

The following supplemental instruction applies to:

- Clad and Wood 1 3/4" Ultimate Commercial Door
- Clad and Wood 2 1/4" Ultimate Commercial Door

Permanently Securing the Door

After your Ultimate Commercial Door is installed into the rough opening, perform the following steps to permanently secure the door.

Standard Parts Shipped:

Each Ultimate Commercial Door is sent with #12x2 1/2" hinge screws (2 per hinge) and two #8x2 1/2" strike screws. Clad units include a nailing fin corner gasket package.

Plastic hinge shims are shipped loose with each unit. Each shim is .060" thick. When placed behind the hinge leaf will aid in creating a consistent panel reveal.

NOTE: If any of these parts are missing, contact your local Marvin dealer for replacement parts information.

You Will Need to Supply

Safety glasses	Hearing protection	Level (3"-6')
Hammer	Shim material	Power drill/driver
Phillips screwdriver	Perimeter sealant*	Interior trim material
#8x3" FH wood screws (jamb screw application with 2 1/4" panel)	#8x3 1/2" flat head (FH) wood screws (jamb application only)	1 5/8" sheet rock screws (masonry clip application only)
Low expansion foam*		
For metal construction:		
#8x2 1/2" FH sheet metal screws	#12-24x2 1/2" FH self drilling screws or #12x2 1/2" FH sheet metal screws	
For concrete construction:		
1/4"x4" FH concrete screws	3/16"x3 1/4" FH concrete screws	3/16"x2 1/4" FH concrete screws
*See the Technical Specifications in the General Door instructions for details on adhesives, sealants and low expansion foam insulations.		

IMPORTANT

Marvin recommends jamb screw or masonry clip installation methods for both the 1 3/4" and 2 1/4" doors. Choose the one that best fits your application and follow the steps provided.

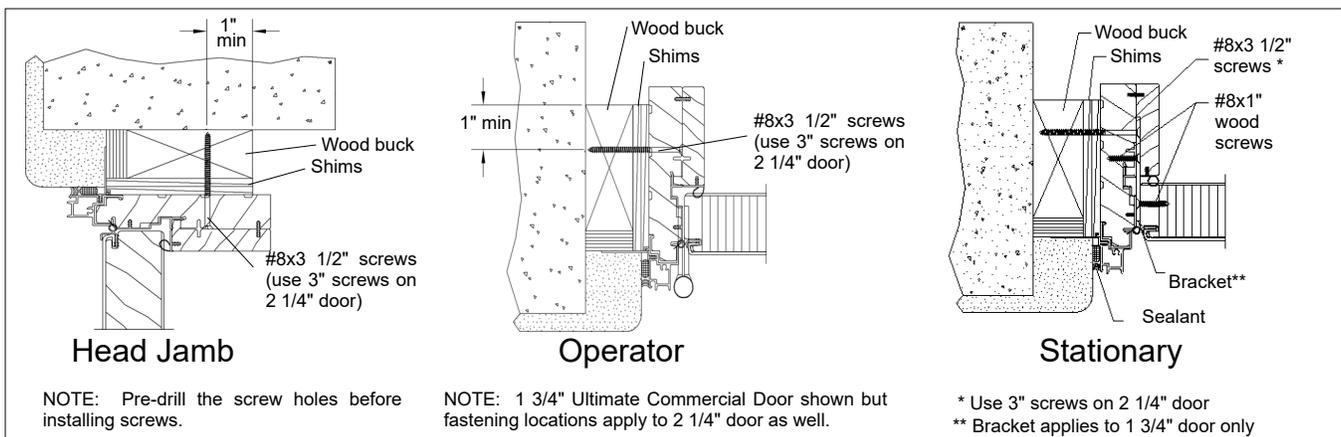


Figure 1 Illustration shows masonry application but applies to wood also.

IMPORTANT

For concrete construction with less than a 2x buck, Marvin recommends using the jamb screw method using 1/4" x4" concrete screws.

- 1. For units utilizing jamb screw installation:** Once the unit has been properly shimmed, plumbed, and squared, fasten unit to wood buck/rough opening with a minimum diameter of #8 wood screws. The

length of the jamb screw may vary depending on type of unit, location, and operation of the panel; a minimum screw length of 3 1/2" (89) is required. Screws must be a minimum of 1" (25) from edge of buck with a minimum 1 1/4" (32) penetration. Place the screws 6" (152) from each corner, maximum 12" (305) on center, with a minimum of 2 per side. See figure 1. For stationary units, remove the part stops and install #8x3 1/2" wood screws through the hole in the stationary brackets. Reinstall the part stops. See figure 1.

Permanently Securing the Door (continued)

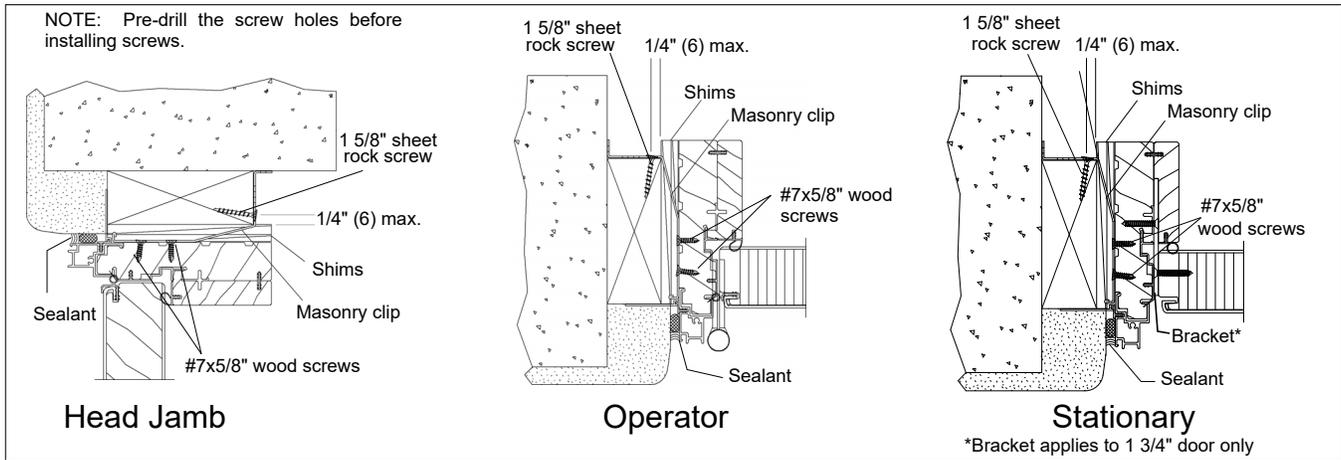


Figure 2 Illustration shows masonry application but applies to wood also. Fastening locations apply to both 1 3/4" door and 2 1/4" door.

IMPORTANT

For metal construction, Marvin recommends using masonry clips to install the door. To fasten clips to stud, use two #8-18x1/2" self drilling/tapping or #8x1/2" sheet metal screws with a predrilled hole.

2. For units utilizing masonry clip installation:

Once the unit has been properly shimmed,

plumbed, and squared, wrap clip to the interior around wood buck, predrill two 5/32" (4) holes, and fasten with 1 5/8" (41) sheet rock screws, 2 per clip. The screws must be placed no greater than 1/4" (6) from the edge of the wood buck with the rough opening a maximum of 1/2" (13) gap at point of attachment. Angle the screws a minimum of 15 degrees towards the thicker part of the buck. See figure 2 .

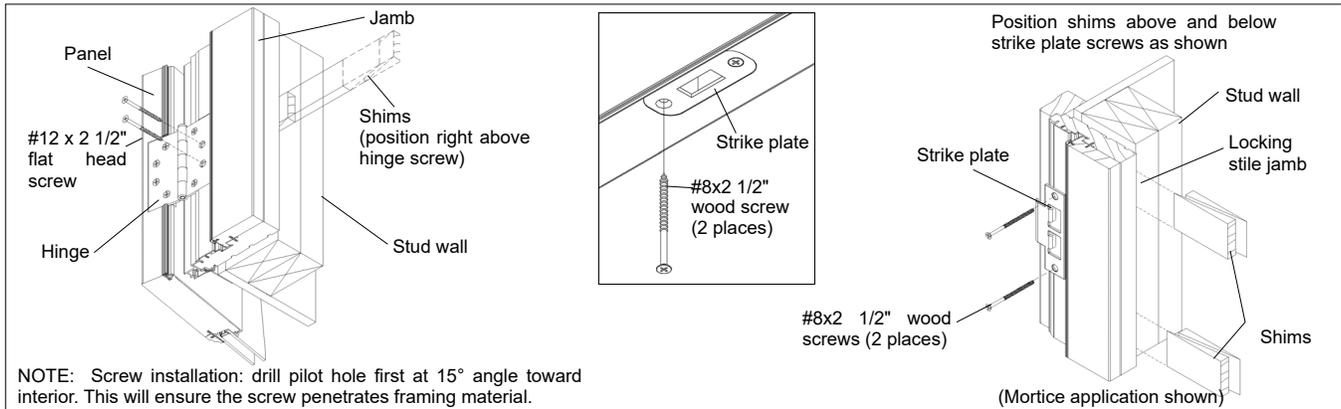


Figure 3

3. On all operating panels, install two #12 x 2 1/2" screws in all hinges as shown in figure 3.

4. Where applicable, remove and replace screws on all side and head jamb strike plates with #8x2 1/2" screws provided. See figure 3.

IMPORTANT

For installing hinges in metal construction, use either #12-24x2 1/2" flat head self drilling/tapping screws or a #12x2 1/2" flat head sheet metal screw with a predrilled hole. For concrete construction with less than a 2x buck, use 3/16"x2 1/4" flat head concrete screw.

IMPORTANT

For strikes in metal construction, use either #12-24 x 2 1/2" flat head self drill/tapping screws or #8x2 1/2" flat head sheet metal screws with a predrilled hole. For concrete constructions with less than a 2x buck, use 3/16"x3 1/4" flat head concrete screw.

NOTE: If door unit has a transom direct mulled above DO NOT install #8x2 1/2" screws through top strike plates.

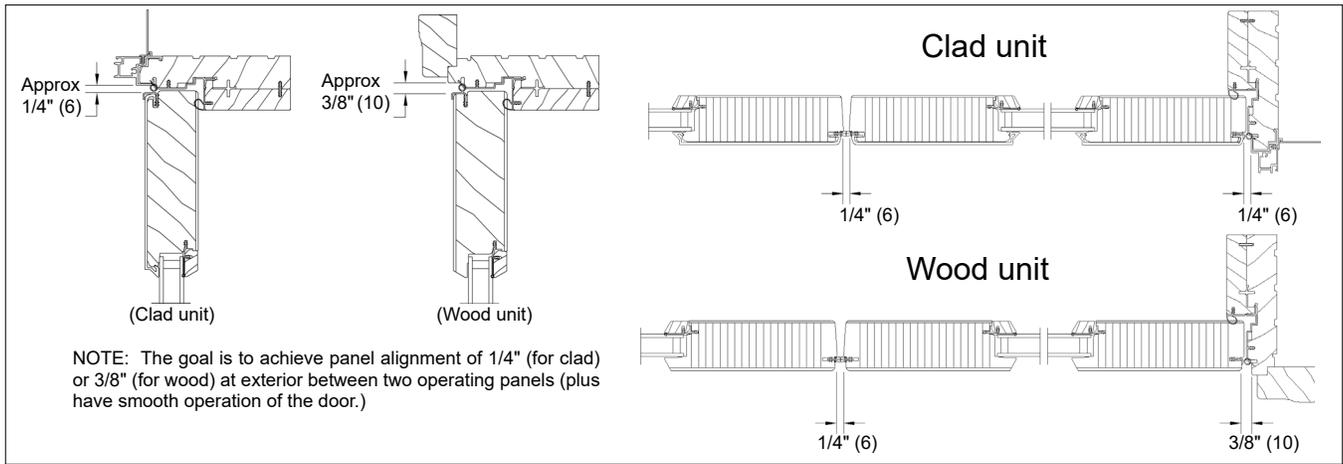


Figure 4 Illustration shows 1 3/4" door but applies to 2 1/4" door as well.

5. Close the panel(s) and check the margin between the active and inactive panel or panel and jambs and head jamb. The door is designed to have an approximate 1/4" (6) gap between the panels (or panel and jambs and head jamb) for clad units or a 3/8" (10) gap for wood units. Correct the margin if needed by adjusting the long screws installed in the previous steps. See figure 4.

NOTE: If door has a head and foot bolt, engage at this time.

6. After margins are adjusted and panel(s) is aligned, loosen long screw in one hinge 1/4 turn and position shim material between frame and opening directly above screw. Then tighten screw and recheck panel margins and alignment. Adjust if needed. Repeat for other panels if necessary. Refer back to figure 3 for shim placement.

Securing the Sill

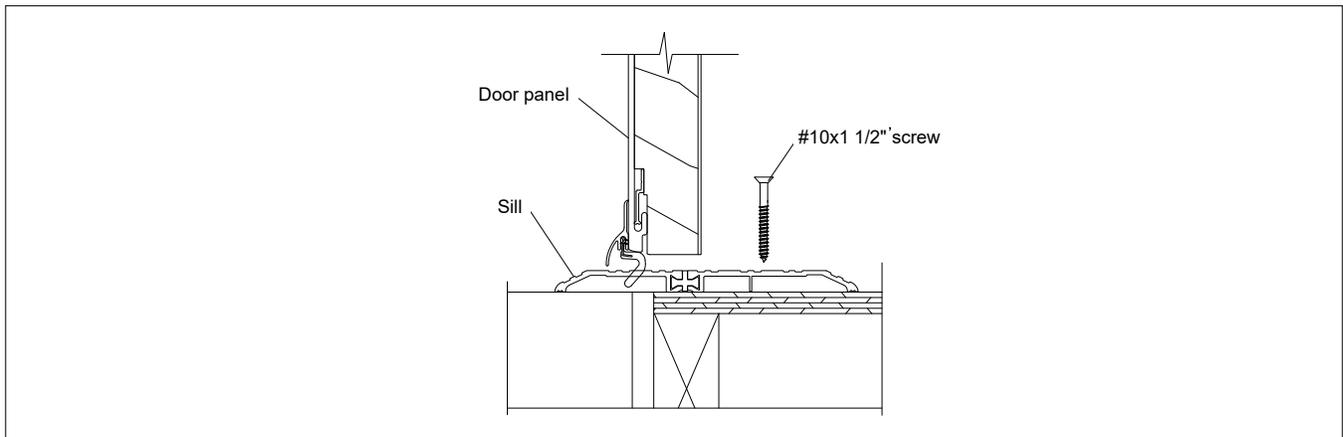


Figure 5 Illustrations shows clad but applies to wood as well.

7. Finish securing nailing flange on clad units.
8. **Securing the sill:** With the #10x1 1/2" flat head screws provided with the sill, drill through pre-existing holes. See figure 5.

IMPORTANT

For sill in concrete construction, anchor the sill with 3/16"x2 1/4" flat head concrete screws.

Proceed to general door instruction for final flashing and sealing procedures.