

# Isolation Cubicle

#### for In-wall Installation

- Custom-designed to fit your facility and needs
- Vertical sliding doors; 3 and 4 door models
- Safety glass windows
- Heli-arc welded stainless steel for durability





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The doors will not open or are hard to open or close.	
The doors are jammed in mid-position.	
When open, the doors drift slightly up or down.	
The doors close but will not latch.	

Comments:	

### Chapter 1 - General Information

#### Introduction



SSCI Isolation Cubicles can be used to quarantine animals for diagnosis; for the prevention and treatment of disease; for physiological and nutritional stabilization of newly received animals; or to conduct

clinical tests that mandate measures to avoid cross-contamination to or from adjoining cages and species.

SSCI custom-designs each isolation unit to fit the available space in your facility. The cubicle consists of stainless steel framed door sections with safety glass windows, stainless steel jambs, and a stainless steel header.

The cubicles are constructed entirely of stainless steel, and all joints are heli-arc welded for strength and durability. All welded joints are gound and polished smooth to a satin finish to remove any discoloration.

The door sections slide vertically in individual floating polyethylene seals and, when raised, recess simultaneously into the header. Each door is framed with 18-gauge, 1-1/2 in. stainless steel, seam-welded, 5-sided finned tubing mitered at each corner and continuously heli-arc welded. Each window is a 1/4 in. thick safety glass held in place with a continuous, airtight rubber glass setting seal. A counterweight suspended on a 3/32 in. diameter stranded stainless steel cable is attached to each side of each door. High-density polyethylene horizontal interlocking strips with rubber insets form seals between all adjoining door sections, the top door section, and the header.

#### **About this Manual**

Every attempt has been made to insure that the information in this manual is correct and complete. SSCI, however, always welcomes our customer's suggestions for improvements to our products and associated publications.

# Information and Safety Notices

Throughout this manual you will find text under the headings **Note:** and **CAUTION:** 

#### **Notes**

Under **Note:** headings, you will be given additional information pertinent to the subject discussed in that paragraph or step.

#### **Example:**

Pull the cable head down until it is near the cable head catch on the door. **Note:** Remember, there is a heavy counterweight on the other end of the cable.

#### **CAUTIONS**

Under **CAUTION:** headings, you will be alerted to potentially hazardous conditions which, if ignored or mishandled, could result in injury to yourself or damage to the equipment.

#### **Example:**

CAUTION: When using ladders or other lifting apparatus, observe all applicable safety precautions.

# SSCI Contact Information

Contact SSCI Customer Service by mail, telephone, or fax. The department is available from 8:30am to 5:00pm, Central Time, Monday through Friday. Closed holidays.

**Address:** Suburban Surgical Co., Inc.

275 Twelfth Street Wheeling, Illinois 60090

**Telephone:** Illinois - (847) 537-9320, ext. 3518

Toll Free - (800) 323-7366

**Fax:** (847) 537-9061

Web: www.subsurg.com

#### Safety

Observe the following precautions when using the Isolation Cubicle doors

CAUTION: Always open and close the Isolation Cubicle doors gently. NEVER slam the doors open or closed. Slamming a door can damage the door, pulley system, cable, door attachments, and/or other components.

CAUTION: If a door jams in one position, DO NOT try to force it open or closed as this can cause additional damage. Call SSCI Customer Service for repairs.

CAUTION: Do not trap body parts, animals, or objects under the doors as you close them.

# Care and Cleaning of Stainless Steel

#### Introduction

Stainless steel is steel alloyed with chromium to make it highly resistant to stain, rust, and corrosion. **Note:** This does NOT mean that stainless steel will *never* rust or corrode. Science has not yet developed a steel which is completely stainless or corrosion PROOF.

The type of stainless steel and finish selected by SSCI for this product is the best available for the intended use.

# Cleaning and Cleansers

The basic rule of thumb is to use the mildest cleaning agent that will do the job effectively. After cleaning, always rinse thoroughly with clear water, and dry completely. Frequent cleaning will prolong the service life of stainless steel equipment, and will help maintain a bright, pleasing appearance.

Ordinary deposits of waste and fluids can usually be removed with soap and water. More stubborn deposits or tightly adhering debris may require harder scrubbing and possibly the use of commercial cleaning products acceptable for use on metal surfaces. When using any cleaning agent, rub in the direction of the polish lines or "grain" of the metal. For high luster finishes, use clean soft cloths or pads.

If especially rough cleaning is necessary, use "stainless steel" wool, nylon, or plastic scrubbers. Test these scrubbers in an inconspicuous area first to be sure they do not mar or scratch the stainless steel finish.

Minor scale build-up and some hard water spotting may be removed by washing with vinegar, followed by a neutralizing rinse with clear water, and a thorough drying with a soft cloth. For heavy deposits of scale, 5% oxalic acid (use warm), 5-15% sulfamic acid, or 5-10% phosphoric acid may be used. Always follow with a neutralizing rinse of clean water and a thorough drying.

#### Deodorizing Agents, Disinfectants, and Sanitizers

The large selection of brands and combinations of chemicals available for deodorizing, disinfecting, and sanitizing is staggering. Select one or more agents for use in your facility only after weighing all the benefits claimed by each product. Too often this choice is made without adequate consideration of the effects these agents may produce on equipment or furnishings.

CAUTION: Before selecting a chemical to employ in your facility, review label statements regarding use with metals (stainless steel). Always consult the chemical supplier if there are any doubts.

Avoid prolonged use of chlorides (such as chlorine bleach), bromides, iodides, and thiocyanates on stainless steel surfaces as these chemicals will cause pitting, corrosion, and metal discoloration. Allowing salty solutions to evaporate and dry on stainless steel may also contribute to corrosive conditions.

In summary, select chemical deodorizers, disinfectants, and/or sanitizers only after weighing all possible benefits and known adverse effects.

#### **Effect on Warranty**

The warranty for this product is void if the care and cleaning instructions provided in this manual are not followed.

#### Cleaning Requirements

Clean the Isolation Cubicle exactly in accordance with the cleaning instructions provided in this manual. *Failure to follow these instructions can void your warranty.* 

#### **Warranty**

Suburban Surgical Company, Inc. warrants the original purchaser that our products are of the highest standards in material and workmanship. Our stainless steel components are guaranteed to last a lifetime assuming they are used as intended, properly maintained and cared for. Mechanical, electrical, electronic, hydraulic, and any product's devices carry a one year warranty.

Items purchased by Suburban Surgical Company, Inc. from other manufacturers and incorporated into our equipment are covered by the respective manufacturer's warranties.

Warranties will not apply if it is determined by Suburban Surgical Company, Inc. that the equipment became defective due to an accident, misuse, abuse, improper maintenance, or alteration. Warranty freight charges are covered for the first year only.

Comments:		

### Chapter 2 - Installation

# Unpacking and Inspection

CAUTION: Unpacking the Isolation Cubicle is not difficult. Many of the unit components are heavy, however, and we recommend that unpacking be done by at least two people.

If the shipping containers appear damaged in any way, contact the shipping company immediately. Save all damaged packing materials to assist in proving liability for damage.

Carefully inspect the component parts of your Isolation Cubicle while you unpack them. If damage is noted, or if parts appear to be missing, call SSCI Customer Service at (800) 323-7366. Refer to the enclosed packing list for a list of parts included in the shipment.

#### Installation

#### Overview

These instructions provide installation procedures for the basic Isolation Cubicle to be built into new or existing building walls. Each Isolation Cubicle installation is unique and, therefore, it is obviously impractical to give detailed assembly instructions for every possible variation. These instructions give you a general assembly sequence, and describe how the various components relate to each other to form a finished system.

#### **Layout Drawings**

For each installation, SSCI provides complete Layout Drawings that specify mounting dimensions and other important installation details. You should become thoroughly familiar with these drawings before starting the installation.

#### Preparation for Installation

Refer to the SSCI Layout Drawings for required construction dimensions. Before starting installation of the Isolation Cubicle, you should ensure that the four floor mounting holes for the cubicle columns are accurately located and drilled, and that suitable anchors are in place.

#### **Installation Sequence**

The normal construction sequence followed when installing the basic SSCI Isolation Cubicle is:

1.	Erecting the columns -	Page 9
2.	Mounting the columns to the walls -	Page 11
3.	Mounting the header -	Page 11
4.	Installing the counterweights -	Page 13
5.	Installing the column interior covers -	Page 14
6.	Installing the rear top panel -	Page 16
7.	Installing the rear door support rail -	Page 17
8.	Installing the rear door -	Page 18
9.	Installing the center door(s) -	Page 23
10.	Installing the front door -	Page 26
11.	Mounting the door seals -	Page 29
12.	Installing the door latches -	Page 31
13.	Installing the front top panel -	Page 35
14.	Miscellany -	Page 36
15.	Installing the vertical sealing strips -	Page 38
16.	Installing the horizontal sealing strips -	Page 39
17.	Sealing around the base of the column -	Page 40

# Tools and Supplies Required

You will need the following tools and supplies to install your SSCI Isolation Cubicle:

- Phillips screwdriver
- Wrench set, non-metric
- Vise grips
- Stepladder (min. 10 ft high) or other lifting device
- Carpenter's level
- Electric drill
- Drill bit set, non-metric
- Hammer drill
- Concrete bit
- Floor and wall anchors suitable for the type of construction.
- Mounting hardware (bolts, washers, etc. suitable for the anchors)
- Caulking gun
- Silicone adhesive/sealant

# Installation of Basic Isolation Cubicle

These instructions apply to both 3-door and 4-door cubicles.

## Erecting the Columns

CAUTION: Erecting the columns is not difficult. The units are heavy, however, and we recommend that this be done by at least two people.

#### Overview

You can erect either column first. One column has a rectangular opening in front for the light controls (Figure 2). Since your cubicle does not have the lighting option, you will install a blanking plate later to cover this opening.

#### **Procedure**

- 1. The column mounting holes must have been predrilled in the floor and the mounting anchors installed. Check the dimensions against the Layout Drawings and make sure that the holes are located accurately. Failure to locate the holes accurately can create major problems in the installation later.
- 2. Remove any molding, caulk, cement, or other foreign material from the areas on the building walls where the columns will mount. The columns should fit snugly against the walls without interference.

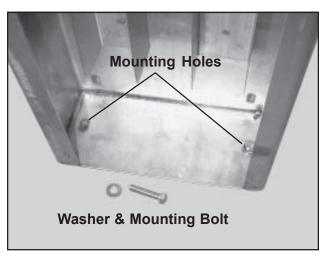
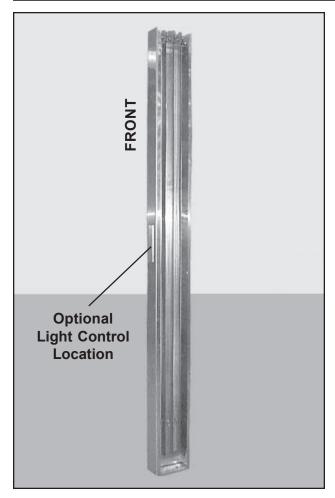


Figure 1. Column Base Mounted to Floor

- 3. Stand the first column in place over the mounting holes and fasten it securely to the floor with two bolts and washers (Figure 1). The open sides of the columns must face each other.
- 4. Use a carpenter's level to check the vertical alignment of the column. The column must be perfectly vertical and not tilt in either direction.
- 5. If the column tilts either way, loosen the mounting bolts and install shims as necessary between the column base and the floor to correct the tilt.



Left Column Right Column

Figure 2. Left Column Erected

Figure 3. Both Columns Erected

- 6. Recheck the vertical alignment and add or remove shims if necessary. When the alignment is perfect, tighten the mounting bolts.
- 7. Follow *Steps 2* through 6 and erect the second column in the same way as the first (Figure 3).
- 8. When both columns are in place, make sure that the inner faces of both columns are perfectly parallel with each other. If not, loosen the base mounting bolts as necessary, turn one or both columns until they are parallel with each other, then retighten the bolts.
- 9. Recheck the columns for tilt, and reshim if necessary.

# Mounting the Columns to the Walls

#### Overview

The upper ends of the columns must be secured to the walls.

#### **Procedure**

1. Drill a hole into the wall through the bolt hole in the column (Figure 4). The hole should be a suitable size for the anchor you intend to use.

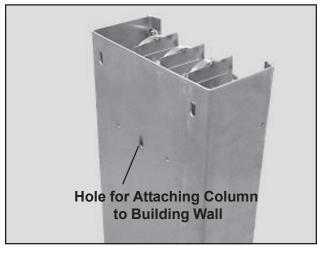


Figure 4. Column-to-Wall Bolt Hole

- 2. Install the anchor into the hole in the wall.
- 3. Mount the column to the wall with a bolt and washer.
- 4. With a carpenter's level, check the column to make sure it is vertical
- 5. If necessary, place shims between the wall and the top of the column to keep the column vertical, then tighten the mounting bolt.
- 6. Perform *Steps 1* through 5 to attach the other column to its wall.

#### Mounting the Header

#### **Overview**

CAUTION: Mounting the header is not difficult. Although the header is not heavy, it can be awkward to handle and we recommend that mounting it be done by at least two people.

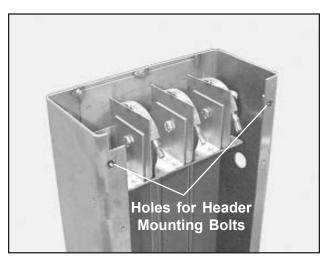


Figure 5. Top of Column Showing Header Mounting Bolt Holes

CAUTION: When using ladders or other lifting apparatus, observe all applicable safety precautions.

#### **Procedure**

- 1. Set the header in place on top the two columns with the electric wiring conduit (Figure 6) toward the front.
- 2. Secure the header in place with two bolts and washers at each end (Figure 7).

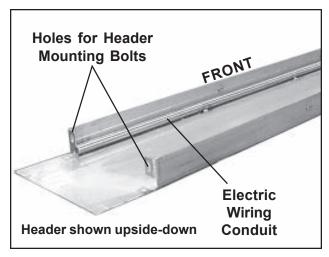


Figure 6. Typical Header

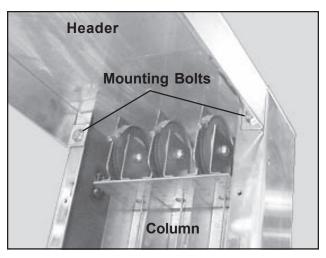


Figure 7. Header Mounted on Column

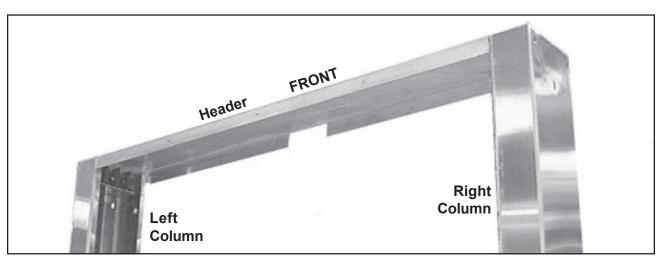


Figure 8. Header Mounted in Place on Columns

- 3. Place a carpenter's level on top the header and check the level right-to-left.
- If the header is not level, it means that one of the columns will have to be raised slightly until the header is level.
   Note: If the header and columns are not level, the doors may bind as they move up and down.
- 5. On the column that is low, loosen the column base mounting bolts (Figure 1) and the wall attachment bolt (Figure 4) and place shims as needed under the base.
- 6. Recheck the header level and add or remove shims as necessary.
- 7. When the system is level, tighten the base and wall mounting bolts.

# Installing the Counterweights

#### Overview

To facilitate its up and down motion, each door is balanced by a counterweight in each column. Cubicles with three doors have six counterweights; those with four doors have eight. The front door counterweights are heavier than those for the rear and center doors to compensate for the slightly greater weight of the front door.

In each column, the counterweights are suspended by threaded fittings attached to the ends of braided steel cables (Figure 10). The cables hang between metal guides that control the motion of the weights in the column.

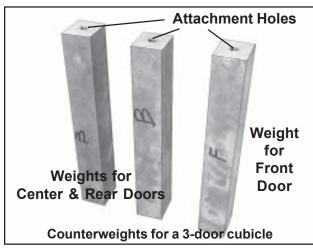


Figure 9. Door Counterweights

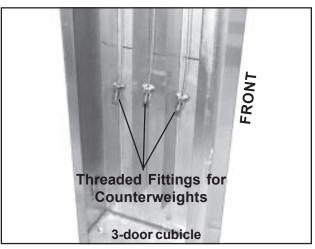


Figure 10. Threaded Fittings Inside Column

#### **Procedure**

**Note:** The weights for the *front* door are marked with the letter **F** (Figure 9); the weights for the *center* and *rear* doors are marked with the letter **B** 

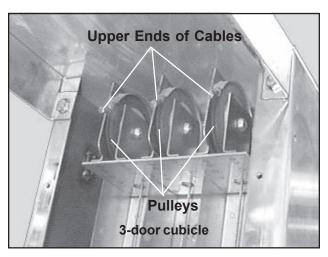


Figure 11. Pulleys and Upper Cable Ends

- 1. Screw the threaded fitting for the *front* door into the top of a counterweight marked **F**. Tighten with a 3/4 in. wrench.
- 2. Screw the threaded fittings for the *center* and *rear* doors into counterweights marked **B**. Tighten with a 3/4 in. wrench.
- 3. Place each weight into the column between the appropriate guides (Figure 12).

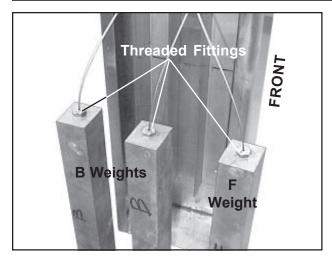


Figure 12. Weights Attached to Threaded Fittings

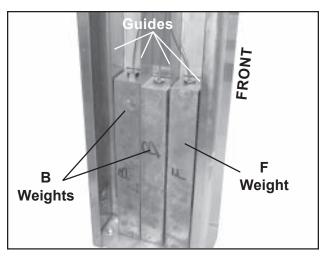


Figure 13. Weights Installed in Column

- 4. With a vise grips, pull down on the upper end of each counterweight cable (Figure 11) to help straighten the cable.
- 5. Repeat *Steps 1* through 4 to install the counterweights in the other column.

# Installing the Column Interior Covers

#### Overview

One column interior cover (Figure 14) mounts to the inside face of each column. The two covers supplied are identical - either one can be placed in either column.

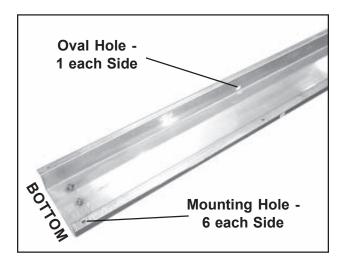


Figure 14. Oval Holes and Mounting Holes on Column Interior Cover

CAUTION: When using ladders or other lifting apparatus, observe all applicable safety precautions.

#### **Procedure**

**Note:** The column interior cover has six mounting holes on each side (Figure 14). There are also oval holes in the both sides of the cover. When you install the latch mechanism later, the door handle and latch rod will pass through these holes.

1. Hold one column interior cover over the inside face of one of the columns. The oval holes should be toward the bottom of the column. **Note:** Be sure that the counterweights are all in their correct positions and that the cables hang straight down and do not cross over the metal guides between the cables (Figure 13).

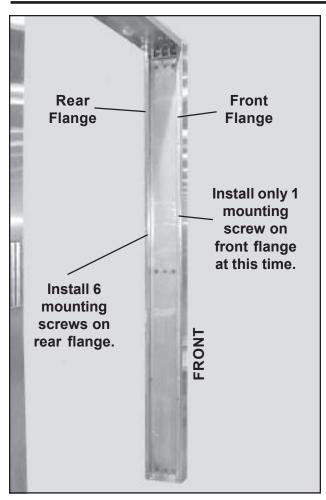


Figure 15. Column Interior Cover Installed

- 2. With six Phillips screws, fasten the cover to the *rear flange of the column only* (Figure 15).
- 3. Temporarily, fasten the cover to the front flange of the column with *only one* Phillips screw. **Note:** You will secure the cover to the front flange after installing the doors.
- 4. Repeat *Steps 1* through *3* to install the column interior cover in the other column.

# Installing the Rear Top Panel

#### Overview

The rear top panel mounts to the header and both columns.

**CAUTION:** When using ladders or other lifting apparatus, observe all applicable safety precautions.

#### Procedure

- 1. Hold the rear top panel in place against the rear of the header and columns (Figure 16).
- 2. Secure the panel to the header with Phillips screws. The number of screw positions depends on the size of the cubicle.
- 3. Secure the panel to each column with two Phillips screws.

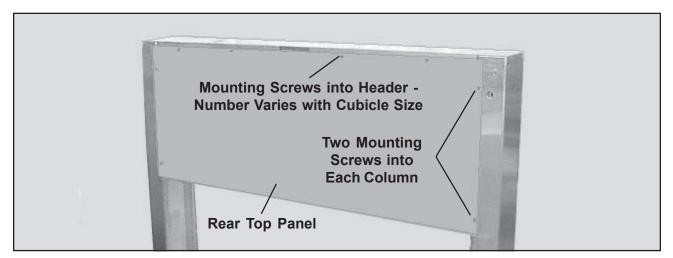


Figure 16. Rear View of Cubicle Showing Mounting of Rear Top Panel

# Installing the Rear Door Support Rail

#### **Overview**

Install the rear door support rail (Figure 17) loosely at this time. Later in the installation, it will be adjusted and tightened.

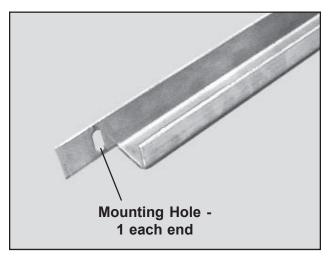


Figure 17. Rear Door Support Rail

#### **Procedure**

- 1. Hold the rear door support rail in place on the rear of both columns and below the rear top panel (Figure 18).
- 2. Loosely fasten the rail in place with two flat washers and hex screws (Figure 19).

  Leave the screws finger-tight for now you will adjust the rail and tighten the screws later.

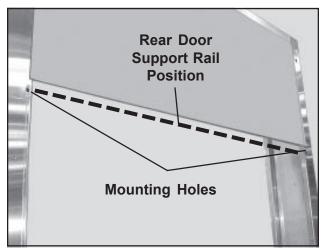


Figure 18. Mounting Position for Rear Door Support Rail

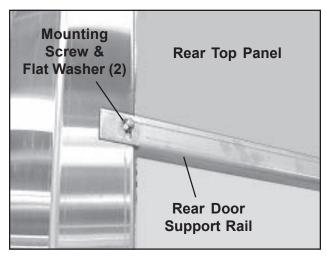


Figure 19. Rear Door Support Rail in Place

# Installing the Rear Door

#### Overview

You will install the rear door first, then the center door(s), and finally, the front door. Refer to the Layout Drawings for your cubicle for detail drawings and part numbers. Refer to Figure 25 for a cross-section drawing.

#### Floating Seals

Floating seals (Figure 20) are long, white polyethylene pieces with one large and one small groove running the full length of each piece. There are three types of floating seals: **Type A**, **B**, and **C**, designed for different locations in the column (Figure 25). Refer to Figures 63 and 64 on *Page 47* for additional details.

#### **Seal Retainers**

Seal retainers (Figure 22) are long, stainless steel strips shaped in cross-section like men's old-fashioned high-hats. They hold the floating seals in the columns. There are four types of seal retainers: **Types D**, **E**, **F**, and **G**. Refer to Figures 65 and 66 on *Page 48* for additional details.

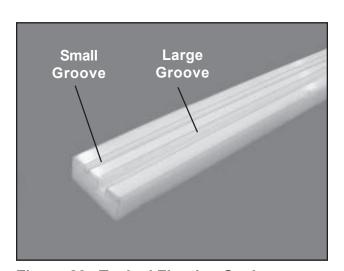


Figure 20. Typical Floating Seal

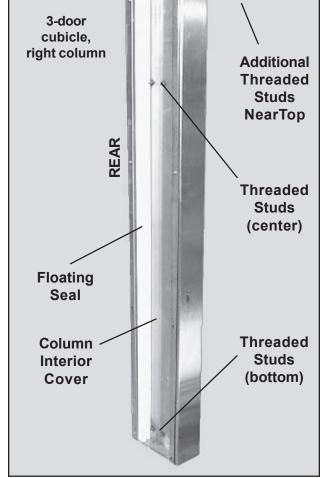


Figure 21. Rear Floating Seal in Place

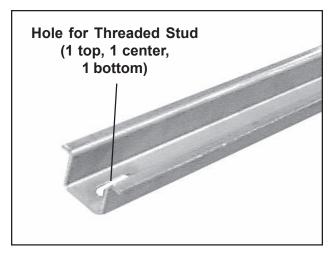


Figure 22. Typical Seal Retainer

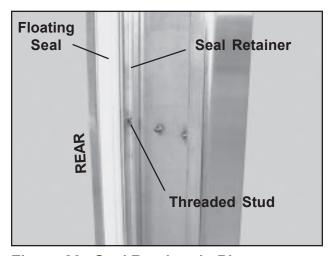


Figure 23. Seal Retainer in Place

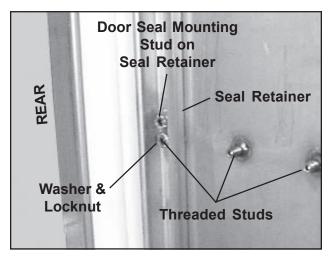


Figure 24. Washers and Locknuts on Threaded Studs

Numbers marked on the floating seals and seal retainers correspond to numbers on the cubicle Layout Drawing. Match the number marked on the item with the number on the drawing to make sure you install the correct part in each location.

#### **Procedure**

- 1. Compare the numbers on the floating seals with the numbers on the Layout Drawing and select the correct floating seal for the rear-most position in the column.
- 2. Place the rear seal in the rearmost position in the column interior cover (Figure 21). The grooves in the seal should face forward with the small groove toward the opposite column. **Note:** The seal is not fastened in place yet and may bow out slightly.

**Note:** There are three sets of threaded studs on each column interior cover (Figure 21): one set near the top; one set near the bottom; and one set approximately in the center. These threaded studs are the mounting points for the seal retainers. On 3-door cubicles there are three studs in each set; on 4-door cubicles there are four studs in each set. The seal retainers hold the floating seals in the columns.

- 3. Compare the numbers on the seal retainers with the numbers on the Layout Drawing and select the correct seal retainer for the rear door.
- 4. Hang this seal retainer on the rearmost top, center, and bottom threaded studs, with the rear flange inserted into the large groove in the floating seal (Figure 23).
- 5. Slide the seal retainer upward as far as possible, and place washers and locknuts on these three threaded studs (Figure 24). Fasten them only finger-tight.

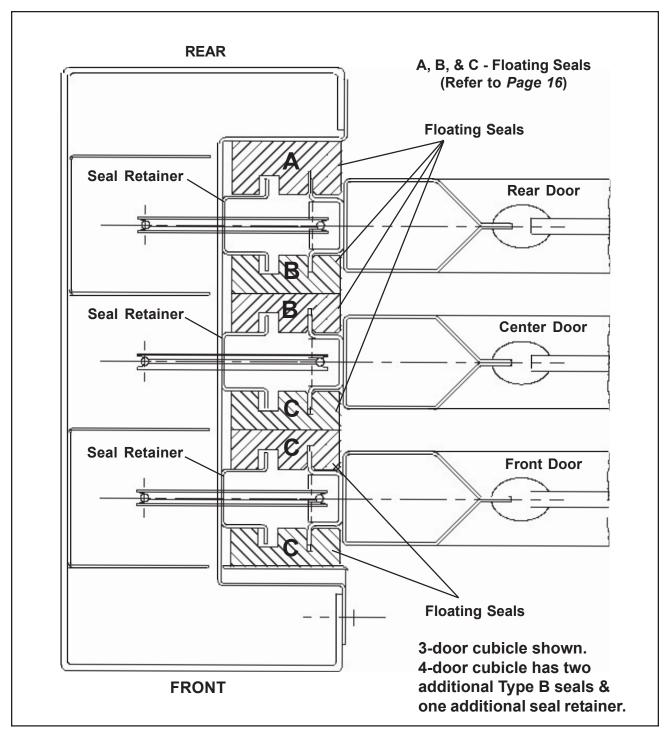


Figure 25. Cross-section View of Floating Seals and Seal Retainers Mounted in Left Column - View from Above

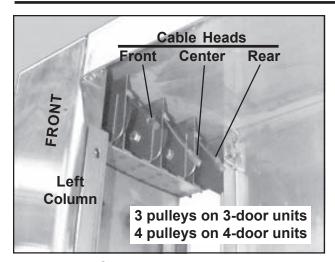


Figure 26. Cable Heads

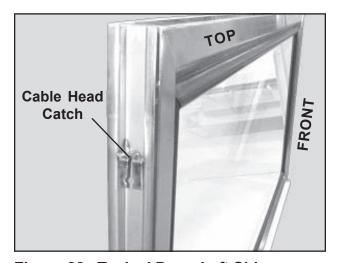


Figure 28. Typical Door, Left Side

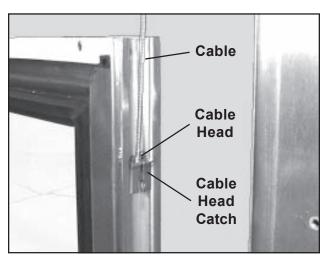


Figure 29. Cable Connected to Door

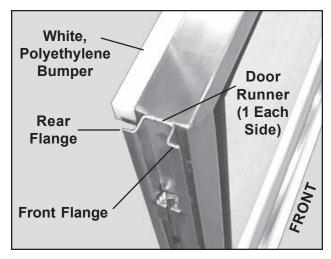


Figure 27. Door Runner Front and Rear Flanges, Left Side

- 6. A door seal mounting stud is welded at about the center of the seal retainer (Figure 24). Place a washer and locknut on this stud but fasten it only finger-tight.
- 7. Repeat *Steps 1* through 6 to install the floating seal and seal retainer in the other column.

CAUTION: Mounting the doors is not difficult. The doors are heavy, however, and we recommend that this be done by at least two people.

- 8. Check the Layout Drawing and unpack the rear door.
- 9. Stand this door on its lower edge, between the two columns and about a foot in front. The white polyethylene bumper (Figure 27) should be on top and to the rear.
- 10. In one column, locate the rear cable head that extends from the rearmost pulley at the inside top of the column (Figure 26).
- 11. Pull this cable head down until it is near the cable head catch on the door (Figure 28). *CAUTION:* Remember, there is a heavy counterweight on the other end of this cable.

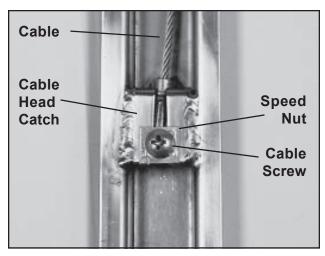


Figure 30. Speed Nut and Cable Screw

- 12. Pull the cable head down until it is below the cable head catch, insert the cable into the slot in the catch, then gently allow the cable head to rise up until it seats firmly in the catch (Figure 29).
- 13. Mount a speed nut to the cable head catch and insert a 1/2 in. long, Phillips head, sheet-metal screw (Figure 30).

**Note:** This screw prevents the cable head from coming out of the cable head catch if the door is slammed shut.

- 14. Repeat *Steps 10* through *13* to attach the cable in the other column to the door.
- 15. Lift the door and place it into the cubicle so that the rear flanges on both door runners enter the small grooves in the floating seals in both columns (Figure 31). **Note:** The door is not yet secured in place, but merely hangs loosely in the floating seals. It will be secured in place as you install the remaining seals and retainers.

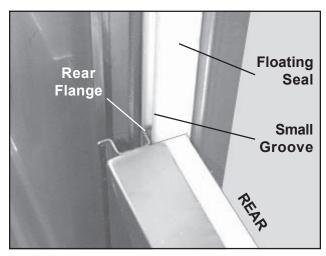


Figure 31. Door Flange in Seal Groove

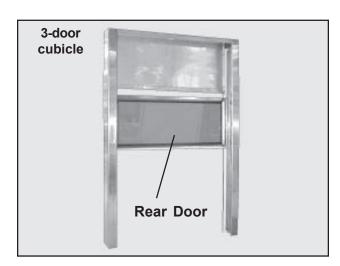


Figure 32. Rear Door in Place

# Installing the Center Door(s)

#### Overview

Installing the center door(s) is similar to installing the rear door. Use the instructions in this subsection to install the center door in a 3-door cubicle, or both center doors in a 4-door cubicle.

For a detailed description of floating seals and seal retainers, refer to *Installing the Rear Door - Overview* on *Page 18*.

Refer to the Layout Drawings for your cubicle for detail drawings and part numbers. Refer to Figure 25 for a cross-section drawing.

#### **Procedure**

1. Compare the numbers on the floating seals with the numbers on the Layout Drawing and select the correct floating seal for the position in front of the rear door.

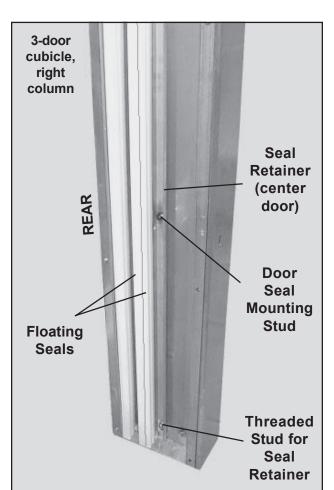


Figure 33. Floating Seals and Seal Retainer for Center Door in Place

- 2. Place this seal in the column so that the small groove fits on the seal retainer and the large groove on the front flange on the door runner (Figure 33).
- 3. Compare the numbers on the floating seals with the numbers on the Layout Drawing and select the correct floating seal for the position behind the center door.
- 4. Install this seal in the column (Figure 33) back-to-back with the rear door front seal. The grooves should face forward with the small groove toward the opposite column.
- 5. Compare the numbers on the seal retainers with the numbers on the Layout Drawing and select the correct seal retainer for the center door.
- 6. Hang this seal retainer on the center set of threaded studs, with the rear flange inserted into the large groove in the floating seal you just installed (Figure 33).

- 7. Place washers and locknuts on the three threaded studs on which the retainer fits (Figure 33). Fasten them only fingertight.
- 8. A door seal mounting stud is welded in place toward the lower end of the retainer (Figure 33). Place a washer and locknut on this stud, but fasten it only finger-tight.
- 9. Repeat *Steps 3* through 8 and install the floating seal and seal retainer in the other column.

CAUTION: Mounting the doors is not difficult. The doors are heavy, however, and we recommend that this be done by at least two people.

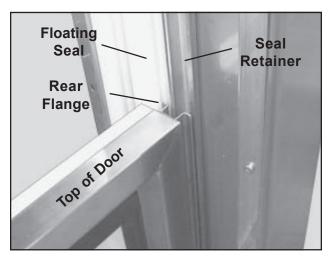


Figure 34. Center Door in Place

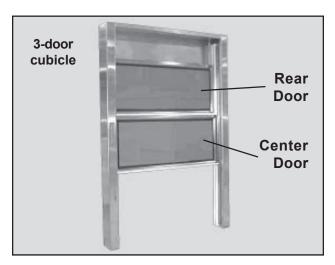


Figure 35. Rear and Center Doors in Place

- 10. Check the Layout Drawing and unpack the center door.
- 11. Stand this door on its lower edge, between the two columns and about a foot in front.

  The white, polyethylene bumper (Figure 27) should be on top and to the rear.
- 12. In one column, locate the center cable head that extends from the center pulley at the inside top of the column (Figure 26). On 4-door units, locate the cable head on the appropriate pulley.
- 13. Pull this cable head down until it is near the cable head catch on the door (Figure 28). CAUTION: Remember, there is a heavy counterweight on the other end of this cable.
- 14. Pull the cable head down until it is below the cable head catch, insert the cable into the slot in the catch, then gently allow the cable head to rise up until it seats firmly in the catch (Figure 29).
- 15. Mount a speed nut to the cable head catch and insert a 1/2 in. long, Phillips head, sheet-metal screw (Figure 30).

- 16. Repeat *Steps 12* through *15* to attach the cable in the other column to the door.
- 17. Lift the door and place it into the cubicle so that the rear flanges on both door runners enter the small grooves on both floating seals (Figure 34). **Note:** The door is not yet secured in place, but merely hangs loosely in the floating seals. It will be secured in place as you install the remaining seals and retainers.
- 18. If you have a 4-door cubicle, repeat *Steps 1* through *17* to install the front center door.

# Installing the Front Door

#### Overview

Installing the front door is similar to installing the other doors. After all doors and associated parts are in place, you will install the door retainer to hold the entire door assembly in the column.

For a detailed description of floating seals and seal retainers, refer to *Installing the Rear Door - Overview* on *Page 18*.

Refer to the Layout Drawings for your cubicle for detail drawings and part numbers. Refer to Figure 25 for a cross-section drawing.

#### **Procedure**

1. Compare the numbers on the floating seals with the numbers on the Layout Drawing and select the correct floating seal for the position in front of the center door.

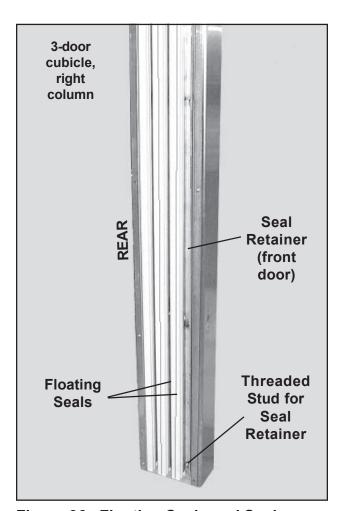


Figure 36. Floating Seals and Seal Retainer for Front Door in Place

- Place this seal in the column so that the small groove fits on the seal retainer and the large groove on the front flange on the door runner (Figure 36).
- 3. Compare the numbers on the floating seals with the numbers on the Layout Drawing and select the correct floating seal for the position behind the front door.
- 4. Place this seal in the column (Figure 36) back-to-back with the center door front seal. The grooves should face forward with the small groove toward the opposite column.
- 5. Compare the numbers on the seal retainers with the numbers on the Layout Drawing and select the correct seal retainer for the front door.
- 6. Hang this seal retainer on the front set of threaded studs, with the door front flange inserted into the large grooves in the floating seal you just installed (Figure 36).

- 7. Place washers and locknuts on all three threaded studs (Figure 36). Fasten them only finger-tight.
- 8. Repeat *Steps 1* through 7 and install the floating seals and seal retainer in the other column.

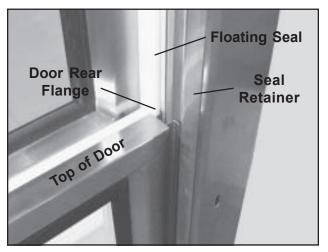


Figure 37. Front Door in Place

CAUTION: Mounting the doors is not difficult. The doors are heavy, however, and we recommend that this be done by at least two people.

- 9. Check the Layout Drawing and unpack the front door.
- 10. Stand this door on its lower edge, between the two columns and about a foot in front. The white, polyethylene bumper (Figure 27) should be on top and to the rear.
- 11. In one column, locate the front cable head that extends from the front pulley at the inside top of the column (Figure 26).
- 12. Pull this cable head down until it is near the cable head catch on the door (Figure 28). **CAUTION: Remember,** there is a heavy counterweight on the other end of this cable.
- 13. Pull the cable head down until it is below the cable head catch, insert the cable into the slot in the catch, then gently allow the cable head to rise up until it seats firmly in the catch (Figure 29).
- 14. Shoot a small quantity of silicon adhesive into the cable head catch. **Note:** This silicon adhesive prevents the cable head from coming out of the cable head catch if the door is slammed shut.
- 15. Repeat *Steps 10* through *14* to attach the cable in the other column to the door.
- 16. Lift the door and place it into the cubicle so that the rear flanges on both door runners enter the small grooves on both floating seals (Figure 37). **Note:** The door is not yet secured in place, but merely hangs loosely in the floating seals. It will be secured in place as you install the remaining seal and door retainer.

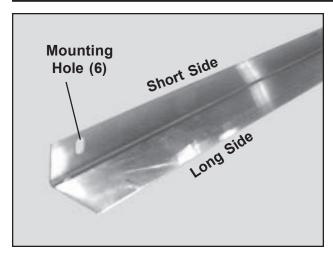


Figure 38. Typical Door Retainer

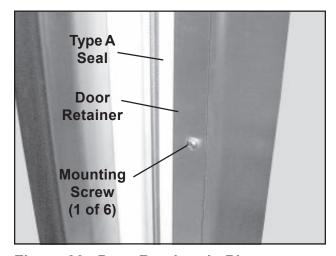


Figure 39. Door Retainer in Place

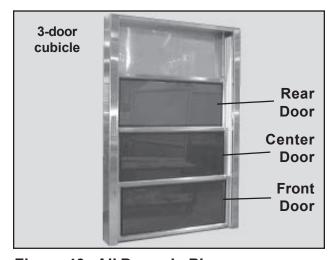


Figure 40. All Doors in Place

- 17. Compare the numbers on the floating seals with the numbers on the Layout Drawing and select the correct floating seal for the position in front of the front door.
- 18. Place this seal in the column so that the small groove fits on the seal retainer and the large groove on the front flange of the front door (Figure 37).
- 19. Repeat *Steps 17* and *18*, and install the floating seal in the other column.

**Note:** Door retainers are long, 90° angle stainless steel strips (Figure 38). They hold the floating seals, seal retainers, and doors in place in the columns. The door retainers are identical and either one can be used on either side

- 20. When you installed the column interior cover, you loosely fastened the front flange to the column with one Phillips screw (refer to *Installing the Column Interior Covers Procedure, Step 3* on *Page 15*). Remove this screw now.
- 21. Slide the long side of one of the door retainers into place between the last floating seal you installed and the column interior cover. **Note:** The front edge of the door retainer must be flush with the front edge of the column interior cover.
- 22. Secure both the door retainer and the front flange of the column interior cover in place with six Phillips screws (Figure 39).
- 23. Repeat *Steps 20* through *22* to install the door retainer into the other column.

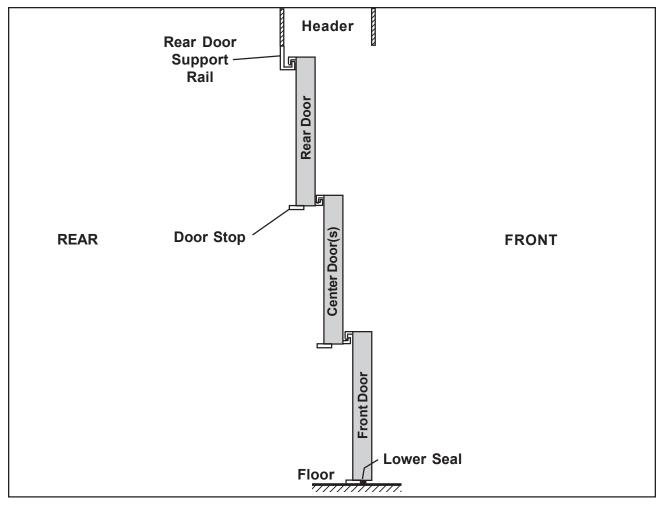


Figure 41. Side View of Doors After Assembly (3-door Cubicle)

### Mounting the Door Seals

### Overview

Two door seals, one in each column, are used for each rear and each center door. This type of door seal is not used on the front doors. Four door seals are used on 3-door cubicles; six door seals are used on 4-door cubicles.



Figure 42. Typical Door Seal

Door seals are 90° angle stainless steel brackets with foam rubber pads bonded to the tops (Figure 42).

### **Procedure**

1. Examine all the door seals supplied with your cubicle. Rebend any that are not reasonably close to 90° angles.

**Note:** If you have a 4-door cubicle, the door seals will be in somewhat different locations than shown in Figure 43.

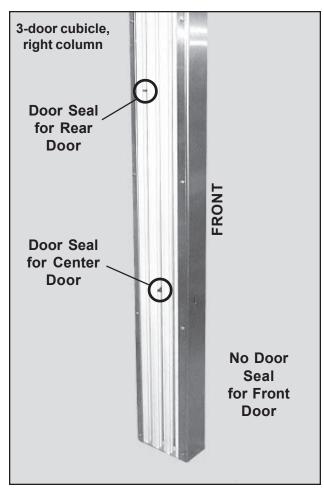


Figure 43. Door Seal Positions

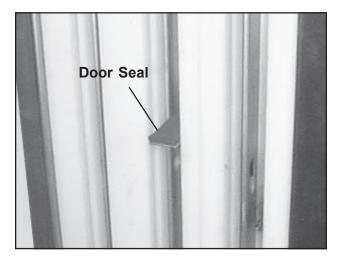


Figure 44. Door Seal for Center Door in Place

2. In *Step 6* on *Page 21*, you loosely placed a washer and locknut on the door seal mounting stud for the rear door. Slide the two legs of a door seal behind the washer on this stud (Figures 43 and 44).

**Note:** A stud for the seal retainer may be located very close to this door seal stud. If so, slide the legs of the seal behind the washer on this stud also.

**Note:** Leave all of these locknuts finger-tight for now. You will tighten them fully after installing and adjusting the latch.

- 3. Slide the two legs of a door seal behind the washer on the door seal mounting stud for the center door (Figure 43).
- 4. If you have a 4-door cubicle, repeat *Steps 1* through *3* to install the door seals for the front center door. The door seals may be in slightly different locations, but they install the same way.
- 5. Repeat *Steps 2* through *4* to install the door seals in the other column.

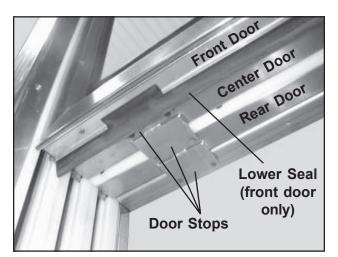


Figure 45. Front Door Lower Seals

### **Front Door Lower Seals**

A full-width lower seal is mounted to the bottom surface of the front door (Figure 45). It is mounted to the door at the factory and does not require installation.

### Installing the Door Latches

### Overview

You will assemble each latch in place on the column. The latch mechanism is an assembly of five parts, plus screws and washers (Figure 46):

A - Handle and latch rod -	P/N 210090
<b>B</b> - Front cover -	P/N 613202
C - Latch -	P/N 613195
<b>D</b> - Lever and hub -	P/N 210089
E - Spring -	P/N 852401
<b>F</b> - #10-24 x 1/2" Phillips screw (2) -	P/N 850120
<b>G</b> - Flat washer, #10 thin (2) -	P/N 850701
<b>H</b> - #8-32 x 1/2" Phillips screw (2) -	P/N 850129
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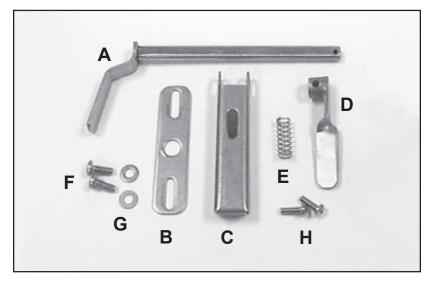


Figure 46. Latch Mechanism Parts

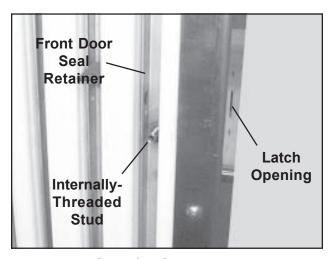


Figure 47. Stud for Spring

### Installation

- 1. Place the spring (**E**) onto the internallythreaded stud on the front door seal retainer (Figure 47).
- 2. Mount the front cover (**B**) to the column over the latch opening (Figures 47 and 48) with the two #10-24 Phillips screws (**F**) and flat washers (**G**). Leave the screws only finger-tight for now.
- 3. Insert the handle and latch rod (**A**) through the center hole of the front cover until it enters the channel for the front door (Figure 49).

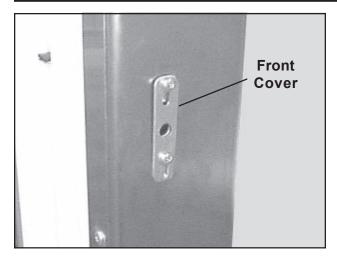


Figure 48. Front Cover

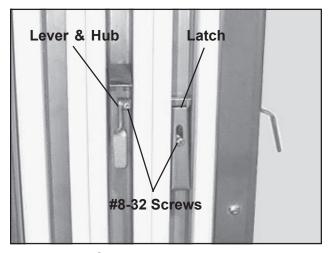


Figure 50. Complete Latch Mechanism

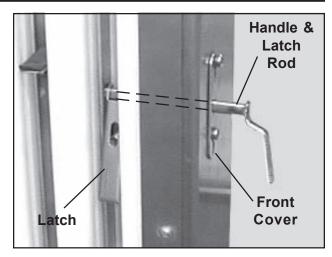


Figure 49. Handle & Latch Rod

- 4. Holding the latch (**C**) in the door channel, pass the handle and latch rod through the two holes in the latch.
- 5. Continue pushing on the handle and latch rod until it passes into the channel for the center door. **Note:** If the rod hangs up against a floating seal or seal retainer, reposition the blocking part so that the rod enters the center door channel easily. The handle and latch rod should be perfectly horizontal and not tilted up or down.
- 6. Pass an #8-32 screw (**H**) through the elongated hole in the latch (Figure 50) and screw it into the stud on which you placed the spring in *Step 1*.
- 7. Place the lever and hub (**D**) on the end of the handle and latch rod and secure it with an #8-32 screw (**H**).
- 8. Center the front cover (**B**) and tighten the two screws (**F**).
- 9. Repeat *Steps 1* through 8 to install the latch in the other column.

### **Adjusting the Latches**

Each door latch must be adjusted so that:

- The latch locks automatically when the doors close.
- When latched, the door is securely locked.
- The lower seal on the front door (Figure 45) is in firm contact with the floor.

Follow this procedure to adjust the door latches. Either latch can be adjusted first.

- Lower the front door to its lowest position. Listen for the latch to click into place as the door nears the bottom.
   Without touching the latch handle, try lifting the door open.
   It should be securely locked. With the front door in its lowest position, check to see if the lower seal makes firm contact with the floor.
  - If the latch clicks into place, the door is securely locked, and the lower door seal firmly contacts the floor, no latch adjustment is necessary.
  - If the latch does not click into place or if the door is not securely locked, the latch is riding too low. Proceed to *Step 2* and raise the handle and latch rod.
  - If the lower door seal does not firmly contact the floor, the latch is riding too high. Proceed to *Step 2* and lower the handle and latch rod.
- 2. Raise the doors to access the latch mechanism.
- 3. With a Phillips screwdriver, loosen both screws on the front cover (Figure 48).
- 4. Slightly raise or lower the handle and latch rod (Figure 51) as necessary and retighten the front cover screws.

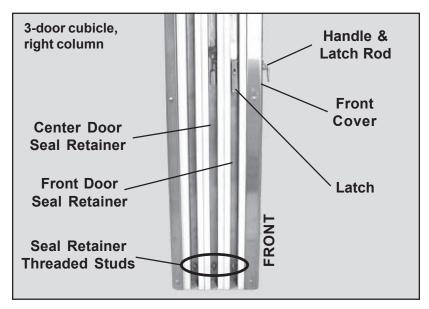


Figure 51. Adjusting the Latch Mechanism

- 5. Raise or lower the center door seal retainer until the handle and latch rod is horizontal and not tilted up or down, then tighten the nut on the lower threaded stud.
- 6. Depress and release the latch to make sure it operates smoothly. If it binds, raise or lower the front door seal retainer until the latch is clear, then tighten the nut on the lower threaded stud (Figure 51).
- 7. Close the doors and recheck the latch and door position. Continue to test and readjust until both are correct.
- 8. Repeat *Steps 1* through 7 to adjust the latch in the other column.

## Installing the Front Top Panel

### Overview

The front top panel mounts to the header and both columns.

**CAUTION:** When using ladders or other lifting apparatus, observe all applicable safety precautions.

- 1. Hold the front top panel in place against the front of the header and columns (Figure 52).
- 2. Secure the panel to the header with three Phillips screws.
- 3. Secure the panel to each column with three Phillips screws.

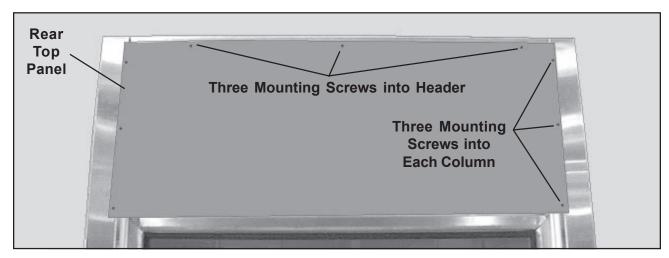


Figure 52. Front View of Cubicle Showing Mounting of Front Top Panel

### **Miscellany**

### Overview

Complete the following miscellaneous steps:

- 1. Tightening the seal retainers
- 2. Tightening the door seals
- 3. Tightening the rear door support rail
- 4. Mounting the light switch blanking plate
- 5. Filling vacant holes

### **Tightening the Seal Retainers**

With a 7/16 in. wrench, tighten all the seal retainer nuts on the upper, middle, and lower threaded studs in both columns (Figure 21).

### **Tightening the Door Seals**

With a 7/16 in. wrench, tighten the nuts on the door seals for the rear and center door(s) in both columns (Figure 43).

### Tightening the Rear Door Support Rail

- 1. Raise the doors to their maximum height.
- 2. With a 1/2 in. wrench, tighten the two mounting screws (Figure 19).
- 3. Between the end screws, secure the rail to the rear top panel with three #10-24 Phillips screws and flat washers.

### **Mounting the Light Switch Blanking Plate**

This Isolation Cubicle does not include the lighting option. With two Phillips screws, secure the blanking plate over the light switch opening (Figure 53).

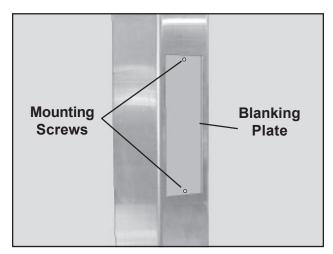


Figure 53. Light Switch Opening Blanking Plate in Place

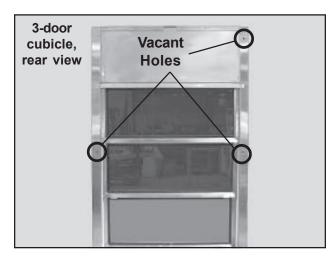


Figure 54. Vacant Holes

### **Filling Vacant Holes**

- 1. A number of vacant screw holes exist in the columns. These holes are used in cubicles having optional features not present on your system. Place a #10-24 Phillips head screw in each of these vacant holes.
- 2. Three vacant holes are present in the rear of the columns (Figure 54). Press an appropriate size snap-button hole plug (supplied) into each of these screw holes.

## Installing the Vertical Sealing Strips

#### Overview

Vertical sealing strips are long, L-shaped, stainless steel strips with one long and one short side (Figure 55). They are installed in front of and behind each column to prevent the passage of air into or out of the Isolation Cubicle. They are bonded into place between the columns and the adjoining walls.

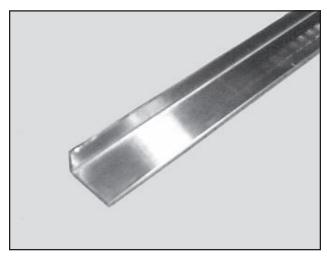


Figure 55. Typical Vertical Sealing Strip

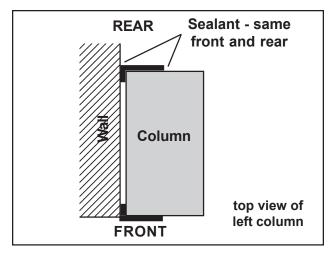


Figure 56. Installing Vertical Sealing Strips

- 1. Make sure that the sealing strips, column, and wall are free of dust, dirt, oil, grease, and any loose material.
- 2. Apply silicone adhesive/sealant into the slot between the wall and the column, and to the area of the column to which the sealing strip will be bonded (Figure 56).
- 3. Insert the short side of the sealing strip into the slot between the wall and the column, and press the long side of the strip firmly against the column.
- 4. Apply sealant where the seal strip and the wall meet, and where the strip overlaps the column.
- 5. Repeat *Steps 1* through 4 for each of the other three vertical sealing strips.

# Installing the Horizontal Sealing Strips

#### Overview

Horizontal sealing strips are long, L-shaped, stainless steel strips with one long and one short side (Figure 57). They are installed in front of and behind the header to prevent the passage of air into or out of the Isolation Cubicle. They are bonded into place between the header and the ceiling.

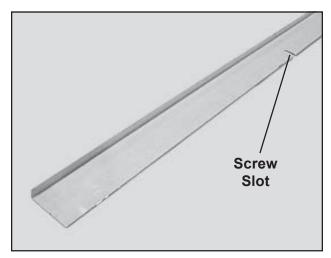


Figure 57. Typical Horizontal Sealing Strip

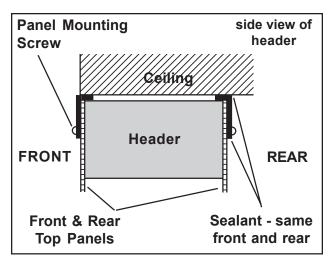


Figure 58. Installing Horizontal Sealing Strips

- 1. Make sure that the sealing strips, header, and ceiling are free of dust, dirt, oil, grease, and any loose material.
- 2. Remove the screws that hold the top of the front or rear top panel (as applicable) to the header (Figure 52).
- 3. Apply silicone adhesive/sealant into the slot between the ceiling and the header, and to the area of the header to which the sealing strip will be bonded (Figure 58).
- 4. Insert the short side of the sealing strip into the slot between the ceiling and the header, and press the long side of the strip firmly against the header. Align the screw slots in the sealing strip (Figure 57) with the screw locations in the header and top panel.
- 5. Replace the panel mounting screws.
- 6. Apply sealant where the seal strip and the ceiling meet, and where the strip overlaps the header.
- 7. Repeat *Steps 1* through *6* for the other horizontal sealing strip.

### Sealing Around the Bases of the Columns

### Overview

Seal the bases of the Isolation Cubicle columns to prevent the passage of air into or out of the unit.

### **Procedure**

- 1. Apply silicone adhesive/sealant to the perimeter of the base of the column where it meets the floor. Seal the inside face of the column and both the front and rear faces (Figure 59). Make sure that the sealant also covers the bottom of the vertical sealing strips.
- 2. Repeat the procedure on the other column.

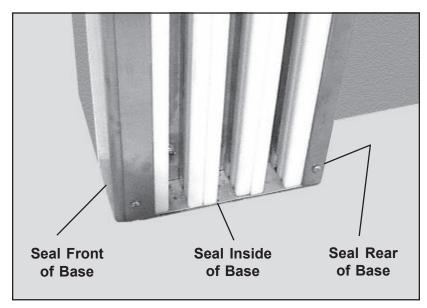


Figure 59. Sealing Column Base

Installation of your SSCI Isolation Cubicle is now complete. Be sure to retain this manual and the Layout Drawings for the cubicle in a safe location where they can be easily retrieved for future reference.

### Chapter 3 - Operation and Care

## Operating the Isolation Cubicle

### **Using the Doors**

### Safety

Observe the following precautions when using the Isolation Cubicle doors.

CAUTION: Always open and close the Isolation Cubicle doors gently. NEVER slam the doors open or closed. Slamming a door can damage the door, pulley system, cable, door attachments, and/or other components.

CAUTION: If a door jams in one position, DO NOT try to force it open or closed as this can cause additional damage. Call SSCI Customer Service for repairs.

CAUTION: Do not trap body parts, animals, or objects under the doors as you close them.

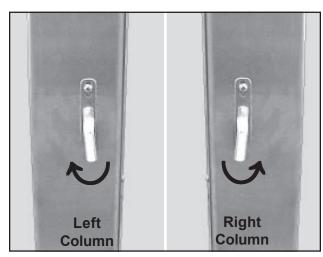


Figure 60. Opening the Door Handles

### **Opening the Doors**

To open the cubicle doors, push down slightly on the top of the front door, and turn one door handle toward the outside (away from the cubicle center) to unlatch that latch (Figure 60). Then turn the other door handle to release the second latch (also to the outside, away from the cubicle center). After both latches have been released, pull up on the front door top frame.

### **Closing the Doors**

To close the Isolation Cubicle, push down gently on the top of the front door frame until the door bottoms on the floor. When the front door bottoms, all doors will be in their lowest position, and the doors will latch automatically.

### Door Latch Adjustment

#### Overview

It is important to the operation of the Isolation Cubicles that both door latches be properly adjusted. Each door latch must be adjusted so that:

- The latch locks automatically when the doors close.
- When latched, the door is securely locked.
- The lower seal on the front door (Figure 45) is in firm contact with the floor.

### **Procedure**

Follow this procedure to adjust the door latches. Either latch can be adjusted first.

- Lower the front door to its lowest position. Listen for the latch to click into place as the door nears the bottom.
   Without touching the latch handle, try lifting the door open.
   It should be securely locked. With the front door in its lowest position, check to see if the lower seal makes firm contact with the floor.
  - If the latch clicks into place, the door is securely locked, and the lower door seal firmly contacts the floor, no latch adjustment is necessary.
  - If the latch does not click into place or if the door is not securely locked, the latch is riding too low. Proceed to *Step 2* and raise the handle and latch rod.
  - If the lower door seal does not firmly contact the floor, the latch is riding too high. Proceed to *Step 2* and lower the handle and latch rod.
- 2. Raise the doors to access the latch mechanism.
- 3. With a Phillips screwdriver, loosen both screws on the front cover (Figure 48).
- 4. Slightly raise or lower the handle and latch rod as necessary and retighten the front cover screws.
- 5. Raise or lower the center door seal retainer (Figure 51) until the handle and latch rod is horizontal and not tilted up or down, then tighten the nut on the lower threaded stud.
- 6. Depress and release the latch to make sure it operates smoothly. If it binds, raise or lower the front door seal retainer until the latch is clear, then tighten the nut on the lower threaded stud

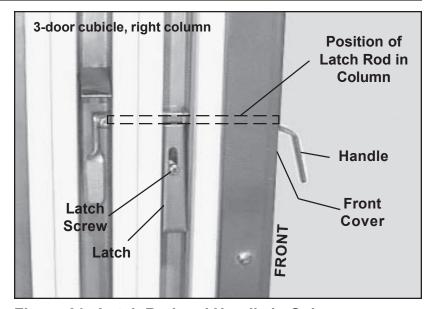


Figure 61. Latch Rod and Handle in Column

- 7. Close the doors and recheck the latch and door position. Continue to test and readjust until both are correct.
- 8. Repeat *Steps 1* through 7 for the latch in the other column.

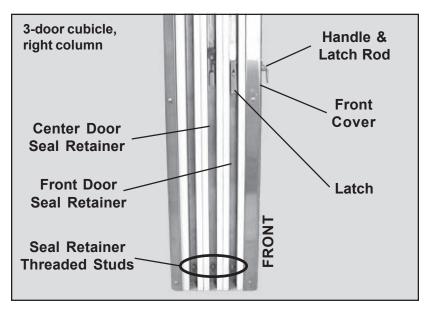


Figure 62. Adjusting the Latch Mechanism

## Cleaning the Isolation Cubicle

## Stainless Steel Cleaning Procedures

Ordinary deposits of waste and fluids can usually be removed with soap and water. Stubborn deposits may require scrubbing with "stainless steel" wool, nylon, or plastic scrubbers and/or the use of commercial cleaning products. Always scrub in the direction of the "grain" of the metal. Rinse with clear water and dry thoroughly with a clean, soft cloth.

Minor scale build-up and some hard water spotting may be removed by washing with vinegar, followed by a neutralizing rinse of clear water, and a thorough drying with clean, soft cloths.

For heavy deposits of scale, 5% oxalic acid (use warm), 5-15% sulfamic acid, or 5-10% phosphoric acid may be used. As always, rinse with clear water and dry thoroughly with clean soft cloths.

Avoid prolonged use of chlorides (such as chlorine bleach), bromides, iodides, and thiocyanates. Never allow salty solutions to dry on the stainless steel.

For more information refer to *Care and Cleaning of Stainless Steel* on *Page 3*.

### Cleaning the Windows

The clear window panels in the doors can be cleaned with plain soap and water, or with a mild commercial glass cleaner. Always use clean, soft cloths and keep in mind that hard scrubbing can scratch the panels. Thoroughly rinse with cold water and dry completely. Clean any heavy deposits of animal fluids off the doors as soon as possible before they harden.

### Chapter 4 - Repairs and Replacements

### **Replacement Parts**

The table below lists the replacement parts available for the SSCI Isolation Cubicle. For parts not listed, contact SSCI Customer Service at (800) 323-7366. To order parts, refer to *Parts Ordering Procedure* on *Page 49*.

Part Name	SSCI Part Number	Quantity per Cubicle	Replacement Instructions
Lever and Hub	210089	2	Page 50
Handle and Latch Rod	210090	2	Page 51
Front Cover (Latch)	613202	2	Page 52
Latch	613195	2	Page 53
Spring (Latch)	852401	2	Page 54
Blanking Plate (Light Switch)	611292	1	Page 55
Rear Door Support Rail	Refer to Layout Drawings	1	Page 56
Rear Top Panel	Refer to Layout Drawings	1	Page 57
Front Top Panel	Refer to Layout Drawings	1	Page 58
Door Retainer	Refer to Layout Drawings	2	Page 59
Floating Seal, Style A - Refer to Figures 60 & 61	Refer to Layout Drawings	2	
Floating Seal, Style B - Refer to Figures 60 & 61	Refer to Layout Drawings	4 in 3-door cubicles 8 in 4-door cubicles	Page 60
Floating Seal, Style C - Refer to Figures 60 & 61	Refer to Layout Drawings	6	
Seal Retainer, Style D - Refer to Figures 62 & 63	Refer to Layout Drawings	2	
Seal Retainer, Style E - Refer to Figures 62 & 63	Refer to Layout Drawings	2	Down (1
Seal Retainer, Style F - Refer to Figures 62 & 63	Refer to Layout Drawings	2	Page 61
Seal Retainer, Style G - Refer to Figure 63	Refer to Layout Drawings	2 in 4-door cubicles only	

Replacement Parts for the SSCI Isolation Cubicle (cont'd on Page 46)

Part Name	SSCI Part Number	Quantity per Cubicle	Replacement Instructions	
Door Seal	613185	4 in 3-door cubicles 6 in 4-door cubicles	Page 62	
Door, Front	Refer to Layout Drawings	1	Page 63	
Door(s), Center	Refer to Layout Drawings	1 in 3-door cubicles 2 in 4-door cubicles	Page 66	
Door, Rear	Refer to Layout Drawings	1	Page 68	
Lower Seal, Front Door	Refer to Layout Drawings	1	Page 70	
Column Interior Cover	Refer to Layout Drawings	2	Page 71	
Counterweight, Front Door	Refer to Layout Drawings	2		
Counterweight, Rear & Center Doors	Refer to Layout Drawings	4 in 3-door cubicles 6 in 4-door cubicles	Page 73	
Header	Refer to Layout Drawings	1	Page 74	
Cable Assembly	Refer to Layout Drawings	6 in 3-door cubicles 8 in 4-door cubicles	Page 75	
Pulley Wheel	853582	6 in 3-door cubicles 8 in 4-door cubicles	Page 78	
Column, Right	Refer to Layout Drawings	1	1 Page 79	
Column, Left	Refer to Layout Drawings	1		

### Replacement Parts for the SSCI Isolation Cubicle (cont'd from Page 45)

**Note:** In the table above, part numbers are shown for those standardized parts that are common to all SSCI Isolation Cubicles. Many parts in your cubicle, however, are custom-designed for your particular location or application. In these cases, refer to the Layout Drawings supplied with your cubicle for part numbers.

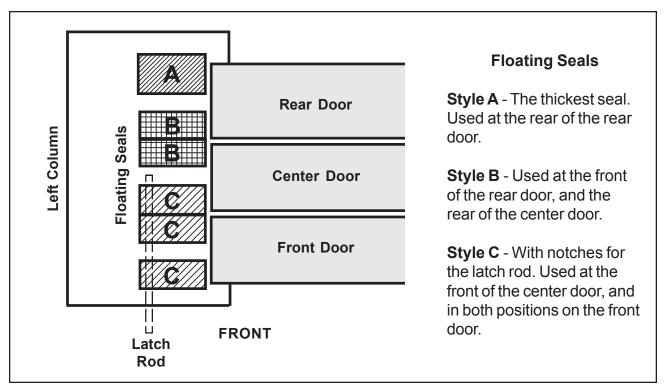


Figure 63. Floating Seals in a 3-Door Cubicle

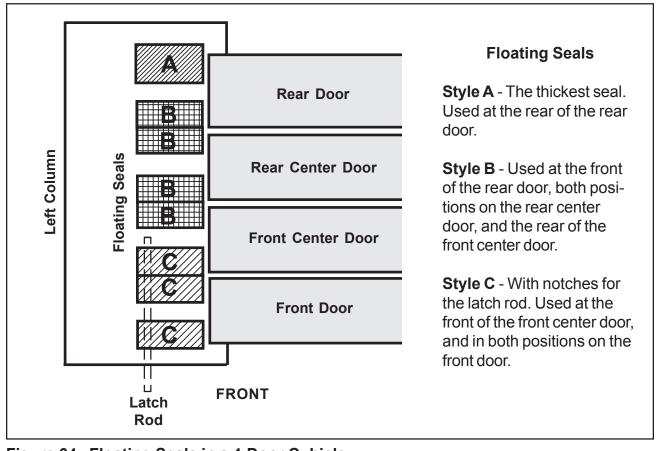


Figure 64. Floating Seals in a 4-Door Cubicle

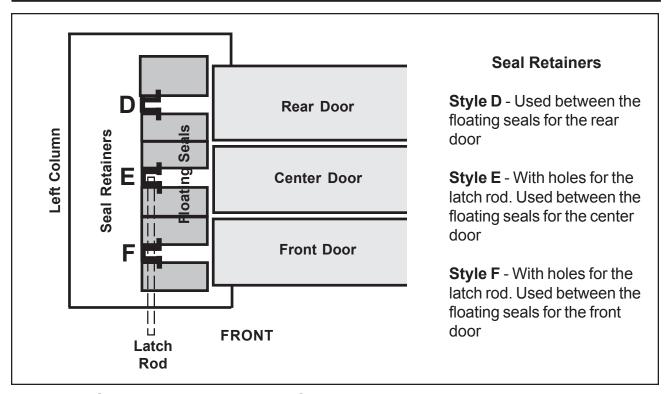


Figure 65. Seal Retainers in a 3-Door Cubicle

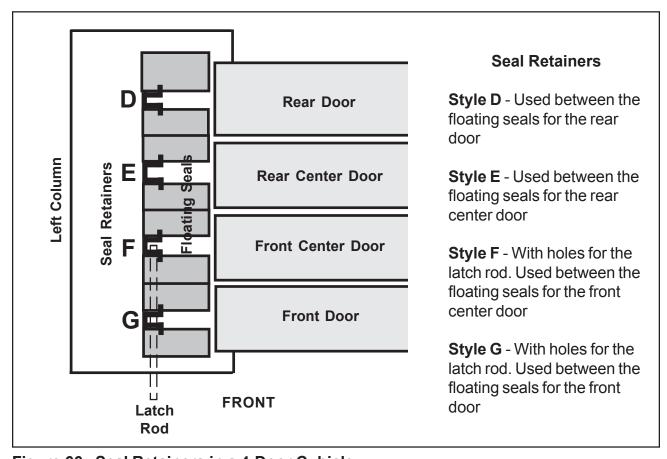


Figure 66. Seal Retainers in a 4-Door Cubicle

### **General Information**

- If during disassembly, you remove any tape, cable ties, etc., remember to replace them as you reassemble the unit.
- During disassembly, retain all hardware items such as screws, nuts, lockwashers, etc. for reassembly.
- If you have problems with any procedure, please feel to call SSCI Customer Service at (800) 323-7366.

## Parts Ordering Procedure

Order new equipment, accessories, and/or replacement parts directly through SSCI Customer Service by mail, telephone, or fax. Refer to *SSCI Contact Information* on *Page 2* for address, telephone, and fax numbers. When ordering, please provide the following information:

- Your name
- Company name
- Company account number
- Telephone number
- Fax number
- e-mail address
- Shipping address
- Billing address (if different from shipping address)
- Names, part numbers, and quantities of items being ordered
- Credit card number and expiration date, or other payment information
- Preferred method of shipment
- Information on whether the items are required on a normal or urgent basis

### Safety

Observe the following precautions when using the Isolation Cubicle.

CAUTION: Always open and close the Isolation Cubicle doors gently. NEVER slam the doors open or closed. Slamming a door can damage the door, pulley system, cable, door attachments, and/or other components.

CAUTION: If a door jams in one position, DO NOT try to force it open or closed as this can cause additional damage. Call SSCI Customer Service for repairs.

CAUTION: Do not trap body parts, animals, or objects under the doors as you close them.

## Parts Replacement Procedures

The following subsections guide you in replacing worn, damaged, or missing parts on your SSCI Isolation Cubicle.

### Lever and Hub P/N 210089

### **Tool Required**

Phillips screwdriver

- 1. Open all doors to access the latch mechanism.
- 2. With a Phillips screwdriver, remove the #8-32 screw that holds the lever and hub to the latch rod (Figure 67).
- 3. Remove the lever and hub from the latch rod.
- 4. Place the new lever and hub on the end of the latch rod.
- 5. Secure the lever and hub to the latch rod with the screw removed above.

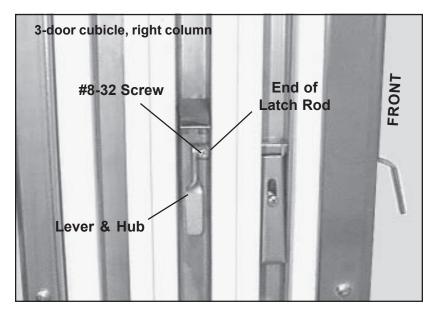


Figure 67. Lever and Hub

### Handle and Latch Rod P/N 210090

### **Tool Required**

Phillips screwdriver

- 1. Open all doors to access the latch mechanism.
- 2. Remove the lever and hub. Refer to *Lever and Hub-Procedure*, *Steps 2* and *3* on *Page 50*.

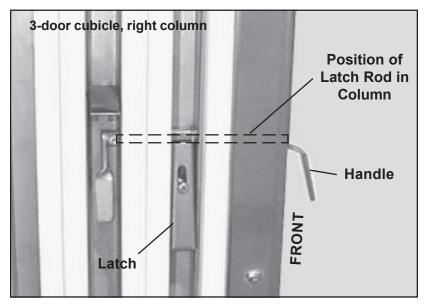


Figure 68. Handle and Latch Rod

- 3. Carefully, pull the handle and latch rod out of the column (Figure 68).
- 4. Insert the new handle and latch rod into the column until the end of the rod appears in the first door channel.
- 5. Pass the handle and latch rod through the two holes in the latch
- 6. Push the handle and latch rod into the second door channel.
- 7. Install the lever and hub. Refer to *Lever and Hub-Procedure*, *Steps 4* and 5 on *Page 50*.
- 8. Refer to *Door Latch Adjustment* on *Page 42* and readjust the latch if necessary.

## Front Cover (Latch) P/N 613202

### **Tool Required**

Phillips screwdriver

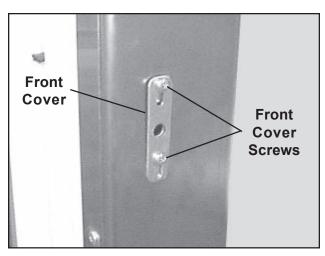


Figure 69. Front Cover

- 1. Open all doors to access the latch mechanism.
- 2. Remove the lever and hub. Refer to *Lever* and *Hub Procedure*, *Steps 2* and *3* on *Page 50*.
- 3. Carefully, pull the handle and latch rod out of the column (Figure 68).
- 4. With a Phillips screwdriver, remove the two front cover screws (Figure 69) and lift off the front cover.
- 5. Hold the new front cover in place and secure it with the two screws you removed above.
- 6. Replace the handle and latch rod. Refer to *Handle and Latch Rod Procedure*, *Steps 4* through 6 on *Page 51*.
- 7. Install the lever and hub. Refer to *Lever and Hub-Procedure*, *Steps 4* and 5 on *Page 50*.
- 8. Refer to *Door Latch Adjustment* on *Page 42* and readjust the latch if necessary.

## Latch P/N 613195

### **Tool Required**

Phillips screwdriver

- 1. Open all doors to access the latch mechanism.
- 2. With a Phillips screwdriver, remove the latch screw from the latch (Figure 70).
- 3. Remove the lever and hub. Refer to *Lever and Hub-Procedure*, *Steps 2* and 3 on *Page 50*.
- 4. Carefully, pull the handle and latch rod out just far enough to free the latch, and then remove the latch from the door channel. Don't lose the spring on the stud under the latch.

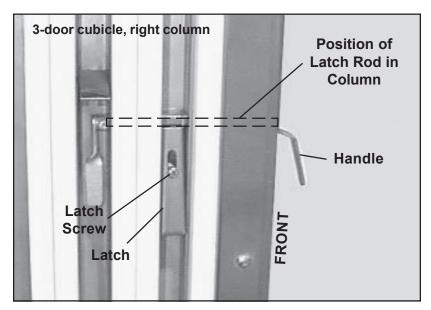


Figure 70. Handle and Latch Rod

- 5. **Note:** Make sure the spring is in place on the stud under the latch. Pass the handle and latch rod through the two holes in the new latch.
- 6. Push the handle and latch rod into the second door channel.
- 7. Install the lever and hub. Refer to *Lever and Hub-Procedure*, *Steps 4* and 5 on *Page 50*.
- 8. Replace the latch screw you removed above.
- 9. Refer to *Door Latch Adjustment* on *Page 42* and readjust the latch if necessary.

## Spring (Latch) P/N 852401

### **Tool Required**

Phillips screwdriver

#### Procedure

1. Open all doors to access the latch mechanism.

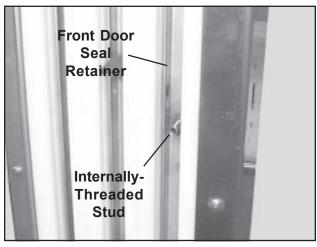


Figure 71. Stud for Spring

- 2. With a Phillips screwdriver, remove the latch screw from the latch (Figure 70).
- 3. Remove the lever and hub. Refer to *Lever* and *Hub Procedure, Steps 2* and 3 on *Page 50*.
- 4. Carefully, pull the handle and latch rod out just far enough to free the latch, and then remove the latch from the door channel.
- 5. Lift the old spring off the internally-threaded stud (Figure 71).
- 6. Place the new spring onto the internally-threaded stud.
- 7. Pass the handle and latch rod through the two holes in the latch.
- 8. Push the handle and latch rod into the second door channel.
- 9. Install the lever and hub. Refer to *Lever and Hub-Procedure*, *Steps 4* and 5 on *Page 50*.
- 10. Replace the latch screw you removed above.
- 11. Refer to *Door Latch Adjustment* on *Page 42* and readjust the latch if necessary.

### Blanking Plate (Light Switch) P/N 611292

### **Tool Required**

Phillips screwdriver

- 1. With a Phillips screwdriver, remove the two mounting screws on the blanking plate (Figure 72) and remove the plate.
- 2. Secure the new blanking plate over the light switch opening with the screws removed above.

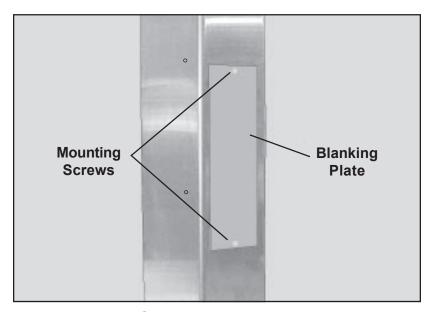


Figure 72. Light Switch Blanking Plate

### Rear Door Support Rail

### Refer to Layout Drawings for Part Number

### **Tools Required**

- 1/2 in. wrench
- Phillips screwdriver
- Stepladder or other lifting device

CAUTION: When using ladders or other lifting apparatus, observe all applicable safety precautions.

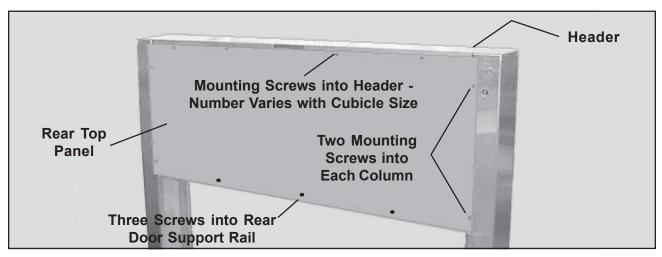


Figure 73. Rear View of Cubicle Showing Rear Top Panel

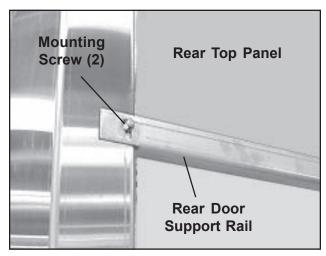


Figure 74. Rear Door Support Rail

- 1. Remove the three Phillips screws that secure the rear top panel to the rear door support rail (Figure 73).
- 2. With a 1/2 in. wrench, remove the two mounting screws, and remove the old support rail from the cubicle (Figure 74).
- 3. Hold the new support rail in place and secure it with the two mounting screws removed above.
- 4. Install the three Phillips screws that hold the top rear panel to the support rail.

### **Rear Top Panel**

### Refer to Layout Drawings for Part Number

### **Tools Required**

- Phillips screwdriver
- Stepladder or other lifting device

**CAUTION:** When using ladders or other lifting apparatus, observe all applicable safety precautions.

- 1. Remove the three Phillips screws that secure the rear top panel to the rear door support rail (Figure 73).
- 2. Remove the two Phillips screws that hold the rear top panel to each column.
- 3. Remove the Phillips screws that hold the panel to the header, and remove the panel.
- 4. Hold the new rear top panel in place and secure with the screws you removed above.

### Front Top Panel

### Refer to Layout Drawings for Part Number

### **Tools Required**

- Phillips screwdriver
- Stepladder or other lifting device

**CAUTION:** When using ladders or other lifting apparatus, observe all applicable safety precautions.

- 1. Remove the three Phillips screws that hold the front top panel to each column (Figure 75).
- 2. Remove the three Phillips screws that hold the panel to the header, and remove the panel.
- 3. Hold the new front top panel in place, and secure with the nine screws you removed above.

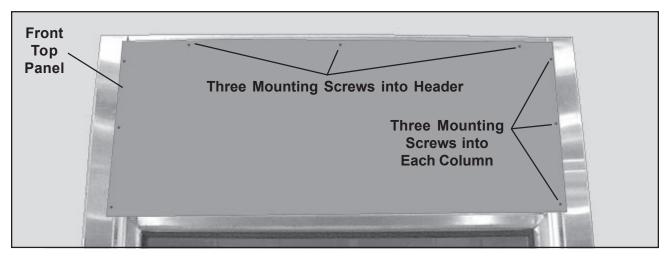


Figure 75. Front View of Cubicle Showing Front Top Panel

### **Door Retainer**

### Refer to Layout Drawings for Part Number

#### Overview

These instructions cover the door retainer on either the left or right column.

### **Tools Required**

- Phillips screwdriver
- Stepladder or other lifting device

**CAUTION:** When using ladders or other lifting apparatus, observe all applicable safety precautions.

### **Procedure**

1. With a Phillips screwdriver, remove the nine mounting screws that hold the front top panel in place (Figure 75), and remove the panel.

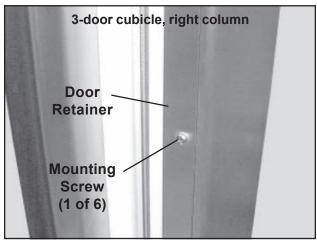


Figure 76. Door Retainer and Mounting Screws

- 2. With a Phillips screwdriver, remove the six door retainer mounting screws (Figure 76), and remove the door retainer from the column
- Slide the long side of the new door retainer between the front floating seal and the column interior cover, and push it all the way in.
   Note: The front edge of the door retainer must be flush with the front edge of the column interior cover.
- 4. Secure the door retainer with the six screws you removed above.
- 5. Hold the front top panel in place and secure it with the nine screws you removed above.

### Floating Seal

### Refer to Layout Drawings for Part Number

### **Overview**

These instructions cover the replacement of all floating seals for the front, center, and rear doors. Replacing a floating seal may require the removal of one or more doors.

### **Tools Required**

- Phillips screwdriver
- 7/16 in. wrench

#### Removal

**Note:** Remove only those doors necessary to reach the seal you wish to replace. Perform *Steps 1, 2,* and *3* only if necessary to access the seal being replaced.

- 1. Refer to *Door, Front Removal, Steps 1* through *19*, starting on *Page 63* and remove the front door from the cubicle.
- 2. If necessary, refer to *Door(s)*, *Center Removal*, *Steps 3* through *13*, starting on *Page 66* and remove the center door or doors from the cubicle.
- 3. If necessary, refer to *Door, Rear-Removal, Steps 4* through *14*, starting on *Page 68* and remove the rear door from the cubicle.

**Note:** Remove seals or seal retainers only if necessary to remove the desired floating seal.

- 4. Remove floating seals if necessary to access seal retainers that must be removed.
- 5. If necessary, with a 7/16 in. wrench, remove the three cap screws that hold the seal retainer for the concerned floating seal in place.
- 6. Remove the seal retainer from the column.
- 7. Lift out the old floating seal.

### Installation

- 1. Install the new floating seal in place in the column.
- 2. If necessary, install the seal retainer and secure with the three cap screws you removed above.
- 3. Refer to *Installing the Rear Door* on *Page 18*.

- 4. Refer to *Installing the Center Door(s)* on *Page 23*.
- 5. Refer to *Installing the Front Door* on *Page 26*.
- 6. Refer to *Installing the Door Latches* on *Page 31*.
- 7. Reinstall any door seals you removed.

### **Seal Retainer**

### Refer to Layout Drawings for Part Number

### Overview

These instructions cover the replacement of all seal retainers for the front, center, and rear doors. Replacing a seal retainer will require the removal of one or more doors.

### **Tools Required**

- Phillips screwdriver
- 7/16 in. wrench

### Removal

**Note:** Remove only those doors necessary to reach the retainer you wish to replace. Perform *Steps 2*, and *3* only if necessary to access the retainer being replaced.

- 1. Refer to *Door, Front Removal, Steps 1* through *19*, starting on *Page 63* and remove the front door from the cubicle.
- 2. If necessary, refer to *Door(s)*, *Center Removal*, *Steps 4* through *13*, starting on *Page 66* and remove the center door or doors from the cubicle.
- 3. If necessary, refer to *Door, Rear- Removal, Steps 4* through *14*, starting on *Page 68* and remove the rear door from the cubicle.

**Note:** Remove seals or seal retainers only if necessary to remove the desired seal retainer.

- 4. Remove floating seals if necessary to access seal retainers that must be removed.
- 5. If necessary, with a 7/16 in. wrench, remove the three cap screws that hold the seal retainer in place.
- 6. Remove the seal retainer from the column.

### Installation

- 1. Install the seal retainer and secure with the three cap screws you removed above.
- 2. Refer to *Installing the Rear Door* on *Page 18*.
- 3. Refer to *Installing the Center Door(s)* on *Page 23*.
- 4. Refer to *Installing the Front Door* on *Page 26*.
- 5. Refer to *Installing the Door Latches* on *Page 31*.
- 6. Reinstall any door seals you removed.

### Door Seal P/N 613185

### Overview

There are four door seals in each 3-door cubicle, and six door seals in each 4-door cubicle. These instructions cover the replacement of all door seals in all cubicles.

### **Tool Required**

■ 7/16 in. wrench

- 1. Open all doors to access the door seals.
- 2. With a 7/16 in. wrench, remove the door seal mounting screw and remove the seal from the column (Figure 78).
- 3. Hold the new door seal in place and secure with the mounting screw you removed above.



Figure 77. Typical Door Seal

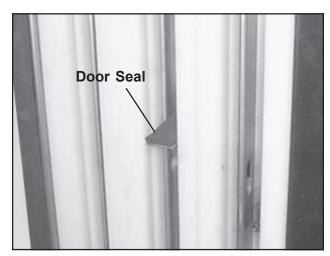


Figure 78. Door Seal for Center Door

### Door, Front

### Refer to Layout Drawings for Part Number

#### Overview

This subsection covers the replacement of the front door only. Replacement of the center and rear doors is covered elsewhere in the chapter. It is a good idea to have the cubicle Layout Drawings available while performing this procedure.

### **Tools Required**

- Phillips screwdriver
- 7/16 in. wrench

#### Removal

- 1. Open all doors to access the latch mechanism.
- 2. With a Phillips screwdriver, remove the screw that holds the lever and hub to the latch rod (Figure 79) in the right column.
- 3. Remove the lever and hub from the latch rod.
- 4. With a Phillips screwdriver, remove the latch screw.
- 5. Pull the handle and latch rod out of the column. **Note:** You can leave the latch front cover in place.
- 6. Take the latch out of the column.
- 7. Remove the spring from the internally-threaded stud under the latch.
- 8. Repeat *Steps 2* through 7 to remove the latch mechanism from the left column.

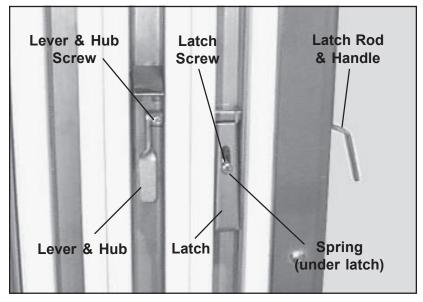


Figure 79. Latch Mechanism (Right Column)

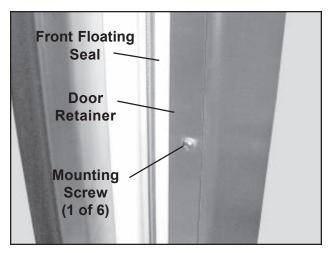


Figure 80. Door Retainer

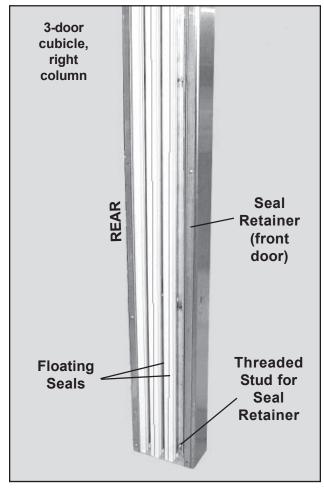


Figure 81. Floating Seals and Seal Retainer for Front Door

- 9. Remove the three Phillips screws that hold the front top panel to each column (Figure 75).
- 10. Remove the three Phillips screws that hold the front top panel to the header, and remove the panel.
- 11. With a Phillips screwdriver, remove the six screws that hold the door retainer in place (Figure 80) in the right column.
- 12. Remove the door retainer from the column.

**Note:** Keep track of all floating seals and seal retainers after you remove them so that you can reinstall them in the correct order.

- 13. Lift the front floating seal out of the right column.
- 14. Repeat *Steps 11* through *13* to remove the corresponding components from the left column.
- 15. Carefully, pull the front door down and remove it from the floating seals behind it.

  Place it on the floor a few inches in front of the cubicle.

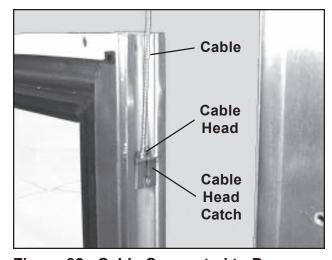


Figure 82. Cable Connected to Door

- 16. Remove the silicon from inside the cable head catch.
- 17. Grasp the right cable firmly, pull it down, and disengage the cable head from the cable head catch on the side of the door (Figure 82). **Note:** Keep a firm hold on the cable, and gently allow it to rise while the counterweight inside the column slowly descends. Do not allow the counterweight to fall freely.
- 18. Repeat *Steps 16* and *17* to disconnect the left cable.
- 19. Remove the front door from the cubicle.

- 1. Refer to *Installing the Front Door* on *Page 26*.
- 2. Refer to *Installing the Door Latches* on *Page 31*.
- 3. Hold the front top panel in place and secure with the nine screws you removed above.

### Door(s), Center

## Refer to Layout Drawings for Part Number

### Overview

This subsection covers the replacement of the center door in a 3-door cubicle, and both center doors in a 4-door cubical. Replacement of the front and rear doors is covered elsewhere in the chapter. It is a good idea to have the cubicle Layout Drawings available while performing this procedure.

### **Tools Required**

- Phillips screwdriver
- 7/16 in. wrench

### Removal

- 1. Open all doors to access the latch mechanism.
- 2. Refer to *Door, Front Removal, Steps 2* through *19*, starting on *Page 63*, and remove the front door from the cubicle.

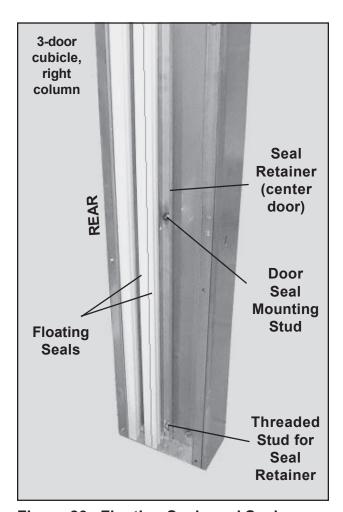


Figure 83. Floating Seals and Seal Retainer for Center Door

**Note:** Keep track of all floating seals and seal retainers after you remove them so that you can reinstall them in the correct order.

- 3. With a 7/16 in. wrench, remove the three cap screws that hold the front seal retainer in place in the right column (Figure 83).
- 4. Remove the front seal retainer.
- 5. Lift out the floating seal that was just behind the front door.
- 6. Lift out the floating seal that backed up to the seal you removed above.
- 7. Repeat *Steps 3* through *6* to remove the corresponding components from the left column.
- 8. Carefully, pull the center door down and remove it from the floating seals behind it. Place it on the floor a few inches in front of the cubicle.

- 9. Remove the cable screw and speed nut from the cable head catch (Figure 30).
- 10. Grasp the right cable firmly, pull it down, and disengage the cable head from the cable head catch on the side of the door (Figure 82). **Note:** Keep a firm hold on the cable, and gently allow it to rise while the counterweight inside the column slowly descends. Do not allow the counterweight to fall freely.
- 11. Repeat *Steps 9* and *10* to disconnect the left cable.
- 12. Remove the center door from the cubicle.
- 13. If you have a 4-door cubicle, repeat the steps in this subsection to remove the rear center door.

- 1. Refer to *Installing the Center Door(s)* on *Page 23*.
- 2. Refer to *Installing the Front Door* on *Page 26*.
- 3. Refer to *Installing the Door Latches* on *Page 31*.

### Door, Rear

## Refer to Layout Drawings for Part Number

### Overview

This subsection covers the replacement of the rear door only. Replacement of the front and center doors is covered elsewhere in the chapter. It is a good idea to have the cubicle Layout Drawings available while performing this procedure.

### **Tools Required**

- Phillips screwdriver
- 7/16 in. wrench

### Removal

- 1. Open all doors to access the latch mechanism.
- 2. Refer to *Door, Front Removal, Steps 2* through *19*, starting on *Page 63* and remove the front door from the cubicle.
- 3. Refer to *Door(s)*, *Center Removal*, *Steps 3* through *13*, starting on *Page 66* and remove the center door(s) from the cubicle.

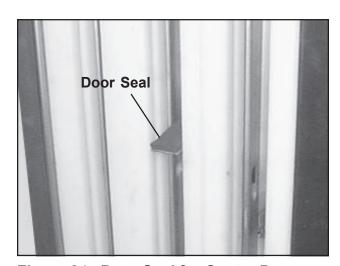


Figure 84. Door Seal for Center Door

- 4. With a 7/16 in. wrench, loosen the cap screw that holds the center door seal in place in the right column, and remove the seal (Figure 84).
- 5. With a 7/16 in. wrench, remove the three cap screws that hold the center seal retainer in place in the right column (Figure 83).
- 6. Remove the center seal retainer.
- 7. Lift out the floating seal that was just behind the center door (Figure 83).
- 8. Lift out the floating seal that backed up to the seal you removed above.
- 9. Repeat *Steps 4* through 8 to remove the corresponding components from the left column.
- 10. Carefully, pull the rear door down and remove it from the floating seals behind it. Place it on the floor a few inches in front of the cubicle.

- 11. Remove the cable screw and speed nut from the cable head catch (Figure 30).
- 12. Grasp the right cable firmly, pull it down, and disengage the cable head from the cable head catch on the side of the door (Figure 82). **Note:** Keep a firm hold on the cable, and gently allow it to rise while the counterweight inside the column slowly descends. Do not allow the counterweight to fall freely.
- 13. Repeat *Steps 11* and *12* to disconnect the left cable.
- 14. Remove the rear door from the cubicle.

- 1. Refer to *Installing the Rear Door* on *Page 18*.
- 2. Refer to *Installing the Center Door(s)* on *Page 23*.
- 3. Refer to *Installing the Front Door* on *Page 26*.
- 4. Refer to *Installing the Door Latches* on *Page 31*.
- 5. Hold the center lower seal in place in the right column and secure with the cap screw you removed above.
- 6. Repeat *Step 5* and replace the center door seal in the left column.

# Lower Seal, Front Door

## Refer to Layout Drawings for Part Number

### Overview

This subsection covers the replacement of the lower seal on the front door. The center and rear doors do not have lower seals. You do not have to remove the door from the cubicle to replace the lower seal.

### **Tool Required**

Screwdriver

### **Procedure**

- 1. Open all doors fully to access the front door lower seal.
- 2. With a screwdriver, remove all the cap screws holding the seal strip and seal in place on the bottom of the front door (Figure 85). **Note:** The number of screws will vary with the dimensions of the door.
- 3. Remove the seal strip and the old seal.
- 4. Hold the new seal in place with the seal strip over it, and secure both parts to the door with the cap screws you removed above.

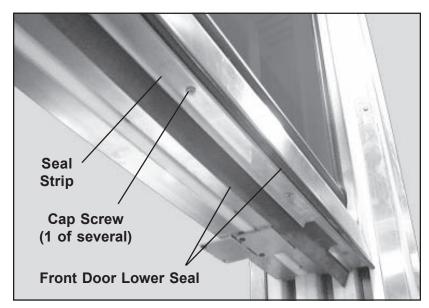


Figure 85. Front Door Lower Seal Components

# Column Interior Cover

## Refer to Layout Drawings for Part Number

### Overview

These instructions cover the column interior covers on either the left or right column. Replacing the column interior cover requires the disassembly of much of the cubicle.

### **Tools and Supplies Required**

- Phillips screwdriver
- Wrench set, non-metric
- Stepladder (min. 10 ft high) or other lifting device
- Putty knife or other scraping tool
- Solvent
- Caulking gun
- Silicone adhesive/sealant

# **CAUTION:** When using ladders or other lifting apparatus, observe all applicable safety precautions.

### Removal

- 1. Remove the three Phillips screws that secure the front horizontal sealing strip to the header (Figure 58).
- 2. Pry the front horizontal sealing strip off the header.
- 3. Repeat *Steps 1* and 2 to remove the rear horizontal sealing strip.

**Note:** It is not necessary to remove the vertical sealing strips.

- 4. Remove the remaining screws that hold the front top panel to the cubicle (Figure 75), and remove the panel.
- 5. With a 7/16 in. wrench, remove all door seal cap screws and remove the seals (Figure 43).
- 6. Remove the six screws that hold the door retainer to the right column and remove the retainer (Figure 80).
- 7. Remove the six screws that hold the door retainer to the left column and remove the retainer.
- 8. Refer to *Door, Front Removal, Steps 1* through *19*, starting on *Page 63* and remove the front door from the cubicle.

- 9. Refer to *Door(s)*, *Center Removal*, *Steps 3* through *13*, starting on *Page 66* and remove the center door(s) from the cubicle.
- 10. Refer to *Door, Rear Removal, Steps 4* through *14*, starting on *Page 68* and remove the rear door from the cubicle.
- 11. With a 7/16 in. wrench remove the three nuts that hold the remaining seal retainer in the column in which you are replacing the column interior cover (Figure 24).
- 12. Remove that seal retainer.
- 13. Remove the remaining floating seal from the same column (Figure 23).

**Note:** The seal retainer and floating seal in the other column do not have to be removed.

- 14. Remove all the mounting screws that hold the rear top panel in place (Figure 73), and remove the panel.
- 15. With a 1/2 in. wrench, remove the two mounting screws that hold the rear door support rail to the columns (Figure 74), and remove the rail from the cubicle.
- 16. Remove the six mounting screws on the rear flange of the column interior cover you are replacing (Figure 15).Note: The mounting screws were removed from the front flange above.
- 17. Remove the old column interior cover.

### Installation

Refer to *Chapter 2, Installation*. Start at *Installing the Column Interior Covers* on *Page 14* and continue on through the remainder of the chapter.

**Note:** Before replacing the horizontal sealing strips, use a putty knife or other scraping tool, and an appropriate solvent, to make sure that the sealing strips and the associated mounting surfaces on the header and ceiling are clean and free of dirt, oil, grease, and old adhesive.

### Counterweight

## Refer to Layout Drawings for Part Number

### **Overview**

These instructions cover all counterweights for the front, center, and rear doors. Replacing a counterweight requires the disassembly of most of the cubicle.

### **Tools and Supplies Required**

- Phillips screwdriver
- Wrench set, non-metric
- Stepladder (min. 10 ft high) or other lifting device
- Putty knife or other scraping tool
- Solvent
- Caulking gun
- Silicone adhesive/sealant

**CAUTION:** When using ladders or other lifting apparatus, observe all applicable safety precautions.

### Removal

1. Refer to *Column Interior Cover - Removal, Steps 1* through *17*, starting on *Page 71* and remove the column interior cover.

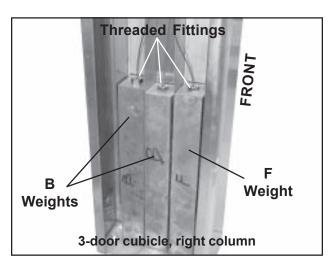


Figure 86. Counterweights in the Column

- 2. With a 3/4 in. wrench, remove the threaded fitting from the counterweight you are replacing (Figure 86).
- 3. Remove the counterweight from the column.

### Installation

**Note:** The weights for the *front* door are marked with the letter **F** (Figure 86). The weights for the *center* and *rear* doors are marked with the letter **B**.

- 1. Make sure you have the correctly marked replacement counterweight.
- 2. Screw the threaded fitting into the top of the counterweight and tighten fully.
- 3. Replace the counterweight into the column.
- 4. Refer to *Column Interior Cover Installation, Steps 1* through *14*, starting on *Page 72* and reassemble the cubicle.

### Header

### Overview

### **Refer to Layout Drawings** for Part Number

Replacing a header requires the complete disassembly of most of the cubicle.

### **Tools and Supplies Required**

- Phillips screwdriver
- Wrench set, non-metric
- Stepladder (min. 10 ft high) or other lifting device
- Putty knife or other scraping tool
- Solvent
- Caulking gun
- Silicone adhesive/sealant

CAUTION: When using ladders or other lifting apparatus, observe all applicable safety precautions.

### Removal

- 1 Refer to Column Interior Cover - Removal, Steps 1 through 17, starting on Page 71 and remove the column interior cover
- 2. With a 3/4 in. wrench, remove the threaded fittings from all the counterweights (Figure 87) and remove the weights from the columns.
- 3. With a 7/16 in. wrench, remove the two mounting bolts that hold the header to each column (Figure 7), and remove the header

### Installation

Refer to Chapter 2, Installation. Start at Mounting the Header on Page 11 and continue on through the remainder of the chapter.

**Note:** Before replacing the vertical and horizontal sealing strips, use a putty knife or other scraping tool, and an appropriate solvent, to make sure that the sealing strips and the associated mounting surfaces on the header, columns, walls, and ceiling are clean and free of dirt, oil, grease, and old adhesive.

### Cable Assembly

## Refer to Layout Drawings for Part Number

### Overview

These instructions cover all cable assemblies for the front, center, and rear doors. Replacing a cable assembly requires the complete disassembly of much of the cubicle.

### **Tools and Supplies Required**

- Phillips screwdriver
- Wrench set, non-metric
- Tape measure
- Crimping tool
- Stepladder (min. 10 ft high) or other lifting device
- Putty knife or other scraping tool
- Solvent
- Caulking gun
- Silicone adhesive/sealant

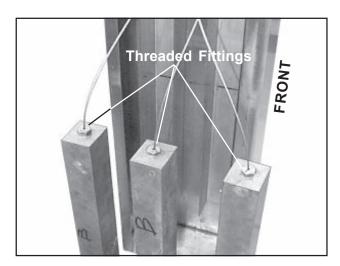


Figure 87. Weights Attached to Threaded Fittings

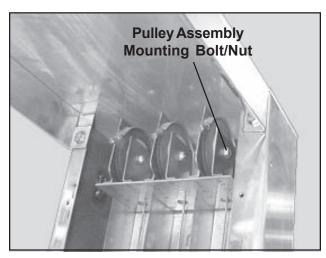


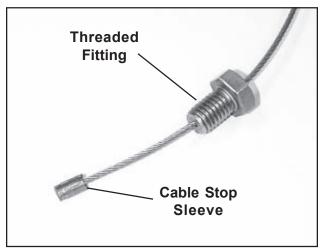
Figure 88. Pulley Assemblies

CAUTION: When using ladders or other lifting apparatus, observe all applicable safety precautions.

### Removal

- 1. Refer to *Column Interior Cover Removal, Steps 1* through *17*, starting on *Page 71* and remove the column interior cover. **Note:** Remove the cover only from the column in which you are replacing the cable.
- 2. Locate the counterweight attached to the cable to be replaced and lift it out of the column. Leave the other counterweights in place.
- 3. With a 3/4 in. wrench, unscrew the threaded fitting from the counterweight (Figure 87).
- 4. With two 7/16 in. wrenches, remove the bolt and nut from the pulley assembly for the cable to be replaced (Figure 88), and remove the pulley wheel assembly from the column.
- 5. Remove the cable from the pulley assembly.

- 1. Measure the full length of the cable.
- 2. Contact SSCI Customer Service and order:
  - Replacement cable of the correct length
  - Cable Stop Sleeve (2) P/N 853223
  - Flanged Bearing P/N 853973
- 3. Slide one end of the new cable through the threaded fitting as shown in Figure 89, and tightly crimp one cable stop sleeve to the cable end.
- 4. Slide the other end of the cable through the flanged bearing as shown in Figure 90, and tightly crimp the remaining cable stop sleeve to the end of the cable.



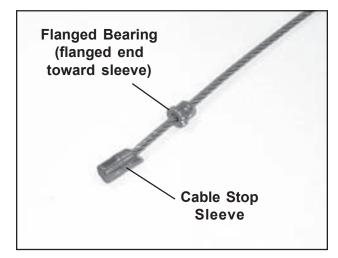


Figure 89. Counterweight End of Cable

Figure 90. Door End of Cable

- 5. Place the door end of the cable into the groove on the pulley wheel (Figure 91). Notice the orientation of the cable in the assembly in relation to the round corner of the assembly bracket.
- 6. Mount the pulley assembly back into the column being careful not to lose or mislocate the nylon washer.
- 7. Screw the threaded fitting on the counterweight end of the cable into the counterweight.
- 8. Replace the counterweight into the column.

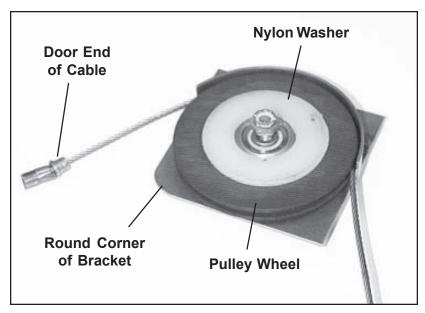


Figure 91. Cable in Pulley Assembly

9. Refer to *Chapter 2, Installation*. Start at *Mounting the Column Interior Covers* on *Page 14* and continue on through the remainder of the chapter.

**Note:** Before replacing the vertical and horizontal sealing strips, use a putty knife or other scraping tool, and an appropriate solvent, to make sure that the sealing strips and the associated mounting surfaces on the header, columns, walls, and ceiling are clean and free of dirt, oil, grease, and old adhesive.

# Pulley Wheel P/N 853582

### **Overview**

These instructions cover all pulley wheels for the front, center, and rear doors. Replacing a pulley wheel requires the complete disassembly of much of the cubicle.

### **Tools and Supplies Required**

- Phillips screwdriver
- Wrench set, non-metric
- Stepladder (min. 10 ft high) or other lifting device
- Putty knife or other scraping tool
- Solvent
- Caulking gun
- Silicone adhesive/sealant

# CAUTION: When using ladders or other lifting apparatus, observe all applicable safety precautions.

### Removal

- 1. Refer to *Column Interior Cover Removal, Steps 1* through *17*, starting on *Page 71* and remove the column interior cover. **Note:** Remove the cover only from the column in which you are replacing the pulley wheel.
- 2. With two 7/16 in. wrenches, remove the bolt and nut from the pulley assembly for the pulley to be replaced (Figure 88), and remove the pulley wheel assembly from the column.
- 3. Remove the cable from the pulley assembly.
- 4. Remove the pulley wheel from the assembly.

- 1. Place the new pulley wheel into the assembly.
- 2. Place the door end of the cable into the groove on the pulley wheel (Figure 91). Notice the orientation of the cable in the assembly in relation to the round corner of the assembly bracket.
- 3. Mount the pulley assembly back into the column being careful not to lose or mislocate the nylon washer.

4. Refer to *Chapter 2, Installation*. Start at *Mounting the Column Interior Covers* on *Page 14* and continue on through the remainder of the chapter.

**Note:** Before replacing the vertical and horizontal sealing strips, use a putty knife or other scraping tool, and an appropriate solvent, to make sure that the sealing strips and the associated mounting surfaces on the header, columns, walls, and ceiling are clean and free of dirt, oil, grease, and old adhesive.

### Column

### **Overview**

## Refer to Layout Drawings for Part Number

These instructions cover both right and left columns. Replacing a column requires the complete disassembly of the cubicle.

### **Tools and Supplies Required**

- Phillips screwdriver
- Wrench set, non-metric
- Stepladder (min. 10 ft high) or other lifting device
- Putty knife or other scraping tool
- Solvent
- Caulking gun
- Silicone adhesive/sealant

CAUTION: When using ladders or other lifting apparatus, observe all applicable safety precautions.

### Removal

- 1. Refer to *Header Removal, Steps 1* through *3*, on *Page 75* and remove the header from the cubicle.
- 2. Remove the bolt and washer that hold the column to the wall (Figure 4).
- 3. Remove the two mounting bolts and washers that hold the column to the floor (Figure 1) and lift the column from its position.

### Installation

Refer to *Chapter 2, Installation of the Basic Isolation Cubicle* starting on *Page 9* and follow the complete procedure.

Comments:	

## Chapter 5 - Troubleshooting

### General

The following procedures will help you fix most of the problems that you might encounter with your SSCI Isolation Cubicle. If necessary, please feel free to call SSCI Customer Service at (800) 323-7366. Our experienced technical support personnel will be glad to help you.

For more information on contacting SSCI, refer to SSCI Contact Information on Page 2.

Part numbers for available replacement parts are shown in the table on *Pages 45* and *46*. To order replacement parts, refer to *Parts Ordering Procedure* on *Page 49*.

Possible problems are listed below:

The doors will not open or are hard to open	. Page	82
A door is jammed in mid-position	. Page	83
When open, the doors drift slightly up or down	. Page	84
The doors close but will not latch.	. Page	85
There is excessive air leakage (in or out).	. Page	86

## Returning Isolation Cubicle Components for Repairs

### **RMA Numbers**

If components of your Isolation Cubicle should require return to SSCI for repairs, discuss the problem with one of our Customer Service Representatives. Obtain an RMA number (Return Merchandise Authorization) from him before shipping the item back. **Note:** SSCI will *not* accept merchandise returned without an RMA number.

# Packing and Shipment

Pack the component securely in a suitable container. If the component is large and heavy, consider shipping it securely mounted to a pallet. Ship documentation with the unit including:

- Destination
- RMA Number
- Your name, company and address
- Your telephone number
- A description of the reason for returning the component

### The doors will not open or are hard to open or close.

### **Remedial Action**

CAUTION: Always open and close the Isolation Cubicle doors gently. NEVER slam the doors open or closed. Slamming a door can damage the door, pulley system, cable, door attachments, and/or other components.

CAUTION: If a door jams in one position, DO NOT try to force it open or closed as this can cause additional damage.

**First:** Make sure that you are trying to open the doors correctly. Refer to *Opening the Doors* on *Page 41*.

**Second:** One of the cables for that door may have broken or jumped out of its pulley. Refer to *Cable Assembly - Removal - Step 1* on *Page 75* and remove the column interior cover. If you can see that the cable has slipped off the pulley, put it back in position on the pulley and reassemble the cubicle. If the cable has broken, continue on with the removal and installation process. Refer to your system Layout Drawings, find the cable part number, and order a replacement cable from SSCI.

**Third:** The latch may not be unlatching properly. Push strongly down on the front door and, with a small hammer or similar tool, tap very LIGHTLY on the latch handles as shown in *Figure 60* on *Page 41*. If the doors now open, the latch is probably riding too low. Refer to *Page 42* to perform the *Door Latch Adjustment* procedure and raise the latch.

**Fourth:** If these actions do not resolve the problem, call SSCI Customer Service at (800) 323-7366.

### The doors are jammed in mid-position.

### **Remedial Action**

CAUTION: Always open and close the Isolation Cubicle doors gently. NEVER slam the doors open or closed. Slamming a door can damage the door, pulley system, cable, door attachments, and/or other components.

CAUTION: If a door jams in one position, DO NOT try to force it open or closed as this can cause additional damage.

**First:** Make sure that you are trying to open the doors correctly. Refer to *Opening the Doors* on *Page 41*.

**Second:** One of the cables for that door may have broken or jumped out of the pulley. If one end of the door is higher than the other, that is a strong indication that a cable has broken. Refer to *Cable Assembly - Removal - Step 1* on *Page 75* and remove the column interior cover. If you can see that the cable has slipped off the pulley, put it back in position on the pulley and reassemble the cubicle. If the cable has broken, continue on with the removal and installation process. Refer to your system Layout Drawings, find the cable part number, and order a replacement cable from SSCI.

**Third:** If these actions do not resolve the problem, call SSCI Customer Service at (800) 323-7366.

## When open, the doors drift slightly up or down.

### **Remedial Action**

CAUTION: Always open and close the Isolation Cubicle doors gently. NEVER slam the doors open or closed. Slamming a door can damage the door, pulley system, cable, door attachments, and/or other components.

CAUTION: If a door jams in one position, DO NOT try to force it open or closed as this can cause additional damage.

**First:** The pulley on this cable is probably loose. Refer to *Cable Assembly - Removal - Step 1* on *Page 75* and remove the column interior cover. Tighten the pulley assembly mounting bolt/nut (Figure 88).

**Second:** If these actions do not resolve the problem, call SSCI Customer Service at (800) 323-7366.

### The doors close but will not latch.

### **Remedial Action**

CAUTION: Always open and close the Isolation Cubicle doors gently. NEVER slam the doors open or closed. Slamming a door can damage the door, pulley system, cable, door attachments, and/or other components.

CAUTION: If a door jams in one position, DO NOT try to force it open or closed as this can cause additional damage.

**First:** Make sure that you are trying to open the doors correctly. Refer to *Opening the Doors* on *Page 41*.

**Second:** The latch may not be unlatching properly. Push strongly down on the front door and, with a small hammer or similar tool, tap very LIGHTLY on the latch handles as shown in *Figure 60* on *Page 41*. If the doors now open, the latch is probably riding too high. Refer to *Page 42* to perform the *Door Latch Adjustment* procedure and lower the latch.

**Third:** If these actions do not resolve the problem, call SSCI Customer Service at (800) 323-7366.

### There is excessive air leakage (in or out).

### **Remedial Action**

**First:** Make sure that you are closing the doors correctly. Refer to *Closing the Doors* on *Page 41*.

**Second:** The front door lower seal may not be making firm contact with the floor. Refer to *Page 42* and perform the *Door Latch Adjustment* procedure to make sure that the latch is properly adjusted and that the front door lower seal makes firm contact with the floor.

**Third:** The front door seal may be damaged, worn, or missing. Refer to *Lower Seal, Front Door* on *Page 70* for replacement instructions. Refer to your system Layout Drawings, find the seal part number, and order a replacement cable from SSCI.

**Fourth:** Open the doors and carefully examine the floating seals and seal retainers (Figure 25). Make sure they are tight and undamaged. If necessary, refer to your system Layout Drawings, find the floating seal or seal retainer part number, and order a replacement from SSCI.

**Fifth:** Open the doors and check all the door seals (Figures 43 and 44). Make sure they are all present, tight, and undamaged. If necessary, refer to the table on *Page 46*, find the door seal part number, and order a replacement from SSCI.

**Sixth:** Make sure there are no unfilled vacant holes in the cubicle. Refer to *Filling Vacant Holes* on *Page 37*.

**Seventh:** Check all the vertical and horizontal sealing strips and make sure they are all in place, tight, undamaged, and properly sealed. Refer to *Pages 38* and *39*.

**Eighth:** Make sure that the column bases are properly sealed. Refer to *Sealing Around the Bases of the Columns* on *Page 40*.

**Ninth:** If these actions do not resolve the problem, call SSCI Customer Service at (800) 323-7366.

Inside back cover

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For more information on SSCI's fine line of products and accessories, talk to your SSCI sales representative.



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