

IRON DOOR INSTALLATION INSTRUCTIONS

The following instructions apply to all configurations of Memphis Steel & Iron Works Iron Doors. For State of Florida code compliant installations, door specific drawings found on www.floridabuilding.org must be used in conjunction with this document. **Failure to follow these guidelines may impact how warranty claims are processed.**

1. Check framing for correct rough opening measurements, general recommendations are for 1" clearance on the width and 1/2" on the height. Check to see if floor is level; some shimming under one jamb may be required. When using the standard supplied inswing threshold a 1-1/2" gap from the door bottom to the floor is required and 3/4" when using the standard outswing threshold, not including the extruded sweep.
2. Check framing to ensure it will be secure enough so there is no movement in the door after installation (your door installation is only as good as what you bolt to).
3. Set the frame only (without panel(s) installed) centered in the opening. Check for plumb and level. Clamp the upper flanges or manually hold the door frame in place until upper lag bolts are installed in the center of the large hole in each upper flange (*step 5*).

4. Pre-drill and install one 3/8" x 3" hex head lag bolts in the center of the large hole in each of the **bottom** flanges (*see figure 1*). One only at this point allowing for some minor adjustments during later steps.



5. When level, plumb and square pre-drill and install one 3/8" x 3" hex head lag bolt in the center of the large hole in each of the **upper** flanges (*see figure 1 above*). One only at this point again allowing for some minor adjustments during later steps.

Note: level, plumb and square is a starting point only. Later adjustments are normal when working with iron doors that may require slight out of level, plumb and square condition.

6. Hang the door panel(s) by sliding the female hinge located on the door panel over the male hinge pin on the frame. It may be helpful to hold the panel at a 90 degrees open position when performing this step.
7. Check and adjust to ensure:
 - A. Margin(s) between frame and panel(s) are consistent around the entire perimeter.
 - B. If a double door; margin between the two panels is even from top to bottom.

- C. If a double door; panels are even with each other across the top (*see figure 2 below*). This ensures that the lockset latch and deadbolt bolt will properly align and function.



- D. If a double door; that the inside face of the two panels are flush to one another from top to bottom, the panels are flush/even with jamb at the header and the weather-strip makes good contact around the perimeter and between the two panels at the t-astagal.

Note: the above conditions must be addressed now, not after the interior trim and exterior trim have been installed. These adjustments may require that the door be slightly out of plumb, level and square.

Adjustments A, B and C are possible by moving or prying the frame side to side in the same fashion that a shim would be used. Slight additional adjustments are possible by applying the methods depicted below.

- E. A board placed between the 2 panels on a double door will increase the center margin. Open both doors slightly and place the board where the margin is narrowest; slowly close both doors applying pressure against the board. If the center margin is tight, but equal from top to bottom two boards placed at the top and bottom simultaneously can be used. Work in increments, don't try to make the complete adjustment in a single step. Note that this may also change the relationship of the panels across the top, depending on the placement of the board (*see adjustment F image for further explanation*).



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- F. A board placed between the panel and jamb from the exterior and toward the top will move the panel away from the jamb and tilt the panel downward from right to left. Apply pressure by closing the panel against the board, again using an incremental approach. If the board were placed at the bottom it would tend to move away from the jamb and tilt the panel upward from right to left. This adjustment can be done from either the exterior (*top image*) or interior (*bottom image*).



- G. Shim behind one or more installation flanges or in extreme cases by a combination of shimming one flange and chiseling a small route in the framing at an offsetting flange.
8. Once all adjustments are made, pre-drill and install additional 3/8" x 3" hex head lag bolts into all flanges.

9. Remove the shipping brace from the frame located at the bottom of the door. Take fine grit sand paper and clean any area where the brace was attached and rubbed the frame exposing raw metal. Apply black touch up paint to these areas covering all raw metal.
10. Cut the sill/threshold to length so that it fits snugly from inside of frame to inside of frame.
11. Completely loosen the adjustment screws in the threshold riser and detach the riser from the substrate. Drill 4 holes (for a double door) in the threshold substrate within the riser channel which are to be used for proper anchoring of the threshold to the floor. Place the threshold in the proper location and fasten it to the floor. The standard supplied inswing threshold can be bowed upward in the center when the riser is detached for easy placement under the door frame stops. A quality silicone or other sealant should be used between the floor and the threshold to eliminate water and/or air infiltration. Replace the adjustable riser and make the necessary height adjustments to allow good contact of the door bottom sweep and threshold riser across the entire width.
12. Caulk the joint between the threshold and frame jambs to insure a weather tight seal.
13. Position the stationary/inactive door panel in the normal closed position; the panel and frame should be flush on the inside, good contact should be made between the door panel and the frame weather-strip and the panel should be true across the threshold riser. With the panel in proper position place a dab of silicone or other sealant on the end of the flush bolt barrel and throw the flush bolt lever as if engaging the flush bolt. This will mark the proper location on the frame and threshold riser where a 1/2" hole is drilled to accept the flush bolt barrel when fully engaged. It is recommended that the upper flush bolt be drilled and engaged before marking the threshold riser. This will allow some minor adjustment by pushing in or pulling out on the panel thereby insuring that panels are flush to one another and good weather-strip contact is made at the t-astragal.
14. Hang the glass panel(s) by sliding the female hinge located on the glass panel over the male hinge pin on the door panel. It may be helpful to hold the glass panel at a 90 degrees open position when performing this step.
15. Close and lock the glass panel in place.
16. Install the temporary lockset.
17. For any questions or concerns that may arise during this process please call the number listed within this document for clarification and/or assistance.