimeter gaps between the door and frames are consistent and correct for the manufacturer.
15. If baseboards were removed, they can now be reinstalled to the wall.
16. If caulking was cut, reapply the caulking and paint as required.

Reference ANSI/SDI A250.11 for recommended methods of steel frame installation.

The procedures in the manual are only guidelines. Please follow all applicable building codes, standards, and accepted practices specific to your geographic location.

For more information or to watch the video, visit www.steeldoor.org.



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