Fast-Seal® (Model FS1000) Installation Manual

The meaning of signal words

Summary

Technical content produced by Rytec includes safety information which must be read, understood and obeyed to reduce the risk of death, personal injury or equipment damage. This information is boxed to set it apart from other text. The boxed text identifies the nature of the hazard and appropriate steps to avoid it.

The safety alert symbol identifies a situation that can result in personal injury. The accompanying signal word indicates the likelihood and potential severity of the injury. The meaning of the signal words is as follows:

⚠ WARNING

Warning indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠ CAUTION

Caution indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

Safety icons used in this manual

Installation safety

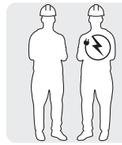
- **Do not install any Rytec product until** you have read and understood the safety information and instructions. Make sure all applicable regulations are observed and obeyed at all times.
- **Observe these precautions** while installing the door:
  - Only trained, qualified and authorized individuals are to install the door and the control system.
  - The installation site comprises the physical area required to safely uncrate, stage and install the door.
  - Make sure all personnel at the installation site have been informed of the date, time and location of the installation.
  - Make sure there is no pedestrian or vehicular traffic within the installation site for the duration of the installation.
  - Make sure you have and use all required Personal Protective Equipment.
  - Make sure you have adequate personnel and equipment to safely perform all lifts.
  - Make sure you have been informed of any hazardous conditions that exist within the installation site.
  - Make sure the installation site is kept clear of obstructions and debris and that the floor is dry.
  - Make sure you are aware of the location of all power lines, piping and HVAC systems within the installation site.
  - Make sure all accessories installed with the door are approved by the manufacturer.

Other icons used in this manual

IMPORTANT — Indicates instructions which, if not followed, could result in **damage to the door** or **voiding of the warranty.**

INSIDER'S TIP — Indicates **best practice.** This is how Rytec Technical Support does the job.

Requirements – Staffing



- Two installers.
- A licensed electrician is recommended for making all electrical connections.

Installer's responsibilities

It is the responsibility of **the installer** to:

- **Evaluate** the mounting surface for the door at the installation site.
- **Verify** that the wall material is strong enough to support the weight of the door (door panel, side columns, head assembly and all anchors).
- **Select and use** the correct anchoring method and hardware based on site conditions.
- **Follow** the instructions in this manual and all required safety practices.

Contact Rytec technical support before you begin the installation if you have questions.

Electrician's responsibilities

Refer to the Rytec *System 4® Drive & Control Installation & Owner's Manual* for a complete list of the electrician's responsibilities.

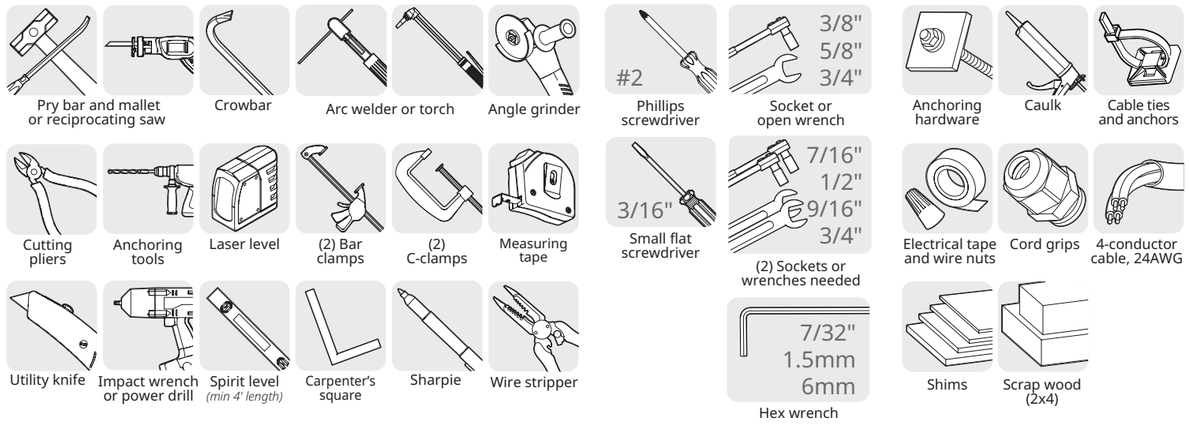
⚠ WARNING

Electrical work must meet all applicable local, state and national codes.

Failure to wire the door correctly can cause shock, burns or death to the people who install, use or service the door.

Failure to comply also voids the warranty for the door.

Required tools and supplies



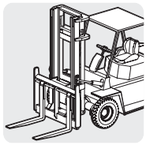
Requirements – Site Conditions

- Installers must have unrestricted access to the door opening at all times during the installation.
- Make sure there is no pedestrian or vehicular traffic within the installation site for the duration of the installation.

Requirements – Lifts

⚠ WARNING

A forklift is mandatory for the safe and proper installation of this door.



- **Forklift** that meets the following specifications:
  - Minimum 4,000 lb. lift capacity
  - Minimum height ability: door height + 12"
  - 48" wide fork
  - Side shift capability

⚠ WARNING

Follow all safety instructions on all lifts and ladders used for this installation.

- **Scissor lift** that meets the following specifications:
  - Can hold both installers
  - Minimum height ability: door height

- **Alternatively, two ladders** of sufficient height to safely access the door head **assembly.**

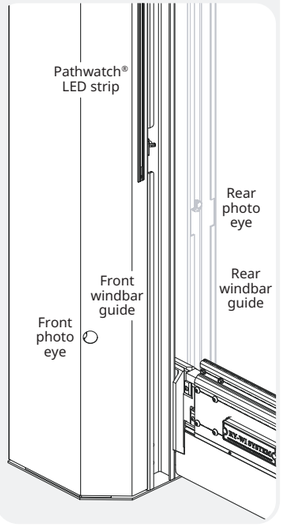
Table of Contents

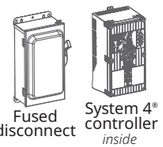
Terms used by Rytec to describe the parts of the door

This illustration shows the terms used by Rytec technical support to refer to the major components of your door.

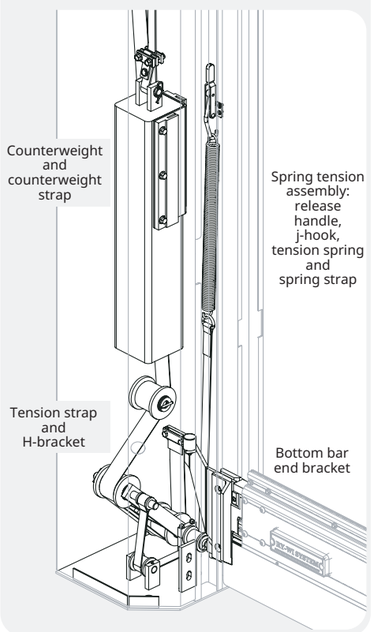
Using these terms helps technical support provide assistance as quickly as possible.

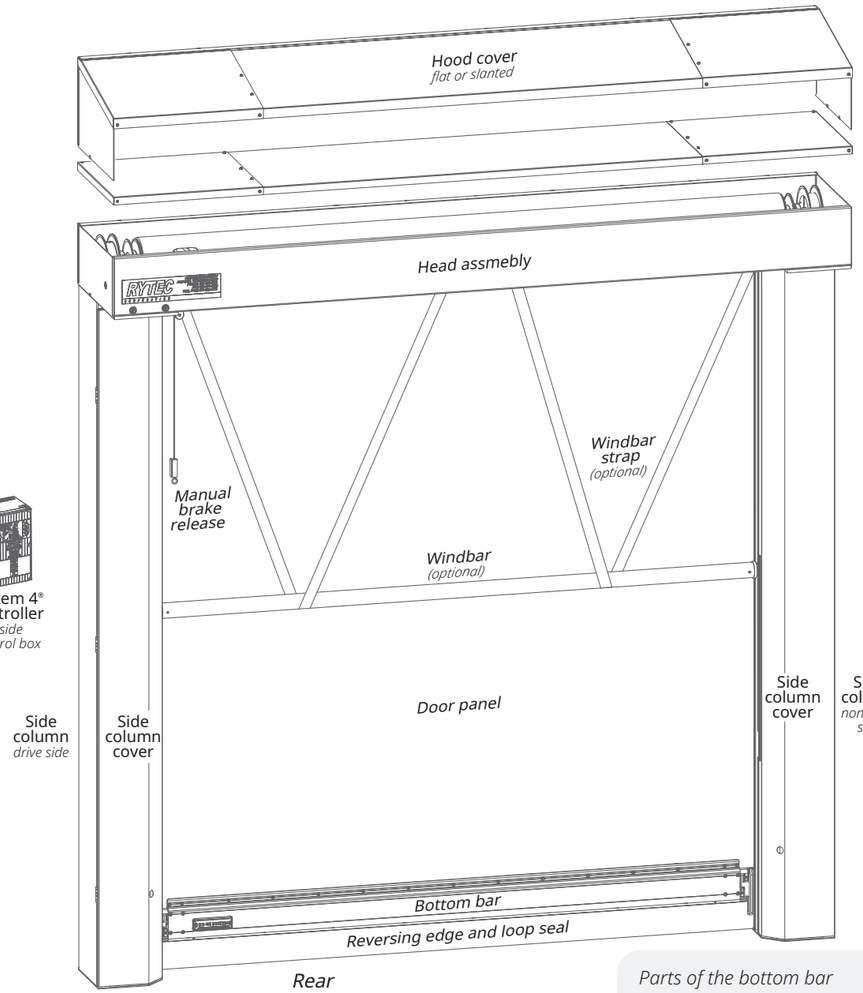
Parts of the side column - outside view





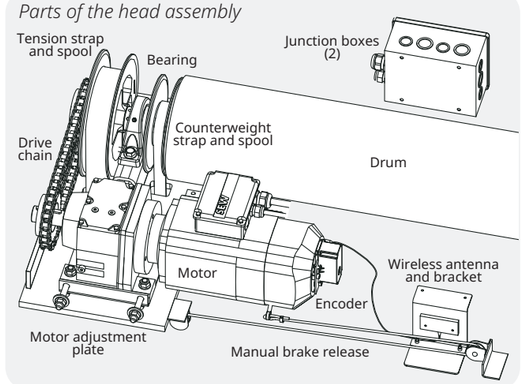
Parts of the side column - inside view



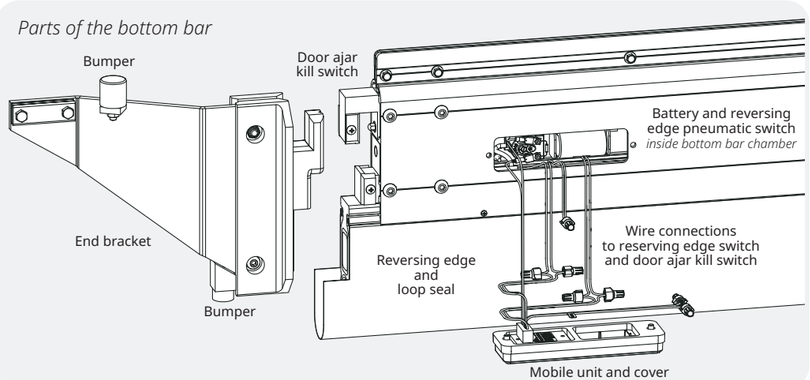


NOTE:
Unlinke most Rytec doors, Fast-Seal does not have left (LH) and right (RH) configurations

Parts of the head assembly



Parts of the bottom bar



Fast-Seal® (Model FS1000) Installation Manual

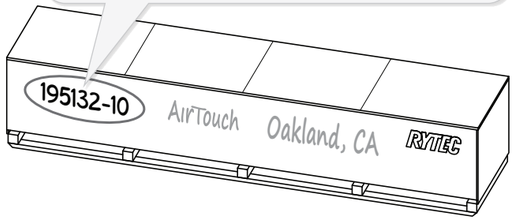
How to uncrate the door and inspect the site

Call **800-628-1909** or email **rytec.helpdesk@nucor.com**
if you have any questions during this installation. See previous page for list of Rytec terms for the parts of the door.

1 Open the crate(s) and check the contents. Make sure all serial numbers match the number on the crate and all visible parts have no shipping damage.

Each Fast-Seal arrives in a single crate.

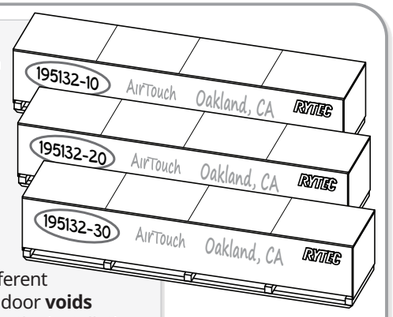
Check the unique serial number on crate against labels on all items inside.



If multiple doors are to be installed at the same site, each door is in a separate crate.

Serial numbers will be -010, -020, -030, etc.

DO NOT mix components from different doors.



IMPORTANT

Using parts labeled with different serial numbers in the same door **voids the warranty** for all doors in the installation.

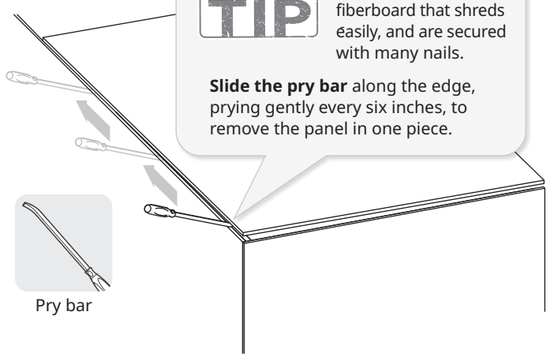
To start: remove ONLY the top panels.

Do not remove any other panels until the inspection is complete.

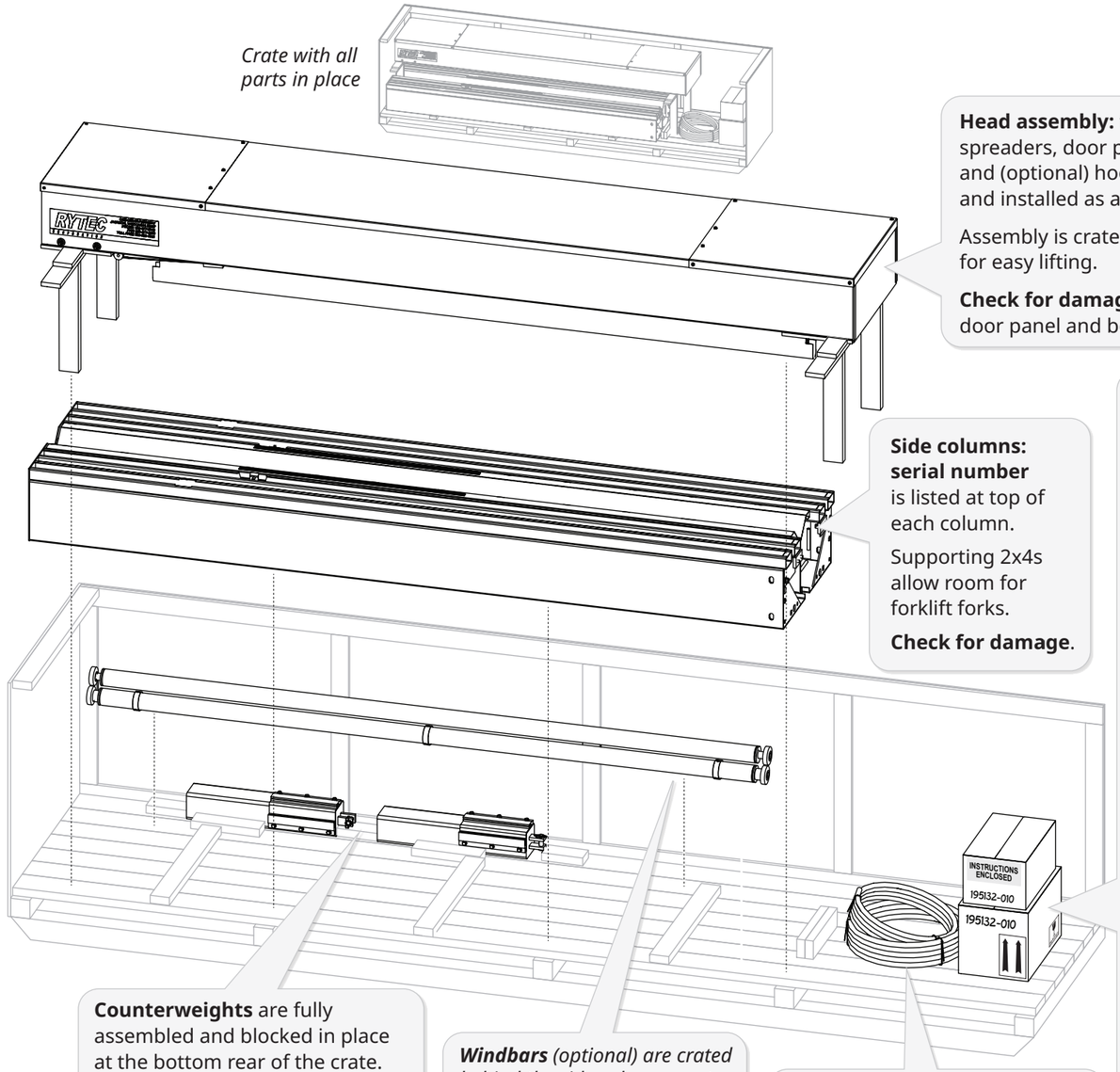
INSIDER'S TIP

Panels are made of fiberboard that shreds easily, and are secured with many nails.

Slide the pry bar along the edge, prying gently every six inches, to remove the panel in one piece.



Crate with all parts in place



Head assembly: the head assembly, spreaders, door panel, bottom bar and (optional) hood cover are crated and installed as a single unit.

Assembly is crated on a raised platform for easy lifting.

Check for damage to the hood cover, door panel and bottom bar.

Side columns: serial number is listed at top of each column.

Supporting 2x4s allow room for forklift forks.

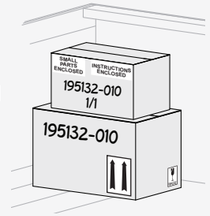
Check for damage.

Boxes:

Spare parts box(es) *(numbered)* has serial number written on side.

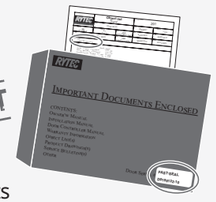
System 4® controller *(double arrows and FRAGILE warning)* has serial number written on side.

There may be additional boxes for optional accessories



IMPORTANT

Open boxes, check contents *(see next page)*, then locate and open the red documents envelope in the small parts box and get the object list (also called the cut sheet). Check the serial numbers on both.



Counterweights are fully assembled and blocked in place at the bottom rear of the crate.

You will **not be able to access them** until the side columns have been removed.

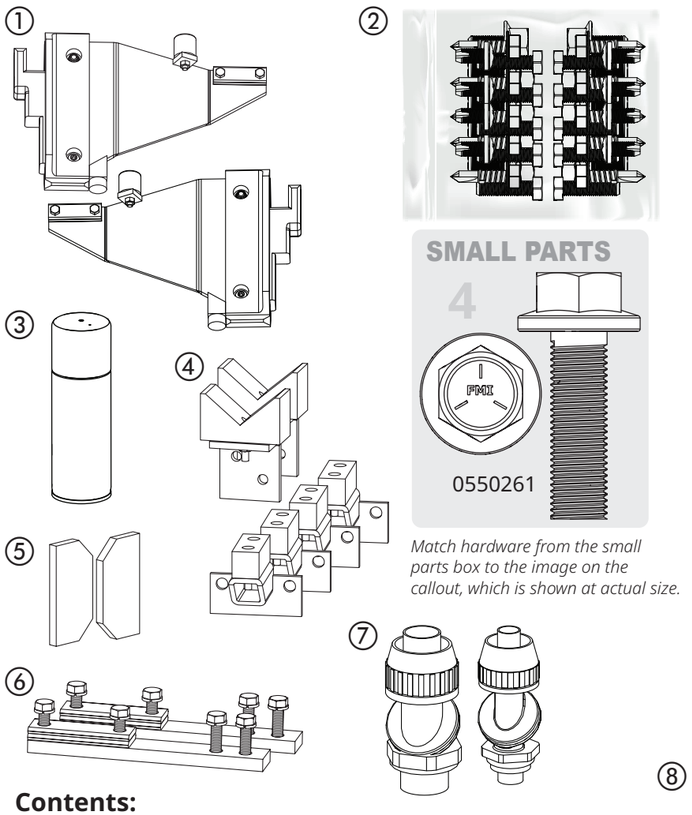
***Windbars** (optional) are crated behind the side columns,on top of the counterweights.*

***Liquid tight flexible conduit** (optional, severe duty motors only) is crated next to the side columns.*

2 Open the boxes and check the contents. Then **check the object list** for information about the configuration of the door and the measurements you will take in the next step.

NOTE: there may be optional accessory boxes in addition to the controller, encoder and small parts box.

Small parts box



Match hardware from the small parts box to the image on the callout, which is shown at actual size.

Contents:

① Left and right bottom bar end brackets *(may be preinstalled in some doors)*

② Hardware bag (hardware will be called out when used)

③ Touch-up spray paint

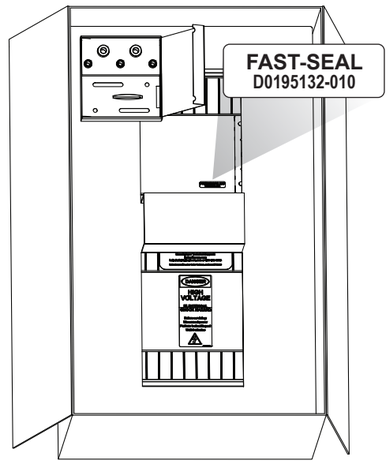
④ *(Optional, strapless windbar doors only)* Two to four (2-4) windbar stop cushion assemblies and three to eight (3-8) bumper bracket assemblies

⑤ *(Optional, dual strapless windbar doors only)* Two (2) windbar stops

⑥ *(Optional, strapped windbar doors only)* Two (2) windbar strap brackets

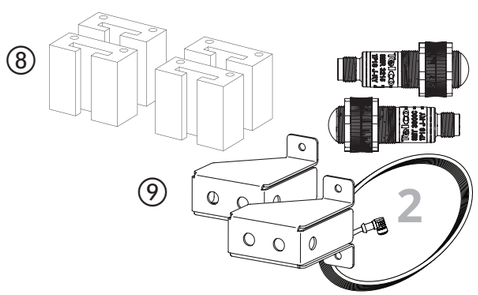
⑦ Liquid tight connectors for motor and brake connection to the System 4 controller *(Included for doors with severe duty motors: look for liquid tight conduit in the crate.)*

Controller box



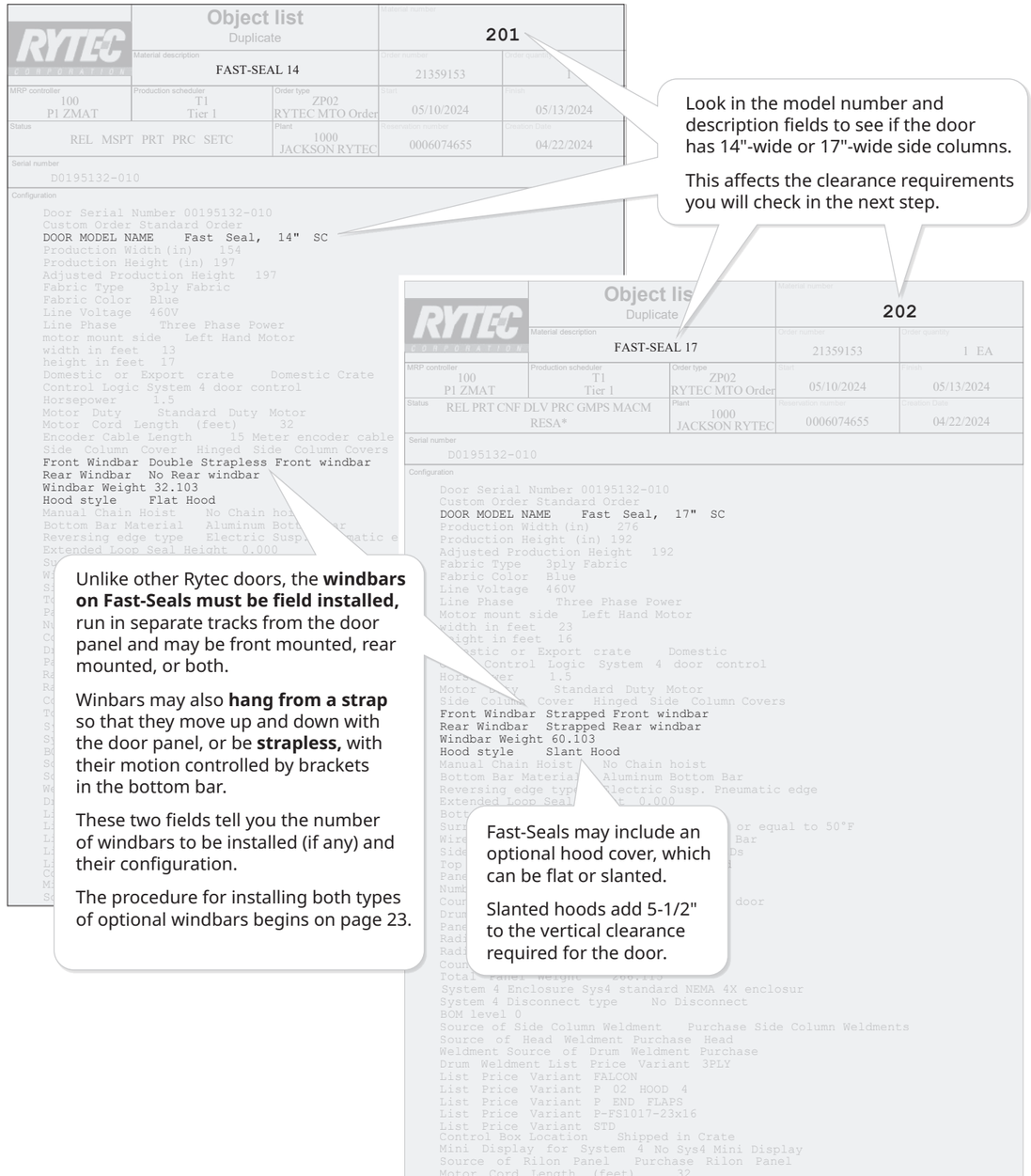
Contents: the controller and the box containing the ferrite filters.

Check the door serial number on the label attached to the user interface on the controller.



⑧ ***(17" side column doors only)*** Four (4) counterweight guide brackets

⑨ ***(Heavey duty 17" side column doors only)*** Rear photo eyes, brackets and cables for external mounting



Object list
Duplicate
Material number: 201
Material description: FAST-SEAL 14
Order number: 21359153
Order quantity: 1
MRP controller: 100 P1 ZMAT
Production scheduler: T1 Tier 1
Order type: ZP02 RYTEC MTO Order
Start: 05/10/2024
Finish: 05/13/2024
Status: REL MSPT PRT PRC SETC
Plant: 1000 JACKSON RYTEC
Construction number: 0006074655
Creation Date: 04/22/2024
Serial number: D0195132-010
Configuration:
Door Serial Number 00195132-010
Custom Order Standard Order
DOOR MODEL NAME Fast Seal, 14" SC
Production Width (in) 154
Production Height (in) 197
Adjusted Production Height 197
Fabric Type 3ply Fabric
Fabric Color Blue
Line Voltage 460V
Line Phase Three Phase Power
motor mount side Left Hand Motor
width in feet 13
height in feet 17
Domestic or Export crate Domestic Crate
Control Logic System 4 door control
Horsepower 1.5
Motor Duty Standard Duty Motor
Motor Cord Length (feet) 32
Encoder Cable Length 15 Meter encoder cable
Side Column Cover Hinged Side Column Covers
Front Windbar Double Strapless Front windbar
Rear Windbar No Rear windbar
Windbar Weight 32.103
Hood style Flat Hood
Manual Chain Hoist No Chain hoist
Bottom Bar Material Aluminum Bottom Bar
Reversing edge type Electric Susp. Pneumatic edge
Extended Loop Seal Height 0.000

Look in the model number and description fields to see if the door has 14"-wide or 17"-wide side columns.

This affects the clearance requirements you will check in the next step.

Unlike other Rytec doors, the **windbars on Fast-Seals must be field installed,** run in separate tracks from the door panel and may be front mounted, rear mounted, or both.

Winbars may also **hang from a strap** so that they move up and down with the door panel, or be **strapless,** with their motion controlled by brackets in the bottom bar.

These two fields tell you the number of windbars to be installed (if any) and their configuration.

The procedure for installing both types of optional windbars begins on page 23.

Object list
Duplicate
Material number: 202
Material description: FAST-SEAL 17
Order number: 21359153
Order quantity: 1 EA
MRP controller: 100 P1 ZMAT
Production scheduler: T1 Tier 1
Order type: ZP02 RYTEC MTO Order
Start: 05/10/2024
Finish: 05/13/2024
Status: REL PRT CNF DLV PRC GMPS MACM RESA*
Plant: 1000 JACKSON RYTEC
Construction number: 0006074655
Creation Date: 04/22/2024
Serial number: D0195132-010
Configuration:
Door Serial Number 00195132-010
Custom Order Standard Order
DOOR MODEL NAME Fast Seal, 17" SC
Production Width (in) 276
Production Height (in) 192
Adjusted Production Height 192
Fabric Type 3ply Fabric
Fabric Color Blue
Line Voltage 460V
Line Phase Three Phase Power
Motor mount side Left Hand Motor
Width in feet 23
Height in feet 16
Domestic or Export crate Domestic
Control Logic System 4 door control
Horsepower 1.5
Motor Duty Standard Duty Motor
Side Column Cover Hinged Side Column Covers
Front Windbar Strapped Front windbar
Rear Windbar Strapped Rear windbar
Windbar Weight 60.103
Hood style Slant Hood
Manual Chain Hoist No Chain hoist
Bottom Bar Material Aluminum Bottom Bar
Reversing edge type Electric Susp. Pneumatic edge
Extended Loop Seal Height 0.000
System 4 Enclosure Sys4 standard NEMA 4X enclosur
System 4 Disconnect type No Disconnect
BOM level 0
Source of Side Column Weldment Purchase Side Column Weldments
Source of Head Weldment Purchase Head
Weldment Source of Drum Weldment Purchase
Drum Weldment List Price Variant 3PLY
List Price Variant FALCON
List Price Variant P 02 HOOD 4
List Price Variant P END FLAPS
List Price Variant P-FS1017-23x16
List Price Variant STD
Control Box Location Shipped in Crate
Mini Display for System 4 No Sys4 Mini Display
Source of Rilon Panel Purchase Rilon Panel
Motor Cord Length (feet) 32

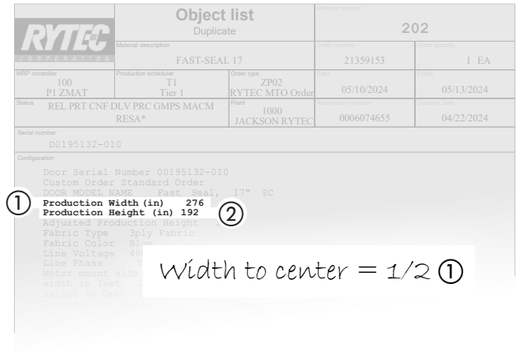
Fast-Seals may include an optional hood cover, which can be flat or slanted.

Slanted hoods add 5-1/2" to the vertical clearance required for the door.

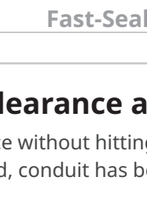
3 Check the measurements and clearance around the door opening.

Make sure the door will fit in the installation space without hitting obstructions such as electric conduit, HVAC ducting, gas lines, or other existing structures, when all parts and accessories have been installed, conduit has been run, and the controller has been wired.

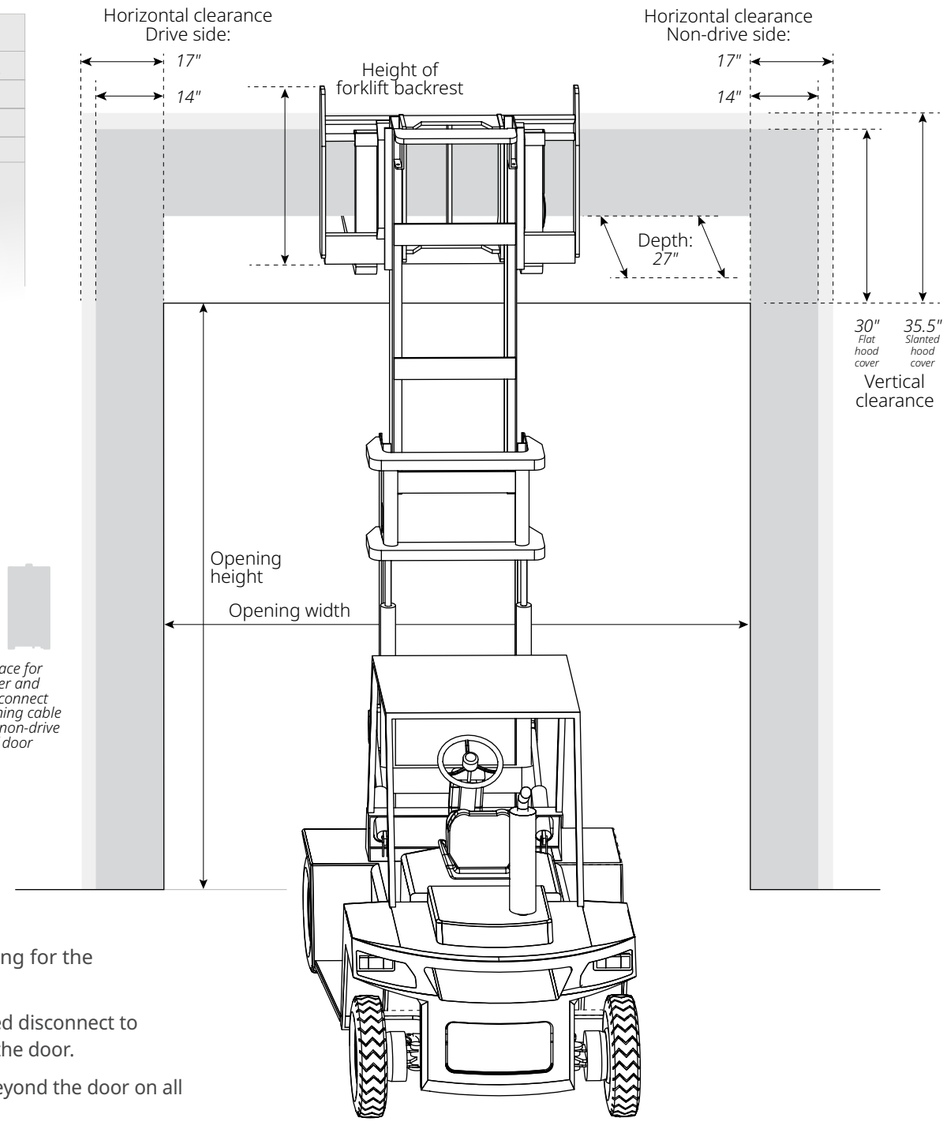
Tape Measure



1. **Locate** the Production Width ① and the Production Height ② on the object list.
2. **Measure the door opening** height and width to make sure they match the Production Width ① and Production Height ② on the object list.
3. **Calculate the width to center.** Divide the Production Width ① by 2. **Write the result** on the object list. Use it when you center the door.
4. **Check the horizontal clearance** on both sides of the door opening.
   - 14" or 17" depending on door configuration
5. **Check the vertical clearance** above the door opening
   - Flat hood = 30"
   - Slanted hood = 35.5"
6. **Check the lateral clearance** in front of the door = 27"
7. **Make sure there is enough space to lift the door.**
   - The head assembly is lifted from the bottom.
   - There should be **enough clearance above the door** opening for the full height of the forklift backrest.
8. **Check the that there is space** to position the controller and fused disconnect to determine whether to run cable to the drive or non-drive side of the door.
9. **Rytec doors require a minimum 1-1/2" additional clearance** beyond the door on all sides (18" recommended) to allow for servicing the door.



Allow space for controller and fused disconnect before running cable to drive or non-drive side of door



Call Rytec technical support at 800-628-1909 or email rytec.helpdesk@nucor.com

if you have any questions about the measurements or clearance at the site.

4 If all checks are good, **finish** uncrating the door.

Starting at the center, **remove** the crossbars, then **remove** the front and side panels.

Mallet and crowbar

or

Reciprocating saw

⚠ CAUTION

Flatten exposed nails as you go.

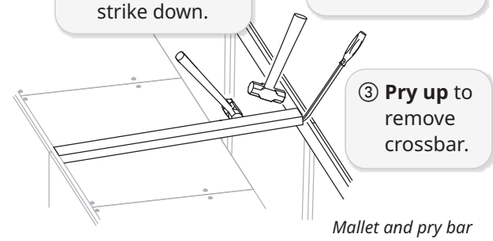
Keep hands clear while striking or cutting.

① **Strike across** the crossbar to loosen nails.

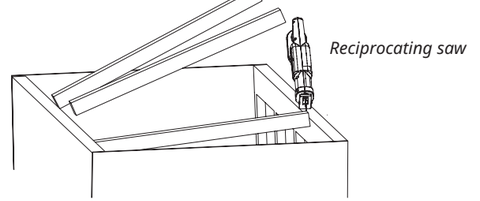
Do not strike down.

② **Strike** the side panel to expose nails.

③ **Pry up** to remove crossbar.



Mallet and pry bar

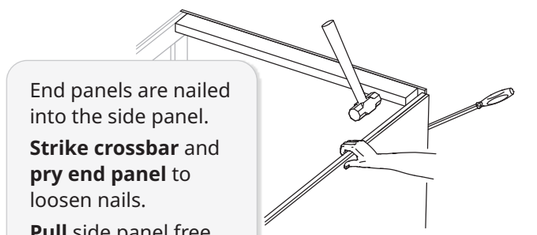


Reciprocating saw

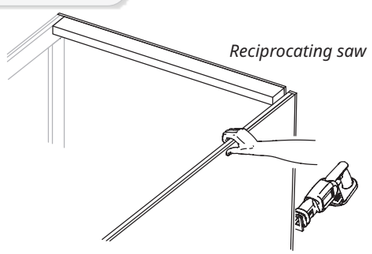
End panels are nailed into the side panel.

Strike crossbar and **pry end panel** to loosen nails.

Pull side panel free from sides, then pull down to remove.



Mallet and pry bar



Reciprocating saw

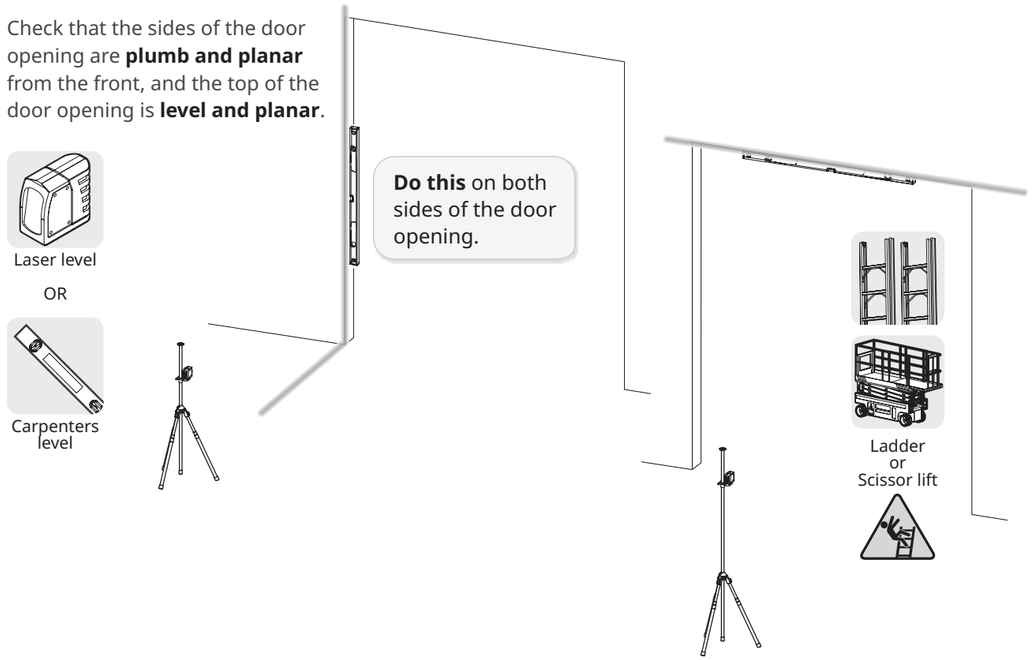
How to plumb, level and square the site and door opening

If any of these steps **show an irregularity of 1" (one inch) or more,** contact Rytec technical support to find out if bucking/pullout will be required.

Smaller irregularities will require the side columns to be shimmed **at all affected anchor points.**

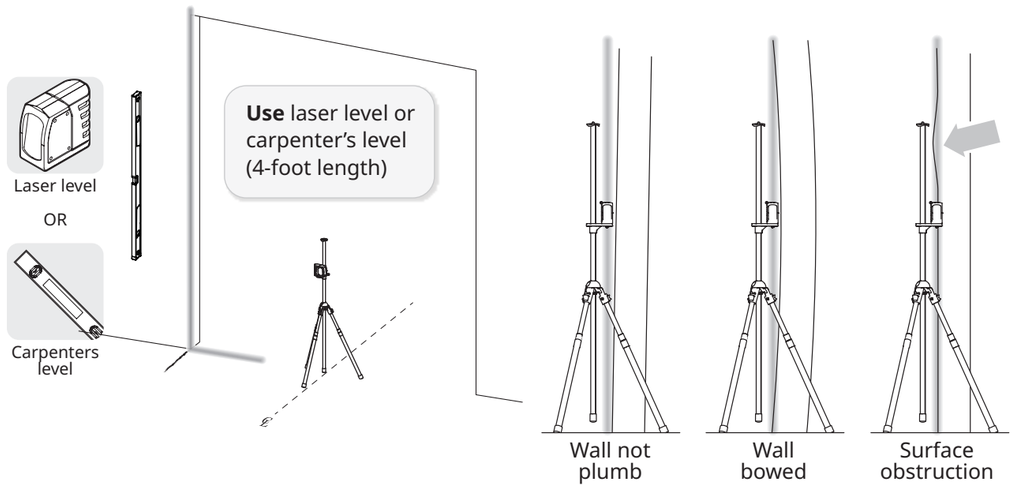
1

Check that the sides of the door opening are **plumb and planar** from the front, and the top of the door opening is **level and planar**.



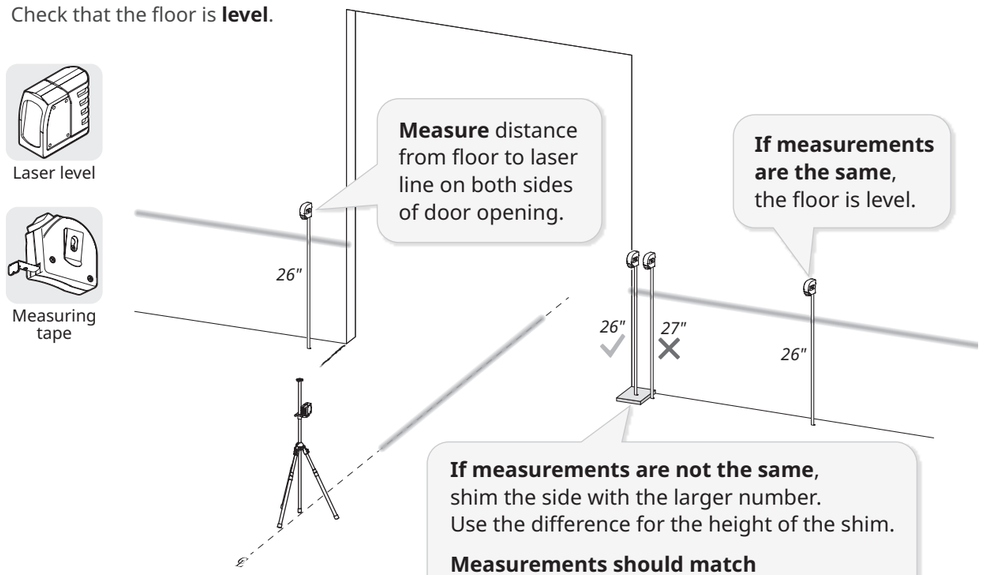
2

Check that the walls around the door opening are **plumb and planar**.



3

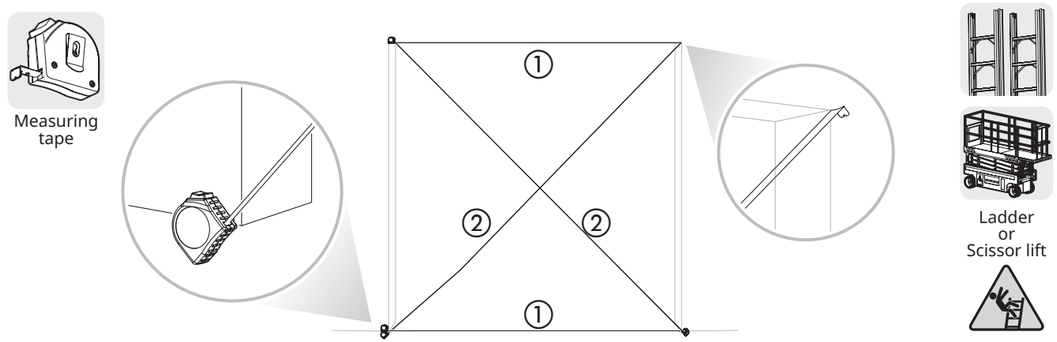
Check that the floor is **level**.



4

Check that the door opening is **square**:

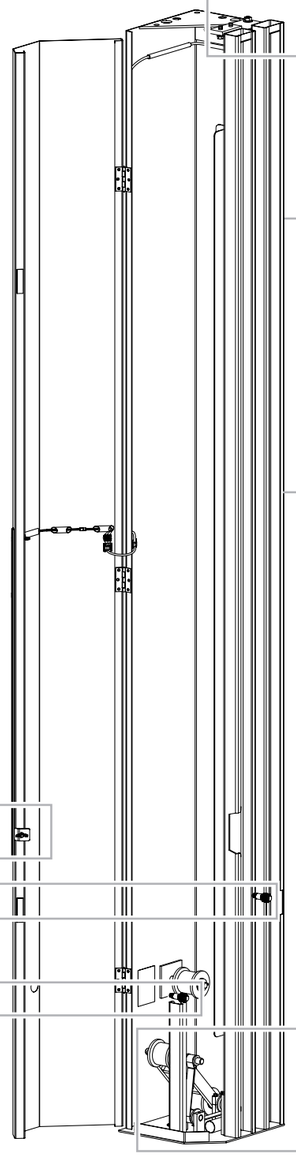
- **Measure** distance between the sides of the door opening at top and bottom of opening ①.
  Make sure the distances are the same.
- **Measure** distance from bottom corner of drive side to top corner of non-drive side, then from bottom corner of non-drive side to top corner of drive side ②.
  Make sure the distances are the same.



Plumb, level, square: how to position the door correctly as you install the side columns and head assembly

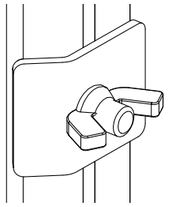
Before you begin: things to know about the side columns

- Side columns may be **14" or 17" in width** based on the size of the door.
- Other than the design of the counterweights, **the design of the side columns is the same.**



1 Side column cover

- The side column cover on Fast-Seals is hinged, and secured by a **single wingnut,** which is located inside the front windbar guide when the cover is closed.
- **Loosen but do not remove** the nut when you open the cover.



- **A single Pathwatch® LED strip** is installed in each cover. Cables are shipped in the side columns and run in wire chases so that they stay clear of the counterweight and tensioning system.

2

Photo eyes (front and rear) are preinstalled. Cables are wired into a junction box in the head assembly at Rytec and have wire chases built into the side columns so that they run clear of the counterweight and tensioning system.

3 Front windbar spacer

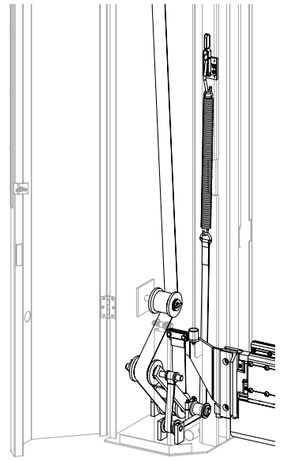
- There is a metal plates at the top of each crated side column that keeps the windbar guides in place during transit.
- **It must be removed at the start of the installation.**

4 Windbar guides

- Each side column has front and rear windbar guides surrounding the door track. These guides are present whether or not the door includes windbars.
- **The front windbar must be removed before installing the side column,** then reinstalled when the head assembly is in place

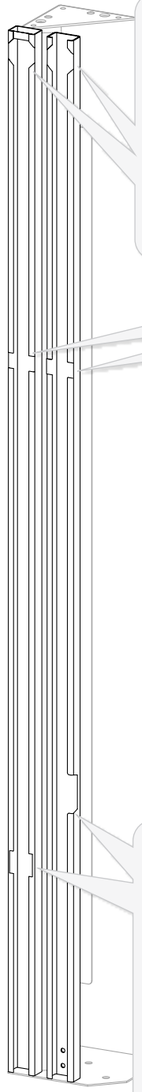
5 End bracket tensioning system

- There are two tensioning systems in the side columns: a counterweight for the door panel/bottom bar, and a separate two-part tensioning strap system for the end brackets, which separate from the bottom bar if the door is knocked out of its track.



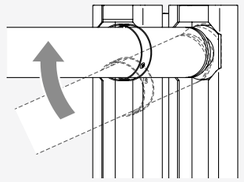
(OPTIONAL) How to prep the side columns on doors with double strapless windbars

- See *Before you begin: things to know about the windbars* starting on 24 for more information on Fast-Seal windbars.

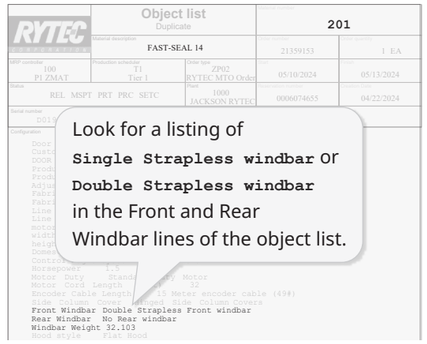


Doors with double strapless windbars, whether front, rear or both, have these two bevelled notches at the top of both windbar guides.

Upper windbars are installed by inserting them into the notch in one side columns, then sliding them up into the notch on the other side. This requires some force.



You must field weld metal windbar stops into these square notches on doors with upper windbars.



Look for a listing of `Single Strapless windbar` or `Double Strapless windbar` in the Front and Rear Windbar lines of the object list.

- On doors with double strapless windbars, **metal windbar stops** must be welded into the windbar guides to hold the top windbar in place.
- The stops must be welded into the windbar tracks in **both side columns.**
- Depending on the configuration of the door, you may have to weld the front windbar track, the rear track, or both. **Check the object list.**
- **This should be done** before the side columns are lifted into place in the door opening.

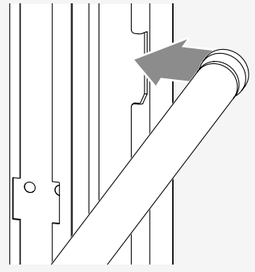
IMPORTANT

- **If using an arc welder rather than a torch,** make sure the System 4 controller has not been connected to the door via conduit, and that the ground electrode is placed as close to the area to be welded as possible.

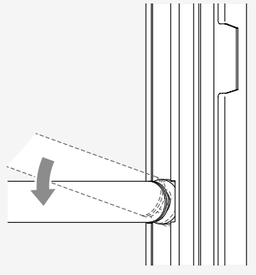
This is why it is best to do the welding immediately after the side columns are removed from the crate.

All doors have these notches in the windbar guides, whether or not the door has windbars.

Front windbars are installed by sliding them into the beveled notch in the front windbar guide,then up the track.

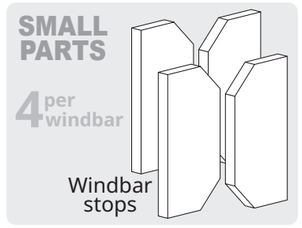


Rear windbars are installed by inserting them into the square notch in one side columns, then sliding them down into the notch on the other side. This requires some force.

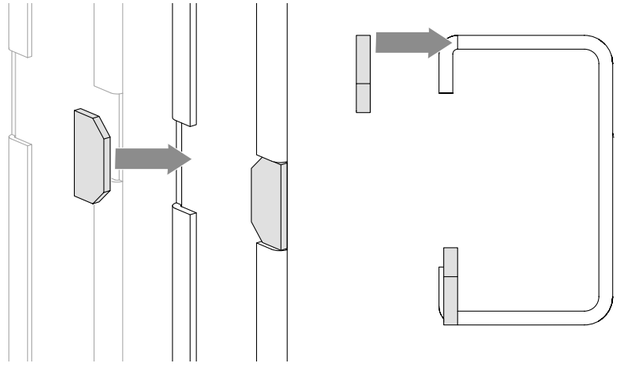


1 **Locate** the windbar stops in the small parts box and **get** the necessary welding tools.

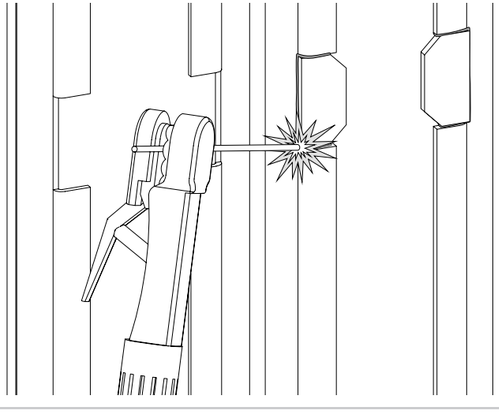
Torch or arc welder



2 **Position** the stops so they are flush with the back and outside edge of the notches in the side column.



3 **Weld** the stops securely on all sides to the edges of the notches.



⚠WARNING

BURN, EYE, ELECTRICAL AND FUME HAZARD

Welding or arc welding taking place.

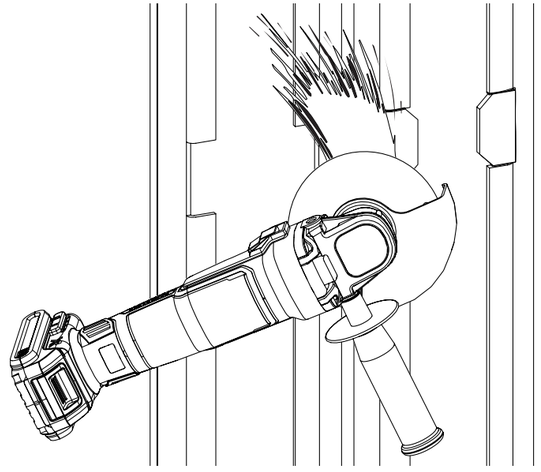
- **Make sure** there are no flammable materials in the weld area and that weld operators wear appropriate protective gear.
- **Make sure,** if an arc welder is used, that it is properly grounded.
- **Make sure** no one looks at the weld area without wearing appropriate eye protection.
- **Make sure** people do not breathe in fumes.

FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY OR DAMAGE TO THE DOOR.

4 **Grind** any rough patches around the weld area until they are smooth.

Use the spray paint from the small parts box to touch up any exposed metal.

Angle grinder



Plumb, Level Square Step 1: find the centerline for the door opening and set the mark for the first side column

Rytec doors are engineered to be centered in the door opening, so follow all steps even if the width of the door opening and the Production Width match exactly.

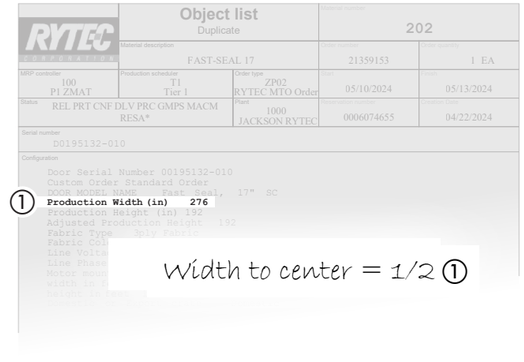
IMPORTANT

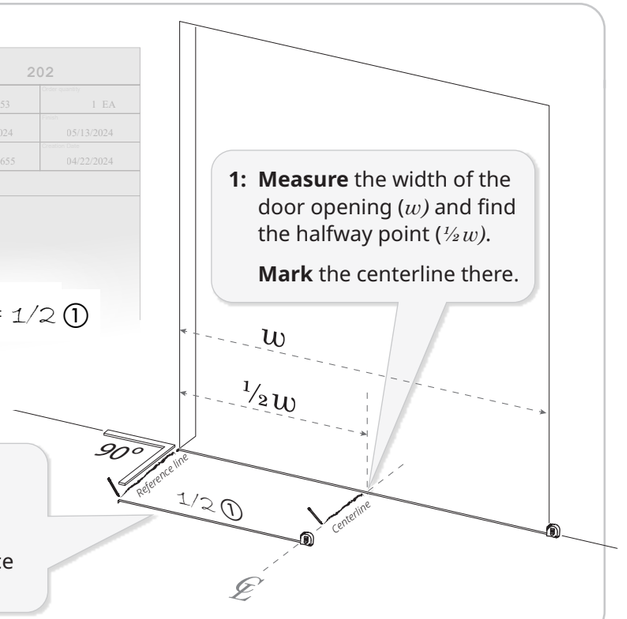
Call Rytec technical support at 800-628-1909 immediately and stop the installation if you are not able to correctly position the door.

1

Measuring tape

Carpenter's square





1: Measure the width of the door opening (*w*) and find the halfway point (*½w*).

Mark the centerline there.

2: Use the width to center from the object list (*1/2 ①*).

Starting at the centerline, measure and mark the reference line for the first column.

Step 2: Install and plumb, level, square the side columns

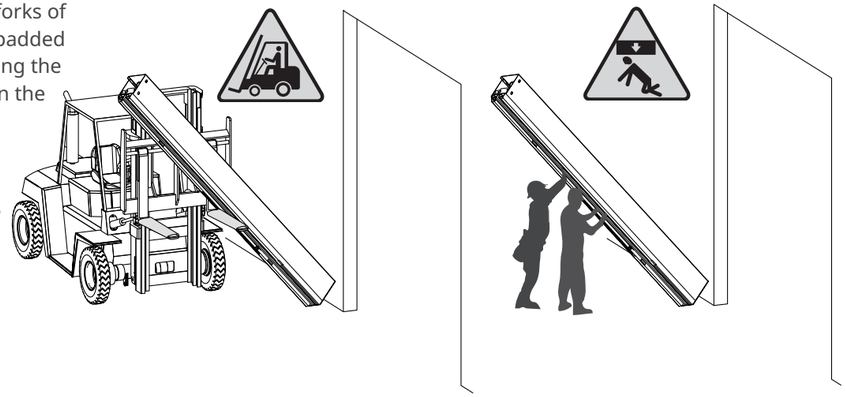
1 **Install the side columns in order based on whether you found the floor to be level when you checked the door opening.**

- **If the floor is level,** install the drive side column first.
- **If the floor is not level,** install the side column that is not shimmed first.


Forklift

IMPORTANT **You will usually need a forklift** to remove the side columns from the crate and raise them against the wall.

- **Make sure** the forks of the fork lift are padded to avoid damaging the paint or finish on the side columns.
- If you lift the side columns manually, **make sure** enough service techs are involved to lift safely and avoid damage to the side columns.



2 **Remove** any wood that blocks the first side column in place in the crate, then **center** the forklift on the side column, **slide** the forks between the 2x4s that hold the side column off the floor of the crate, and **lift** the side column out of the crate.

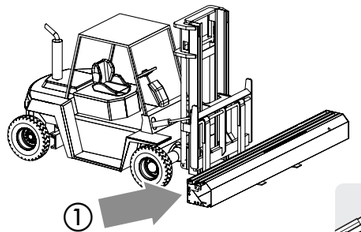
IMPORTANT The crate is **tightly packed. Make sure** the side column remains clear of the other side column, the head assembly, and the head assembly platform when you lift it out of the crate.


Forklift


Crowbar

3 Before lifting the side column into place, **remove and discard** the windbar spacer (gray shading).

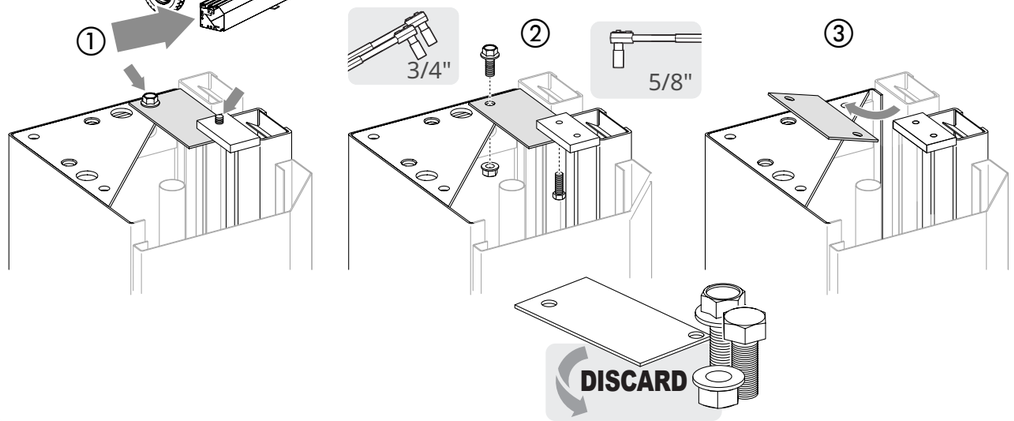
IMPORTANT If left in place, the spacers in the two side columns will block the head assembly at the point where you secure it to the side columns.



① **Locate** the spacer at the top of the side column. It is secured to both the **top plate of the side column** and the **top bracket of the front windbar guide**, which is welded in place.

② **Loosen and remove** the bolt/nut combo in the top plate and the bolt in the bracket.

③ **Slide** the spacer from under the bracket. **Discard** the spacer and the hardware.

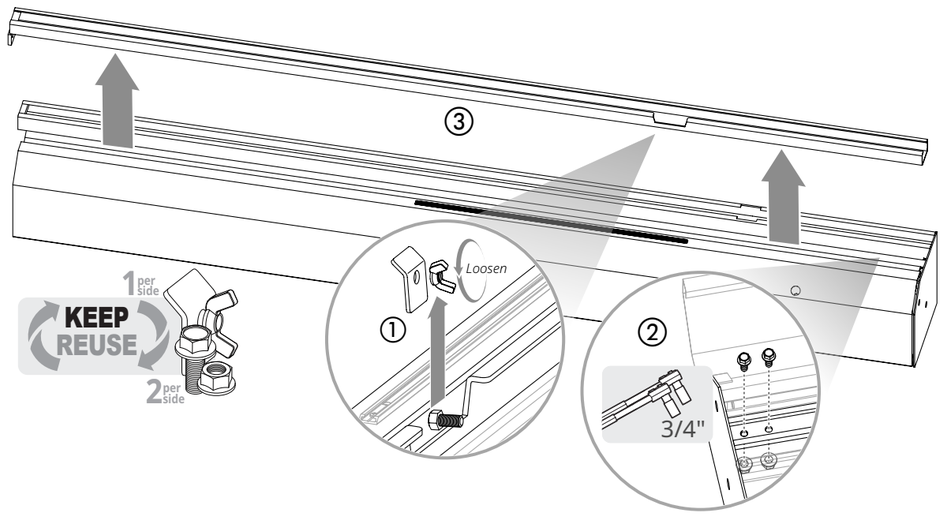


4 You must also **remove** the front windbar guide. The top guide bracket of the guide also **obstructs the head assembly** when you install the assembly.

① **Loosen** the wingnut and **remove** the front cover latch.

② **Loosen and remove** the two bolt/nut combos that secure the front windbar guide near the baseplate.

③ **Slide out** the front windbar spacer. **The guides must be reinstalled into the correct side columns: mark** the guide as left or right and **retain** with the latch and hardware.



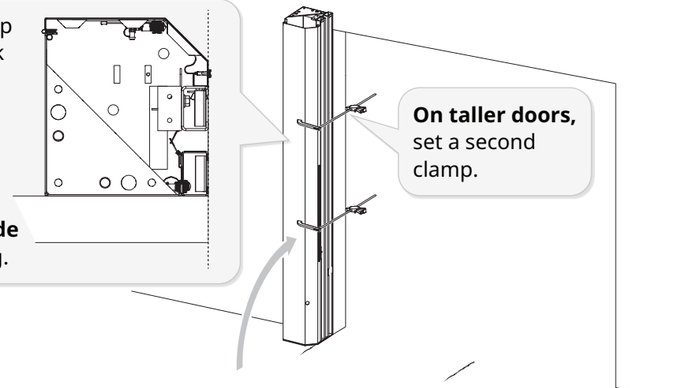
5

Clamp the first side column into place.


Bar clamp

Align metal clamp for the door track weather seal to reference mark.

The Pathwatch LED strip is the only part of the side column **inside** the door opening.



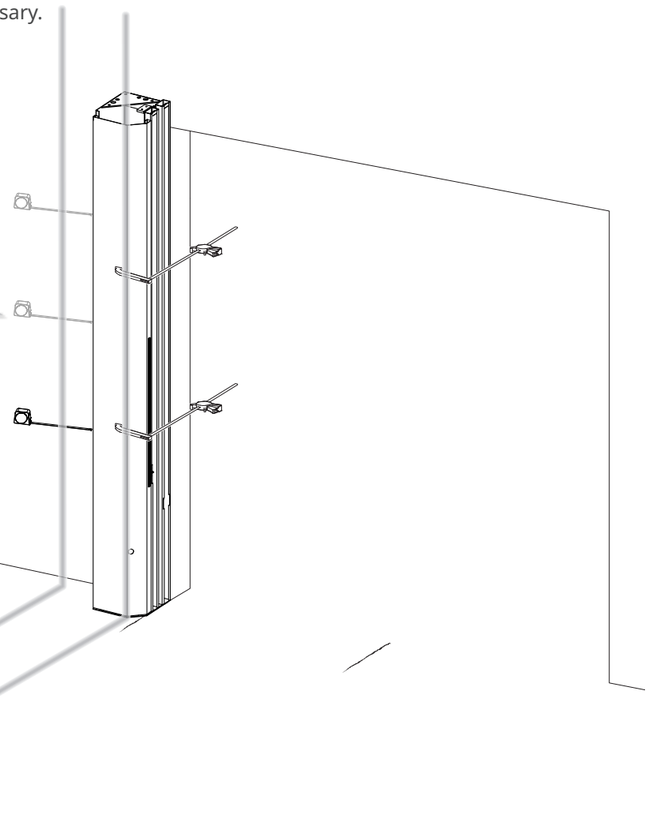
On taller doors, set a second clamp.

6

Plumb the side column. **Adjust** as necessary.


Laser level

If it is difficult to see the laser line, **check plumb** by shining the line to the side of the column and measuring the distance at multiple points.



7


Anchoring hardware

Open the side column cover.

Locate the two anchor holes at the top of the column and the two in the baseplate.

Anchor the first side column to the wall and floor at **all anchor points**.

DO NOT SET anchors more than hand tight. This allows for adjustments later.

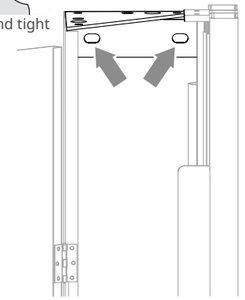
Remove the clamp(s).

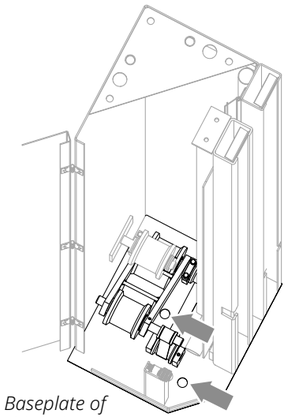
IMPORTANT

Make sure you have read *Before you begin: things to know about the side columns* on page 7 before you start.


Hand tight

Top of side column






Hand tight

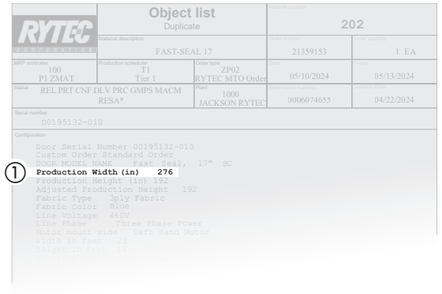
Baseplate of side column

8

Measure and mark the reference mark for the second side column.

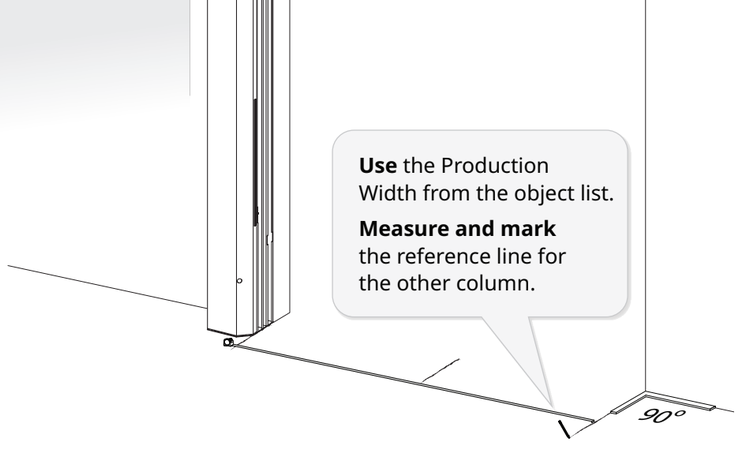

Measuring tape


Carpenter's square



Use the Production Width from the object list.

Measure and mark the reference line for the other column.



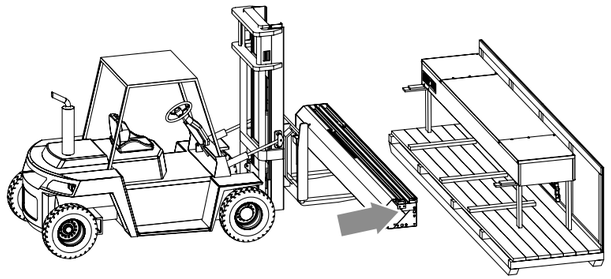
9

Remove any wood that blocks the second side column in place in the crate, then **center** the forklift on the side column, **slide** the forks between the 2x4s that hold the side column off the floor of the crate, and **lift** the side column out of the crate.

IMPORTANT

The crate is **tightly packed. Make sure** the side column remains clear of the head assembly and the head assembly platform when you lift it out of the crate.

Forklift



Crowbar

Before lifting the side column into place, **remove and discard** the windbar spacer (gray arrow). **Follow** the same steps as you did for the spacer in the first side column.

10

Clamp the non-drive side column into place.

Bar clamp

On taller doors, set a second clamp.

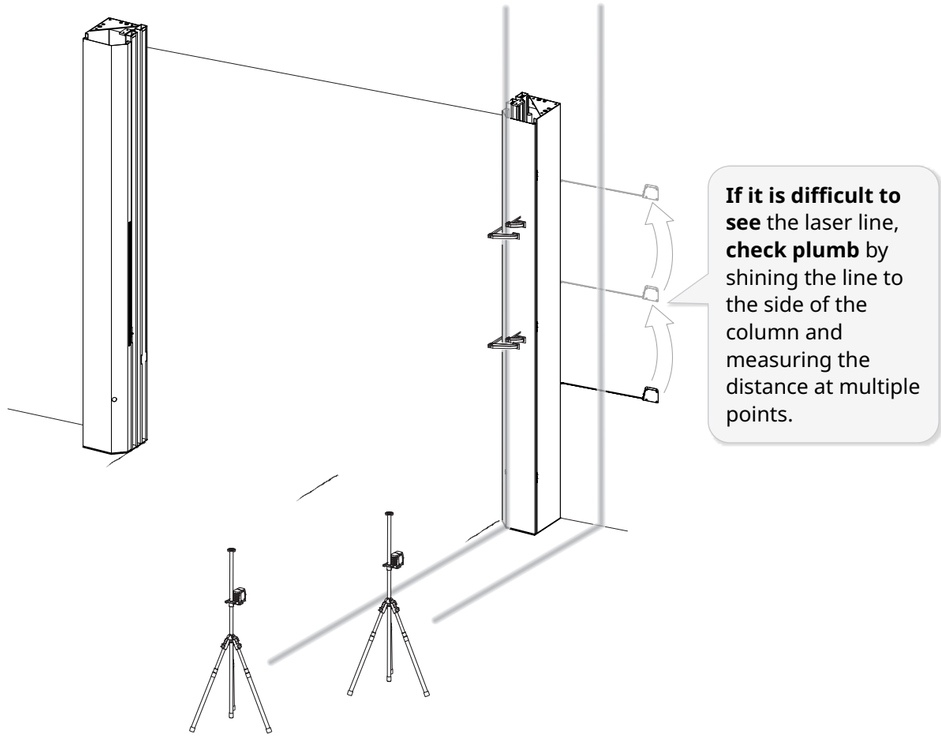
Align the inside edge of the baseplate to the reference mark.

The Pathwatch LED strip is the only part of the side column **inside** the door opening.

11

Plumb the non-drive side column. **Adjust** as necessary.

Laser level



If it is difficult to see the laser line, **check plumb** by shining the line to the side of the column and measuring the distance at multiple points.

12

Anchoring hardware

Open the side column cover.

Locate the two anchor holes at the top of the column and the two in the baseplate.

Anchor the first side column to the wall and floor at **all anchor points**.

DO NOT SET anchors more than hand tight. This allows for adjustments later.

Hand tight

Remove the clamp(s).

IMPORTANT

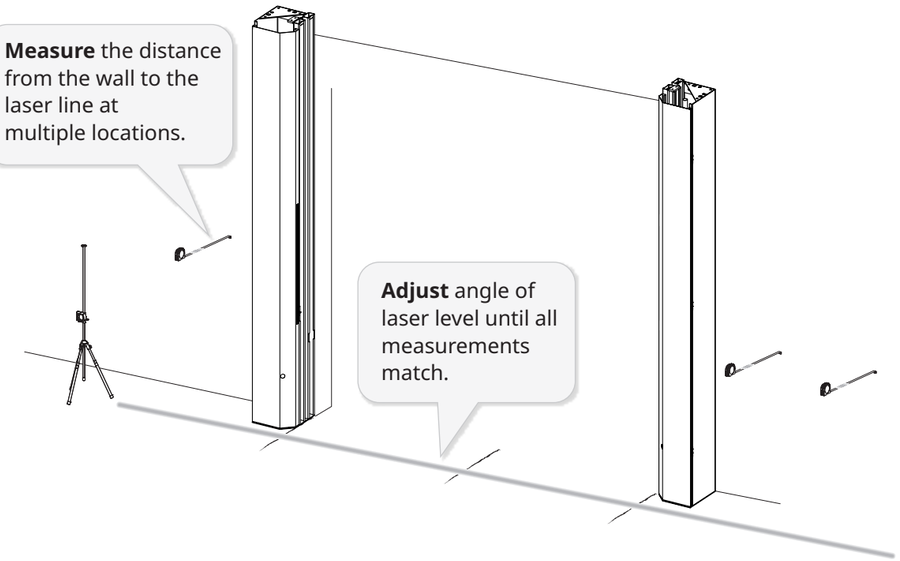
Make sure you have read *Before you begin: things to know about the side columns* on page 7 before you start.

13

Set a laser line parallel to the wall 1" (one inch) in front of columns. **Make sure** the line is parallel to the wall.


Laser level


Measuring tape

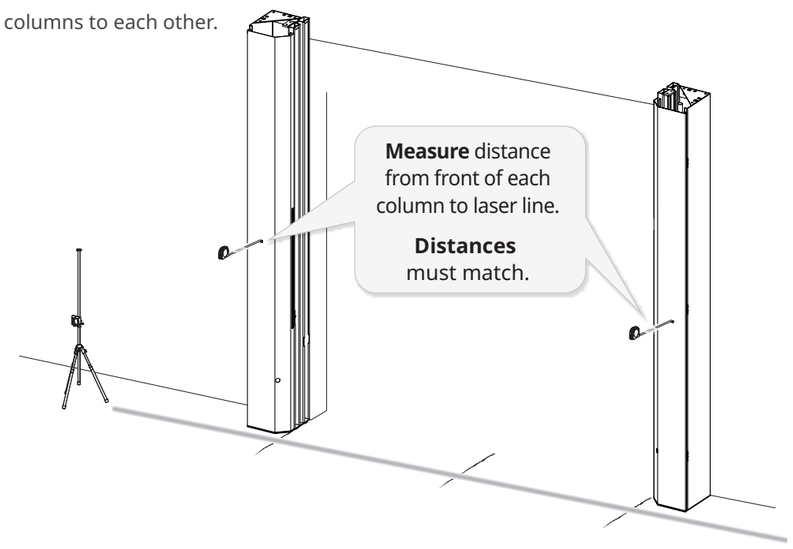


14

Plumb the side columns to each other.


Laser level


Measuring tape



15


Shims

If necessary, shim the side columns so they are plumb to each other.

16

Square the two side columns:

a **Measure** the horizontal distance between the inside edges of the side columns at a top and bottom.

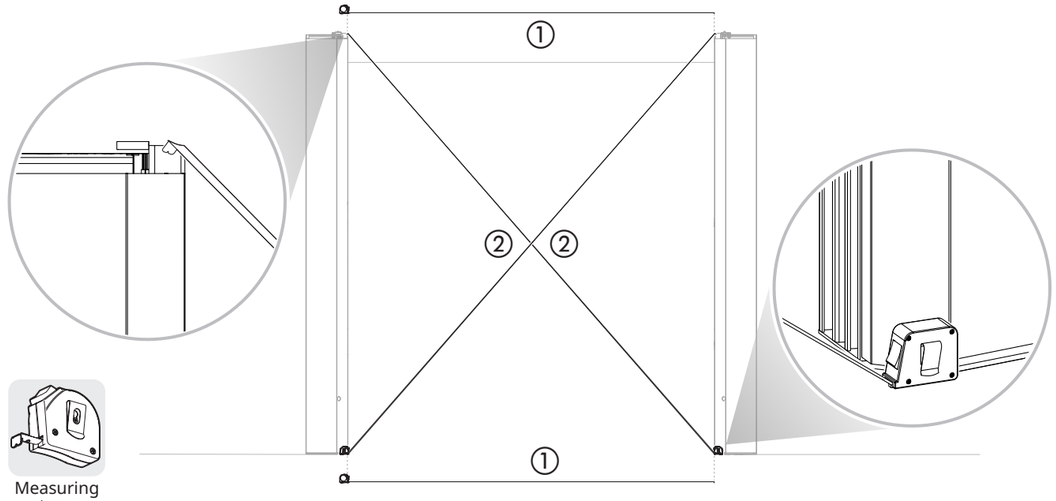
Make sure the horizontal distances are the same.

b **Measure** diagonally using the same reference points, this time going drive-side top to non-drive-side bottom, then non-drive-side top to drive-side bottom.

Make sure the diagonal distances are the same as well.

If either condition is not met, **adjust** the side columns.

When conditions ① and ② are met, **the side columns are square**.



Measuring tape

Step 3: Install the head assembly

IMPORTANT

On Fast-Seal doors, **the rear spreader/brush seal is preinstalled** into the head assembly, so the complete assembly acts as the spreader for the side columns when plumbing, leveling and squaring the door.

There are a pair of **locating pins** on the rear corners of the head assembly. These **slot into guide holes** in the side columns when the head assembly is correctly positioned.

1 **Lift** the head assembly out of the crate.

a **Line up** the forklift slightly off center, to account for the extra weight of the motor. Tip of forks should align with the read edge of the head assembly.

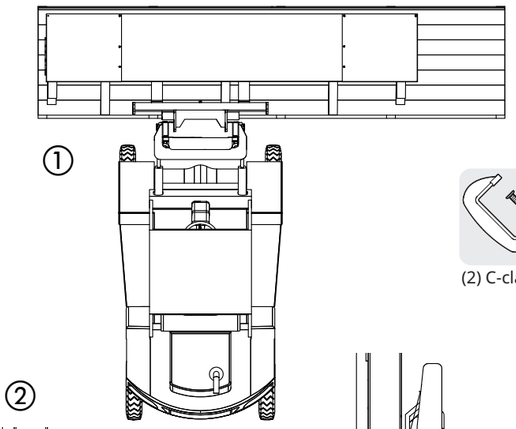
b As you lift the forks to the head assembly, **swing up** the bottom bar so it is inside the assembly. The head assembly frame, and not the bottom bar, should be supporting the weight.

c **Secure** the head assembly to the forks with c-clamps clamped against the inside lip of the front cover.

IMPORTANT

Most of the cabling for the door is installed and routed inside the head assembly at Rytec. **Make sure no cables are pinched or crimped** when you swing the bottom bar into place.

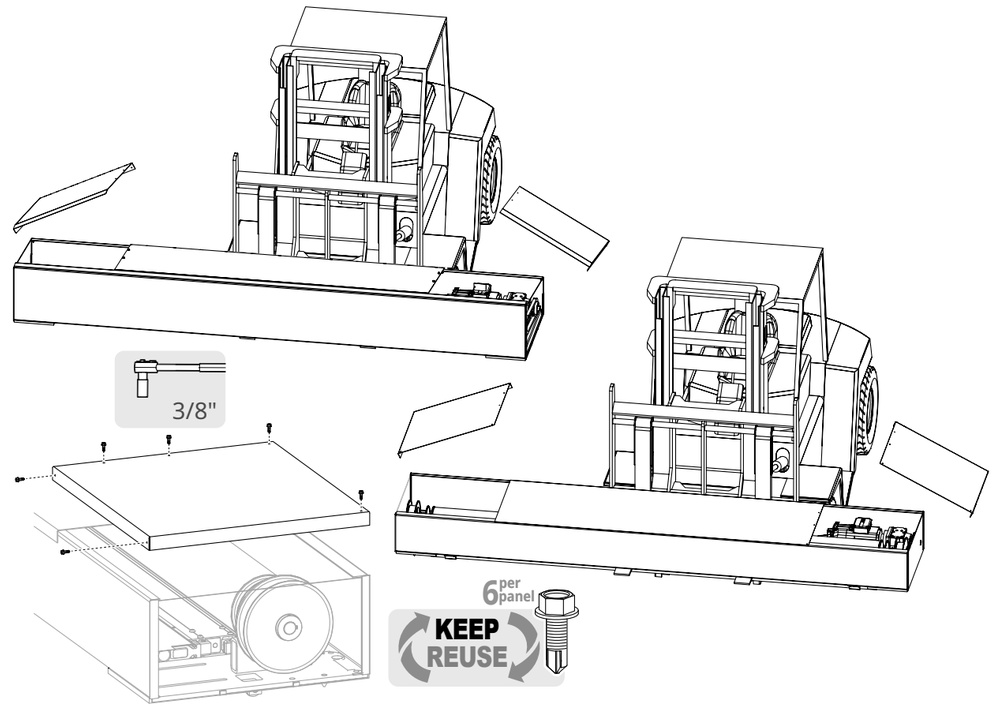
Forklift



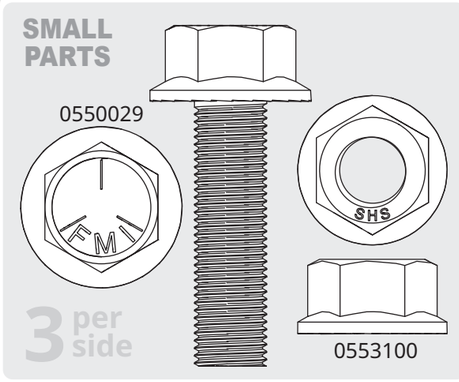
(2) C-clamps

2 If the door has a flat or slanted top cover, **remove** the two top side panels to have full access to the side columns.

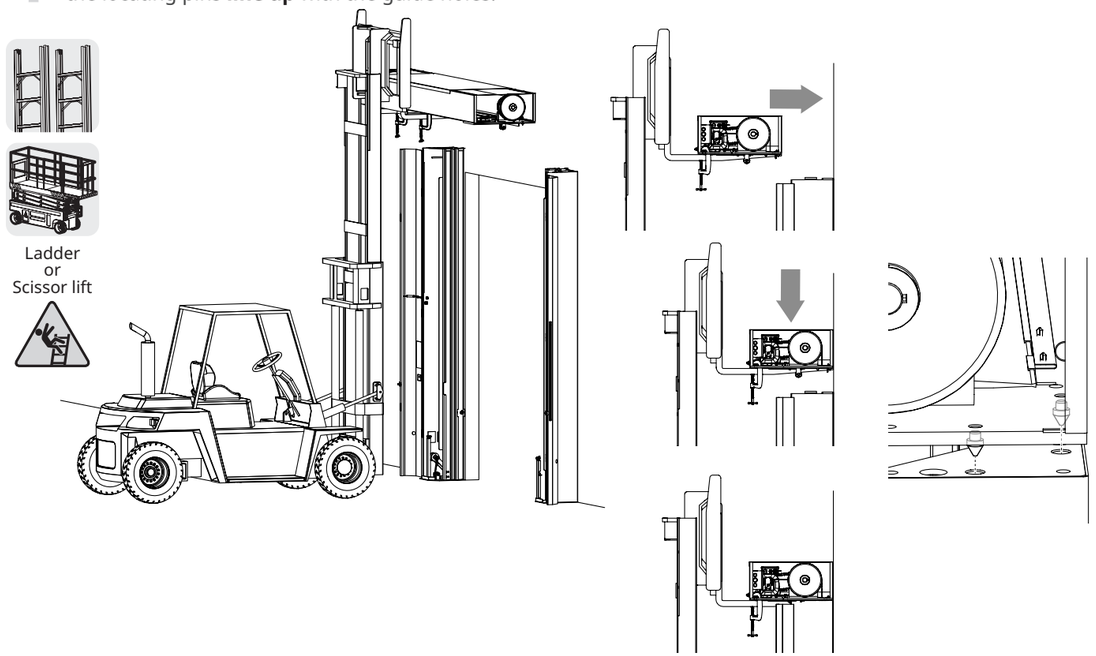
Retain the panels and hardware to reinstall later.



3 **Locate** the hardware for securing the head assembly to the side columns in the small parts box.

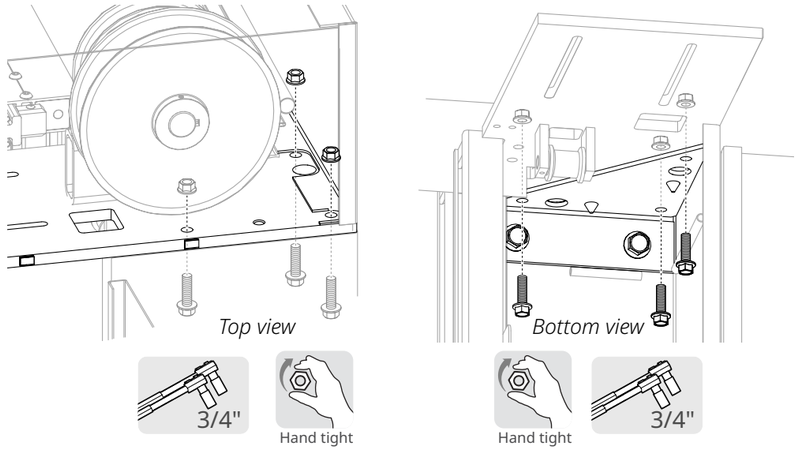


4 **Lift** the head assembly and lower onto the side columns. Make sure as you lower the head assembly that the locating pins **line up** with the guide holes.



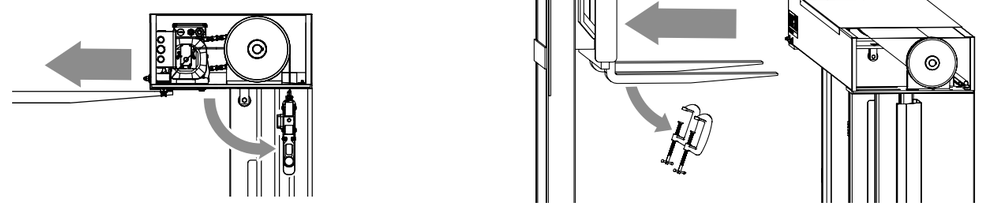
5 **Secure** the head assembly at the three mounting holes on both sides of the assembly.

DO NOT SET anchors more than hand tight until you have replumbed and resquared the door.

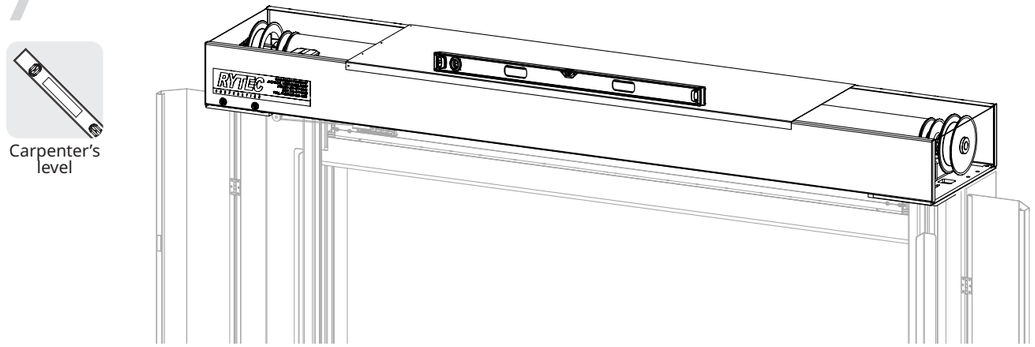


6 **Loosen** the two c-clamps to free the head assembly from the forks and pull back the forklift.

Make sure to guide the bottom bar back to the vertical position as the forks are removed.



7 **Check** that the head assembly is level.



Step 4: Replumb and square the door, then finish anchoring the side columns

Close the side column covers before measuring the door.

1 **Plumb** the drive side side column ① and non-drive side side column ② from the front again.
Realign if necessary.


Laser level

If it is difficult to see the laser line, **check plumb** by shining the line to the side of the column and measuring the distance at multiple points.

2 **Square** the door:

a **Measure** the horizontal distance between the inside edges of the side columns at a top and bottom.

Make sure the horizontal distances are the same.

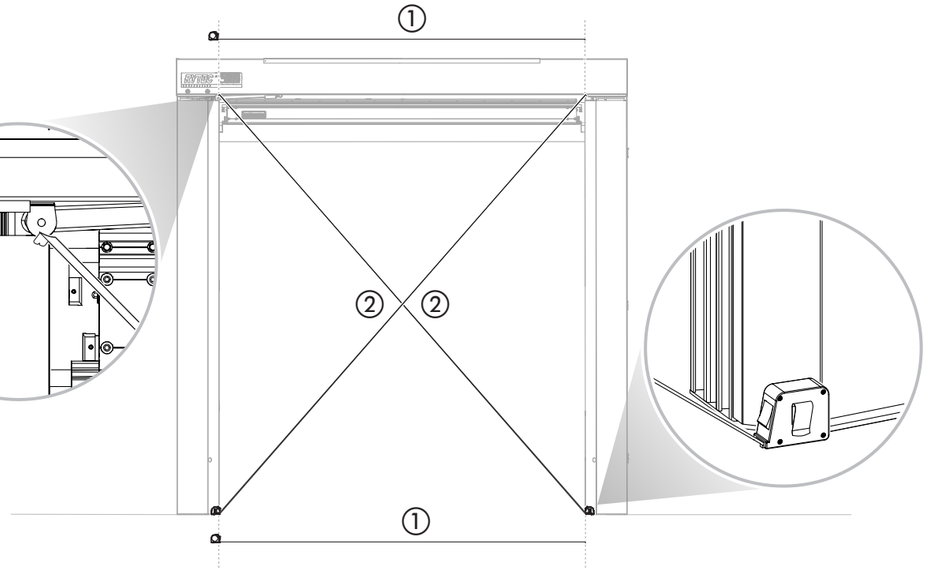
b **Measure** diagonally using the same reference points, this time going drive-side top to non-drive-side bottom, then non-drive-side top to drive-side bottom.

Make sure the diagonal distances are the same as well.

If either condition is not met, **adjust** the side columns.

When conditions ① and ② are met, **the door is square**.


Measuring tape

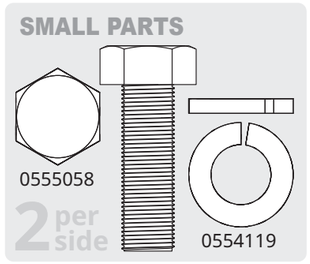


3 
Anchoring hardware

Tighten all anchors.

How to reinstall the front windbar guides

1 **Locate** the hardware for the top guide bracket in the small parts box.

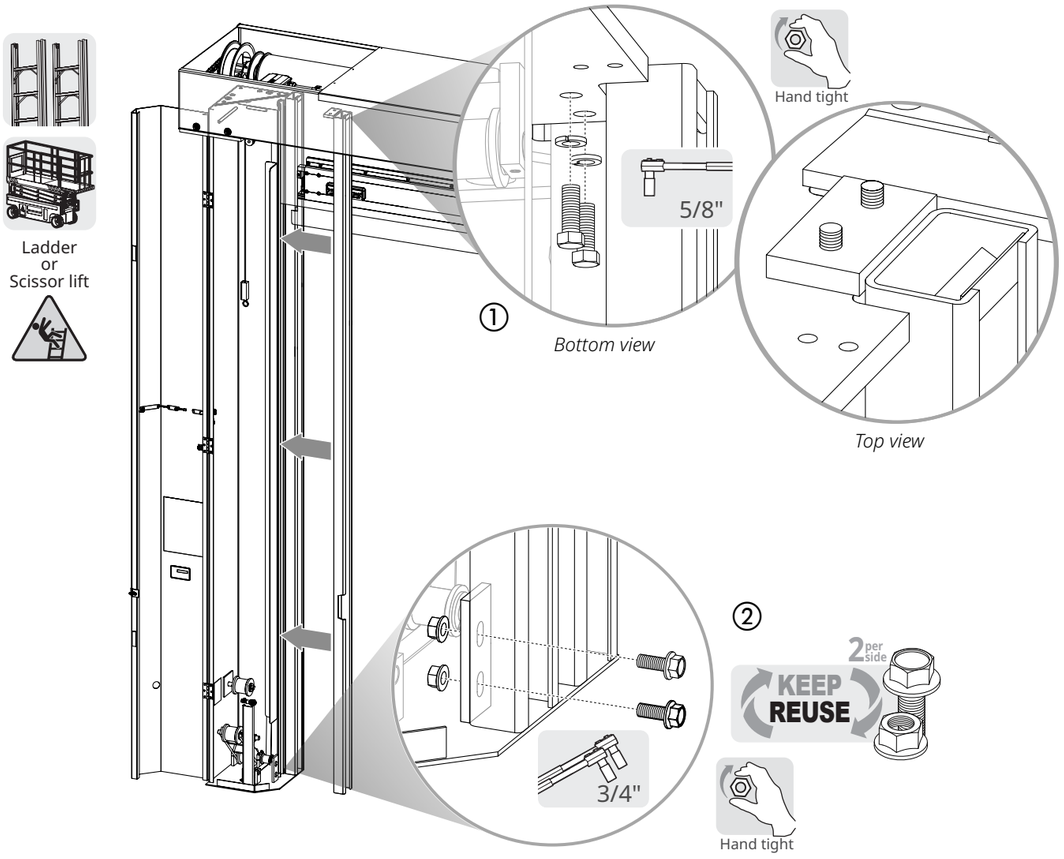


2 **Slide** the front windbar guides into place and set, but do not tighten, the hardware.

① At the top of the side column, **set** the top guide bracket on top of the baseplate of the head assembly and **use** the two bolts/locking washers from the small parts box to secure it in place.

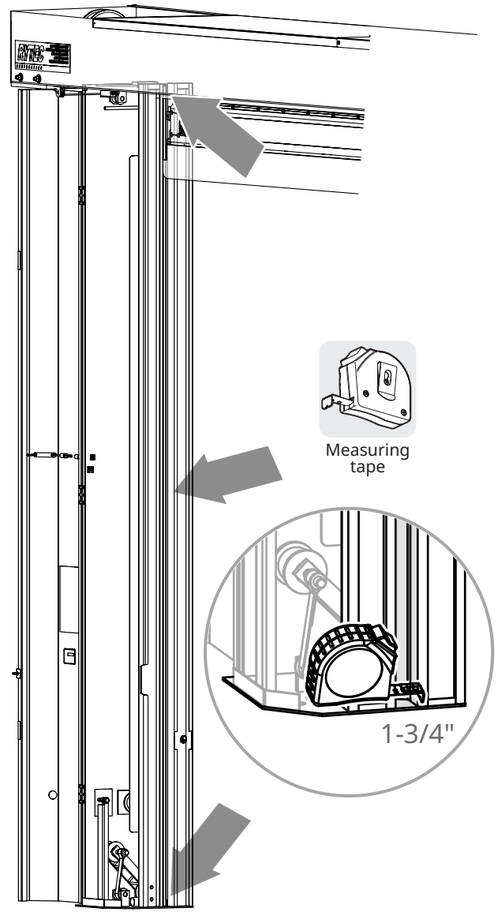
② At the baseplate, **replace** the two bolt/nut combos you removed earlier

DO NOT TIGHTEN hardware until you have completed the next step.

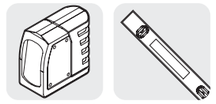


3 Measure the distance between the front and rear windbar guides.

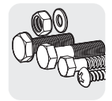
- The distance should be exactly 1-3/4" for the entire height of the guides.
- The space between the guides is also the door track for the door.
- Adjust the front windbar guide until the measurements are consistent.



4 **Use** a laser level or carpenter's level to check that the front windbar track is plumb.



5 **Tighten** all hardware.



How to install the counterweights and end bracket tensioning system

IMPORTANT Follow each step in this procedure in both side columns. Once the counterweights are secured to their straps, coordinate the steps between both side columns before moving to the next step.

⚠WARNING

CRUSH AND BODY CRUSH HAZARD

The counterweights for a Fast-Seal can weigh more than 100 pounds apiece.

- **Make sure** they are secured or directly supported at all times until their installation is complete.
- **Make sure** they are not put in a position where it is possible for them to topple over.

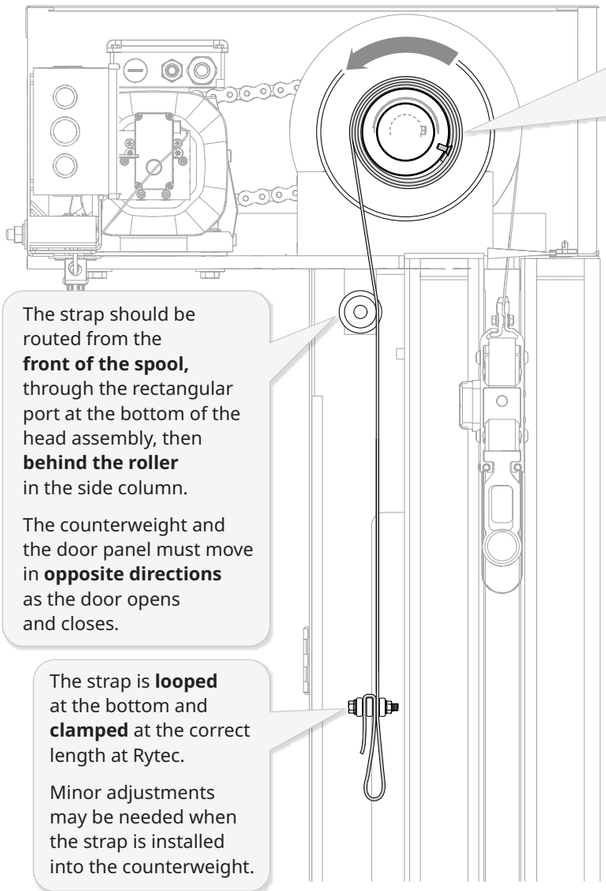
FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY OR DAMAGE TO THE DOOR.

1 **Cut** the ties on the counterweight straps on both sides of the drum, then thread each of them **from the front** of the spool, **through** the port in the head assembly and **behind the roller** in the side column.

- **DO NO trim** the strap. The extra length will lie flat against the strap and will not affect operation of the door.

Ladder or Scissor lift

Cutting pliers



The strap should be routed from the **front of the spool,** through the rectangular port at the bottom of the head assembly, then **behind the roller** in the side column.

The counterweight and the door panel must move in **opposite directions** as the door opens and closes.

The strap is **looped** at the bottom and **clamped** at the correct length at Rytec.

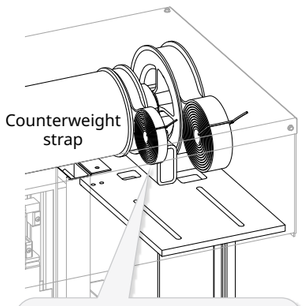
Minor adjustments may be needed when the strap is installed into the counterweight.

IMPORTANT

The counterweight strap is **wrapped around the spool** several times when the door is assembled at Rytec.

DO NOT UNDO the wraps when you install the counterweight.

The preinstalled wraps **must be left in place** for the counterweight to operate correctly.

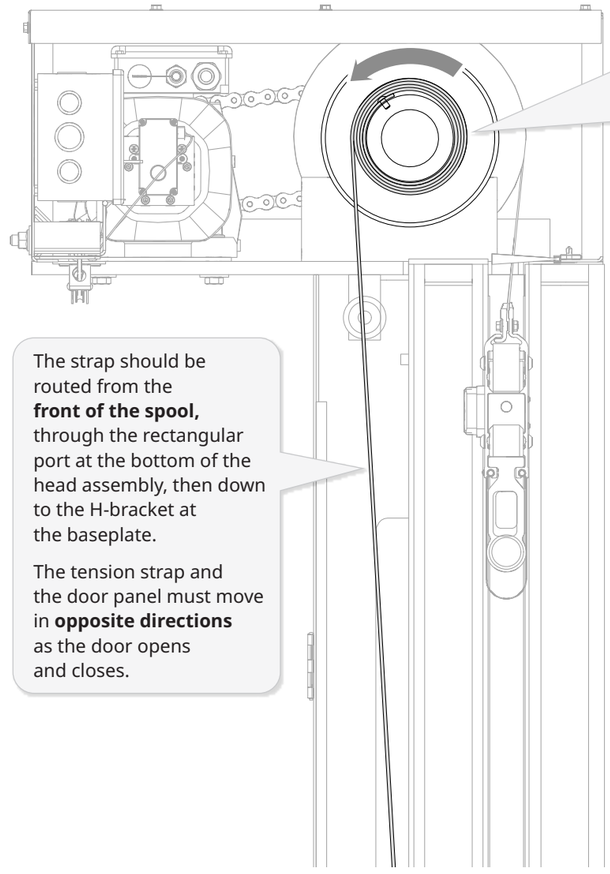


The counterweight straps are on the spools closer to the center of the drum than the wider straps used by the tensioning system.

2 Also **cut** the ties on the tension straps on both sides of the drum, then thread each of them **from the front** of the spool **through** the port in the head assembly.

- **DO NOT trim** the strap.

Cutting pliers



The strap should be routed from the **front of the spool,** through the rectangular port at the bottom of the head assembly, then down to the H-bracket at the baseplate.

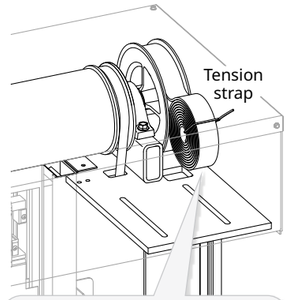
The tension strap and the door panel must move in **opposite directions** as the door opens and closes.

IMPORTANT

The tension strap is **wrapped around the spool** several times when the door is assembled at Rytec.

DO NOT UNDO the wraps when you install the tensioning system.

The preinstalled wraps **must be left in place** for the tensioning system to operate correctly.

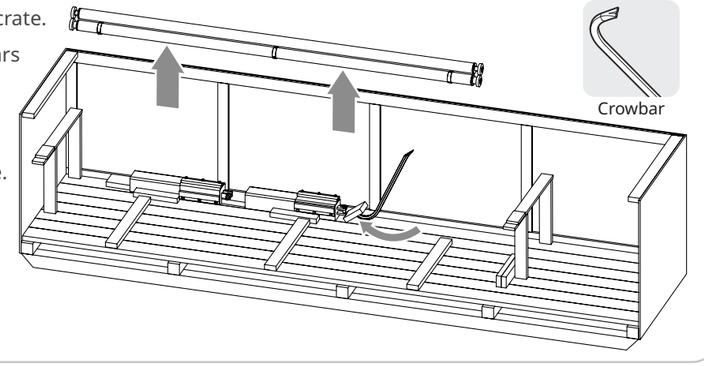


The tension straps are on the spools at the ends of the drum, and are wider than the straps used by the counterweight system.

How to install the counterweights

3 **Locate** the counterweights in the crate.

- If necessary, **remove** the windbars to access the counterweights.
- **Use** a crowbar to pry up and remove the crating bucks that hold the counterweights in place.

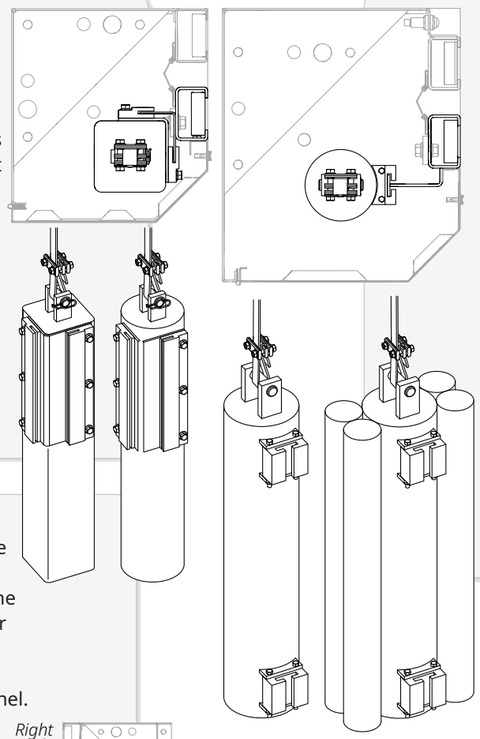


4

The size and shape of the counterweights, as well as the guide brackets used to hold them in place as they move up and down, differ based on the size of the door.

Fast-Seals with 14" side columns *(smaller size)*: counterweight is squared or cylindrical and has guide brackets on two sides, holding it in place in the L-shaped guide track welded to the back of the front windbar guide.

The counterweight is **fully assembled at Rytec** and must be partially disassembled during installation.

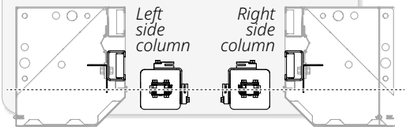


Fast-Seals with 17" side columns and larger 14" side column doors: counterweight is cylindrical and has a single set of guide brackets holding it in place in the T-shaped guide track welded to the back of the front windbar guide.

On larger, heavier doors, the counterweight may be made up of **multiple cylindrical weights.**

The guide brackets and hardware are in the **small parts box.**

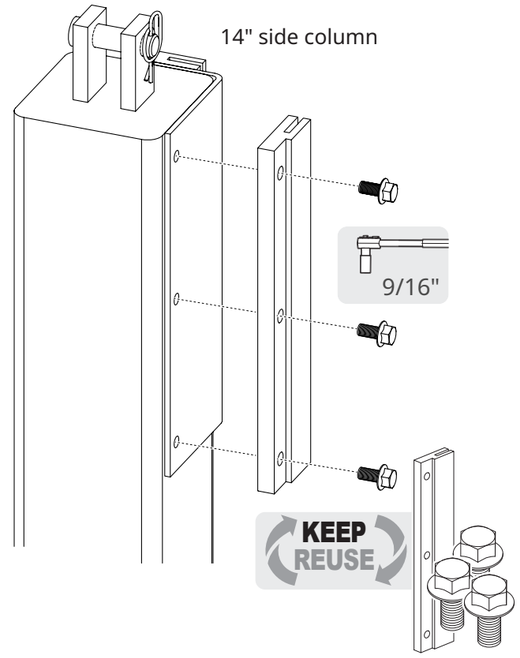
For these14" doors, make sure to place the counterweights in the side columns so that the brackets are to the rear and inside of the door, and the clevis pins are parallel to the door panel.

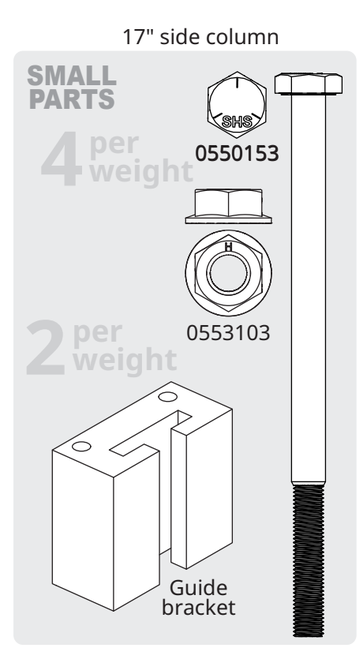


5

Prep the counterweight for installation.

- **Squared counterweights: loosen** the three screws and **remove** the guide bracket on the inside edge of both counterweights (in line with the clevis pin).
- **Round counterweights: locate** the guide brackets and mounting hardware for both counterweights in the small parts box.





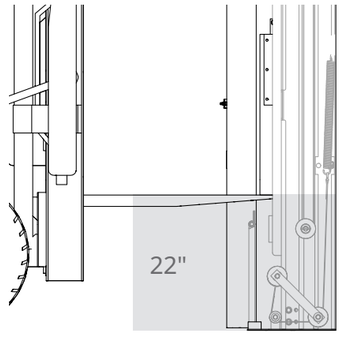
For doors with squared counterweights

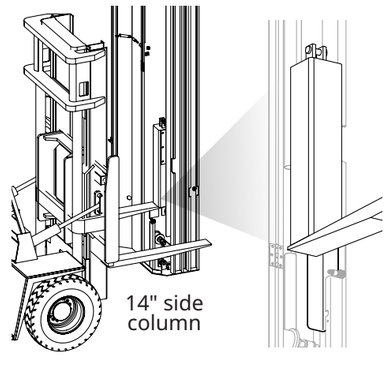
6

Slide the counterweight into the side column at a height of 22" above the floor.

- Rather than using 2x4s to block the counterweight in place at the correct height, **use the fork of a forklift.** This keeps it clear of all the components preinstalled on the baseplate of the side column.
- You will need to place the counterweight on the **tip of the fork** to avoid making contact with the rear guide track.

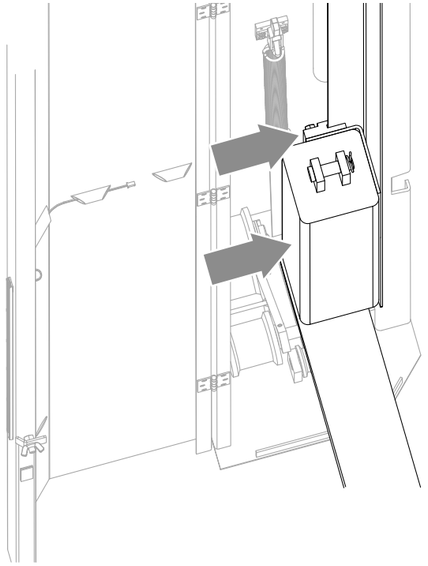

Forklift

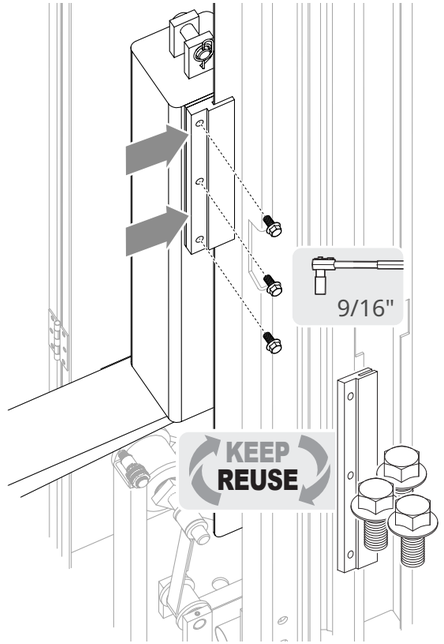




7 **Secure** the counterweight to the guide tracks by sliding the guide brackets into the tracks and securing the hardware.

- First **slide** the rear guide bracket onto the rear track, then **reinstall** the inside guide bracket in the track.

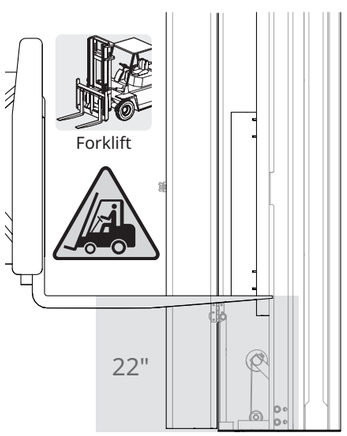


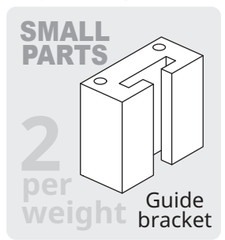


For doors with rounded counterweights

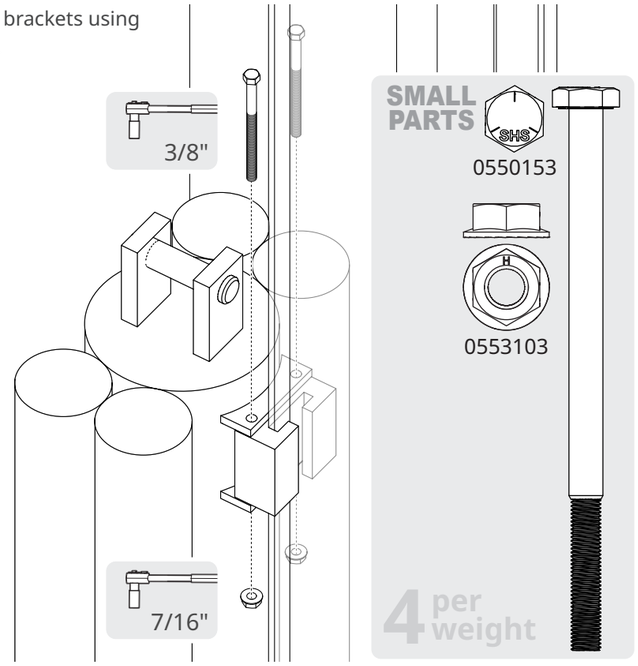
5 **Slide** the counterweight into the side column at a height of 22" above the floor.

- **Use the fork of a forklift** to keep clear of all the components preinstalled on the baseplate of the side column.
- **Slide** the two guide brackets into place on the guide track, then **slide** the fork over until the bolt holes in the brackets and the counterweight line up.





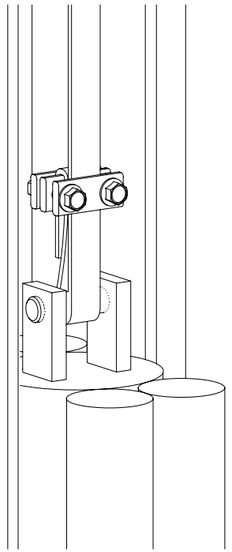
6 **Secure** the counterweight to the guide brackets using the hardware from the small parts box.

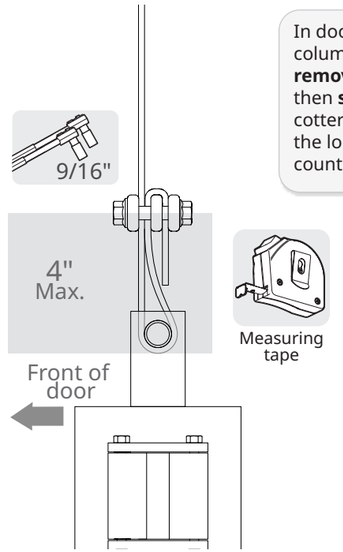


For all counterweights

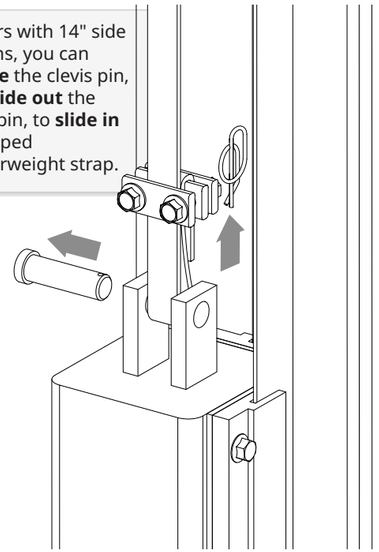
7 **Loop** the counterweight strap around the clevis pin in the counterweight and secure the strap with the clamp assembly.

- **Make sure** the height of the loop is limited to 4", and that the strap loops from the front of the pin to the back.
- **Make sure** to pull the strap tight before securing the clamp assembly.
- **DO NOT TRIM** excess strap length.





In doors with 14" side columns, you can **remove** the clevis pin, then **slide out** the cotter pin, to **slide in** the looped counterweight strap.



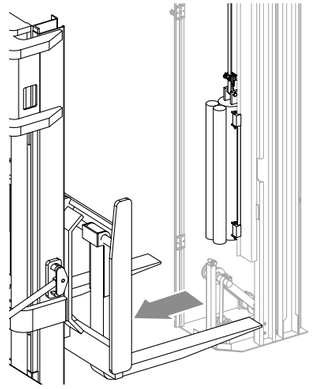
8

Pull back the forklift so that the counterweight is allowed to hang freely for one minute.

Measure the height of the counterweight from the baseplate.

If it has dropped lower from slack or stretch in the strap, **reset it at the correct height** using the forklift, and **adjust** the strap clamp assembly.

If necessary, repeat this process until the counterweight remains at the same height.

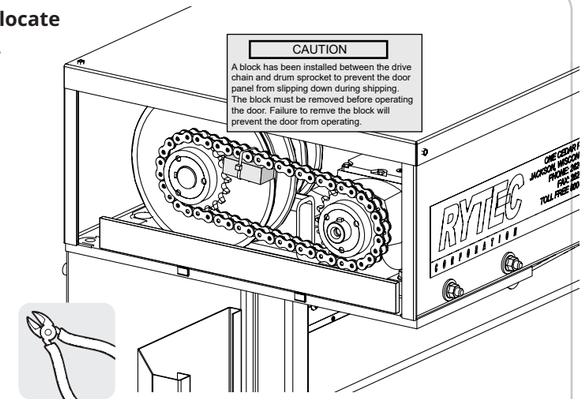


9

Go up to the head section on the left side and **locate** the chock that secures the drive chain in place.

Ladder or Scissor lift

- It is wedged into the **drum sprocket.**
- If necessary, **slide off** the transparent side panel to access it.
- There is an **orange CAUTION label** connected to it.
- **Cut** the cable tie that holds it in place and **remove the chock** so that the drive chain moves freely.

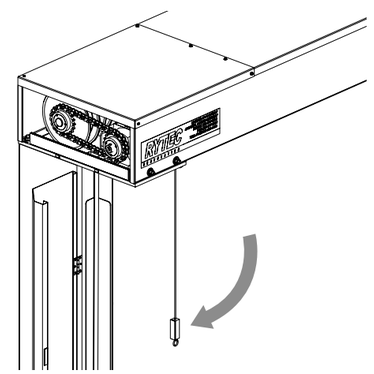


Cutting pliers

10

Also **locate** the brake release cable in the head assembly, and let it fall free.

The handle is **magnetic**, and is holding the cable in place inside the head assembly.



11

IMPORTANT With the counterweights installed, you will be able to move the door panel up and down **manually. This will be required** in many of the remaining steps.

12

Pull down the manual brake release on the motor to free up the door panel and drum ①.

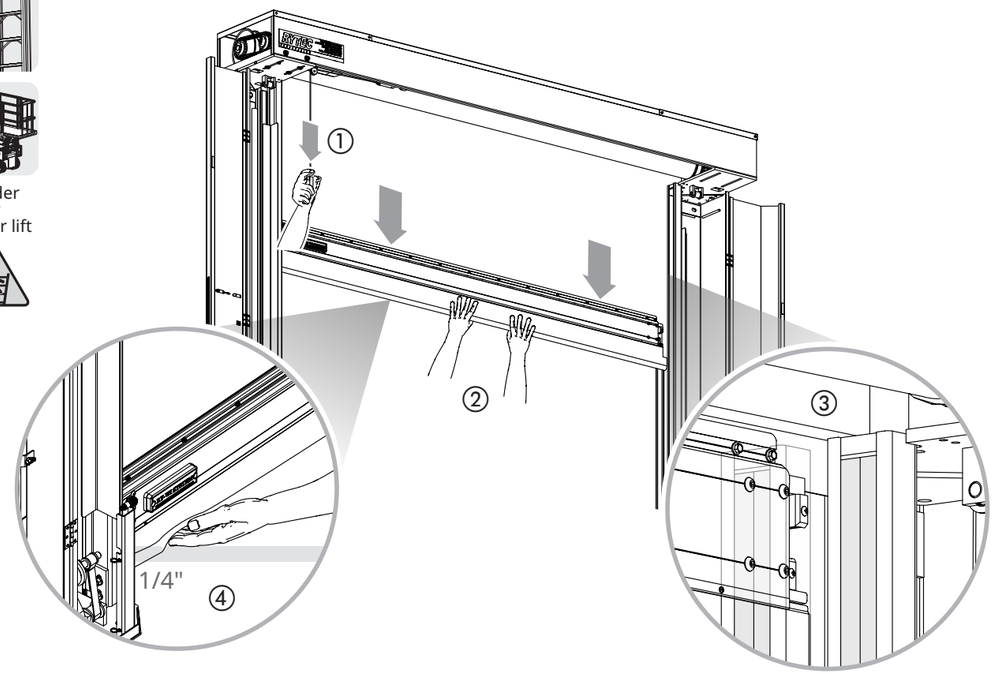
Manually pull the door panel and bottom bar down until the door is at the fully closed position. You should be able to do this by hand ②.

Make sure the door panel is in the door track, between the front and rear windbar tracks (shaded gray) ③.

In the fully closed position, the loop seal that covers the reversing edge should touch the floor with a slight dimple so that there is a complete seal, and the bottom of the reversing edge should be 1/4" above the floor ④.

- You can check this by running your hand under the bottom of the loop seal to make sure the reversing edge is a finger width above the floor.

Ladder or Scissor lift

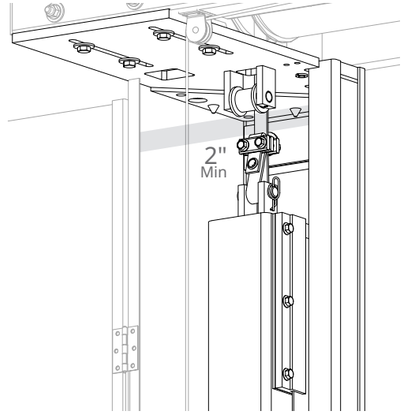


13

With the door panel at the fully closed position, **make sure** there is space between the strap clamp assembly and the counterweight strap roller mounted at the bottom of the head assembly.

- The **minimum acceptable space** is 2" (two inches), though there should be more.

Measuring tape



14 If the counterweight assembly is too close, **measure and record** the amount of extra strap length needed to lower it to the minimum distance.


Measuring tape

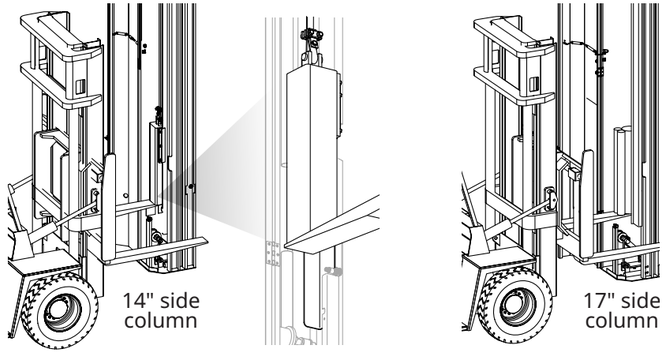

Forklift

① **Pull down** on the manual brake release.

With the counterweights attached, you can **push** the door panel back up to the open position, or use a forklift to lift it up.

② **Set** the counterweight back on the forklift fork

③ **Loosen** the bolts on the clamp plates, then lower the fork to the new lower height.



④ **Adjust** the excess strap length the amount needed.

⑤ **Retighten** the bolts.

⑥ **Test** the space between the strap clamp assembly and the strap roller again with the door at the fully closed position.

IMPORTANT **MAKE SURE** you adjust both counterweights an equal amount.

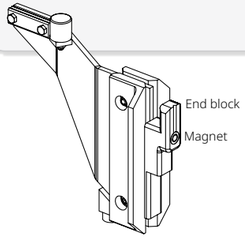
⑦ Tape any excess length of strap to the main length of the strap. **DO NOT TRIM.**

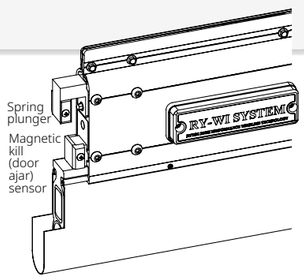
How to install the end bracket tensioning system

Before you begin: things to know about the Fast-Seal end brackets

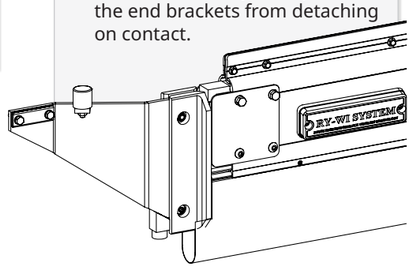
- The Fast-Seal was the **first door** to feature a door ajar breakaway system, and features the first design for a **breakaway bottom bar.**
- The end brackets **detach from the bottom bar** when the door panel is struck.
- The **bottom bar must be reassembled** before the door can return to service.

- The end brackets have a **z-shaped end block** that slots into the end block in the bottom bar.
- A **spring-loaded plunger** snaps into the notch in the end block to secure the end bracket in place.
- On contact, the end brackets **remain in the door track** while the rest of the bottom bar swings freely.
- A **magnetic sensor** in the bottom bar senses that the magnet in the end block has moved away and stops the door.



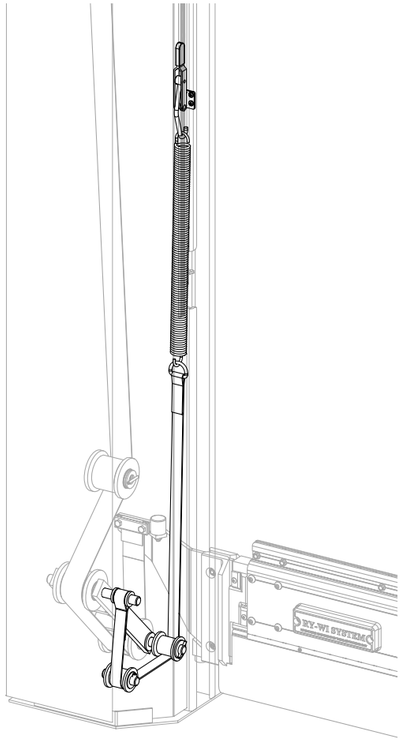


- The door ajar breakaway system is **deactivated** on doors that are >24' (twenty four feet) wide, or that have strapless windbars (see next section).
- Two **steel cover plates** prevent the end brackets from detaching on contact.



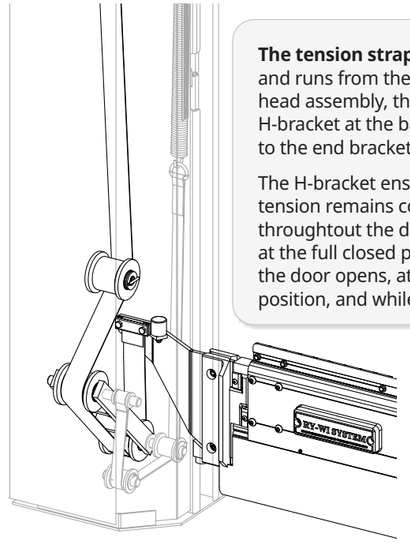
Before you begin: things to know about the end bracket tensioning system

- The **tensioning system** attaches to the bottom of the end brackets and applies downward tension on the door panel as the door moves up and down.
- This keeps the door panel **taut and straight** even when there is considerable difference in air pressure on either side of the door.
- It also keeps the end brackets **in the door tracks** if the door ajar breakaway system is activated by a strike.



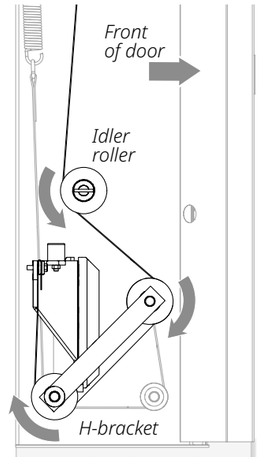
The spring strap is preinstalled into the side column and connects the tensioning spring to the H-bracket.

This provides the tension to the end bracket by pulling down on the H-bracket, which increases tension on the strap.

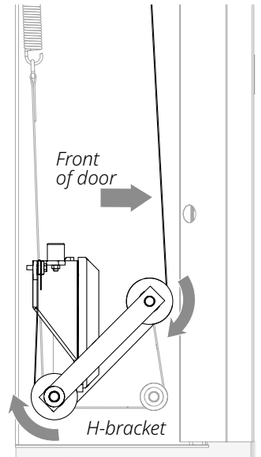


The tension strap is field installed and runs from the drum in the head assembly, through the H-bracket at the baseplate, to the end bracket .

The H-bracket ensures that the tension remains constant throughtout the door cycle: at the full closed position, while the door opens, at the fully open position, and while the door closes.

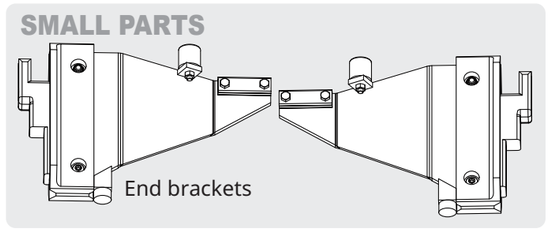


On taller doors: the strap is routed around the back of the idler roller, then the front of the H-bracket, then around the bottom to the end bracket.



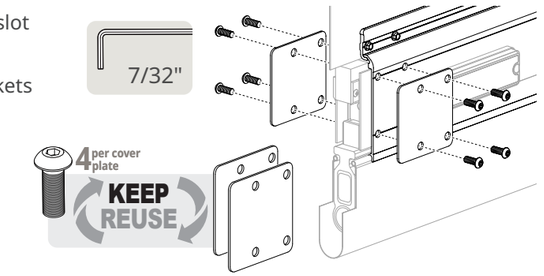
On shorter doors: there is no idler roller. The strap is routed around the front of the H-bracket, then around the bottom to the end bracket.

1 **Locate** the end brackets in the small parts box.



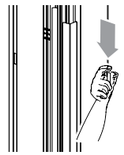
2 If the bottom bar has steel cover plates over the slot for the end brackets, **remove** them.

Retain them to be reinstalled after the end brackets are installed.



3 If necessary, **pull down** on the manual brake release and **move** the door panel to a comfortable working height.

- See page 20 for ways to move the door panel up or down.

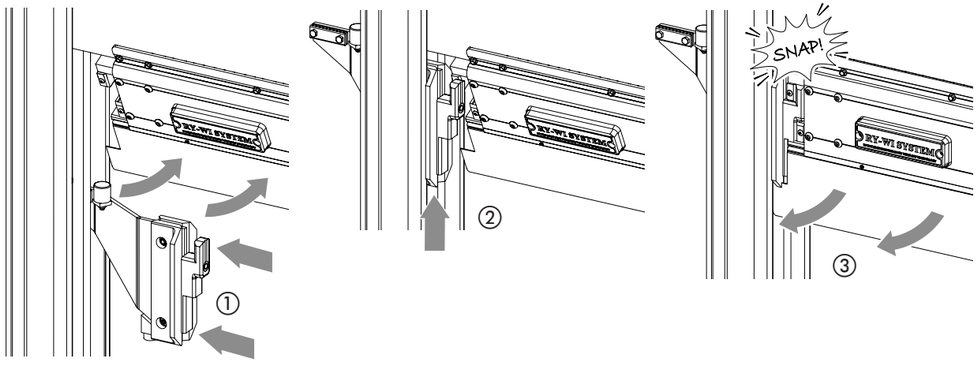


4 **Install** the end brackets into the bottom bar. **DO THIS** for both end brackets.

① **Swing** the bottom bar back, then **slide** the end bracket into the door track.

② **Raise** the end bracket until it is level with the bottom bar and the z-shaped bracket is **aligned** with the slot in the bottom bar.

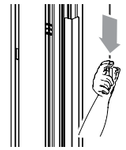
③ **Swing** the bottom bar forward and **slot** the end bracket into place until the spring plunger clicks.



5 If the bottom bar had steel cover plates, **reinstall** them.

6 **Pull down** on the manual brake release and **move** the door panel until it is roughly half-way up the door opening.

- See pages 18-19 for ways to move the door panel up or down.



⚠WARNING

CRUSH HAZARD

The tension springs for a Fast-Seal exert considerable force, which can cause the release handle to swing down unexpectedly.

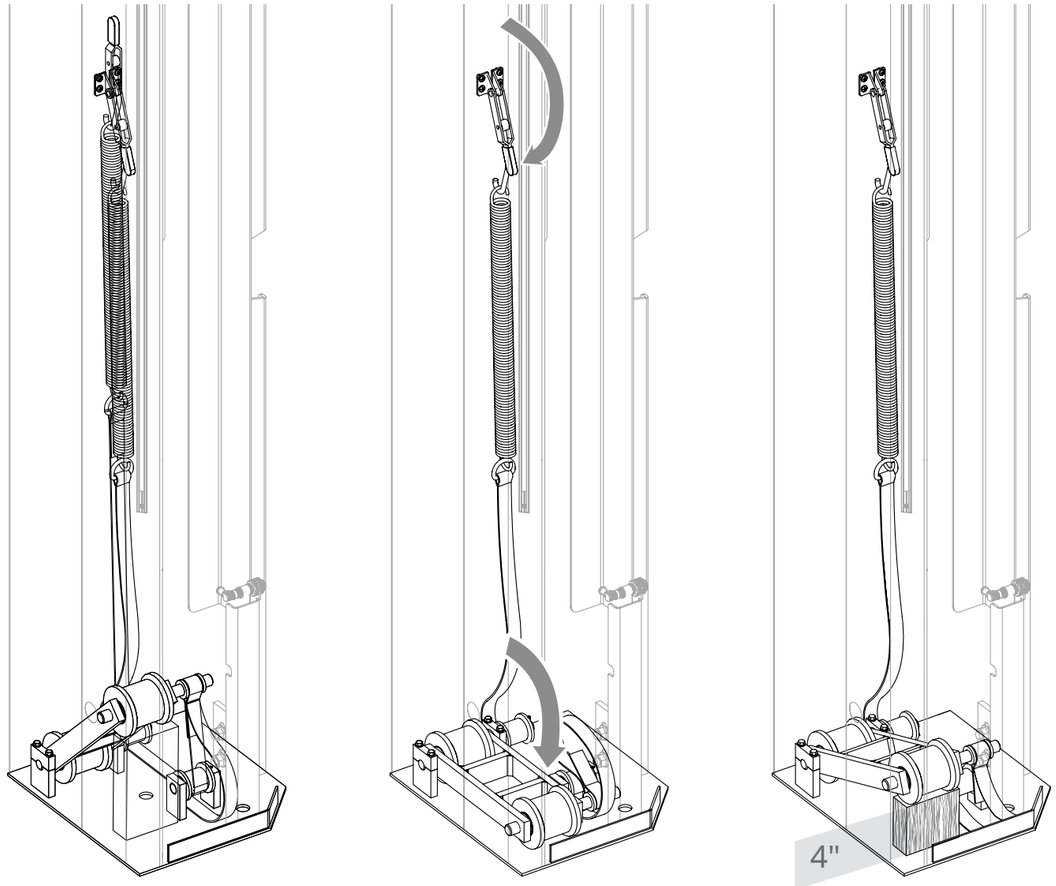
- **Make sure** you swing down the handle as slowly and gradually as possible.
- **Make sure** to keep hands away from the spring and the area below the handle.

FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY OR DAMAGE TO THE DOOR.

7 **Pull down** on the spring release handle. Carefully guide it down until it is fully released and the spring and spring strap are loose.

Then **block the front roller of the H-bracket** at a height of four inches (4") using a piece of wood.

- With no tension applied, the H-bracket can now move freely up and down.

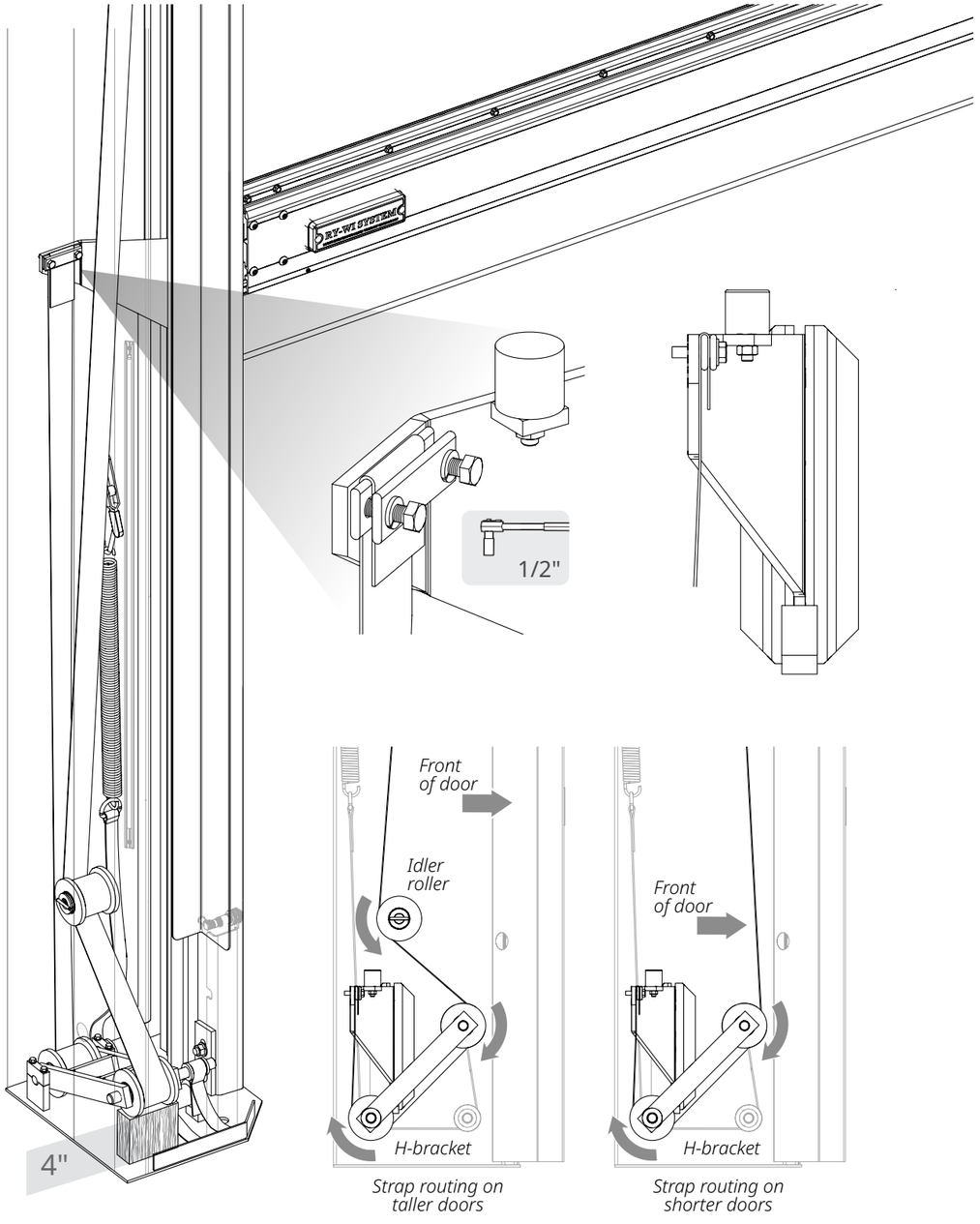


8

Make sure the tension strap from the head assembly is not twisted and has been pulled tight.

Route the strap around the H-bracket, then **loosen** the two bolts that secure the strap clamp in the end bracket and **thread** the strap through the clamp as shown here. **Pull the strap tight,** then secure the bolts.

DO NOT TRIM the strap.



Strap routing on taller doors

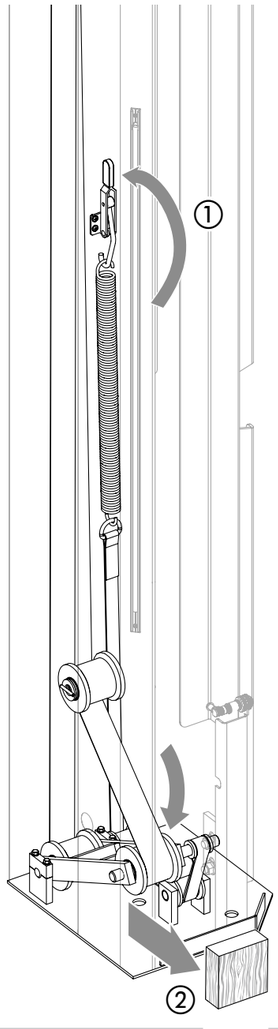
Strap routing on shorter doors

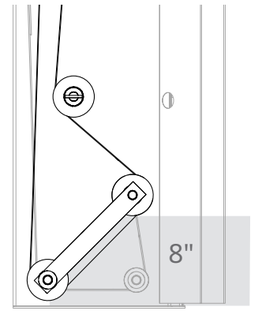
9

Pull up on the spring release handle until it latches in place and the spring is applying tension ①.
Make sure the spring strap does not twist or kink as tension is applied to it.

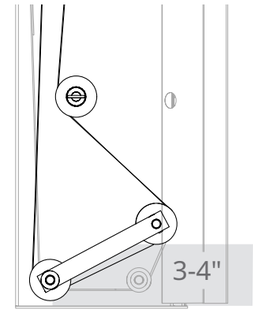
Then **remove** the wood block to free the H-bracket.

- The front roller of the H-bracket might **drop** an inch once the block is released.
- **When the tensioning system is operating correctly,** the front roller should be at a height of eight inches (8") when the door is in the fully open or closed position. It should gradually swing lower, to a height of three to four inches (3-4"), then swing back up, as the door is in motion.

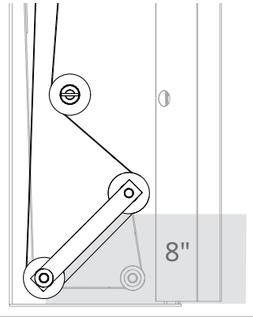




Door fully closed



Door in motion



Door fully open

10

Repeat these steps with the tensioning system in the other side column.

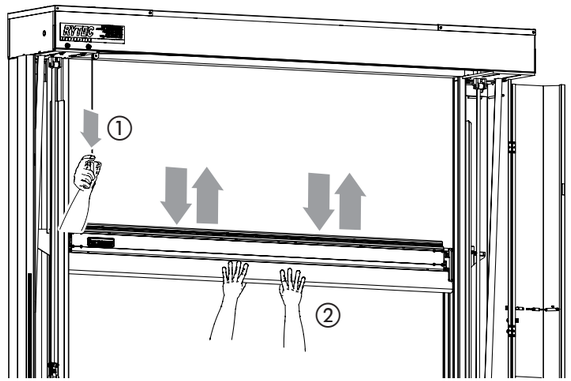
11

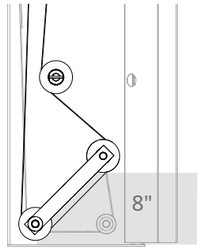
Pull down the manual brake release on the motor to free up the door panel and drum ①.

Manually move the door up and down from the open to the closed position ②.

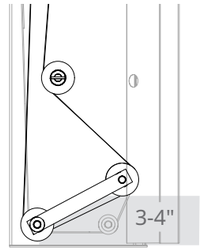
Ladder
or
Scissor lift

- See pages 18-19 for ways to move the door panel up or down.
- Make sure **the door moves smoothly** as it opens and closes.
- Make sure **you feel equal tension** and counterweight effect on both sides of the door.
- **Watch the tension strap** to make sure it is taut even as the H-bracket swings up and down.
- **Watch the H-bracket of the tensioning system** to make sure it starts with the front roller at a height of 8", swings down to 3-4" while the door is in motion, then returns to 8" as the door panel reaches the top or bottom of its run.

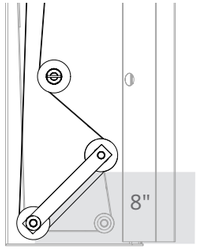




Door fully closed



Door in motion



Door fully open

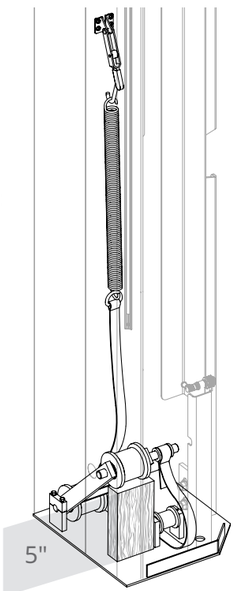
12

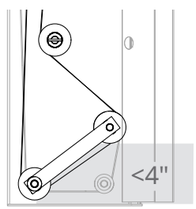
If the H-bracket swings too high or too low while the door is in motion, **set** the door panel at the vertical center of the door opening, **block** the front roller again, **release** the spring, and **adjust** the length of the strap to change the tension.

- **If the H-bracket does not drop low enough: Loosen** the clamp on the end bracket and **reset** the tension strap so there is a small amount of slack, to lower the tension. **Tighten** the clamp.
- **If the H-bracket drops too low:** Use a block of wood that is one inch (1") taller than the original block used, then loosen the clamp on the end bracket and pull the tension strap tight. **Tighten** the clamp.

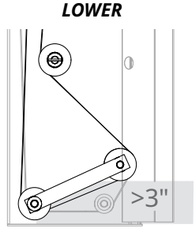
IMPORTANT

Test the door until the H-brackets in both side columns swing down to the same correct height.





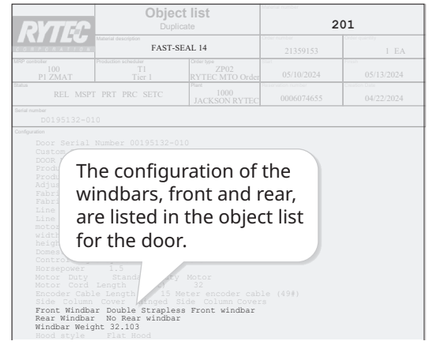
H-bracket does not drop low enough:
SET TENSION LOWER



H-bracket drops too low:
SET TENSION HIGHER

(OPTIONAL) How to install the windbars

Before you begin: things to know about the windbars

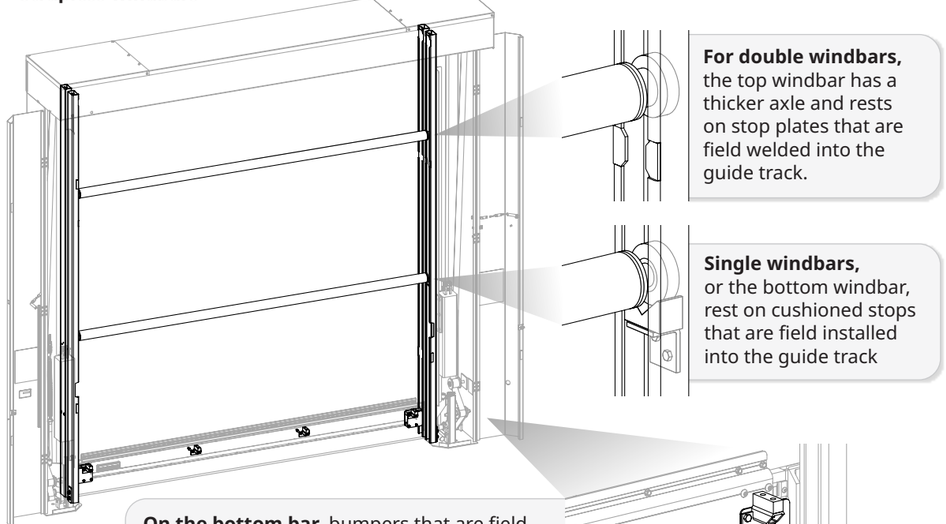


- **Windbars** provide structural support for the door panel in high pressure installations.
- Unlike most Rytec doors, where the windribs are integrated into the door panel, the **windbars in Fast-Seal have separate guide tracks** from the door track.
- Fast-Seal doors can have windbars **in front of** the door panel, **behind** the door panel, or **both.**

There are two types of windbars: strapless and strapped

- Strapless windbars are **held in place by brackets** installed into the windbar guide tracks.
- **Bumpers** mounted on the bottom bar raise and lower the windbar as the door moves up and down.
- There can be **single or double** strapless windbars.
- **For doors with double strapless windbars,** see *(OPTIONAL) How to prep the side columns on doors with double strapless windbars* starting on page 7 for additional steps required to prep the side columns before installing the windbars.

Strapless windbars



For double windbars, the top windbar has a thicker axle and rests on stop plates that are field welded into the guide track.

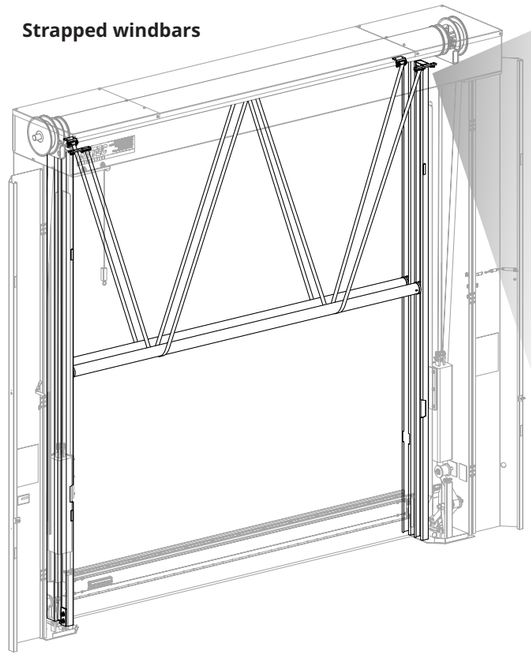
Single windbars, or the bottom windbar, rest on cushioned stops that are field installed into the guide track

On the bottom bar, bumpers that are field installed onto the bar lift, then lower the windbars as the door raises and lowers.

There are cover plates at both ends of the bar that prevent the end brackets from detaching, and the door ajar system is deactivated.

- **Strapped windbars** are held in place by straps that roll and unroll with the door panel, raising and lowering the windbar with the door panel.
- There can only be one strapped windbar per side of the door panel.

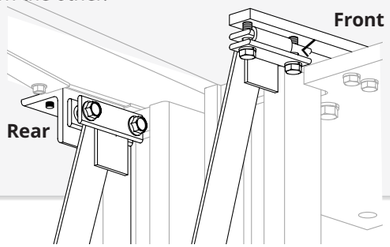
Strapped windbars



There are two straps per side, with one end of each rolled around the drum with the door panel, and the other clamped to the head assembly next to the side column.

For front straps, the clamp assembly is field installed and is in the **small parts box.** The clamp assembly for rear straps is preinstalled at Rytec.

A typical strapped windbar configuration includes **both front and rear windbars,** but there may be only one, or a strapped windbar on one side of the door panel may be combined with a strapless windbar on the other.



Many combinations of strapless and strapped windbars are possible

- Single strapless, front, rear, or both sides
- Single strapless on one side, double strapless on the other
- Double strapless, both sides
- Strapped (single only), front, rear or both sides
- Strapped on one side, single strapless on the other

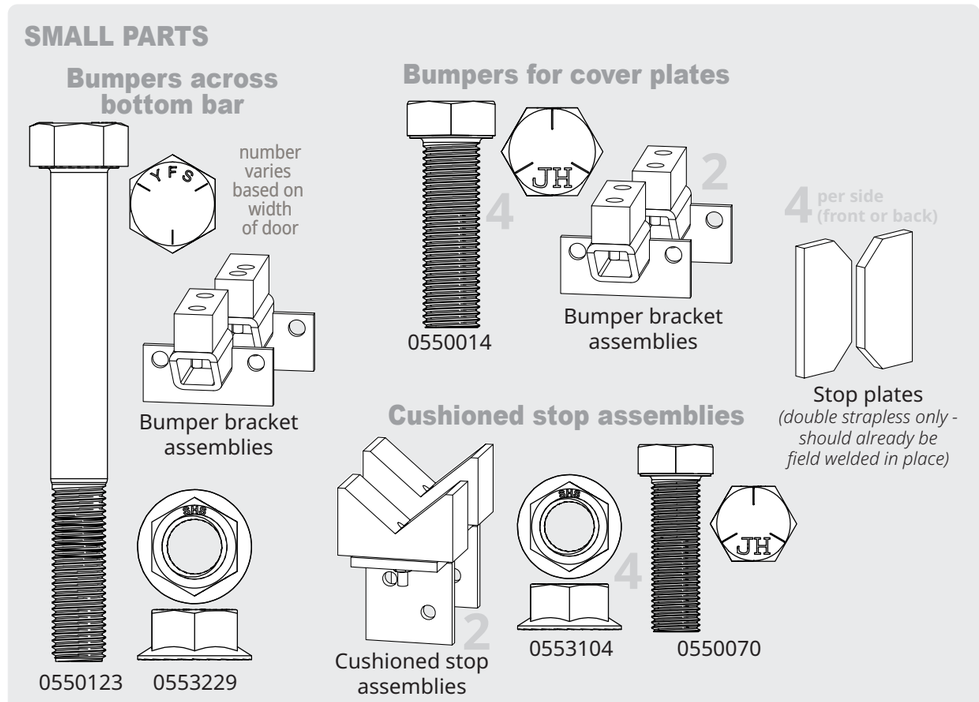
IMPORTANT

Make sure to check the object list for the correct configuration before installing the windbars.

How to install the strapless windbars

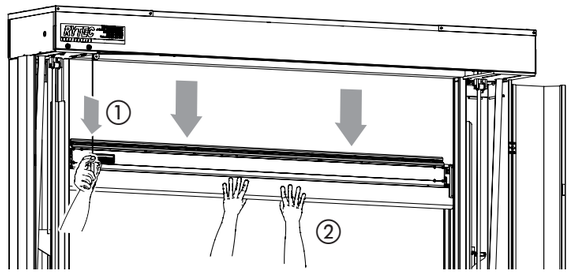
1 **Locate** the assemblies and hardware in the small parts box.

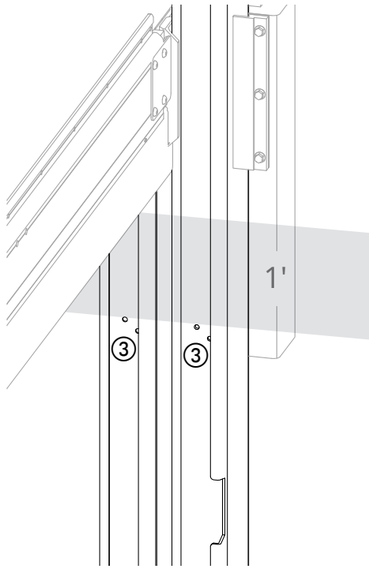
Check the object list for the configuration of the windbars



2 **Pull down** on the manual brake release ① and move the door panel to a comfortable working height ②.

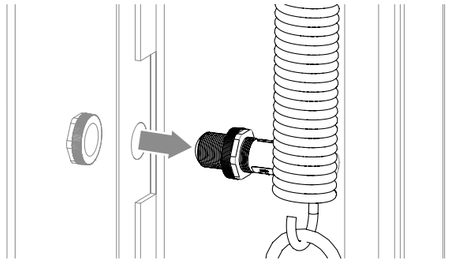
Make sure the bottom bar is at least 1' (one foot) above the bolt holes for the cushioned stop assemblies ③.



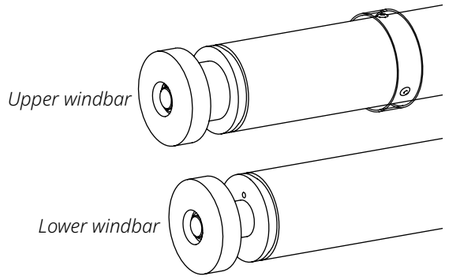


3 If windbars are going to be installed in the rear windbar track, **loosen** the retaining nut on the rear photo eyes in both side columns.

Set them aside until the windbar installation is complete.

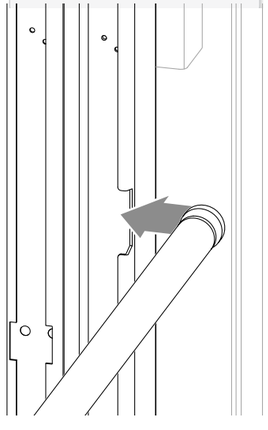


4 If the door has double windbars, **make sure** the windbars with the thicker axle are installed in the upper position, and the windbars with the thinner axles are installed in the lower position.



5 For a lower windbar, **slide** it into the track of windbar guide on both side columns, then raise it above the bolt holes for the cushioned stop assemblies.

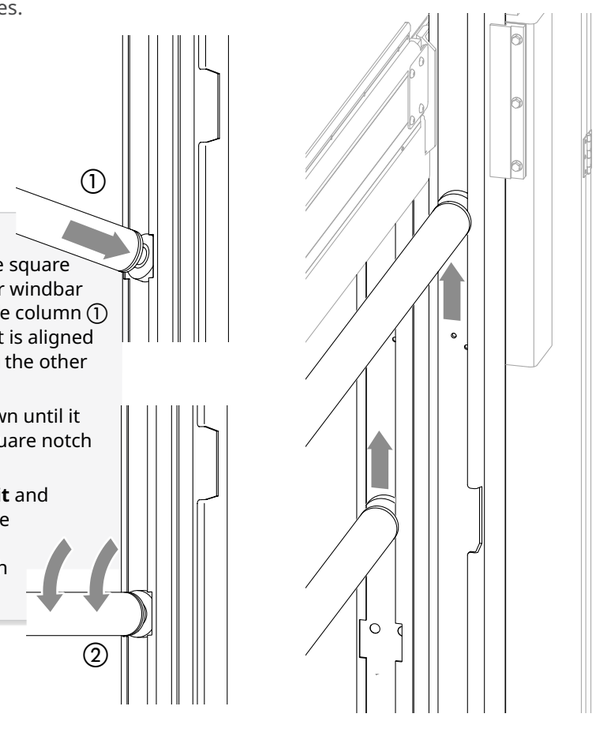
Front: slide windbar through the beveled notch in the front windbar guides in both side columns.



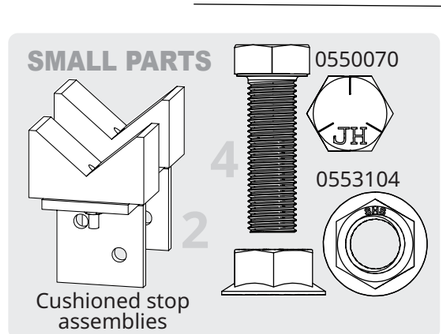
Rear: slide the windbar into the square notch in the rear windbar guide of one side column ① and angle it so it is aligned with the track in the other column.

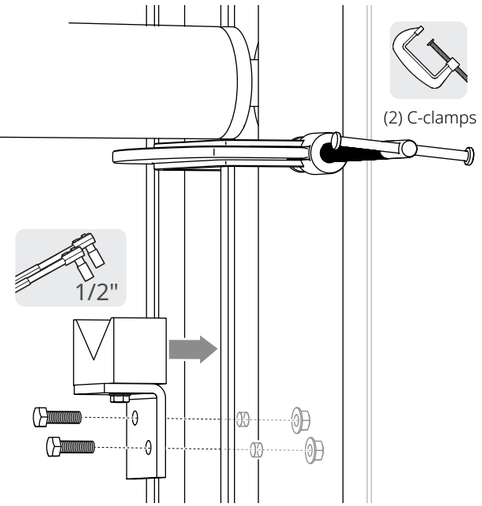
Then slide it down until it slips into the square notch on that side ②.

This is a tight fit and will require some force to get the windbar to reach the notch.

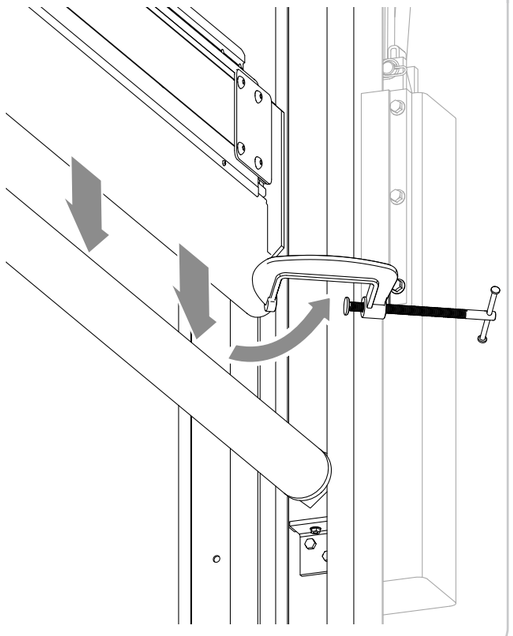


6 **Install** the cushioned stop assemblies into the windbar guides in both side columns.





7 **Release** the c-clamps and **lower** the windbar onto the cushioned stop assemblies.

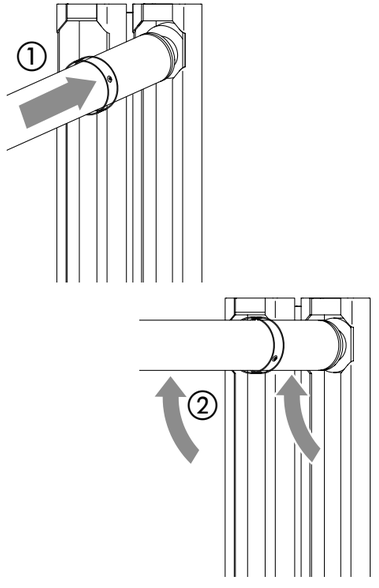


8 For doors with a double strapless configuration, **slide** the upper windbar into the beveled notch at the top of the windbar guide on one side column ① and angle it so it is aligned with the track in the other column.

Then **slide it up** until it slips into the beveled notch on that side ②.

This is a tight fit and will require some force to get the windbar to reach the notch.

Once the windbar is in the tracks on both sides, **slide** it down until it rests on the metal windbar stops you field welded earlier.

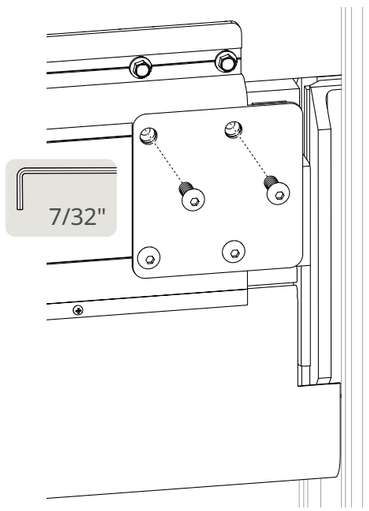


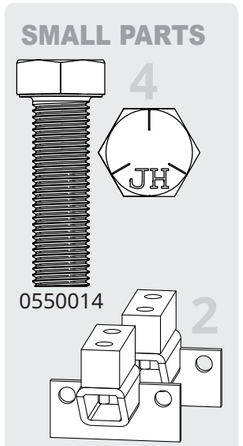
9

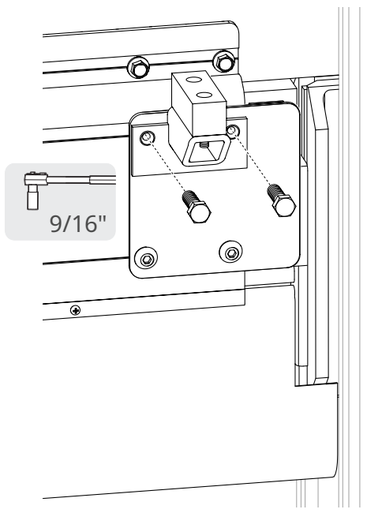
Remove the top two hex screws on the cover plates on both ends of the bottom bar.

Install the bumper bracket assemblies onto the cover plates using the two bolt holes.

If the door has strapless windbars on both sides of the door panel, **do this** on both sides of the bottom bar.





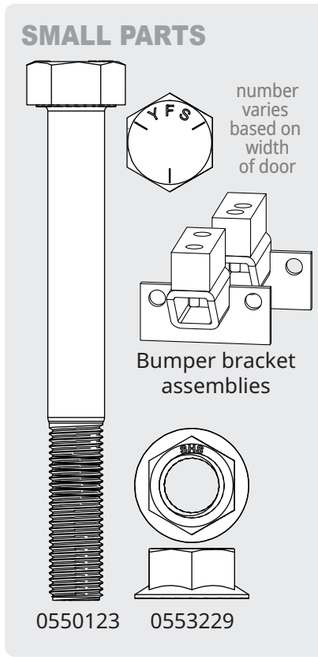


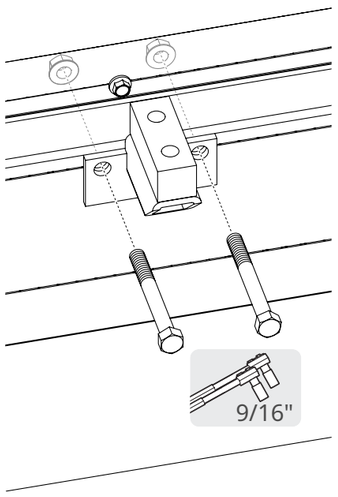
10

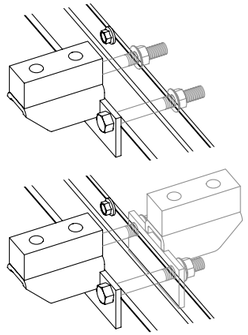
Locate the mounting holes along the bottom bar for the remaining bumper bracket assemblies.

Install the bumper bracket assemblies onto the bottom bar.

If the door has strapless windbars on both sides of the door panel, **install** an assembly on both sides of the bottom bar.





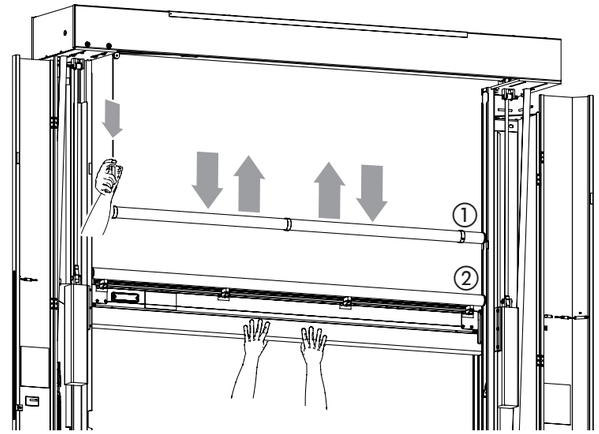


The through bolts are long enough that the mounting hardware can be used to secure bumpers on **one or both sides** of the bottom bar.

11

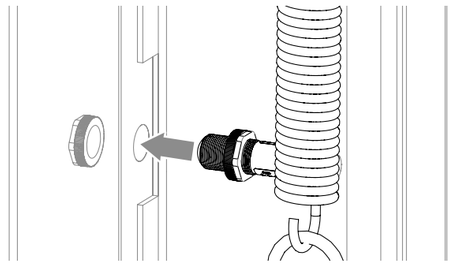
Pull down on the manual brake release and manually move the door panel up and down.

Make sure the windbars move smoothly in the guides, that they stop and rest securely on the cushioned stop assemblies or stop plates ① when the door panel is lowered, and that the bumpers on the bottom bar raise the windbars ② when the door panel is raised.



12

If windbars were installed in the rear windbar track, **replace** the rear photo eyes in both side columns.

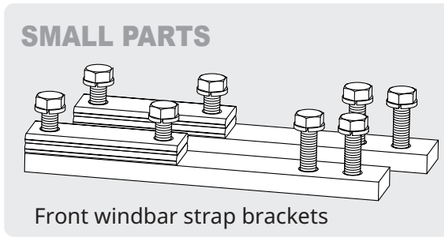


How to install the strapped windbars

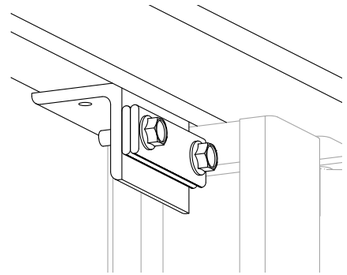
1

If the object list for the door indicates a front strapped windbar, **locate** the two strap brackets in the small parts box.

If the object list indicates a rear strapped windbar, **make sure** the rear strap brackets are in place at the bottom rear of the head assembly.



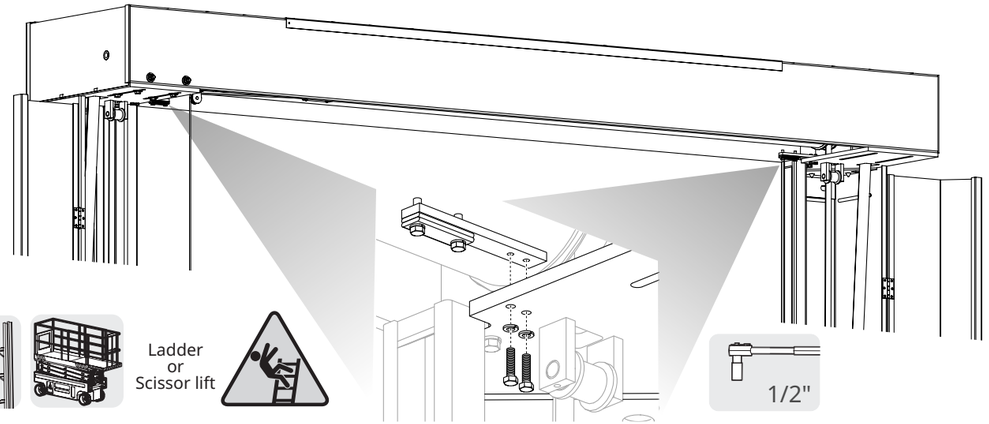
Front windbar strap bracket
in small parts box



Rear windbar strap bracket
welded in place to bottom of head assembly

2

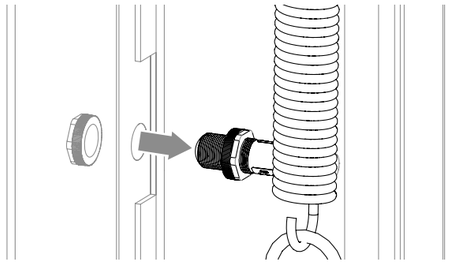
For doors with a front strapped windbar, **install** the two strap brackets into the head assembly. The hardware is **installed into the bracket** when the bracket is crated.



3

If a windbar is going to be installed in the rear windbar track, **loosen** the retaining nut on the rear photo eyes in both side columns.

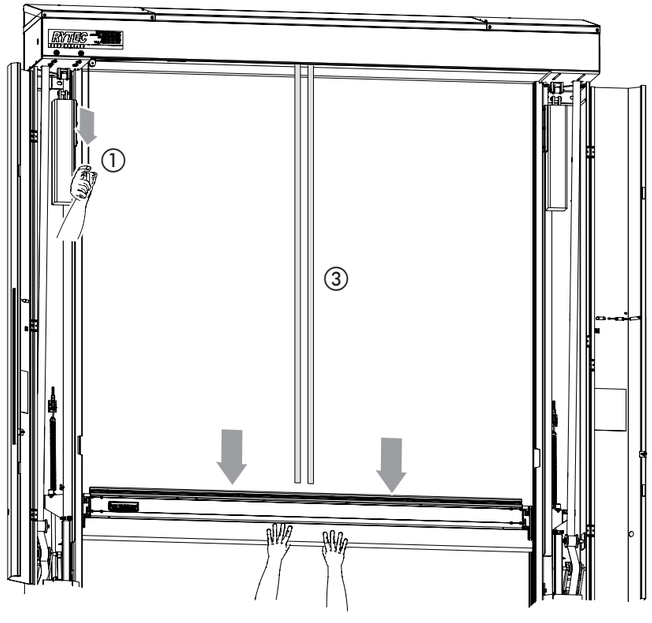
Set them aside until the windbar installation is complete.



4

Pull down on the manual brake release ① and **pull down** the door panel to the fully closed position ②.

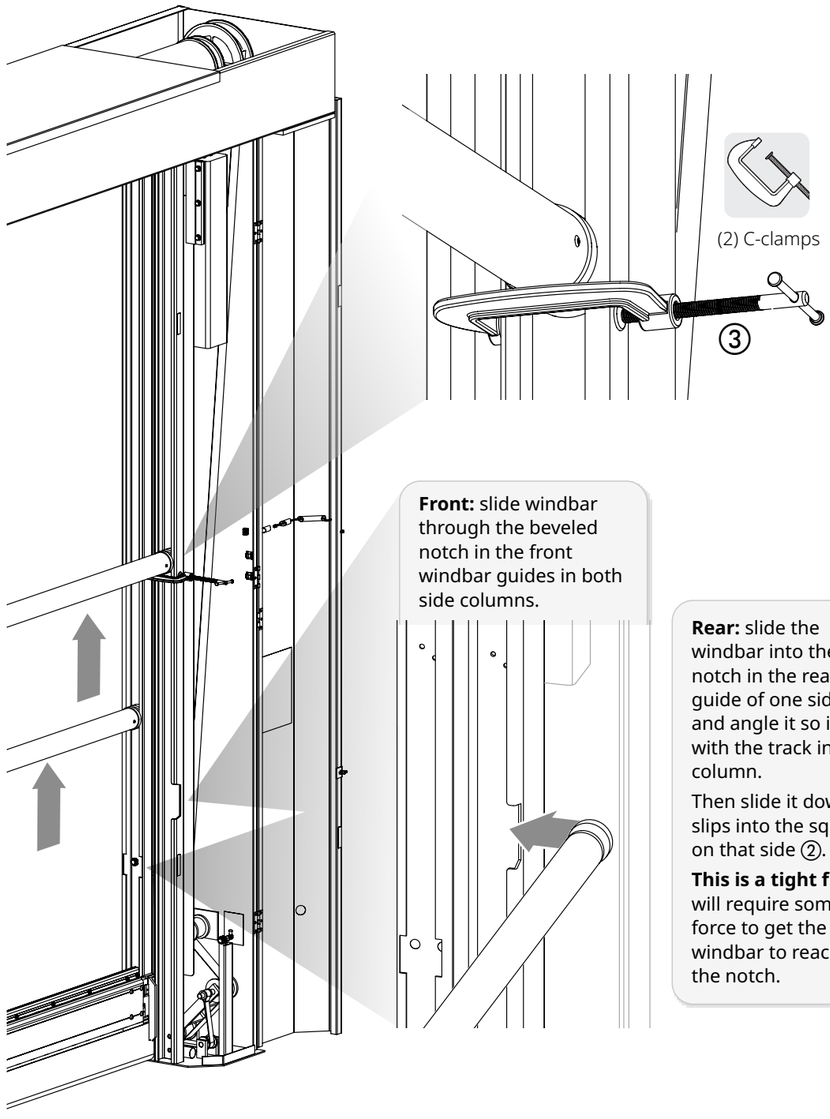
The straps for the windbar ③ will drop down with the door panel.



5

Slide the windbar, front or rear, into the windbar guide in both side columns as shown below.

Then **slide** the windbar up until it is at the halfway point of the door panel and **secure** it in place using two c-clamps ③.

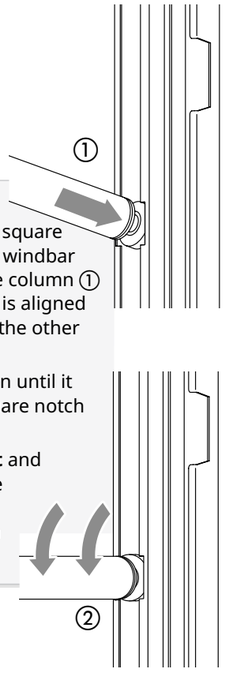


Front: slide windbar through the beveled notch in the front windbar guides in both side columns.

Rear: slide the windbar into the square notch in the rear windbar guide of one side column ① and angle it so it is aligned with the track in the other column.

Then slide it down until it slips into the square notch on that side ②.

This is a tight fit and will require some force to get the windbar to reach the notch.



6

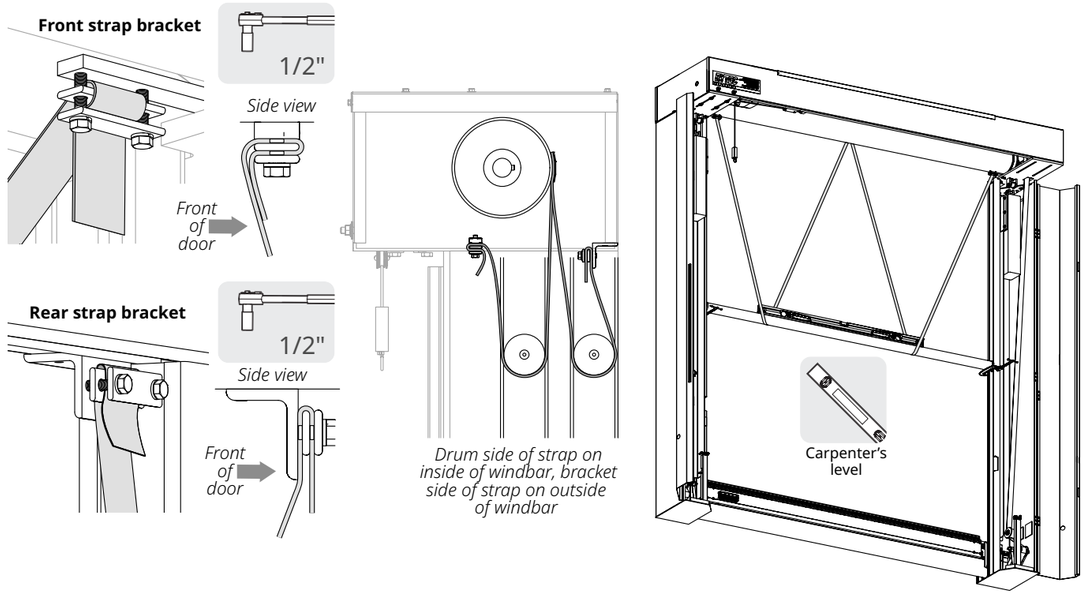
Loop the two straps around the windbar, from the side that faces the door panel outward, and then **secure** them in the strap brackets.

Make sure there are no crimps or twists in the straps.

Then **loosen** the bolts in the brackets, **wrap** the strap around the inner clamp plate and under the outer plate, then **pull** the strap until it is taught *(without lifting the windbar off the c-clamps)* and **tighten** the bolts.

Make sure the windbar is level. **Adjust** if necessary.

DO NOT trim the strap.

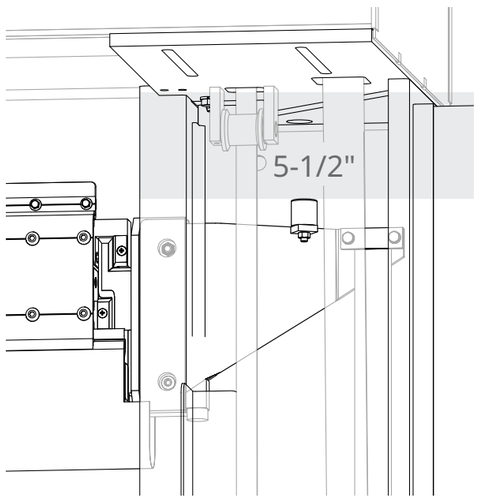


7

Pull down the manual brake release and raise the door panel to the fully open position.

In the fully open position, the **bottom of the loop seal** on the bottom bar is just above the top of the door opening, and the **upper bumper on the end brackets** are 5-1/2" below the top plates of the side columns.

Measuring tape



8

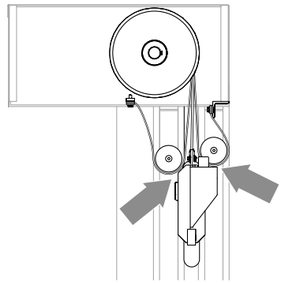
Check the position of the windbar with the door in the fully open position.

- The windbar has been strapped correctly if it is half-way between the top of the windbar guide and the top of the bottom bar, and is free of contact.
- The windbar has been strapped too low if it is making contact with the bottom bar.
- The wind bar has been strapped too high if it is making contact with the strap bracket, the top of the windbar guide, or the rolled-up door panel.

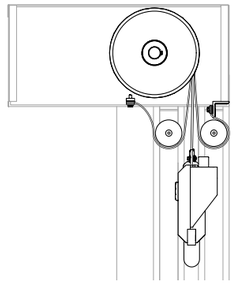
IMPORTANT

- If there are both front and rear strapped windbars, they **must be** at the same height.

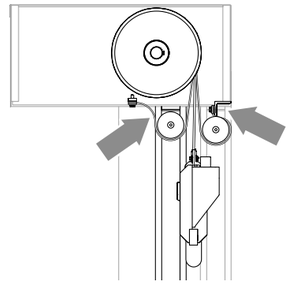
Too low
Windbars make contact with bottom bar



Correct
Windbars free of contact



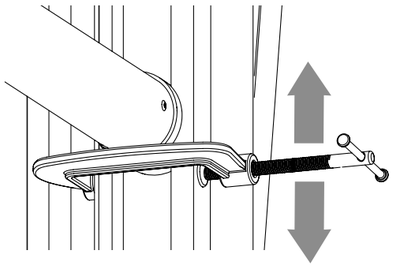
Too high
Windbars make contact with bracket or top of guides



9

If the windbar is not positioned correctly, **move** the c-clamps up or down half the distance needed to correct the position at the open limit, **lower** the door panel until the windbar is resting on the clamp, **loosen** the bracket clamps, then **repeat** Step 6.

When the windbar is positioned correctly, **remove** the clamps.

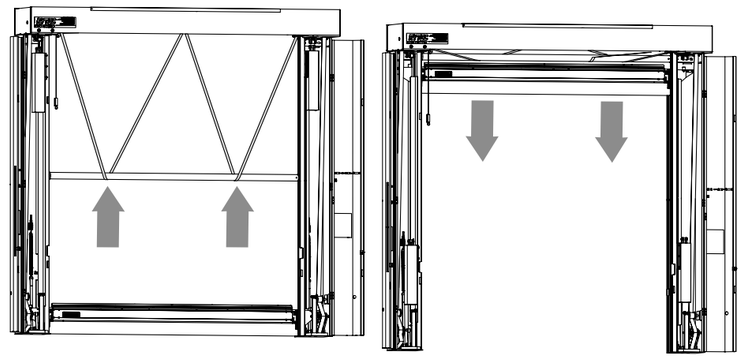


10

Manually raise and lower the door through several cycles from open to closed.

Make sure the windbars move smoothly in the guides, and that they are half-way up the door panel throughout the cycle.

Make sure the straps do not loosen over the course of several cycles. **Reposition** the windbars and **retighten** the straps if necessary.



How to route the cables

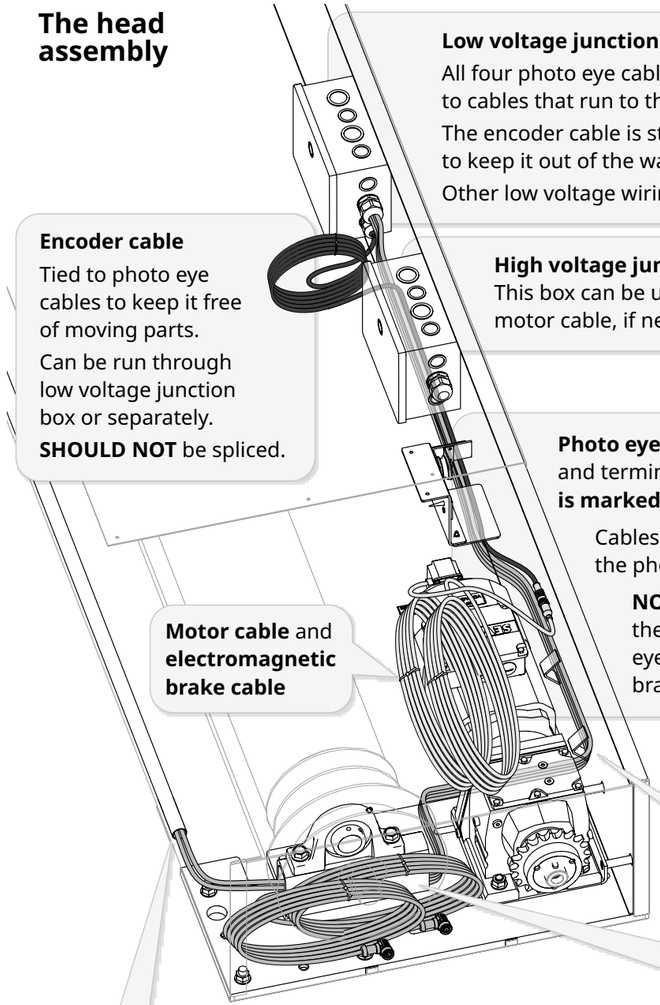
Before you begin: how the cables are preinstalled at Rytec

Because the Fast-Seal has so many moving belts, straps, and weights, most of the cables are **partially preinstalled** into the head assembly or side columns while the door is still at Rytec.

In the head assembly, there are separate junction boxes for high and low voltage cables. The photo eye and encoder cables are routed and cable tied inside the assembly to keep them clear of moving parts.

In the side columns, the cables for the Pathwatch LED strips are routed through wire chases up to the top of the columns.

The head assembly



Low voltage junction box

All four photo eye cables terminate here and must be connected to cables that run to the controller during installation.

The encoder cable is stuffed in here through the lower cord grip to keep it out of the way during crating.

Other low voltage wiring can be run through this box.

Encoder cable

Tied to photo eye cables to keep it free of moving parts.

Can be run through low voltage junction box or separately.

SHOULD NOT be spliced.

High voltage junction box

This box can be used for the motor cable, if needed.

Photo eye cables are preinstalled into the head assembly and terminate at the low voltage junction box. **Each cable is marked** to indicate the specific photo eye it connects to.

Cables **need to be routed** down the side columns to the photo eyes during installation.

NOTE: On heavy-duty 17" side column doors **ONLY** the rear photo eyes are mounted externally. Photo eyes and cables must be **field installed.** Photo eyes, brackets and cables are in the small parts box.

Motor cable and **electromagnetic brake cable**

Pillow block bearing support and conduit brackets

Route all cables through these to keep them clear of moving parts.

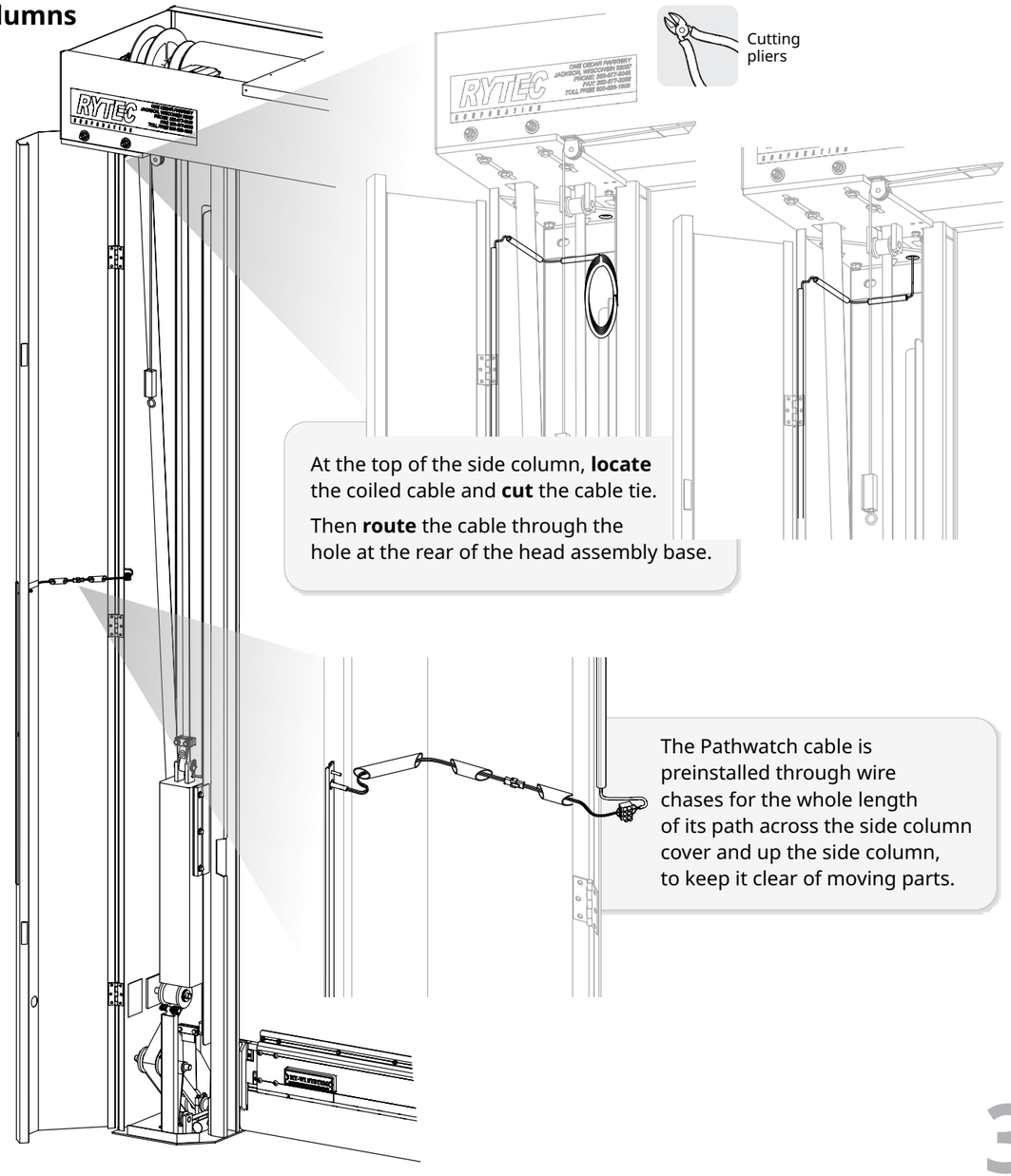
Cables can also be safely routed under the motor between the gear box and the power train.

Rear chase

Non-drive side photo eye cables travel through this.

Should also be used for the non-drive side Pathwatch LED strip cable.

The side columns



At the top of the side column, **locate** the coiled cable and **cut** the cable tie.

Then **route** the cable through the hole at the rear of the head assembly base.

The Pathwatch cable is preinstalled through wire chases for the whole length of its path across the side column cover and up the side column, to keep it clear of moving parts.

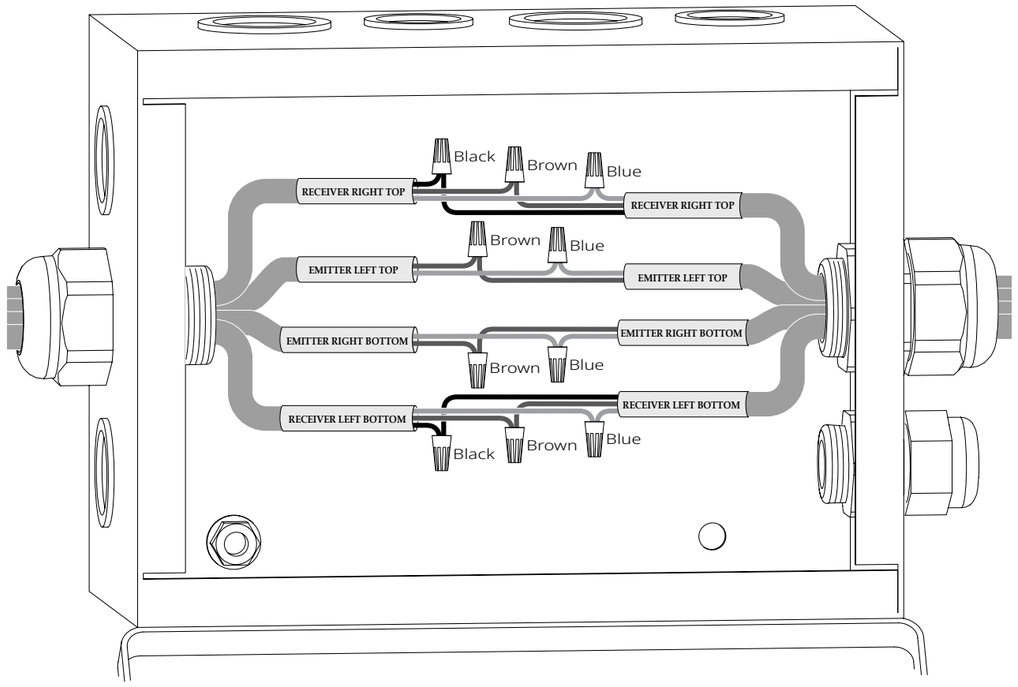
How to wire the photo eyes

1 IMPORTANT

Each photo eye is connected to a different set of terminals in the System 4 controller in order for the photo eyes to work correctly as a unit. This is why each cable in the head assembly is **labeled with the specific photo eye** it connects to.

Make sure the cables to the controller are marked **on both ends** to match their connections inside the junction box.

- Photo eyes labeled **"BOTTOM" are the front** photo eyes, because they are the lower set. Photo eyes labeled **"TOP" are the rear** photo eyes, because they are the higher set.
- For each **receiver**, connect the black, brown and blue wire.
- For each **transmitter** (labeled as "emitter"), connect the grown and blue wire.



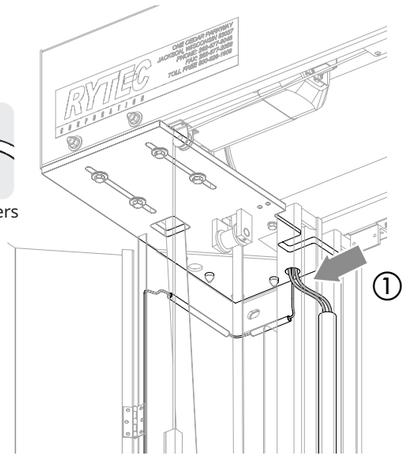
2 **Cut** the ties on the photo eye cables and run them through the hole at the rear of the head assembly ①.

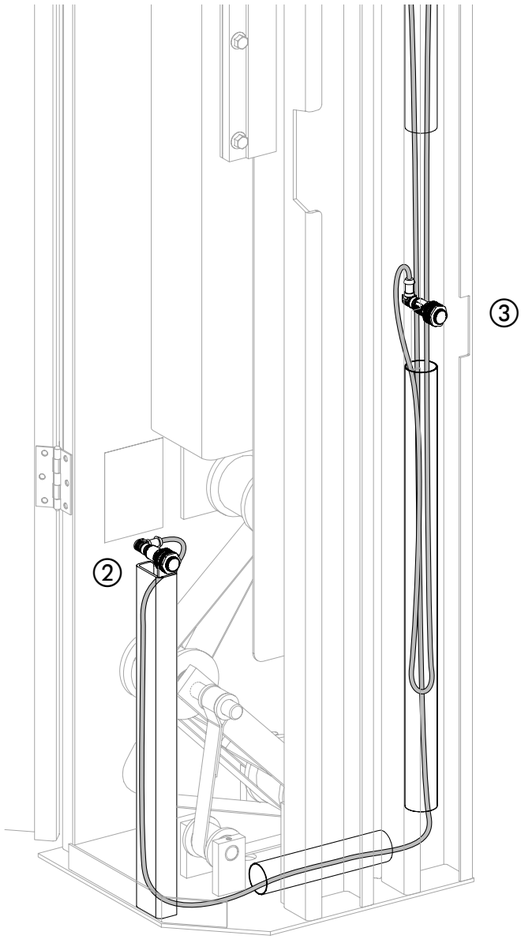
Run the cable labeled "EMITTER LEFT TOP" (on the left side) or "RECEIVER RIGHT TOP" (on the right side) **through** the round chase at the rear of the side column, then **through** the round chase on the baseplate and **up** the retaining bracket to the **front photo eye** ②.

Run the cable labeled "RECEIVER LEFT BOTTOM" (on the left side) or "EMITTER RIGHT BOTTOM" (on the right side) **through** the round chase at the rear of the side column to the **rear photo eye** ③.

- Excess cable length can be looped inside the lower chase.


Cutting pliers





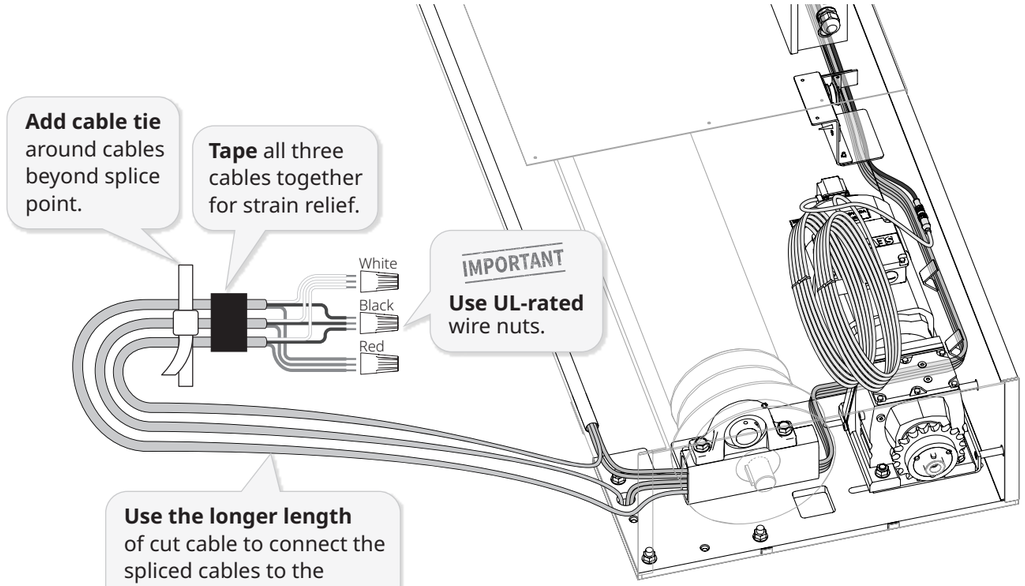
How to wire the Pathwatch LED strips

1 **Both Pathwatch LED strips** connect to the same terminals in the System 4 controller.

The cables can be spliced in the head assembly, or inside the low voltage junction box.

- Cables are spliced white/white, red/red and black/black.

Run cable(s) along the same path as the preinstalled photo eye cables. You can use the junction box or run the Pathwatch to separate low voltage conduit.

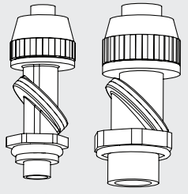


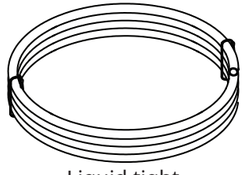
(OPTIONAL) How to wire the motor and brake cables on severe duty motors

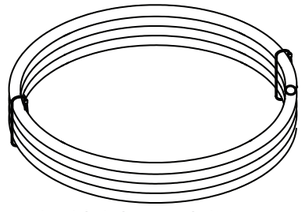
1 **Locate** the liquid tight conduit for the motor and brake cables, as well as the two liquid tight connectors for the controller in the small parts box. **Cut** the ties on the conduit.


Cutting pliers

SMALL PARTS


Liquid tight connectors

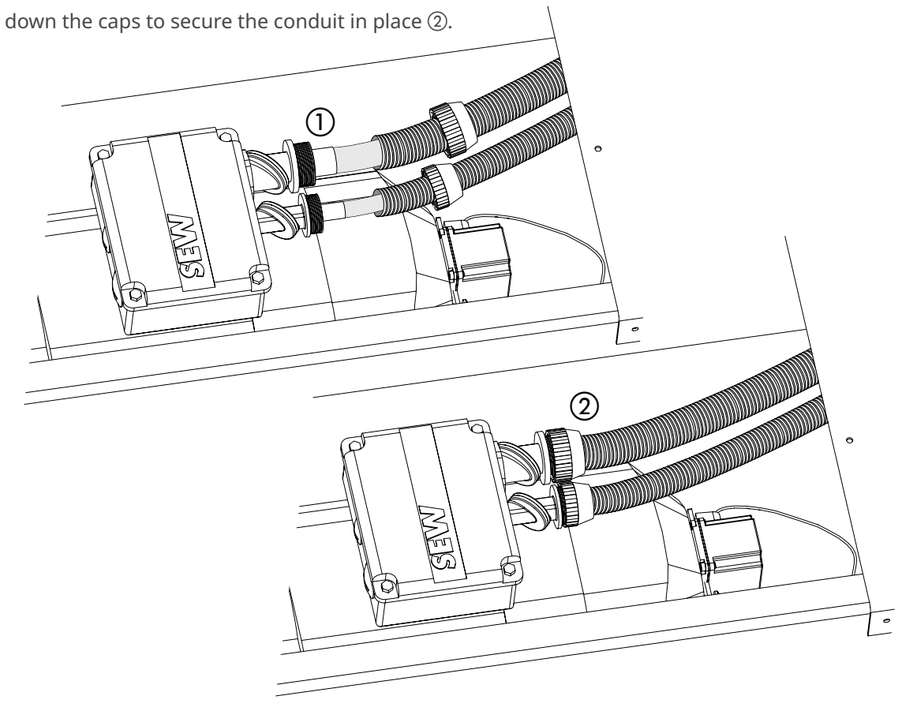

Liquid tight conduit (brake)


Liquid tight conduit (motor)

2 **Remove** the caps from the liquid tight connectors on the motor.

Slide the liquid tight conduits down the length of the motor and brake cables until they cover the ports on the connectors ①.

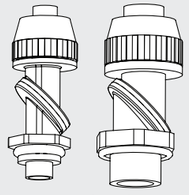
The tighten down the caps to secure the conduit in place ②.

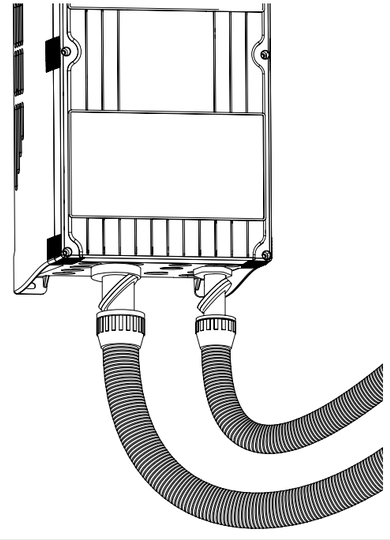


3 **Use** the two liquid tight connectors from the small parts box to secure the conduit at the controller.

Trim the cables and conduit to proper length and **anchor** the conduit to the wall.

SMALL PARTS


Liquid tight connectors



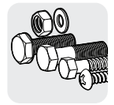
How to install and wire the System 4 controller

Before you begin

1 **Make sure** you have all supplies and tools.

Supplies that you provide

Conduit for high-voltage and low-voltage wiring



Mounting hardware for controller (3 anchors)

Tools you will need

Power drill

Step drill bit

#2 Phillips

T20 Torx screwdriver

Precision screwdriver

Wire tool

Cement drill (if needed to mount controller)

2 **Check** the job site.

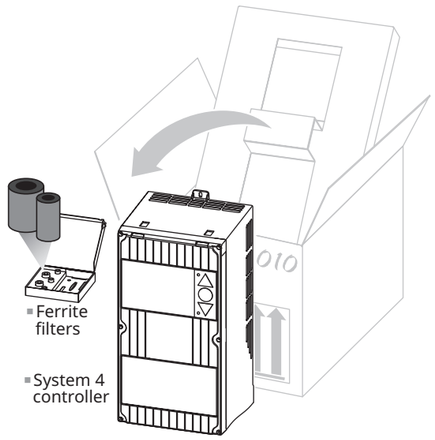
- **The ambient temperature** must be between **-4°F** and **149°F** at all times.
- **NOTE: for freezer doors,** the controller and fused disconnect must be mounted on the warm side of the door.
- **The mounting surface** for the System 4 controller and fused disconnect must be structurally sound and free of mechanical shock and vibration.

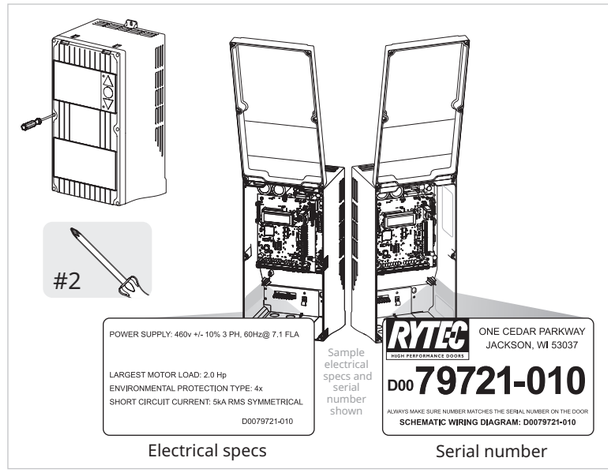
3 **Install** the high-voltage power supply.

- **Provide a high-voltage power supply** that matches the electrical spec for the System 4 controller.
- **A fused disconnect is recommended.** Fuses must meet NEC code for FLA listed on the electrical spec for the System 4 controller.

How to install the System 4 controller

1 **Open** the System 4 controller box and get the controller and ferrite filters.
Loosen screws on the control box and **open** the cover panel.



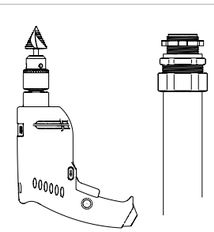


Electrical specs | Serial number

Verify that the serial number and electrical specs for the controller match the door.

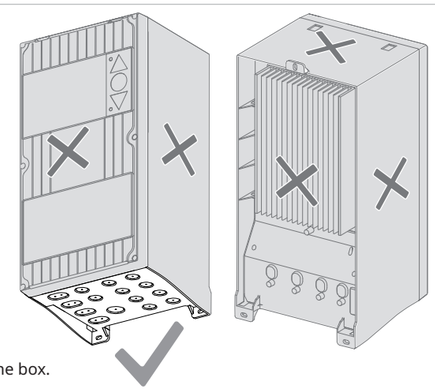
2 **Install** the control box onto the wall using the hardware you have supplied.

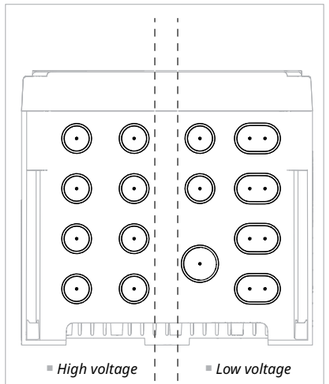
3 **Drill** holes through the bottom of the control box for conduit.



ONLY drill holes and **install conduit** through the **bottom** of the control box.

DO NOT drill through the front, back, top or sides of the box.





NOTICE

- **Conduit must enter through the bottom of the control box.**
  Drilling holes in the front, back top or sides of the control box voids the warranty.
- **High-voltage wires** must enter through the left side of the box bottom.
- **Low-voltage wires** must enter through the right side of the box bottom.
- **Holes must be drilled.** The indentations in the box bottom are not knockouts.

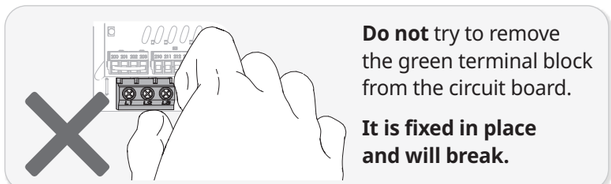
How to install the high-voltage wiring

⚠ WARNING

Set the disconnect switch to the OFF position and perform a lockout/tagout of the high-voltage disconnect before installing wiring to the controller. Do not set the disconnect switch to the ON position until the wiring installation is complete and the controller is fully earth grounded per instructions.

Failure to comply could result in shock, burns or death.

1 Connect the supply voltage wiring from the disconnect. 12 AWG

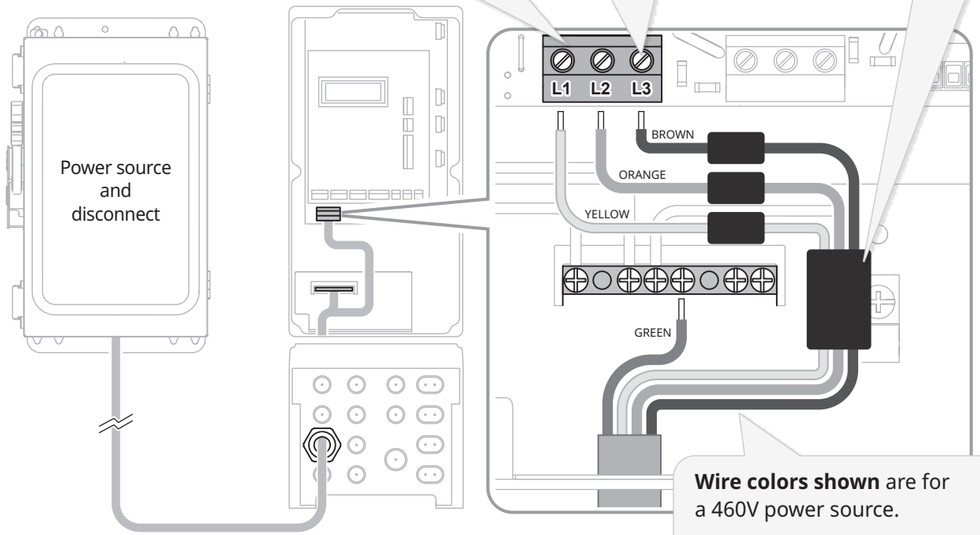


Do not try to remove the green terminal block from the circuit board.

It is fixed in place and will break.

Maximum torque for all screws is **2.5 in-lbs.**

Place one large ferrite filter around all three wires, and **one small filter** around each individual wire.

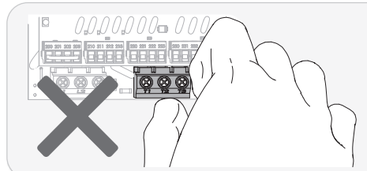


Wire colors shown are for a 460V power source.

Wire colors for 230V power are L1=red, L2=black, L3=blue.

2 Connect the high-voltage wiring from the motor. 16 AWG

Shielding: braided copper mesh and drain wire



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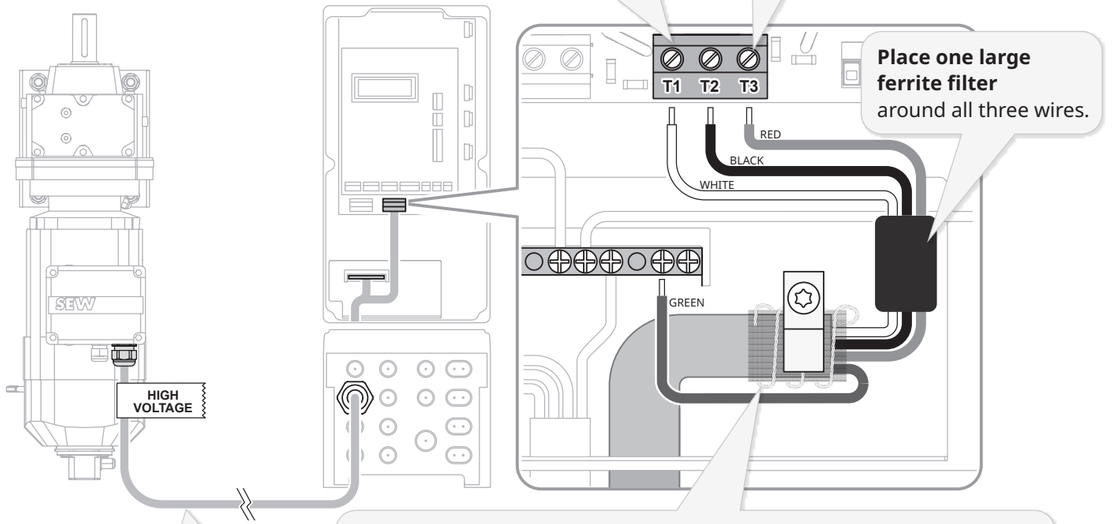
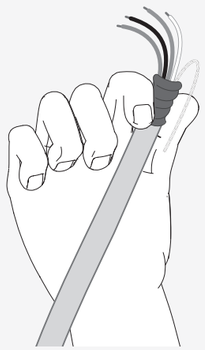


Place one large ferrite filter around all three wires.

Maximum wire length between motor and controller: **100′ (one hundred feet).**



The **shield** (braided copper mesh) and **drain wire** (bare metal) must be in contact with the **P-clip**.

To ensure a tight contact:

1. Loosen the P-clip.
2. Strip high-voltage cable jacket to expose braided shield, then pull back shield and wrap drain wire around it.
3. Run wires, shield and wrapped drain wire under clip.
4. Tighten clip.
5. Trim excess drain wire.

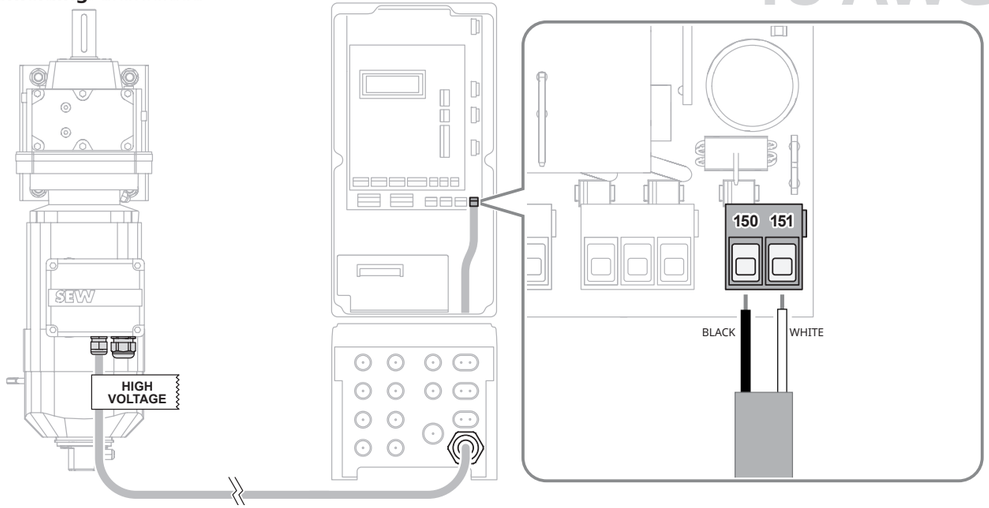
How to install the low-voltage wiring

IMPORTANT

- Low-voltage cables can be run in the **same conduit.** **They cannot share conduit** with high-voltage cables.
- All low-voltage wiring must be 24 VDC+ only, installed per NEC to Class II power supply requirements.
- Maximum torque for all System 4 controller screws is **2.5 in-lb.** **DO NOT use power tools.**

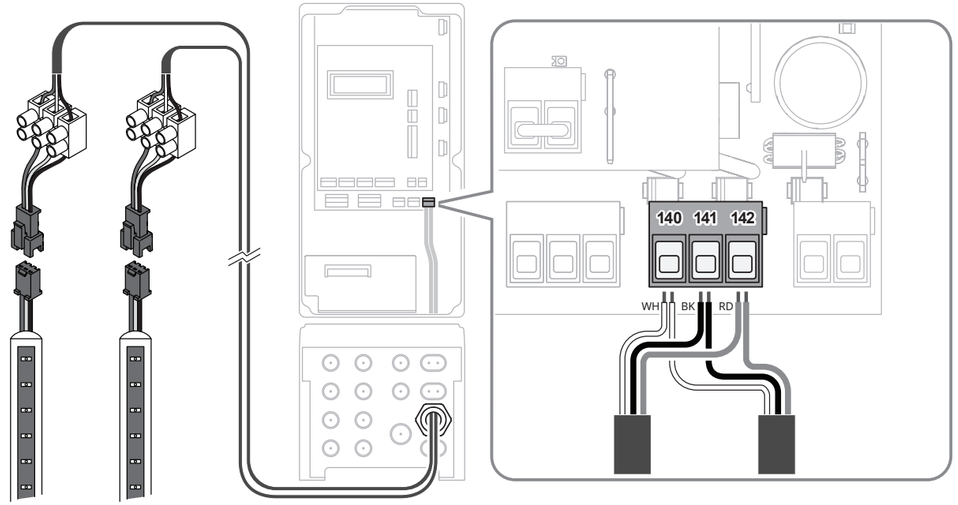
1 **Connect** the brake wiring from the motor. 18 AWG

Shielding: unshielded



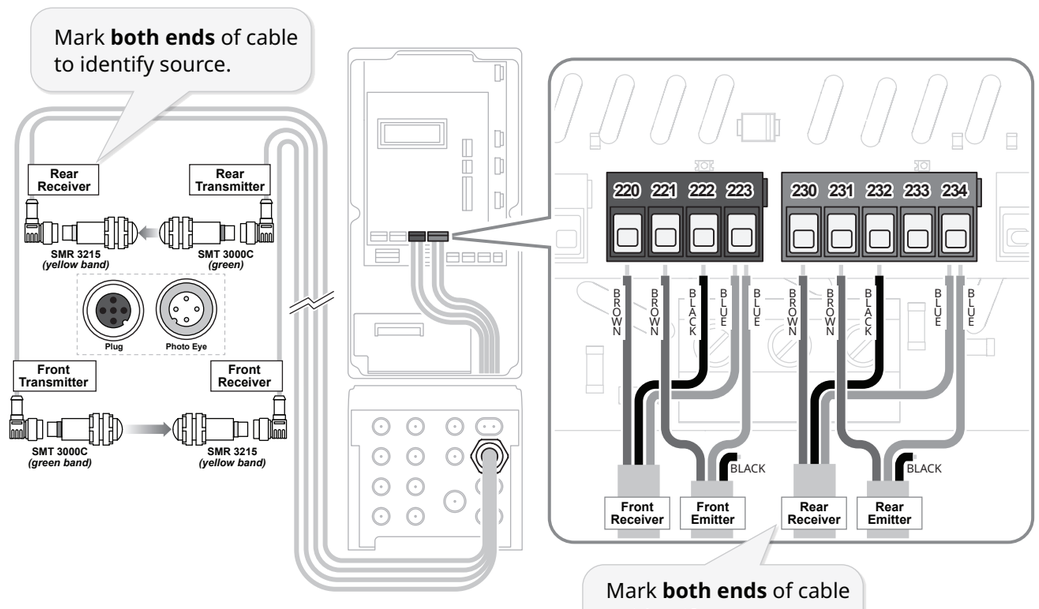
2 **Connect** the wiring from the Pathwatch LED strips. 18 AWG

Shielding: unshielded



3 **Connect** the wiring from the photo eyes. 18 AWG

Shielding: unshielded

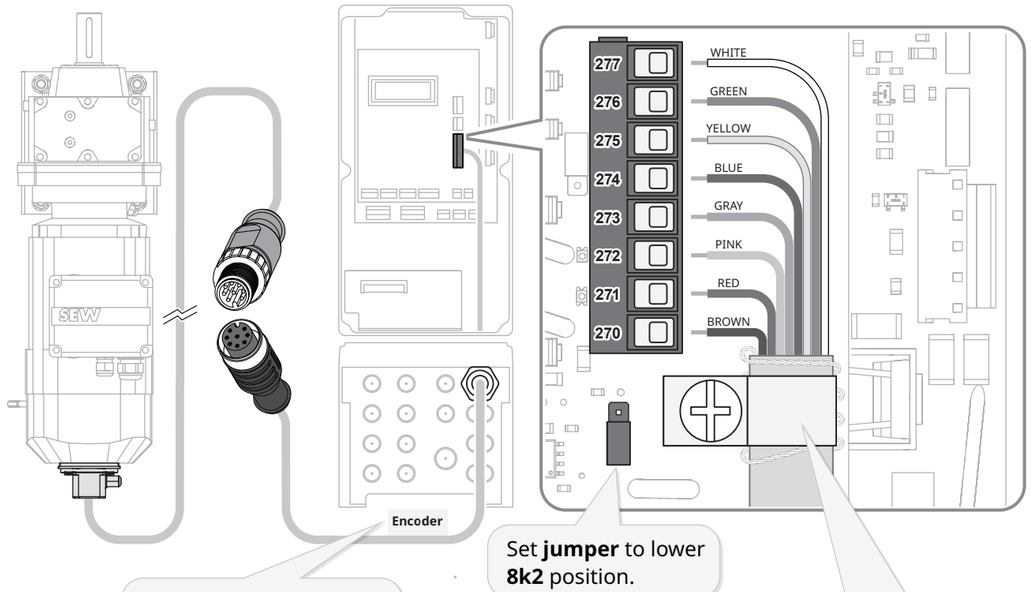


How to wire the encoder

The wires for the encoder, reversing edge and door ajar breakaway system run in the same cable.

4 **Connect** the wiring from the encoder.
Shielding: metal foil and drain wire

24 AWG



The **drain wire** (bare metal) must be in contact with the **P-clip**.

To ensure a tight contact:

1. Loosen the P-clip.
2. Strip encoder cable jacket to expose wires.
3. Trim and bend red, pink, gray and blue wires. Tape to jacket.
4. Wrap drain wire around jacket and unused wires.
5. Slide cable under P-clip and tighten. **Make sure there is maximum contact** between clip and drain wire.
6. Trim excess drain wire.

NOTICE

Encoder wiring must not be spliced unless you have consulted with Rytec technical support at **800-628-1909**.

Before powering up the door

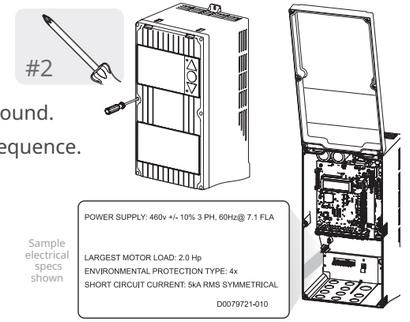
⚠ WARNING

It is recommended that this pretest be done by a certified electrician.

1 **Make sure** the power to the door is correct.

- **Open** the System 4 control box and check the power supply listed on the label inside.
- **Test** the voltages at the disconnect. Test leg to leg and leg to ground.
- If power is correct, **power up** the door and start the set limits sequence.


Multimeter



Sample electrical specs shown

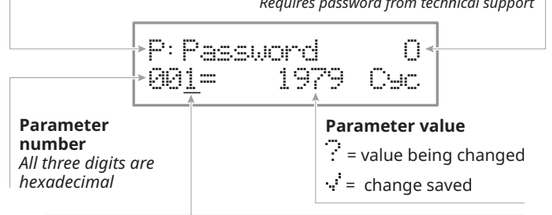
How to set limits and test the door

⚠ CAUTION

Make sure that people and vehicles do not pass through the open doorway until the automatic calibration is complete.

The door can open or close unexpectedly, resulting in injury.

The Controller Display



The Controller Controls

UP Arrow
- **Press** to increase a value or parameter number
- **Press and hold** to increase values or parameter numbers quickly

RESET Button
- **Press** to toggle the flashing cursor between parameters and values
- **Press and hold** to save changes to a value

DOWN Arrow
- **Press** to decrease a value or parameter number
- **Press and hold** to decrease values or parameter numbers quickly

NOTE: The System 4 display uses hexadecimal numbers to number parameters and for some values.

The display uses the ten numeric characters (0-9), plus six letters (A-F), which represent the values from 11 through 16.

In some cases it will be necessary to press the UP arrow sixteen times to change a value from 0000 to 0010.

Icon key

How to set limits

First: set the controller to Parameter mode and access Service level parameters

Do This *Result*

1 Fast-Seal
[xxx] Cycles

The door starts in run mode.

2 until the parameter screen displays

P:Password 0
001= [xxx] Cyc

You are in Parameter mode. Go to parameter 999.

3 2x to reach parameter P:999

P:Password 0
999= 0000 #

The Password parameter P:999 screen displays.

4 1x to move cursor to the right (edit value)

P:Password 0
999= 0000✓#

You can now change the value of parameter P:999.

5 16x to set value to hexadecimal 10

P:Password 0
999= 0010?#

Set the value to 10 (Service level password).

6 until question mark changes to checkmark (value saved)

P:Password S
999= 0010✓#

The Service level password is saved.

Next: navigate to parameter P:210 and set the closed and open position values

Do This *Result*

1 until 210 displays

P:New Limits S
210= 0 #

The Limits parameter (210) screen displays.

2

P:New Limits S
210= 0✓#

The cursor moves to the right side.

3 5x

P:New Limits S
210= 5?#

Set the New Limits value to 5.

- This setting allows you to edit both the closed position limit and the open position limit.

4 5 sec.

P:New Limits S
210= 5✓#

The New Limits value is saved.

You must press and hold the Reset button for five (5) seconds to save edits that you make to a parameter.

5

P:New Limits S
210= 5 #

The cursor moves to the left side.

Do This *Result*

6 5 sec.

! Set Limits !
Press Reset butt

The sequence to set the closed and open position limits begins.

7

To Closed Pos.
Hold Reset butto

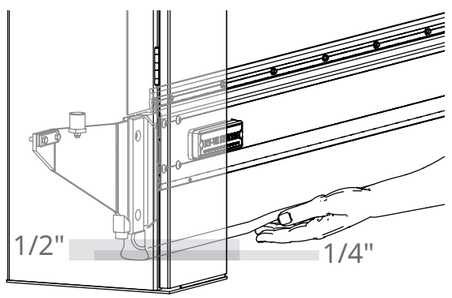
You can now set the value for the closed position limit.

8 until closed height is correct

To Closed Pos.
Hold Reset butto

Set the closed position limit value.

- Press the UP arrow or DOWN arrow to move the door to the correct position.
- Each press moves the door by a small increment. Press and hold to move the door more quickly.
- The door is **at the correct close limit** when the bottom of the loop seal rests on the floor with a slight bulge so that there is a complete seal, and the reversing edge is 1/4" above the floor (finger width).
- At this height, the **bottom bumper** on the end bracket should be 1/2" above the baseplate of the side column.



Do This *Result*

9 5 sec.

Close Limit Set
0
To Open Pos.
Hold Reset butto

The closed position limit is saved.

You must press and hold the Reset button for five (5) seconds to save edits that you make to a parameter.

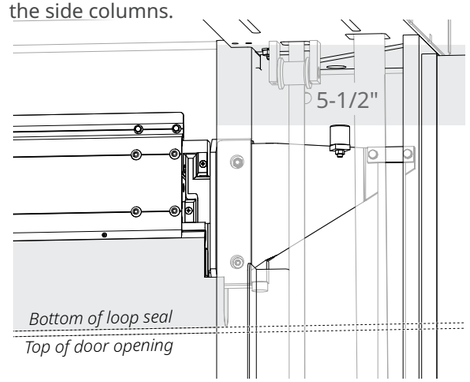
You can now set the value for the open position limit.

10 until open height is correct

To Open Pos.
[xxx] Hold Reset

Set the open position limit value.

- Press and hold the UP arrow to move the door to the correct position.
- Each press moves the door by a small increment. Press and hold to move the door more quickly.
- The door is **at the correct open limit** when the bottom of the loop seal is just above the top of the door opening, and the upper bumper on the end brackets are 5-1/2" below the top plates of the side columns.



- **Move at least ten feet** from the door to check the height.

11 5 sec.

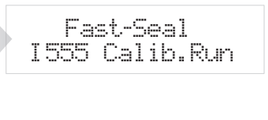
Open Limit Set
0
! Auto Calibrate!
Press Close butto

The open position limit is saved.

You must press and hold the Reset button for five (5) seconds to save edits that you make to a parameter.

Do This *Result*

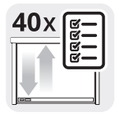
12



The automatic calibration sequence starts.

- The door runs through several cycles of opening and closing.
- Initial cycles may not match the limits that you set. The final cycle should match your saved values for the closed and open position limits.
- The controller returns to Run mode when calibration is complete.

13



Test for these conditions while the door opens and closes:

- Door panel moves smoothly
- Door is not unusually noisy
- Drive shaft does not shake
- (Optional) windbars move smoothly
- Door limits are correct

How to manually adjust the open or close limit (optional)

IMPORTANT This procedure is for making small adjustments (up to one inch) to the open or close limits. Reset limits using parameter P:210 for larger adjustments.

Go to parameter P:221 (Close Position) or P:231 (Open position) and change the value ***(P:221 shown here)***

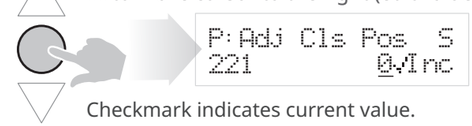
Do This *Result*

1 until parameter displays

Default value is 0 Inc.

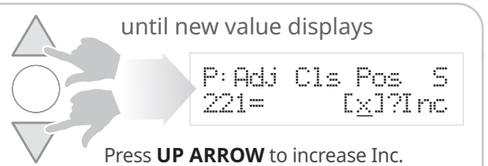
IMPORTANT Inc (increment) is roughly 1/10 inch.

2 1x to move cursor to the right (edit value



Checkmark indicates current value.

3 until new value displays



Press **UP ARROW** to increase Inc.

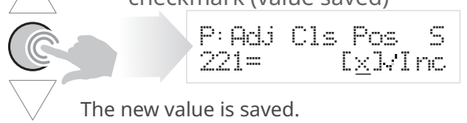
Press **DOWN ARROW** to decrease Inc.

The question mark indicates the value is changed but not yet saved.

Do This *Result*

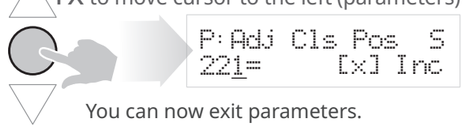
4 IMPORTANT Do not change the value by more than 5 Inc before testing the door.

5 until question mark changes to checkmark (value saved)



The new value is saved.

6 1x to move cursor to the left (parameters)



You can now exit parameters.

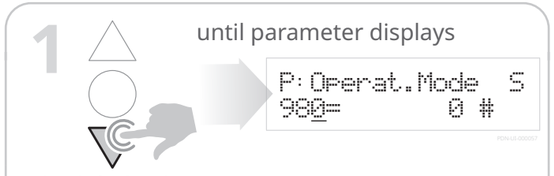
7 until door exits parameter mode

How to test the door and the detection features

Navigate to parameter P:980 and set the value to 4 so the door will cycle continuously

Do This *Result*

1 until parameter displays

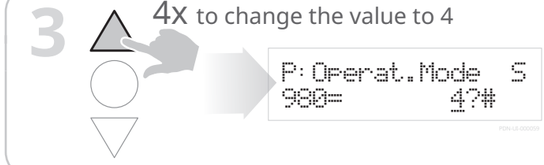


The default value is 0.

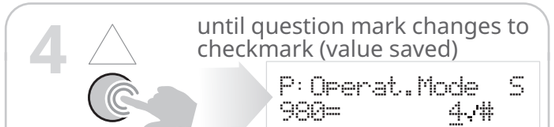
2 1x to move cursor to the right (edit value)

You can now change the value.

3 4x to change the value to 4



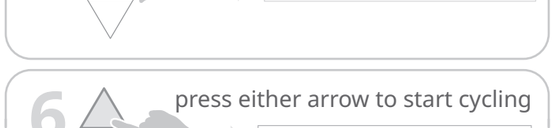
4 until question mark changes to checkmark (value saved)



The new value is saved.

5 until door exits parameter mode

6 press either arrow to start cycling



Check the movement of the door

1 **Watch** the door as it cycles.

- **Make sure** the door panel moves to the fully open position, remains in place for the standard time, then closes to the fully closed position.
- **Make sure** the fully open and fully closed positions remain at the set limits.
- **Make sure** the door panel is level when the door is fully closed.

IMPORTANT **Let the ACL timer** hold the door open through each cycle. Shortening the timer while the door is cycling can cause the motor to overheat.

2 While the door cycles, **look and listen** for:

- **Unusual noises** such as grinding, whining or excessive motor noise.
- **Excess movement** by the motor.
- **Any indication** that the door is not moving freely.
- **Unexpected delay** in activation or unusually long time period before automatically closing.

3 **Make sure all straps** are raising and lowering to the correct levels and have not become slack after repeated cycles.

- **Counterweight:** see pages 18 through 21 for the correct levels at ope and close, as well as instructions for adjusting the straps.
- **Tensioning system:** See pages 21 through 24 for the correct levels at open and close, as well as instructions for adjusting the straps.
- **(Optional) strapped windbars:** See pages 27 through 29 for the correct levels at open and close, as well as instructions for adjusting the straps.

4 **Observe** the Pathwatch LED strip on both side columns as the door opens and closes.

- **Before the door closes:** strips display a three-second sequence of combined red-yellow flashes.
- **While the door closes:** strips glow continuously red until the door stops.

5 **Set the controller** to parameter mode.

IMPORTANT

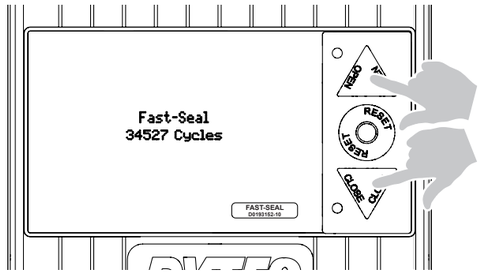
Set Parameter 980 back to 0 to take the door out of continuous cycle.

Return to run mode.

Test the buttons on the controller

1 **Open, close and stop** the door using the buttons on the controller.

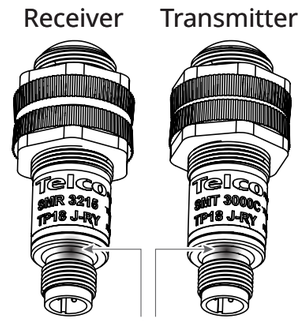
- **If the UP arrow and DOWN arrow** do not operate as expected, see the Troubleshooting procedure *How to reverse the rotation of the motor* on page 42.



Test the photo eyes

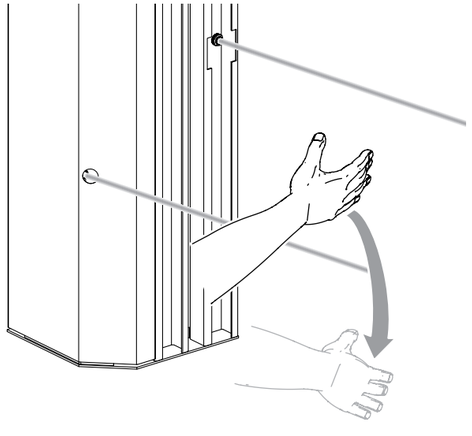
1 **Check** the LED lights in the front transmitters and receivers (the rear photo eyes are mounted inside the side columns and cannot be checked).

- **Transmitter:** green light indicates it is operational.
- **Receiver:** yellow light indicates it is correctly aligned with the transmitter.



2 While the door is closing, **break the beam** on each set of photo eyes.

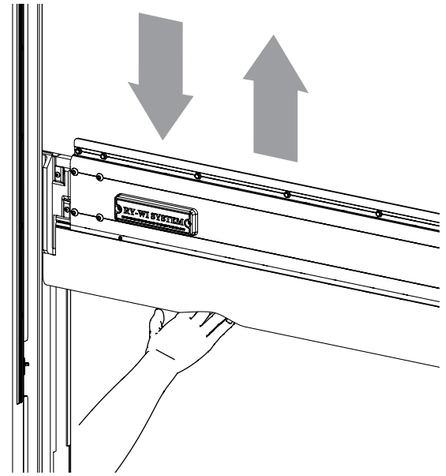
- **Door should stop, reverse,** and stay open as long as the obstruction remains in place.
- **Door should only close** when the obstruction is removed.



Test the reversing edge

1 **Place your hand** in the path of the closing door panel, above the photo eye beams, and allow the reversing edge to hit it.

- The door panel should stop, reverse, then run through the delay timers and close normally.



2 **If necessary,** adjust the sensitivity of the reversing edge. See *How to adjust the sensitivity of the reversing edge* on page 43.

Test the door ajar breakaway system

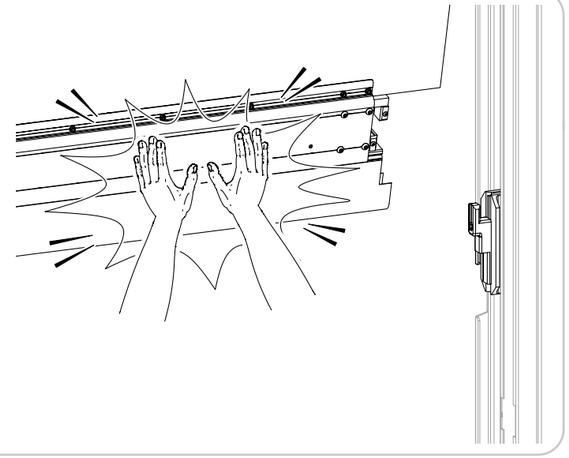
	⚠ WARNING
⚠	Activating the door ajar breakaway system requires you to strike the metal bottom bar hard enough to push the door panel out of the door track. **Do not attempt this procedure** if you have a previous injury which might be aggravated by the force of the contact.

IMPORTANT **The door ajar breakaway system is deactivated** on doors that are >24' (twenty four feet) wide, or that have strapless windbars (see next section).

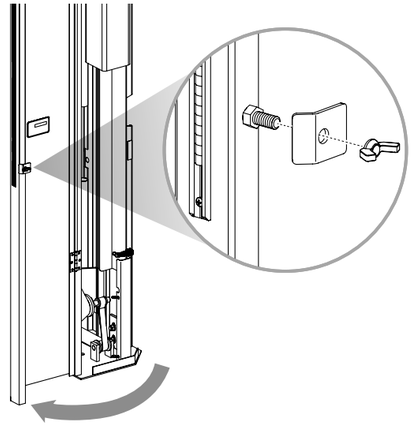
1 **Test one side of the bottom bar at a time** to make sure that both magnetic switches stop the door when the end bracket separates from the bottom bar.

- **Strike the bottom bar** hard enough to separate it from the end bracket.
- **You can do this** while the door is closing or after jogging it to a working height.
- **This is most easily done** near a side column.
- **Door should stop immediately.**
- **The controller** generates an F:060 error.

IMPORTANT

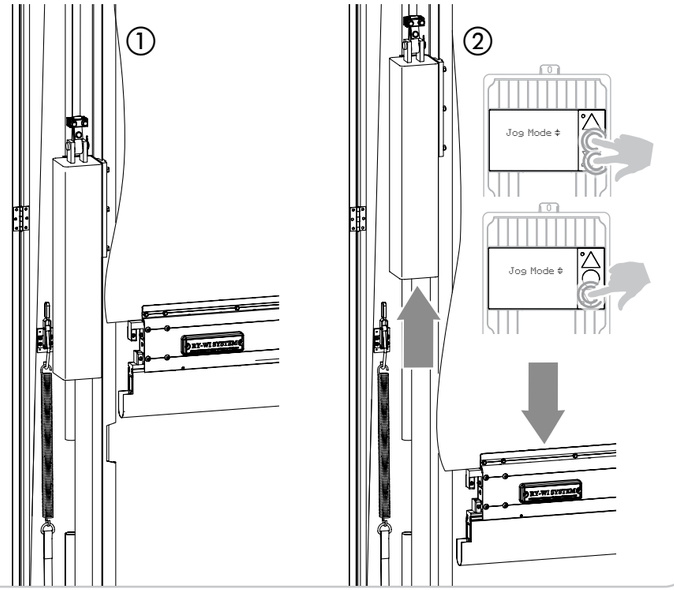


2 **Loosen and remove** the latch and wingnut on the side column cover, **swing** the cover open, then **replace** the latch and nut on the retaining screw so they are not misplaced.



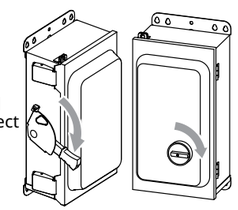
3 If the counterweight is blocking access to the spring release handle ①, **set** the door in jog mode so the handle is clear ②.

Make sure the door panel does not tear as the bottom bar moves up or down.



4 **Shut off power to the door** and perform a lockout/tagout.

Fused disconnect



⚠WARNING

CRUSH HAZARD

The tension springs for a Fast-Seal exert considerable force, which can cause the release handle to swing down unexpectedly.

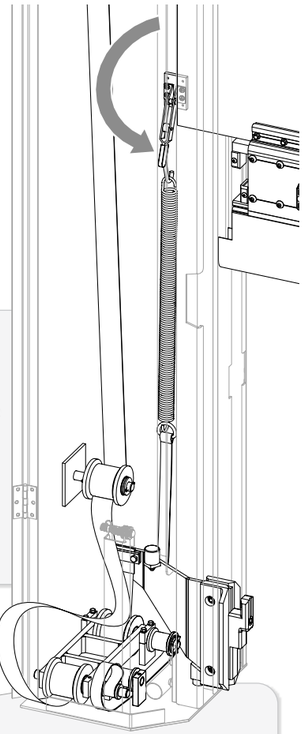
- **Make sure** you swing down the handle as slowly and gradually as possible.
- **Make sure** to keep hands away from the spring and the area below the handle.

FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY OR DAMAGE TO THE DOOR.

5 If it is not already on the floor, **make sure** the end bracket slides smoothly to the bottom of the door track.

- The **tensioning strap** should be slack, and the **H-bracket** should be flat on the baseplate from the extra length of strap.

Make sure all straps are straight and clear, then **pull down** the spring release handle to release the spring tension.



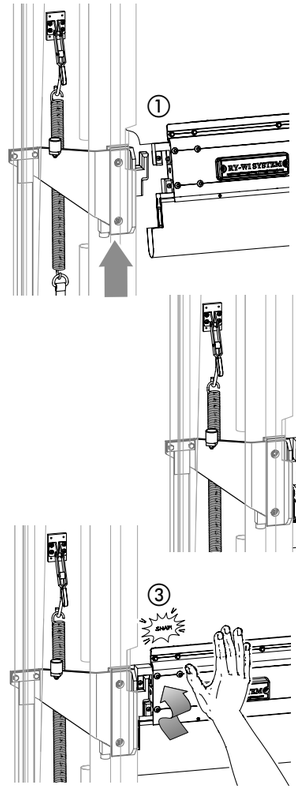
Make sure the tensioning strap and the spring tension strap are loose from the extra length but not twisted or crimped, and are aligned in their rollers.

Pull down on the spring release handle. Carefully guide it down until it is fully released and the spring and spring strap are loose.

6 **Slide** the end bracket up until it is level with the bottom bar ①, and reconnect it.

② **Line up** the top and bottom L-brackets on the bottom bar with the Z-shaped block on the end bracket and **push them together** until friction from the slider pads holds the bottom bar in place.

③ **Push** the bottom bar forward in a rocking, motion until the spring plunger clicks. **Position** your other hand behind the bottom bar to prevent overshooting the spring plunger.

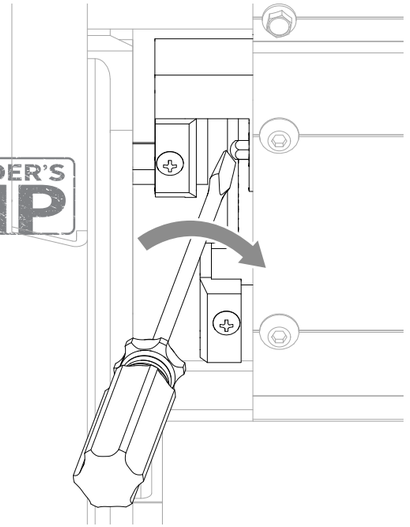


7

If the spring plunger is difficult to compress, **use** a large flathead screwdriver to lever it down enough to start sliding in the bottom bar without overshooting.

Then **push in** the bottom bar the rest of the way until you hear the spring plunger click into place.

INSIDER'S TIP



8

Make sure all straps have no twists or kinks and are aligned with their rollers, and the hook on the spring tension handle points towards the back of door.

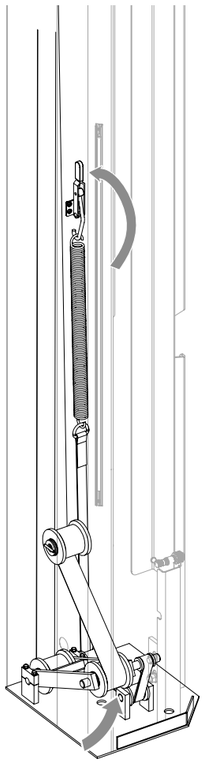
IMPORTANT

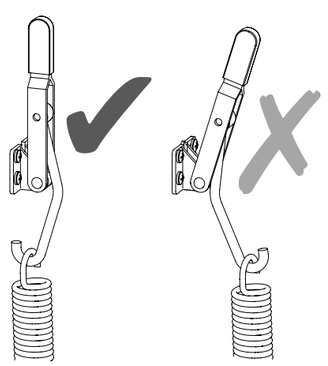
The handle will not latch into place if the hook is not pointing to the back.

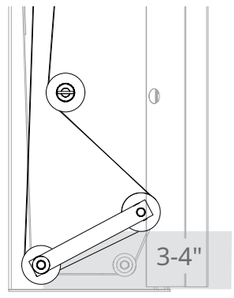
Pull up on the spring release handle until it latches in place and the spring is applying tension.

Make sure the spring strap does not twist or kink as tension is applied to it.

- The front roller of the H-bracket should **rise** to a position 3-4" above the baseplate.



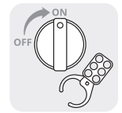


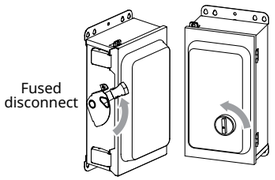


Correct position when door is between open and closed limits

9

Remove the lockout/tagout and **restore** power to the door.



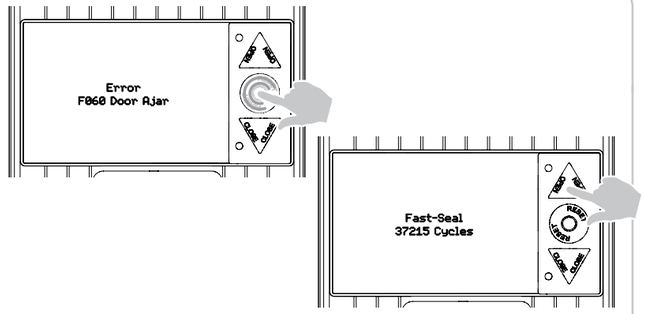


10

Press and hold the RESET button to clear the F:060 error.

Then **press** the UP Arrow and watch the door as it cycles through opening and closing

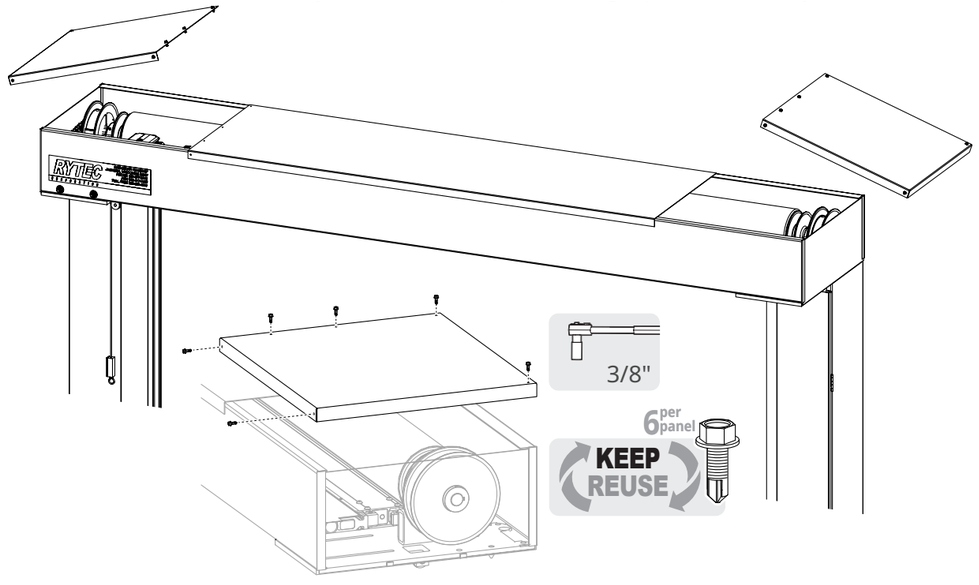
Watch the door through the cycle to make sure the door panel and bottom bar have been reset correctly and the tensioning system is operating correctly.



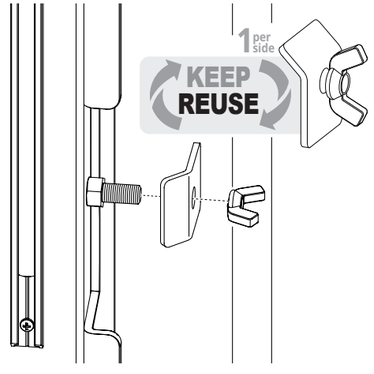
Perform final tests and finish the installation

1 **Activate the door** using each additional activating system, if any have been installed.

2 If the door has a hood cover, and you removed the top left and right panels earlier, **replace** them.



3 If the side column covers are still open, **close and secure** the side column covers.



4 **Remove** any remaining tags from door components.

5 **Caulk the door** on both sides along the outer edge where the side columns and head assembly meet the wall.

Troubleshooting

How to reverse the rotation of the motor

First: set the controller to Parameter mode and access Service level parameters

Do This *Result*

1 until the parameter screen displays

You are in Parameter mode. Go to parameter P:999.

2 2x to reach parameter P:999

The parameter P:999 screen displays.

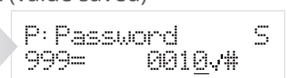
3 1x to move cursor to the right (edit value)

You can now change the value of parameter P:999.

4 16x to set value to hexadecimal 10

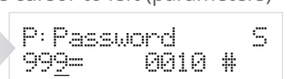
Set the value to 10 (Service level password).

5 until question mark changes to checkmark (value saved)



The Service level password is saved.

6 1x to move cursor to left (parameters)



You can now go to parameter P:130.

Next: navigate to parameter P:130 and change the value

Do This *Result*

1 until parameter displays

Value is either 0 or 1.

2 1x to move cursor to the right (edit value)

3 press either arrow to change value

Change the 0 to 1, or change the 1 to 0.

4

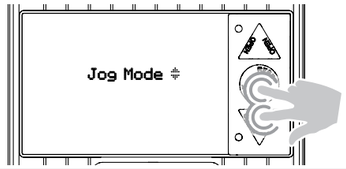
The new value is saved.

5 1x to move cursor to left (parameters)

You can now return to run mode.

How to adjust the sensitivity of the reversing edge

1 **Put the door in jog mode** and jog it to a comfortable working height.



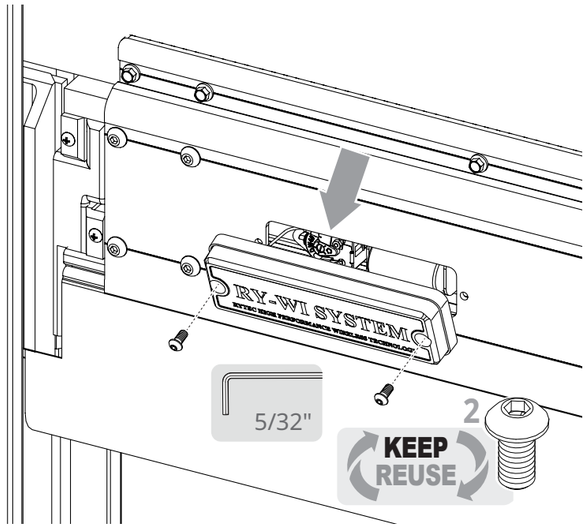
2 **Locate the Ry-Wi cover** on the drive side of the bottom bar.

Remove the two hex screws and the cover.

IMPORTANT **REMOVE CAREFULLY!** There are eight long, thin wires wound up behind the cover that can easily be damaged or pulled out of their connections.

Locate the red pneumatic reversing edge switch in the bottom bar.

- The switch has a **small resistor** attached to it (gray arrow), and the attached wires are **white.**



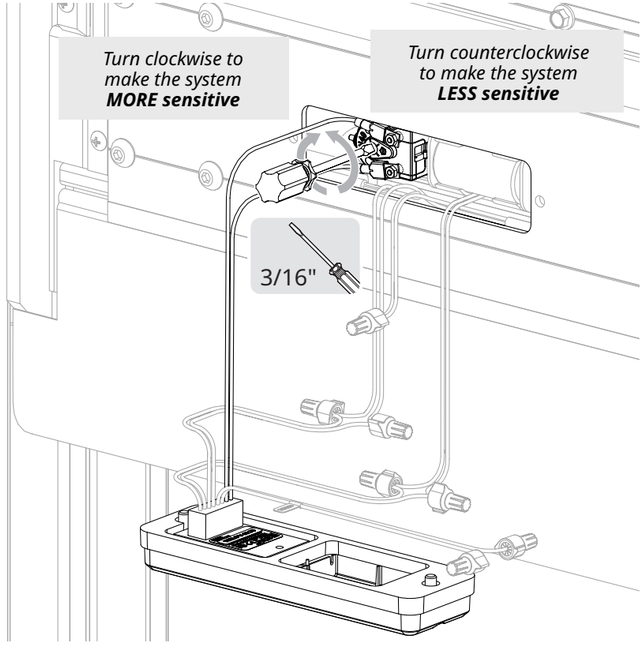
3 **Locate** the large white adjustment screw in the center of the switch.

Use a small flathead screwdriver to turn it:

Clockwise to make the reversing edge **MORE sensitive**, so less contact is required to stop the door.

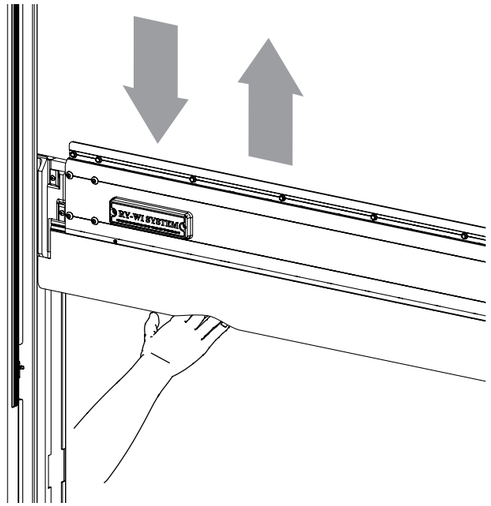
Counterclockwise to make the reversing edge **LESS sensitive**, so it requires harder contact to stop the door.

IMPORTANT Turn a half turn, then retest the door. **DO NOT** turn farther than half a turn before retesting.



4 To retest the door, put the door back in run mode, **place your hand** in the path of the closing door panel, above the photo eye beams, and allow the door to hit it.

- You can swing your arm up or down as the reversing edge makes contact to simulate harder or softer contact.



5 **If necessary,** repeat the process until you are satisfied with the response.

6 **Replace the cover plate** and hex screws when you are done.