



2271 NE 194th - Portland, OR - 503-665-5539

www.rplusdoors.com

Installation & Maintenance
for R-Plus 9000 Series Traffic Doors

V-CAM HARDWARE

Installation Instructions

STEP A—PREPERATION

Frame opening should be measured and compared with order dimensions for both width and height. Size of door is marked on shipping carton.

Frame opening must be square and plumb—if not, the frame must be plumbed. THE DOOR MUST BE INSTALLED PLUMB.

STEP B—LOCATING AND DRILLING HOLES:

1. Examine hardware (V-Cam and pillow block) and compare with illustrations prior to drilling.

NOTE: To insure proper installation, it is essential that the centerline of the door jambs be plumbed. Use the template for location of the holes.

A) Mark centerline at the top of the jamb to bottom of jamb.

B) Locate hole centers by aligning template with plumb lines top and bottom. Tape template to jamb.
Center punch holes through the template.

STEP C—INSTALLATION OF DOOR PANEL

1. Slip V-Cam over upper pin assembly. Then slip roller assembly over the upper pin until the pin is **flush** with the top of the roller assembly and the centerline of the bearing is in line with the door centerline. Tighten the upper socket head cap screw in the roller assembly with an Allen wrench.
2. Fasten pillow block or Lower Hinge Guard (LHG) to door jamb with 1 fastener. DO NOT TIGHTEN.
3. Slip lower pin assembly into pillow block or LHG. Keep door at a slight angle.
4. Once lower pin is engaged, lift door to upright position and fasten V-Cam, upper hinge shock absorber and upper backer plate to jamb with (4) fasteners as illustrated. Tighten (4) fasteners.

NOTE: To remove door at any time in the future, remove the (4) upper fasteners and (3 of 4) lower fasteners.

5. Install (3) remaining fasteners in lower pillow block or LHG.

6. Lower hinge assembly must be lubricated at this point.

NOTE: Door must be plumb and swing freely at this point with a minimum of pressure required to open.

NOTE: If back gasket is binding, place shims behind part V-cam and Pillow block or LHG as required to relieve pressure. *Fully Gasket doors only.

STEP D—ALIGNING AND SEALING:

1. In and out (swing) adjustment.
 - a) Slip the 7/8" diameter pipe (in parts bag) under the door. Loosen upper set-screw on roller assembly, maneuver roller assembly to the finished position of the V-cam..
 - b) Align top of door panel with centerline of header.
 - c) Retighten roller assembly screw securely and remove the 7/8" diameter pipe.
2. Up and down adjustment. *Fully gasket doors only.
 - a) Making sure the in and out adjustment is not disturbed, loosen cap screws slightly on roller assembly and raise or lower door until lower gasket just comes in contact with the finished floor. Retighten both cap screws securely.
 - b) Upper hinge assembly must be lubricated at this point.

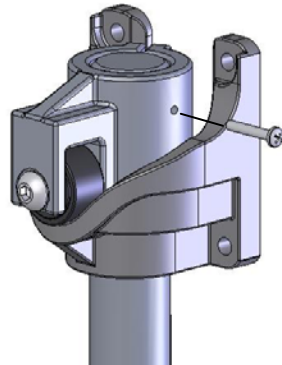
STEP E: To install the second door panel, block the first door open and repeat the installation procedure.

STEP F: Install header seal.
*Fully gasket door only.

NOTE: (If door is equipped with a spring assist assembly, complete installation per attached instructions at this point.)

STEP G: Install Lower Hinge Guard. (Ignore if using a One-piece LHG)

STEP H: a 3/16" x 1" Zinc plated self-drilling screw is provided to set panels to the proper closing position and to prevent any slippage in the roller assembly due to impact. While the door is in the closed position drill a 7/32" hole directly through the side of the roller assembly into and through the hinge adapter. Insert screw into the hole drilled.

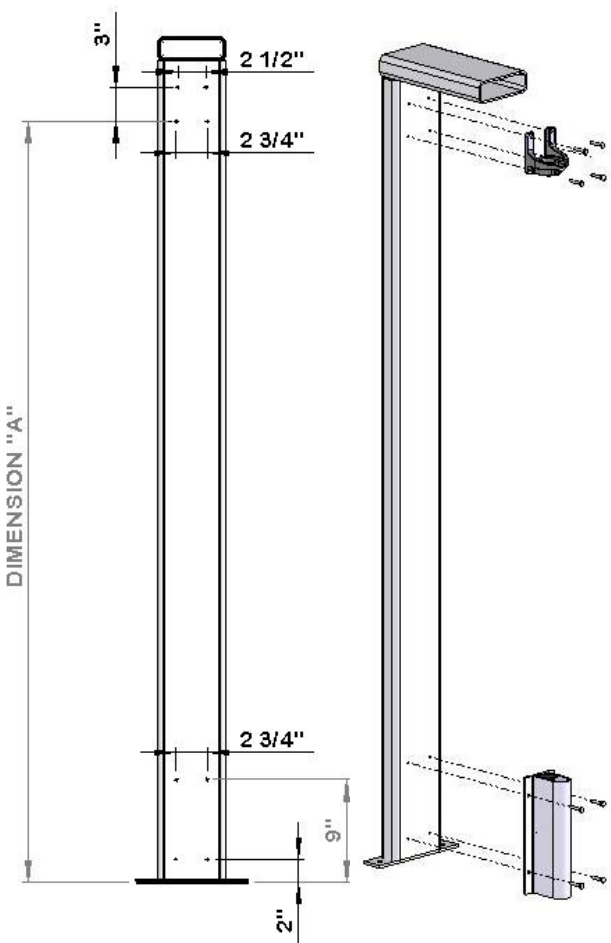


STEP I: Install top and bottom Hinge Covers. *Fully Gasket doors only.

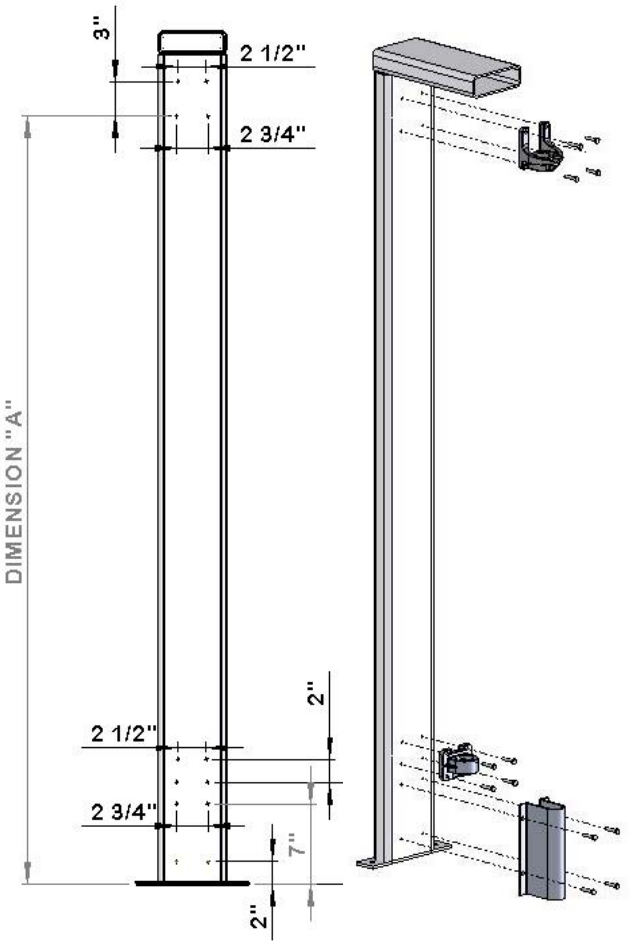
HOLE LOCATIONS FOR V-CAM HINGES

DIMENSION "A" = FINISHED OPENING HEIGHT - 5 3/8"

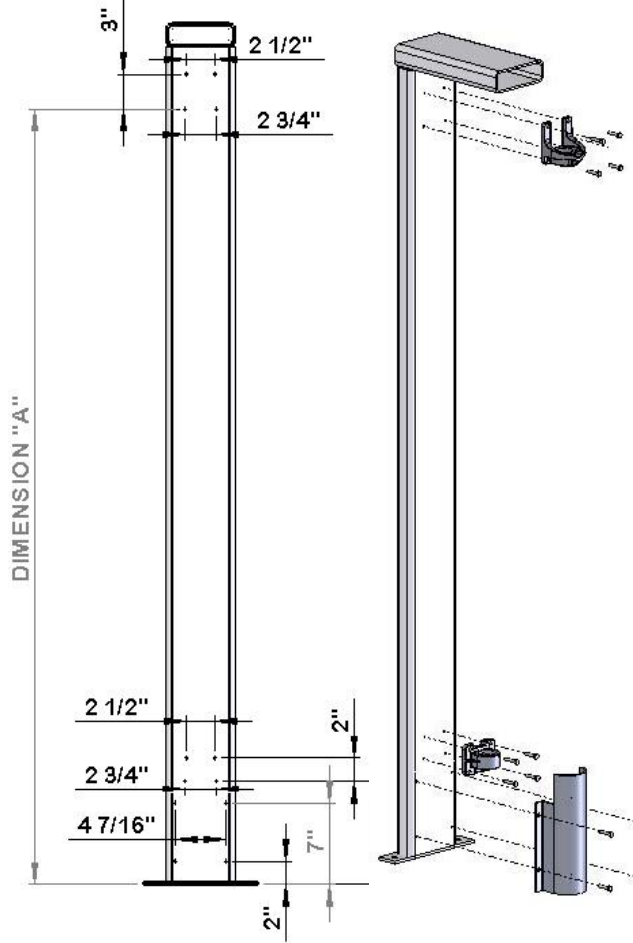
V-CAM / ONE PIECE LOWER HINGE GUARD

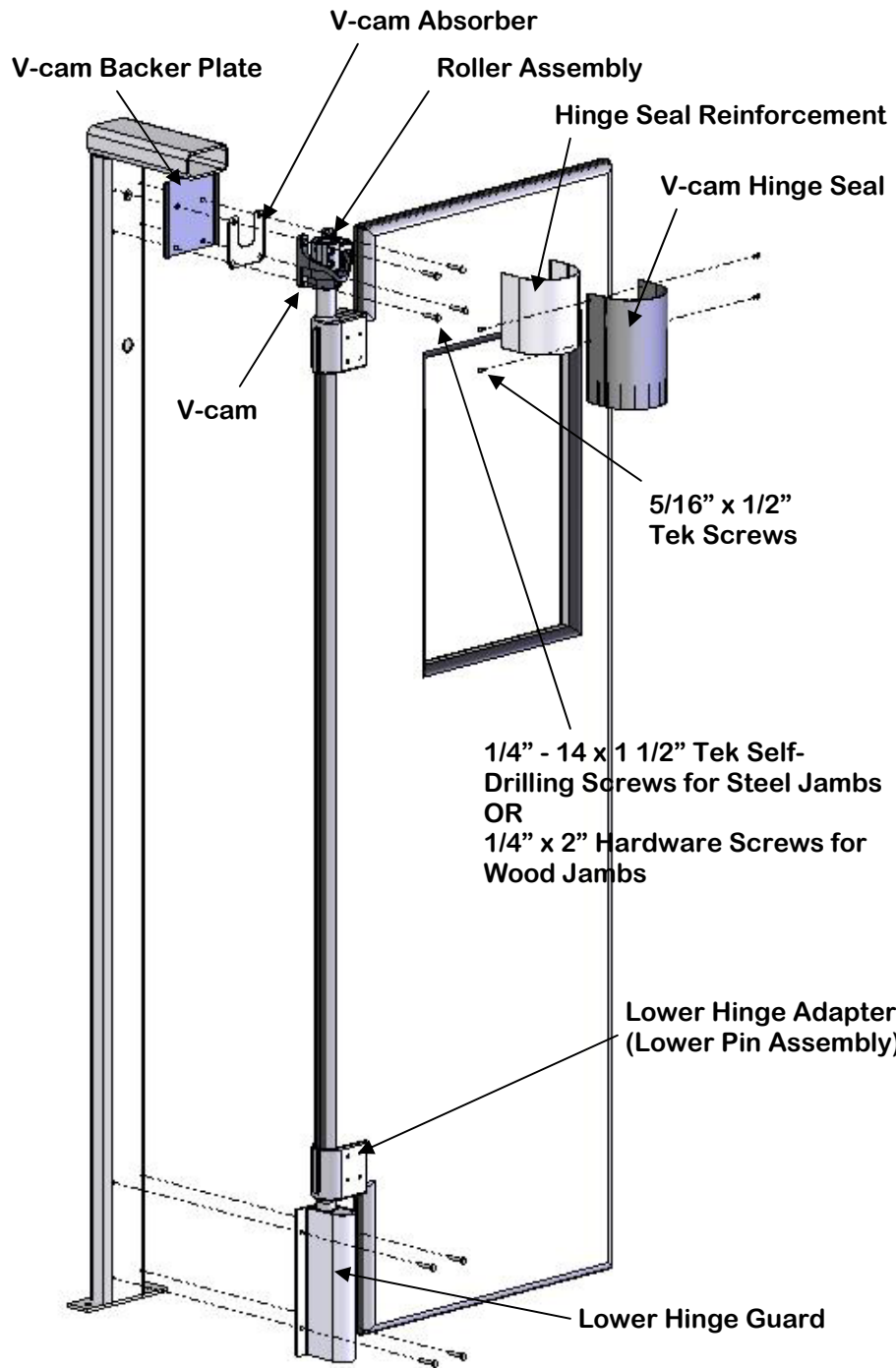


V-CAM / STANDARD LOWER HINGE GUARD

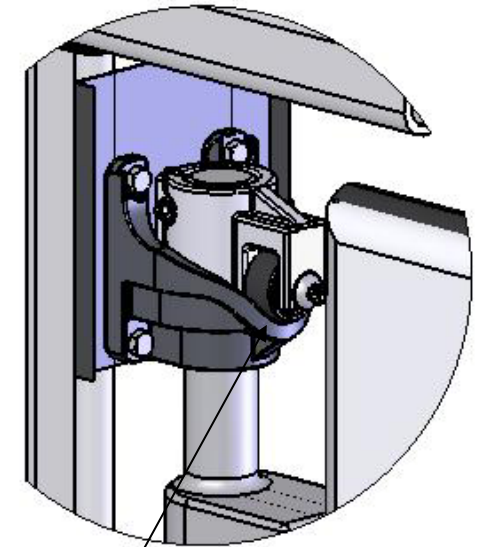
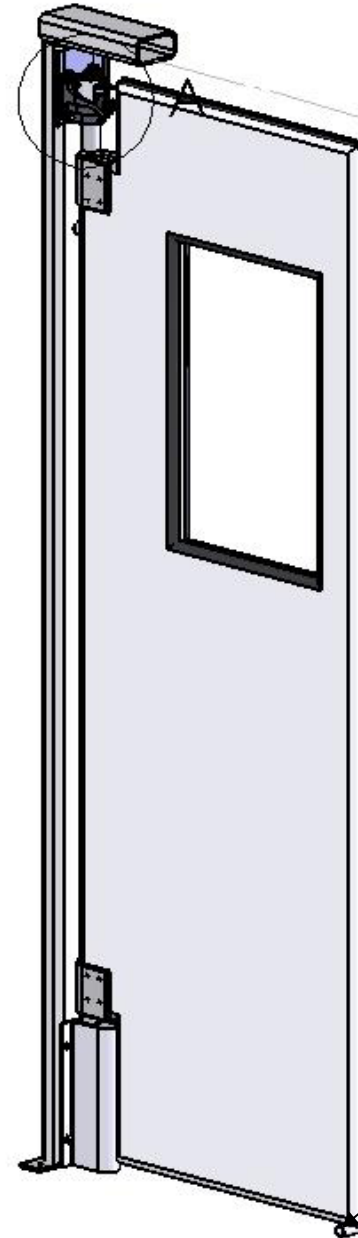


V-CAM / INDUSTRIAL LOWER HINGE GUARD





Align the Center line of the panel with the center line of the Header. (Closed Position)



DETAIL A
SCALE 1 : 3

Roller Assembly/V-cam
Finished Position

7/8" Dia. Pipe for
Height Adjustment

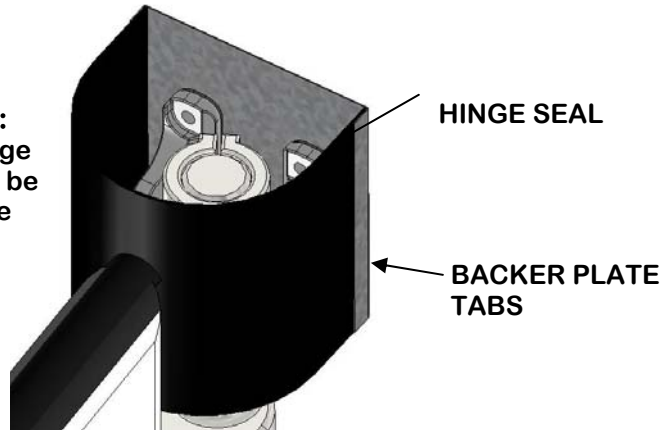
HINGE SEAL MOUNTING

(Fully Gasketed Doors Only)

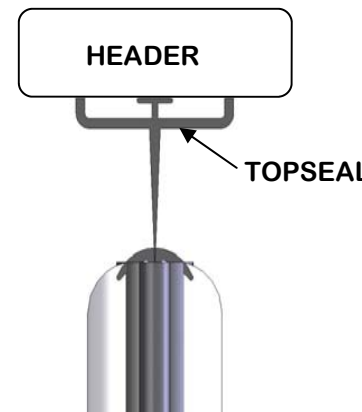
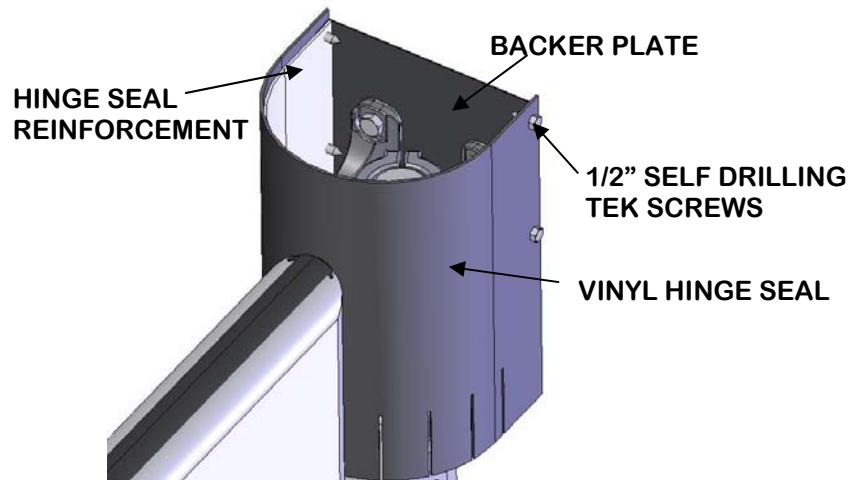
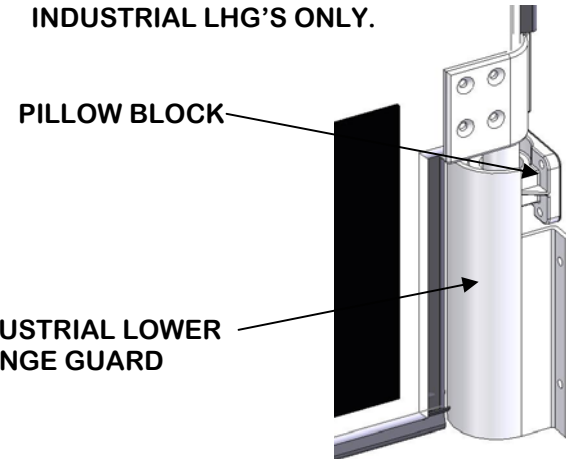
Lubricate Roller and Shaft prior to mounting seals. Use good quality Silicone Lubricant.

1. Bend the reinforcement part of the upper hinge seal to the **inside** of the backer plate, remove the cover on the tape so it sticks in place. Slide the vinyl hinge seal over the ABS with the slits facing downward. Remove the tape covering on the backer plate so the vinyl sticks in place. Use the 1/2" self-drilling screws to secure the seal in place.

IMPORTANT NOTE:
The Black ABS hinge reinforcement is to be formed to the inside of the Backer Plate tabs as shown.



INDUSTRIAL LHG'S ONLY.



TOPSEAL IS INSTALLED LAST
Top seal is centered on the header as shown.
Single Door—Top seal is flush with the lead edge jamb.
Double door—Top seal is centered in the opening approx. 4 1/4" from each jamb.

Maintenance Program

A regular maintenance program is the easiest way to ensure trouble-free operation of the Door. Your program should include regularly scheduled lubrication and cleaning procedures. While this is being done, the door seals can be inspected visually. Gaskets should be checked for cuts and tears. The top seal and hinge seals should be securely fastened to jamb material and free from worn spots or tears. The door should open and close freely. When closed, the door should be centered in the opening.

Double doors should also seal in the middle where gaskets touch. Bumpers or kick plates and hinge adapters can be examined for loose fasteners.

Our recommendations for lubrication and cleaning are as follows:

Hinge System:

Open door. Lubricate the upper hinge adapter and roller assembly by spraying over the hinge cover and under the top seal flaps. Direct the lubricant at the inside of the V-Cam and the roller.

Lubricate the lower hinge adapter by opening the door and spraying the exposed shaft. Cycle the door a few times to distribute the lubricant evenly.

Suggested lubricants are silicone spray. The roller can be further lubricated by using a light grease such as LUBRI PLATE or MS20 products.

Lubrication interval:

Normal Usage—Monthly

Heavy Usage—Weekly

TOOLS REQUIRED

- 1) 3/8" drive ratchet handle
- 2) 3/8" drive socket
- 3) 5/16" drive socket
- 4) 1/2" open end wrench
- 5) 9/16" open end wrench
- 6) Hammer
- 7) Level or Plumb Bob
- 8) Drill
- 9) Drill Index
- 10) Extension Cord
- 11) Tape
- 12) Center Punch
- 13) Hex Key

Door Panel Gaskets:

Wash door panel and gaskets with detergent, either sponged or sprayed on. Dish washing detergent mixed with water (50/1) work well. For dirtier areas, commercial cleaners can be used. On white, yellow or sand colored doors, bleach (straight) can be used to remove difficult stains. In areas where greasy or extremely dirty condition are encountered, it may be necessary to use a steam pressure wash (use detergent). Rinse thoroughly, dry and apply a plastic treatment, such as ARMOR-ALL, to the panel and gaskets.

Window Cleaning:

Wash the window with a mild soap and dry with a soft cloth. **Do not use solvents or petroleum products on windows.**

Troubleshooting and Repair:

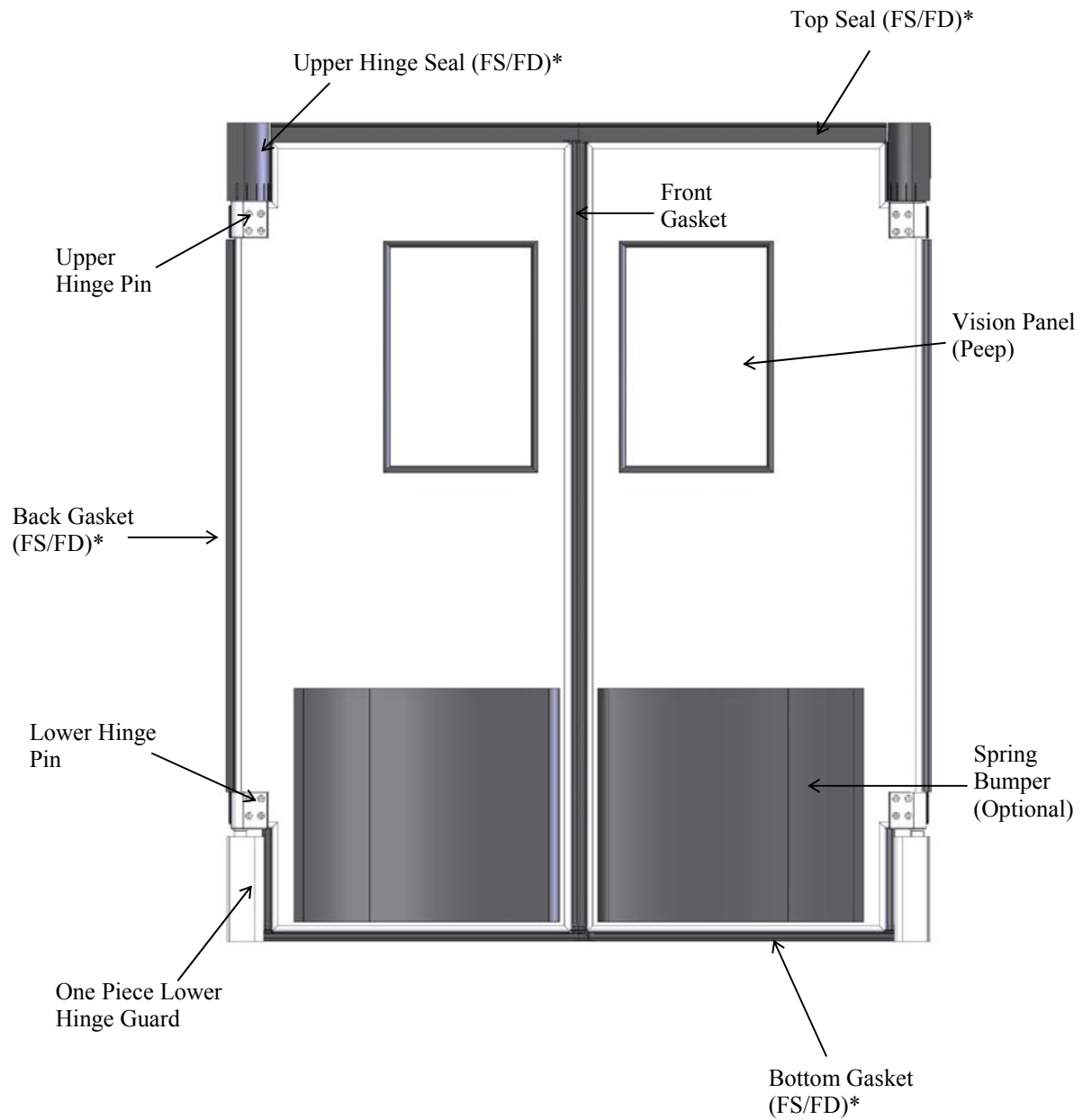
As with and product designed for impact, the door will suffer some wear and tear over years of use. We have developed a Troubleshooting procedure to help identify the most common problems and repair directions to assist in returning the door to operational condition. It is important, in following the troubleshooting procedure, that accurate measurements be taken where needed.

To remove the door or seals a 3/8" drive ratchet handle fitted with a 3/8" 6 pt. socket and a 3/16" hex key is needed. If you have installed your doors, you will want to keep the 7/8" door adjusted pipe provided.

Troubleshooting Procedure:

General Problems:

1. Door(s) will not swing properly.
 - A) Lubricate top and bottom hinge adaptor shafts.
 - B) Lubricate roller assembly.
 - C) Is still a problem, then loosen (4) V-Cam fasteners and (4) pillow block fasteners one turn and cycle door 90 degrees in both directions to align hardware. Retighten fasteners.
2. Gaskets binding or rubbing
 - A) Roller assembly loose? Adjust height and tighten (2) socket head caps screws.
 - B) Back gasket binding? Is jamb a flat surface between V-Cam and pillow block?
 - C) Back gasket still binding when jamb is flat? Place shims (1/8") behind V-Cam and pillow block/Lower Hinge Guard or slit back gasket vertically.



*FS/FD Doors are full gasket around perimeter of door.