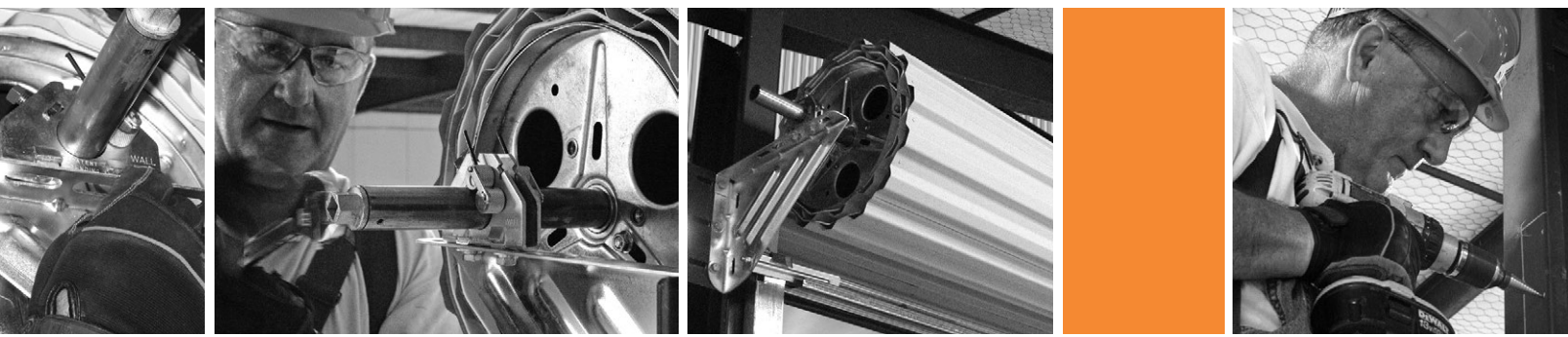




W350



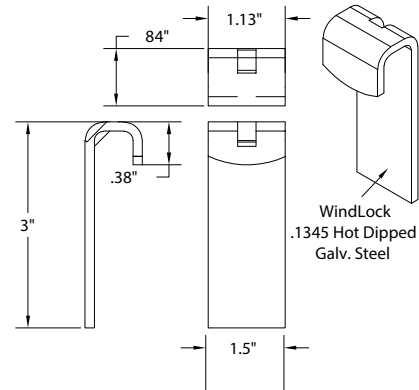
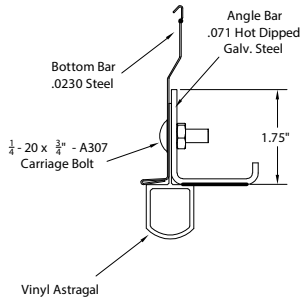
ROLL-UP DOOR INSTALLATION GUIDE

For video installation instructions, visit our website at www.muellerinc.com/downloads/videos

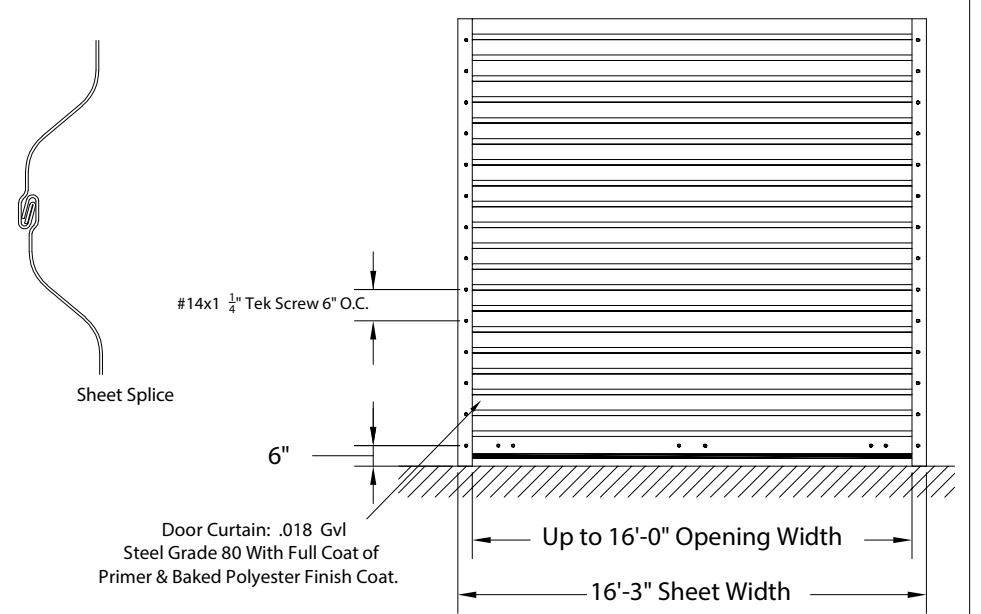
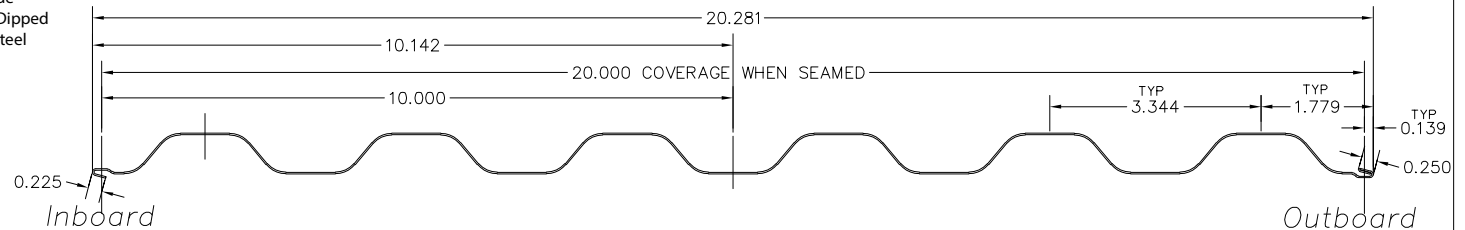
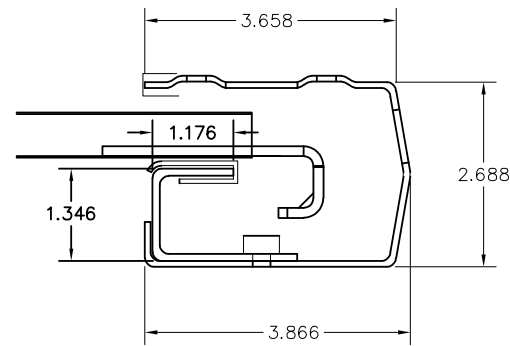
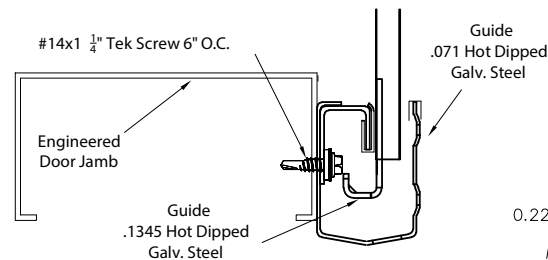


Model W350

Dwg 1.0 Rev 1



Note: Windlocks from .1345 Galv Steel & Riveted to Alternate Corrugations with 2 Steel Rivetes

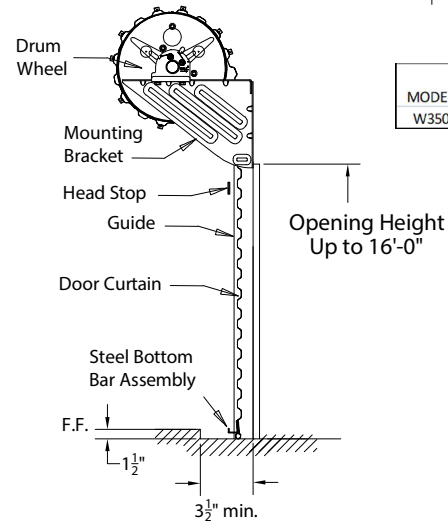


Door Curtain: .018 Gvl Steel Grade 80 With Full Coat of Primer & Baked Polyester Finish Coat.

Non Impact Pressure Test

MODEL	MAXIMUM DOOR WIDTH	MAXIMUM DOOR HEIGHT	DESIGN LOAD POSITIVE PSF	DESIGN LOAD NEGATIVE PSF
W350	16'-0"	16'-0"	41.8	-41.7

Date of Test Oct 15, 2018



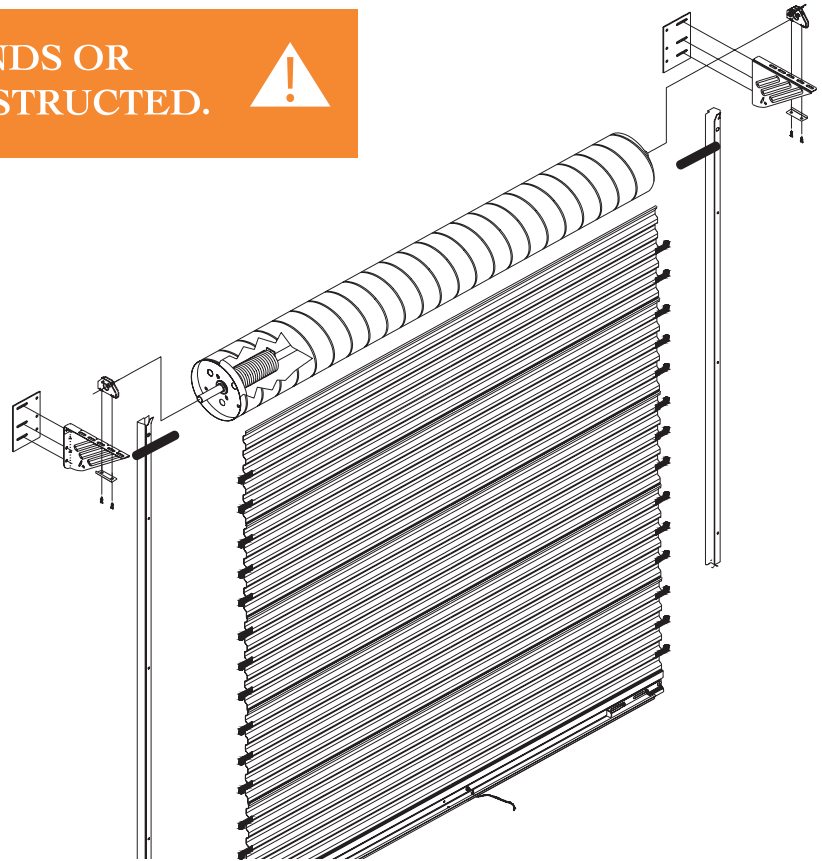
SAFETY CONSIDERATIONS



DO NOT CUT BANDS OR WRAPPING UNTIL INSTRUCTED.



For safety considerations, view the Roll-Up Door Installation Video on our website at: www.muellerinc.com/downloads/videos






WARNING

A rolling door is a large heavy object that moves with the help of springs under extreme tension and electric motors. Moving objects and springs under tension and electric motors can cause serious injuries or death. For your safety and the safety of others, follow these instructions.

CAUTION

Use proper lifting equipment and correct lifting procedures to avoid damage or injury.

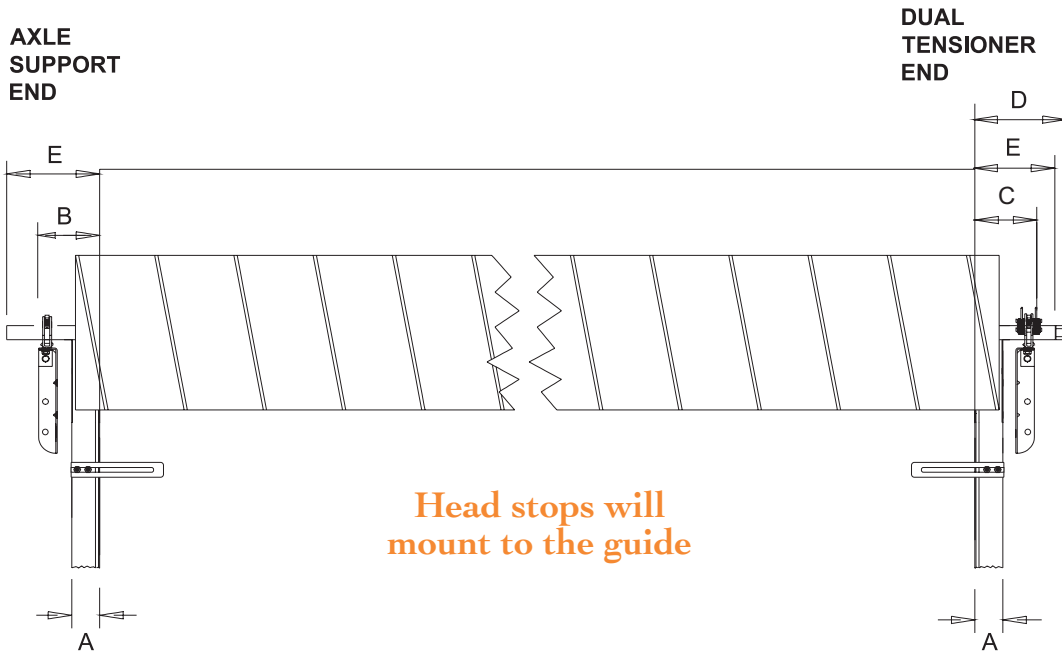
POTENTIAL HAZARD	EFFECT	PREVENTION
 MOVING DOOR	CAN CAUSE SERIOUS INJURY OR DEATH	DO NOT stand or walk under moving door. Keep door in full view and free of obstructions while operating. DO NOT allow children to operate the door or door controls.
 SPRING TENSION	CAN CAUSE SERIOUS INJURY OR DEATH	DO NOT stand or walk under moving door. Keep door in full view and free of obstructions while operating. DO NOT allow children to operate the door or door controls.
 ELECTRIC SHOCK	CAN CAUSE SERIOUS INJURY OR DEATH	DO NOT stand or walk under moving door. Keep door in full view and free of obstructions while operating. DO NOT allow children to operate the door or door controls.

IMPORTANT NOTE!

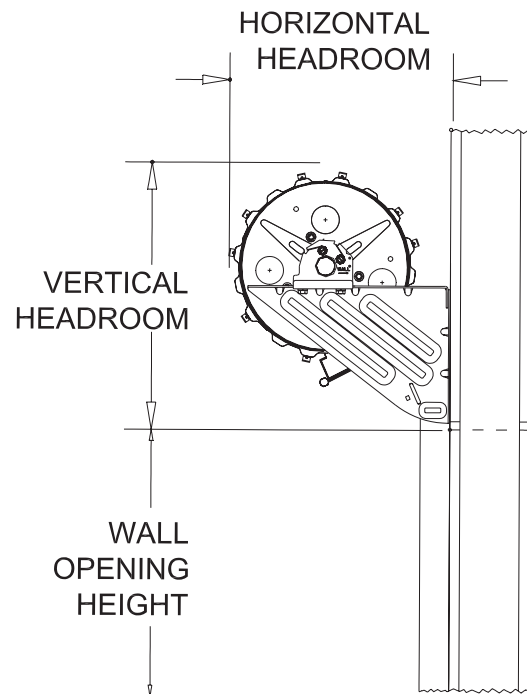
DO NOT cut tape and plastic wrap that holds the door in a roll until you are instructed to do so in step 13B. Mueller Inc. cannot guarantee or accept responsibility for doors that are not installed as directed. Please Read and understand all instructions before beginning the installation process.

OPERATION / MEASUREMENTS

OPERATION	A	B	C	D	E
Electric	3.7"	7.5"	7.5"	14"	13"
Push-up	3.7"	7.5"	6"	14"	13"



W350 MODELS		
OPENING HEIGHT	VERTICAL HEADROOM	HORIZONTAL HEADROOM
Thru 8'	18"	20"
Over 8' Thru 10'	19"	21 1/2"
Over 10' Thru 12'	20"	22 1/2"
Over 12' Thru 14'	21"	23 1/2"
Over 14' Thru 18'	22 1/2"	24 1/2"
Over 18' Thru 20'	23 1/2"	25 1/2"



STEP 1: WALL OPENING



DO NOT CUT BANDS OR WRAPPING UNTIL INSTRUCTED.



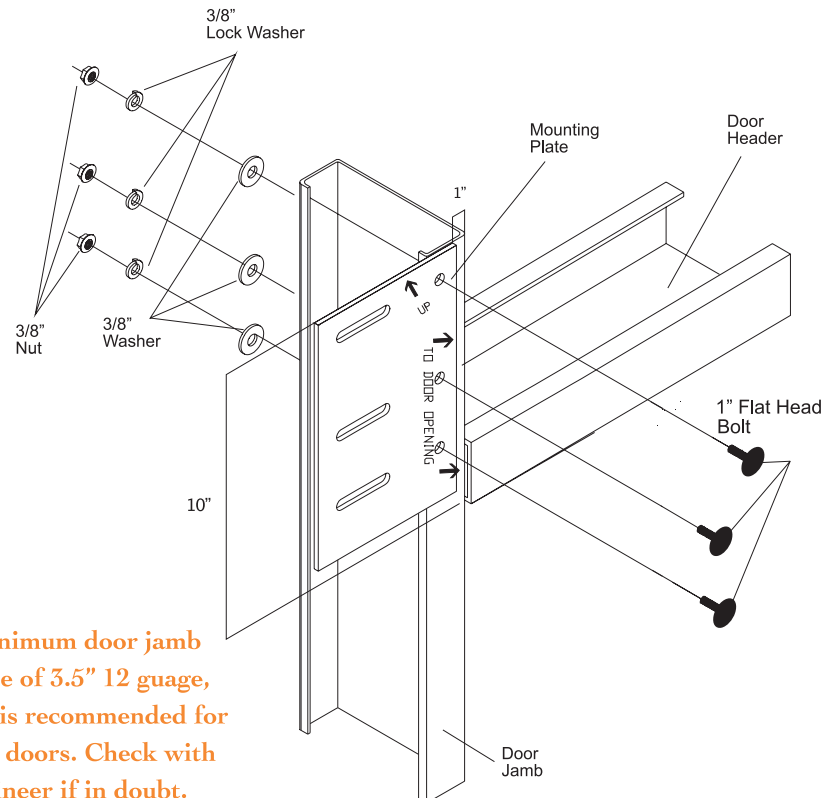
- A** Check wall opening width and height and verify these measurements against size of door to be installed.
- B** Verify that jambs are plumb.
- C** Check floor and header for level.
- D** Check for adequate side clearance at jambs and clearance above and at sides of header. See Clearance charts for minimum requirements.
- E** Verify that the guide mounting surface on the jamb is flush.
- F** Make sure all parts required for installation are with the door; see parts list in hardware box.
- G** Required tools
 - a. Tape measure
 - b. Electric drill, 1/2 inch
 - c. Drill bits, 3/8 inch
 - d. 3/8 inch nut setter
 - e. 1/2 inch drive socket set
 - f. Adjustable wrench
 - g. Leveling device; water or laser level recommended
 - h. Pocket / utility knife

STEP 2: MOUNTING PLATES

- A** If the door will be installed to steel jambs, mounting plates for the door mounting plates are required and may be welded or bolted to the jambs.
- B** Top of mounting plates should be located approximately 10 inches above the top of the door opening. The inside edge of mounting plate should be 1" from the inside of the door jamb. (Note: direction of arrows on mounting plates.)

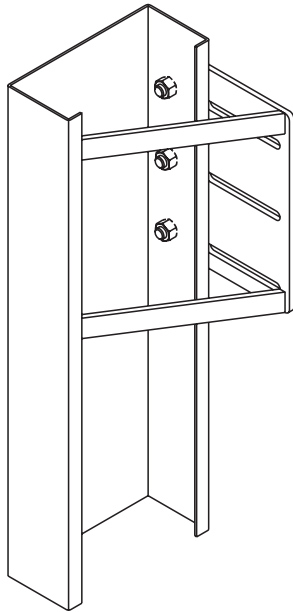
This is the most important step; mounting plates MUST be level to each other; checking via laser or water level is recommended, do not go by relationship to door header; door header may not be level.

Note: Minimum door jamb flange size of 3.5" 12 gauge, grade 55 is recommended for windlock doors. Check with your engineer if in doubt.

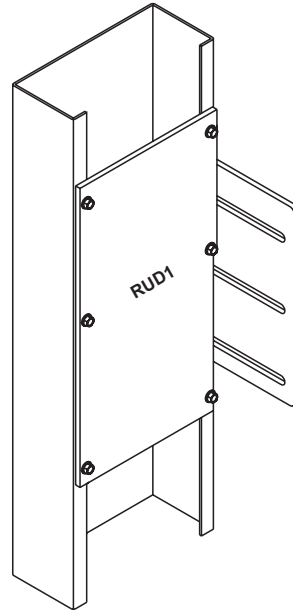


SPECIAL NOTE FOR DOORS LARGER THAN 12'X12'

RUD1 Plates are provided with doors greater than 12' x 12'. Field fabricated support brackets are also acceptable on doors larger than 12' x 12'. This reinforces the door jambs and prevents the door from coning or walking.



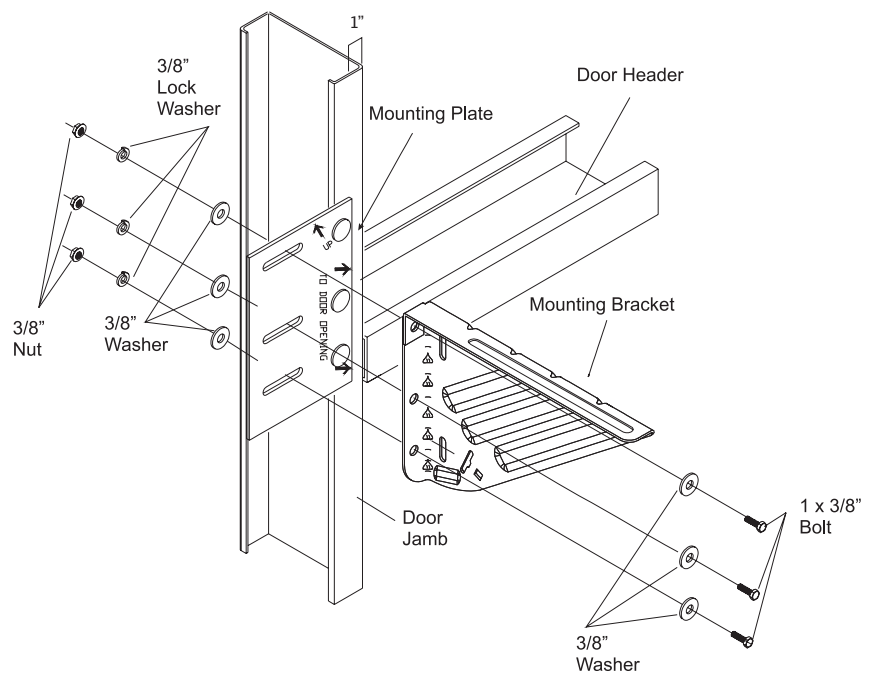
Optional Field Fab



RUD1 provided
with door

STEP 3: GUIDES AND MOUNTING BRACKETS TO STEEL JAMB

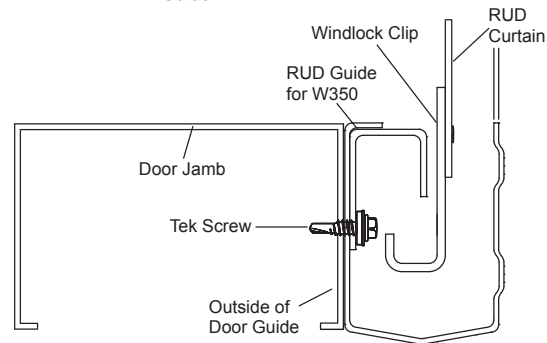
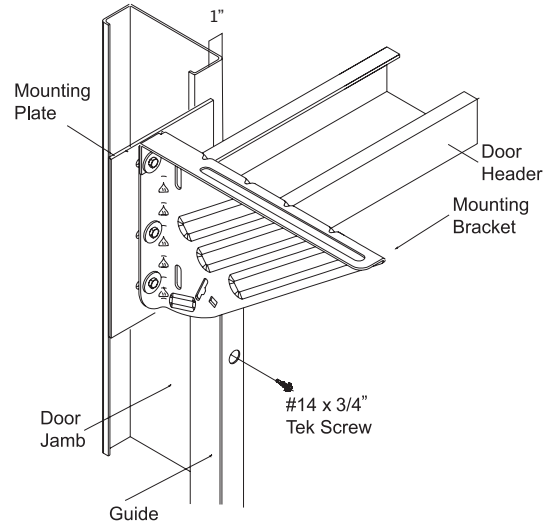
- A** Mounting brackets and guides must be attached using fasteners provided.



ITEM	JAMB	FASTENERS	DRILL SIZE	PROVIDED FASTENERS
BRACKETS	Steel	3/8" x 1" Hex Bolt & Nut	7/16"	Provided
GUIDES	Steel	1/4" x 14 x 3/4" TEK Screw (6 inch on Center)	None	Provided

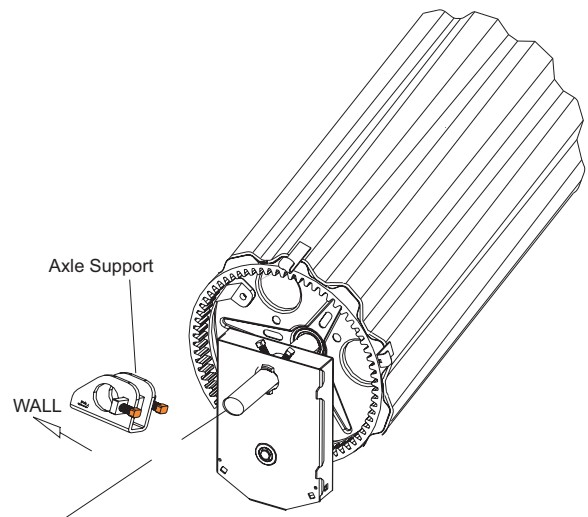
B The opening edge of guides should be inset a very small amount (about 1/8 inch), from the door jamb opening on each side to minimize the potential of hitting the guides when entering through the door opening. Both guides must be plumb. Note: If jambs are installed correctly the outside to outside measurement of guides should be 7.4 inches wider than the opening.

C Once both guides have been correctly positioned, attach them to the jambs using the appropriate fastener at each hole location. Hole locations are 6 inch on center for the length of the guide.



STEP 4: CHAIN HOIST DRIVE (OPTIONAL) (N/A FOR L250 MODEL)

A Position chain hoist assembly on door axle so that the chain hoist gear engages the ring gear. NOTE: Do not tighten set screws until after tension has been added in Step 16.



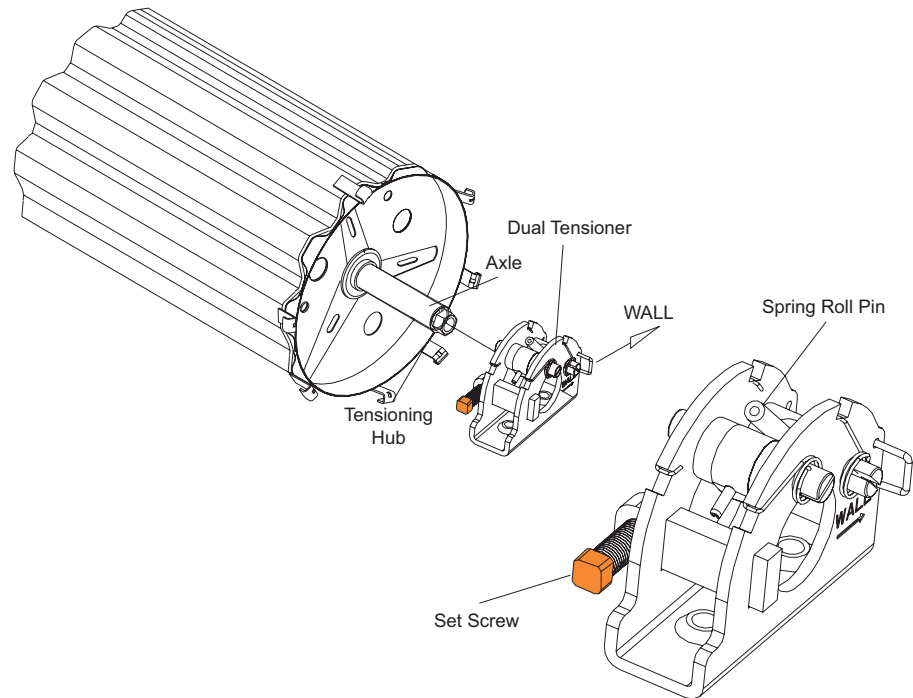
STEP 5: ELECTRIC OPERATOR (OPTIONAL)

- A** Install as per instruction provided in electric operator kit.

NOTE: Use the DUAL TENSIONER and not the U-BOLT that is in the Operator Kit.

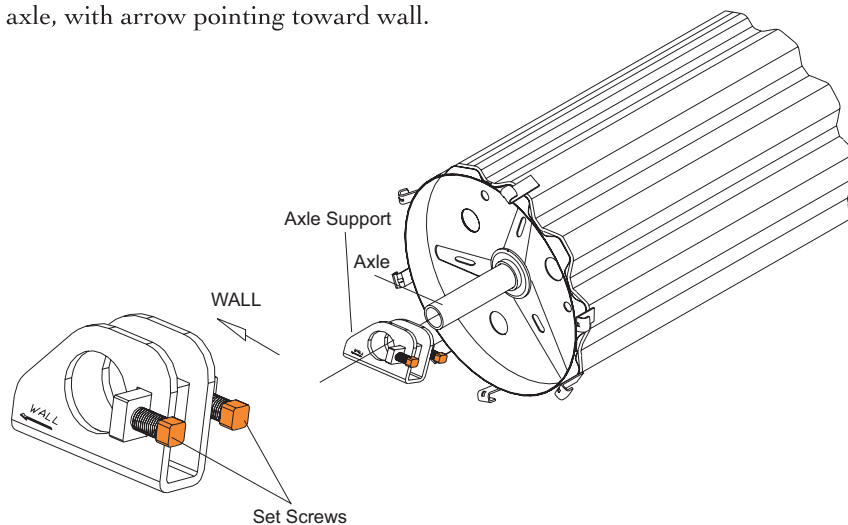
STEP 6: TENSION END RIGHT SIDE OF DOOR (LOOKING FROM THE INSIDE OUT) IS RECOMMENDED

- A** Using dual tensioner assembly's spring roll pin located in knurled wheel, rotate upward in the direction that clears the axle.
- B** Slide dual tensioner assembly over axle and tensioning hub, with arrow pointing toward wall. Release spring roll pin.



STEP 7: NON-TENSION END

- A** Slide axle support over axle, with arrow pointing toward wall.



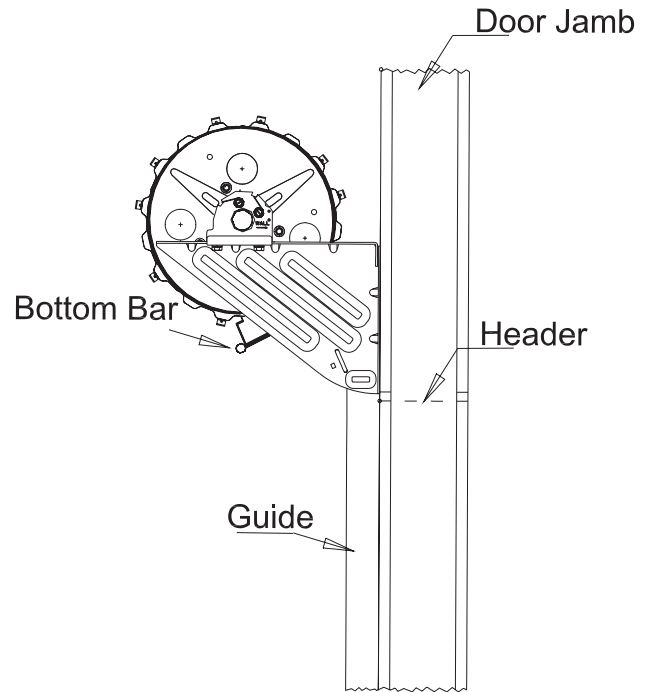
STEP 8: LIFT DOOR



DO NOT CUT BANDS OR WRAPPING

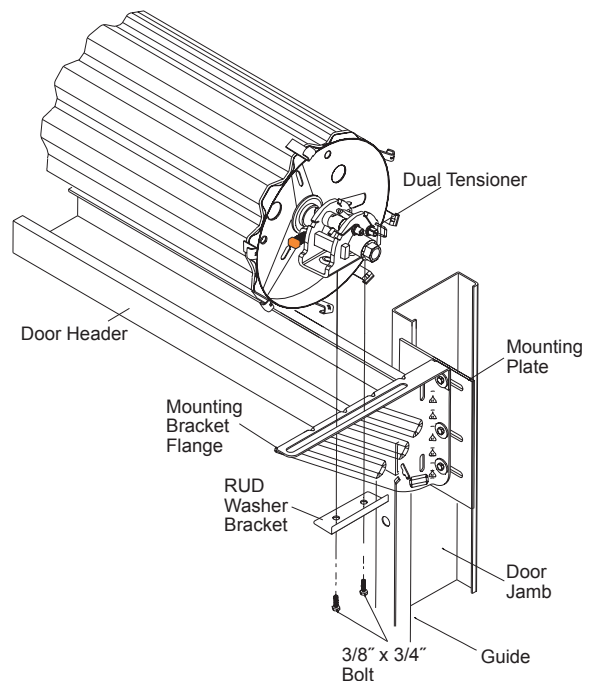


- A** Orient door with bottom bar located at 7 o'clock position. The bottom bar should be facing back into the building.
- B** Lift door using a forklift that has padded forks in order to prevent damaging or denting the door curtain. Leave the forklift in position until the door is securely fastened to the mounting brackets.
- C** Position door on brackets with dual tensioner and tension axle support resting safely on top of mounting bracket flange. If a chain hoist or electric operator is installed; the mounting bracket may need to be adjusted on the mounting plate to allow enough room for the chain hoist or electric operator.
- D** Door should be positioned as close as possible to the door header and still be able to rotate the door so that the bottom bar will clear the door header.
- E** Each end of door should be equal distance from the header and the curtain must be centered in the opening.



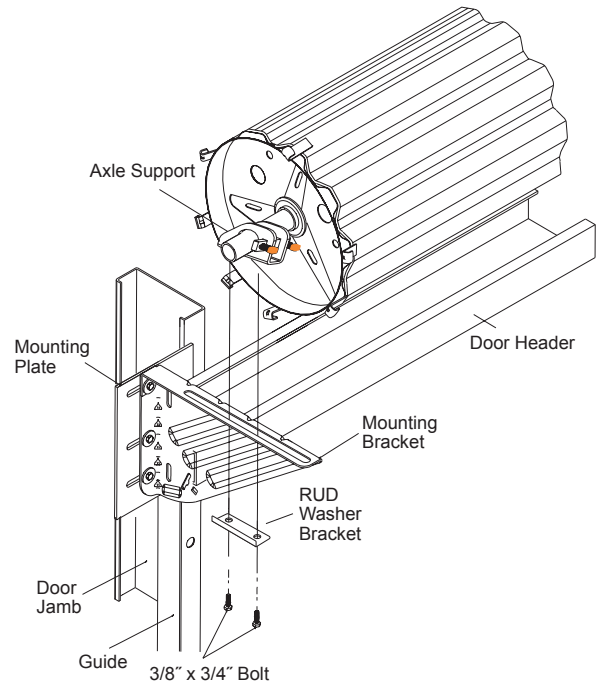
STEP 9: TENSIONER END

- A** Loosely attach dual tensioner assembly to door mounting bracket flange using the hardware provided.
- B** Tighten the red, square headed, 3/8 inch set screw on the tensioner bracket.



STEP 10: NON-TENSIONER END

- A** Loosely attach axle support to door mounting bracket flange using the hardware provided.
- B** Tighten the red, square headed, $\frac{3}{8}$ inch set screw on the support bracket.

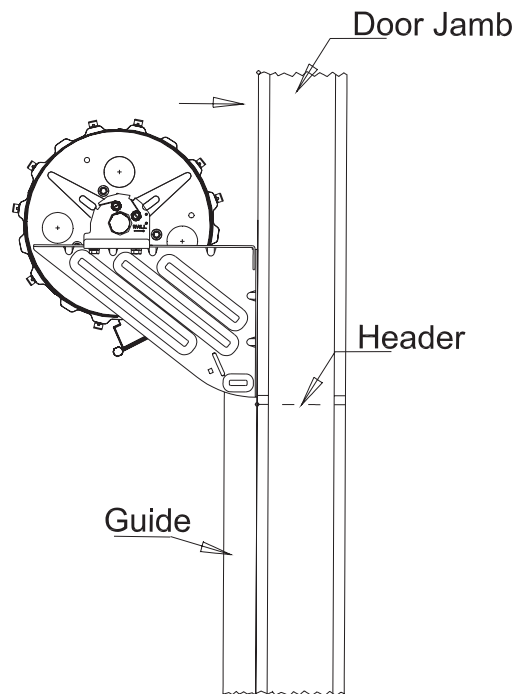


STEP 11: ELECTRIC DRIVE END (OPTIONAL)

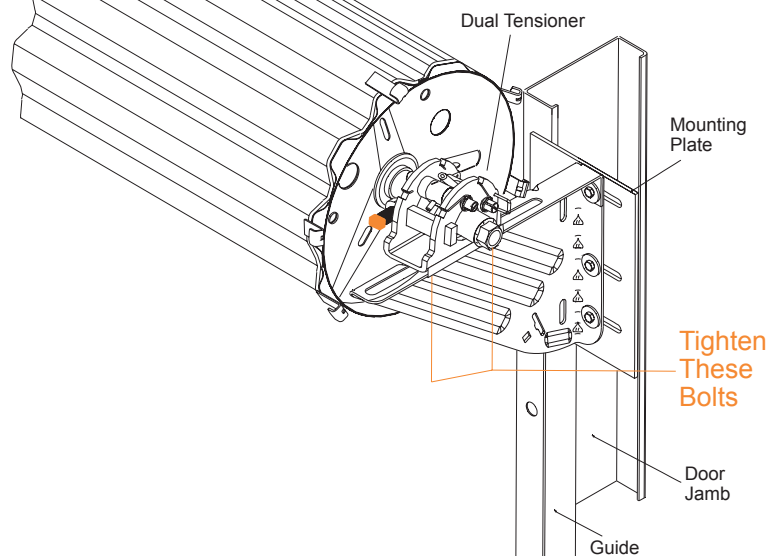
- A** Install as per instructions provided in electric operator kit
- B** If electric operator has a drive chain, do not attach until door spring tension has been adjusted in step 16

STEP 12: POSITION DOOR

- A** With door still wrapped and banded. Push door assembly as close as possible toward header and still be able to rotate freely. Each end of door should be equal distance from the header and the curtain must be centered in the door opening.



- B** Once door is properly aligned, tighten bolts to mounting bracket flange.



STEP 13: SETTING SPRING INITIAL TENSION

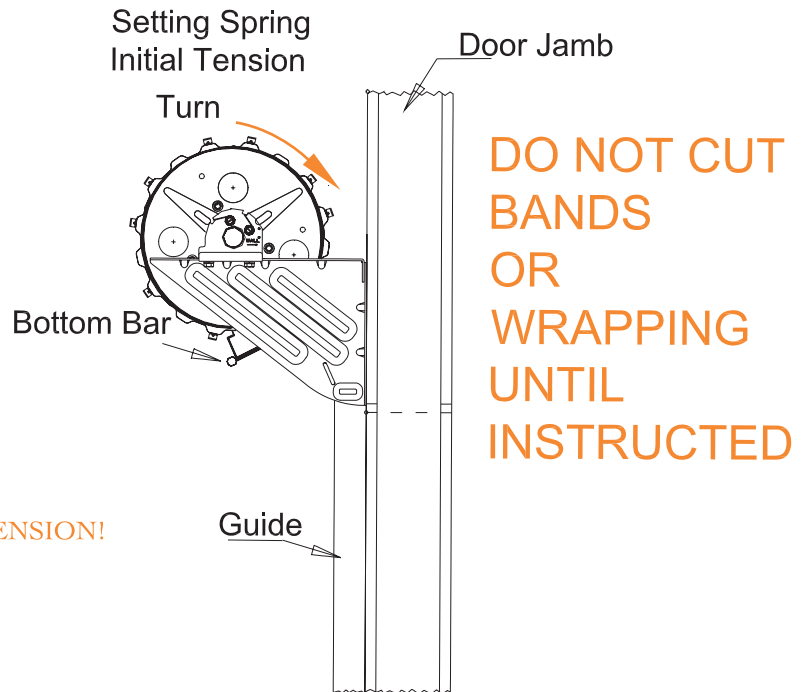
! DO NOT CUT BANDS OR WRAPPING UNTIL INSTRUCTED. !

- A** Rotate door two revolutions, rotating the top of the door towards the opening.

NOTE: If your building design does not allow for door rotation, lower the door curtain into the guides and follow the instructions in Step 16 to set door tension.



WARNING DOOR IS UNDER EXTREME TENSION!



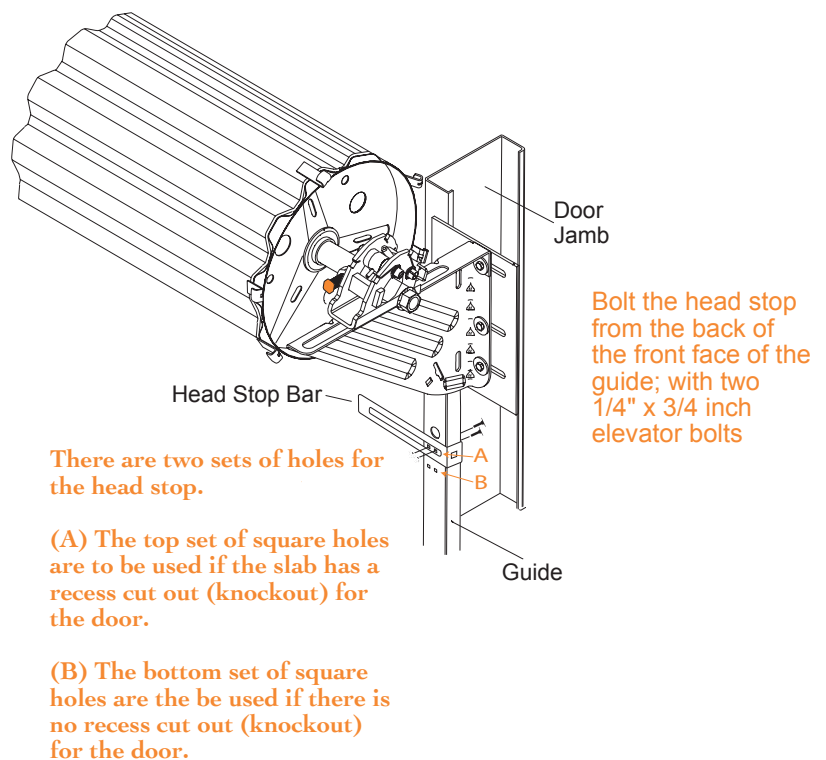
- B** While firmly holding the door, at the bottom bar is recommended, cut the tape and plastic wrap that holds the door in a coil ~ **exercise extreme caution; door is now under spring tension and is dangerous.**

- C** Direct the bottom bar down into the entry of the guides and bring the door curtain all the way to the ground. Secure the door in the closed position with the slide locks on the bottom bar.

- D** Attach head stop to the front of the guide.

- E** Secure each head stop with provided hardware.

- F** Once both head stops are securely installed, unlock slide locks on the bottom bar and check door operation.



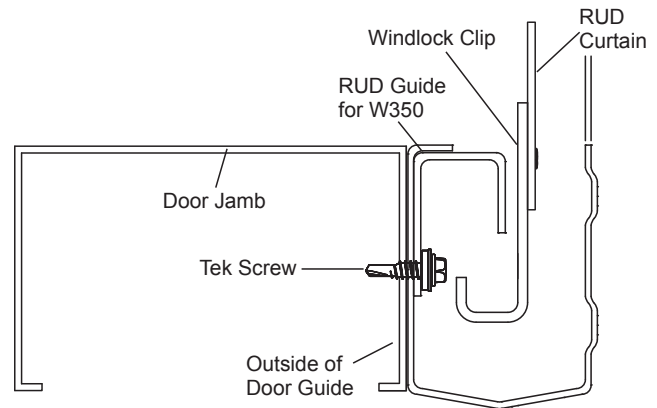
There are two sets of holes for the head stop.

(A) The top set of square holes are to be used if the slab has a recess cut out (knockout) for the door.

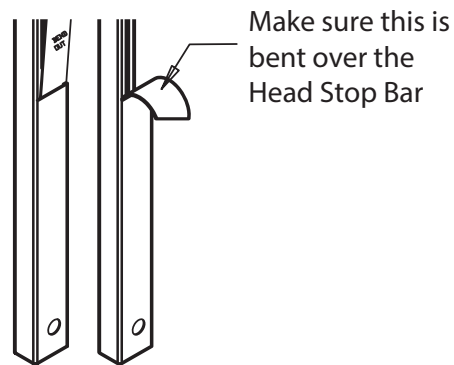
(B) The bottom set of square holes are to be used if there is no recess cut out (knockout) for the door.

STEP 14: POSITIONING AND INSTALLATION OF GUIDE

- A** The door guide should be positioned so that the windlock clip is centered in the space between the Wind bar and back of the guide. This prevents the windlock clip from engaging prematurely.

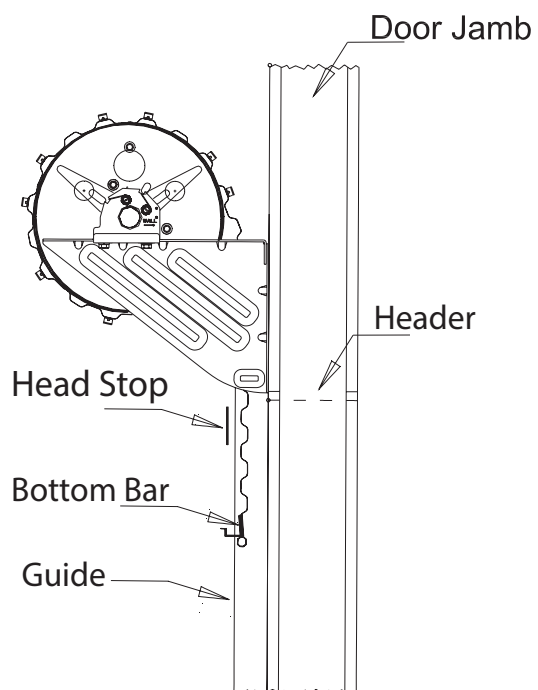


- B** Bend the flap at the top of the guide over the head stop with a Vise-Grip or an adjustable wrench.



STEP 15: IMPROVE AND CHECK DOOR OPERATION

- A** To greatly improve door operation and longevity, readjust door position now. Open door all the way up to the head stops.
- B** Loosen dual tensioner and axle support bolts at the mounting brackets.
Note: Do not completely remove these bolts as axle is under tension.
- C** Slide door forward towards the header, positioning the door as close as possible to the header without rubbing against it. Door should still be able to freely rotate.
- D** Retighten dual tensioner and axle support bolts.
- E** Lower and raise door to test door operation. Adjust as necessary.



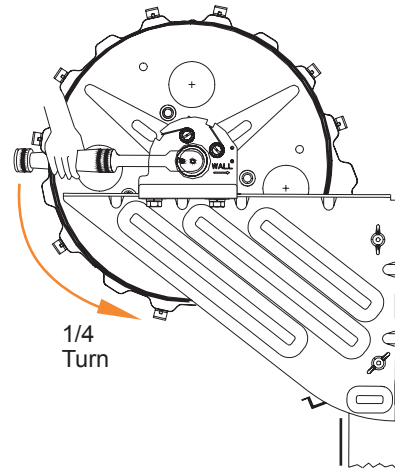
STEP 16: ADJUST SPRING TENSION

 DOOR MUST BE IN THE FULLY OPENED POSITION TO ADJUST SPRINGS. 



Increase
Spring
Tension

If Door is
hard to open &
closes too fast

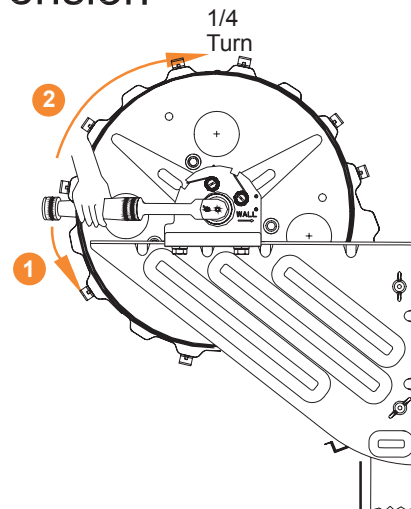


- A** Open door fully with the bottom bar resting against the head stops.
- B** At dual tensioner end, place 1/2 inch ratchet into tensioning hub and hold the ratchet firmly. Have someone else loosen the square, red headed 3/8 inch set screws on the dual tensioner and support bracket.
- C** To increase spring tension, pull down on ratchet 1/4 turn. The dual tensioner will automatically grip the axle and help hold the new tension setting. Have someone else tighten all square, red headed 3/8 inch set screws in dual tensioner and axle support bracket at both ends of the door.



Decrease
Spring
Tension

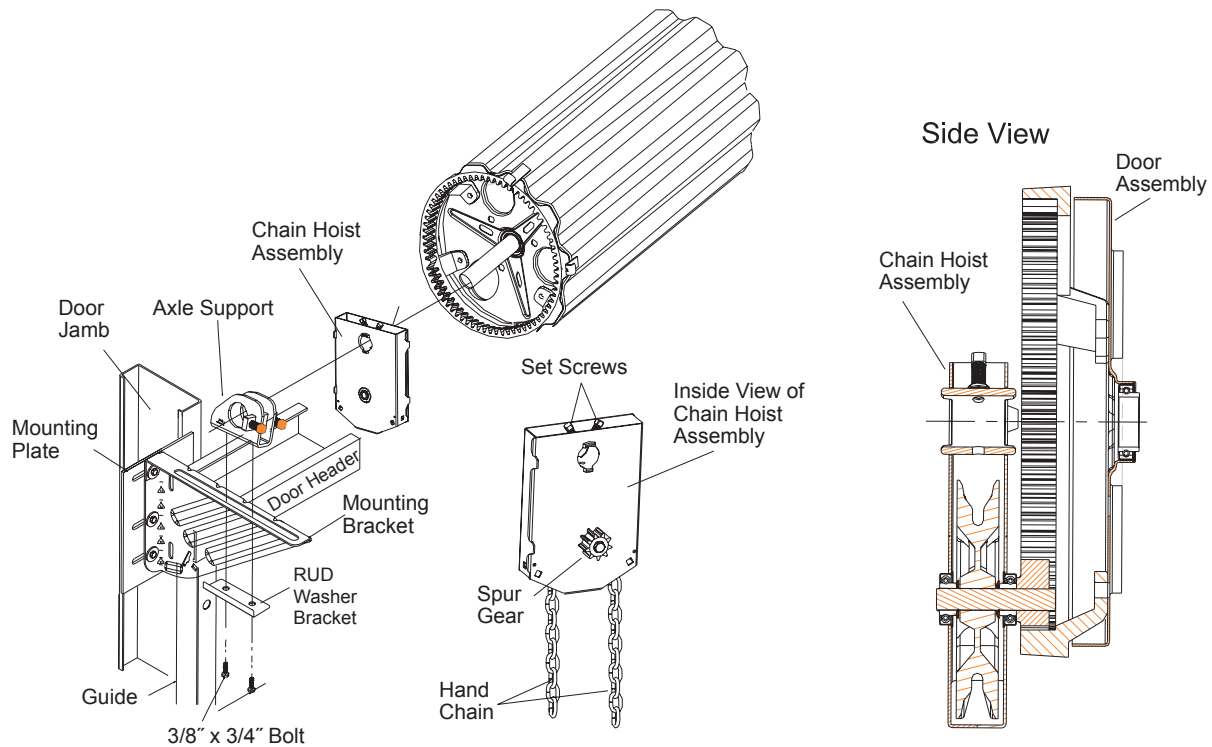
If Door goes up
too fast & closes
too slowly or fails to
close completely



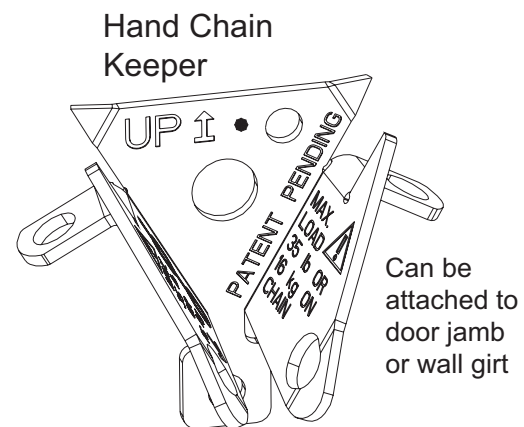
- D** To decrease spring tension, momentarily pull down on ratchet and then lift the spring roll pin on the dual tensioner's knurled wheel. Gently let up on the ratchet, allowing the axle to rotate 1/4 turn to reduce the tension. While holding the new tension, release the dual tensioner's spring roll pin. The dual tensioner will now grip the axle and help hold the new tension setting. Have someone else tighten all square, red headed 3/8 inch set screws in dual tensioner and axle support bracket at both ends of the door.
- E** Verify that all square, red headed 3/8 inch set screws in dual tensioner and axle support bracket at both ends of door are tightened prior to checking door operation.
- F** Repeat steps 16A through 16E as necessary.

STEP 17: CHAIN HOIST DRIVE END (OPTIONAL) (N/A FOR L250 MODEL)

- A** Reposition chain hoist assembly on door axle so that the gear on the chain hoist assembly fully engages the door ring gear.



- B** Tighten the two set screws, on the top of the chain hoist, so that they engage the axle and prevent the chain hoist from shifting on the axle.
- C** Feed hand chain over pocket wheel and through hoist. Connect ends of hand chain, being careful not to twist chain. Hand chain may be lengthened or shortened as necessary.
- D** Install hand chain keeper.

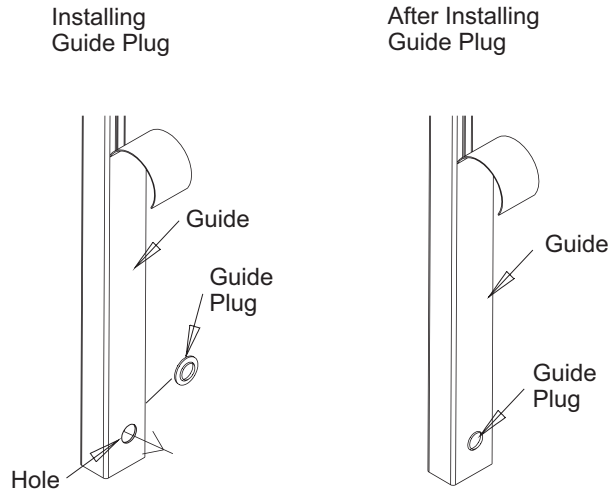


STEP 18: REMOVE STRIPABLE FILM

If the door has (on the outside of door) Stripable Film, remove now.

STEP 19: GUIDE PLUG INSTALLATION

- A** Insert the guide plug into the holes located on the guide as shown. The plugs must be inserted from the inside of the guide.
- B** *NOTE:* Make sure the larger end of the plug faces the inside of the guide. If installed from the outside, the curtain will hang on the guide plugs.



STEP 20: DOOR MAINTENANCE

- A** Springs may need to be periodically adjusted through the life of the door in accordance with steps 16 A thru F. Maintain instructions for the life of the door.
- B** Check all bolts and nuts to ensure they are tight, as needed.

W350

INSTALLATION GUIDE



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