

SPIRAL INSTALLATION MANUAL ADDENDUM

Spiral side column spring assembly installation

Doors built 01/14/19 and later

Summary

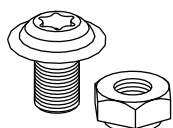
This addendum shows the steps to install the updated Spiral side column spring assembly. It replaces the *Spring Pack System* section in the current manual.

Products affected

All Spiral doors

The spring assembly

Hardware in the small parts box

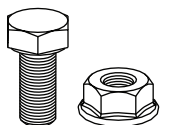


For first assembly in side column

Bolt: 01900812

Nut: 01901608

2 per side column

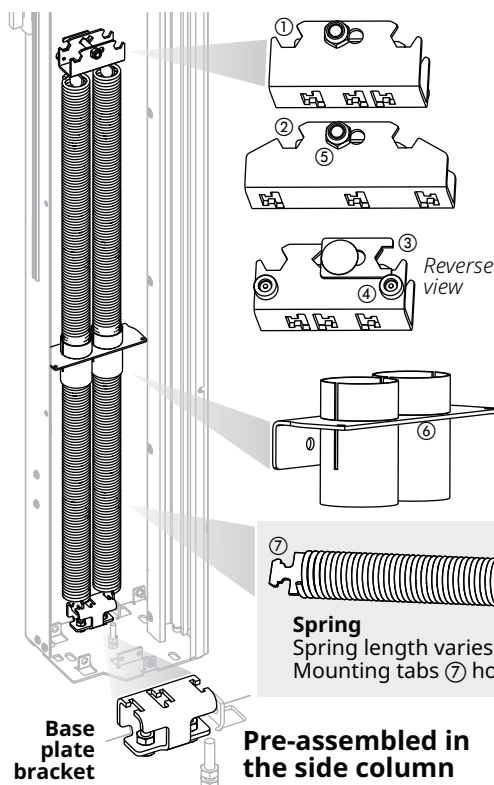


For second assembly in same column

Bolt: 01260110

Nut: 01901506

2 per assembly



In the small parts box

Top bracket

Small bracket ① is used for one- and two-spring assemblies.

Large bracket ② is used for three-spring assemblies.

Reverse view, which faces side column wall when bracket is installed, shows **locking tab ③** and **bumpers ④**.

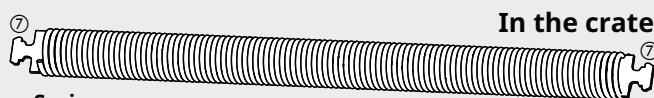
Release nut ⑤ is loosened to allow tab to slide and tightened to secure tab in place.

Guide bracket

Bolts to wall of side panel.

NOTE: if plastic guide tubes ⑥ detach during shipping, slide them up into bracket until they snap into place.

In the crate



Spring

Spring length varies based on size of door.

Mounting tabs ⑦ hook into top and base plate brackets

HOW TO ASSEMBLE THE SPRINGS

Count the springs in the crate.

Minimum number: 2. Maximum number: 12.

Divide them between the two side columns.

- If the total is even, divide the springs equally between the side columns.
- If the total is odd, divide the springs so that the motor side column has one spring more than the non-motor side column.

Look in the small parts box for top and guide brackets.

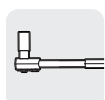
- Springs are installed in two-spring to six-spring assemblies.
- Divide the assembly parts between the side columns to match the spring count.

One-spring assembly	Two-spring assembly	Three-spring assembly
Four-spring assembly	Five-spring assembly	Six-spring assembly

Tools that you need



Cutting pliers



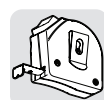
3/4"



13mm

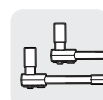


T40



Tape measure

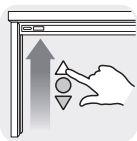
Also needed for second assembly in same column



10mm

How to install the top bracket

1



⚠ WARNING

WARNING: Do not install or service the springs until the door is in the open position, the power disconnect is in the OFF position and lockout/tagout is complete.

2

NOTICE: locate the object list for the door before you begin. You need to know the spring tension distance, which is listed in inches and mm.

Call Rytec technical support at 800-628-1909 if you cannot find the object list.

Object list		
Duplicate		
Material description		
SPIRAL SSN-L		
MRP controller	Production scheduler	Order type
500	T7	ZP02
B5 ZMAT	Tier 7	RYTEC MTO Order
Status		Plant
REL PRT CNF DLV PRC GMPS MANC		1000
	RESA*	Rytec Corporation
Serial number		
D0053410-020		
Configuration		
DOOR MODEL NAME Spiral Low Headroom "L"		
Door Width (Inches) 132.283		
Door Height (Inches) 101.969		
Production Width in mm 3,360		
Production Height in mm 2,590		
Line Voltage 460V		
motor mount side Right Hand Motor		
Motor Duty Standard Duty Motor		
Horsepower 2.0		
Number of solid slats 3		
Number of windows 0		
Number of vent slats 12		
Brake Release Location Release lever on side		
Spring Tension (in) 3.543		
LH Outer Spring Pack Qty 2		
RH Outer Spring Pack Qty 2		
Spring Tension in mm 90		

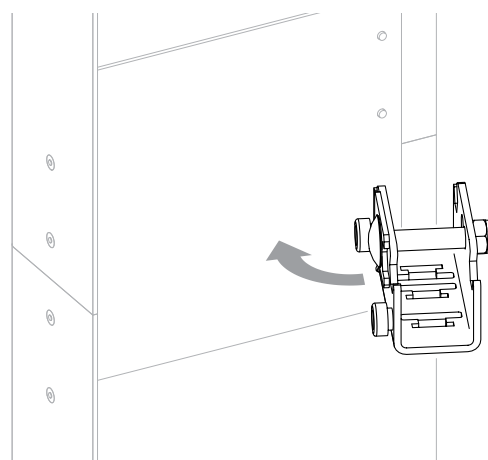
3

Cut the tie on the spring strap in head assembly. Let the strap and the hex bar fall.

NOTICE: do not trim or unspool the strap. It is pre-cut and pre-spooled to match the height of the door.

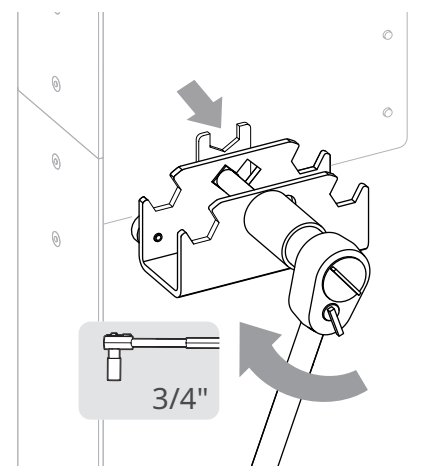
4

Place the bracket so the black bumpers face the side wall.



5

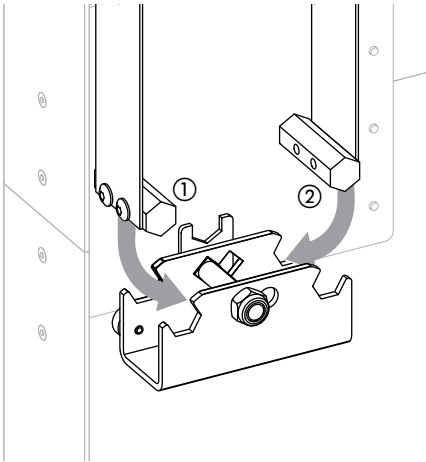
Loosen the nut on the top bracket bolt. **Slide** the locking tab to the open position.



6

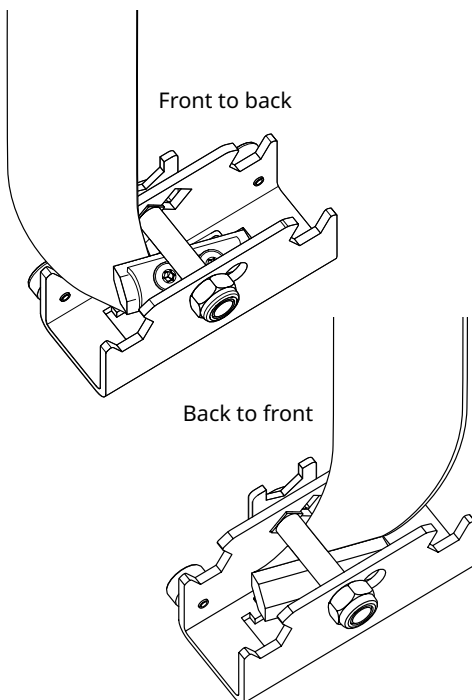
Check the hex bar on the strap

- **If the screw heads face the front** of the column (①), push the bar through the bracket from front to back
- **If the screw heads face the back** of the column (②), push the bar through the bracket back to front.



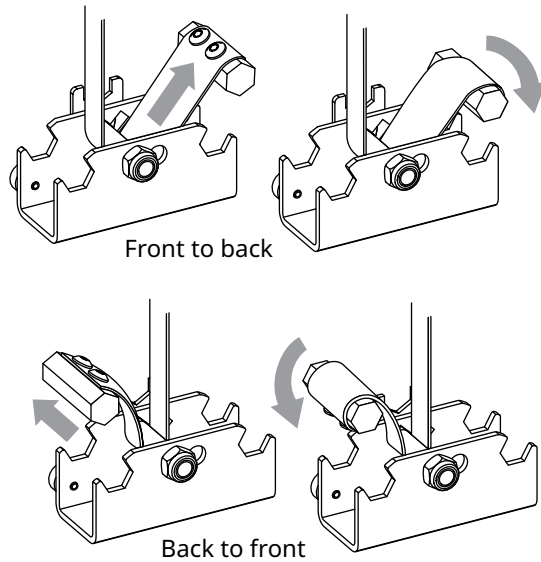
7

Push the strap under the bolt in the top bracket.



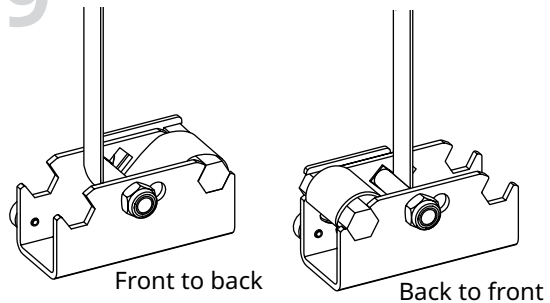
8

Rotate the hex bar until the rivets face straight down.



9

Slide the hex bar into the top bracket.



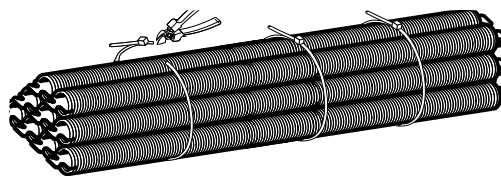
10

Slide the locking tab over the hex bar.

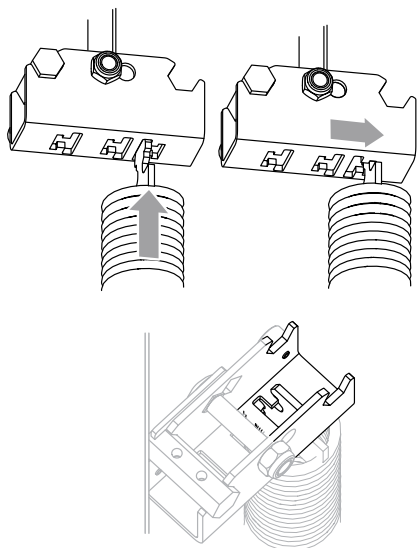
DON'T tighten the nut; you will be adjusting the hex bar after you install the springs.

How to install the springs and the guide bracket

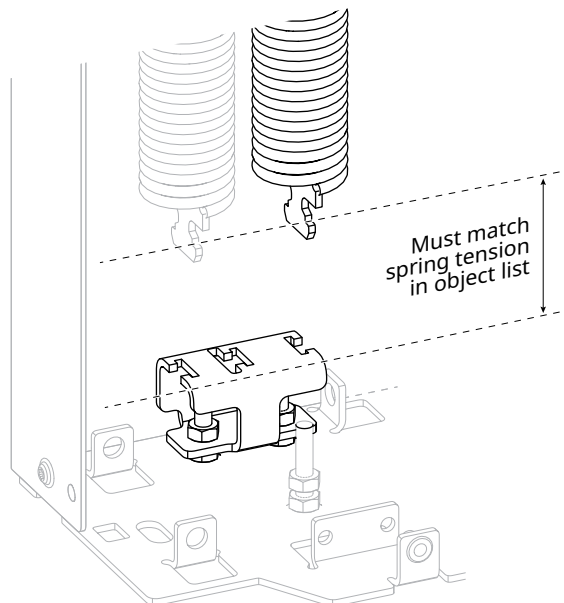
- 1 **Clip** the ties that secure the springs.
Divide them between the side columns.



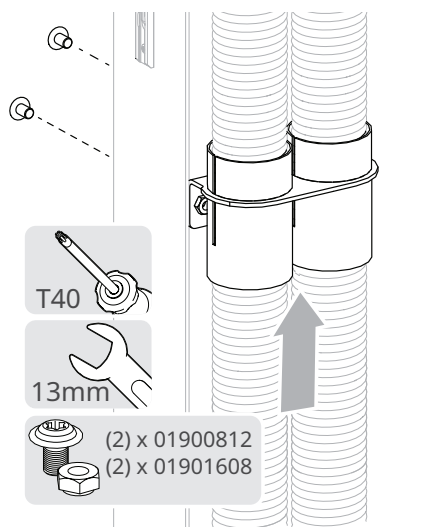
- 1 **Lift** each spring to the top bracket. **Slide** the mounting tab through the wider slot in the bracket. **Hook** the tab into the shorter slot. **Make sure** the tab is securely set.



- 3 **Measure** the distance from the top of the t-shaped tab on the spring to the top of the base plate bracket. It must match the spring tension in the object list.



- 2 **Slide** guide bracket over springs, **lift** bracket to match bolt holes in side column and **install bracket**.

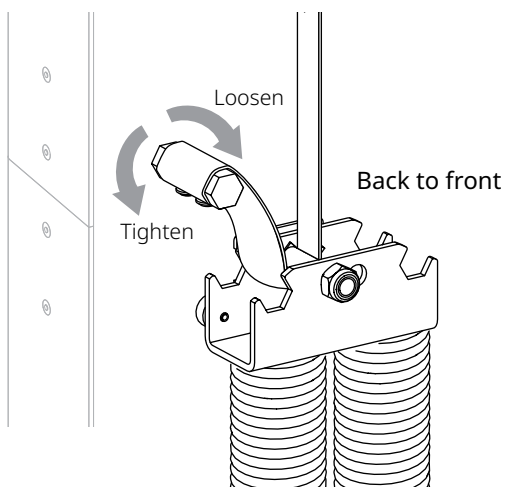
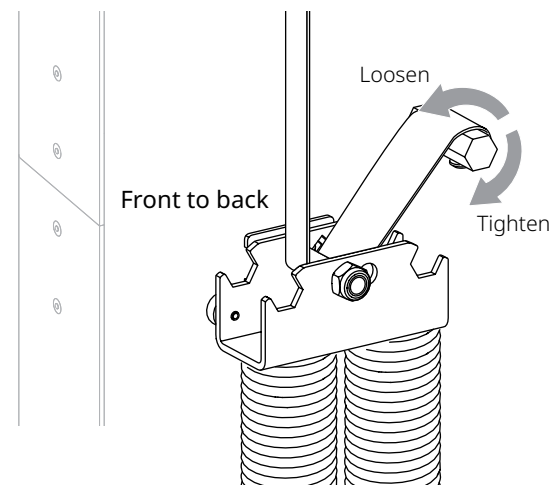


- 4 **If the numbers don't match**, slide back the locking tab in the top bracket and slide out the hex tab.

5

Wind the strap:

- **Clockwise** to loosen.
- **Counterclockwise** to tighten



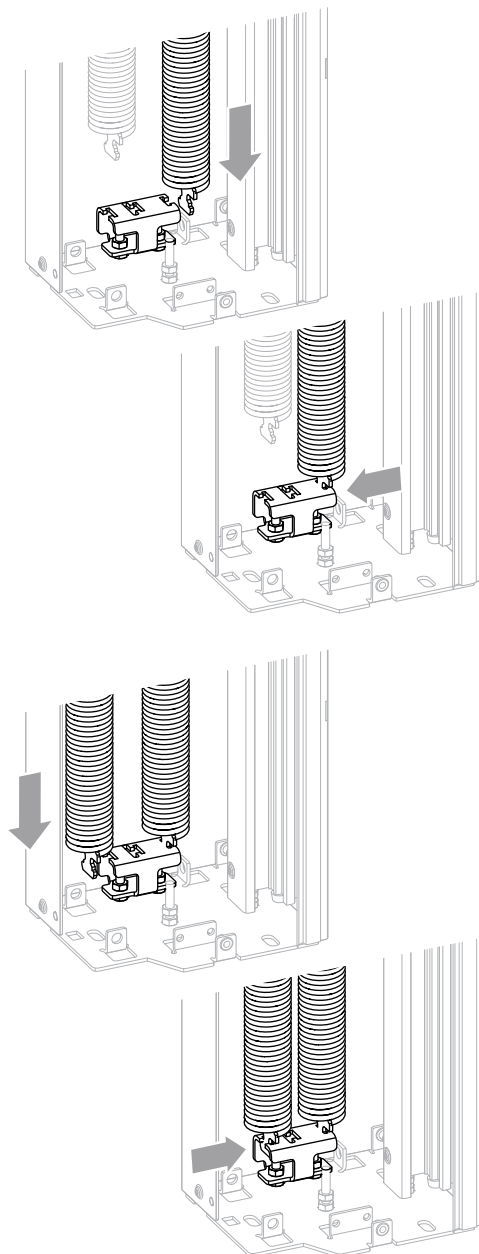
Replace the hex tab and **measure** again. If necessary, repeat until the numbers match.

6

When the spring tension distance is correct, stretch each spring down to bracket in base plate.

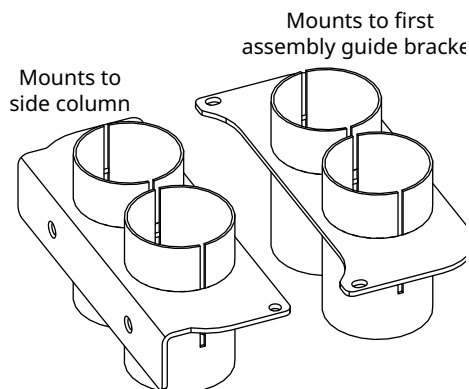
Hook the tab into the slot in the base plate bracket.

Make sure the tab is securely set.

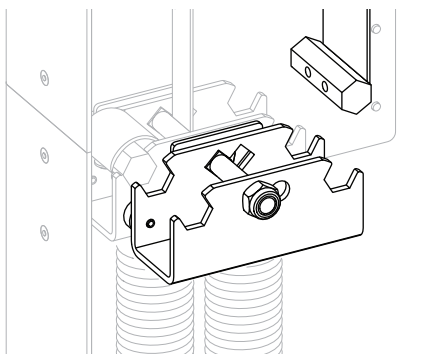


How to install a second spring assembly in the same side column

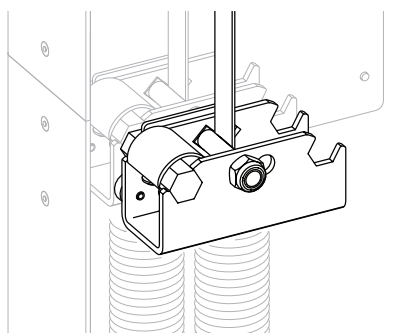
- 1** **Make sure** the spring assembly with the flanged guide bracket is fully installed. The rounded guide bracket for the second spring assembly mounts to the first guide bracket.



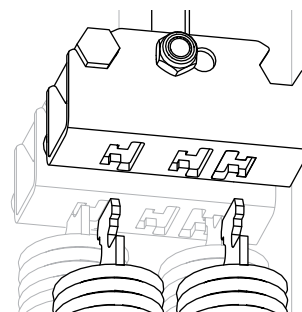
- 2** **Cut tie on second strap** in head assembly. Let the strap and the hex bar fall.
- NOTICE: do not trim or unspool the strap.** It is pre-cut and pre-spooled to match the height of the door.



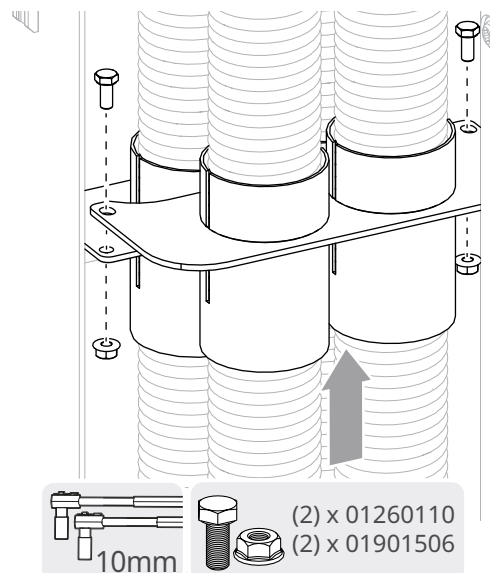
- 3** **Install second strap hex bar** in top bracket.



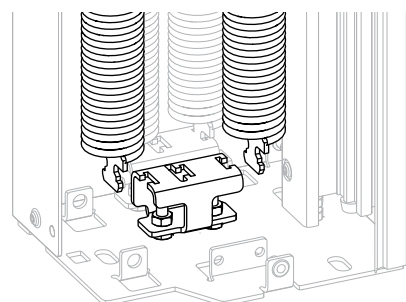
- 4** **Lift** each spring to top bracket. **Hook tab** into the top bracket slot. **Make sure** the tab is securely set.



- 5** **Slide** second guide bracket over springs, **lift** bracket to line up with first guide bracket and **install bracket**.

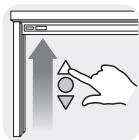


- 6** **Measure** spring tension distance and adjust if necessary. **Stretch each spring down** to the base plate bracket. **Hook tab** into the slot in the bracket. **Make sure** the tab is securely set.



How to test the spring tension

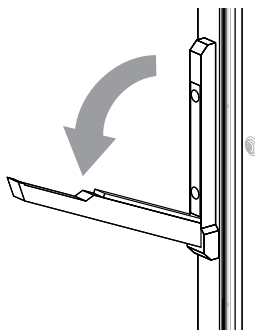
1



WARNING: Do not service the springs until the power disconnect is in the OFF position and lockout/tagout is complete.

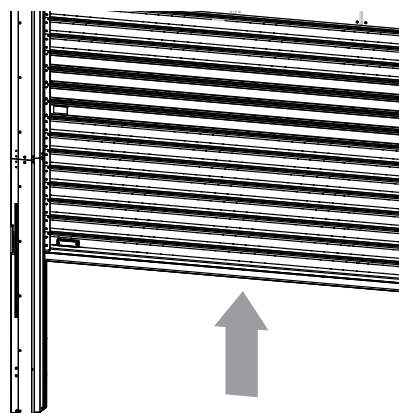
1

Release the brake.



2

Check the door panel when it opens.



Tests:

- Door panel should open freely by one-third to one-half the door height.
- Door panel should move easily when pushed upward.
- Door panel should resist when pulled down

How to change the spring tension

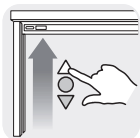
Summary

You change the spring tension by wrapping more or less of the strap around the hexagonal bar at the end of the strap.

More wraps increases the tension, and fewer wraps decreases the tension.

This adjustment requires uninstalling the spring assembly, rewrapping the hexagonal bar, then reinstalling the spring assembly.

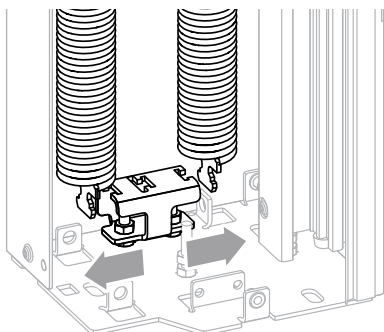
1



WARNING: Do not service the springs until the power disconnect is in the OFF position and lockout/tagout is complete.

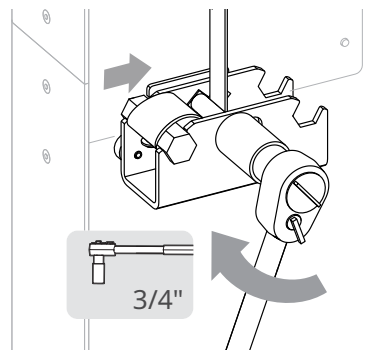
1

Release all springs from the base plate bracket.



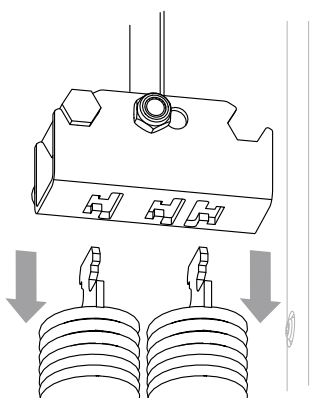
3

Loosen the nut on the top bracket bolt. **Slide** the locking tab to the unlocked position.



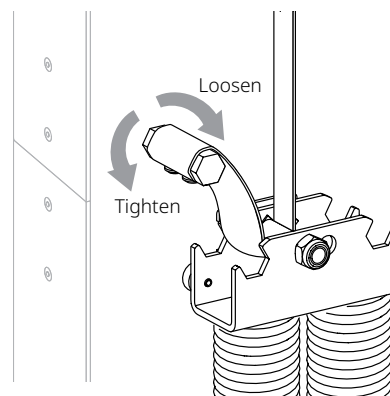
2

Release all springs from the top bracket. Let springs stand on base plate.



4

Wind the strap counterclockwise to tighten, clockwise to loosen.



5

Reinstall the springs and test the door.