

## EXTERIOR DOOR INSTALLATION INSTRUCTIONS

Recommended Tools for Installation:		<i>Notice:</i> It is the responsibility of the owner, builder or architect to use products which are in full compliance with applicable laws and building codes.  <b>READ ENTIRE INSTRUCTION MANUAL BEFORE BEGINNING INSTALLATION</b>
<ul style="list-style-type: none"> <li>• Hammer</li> <li>• Screwdriver</li> <li>• Window &amp; Door Caulk</li> <li>• Plumb-Bob</li> <li>• Tape Measure</li> <li>• Drill</li> </ul>	<ul style="list-style-type: none"> <li>• Long Level</li> <li>• Nails</li> <li>• Pencil</li> <li>• Shims</li> <li>• Finishing Material</li> <li>• Countersink</li> </ul>	
<b>CAUTION:</b> Always remember to transport and store the product/unit properly in an upright position. The product/unit must be stored in a dry environment until it is properly installed and weather protected. Improper storage, installation or finishing of the product may void the warranty if so determined by an Upstate Door representative. Installation will take time and require careful attention. Do not skip steps to speed up installation.		

### INDEX

PREPARING TO INSTALL YOUR UPSTATE DOOR .....Page 2  
*Must be completed before all other steps!*

INSTALLING YOUR SQUARE TOP UPSTATE DOOR .....Page 2-4

INSTALLING YOUR NON SQUARE TOP UPSTATE DOOR .....Page 4-5

INSTALLING YOUR TRIM .....Page 5

COMPLETING THE INSTALLATION .....Page 6

## PREPARING TO INSTALL YOUR UPSTATE DOOR

### **Step 1 – Remove all packaging from around the unit, including lift handles, door skids & aspenite**

### **Step 2 – Finishing your door**

If it has not already been done, be sure to finish your door, jamb, sill, sidelites and transom on all six sides. This includes behind the hinges and behind all mortise locks, handles and strikes. Failure to finish (paint or stain) the unit within (1) week of delivery and/or failure to strictly adhere to the manufacturer's recommendations as to how to apply the finish will void the manufacturer's warranty.

### **Step 3 – Checking the rough opening**

The opening where your door will be installed must be **Square, level and plumb**, likewise, the sill of the opening must be flat and level, to ensure proper fit and operation of the unit. The outside face of the wall the unit is being installed into must be on a single plane and the plane of the wall should not exceed 1/8" twist.

To check the opening for **square**, measure from both top corners of the opening to the opposite bottom corner. (See figure 1 below) If the measurements are the same, or within a 1/4" of each other, then you are ready to install the door. If the two measurements are different, and the difference is greater than 1/4", adjustments will need to be made before you can install the unit.

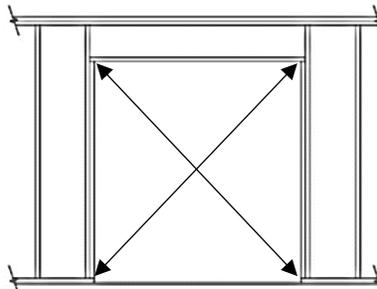


Figure 1 – Checking for Square

To ensure your opening is **level** and that there is no crowning or sagging, check the sill first and work your way up. All four sides should be level.

To check to see if your opening is **plumb** and there is no crowning or sagging, make sure the studs are plumb both ways (side to side and front to back), ending with the header.

### **Step 4 – Setting the shim space**

Upstate Door recommends that you allow 1/2" of shim space each side of the unit and an additional 3/4" shim space above the unit, for ease of installation.

## INSTALLING YOUR SQUARE TOP UPSTATE DOOR

### **Step 1 – Setting the unit into the opening**

Starting at the bottom and tipping the rest of the unit into place, set the unit into the opening. To ensure proper placement, verify that the front edge of the unit is even with the exterior sheeting of the structure.

### **Step 2 – Position the unit**

Make sure there is even spacing between the unit sides and the sides of your rough opening. You can adjust the spacing by prying against your rough opening with a flat pry-bar. Once the unit is positioned correctly, temporarily secure the unit.

### Step 3 – Checking the spacing between the door and the frame

Go inside the building and check that the spacing between the door and the frame is even and consistent. If the door is touching the jamb or the spacing between them is not even, the unit will need to be adjusted with shims until the spacing is even and consistent. (See Figure 3)



Figure 3 – Checking Door Spacing

### Step 4 – Inserting the shims

Insert shims along the outside of the unit, between the unit and the framing of the building. (See Figure 4) DO NOT drive the shims in too far or the unit will bind up. Shims should be placed directly behind each hinge to provide adequate support for the pressure of the moving door(s). (See Figure 5 and 6) After the shims have been installed, re-check the spacing between the door and the jamb to ensure consistency.

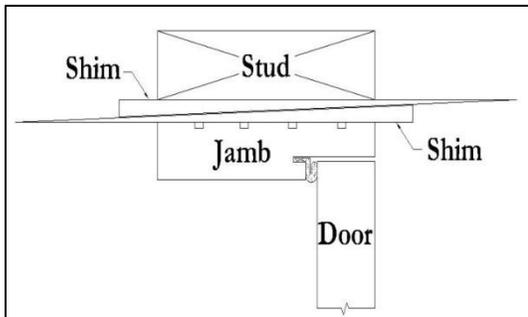


Figure 4 – Shim Placement 1



Figure 5 – Shim Placement 2

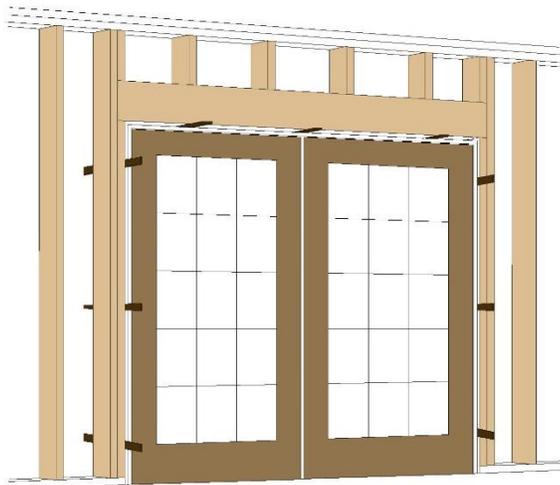


Figure 6 – Shim Placement 3

### Step 5 – Final inspection

With the unit temporarily secured into place, open all moving doors to make sure all of the components are operating correctly. If the unit is sticking or binding return to step 4. If the unit opens or closes on its own, then the unit is not plumb and you will need to tip the unit until the door does not move without an “outside” force moving them.

### Step 6 – Permanently secure the unit to the building

If the unit is square, level and plumb and operating correctly, you can now permanently secure the unit to the building. Upstate Door recommends using two (2) 16 penny finish nails through each set of shims. You should only drive the nails in until approximately 1/8” of the nail remains and then finish driving them in the rest of the way with an appropriately sized nail set.

For **Impact Doors** use 2 ½” course thread screws and screw jamb to studs behind weather-stripping or sidelite stop (6” off the corners and 12” on center in between). Additional screws or nails can be used if needed.

### Step 7 – Installing the thread screws

Once the unit is fully fastened into the building, the door needs to be removed and a minimum of one (1) – 2 ½” course thread screw, must be placed through the jamb and shims into the framing of the rough opening, **behind each hinge**.

### Step 8 – Softly insert insulation between stud and jamb

## INSTALLING YOUR NON-SQUARE TOP UPSTATE DOOR

### Step 1 – Install the door into the jamb BEFORE installation (if not already done)

### Step 2 – Center the door in the opening at the sill

With a level sill, temporarily fasten the door to the framing at the high side jamb, 4” above the sill. (See figure 7, Dim A) If the sill is not level, install shims under the low side of the sill directly under the jamb until it is level and then secure the jamb 4” above the sill on this side. Install additional shims under the remainder of the sill as to make it flat, solid and level throughout its length.

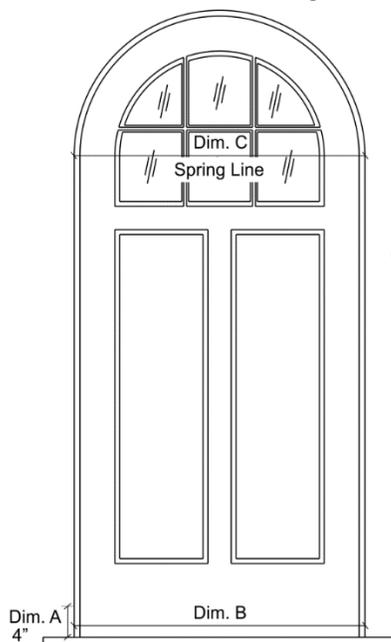


Figure 7

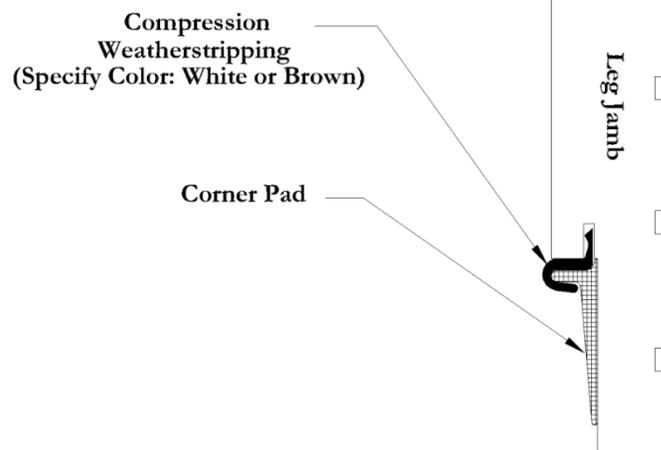


Figure 8

### **Step 3 – Confirm arch reveal and shim**

Confirm that there is approximately a 3/32" reveal between the top of the door and the arched door jamb. If there is not, remove the temporary fasteners that you installed at the 4" height and shim accordingly to achieve this reveal. Work your way down the arch, from side to side, installing shims to maintain an even reveal throughout the entire arch.

### **Step 4 – Plumb the first jamb leg at the spring line**

Using a level and shims, plumb the first jamb leg at the spring line. (Hinge side on a single door, inactive side on a double door) Again pay attention to the reveal making sure that the reveal at the jamb leg is maintained.

### **Step 5 – Set the opposite jamb leg**

Measure the outside dimension of the jamb legs at the sill. (See Figure 7, Dim B) With shims, set the outside dimension at the spring line height (See Figure 7, Dim C) equal to the dimension taken at the sill. This should set the jamb leg parallel and plumb to the first jamb leg. Double check this with a level.

### **Step 6 – Work your way down each leg below the spring line, shimming the jamb and keeping the reveal constant**

### **Step 7 - Final inspection**

With the unit temporarily secured into place, open all moving doors to make sure all of the components are operating correctly. If the unit is sticking or binding return to step 4. If the unit opens or closes on its own, then the unit is not plumb and you will need to tip the unit until the door does not move without an "outside" force moving them.

### **Step 8 - Permanently secure the unit to the building**

If the unit is square, level and plumb and operating correctly, you can now permanently secure the unit to the building. Upstate Door recommends using two (2) 16 penny finish nails through each set of shims. You should only drive the nails in until approximately 1/8" of the nail remains and then finish driving them in the rest of the way with an appropriately sized nail set.

### **Step 9 – Installing the thread screws**

Once the unit is fully fastened into the building, the door needs to be removed and a minimum of one (1) – 2 ½" course thread screw, must be placed through the jamb and shims into the framing of the rough opening, **behind each hinge.**

### **Step 10 – Softly insert insulation between stud and jamb**

## **INSTALLING YOUR TRIM**

### **Step 1 – Ensure the door is fully shimmed and secured**

There should be a ¼" reveal (distance from inside edge of jamb to edge of trim).

### **Step 2 – Measure, cut and tack the trim pieces into place**

Make sure all reveals are consistent, the board is sitting flat against the building and all miters look good.

### **Step 3 – Permanently secure the trim to both the door frame and the building**

## **COMPLETING YOUR INSTALLATION**

### **Step 1 – Secure all jambs together on units with sidelites/transoms**

Upstate Door recommends that once the unit is installed, before installing mull covers on units with sidelites/transoms, to secure the jambs together with screws/nails. Upstate Door temporarily fastens the units together to allow for adjustments while installing the unit.

### **Step 2 – Fill nail spots with fill-stick or wood putty**

Revisit all the spots where your nails were driven through the wood and fill them with fill-stick or wood putty. Then re-seal the area according to the specifications of the stain/paint manufacturer.

### **Step 3 – Install the corner pad (provided) to each jamb leg behind weather-stripping (See Figure 8) tight to the top of the sill.**