FUSION FRAME™ INSTALLATION
PATIO UNITS & DOOR WITH SIDELITE(S)

Tools & Materials You Will Need:

- Measuring Tape
- Pencil
- Utility Knife
- Hacksaw or Reciprocating Saw
- Caulking Gun & High-Performance Premium Caulking
- Carpenter's Square

- (1) box 2⅜" - 3" Exterior Decking Screws
- (1) Box Wood Shims
- Hammer
- Level
- Drill & Drill bits
- Stiff Putty Knife
- (1) Lockset Strike Plate
- (1) Dust Box
- (4) #8 x 2⅜" Strike Plate Screws
- (4) #10 x 2⅜" Security Screws for Hinge to Jamb
- (1) Deadbolt Strike Plate

1 UNPACK NEW UNIT

Step 1 - Confirm the new Provia door is the correct size for the existing opening. Use sizing chart and ordering information from bar coded label on shipping box.

Step 2 - Unpackage new door. Confirm swing, color, style, and that order was shipped complete. Inspect for any damage. Double check that size of new unit by comparing measurements to existing unit.

2 PREPARE ROUGH OPENING

Step 1 - Remove existing door and jamb to expose rough opening.

Step 2 - Prepare rough opening (jack stud to jack stud, and sub-floor to underside of header). Make sure sill is level. Note: Sill area may need to be built up so that new door slab will clear carpet, hardwood, rug, etc. New threshold is 1¼" thick.

Step 3 - Check opposing walls for plumb to help determine if walls are on same plane. If they are not, establish a plan to adjust new door in plane during installation.

Step 4 - Dry fit unit to confirm opening clearances and plane of door. If sill is not level, adjust with shims between sub-floor and jamb. Jamb must sit directly on top of shims.
Please Note: The ProVia Designer Patio Door Screen System will ship already assembled on the door. Screen system will need to be removed **BEFORE** installing the Patio Door.

* Units without screens should proceed to Procedure 4.*

**Step 1** - Locate the roller brackets at the top of screen (on each side) and remove screws with a #2 Phillips head screwdriver.

**Step 2** - Pull roller brackets off of screen frame.

**Step 3** - Lift the screen up and over the sill glide track. The roller brackets can remain inside the track for ease of re-installing the screen.
DO NOT USE excessive torque when removing screws.

Step 1- Locate the 3 installation screws in the top track assembly through the access holes. Remove the screws with a #2 Phillips head screwdriver. **DO NOT REMOVE** the adjustment screws.

Step 2- Remove the screws and bumpers that are located on latch stop rail and jamb sides and remove latch stop rail.
Step 1 - Remove all jamb and brickmold covers by pulling factory installed pull tabs (see illustration). Remove brickmold by pulling leg from the grooved frame, starting at the threshold, and set aside to prevent damage. NOTE: For narrow sidelites, jamb and brickmold covers may be shipped unattached.

NOTE: Brickmolds, Brickmold covers, and Jamb covers are removable. Brickmolds are adjustable up to ¼” away from the frame.
Step 1 - Remove shipping slats from the bottom of threshold.

Step 2 - Install sill flashing.

Step 3 - Install two generous beads (3/8") of premium caulking compound on sill, in a STRAIGHT LINE, as in illustration. Place first caulking bead 1 1/4" from interior and second caulking bead 3" from first bead (see illustration).

Step 4 - Set new door unit into opening and center on existing base board.

**Door jamb should not protrude past exterior sheathing to avoid compromising Fusion brickmold installation.**

Step 5 - Install a 2½" deck screw in the top screw prep location on each jamb. Do the same in the bottom screw prep locations. DO NOT OVER-TIGHTEN SCREWS. Keep plane of door in mind during this process (see illustration).

Step 6 - Install shims behind all four screws until they are tight between jamb and rough opening. Then place shims immediately above the center screw prep locations on both jambs and secure with a 2½" deck screw.

**Be careful when initially opening door. Shipping brackets WILL DAMAGE JAMB if door is opened without unweighting.**

Step 8 - Remove screws from shipping bracket (see illustration). Using handle set preparation holes, lift door to unweight it and open. A dowel rod used for shipping will fall out from between threshold and sweep. Discard both shipping bracket and dowel rod.

Step 9 - Inspect plane of door by comparing edge of door slab to edge of strike jamb. The edges should be parallel. If door is out of plane (the slab and jamb edge are not parallel), see troubleshooting table and adjust accordingly.
**Step 10** - Check margins of door and adjust screws/shims to achieve even \( \frac{1}{6} ” - \frac{3}{16} ” \) margins. **If unable to achieve even margins, see troubleshooting table for help.**

**Step 10A - For units with a hinge-side sidelite:**

Shim strike area above and below deadbolt prep and directly behind lockset prep.

Align strike plates, mark and pre-drill all holes with an \( \frac{1}{8} ” \) bit, and install strike screws.

Install shims and screws in any remaining jamb prep locations.

**Step 10B - For units with a strike-side sidelite:**

Install a \( 2\frac{1}{8} ” \) smooth shank screw in top hinge screw location.

Place shims at bottom hinge location to create \( \frac{1}{6} ” - \frac{3}{16} ” \) margins. Install security screw (full thread).

Shim at top hinge location and install security screw. Then remove \( 2\frac{1}{8} ” \) smooth shank screw and replace with security screw.

Follow the same steps for middle hinge and remaining jamb prep locations. **AVOID OVER-SHIMMING AT MIDDLE HINGE.**

Align strike plates, mark and pre-drill all holes with an \( \frac{1}{8} ” \) bit, and install strike screws.

**Step 10C - For units with sidelites on both sides:**

Install shims and screws in remaining jamb screw prep locations.

Align strike plates, mark and pre-drill all holes with an \( \frac{1}{8} ” \) bit, and install strike screws.
**INSTALLATION AND SHIMMING...**

**Step 11** - Shim at least one spot on the header. Pull weatherstrip back, pre-drill and install a decking screw at shim location.

**Step 12** - Double-check all margins and adjust as needed to achieve \( \frac{1}{8}'' - \frac{3}{16}'' \) margins around door. See troubleshooting table for help.

**BRICKMOLD INSTALLATION**

**Step 1** - Install the jamb covers with the angled end placed at threshold (see illustration). Hook outer edge of jamb cover over the outside edge and roll towards jamb. Use a rubber mallet to tap cover into place.

**Step 2** - With composite covers removed from loose brickmold, place brickmold header and side legs on a level surface. Use pre-drilled holes to fasten miters together with a \( 2\frac{1}{2}'' \) screw (see illustration). This will assure that miter remains tight after composite cover is installed.

**Step 3** - Place a bead of caulk around perimeter of rough opening so that it will seal the back side of brickmold when installed. Carefully align insertion leg of brickmold with the groove in the jamb and tap in until fully seated against the wall of the home.

**Step 4** - Install a minimum of 4 screws, spaced equally on each side brickmold legs and 2-3 in header brickmold.

**Step 5** - Place a bead of caulk across inside corner, face, and outside corner of brickmold miter. Install composite covers. Immediately remove any excess caulk from miter areas.

**CAULKING**

**Step 1** - Caulk all seams where vertical mullion meets the frame header.
Step 2 - Caulk the jamb and brickmold ONLY where they meet threshold to help ensure water tightness (see illustration). **DO NOT CAULK VERTICAL SEAMS OF JAMB OR BRICKMOLD.**

*NOTE: For all direct-set glass units, apply an additional bead of caulk where the base of the sidelight meets the jamb cover.*

Step 3 - Patio units with screens will now need to re-install the screen assembly by reversing the instructions from Procedure 3.

Step 4 - Adjust threshold cap if necessary (see illustration). Ensure proper operation of unit parts and accessories.

Contact the local recycling waste management center for waste disposal in the area. Always check local waste requirements and carefully dispose of waste in accordance with Federal and other regulations.

Homes built before 1978 may contain lead paint. All replacement installations must comply with the U.S. EPA’s Lead-Based Paint Renovation, Repair, and Painting Program (RRP Rule). Read more about the RRP Rule and lead-safe work practices, on the U.S. EPA’s website at: [www.epa.gov/lead](http://www.epa.gov/lead)

### TROUBLESHOOTING

**Double (or triple) patio with end door active**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strike margin is too small (door panel hits frame on strike side)</td>
<td>Loosen strike side shims and pull strike jamb toward stud by tightening the screws behind weatherstrip.</td>
</tr>
<tr>
<td>Strike margin is too large</td>
<td>Add to shim depth behind strike jamb.</td>
</tr>
<tr>
<td>Header margin is too small on strike side</td>
<td>Shim directly under wood strike jamb and where threshold joins with strike jamb, to raise strike away from door panel.</td>
</tr>
<tr>
<td>Header margin is too large on strike side</td>
<td>Shim directly under jamb and threshold in mullion area and also under threshold and end sidelite jamb to raise door panel in frame.</td>
</tr>
</tbody>
</table>

**Center active 3-lite patio door with 2 sidelites**

<table>
<thead>
<tr>
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<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Header margin is too small on strike side</td>
<td>Shim directly under threshold in strike mullion area and also under threshold and end sidelite jamb to raise sidelite and door header away from door panel.</td>
</tr>
<tr>
<td>Header margin is too large on strike side</td>
<td>Shim directly under jamb and threshold in mullion area and also under threshold and end sidelite jamb to raise door panel in frame.</td>
</tr>
</tbody>
</table>

**Door with sidelite on strike side**

<table>
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<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strike margin is too small (door panel hits frame on strike side)</td>
<td>Loosen hinge side shims and pull hinge jamb side toward stud by tightening the hinge security screws.</td>
</tr>
<tr>
<td>Strike margin is too large</td>
<td>Add to shim depth behind hinge jamb side.</td>
</tr>
<tr>
<td>Header margin is too small on strike side</td>
<td>Shim directly under jamb and threshold in mullion area and also under threshold and end sidelite jamb to raise sidelite and door header away from door panel.</td>
</tr>
<tr>
<td>Header margin is too large for strike side</td>
<td>Shim directly under hinge jamb and hinge side of threshold to raise door panel in frame.</td>
</tr>
</tbody>
</table>

Caulk the jamb and brickmold ONL*Y where they meet threshold to help ensure water tightness (see illustration). **DO NOT CAULK VERTICAL SEAMS OF JAMB OR BRICKMOLD.**

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Adjust threshold cap if necessary (see illustration). Ensure proper operation of unit parts and accessories.

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