



# Shaver Industries

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## Assembly Instructions Spring-Assist Vertical Vinyl Curtain Door “Face Mount”

*Valued Shaver's Customer: We have pre-assembled the roller, valence, and bracketry components for your door assembly. This should dramatically simplify the installation procedure. While the installation is very straightforward, please note the following details.*

### **System Overview:**

Your Shaver's Spring Assist Vertical Curtain Door is a high quality, high performance flexible door system based on proven components and our many years of experience in the vinyl partition fabrication business. We are confident that it will bring you and/or your customers years of reliable and trouble-free service.

Your specific system is a mesh vinyl roll-up curtain door with face-mount bracketry. The “back-to-back” mounting dimension for your vertical extrusions will be the door opening width plus 8” (eight inches). The vertical extrusions are cut to the same height as your stated door opening, which will place the entire spring roll, upper bracketry, and valence box above the door header.

### **Unpacking and Inspection:**

Please unpack your systems carefully and notify the factory immediately if there are any shortages or if any items have been damaged during transit. Your kit(s) should have all of the necessary hardware and components for a complete installation with the following exceptions (installer-provided hardware):

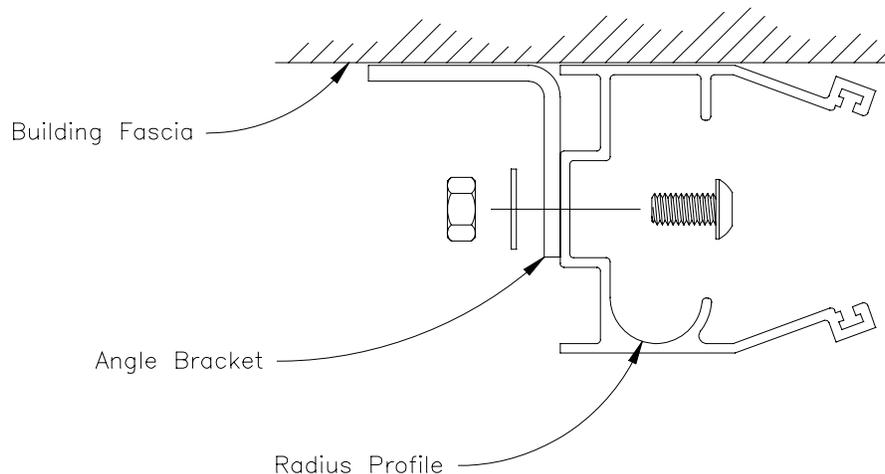
1. Mounting hardware for securing the custom extrusions and bracketry to the building fascia.
2. Mounting hardware for securing one pull strap loop to the inner door jamb surface.

## System Assembly:

### Custom Extrusion Mounting:

The Shaver's Custom Extrusion should be mounted “flush” to the fascia surface with three or four galvanized J1 angle brackets per extrusion. The “back-to-back” overall width of the extrusions should be 8” wider than your door opening (4” per side). **Before mounting the vertical extrusions the pull strap loop must be removed from the right vertical extrusion. The right vertical extrusion will have a “TR” (Top Right) marking at one end.**

It is suggested that the galvanized brackets first be mounted to the extrusions. Typically one bracket is mounted approximately 5” in from each end of the vertical extrusion and one bracket is mounted at the mid point. This can be accomplished by laying the extrusion and the bracket on a flat surface, transferring at least one bracket hole location to the extrusion, drilling a .28” diameter hole in the extrusion, and securing the bracket to the extrusion with a 1/4-20 x .50 Pan Head Screw, 1/4” Flat Washer, and a 1/4-20 Hex Nut as shown in the following diagram (Diagram 1) and photo (Photo 1). Note that the extrusion must be oriented in such a manner that the “Radius Profile” is **not** adjacent to the building fascia. The extrusions have been marked with a “TR” (Top Right) and “TL” (Top Left) to assist with the orientation. Be very careful when drilling the Vertical Extrusion as to not damage the EPDM seal strips.



**Diagram #1**  
(Extrusion, Bracket and Fascia Orientation)



**Photo #1**

(Angle Bracket Mounting to Extrusion)

After the angle brackets have been secured to the custom extrusions the assemblies can be mounted to the fascia using “best practices” as a function of the building material. The total width (back-to-back) dimension of the extrusion mounting is critical and should be held to a  $\pm.5$ ” tolerance while keeping the existing door opening “centered” between the extrusions.

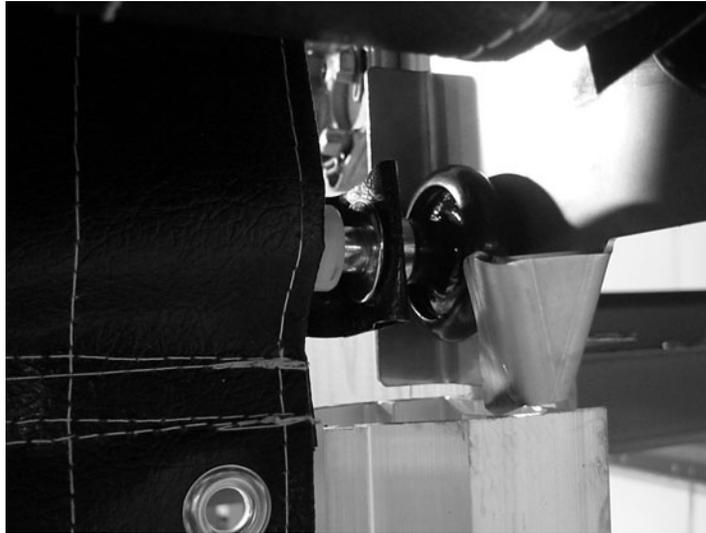
## Roller Assembly Installation:

The complete roller assembly (roller tube, bracketry, and box valence) should be mounted using the same “best practices” as applied with the installation of the custom extrusions. Particular care must be taken with the positioning of the brackets with respect to the extrusions. As shown in Photo 2, the “funnel lead-in” of the bracket should be positioned approximately .10” above the custom extrusion, and should be positioned in such a manner to provide a smooth transition into the extrusion track. Shim or otherwise adjust the position of the vertical extrusion brackets to ensure that any misalignment does not exceed .10”.



**Photo #2**  
(Bracket to Extrusion Alignment)

Manually unwrap one to two turns of material from the roll and check the engagement and transition of the roller from the side brackets into the custom extrusion. Adjust and/or shim the brackets or vertical extrusions as required to ensure a smooth and repeatable roller transition into the extrusion.



**Photo #3**  
(Roller into Extrusion Transition)

At this point the curtain door should be slightly “unrolled” and the bottom set of rollers should be engaged with the vertical extrusions. Using “best practices”, secure the pull strap loop (removed from the right vertical extrusion) to the inside of the adjacent door jamb as close to the vertical extrusion as possible. Mount the loop at the same elevation as the old holes in the vertical extrusion. **The pull strap loop MUST be installed for the door to operate properly.** Completely unwrap both “pull straps” and secure the ends to “strap saddles” using the buckles as shown in the following photo (Photo 4). Both straps should be adjusted to have a slight and equal amount of tension in them.



**Photo #4**  
(Pull Strap and Buckle)

It is very important to note that the pull straps not only provide for a mechanism to close the curtain door, they also provide the “up limit position” for the unit. If these straps are not properly secured or adjusted the curtain door can “over-travel” when being raised. This may damage the curtain or spring mechanism.

Do not trim the pull straps to their final length at this time.

## **Final Setup and Operation:**

### Operation:

The operation of your Shaver's Spring-Assist Vinyl door is quite simple, although a little training is sometimes required.

To lower the door, simply grab one of the pull strap handles (either interior or exterior) and pull the door down in a hand-over-hand manner. Continue to pull the door down until the bottom seal comes in contact with the floor or compresses slightly. Relieve the downward force on the handle and allow the door to slowly move upward. It will “catch and detent” (much like a window shade) at the first available latch position (adjusting the location of these latch positions is discussed in a later section of this document).

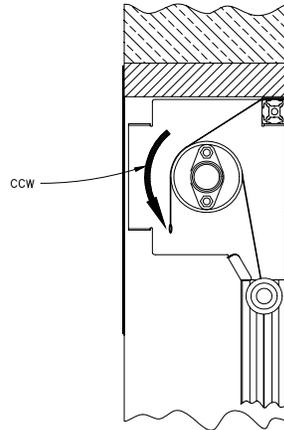
**Warning: The curtain door is attached to the roller tube with Velcro™ for ease of field replacement. There is an additional “safety wrap” of approximately 18” of material around the roller tube when the door is in the fully closed position. If an operator continues to pull down on the door after it has reached the closed position it is possible for the Velcro™ to “unzip” allowing the door to become detached from the roller tube. This will cause the roller tube spring to lose all of its spring pre-load and a complete re-installation will be required.**

To raise or open the door, grab one of the handles and pull the door down an additional 3-4” (three to four inches). Completely release the handle. The door should completely roll up, being stopped by the tension in the pull straps. It is not necessary to “jerk” or “snap” the door in order to get it to open. It is not generally possible to get the door to open from a middle or intermediate position. It must start from the “completely closed” position in order to open properly.

### Spring Pre-Load:

If the door does not reliably open all of the way it is necessary to increase the spring pre-load. This adjustment must be done after the EPDM strips and Double Baffle have been installed. During this adjustment you will be dealing with a pre-loaded spring assembly and will be fighting the effects of gravity on the door. Be sure to have solid footing, a good grasp on the roller tube, and use all due caution.

Pull the door down until it is approximately halfway closed. Ensure that it has “latched” into this position and that one or both of the “catches” are locked into the notches of the spring tab mechanism. Grasp the roller tube firmly with one hand and slowly rotate it in a CCW (counter clockwise) direction as indicated in the following diagram (Diagram 2):



**Diagram #2**  
(CCW Rotation)

This action should unload the force on the cotter pin and it will be possible to pull it out of the spring adapter assembly. Carefully continue to rotate the roller tube an additional ½ to 1 turns in the CCW direction until the hole in the aluminum adapter housing aligns with the corresponding hole in the plastic insert. Reinstall the cotter pin as shown in the following photo (Photo 5):



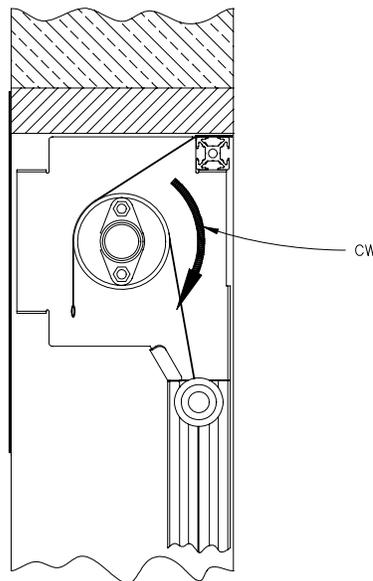
**Photo #5**  
(Cotter Pin Installation)

Test the action and operation of the door. If additional spring pre-load is required repeat the above procedure. The final adjustment should be “just enough” pre-load to ensure a reliable and repeatable opening of the door plus ½-1 additional turns of pre-load.

If the door opens too aggressively (speed) or if it is too hard to operate it may be necessary to reduce the spring pre-load on the door. During this adjustment you will be dealing with a pre-loaded spring assembly and will be fighting the effects of gravity on the door. Be sure to have solid footing, a good grasp on the roller tube, and use all due caution.

Pull the door down until it is approximately halfway closed. Ensure that it has “latched” into this position and that one or both of the “catches” are locked into the notches of the spring tab mechanism. Grasp the roller tube firmly with one hand and slowly rotate it in a CCW (clockwise) direction as indicated in Diagram 5 (above). This action should unload the force on the cotter pin and it will be possible to pull it out of the spring adapter assembly.

Carefully rotate the roller tube ½ to 1 turns in the CW direction as indicated in the following diagram (Diagram 3) until the hole in the aluminum adapter housing aligns with the corresponding hole in the plastic insert. Reinstall the cotter pin as shown in Photo 5 (above).



**Diagram #3**  
(CW Rotation)

### “Closed” Position Adjustment:

When the door is fully closed the bottom seal should be in contact with the floor or slightly compressed (1-2”). If there are no detent latch position that correspond to this position it will be necessary to adjust the angular position of the spring tab mount. During this adjustment you will be dealing with a pre-loaded spring assembly and will be fighting the effects of gravity on the door. Be sure to have solid footing, a good grasp on the roller tube, and use all due caution.

Pull the door down until it is approximately halfway closed. Ensure that it has “latched” into this position and that one or both of the “catches” are locked into the notches of the spring tab mechanism. Grasp the roller tube firmly with one hand and slowly rotate it in a CCW (clockwise) direction as indicated in Diagram 5 (above). This action should unload the force on the cotter pin and it will be possible to pull it out of the spring adapter assembly. In the stock configuration it is at the “9 o’clock” (horizontal) position.

Carefully rotate the roller tube in the CW or CCW directions until the holes in the aluminum adapter housing at the “7 o’clock” or “11 o’clock” positions aligns with the corresponding hole in the plastic insert. Reinstall the cotter pin. Each alternate position will raise or lower the bottom latch position by approximately 2”. Standard latching positions are located approximately every 5”. Note that there is also a hole at the 12 o’clock (vertical) position. This hole should be used with caution since it reduces the aggressiveness and reliability of the latches.

### “Open” Position Adjustment:

When the door is fully open the lower set of rollers should be within a few inches of the top of the vertical extrusions. Allowing the rollers to travel up into the “funnel lead-in” of the Spring and Idler brackets may lead to unreliable operation.

The open position is established by adjusting the buckles at the pull strap mounting location. Lengthen the straps to raise the door, shorten the straps to lower it. Both straps should be adjusted in an equal manner and the final tension on both straps when the door is in the open position should be roughly equal.

After the final open position has been established the pull straps can be trimmed and the ends of the webbing “flame fused”.

### Final Check:

Double check the operation and end-stop positions on your door. **If everything is satisfactory, flair or bend the ends of the cotter pin to lock it into position.** If the cotter pin is not properly secured it may fall out, damaging the door unit and perhaps causing bodily harm.

### Periodic Maintenance:

Over time the action of the door may become sluggish and the unit may not retract to the “full up” position. This is usually due to the accumulation of surface contaminants on the double baffle and the evaporation of the natural surface lubricant on the vinyl material. Increasing the spring pre-load may compensate for this problem, but the preferred remedy is to re-coat the vinyl door and double baffle with a dry lubricant. Shaver's recommends lightly spraying the upper  $\frac{1}{3}$  of the “inside” door material with a silicone lubricant (available at most hardware stores). Operating the door will transfer some of this lubricant to the surface of the double baffle. Repeating this process every 6 to 12 months will keep your door operating in a smooth and reliable manner.

The assembly, installation, and set-up of your Shaver's Spring-Assist Curtain Door is now complete and it is ready for typical operation. It is a virtually maintenance free unit and should give you years of reliable service.

We want to thank you again for your business and the opportunity to partner with your firm on this project. Please don't hesitate to contact us if you have any questions regarding these instructions or encounter any problems with the installation or performance of your door.