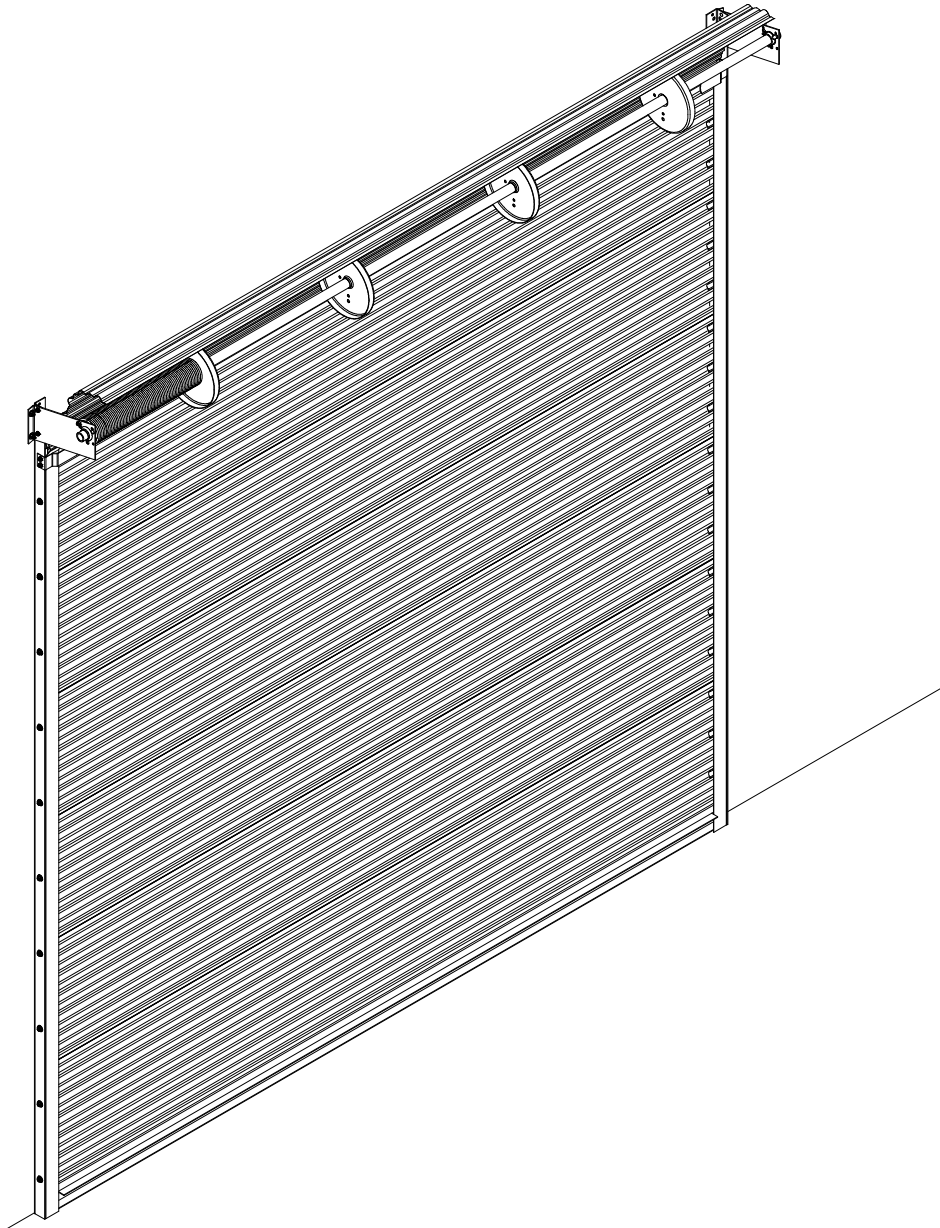




DS-75/DS-100 MINI ROLL-UP DOORS

WINDLOAD RATED

INSTALLATION INSTRUCTIONS



IMPORTANT NOTICE !!

Read the enclosed instructions carefully before attempting to install this door. Pay close attention to all warnings and important safety notices.

This manual **MUST** be attached to the wall in close proximity of the door.

IMPORTANT SAFETY NOTICES

Read the enclosed instructions carefully before attempting installation. If there are any questions about any of the procedures, do not perform the work. Instead, have a qualified door agency do the installation or repairs.

1. Operate the door **ONLY** when it is properly adjusted and free of all obstructions.
2. The door is constantly under **EXTREME SPRING TENSION**. Repairs, adjustments, installation and removal, **ESPECIALLY** of **SPRINGS AND RELATED PARTS**, are dangerous so that such work should be performed **ONLY** by qualified door service people.
3. **DO NOT PERMIT** children to play with the door. Children could get caught between the door and the floor causing **severe injury or death**.
4. Avoid standing in the open doorway or walking through the doorway while the door is moving. One could get caught between the door and the floor causing **severe injury or death**.
5. Should the door become hard to operate or completely inoperative, it is recommended that a qualified door agency correct the problem to prevent possible injuries or door damage.
6. Avoid installing the door on windy days. The door could fall causing door damage or injury.
7. To prevent injuries due to loose components, at least monthly check all bolted connections to make sure they are secure.
8. To prevent injuries, never place hands or fingers between the curtain and the guides while the door is being operated.
9. This manual is **not** intended to provide "take-down" instructions for existing doors. Consult your local door agency if this is required, before new doors are to be installed.
10. Thoroughly familiarize yourself with the construction codes in your region before initiating work.
11. Wear the proper protective safety gear at all times when installing, adjusting and/or repairing doors.
12. Consider using a 2-person (or larger) crew for installing, adjusting and/or repairing larger doors.
13. Definitions of key words used in this manual are as follows:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

 **WARNING**

WARNING indicates a potential hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

IMPORTANT!

IMPORTANT! indicates a required step for safe and proper door operation.

NOTE:

NOTE: indicates information assuring proper installation of the door.

HINT:

HINT: indicates a suggested step to simplify installation based on experience.

INTRODUCTION

This manual's main function is to assist the installer in correctly mounting doors with due regard for safety, operation, and sound construction practices. Reference must be made to construction codes in your area.

All Wayne-Dalton DS-75 and DS-100 Windload Rated Mini Roll-Up Doors follow the general instructions contained herein. Additional installation information for the specific door shipped is found with the packing slip and on supplementary drawings. There are also bolt and small sealed parts bags with accessory lists, describing proper application.

PREPARATION

Read the installation instructions thoroughly to become familiar with the names of the various components and their relation to each other. It is necessary for the installer to determine the following:

- Type of jamb (masonry or steel) on which the door mounting angles mount and the fasteners required.
- The dimensions for the opening width, opening height, headroom, and side room.

MATERIAL

Inspect your door for possible damage or shortage of parts. Report any shortages to your door supplier immediately, or transit related damage claims to your freight carrier.

CLEARANCES

Check the door opening dimensions and available clearances versus the dimensions listed on the packing slip. Be sure that the dimensions are correct for the opening you are working on, taking special note of the opening **width** and **height**. Be sure that the required clearances listed in the table in this manual are available prior to installation.

TOOLS

The tools recommended for proper installation of each door will vary, but commonly used tools are:

- Electric drill with 3/8" or 1/2" chuck with nut driver bits.
- Masonry drill or impact hammer and bits.
- Ladders and/or scaffolding.
- Hammer and pliers.
- Large Pipe Wrench (if Tension-Pro bracket).
- Center punch.
- Screwdrivers.
- Drill bits.
- Wrenches, vise grips, and C-clamps.
- Tape measure and a water level.

STEP 1 UNPACKING DOORS

Before removing the door from any packaging, inspect the door and packaging for visible signs of damage. If damage is noted, file a freight claim with the freight company immediately. Remove the door from the packaging.

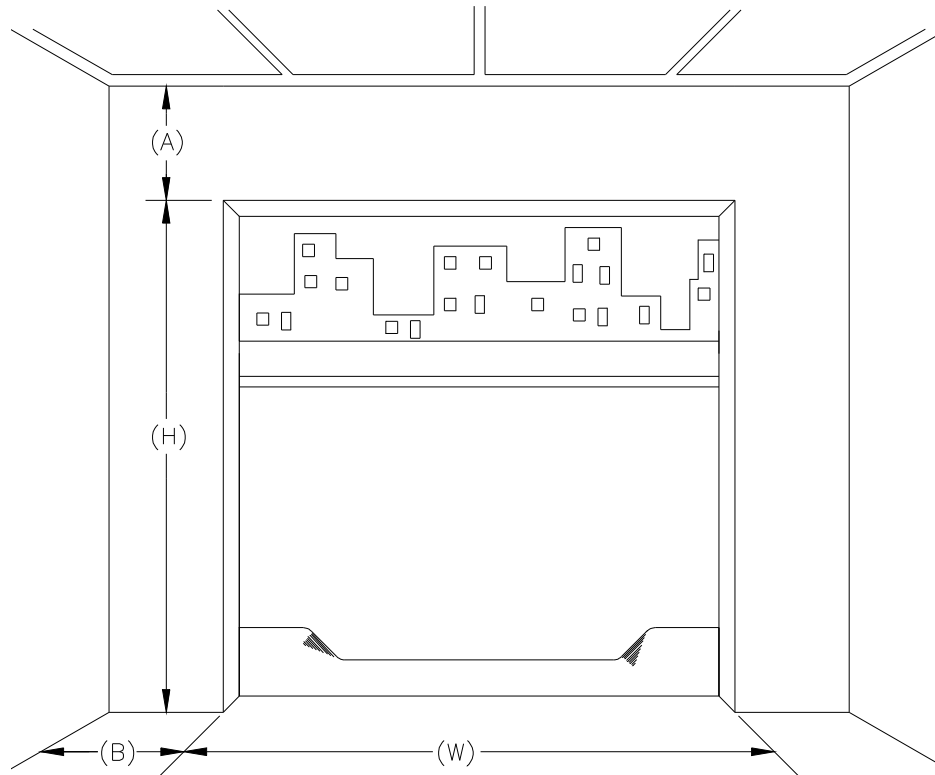
IMPORTANT!

Do not cut tape that holds door in a roll. You will be told in step #7 when to cut tape.

No guarantee will be given by Wayne-Dalton Corp. if the door is not erected as instructed. For best operation, follow the instructions step by step. Please review all instructions thoroughly before starting installation.

STEP 2 CHECK THE DOOR OPENING

Verify the opening measurements with the door packing slip. Consult the factory if the actual opening width varies from that shown on the packing slip by more than 2 inches. Check to make certain that the door opening is plum and that the floor is level. Check to be certain there is sufficient clearance from the opening to the ceiling and the sidewalls (see Required Clearances below).



OPENING HEIGHT	HEADROOM (A)	SIDE ROOM (B) STEEL JAMBS	SIDE ROOM (B) MASONRY JAMBS
UP TO 6'8" HIGH	13"	4-1/2"	6"
FROM 6'8-1/4" TO 8' HIGH	14"	4-1/2"	6"
OVER 8' HIGH	16"	4-1/2"	6"

REQUIRED CLEARANCES - MINIMUM INDICATED

STEP 3 INSTALLING MOUNTING ANGLES AND GUIDES

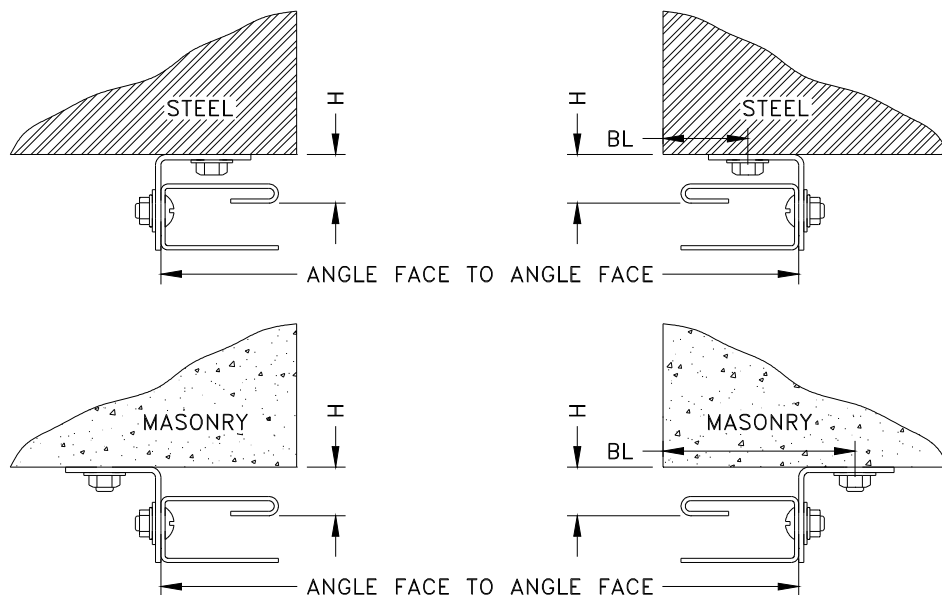
Obtain the appropriate Bolt Line (BL) measurement from the chart below. **Use opening width listed on the packing slip.** Any variation between the actual opening width and the opening width listed on the packing slip is to be ignored.

BL (STEEL)	BL (MASONRY)	ANGLE FACE TO ANGLE FACE
1-3/4"	4"	OPENING WIDTH + 5-11/16"

IMPORTANT!

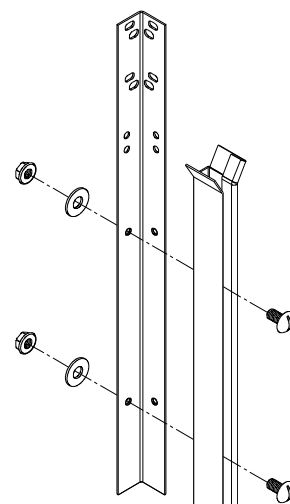
Use BL measurement to locate wall mounting angle for one jamb only. Second angle will be located using Angle Face to Angle Face Measurement.

Using the BL measurement, loosely clamp the right hand wall angle to the right hand jamb. Position the wall angle such that the BL measurement falls near the center of the wall angle holes. Use a level to adjust the angle so that it is level and tighten the clamp. Install wall angle fasteners in the top and bottom holes only. Do not install fasteners in the slots at the top of the wall angle at this time. Fasteners will be installed in these in step #4.



Obtain the Angle Face to Angle Face equation from the chart above. Add the **opening width listed on the packing slip** to obtain the Angle Face to Angle Face measurement. Use this measurement to locate the left hand wall angle on the left hand jamb and clamp in place. Install bolts in the top and bottom holes in the wall angle. Verify that both wall angles are level and double check the angle to angle measurement at the top, middle, and bottom to ensure that the wall angles are properly located. Using a string and a level, ensure that the mounting angles are parallel to each other, shimming if necessary, to achieve both vertical and horizontal leveling.

Starting at the bottom of each wall angle, install the remaining fasteners such that no distance between two fasteners exceeds 12". Do not install fasteners in the slots at the top of the wall angle at this time. Fasteners will be installed in these in step #4.



IMPORTANT!

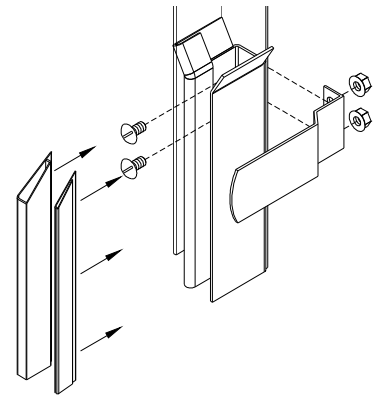
Angle Face to Angle Face measurement must be held to ensure proper door operation and resistance to windload.

IMPORTANT!

Use of any other fasteners than those provided must be approved by manufacturer or building authority and cannot be of lesser diameter or grade.

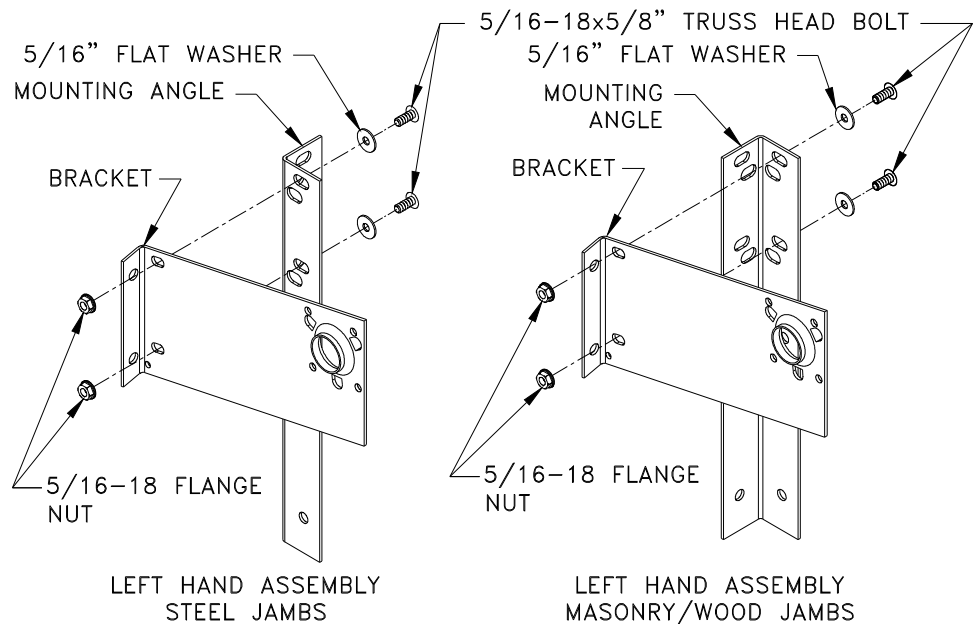
Align the guide slots with the holes in the wall angles and fasten guides with the interior windlock return towards the door jamb using the 5/16-18 x 5/8" truss head bolts, washers, and flange nuts. Verify that the "H" dimension is set at 1" on each guide prior to tightening the guide fasteners.

Trim the top of each wear strip at a 45° angle as shown and clip onto the appropriate leg of each guide. Be sure that trimmed edges of the wear strips end just below the flare of the guides. Install the bottom bar stops with the same 5/16-18 x 5/8" truss head bolts and flange nuts used to assemble the guides. Leave the fasteners loose to allow the bottom bar stops to pivot out of the way of the bottom bar angle when the curtain will be pulled into the guides. You will be instructed to tighten the bottom bar stop fasteners in step #7.



STEP 4 BRACKET INSTALLATION

Install the brackets to the outside of the wall mounting angles (away from the opening) using two 5/16-18 x 5/8" truss head bolts and flat washers in the two slots at the top of the mounting angles, as shown. Loosely install the 5/16-18 flange nuts on the bolts to hold the brackets in place. For steel jambs, the bracket flange will rest against the wall. For masonry jambs, the bracket flange will rest against the wall side leg of the mounting angle with the two holes in the bracket flange lining up with two slots in the wall angle. Check that the brackets are straight and square with one another, shimming if necessary, and install the appropriate wall mounting fasteners through the two holes in the bracket flange. Tighten the flange nuts on each bracket. If mounted on steel jambs, install wall mounting fastener in the top slot of each wall angle.



STEP 5 LIFTING THE CURTAIN ASSEMBLY

WARNING

Door assembly may be heavy. Do not allow door assembly to fall when lifting, or serious injury or death could result.

The left hand end of the curtain assembly (when installed) will be the end with the spring. Lift the curtain assembly up to the brackets and insert the left hand axle end into the large hole in the left hand bracket. Be sure that the axle collar rests against the bracket. While continuing to support the curtain assembly, insert the right hand axle end into the right hand bracket in the same manner. It may be necessary to gently pry the right hand bracket out to allow clearance for the curtain assembly axle end. Install the 1-7/16" ID washer onto the appropriate axle ends and secure the curtain assembly in position by installing the cotter pins through the holes in each axle end.

NOTE:

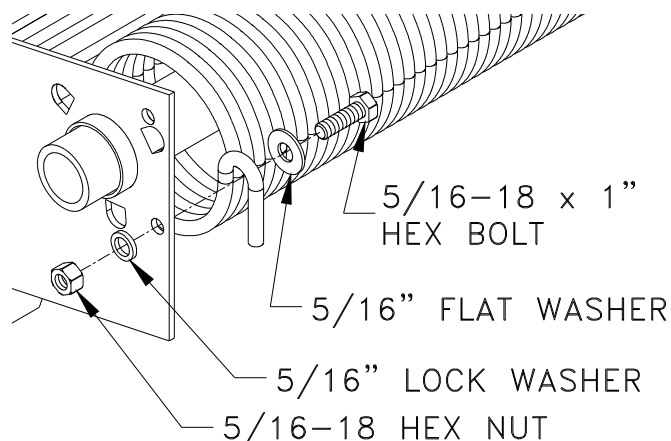
The 1-7/16" ID washer is not required for bearing or Tension-Pro brackets. See Step #13 for Tension-Pro bracket assembly instructions.

WARNING

To avoid serious injury or death, never walk, stand or work below door assembly before it is secured to support brackets.

STEP 6 SPRING ATTACHMENT

Rotate curtain assembly so that the bottom bar is at the top of the curtain roll. While holding the door from rotating, carefully stretch the spring end to the bracket to determine the bracket hole nearest to the loop in the spring end. Position the 5/16-18 x 1" hex head bolt and flat washer in the spring loop and stretch the spring to insert the bolt into the previously determined bracket hole. Loosely install the lock washer and nut on the outside of the bracket to hold the spring stretch. Rotate the spring until it is centered on the bracket, with all bracket tabs inside the spring, and securely tighten the spring attachment bolt.



IMPORTANT!

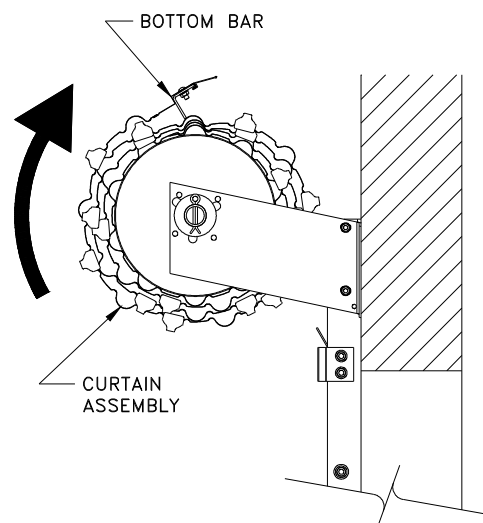
See step #13 for Tension-Pro bracket spring attachment.

HINT:

If installation permits, use vise grips to secure spring loop to bracket for a stretch free method of installing the spring attachment bolt.

STEP 7 PRE-TENSION THE DOOR SPRING

Starting with the bottom bar angle at the top of the curtain roll, apply two complete turns of pre-tension to the spring by rotating the curtain roll in the direction shown. Depending on door size, it may be necessary to pry the bottom bar past the guide flare. The amount of tension required may vary slightly. Final adjustment, if necessary, will be made in Step #9.



! WARNING

Spring tension can cause curtain roll to rotate rapidly. Securely hold curtain roll from rotating while applying pretension or serious injury or death could result.

! WARNING

Securely hold door curtain until bottom bar stop fasteners have been tightened. If not securely held, door may raise or drop, possibly causing serious injury or death.

Cut the tape that holds the door in a roll and gently pull the curtain down into the guides on both sides until the bottom bar is below the bottom bar stops. Do not pry on the bottom bar stops to get bottom bar past, loosen fasteners until bottom bar angle easily clears stops. If the door has a tendency to close, secure in position using clamps. If the door has a tendency to rise, secure in position using a wood prop.

While the door is secured from moving, tighten the bottom bar stop fasteners on both guide assemblies.

STEP 8 LUBRICATE AND ADJUST THE GUIDES

Lubricate the insides of guides and wearstrips with weather resistant lubricating spray. Be sure to spray lubricant over the flares at the top of each guide. Move the door up and down to check for proper operation. Adjust the guides and mounting angles if necessary to allow for proper clearance and operation.

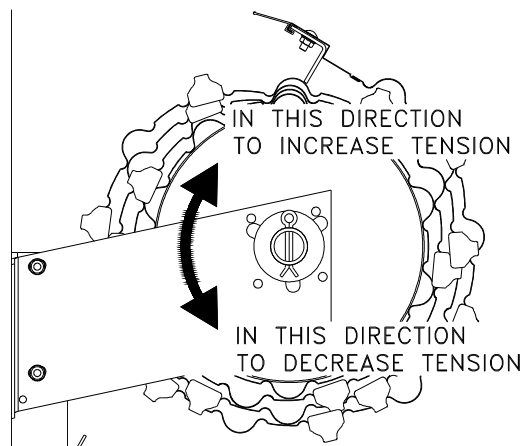
HINT:

If door is difficult to move up and/or down due to spring imbalance, continue on to step #9 and return to step #8 once springs are properly adjusted.

STEP 9 CHECK AND ADJUST SPRING BALANCE

Move the door up and down to check for proper spring tension. If the door lowers easily and raises hard, more spring tension is required. If the door lowers hard and raises easily, less spring tension is required. If a tension adjustment is necessary, secure the door in position and remove the bottom bar stops. Carefully roll the curtain all the way up without letting go of the bottom bar. Tie a rope around the curtain roll and slowly rotate the curtain roll in the opposite direction as tension was applied until spring is neutral. Change the location of the spring attachment bolt in the required direction as shown. Repeat steps 6, 7, 8, and 9. See Step #13 for Tension-Pro bracket spring tension adjustment.

MOVE SPRING ATTACHMENT BOLT:



! WARNING

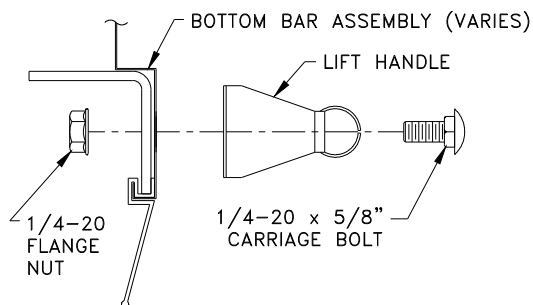
Spring tension can cause curtain roll to rotate rapidly. Securely hold curtain roll from rotating while applying pretension or serious injury or death could result.

! WARNING

Securely hold door curtain until bottom bar stop fasteners have been tightened. If not securely held, door may raise or drop, possibly causing serious injury or death.

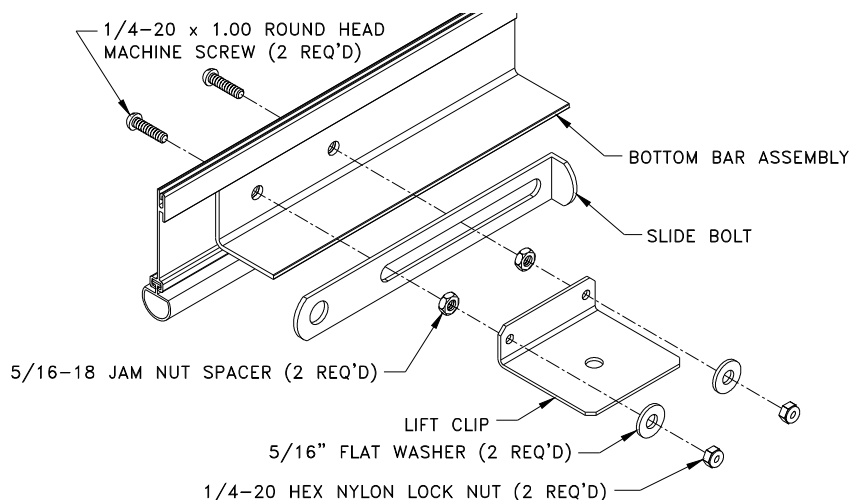
STEP 10 LIFT HANDLE INSTALLATION

Install a lift handle in the center of the bottom bar using 1/4-20 x 5/8" carriage bolts and flange nuts such that the nut is on the coil side, or inside, of the door as shown. If a second lift handle was provided, install in the same manner on the right hand side of the bottom bar (outside looking in). Install 1/4-20 x 5/8" carriage bolt and flange nut in any remaining vacant holes in the bottom bar at this time.



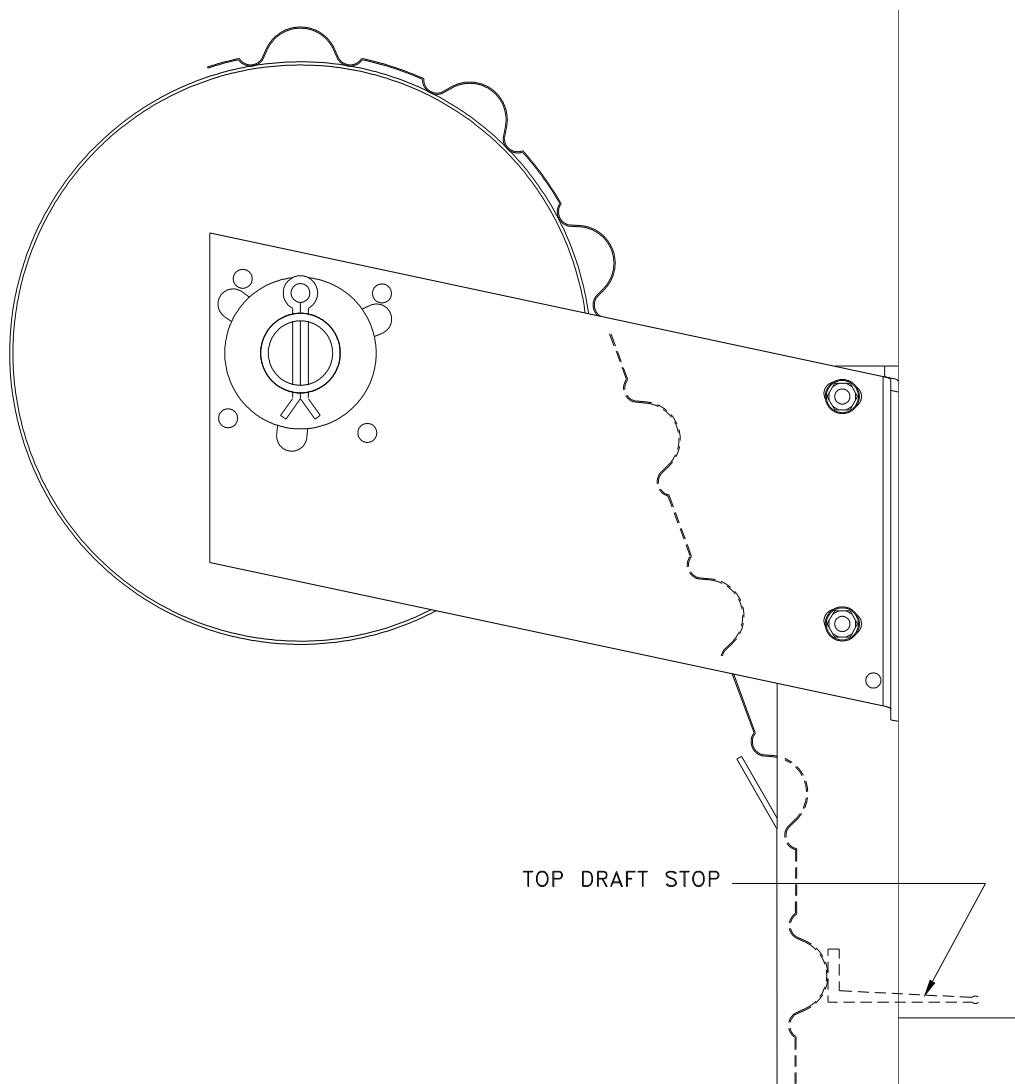
STEP 11 SLIDE BOLT LOCKS (if applicable)

Install slide bolt locks, if provided, as shown.



STEP 12 INSTALLATION OF TOP DRAFT STOP (if applicable)

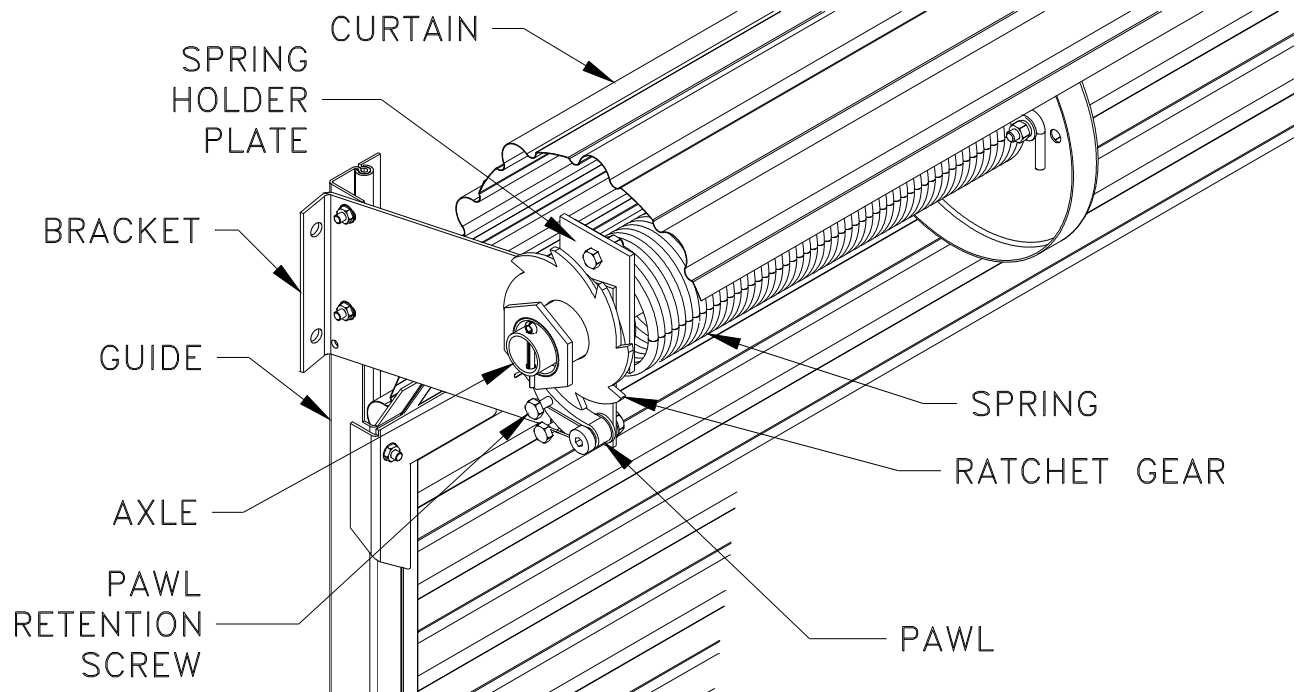
Close the door and secure it in the down position. Use a pencil to mark the door panel corrugation that is parallel with the bottom of the header/lintel from the outside of the opening. If this corrugation protrudes below the header, mark the one just above. Open the door until the marked corrugation is accessible. Stretch the top draft stop across the door and attach it to the curtain on the marked corrugation with the self-drilling screws provided, locating the screws every 12" on center. Trim the Top Draft Stop to clear the guides if required. When the door is closed, the draft-stop should seal on the header.



NOTE:

Top Draft Stop may not seal on the header if not installed on a corrugation as shown.

STEP 13 TENSION-PRO SPRING TENSION ADJUSTMENT BRACKET (if applicable)



STEP #1: Install the Tension-Pro bracket on the left hand side of the curtain assembly per step #4 of this manual. Insert cotter pin through hole in the axle. Do not use large washer on the Tension-Pro bracket side axle end.

STEP #2: Stretch and attach spring end to the spring holder plate of the Tension-Pro bracket using the 5/16-18 nut, washer and lock-washer. Bolt must be installed with the nut on the spring loop side.

STEP #3: Pretension the door per step #7 of this manual. Pull curtain into guides and install bottom bar stops.

STEP #4: Test door operation to determine if spring balance requires adjustment. Adjust tension as needed per the following instructions.

WARNING

Spring tension can cause death or injury. Repairs/adjustments must be made by a trained door technician.

IMPORTANT!

Spring tension increases as door closes. Door must be fully opened when making spring tension adjustments.

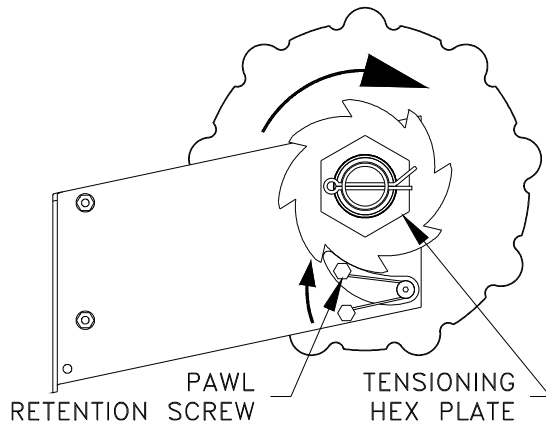
WARNING

Pipe wrench interference can prevent pawl engagement with ratchet gear. Always adjust tension one “CLICK” (gear tooth) at a time and reposition wrench for each adjustment or serious injury or death could result.

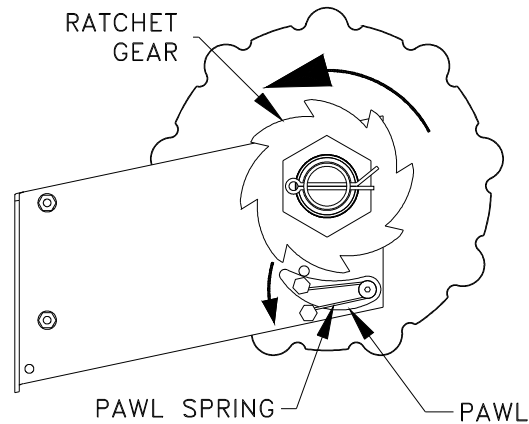
WARNING

Contact with rapidly rotating ratchet gear can cause death or injury. If wrench slips when decreasing tension, release pawl immediately. Do not secure pawl in disengaged position.

TO INCREASE TENSION:



TO DECREASE TENSION:



To Increase Spring Tension:

Move the door to the fully opened position and place clamps on the guides to prevent possible door closing. Using a large pipe wrench, grip the tensioning hex plate and rotate the ratchet gear assembly in the direction indicated above until an audible “CLICK” is heard (one gear tooth). Operate the door to determine if the spring tension increase was sufficient. Repeat spring tension increase procedure as needed to properly balance the door.

To Decrease Spring Tension:

Move the door to the fully opened position and place clamps on the guides to prevent possible door closing. Using a large pipe wrench, grip the tensioning hex plate and remove the spring tension force from the pawl. Grip the pawl retention screw and pull the pawl in the direction indicated above to hold it from engagement. Slowly back the force off the pipe wrench until the ratchet gear begins to rotate in the direction indicated above (spring force will urge gear in this direction). Once the stop face of the previously engaged tooth has passed the tip of the pawl, release the pawl to allow it to follow the contour of the gear tooth until engagement has occurred with the next tooth. Operate the door to determine if the spring tension decrease was sufficient. Repeat spring tension decrease procedure as needed to properly balance the door.

STEP #5: Once spring tension has been adjusted and the door is properly balanced, lock the pawl in position by tightening the pawl retention screw until it penetrates the bracket. Test that the pawl is locked in position by attempting to add 1 “CLICK” of tension. If properly locked, the ratchet gear will not be able to rotate. If ratchet gear rotates, adjust tension back to desired position, verify that the pawl retention screw is lined up with the hole in the bracket, and tighten the pawl retention screw further. Return to step #10 of this manual.

! WARNING

If not properly aligned, pawl retention screw can force pawl out of engagement. Verify screw lines up with bracket hole prior to tightening and do not drive screw with screw gun or spring tension could be lost causing serious injury or death.

! WARNING

Spring tension could be released by door operation if pawl retention screw does not penetrate bracket. Always verify pawl is locked in position prior to operation or door could fall uncontrollably causing serious injury or death.

! WARNING

Keep loose clothing, fingers, hands and arms away from all moving mechanisms and points of engagement, otherwise serious injury or death could result.



Roll-Up Sheet Door LIMITED WARRANTY

Wayne-Dalton Corp
P.O. Box 67- Mt. Hope, Ohio 44660

The Manufacturer warrants the ROLL-UP SHEET DOOR and hardware fittings for a period of ONE YEAR from the time of delivery against any defects in workmanship or material. Manufacturer shall, upon notification, correct such nonconformity at its option, by repairing or replacing any defective part or parts.

NO EMPLOYEE, DISTRIBUTOR, OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THE FOREGOING WARRANTIES IN ANY WAY OR GRANT ANY OTHER WARRANTY ON BEHALF OF MANUFACTURER.

The Manufacturer shall not be responsible for any damage resulting to or caused by its products by reason of installation, improper storage, unauthorized service, alteration of products, neglect or abuse, or attempt to use the products for other than the customary usage or for their intended purposes. The ROLL-UP SHEET DOOR warranty becomes null and void if other than Manufacturer's specified holes are drilled. The above warranty does not cover wear or any damage beyond Manufacturer's control or replacement labor.

THIS WARRANTY COVERS A COMMERCIAL PRODUCT, THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES AND NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES, EXPRESSED OR IMPLIED, (INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE), ARE MADE BY MANUFACTURER IN CONNECTION WITH MANUFACTURE OR SALE OF ITS PRODUCTS.

Claims for defects in material and workmanship covered by this warranty shall be made in writing to the dealer from whom the product was purchased within the warranty period. Manufacturer may either send a service representative or have the product returned to the Manufacturer at Buyer's expense for inspection. If judged by Manufacturer to be defective in material or workmanship, the product will be replaced or repaired at the option of Manufacturer, free from all charges except authorized transportation and replacement labor.

THE REMEDIES OF BUYER SET FORTH HEREIN ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER REMEDIES. THE LIABILITY OF MANUFACTURER, WHETHER IN CONTRACT, TORT, UNDER ANY WARRANTY, OR OTHERWISE, SHALL NOT EXTEND BEYOND ITS OBLIGATION TO REPAIR OR REPLACE, AT ITS OPTION, ANY PRODUCT OR PART FOUND BY MANUFACTURER TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP. MANUFACTURER SHALL NOT BE LIABLE FOR COST OF REMOVAL OR INSTALLATION OR SHALL NOT BE RESPONSIBLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

This warranty gives you specific legal rights which may vary from state to state. However, some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.



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