

R Y T E C

Pharma Seal[®]

Installation Manual



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INTRODUCTION

The information in this manual will allow you to install your Rytec Pharma-Seal® Door in a manner which ensures maximum life and trouble-free operation.

Any unauthorized changes in procedure, or failure to follow the steps as outlined in this manual, will automatically void the warranty. Any changes in the working parts, assemblies, or specifications as written, which are not authorized by Rytec Corporation, will also cancel the warranty. The responsibility for the successful operation and performance of this door lies with the owner of the door.

DO NOT OPERATE OR PERFORM MAINTENANCE ON THIS DOOR UNTIL YOU READ AND UNDERSTAND THE INSTRUCTIONS CONTAINED IN THIS MANUAL.

If you have any questions, contact your Rytec representative or call the Rytec Technical Support Department at 800-628-1909. Always refer to the serial number of the door when calling the representative or Technical Support. The serial number plate is located inside the left side column.

The wiring connections in this manual are for general information purposes only. A wiring schematic is provided with each individual door specifically covering the control panel and electrical components of that door. That schematic was shipped inside the control panel.

DOOR SERIAL NUMBER(S)

To obtain your **DOOR SERIAL NUMBER**, there are three universal locations where this information can be found. These are inside the left side column (approximately eye level), on the drive motor, and on the door of the System 4 control panel. (See Figure 1.)

IMPORTANT: *When installing multiple doors of the same model but in different sizes, verify the serial number in the control panel with the one in the side column.*

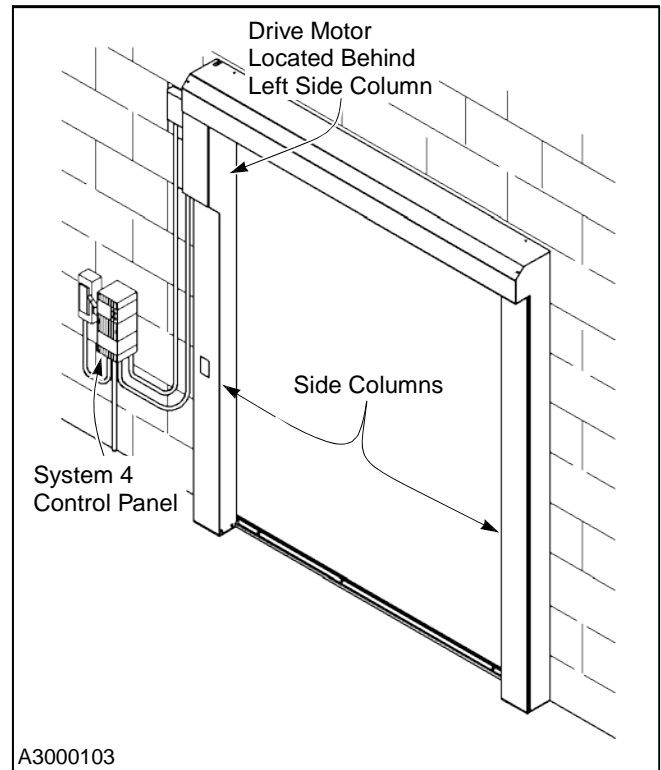


Figure 1

HOW TO USE MANUAL

Throughout this manual, the following key words are used to alert the reader to potentially hazardous situations, or situations where additional information to successfully perform the procedure is presented:



WARNING is used to indicate the potential for personal injury, if the procedure is not performed as described.



CAUTION is used to indicate the potential for damage to the product or property damage, if the procedure is not followed as described.

IMPORTANT: **IMPORTANT** is used to relay information **CRITICAL** to the successful completion of the procedure.

NOTE: **NOTE** is used to provide additional information to aid in the performance of the procedure or operation of the door, but not necessarily safety related.

INSTALLATION—TOOLS AND EQUIPMENT REQUIRED

INSTALLATION

TOOLS AND EQUIPMENT REQUIRED

1. Socket and wrench set
2. ½-in. diameter concrete anchor bolts (See "ANCHORING METHODS" on page 3.)
3. ½-in. diameter threaded rod (See "ANCHORING METHODS" on page 3.)
4. Two ladders (taller than the door opening height)
5. Forklift
6. Carpenter's level (4-ft.-long minimum)
7. Carpenter's square
8. Hammer drill
9. ½-in. diameter masonry drill bit
10. Three or four, 1-ft.-long bar clamps
11. Hammer and mallets
12. Crowbar or pry bar
13. Assorted hand tools (pliers, tape measure, etc.)
14. Cable cutter
15. Laser Level
16. Flat file
17. Assorted shim stock
18. Water level, line level, or transit
19. Several tubes of latex caulk

FLOOR LOOP EQUIPMENT REQUIREMENTS

1. Wet-type concrete saw.
2. Wet vac.
3. 16-gauge, 19-strand, type XLPE, copper, crosslink polyethylene jacket wire (or equivalent). Length of wire determined by loop size.
4. Bondo P606 flexible embedding sealer (or equivalent) — for filling grooves cut in floor for floor loop. Cold temperature sealing applications will require Bondo P610 speed set to be added to P606 to ensure filler cures properly.
5. Water supply and garden hose (for concrete saw).

NOTE: For complete floor loop installation instructions, refer to the installation instructions provided with your particular floor loop.

BASIC JOB REQUIREMENTS

1. The customer must guarantee 100% access to the door opening during the installation. No traffic should be allowed through the door during the installation.
2. A forklift must be supplied by the customer, dealer, or installer.
3. Two installers are required.

NOTE: One installer must be a qualified electrical technician, and all electrical work must meet applicable codes. If the installer is not qualified, an electrician must be present during the installation.

4. All electrical connections must be made by a licensed electrician. The electrician should be present one hour after installation begins. (See "ELECTRICIAN'S RESPONSIBILITIES" below.)
5. The Rytec control panel and a fused disconnect should be installed prior to the start of the door installation. (See Figure 2 for layout.)

ELECTRICIAN'S RESPONSIBILITIES

For complete details on the responsibilities of the electrician, refer to the Rytec System 4 Drive & Control Installation & Owner's Manual.

NOTE: See "CONTROL SYSTEM" on page 18, for complete details on the electrical work to be performed.

1. Install fused disconnect and Rytec control panel. (See Figure 2 for typical installation.)
2. Install all necessary conduit tubing.

NOTE: Separate high and low voltage conduit.

3. Run electrical power lines to disconnect.
4. Run power lines from disconnect to control panel.
5. Run power lines from control panel to upper junction box.
6. Run power lines from control panel to door motor.
7. Run low-voltage cables from door to control panel.
8. Mount rear photo eyes.
9. Wire low-voltage safety devices and activators (if used).

GENERAL ARRANGEMENT OF DOOR PARTS

Figure 2 shows the location of the major components of your Pharma-Seal. This illustration should be used as reference only and should not be used as part of the installation instructions.

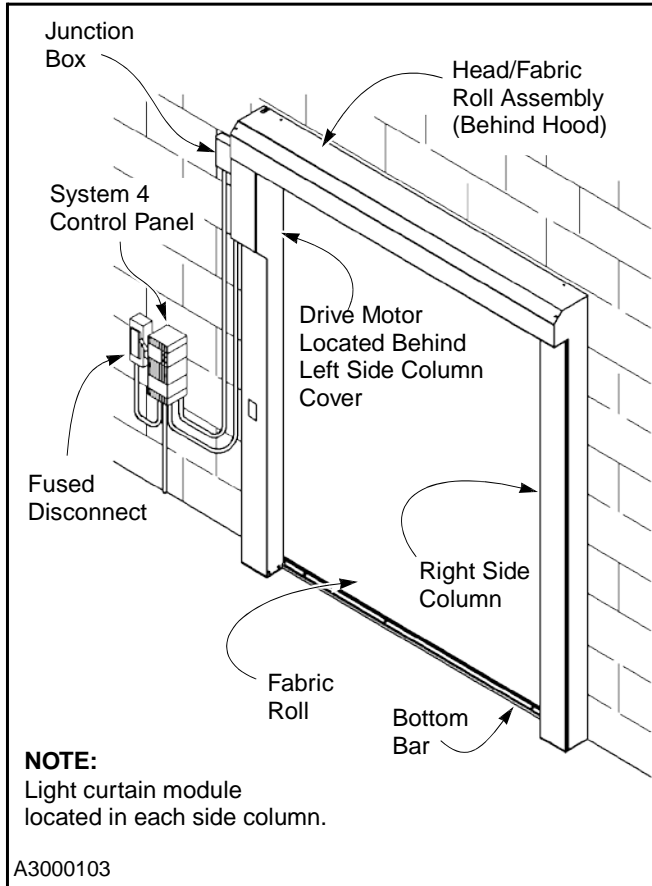


Figure 2

NOTE: The above illustration shows the front side of the door. Left and right are determined when viewing the front side of the door.

ANCHORING METHODS

Correct anchoring of the side columns to the wall and the floor is important for the smooth and safe operation of the door. The wall material should be strong enough to support the weight of the door and all wall anchors.

Figure 3 through Figure 6 show anchoring methods for various types of walls. Use the method that is best suited for your particular installation site.

All necessary anchoring hardware and material required for the installation of this door is the responsibility of the door owner. If you have any questions, call your Rytec representative or the Rytec Technical Support Department at 800-628-1909.

NOTE: Use 1/2-in. diameter threaded through bolts or 1/2-in. diameter threaded rods to anchor the door to all wall applications. Use 1/2-in. diameter concrete anchor bolts to anchor the door to a concrete floor or wall.

If expansion anchors are used, a quarterly inspection should be implemented for safe and secure door operation.



The mounting hardware must not protrude into the side column more than 3/4 in. If you are using threaded rod, install the rod so that it ends up flush with the hex nut. (See Figure 4 through Figure 6.)

Concrete, Block, or Brick Walls

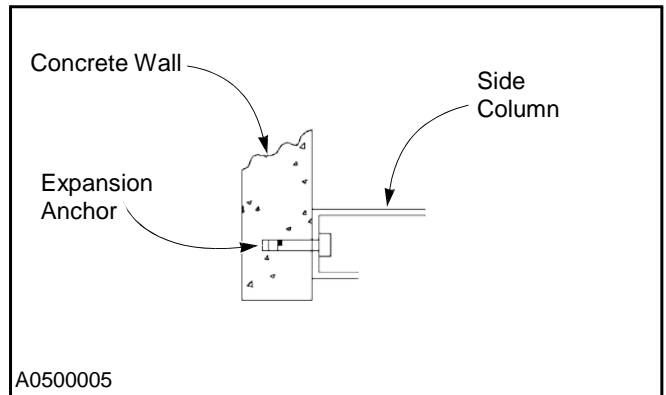


Figure 3

Wood, Block, Brick, or Insulated Walls

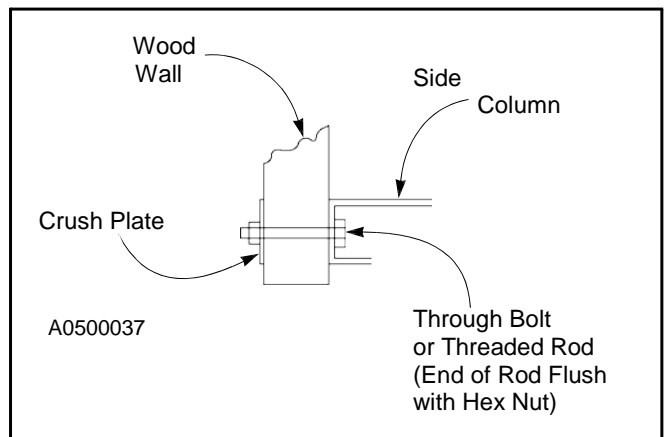


Figure 4

INSTALLATION—LOCATING CENTERLINE OF DOOR OPENING

Insulated Wall

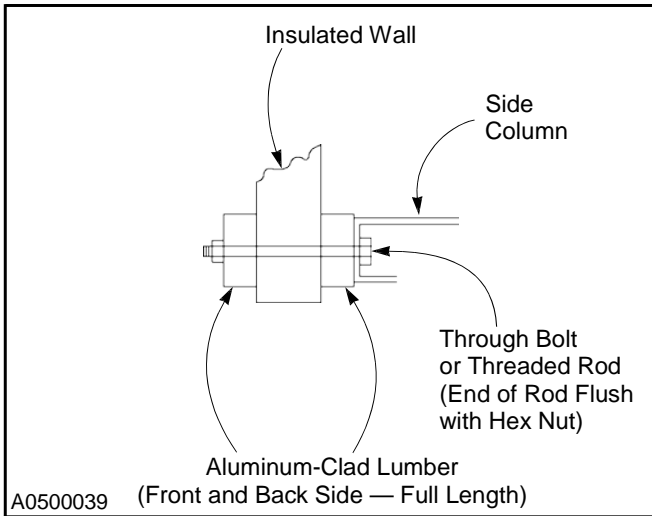


Figure 5

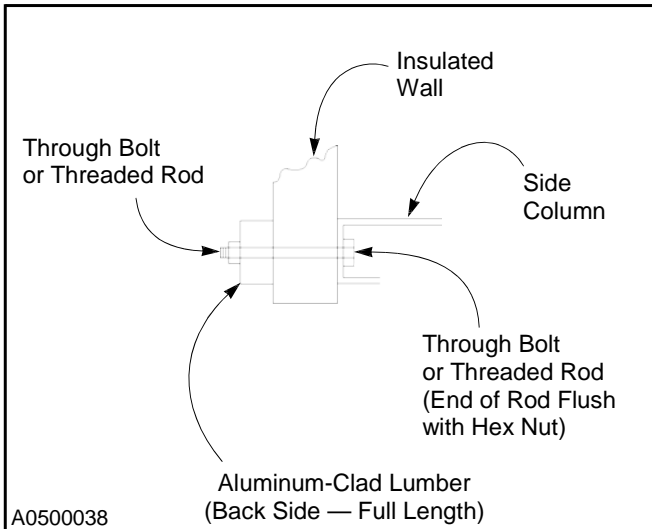


Figure 6

LOCATING CENTERLINE OF DOOR OPENING

NOTE: Accurate measurements are critical for the proper installation and operation of your Rytec door. Verify all measurements.

1. Measure the width of the door opening.
2. Divide the measurement in half to locate the centerline. Then mark the centerline along the floor. (See Figure 7.)

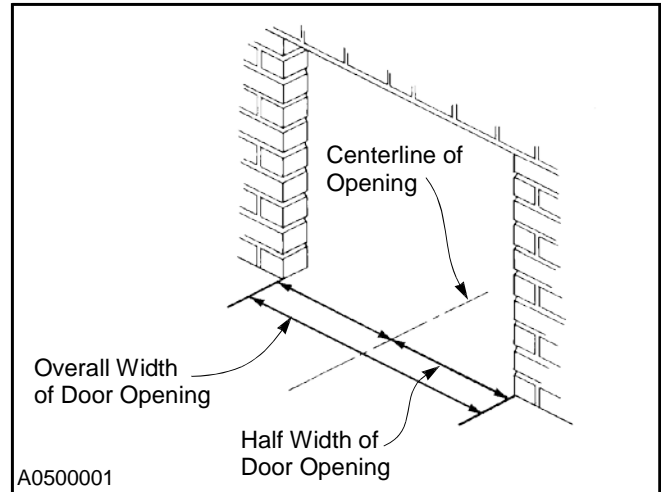


Figure 7

LOCATING SIDE COLUMNS

1. Locate the layout drawing of the door. It should be attached to the small parts carton packed inside the shipping crate. This drawing identifies the production width of your door.
2. Using the centerline as a reference point, lay out and mark half of the door's production width along the floor. (See Figure 8.)



To ensure that the door works properly, the width of the door opening must not be smaller (narrower) than the production width of the door.

If the width of the opening is narrower than the width of the door, do not proceed with the installation. Contact your Rytec representative or Rytec Technical Support Department at 800-628-1909.

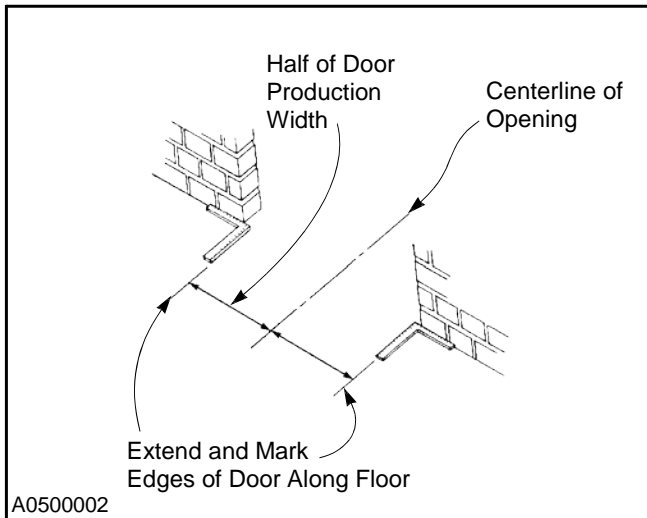


Figure 8

3. With a carpenter's square placed against the wall, mark both sides of the door along the floor. Extend the line along each edge.
4. Check the floor for level across the door opening. If one side of the opening is higher than the other, it will be necessary for you to use shims under the side column at the low side of the opening.

Figure 9 and Figure 10 show two methods that can be used to ensure level side columns.

NOTE: Contact the Rytec Technical Support Department if the floor is more than 1 in. out of level.

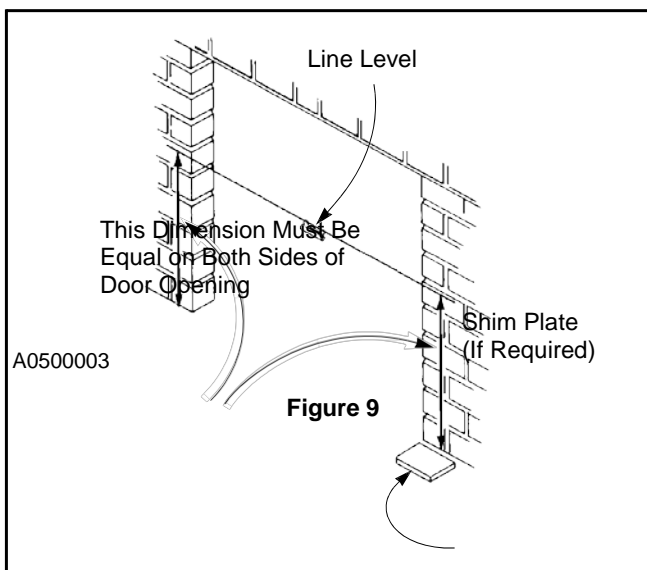


Figure 9

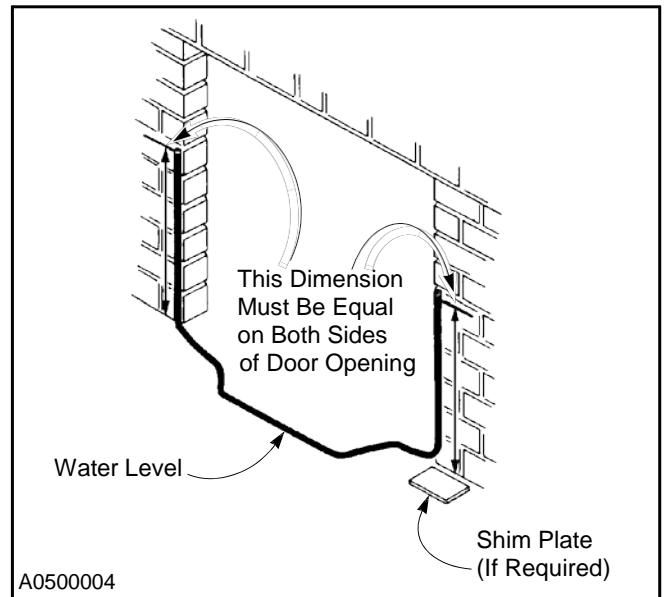


Figure 10

PLACING SIDE COLUMNS



It is critical that the side columns are mounted square to the wall and floor, level with each other, and parallel. Properly installed side columns will ensure a level drum/fabric roll assembly. A level drum assembly and properly installed side columns will ensure the door operates smoothly and efficiently without causing the wind knobs along the outside edges of the fabric panel to bind within the side columns as the door opens and closes.

The use of bar clamps to temporarily secure the side columns to the wall during their installation will allow for slight adjustments to either side column before they are permanently anchored to the wall.

Perform the following procedure as outlined below to ensure the successful installation and operation of the door.

INSTALLATION—PLACING SIDE COLUMNS

1. Remove the drive motor side column from the shipping crate. The drive motor side column is identified by the oversized protrusion near the top of the column. (See Figure 11.)

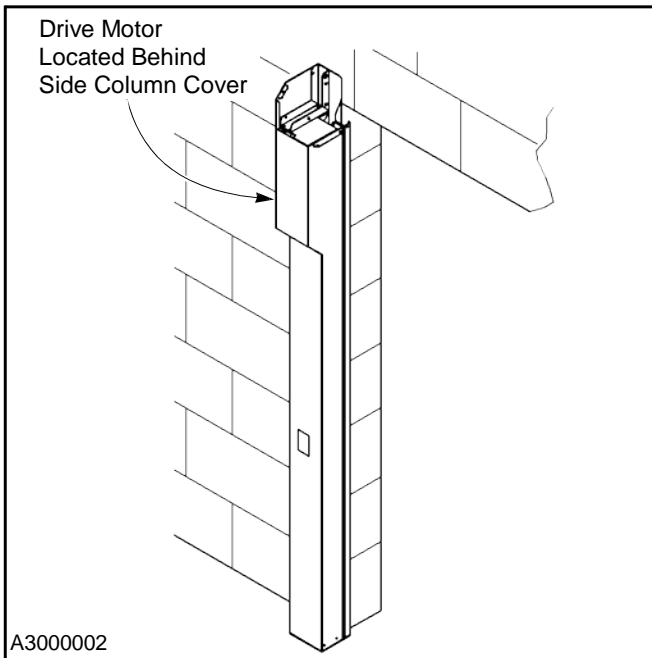


Figure 11

2. Remove the cover from the side column. It is held in place by two screws at each end and one screw along the angled edge. (See Figure 12.)

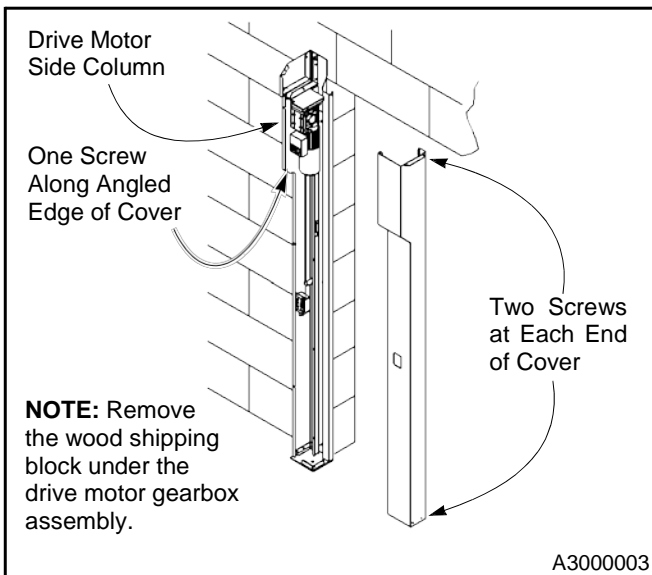


Figure 12

3. Remove the wood shipping block under the drive motor gearbox assembly.
4. Stand the side column in place and hold it against the wall.

5. Align the inside edge of the side column with the production width line laid out earlier on the floor. Then temporarily secure the side column to the wall using bar clamps. (See Figure 13.)

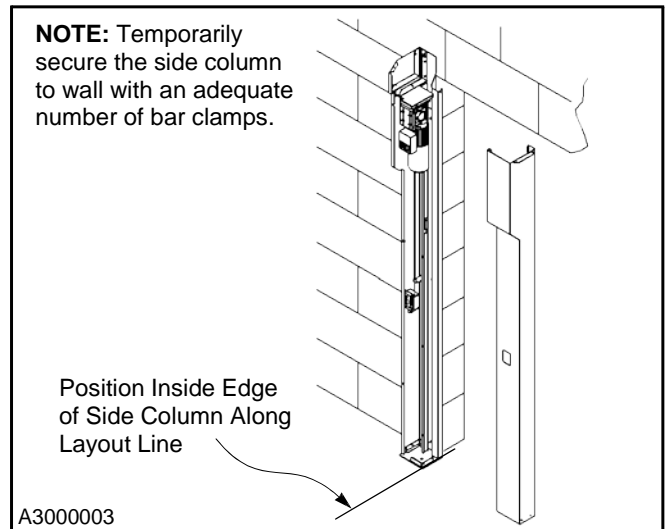


Figure 13

6. Remove the non-drive side column from the shipping crate. Then remove the side column cover.
7. Stand the side column in place and hold it against the wall.
8. Align the inside edge of the side column with the production width line laid out earlier on the floor. Then temporarily secure the side column to the wall using bar clamps. (See Figure 14.)

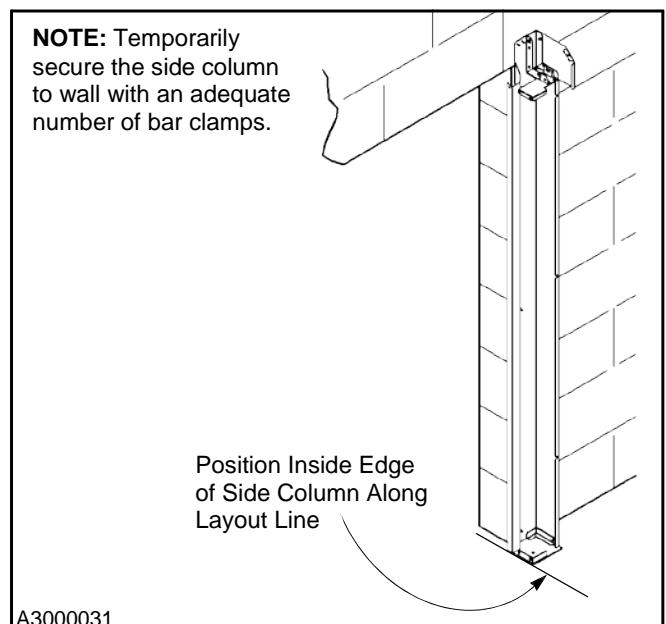


Figure 14

ATTACH SPREADER ASSEMBLY

1. Position the spreader assembly between the side columns. (See Figure 15.)

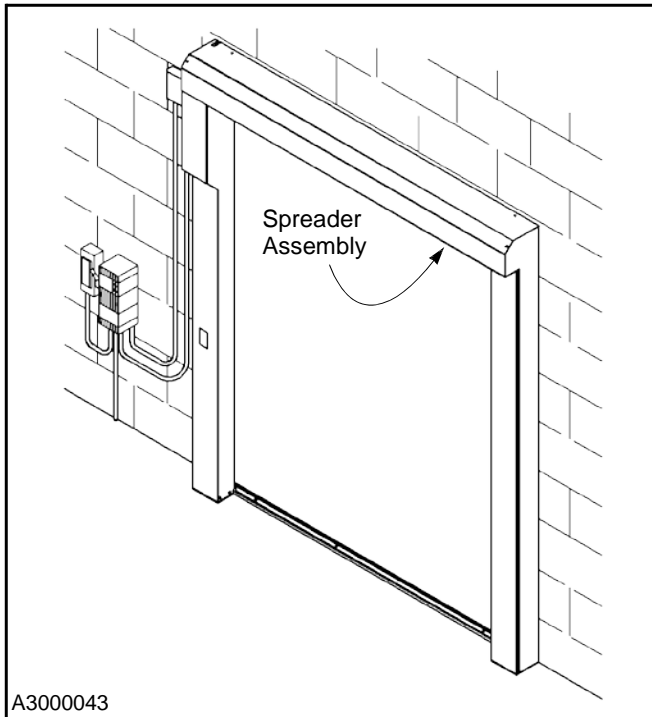


Figure 15

2. Attach the spreader assembly to the side columns using a flat mounting plate and three 1/4-20 serrated-flange hex nuts at each end of the spreader. The mounting plates and nuts were shipped in the small parts carton. (See Figure 16.)

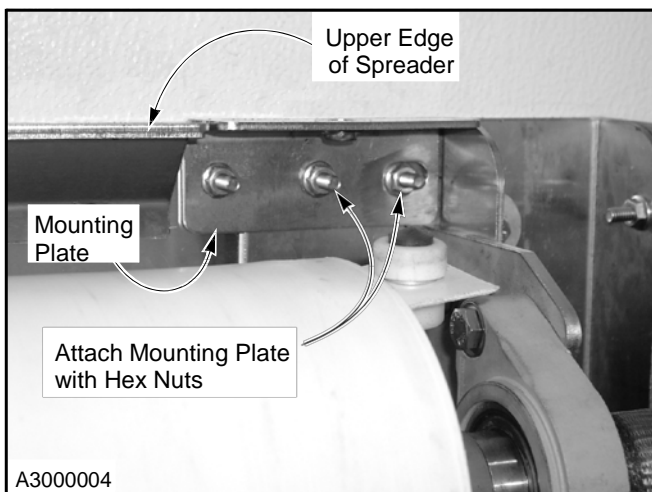


Figure 16

3. At both ends of the spreader, attach the bottom, inside edge of the spreader to the inside edge of the side column. Use a 1/4-20 serrated-flange hex screw and nut at each end of the spreader. The screws and nuts were shipped in the small parts carton.

ANCHORING SIDE COLUMNS

NOTE: All anchor hardware is the responsibility of the door owner.

1. With the spreader attached to the side columns, verify the side columns are level with each other, plumb and square with the wall, and parallel. Reposition the bar clamps as necessary. (See Figure 17.)

IMPORTANT: The side columns must be installed as detailed to ensure the door operates properly. (See Figure 17.)

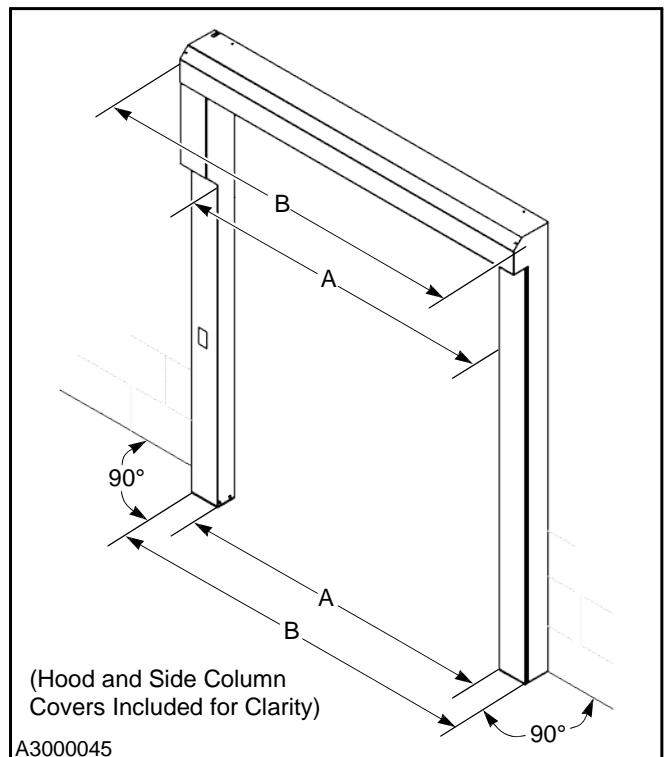


Figure 17

2. The inside distance between the side columns (A—production width) at their bottom end, must be the same distance between the side columns at the spreader end of the columns. Also make sure the outside edges (B—hood width) are parallel along the entire length of each column. (See Figure 17.)
3. After completing any necessary adjustments, drill the appropriate holes for your particular wall anchors (see “ANCHORING METHODS” on page 3) — using the holes along the back of each column to locate the anchors. Drill all holes perpendicular and square with the back of each column.
4. Secure both side columns to the wall using the appropriate mounting hardware.
5. Remove the bar clamps.

INSTALLATION—HEAD/FABRIC ROLL ASSEMBLY

HEAD/FABRIC ROLL ASSEMBLY

1. Before removing the head/fabric roll assembly from the shipping crate, locate four SS $\frac{3}{8}$ -16 x $1\frac{1}{4}$ -in. flat head slotted cap screws, four SS $\frac{3}{8}$ -16 serrated-flange nuts, four SS $\frac{3}{8}$ -in. flat washers, and the flange bearing assembly shipped in the small parts carton.

WARNING

Before the head/fabric roll assembly is lifted into place, make sure both side columns are secured to the building wall.

Also, the head/fabric roll assembly must be secured to the forklift before lifting it in place. Failure to properly secure the side columns or the head/fabric assembly can result in serious personal injury and property damage. **DO NOT** remove the forklift from under the head/fabric roll assembly until it is secured to both side columns.

CAUTION

Use care when handling the fabric roll to ensure that the fabric is not torn or damaged. **DO NOT** remove the shipping bands holding the fabric to the roll until instructed to do so later in this manual.

IMPORTANT: Install the head/fabric roll assembly with the bottom bar/fabric roll coming off the back of the drum assembly. The sprocket end of the assembly is associated with the drive motor gearbox assembly. The strap end of the assembly is associated with the non-drive side column. Also remove the wood shipping block under the drive motor gearbox assembly.

2. Remove the head/fabric roll assembly from the shipping crate.
3. Using a forklift, lift the head/fabric roll assembly in place over both side columns, making sure to position the sprocket end of the assembly over the drive motor side column.
4. The drive shaft on each end of the head/fabric roll assembly sits in the slot in the support bracket that is attached to the upper end of both side columns.

When lowering the head/fabric roll assembly in place, the bearing assemblies are positioned inside both support brackets. (See Figure 18.)

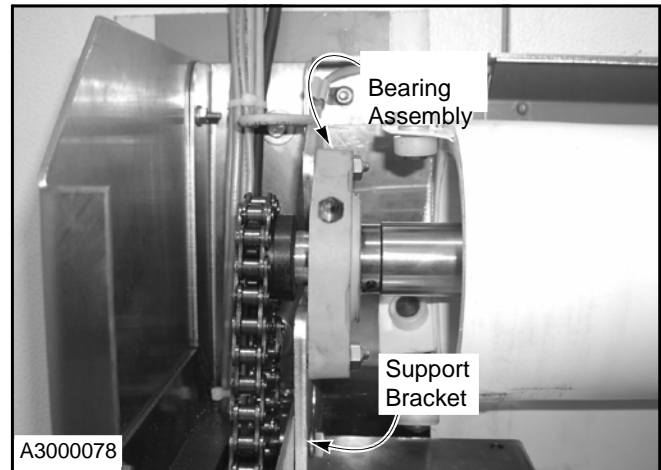


Figure 18

5. At the sprocket end of the assembly, align the holes in the bearing assembly with the holes in the bearing mounting bracket. Then attach the bearing to the bracket using two SS $\frac{3}{8}$ -16 x $1\frac{1}{4}$ -in. flat head slotted cap screws, washers, and lock nuts. (See Figure 19.)

IMPORTANT: To prevent damage to the wind knobs and the fabric roll, the cap screws must be installed from the inside face of the bearing assembly — the head of each screw must be on the fabric side of the bearing. (See Figure 19.)

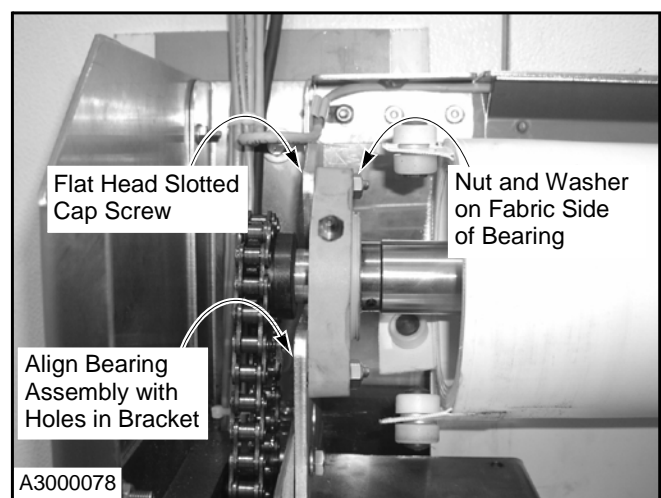


Figure 19

6. At the other end of the drum assembly, align the holes in the bearing with the holes in the bearing mounting bracket. Then attach the bearing to the bracket using two SS $\frac{3}{8}$ -16 x 1 $\frac{1}{4}$ -in. flat head slotted cap screws, washers, and lock nuts.

DRIVE CHAIN

1. Install the drive chain around the drive motor and drum/fabric roll sprockets. The ends of the chain are joined together with a master link included with the chain. Make sure the master link is fully locked. The drive chain and master link were packed for shipping in the small parts carton. (See Figure 20.)

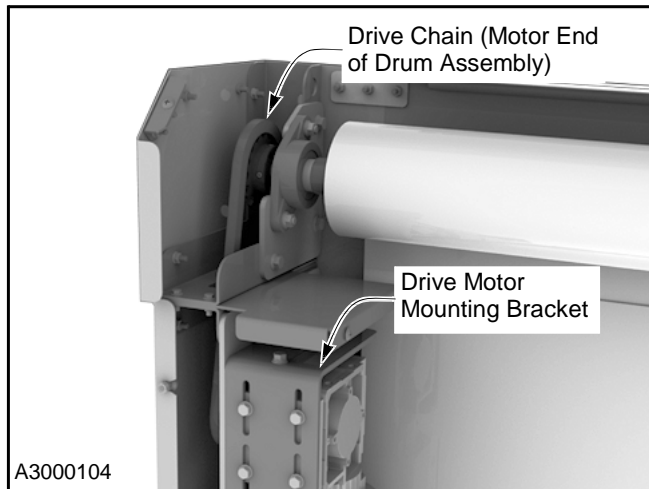


Figure 20

2. To adjust the tension, first loosen the four hex head cap screws located on the front of the drive motor mounting bracket (the cap screws secure the drive motor to the mounting bracket). (See Figure 21.)

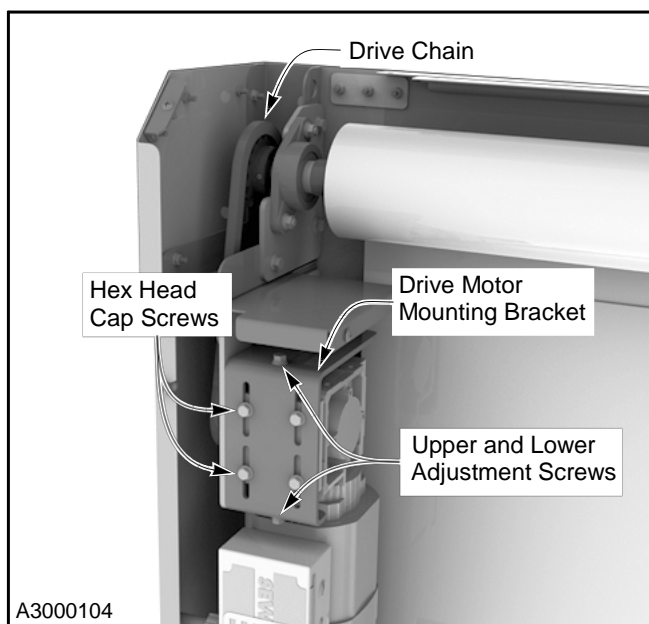


Figure 21

3. Reposition the drive motor along the mounting bracket by turning the upper and lower adjustment screws at the top and bottom ends of the bracket as necessary:

- Increase chain tension — loosen the upper adjustment screw, then tighten the lower adjustment screw.
- Decrease chain tension — loosen the lower adjustment screw, then tighten the upper adjustment screw.

IMPORTANT: The drive motor must be vertical.

4. Once the chain is properly tensioned, lock in the adjustment by tightening the four cap screws that were loosened earlier on the front of the bracket.

IMPORTANT: Make sure the drive motor and drum assembly sprockets are aligned, with adequate clearance on both sides of the chain.

5. Verify the drive motor and drum/fabric roll sprockets are aligned, with adequate clearance on both sides of the chain. After making the necessary adjustments, tighten the set screw that locks the upper sprocket to the drive shaft on the drum/fabric roll assembly. Also verify the set screw on the drive motor sprocket is tightly secured. (See Figure 22.)

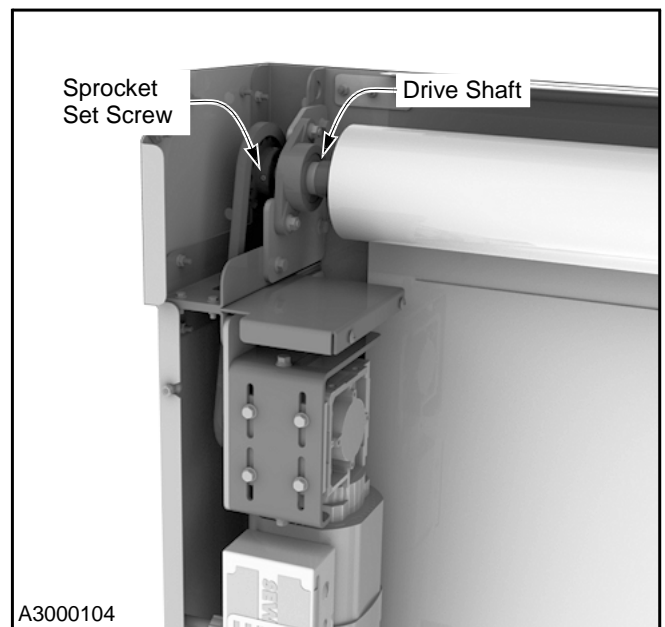


Figure 22

6. At the other end of the drum/fabric roll assembly, tighten the set screw that locks the bearing assembly to the drive shaft on the drum/fabric roll.

MANUALLY LOWERING BOTTOM BAR

1. Make sure the brake release lever on the motor/brake assembly is in the engaged position — slack in the cable with the lever fully released. (See Figure 23.)

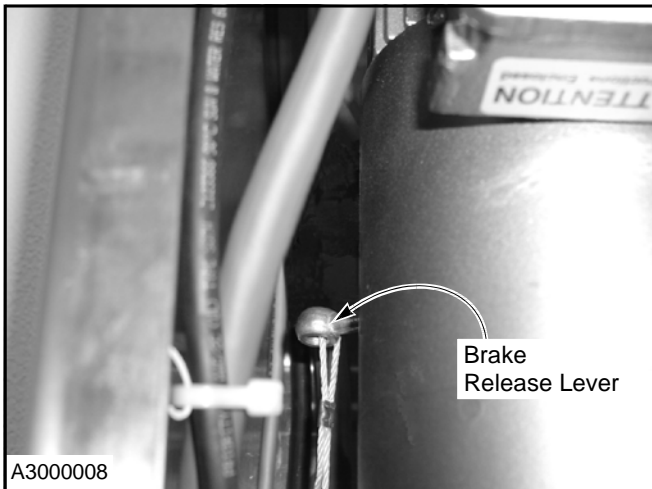


Figure 23

NOTE: With the cable released, the brake will default to the **ENGAGED** position, which locks the drive motor and prevents the drum/fabric roll assembly from turning.

2. Cut and remove the shipping bands securing the fabric to the roll.
3. Disengage the brake release by pulling the brake release lever on the side column. Keep tension on the release lever while pulling down on the bottom bar until the door is approximately 18 in. below the top of the door opening. The fabric panel must be between the slot in each top plate and in front of both side columns. (See Figure 24.)

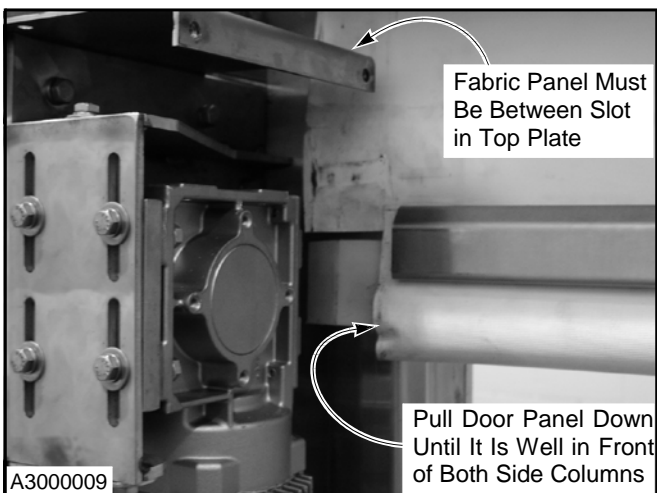


Figure 24

REAR BRAKE RELEASE LEVER (OPTIONAL EGRESS SYSTEM ITEM)

NOTE: If your door was not ordered with the optional brake release lever for the back side of the door, skip this section and proceed to “CONTROL PANEL AND ELECTRICAL CONNECTIONS” on page 12.

To install the brake release lever on the back side of the door, perform the following procedure as instructed in the order presented. The lever and necessary mounting hardware were packed for shipping in the small parts carton.

1. Using the hole in the back of the drive motor side column (the hole adjacent to the factory-installed brake release lever), drill a 1/2-in. diameter hole through the wall. (See Figure 25.)

IMPORTANT: Drill the hole perpendicular to the side column. (See Figure 26.)

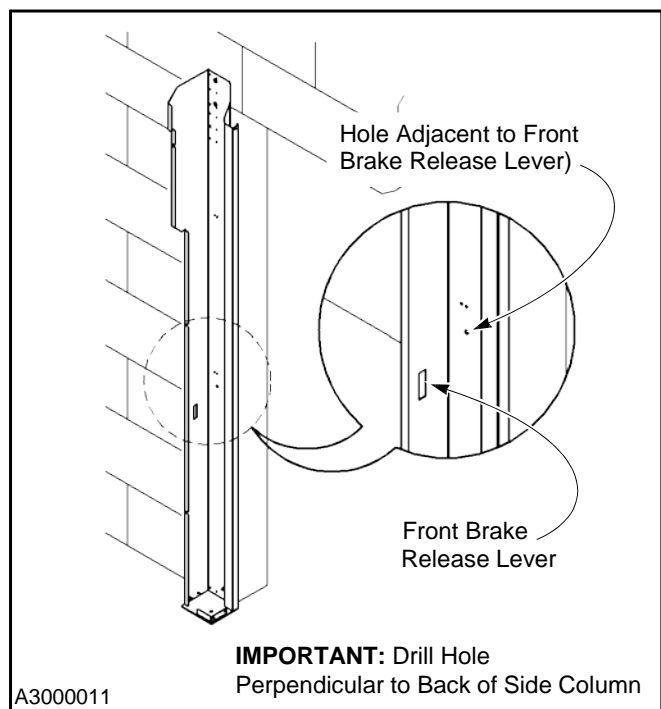


Figure 25

2. There are two steel cables connected to the brake release mechanism located along the side of the drive motor. One cable is connected to the factory-installed egress lever installed in the side column. For shipping, the other cable was coiled and tied to the drive motor. Untie the coiled cable and allow it to hang free in the side column.

INSTALLATION—REAR BRAKE RELEASE LEVER (OPTIONAL EGRESS SYSTEM ITEM)

- Working from the back side of the door, align the upper hole in the brake release lever mounting bracket with the hole drilled earlier through the wall. (See Figure 26.)

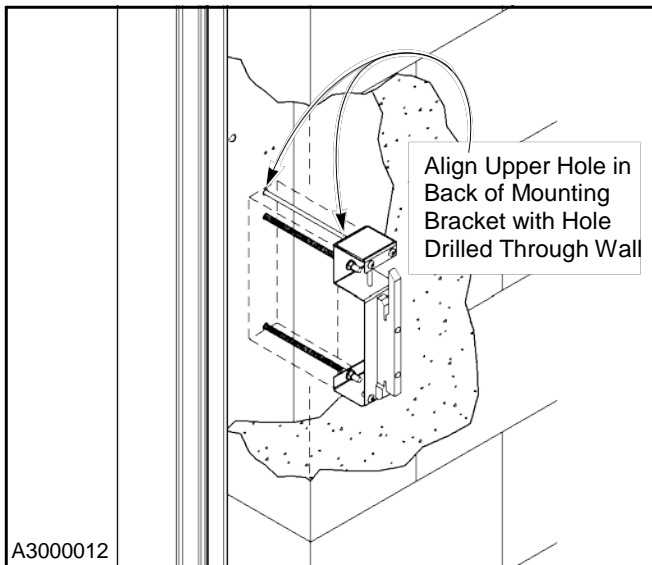


Figure 26

- While holding the mounting bracket vertical and tight against the wall, mark on the wall the location of the two remaining holes in the mounting bracket. Then drill a 1/2-in. diameter hole through the wall and into the back of the side column at each of the marked locations.
- Using the two lengths of threaded rod packed in the small parts carton, mount the brake release lever to the back side of the wall using the hardware provided. Be sure to use the bottom two holes drilled earlier. (See Figure 27.)

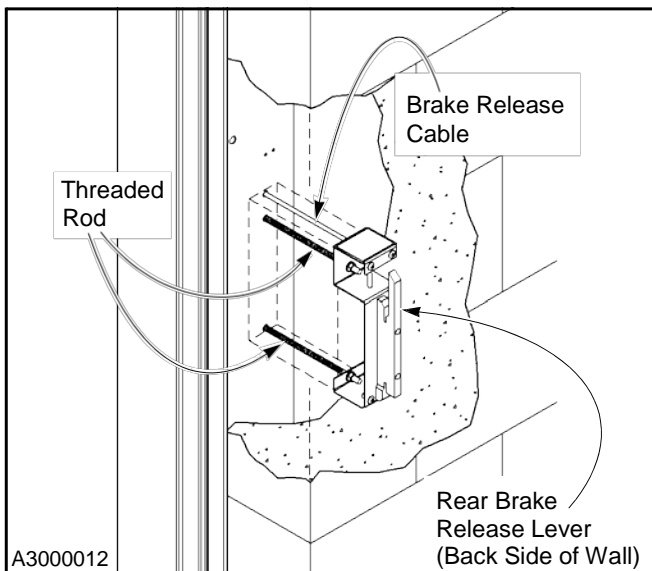


Figure 27

- Remove the cable crimp attached to the free end of the hanging cable. Also remove the threaded fitting from the end of the cable sleeve. Save the crimp and fitting for later use.
- Pass the sleeve of the brake release cable through the upper hole in the wall and mounting bracket.
- On the motor end of the cable sleeve, pull the steel cable out of the sleeve.

IMPORTANT: DO NOT cut through the steel cable in the following step.

- On the threaded fitting end of the cable sleeve, cut the sleeve to length, making sure not to cut through the steel cable. The sleeve should be long enough so that it fits through the upper hole in the mounting bracket, with just enough length at the end of the sleeve to thread the fitting back on.

IMPORTANT: When securing the crimp in the following step, do not pull the cable so tight that the motor brake release mechanism on the drive motor is always engaged. There should be a small amount of slack in each cable when the brake release levers are put in their locked position (against the side column or wall).

- Feed the steel cable back through the cable sleeve.
- With the brake release handle fully extended out or at 90 degrees, feed the cable through the eyelet in the bottom of the handle. Slide a crimp nut over the end of the cable with the nut tight against eyelet. Then tighten the setscrew — with the majority of slack removed from the cable. The crimp nut is located in the small parts carton. (See Figure 28.)

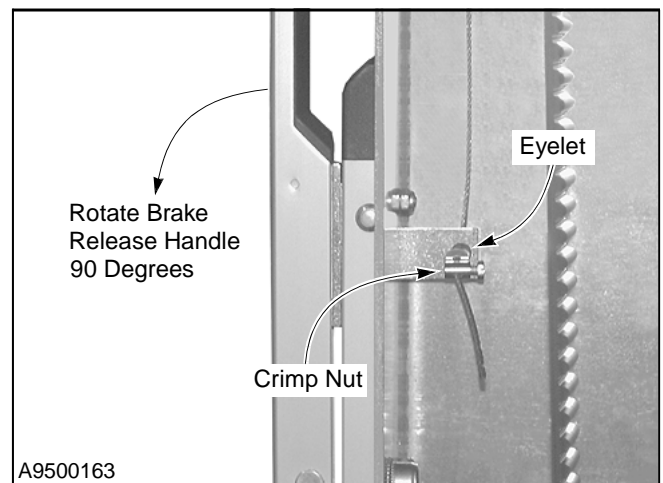


Figure 28

INSTALLATION—CONTROL PANEL AND ELECTRICAL CONNECTIONS

12. Pull the handle several times to stretch the cable and remove any slack. Check the action of the lever on the brake mechanism for proper travel. If necessary, reposition the crimp nut.

NOTE: Make sure that the cable isn't so tight that the brake mechanism cannot re-engage once the lever is released and put back in place.

13. Cut the cable to length, an inch or two after the crimp nut.
14. Disengage the electric brake by pulling the brake release handle. Then by, hand, manually lower the door a few inches to verify that the door is not bound or caught up in the head assembly.
15. To re-engage the electric brake to lock the door in place, place the brake release handle back against the side column.

CONTROL PANEL AND ELECTRICAL CONNECTIONS

Refer to the Rytec System 4 Drive & Control Installation & Owner's Manual for information on installing the control panel. Also refer to the schematic for your particular door. That schematic was packed for shipping in the control panel.

NOTE: If a floor loop is used, all wiring from the fused disconnect to the control panel, and from the control panel to the drive motor, as well as the conduit running from the panel to the floor, is provided by the door owner/installer or the electrician. All wiring and conduit must meet all local and state codes. Wires provided with the door are labeled with terminal or contact numbers.

1. Install the Rytec control panel and fused disconnect in the locations shown in Figure 29.



Follow applicable building codes when performing all electrical work.

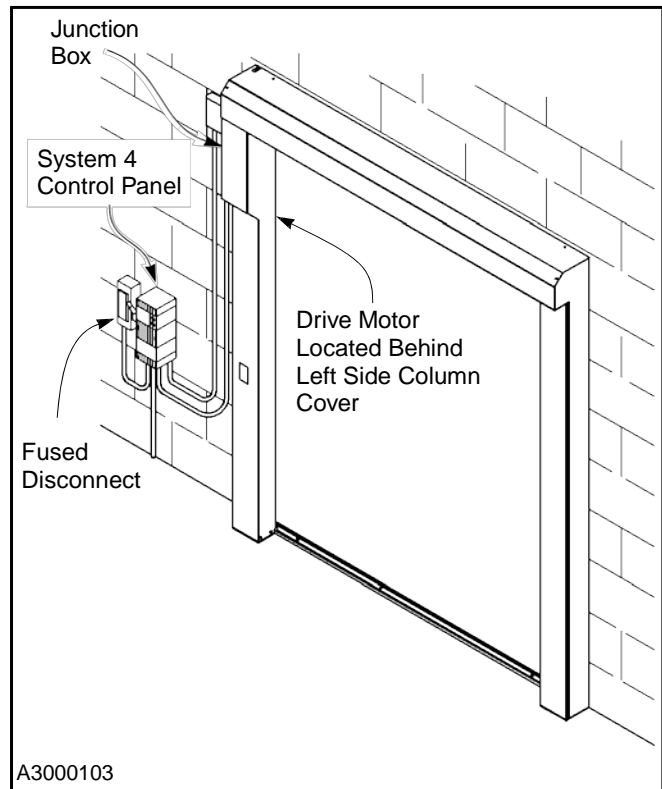


Figure 29

NOTE: The above illustration shows the front side of the door. Left and right are determined when viewing the front side of the door.



The fused disconnect must be in the OFF position and the fuses removed before wiring of the control panel begins.

2. Route the drive motor wire cables and control lines out through the top of the left side column. (Exclude routing the control cables for the RyBeam™¹ light curtain at this time.)

Also, if your door was ordered with an optional remote keypad on the drive motor side column, the control cable for that keypad should also be connected to the control panel. Leave a generous amount of slack (18 to 24 in.) outside the side column. The slack is necessary when attaching the side column cover later on.

IMPORTANT: Route wire cables and control lines away from any moving parts. Secure the cables and lines with the appropriate wire ties and cable clips as necessary.

1. RyBeam is a trademark of Rytec Corporation.

Wiring Light Curtain System

1. Feed the right light curtain module wire cable through the side column, spreader bar assembly, and left side column. Take the path detailed. (See Figure 30.)

IMPORTANT: Route the light curtain module cable away from any moving parts and provide an adequate amount of slack outside the door for easier service later on. (See Figure 30.)

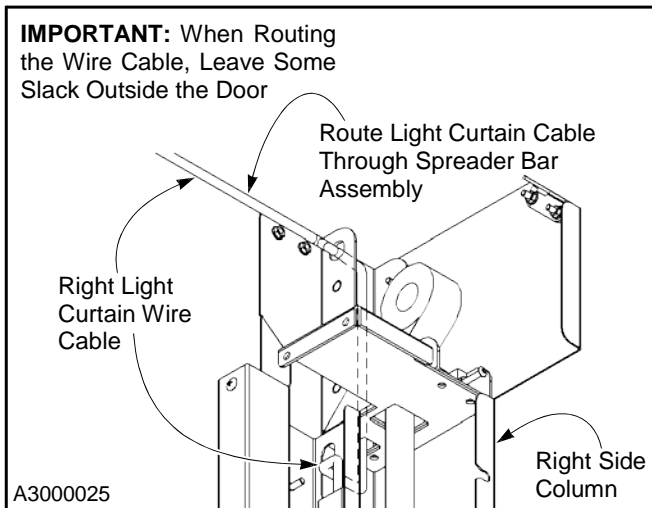


Figure 30

2. Feed the left light curtain module wire cable through the side column. Make sure to take the path detailed. (See Figure 31.)

IMPORTANT: Route the light curtain module cable away from any moving parts and provide 18 to 24 in. of slack outside the door for easier service later on. (See Figure 31.)

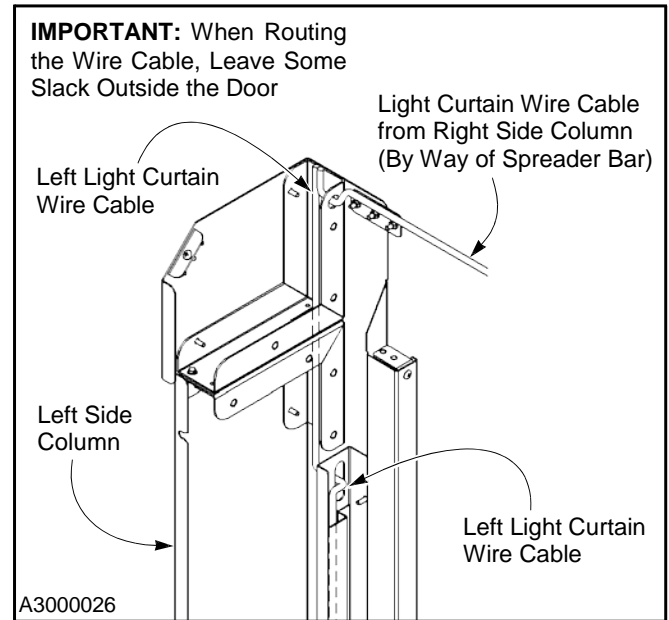


Figure 31

3. Connect both light curtain module wire cables to the control panel. Refer to the Rytec System 4 Drive & Control Installation & Owner's Manual and the wiring schematic for your particular door. That schematic was shipped inside the control panel.

COUNTERWEIGHT SYSTEM



A counterweight can weigh in excess of 100 pounds. Make sure that safe handling procedures are followed and that each counterweight is securely supported during its installation. If not handled properly, a counterweight can damage door components and cause serious injury.

1. Apply power to the door and place the control panel in the jog mode. See the Rytec System 4 Drive & Control Installation & Owner's Manual for complete instructions on operating the door in the jog mode.
2. Jog the door until the bottom bar is in the fully open position. (See Figure 32.)

INSTALLATION—COUNTERWEIGHT SYSTEM

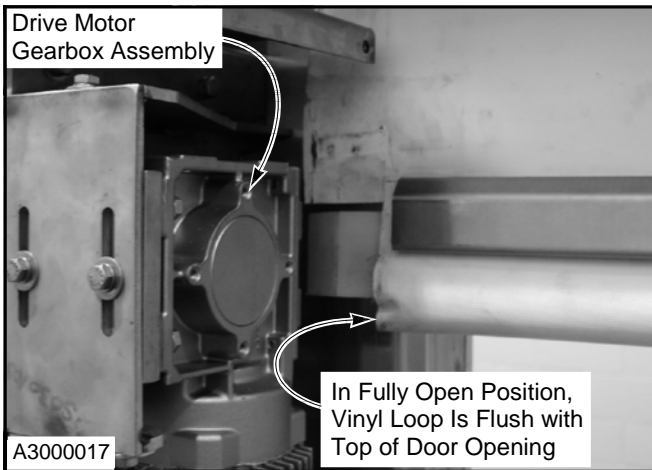


Figure 32

3. Turn off power to the door.

WARNING

The disconnect must be in the OFF position and properly locked and tagged before performing the following procedure.

4. Unravel the counterweight strap and feed the end of it down into the side column, through the slot just behind the idler pulley. **DO NOT** add or remove any wraps of the strap around the spool. The required number of pre-wraps (typically two) was determined at the factory. (See Figure 33.)

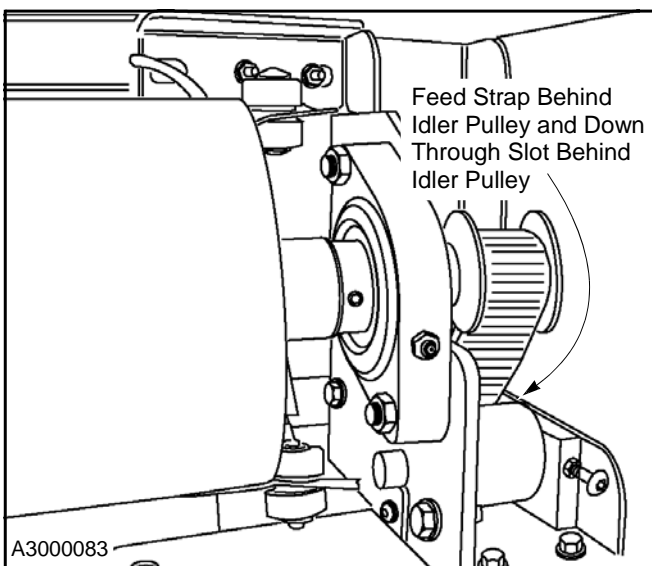


Figure 33

5. Secure the strap to the counterweight using the strap clamp assembly provided in the small parts carton. Place the clamp as close as possible to the counterweight hanger bracket, with the clamp assembly tightly secured around the strap. (See Figure 34.)

NOTE: Make sure strap is not twisted when installing.

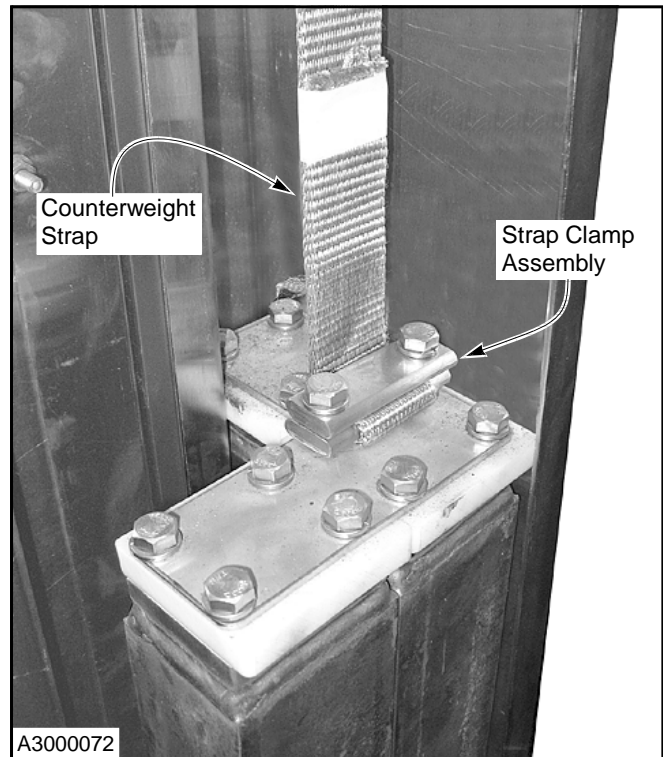


Figure 34

WARNING

Do not jog the door until the counterweight assembly is secured.

6. Have another person slowly jog the door to the fully-closed position. As the door closes, check to make sure the counterweight assembly has sufficient travel and that it does not come in contact with the side column top plate. Also, the counterweight strap must roll up straight upon itself by tracking evenly along the shaft of the drum.

CAUTION

Failure to adjust the idler pulley as detailed in the following paragraph may result in serious damage to the counterweight strap. The counterweight strap must track evenly along the idler pulley as the door opens and closes.

7. If the counterweight strap is tracking to the right, turn the idler pulley adjustment screw clockwise. If the strap is tracking to the left, turn the adjustment screw counterclockwise. When the strap is tracking evenly, lock the jam nut behind the adjustment screw to lock in the setting. (See Figure 35.)

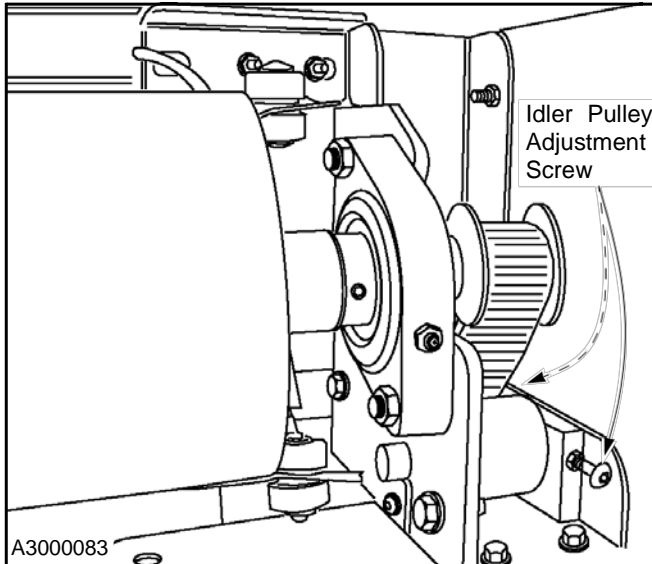


Figure 35

⚠ WARNING

Stay clear of any moving or exposed parts when performing the following procedure.

⚠ CAUTION

Do not allow the bottom bar assembly to come in contact with the drum assembly when performing the following procedure. Otherwise, serious damage to the door could result.

8. With the door jogged to the fully closed position, pull the brake release handle on the front side of the door. The door should automatically open to at least half the height of the door opening.
Reset the control panel and repeat the test using the brake release lever located on the back side of the door — the results should be the same as when the front lever is pulled. For assistance, contact your Rytec representative or call the Rytec Technical Support Department at 800-628-1909.
9. Once the egress system is adjusted and working properly, trim off any excess strap to within a few inches of the strap clamp. To prevent fraying, wrap masking tape around the free end of the strap.

SIDE COLUMN COVERS AND HOOD

IMPORTANT: Before you install the left side column cover, if the door includes an optional remote keypad, plug the control cable into the connector on the back of the keypad. The connector should be tightly secured to the plug.

1. Each cover is held in place by sliding snap bushings attached to the edge of the cover into notches cut in the lip of the side column. (See Figure 36.)

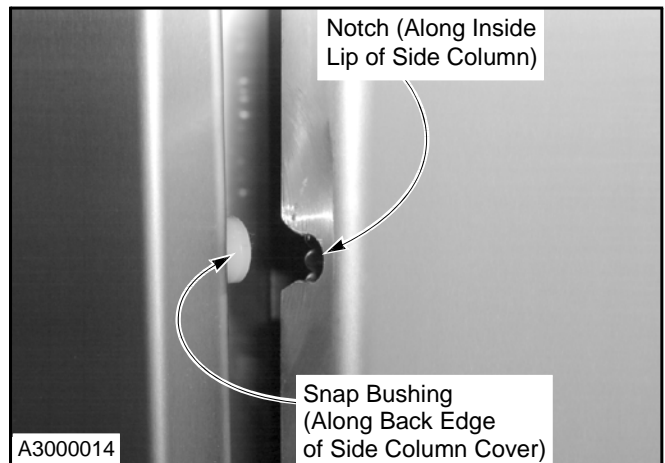


Figure 36

2. Install two screws in the top and bottom ends of each cover. Then install one additional screw in the drive motor side column cover, along the slanted edge of the cover. (See Figure 37.)

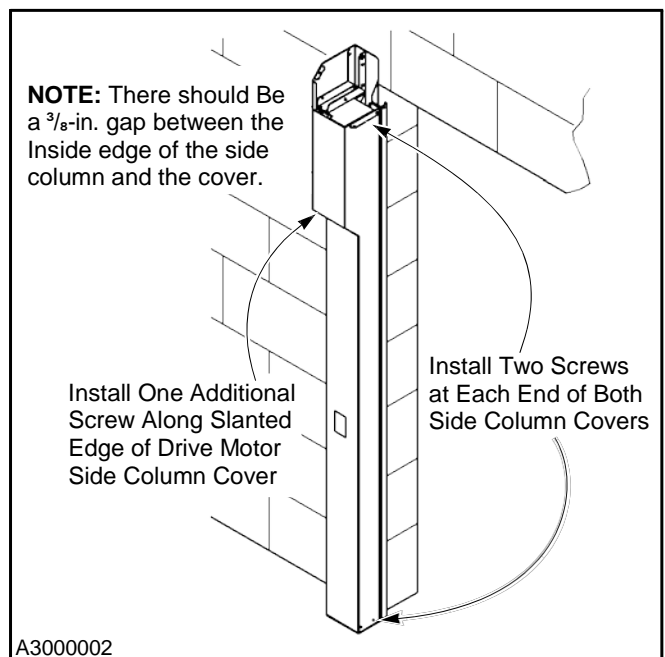


Figure 37

INSTALLATION—DOOR OPEN- AND CLOSE-LIMIT POSITIONS

3. Attach the hood to the head assembly and side columns. At each end of the hood, there are two screws along the top and bottom sides of the hood. The hardware is located in the small parts carton. (See Figure 38.)

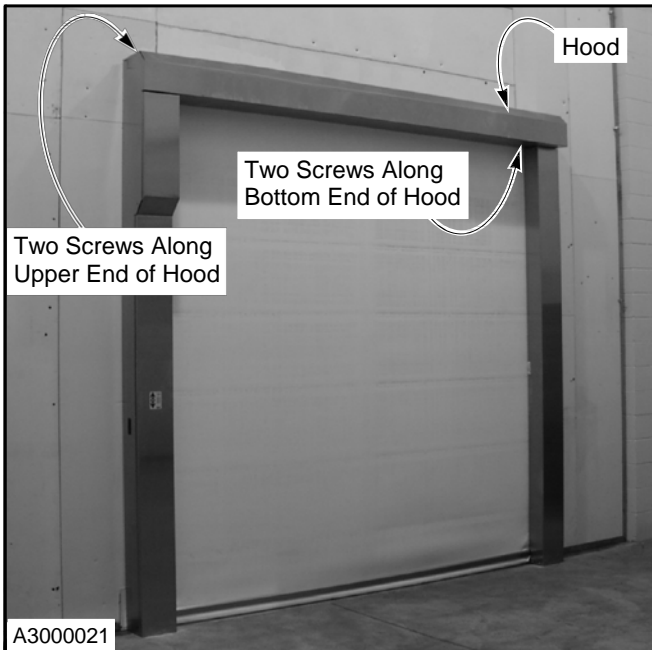


Figure 38

DOOR OPEN- AND CLOSE-LIMIT POSITIONS

See the Rytec System 4 Drive & Control Installation & Owner's Manual for the proper procedure for setting the door open- and close-limits through the control panel. The open- and close-limits are detailed below.

Door Close-Limit Position

The door close-limit is properly adjusted when the vinyl loop along the bottom bar gently seals against the floor. (See Figure 39.)

IMPORTANT: A high air pressure condition may result with the panel bowing and the bottom bar lifting off the floor. If this occurs, it will be necessary for you to readjust the door close-limit position.

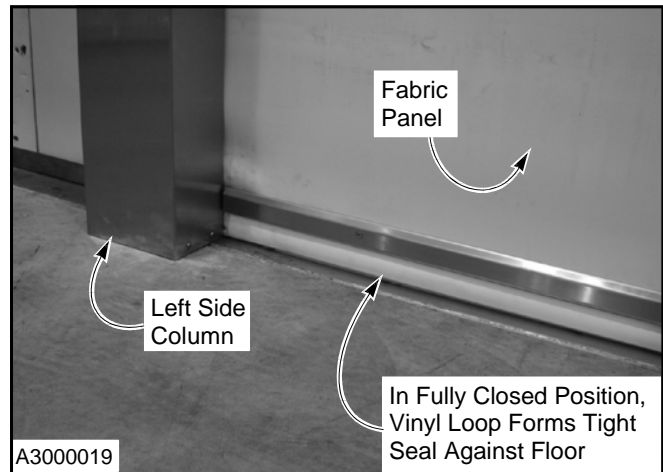


Figure 39

Door Open-Limit Position

The door open-limit is properly adjusted when the vinyl loop along the bottom bar is flush with top of the door opening. (See Figure 40.)

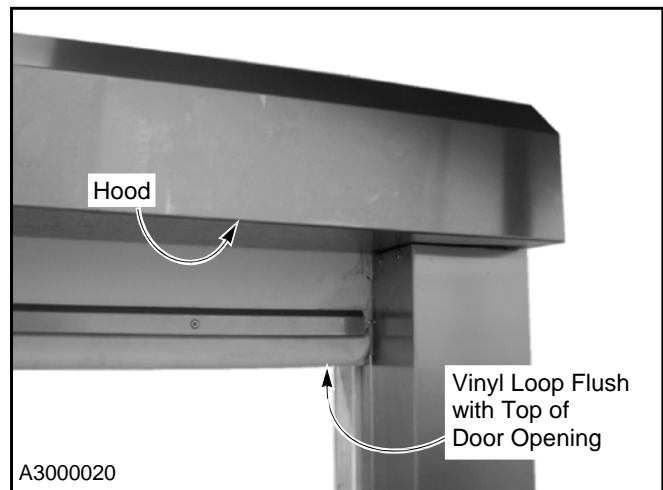


Figure 40

PANEL TRACKING

1. Before applying power to the control panel, verify that the plastic tabs and door fabric are in the channel along the inside edge of each side column.
2. Apply power to the control panel.
3. Run the door to the fully open and closed positions several times while checking the travel of the door.

Door travel must be smooth and efficient. As the door opens and closes, verify that both edges of the fabric panel track smoothly and evenly within their respective side column and that the wind knobs along the edges of the door panel are not binding or rubbing against either side column.

It is important that the ends of the bottom bar are an equal distance from their respective side column as the door travels up and down. If this distance is not uniform, or if the bottom bar rubs against either side column, it may be necessary to adjust the horizontal position of the head assembly or reposition one of the side columns. The side columns must be plumb, square, and parallel. The head assembly must be centered between the side columns.

LIGHT CURTAIN TEST

The light curtain monitors the door opening during a door close cycle. If a person or object enters the opening as the door is closing, the door will immediately reverse direction and move to the open position.

The following diagram details the infrared curtain across the opening as the door closes. (See Figure 41.)

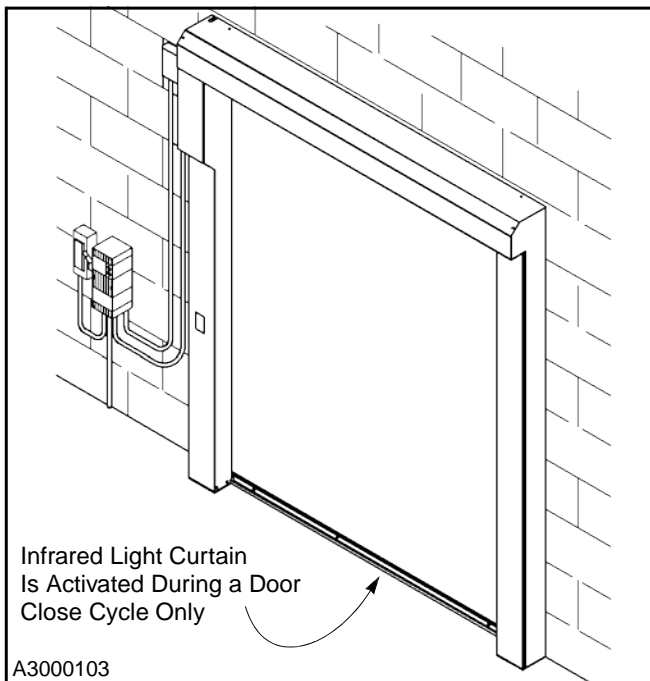


Figure 41

⚠ WARNING

DO NOT stand under the door when performing the following test. If the light curtain is not working properly, the door could strike the person performing the procedure. **DO NOT** use the door if the light curtain is not working properly.

IMPORTANT: Repeat the following test at several places along the height of the door opening. You must verify that the light curtain is working properly along its entire height and width.

1. Run the door to the fully open position.
2. Close the door. As the bottom bar moves toward the floor, place an object in the door opening where it will break the light curtain.

The door should immediately move to the fully open position where it will remain until the door close button is pressed. Verify that the light curtain operates properly along its full length at various heights in the door opening.

⚠ CAUTION

Use care when handling a light curtain module. The light curtain is IP 65/NEMA 4 rated, which is a washdown rating. Protect it from dirt, dust, and any cleaning or chemical solvents. The listed items will affect the performance of the system if the light curtain isn't properly cleaned. Do not touch the electronic components or circuitry on the module.

Avoid spraying or wiping any type of cleaner or solvent on either light curtain module, especially when cleaning the door panel. The light curtain modules are located in the side columns, behind the outer edges of the fabric panel.

Some cleaning agents and solvents can cause serious damage to electrical components. If you find it necessary to clean either side column or the door panel, use a general-purpose household cleaner and only apply the cleaner by hand, avoiding all electrical components.

INSTALLATION—EGRESS SYSTEM TEST

EGRESS SYSTEM TEST



Stay clear of the door when performing the following procedure.

1. With the door jogged to the fully closed position, pull the brake release handle on the front side of the door.

The door should automatically open to at least half the height of the door opening. If the door does not open to the required egress position, refer to the "COUNTERWEIGHT SYSTEM" on page 13 and readjust the counterweight system.

2. If your door includes the optional remote keypad, reset the control panel and repeat the test using the brake release handle on the back side of the door. The results should be the same as described above for the front brake release lever.

IMPORTANT: *If an activator or photo eyes remain active this will hold the door open. Pushing and holding the down arrow will override these signals and allow you to close the door manually with the down arrow. If the signal is from an activator the door will re-open until the activator problem is resolved. The door will not re-open if the photo eye is the problem. Safety photo eyes do not open the door. However, they will hold open a door if photo eyes are out of alignment or damaged.*

NOTE: *For further assistance, contact your Rytec representative or call the Rytec Technical Support Department at 800-628-1909.*

CAUTION LABELS



Failure to perform the following procedure could result in damage to the door.

Apply the caution labels, which were packed for shipping in the small parts carton, to the areas indicated in Figure 42. Be sure to install the appropriate label to the specified area as detailed in the following paragraph.

Labels RPR150004 are placed about 4 to 5 ft. above the floor, along the inside edge of each side column cover. Label RPR150002 is placed on the front of the drive motor side column cover, adjacent to the front brake release lever. If the optional rear brake release lever was included with the door, label RPR150003 is placed in view on the flat surface of the rear brake release lever mounting bracket. (See Figure 42.)

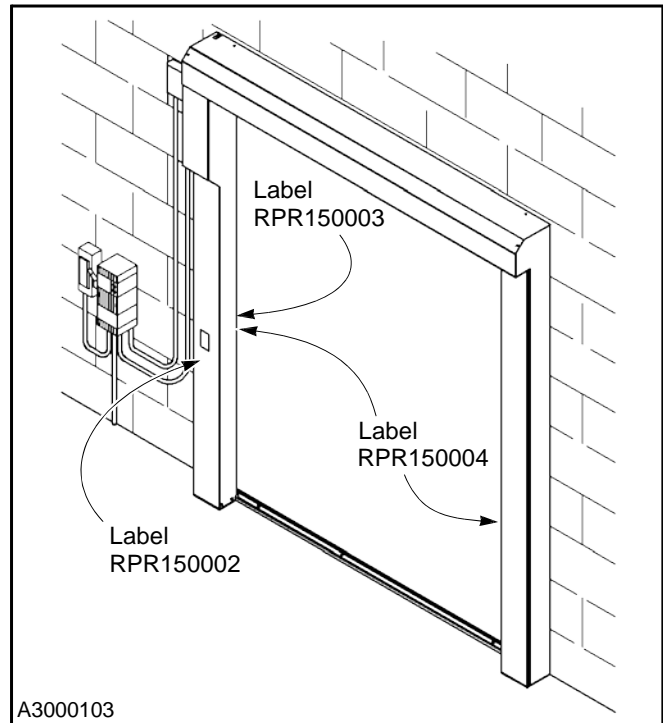


Figure 42

CAULKING

To ensure the perimeter of the door is tightly sealed, apply caulk, as necessary, where both side columns and the spreader assembly meet the wall.

FINAL CHECKS

Side Columns: Verify that the side columns are installed plumb, square, and parallel and that all anchor bolts are securely fastened.

Drum/Fabric Roll Assembly: The drum/fabric roll assembly should be level. All mounting hardware must be tight. The wind knobs that keep the panel locked in the side columns must travel smoothly inside each side column as the door opens and closes. The wind knobs must not bind or pull against either side column.

Bottom Bar: Each end of the bottom bar must be an equal distance from its respective side column cover. The bottom bar must travel smoothly between the side columns without binding.

Open- and Close-Limits: Set properly. The door is fully closed when the vinyl loop along the bottom edge of the door has gently sealed against the floor as shown in Figure 39 on page 16. The door is in the fully open position as shown in Figure 40 on page 16.

Motor Operation: The drive motor cycles the door in the proper direction when the corresponding up and down key on control panel or remote key pad is pressed.

Light Curtain: Verify that the light curtain operates as described in “LIGHT CURTAIN TEST” on page 17.

Egress System: Verify that the egress system operates as described in “EGRESS SYSTEM TEST” on page 18.

Caution Labels: Verify that four caution labels were applied to the door as detailed in “CAUTION LABELS” on page 18.

Caulking: Verify that caulk has been appropriately applied where the side columns and spreader assembly meet the wall of the building.

Timers: The timers are set to automatically close the door as desired. See Rytec System 4 Drive & Control Installation & Owner’s Manual for complete information on setting the timers.

Activator Settings: *Double-check all settings and make any necessary adjustments according to the manual provided by the manufacturer of your particular activator(s).*

NOTES
