The Genuine. The Original.

OVERHEAD DOOR®

THESE INSTRUCTIONS ARE FOR USE BY TRAINED TECHNICIANS

Models 421, 423, 427, 429, 434, 436 Windload

INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL

COMMERCIAL SECTIONAL STEEL DOORS

If you need assistance, please contact your local Overhead Door™ Distributor. To find your local Overhead Door™ Distributor, refer to your local yellow pages business listings or go to the Find a Overhead Door™ Distributor section Online at **www.OverheadDoor.com**.

IMPORTANT NOTICES!

To avoid possible injury, read and fully understand the enclosed instructions carefully before installing and operating the garage door. Pay close attention to all warnings and notes. After installation is complete, fasten this manual near garage door for easy reference.

The complete installation instruction manuals are available on our Ribbon

Connect customer portal at **https://connect.overheaddoor.com**.

Overhead Door Corporation

2501 South State Highway 121, Suite 200,

Lewisville, TX., 75067

Part Number 411549-0001 REVD_01/11/2024

Table Of Contents

Important Safety Instructions

DEFINITION OF KEY WORDS USED IN THIS MANUAL:

DANGER

INDICATES A HAZARDOUS SITUATION THAT, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.

WARNING

INDICATES A HAZARDOUS SITUATION THAT, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.

CAUTION

INDICATES A HAZARDOUS SITUATION THAT, IF NOT AVOIDED, COULD RESULT IN MINOR OR MODERATE INJURY.

NOTICE

INDICATES INFORMATION CONSIDERED IMPORTANT, THAT IT IS NOT RELATED TO INJURY, BUT MAY RESULT IN PROPERTY DAMAGE.

IMPORTANT: Required key step for proper door operation.

NOTE: Information only.

Installation:

WARNING

INSTALLING THIS DOOR PROPERLY REQUIRES THE USE OF SPECIAL TOOLS AND TECHNIQUES. ALWAYS USE THE CORRECT TOOLS OR TECHNIQUES WHEN PERFORMING INSTALLATION. FAILURE TO USE PROPER TOOLS OR TECHNIQUES OR ADHERE TO SAFETY MESSAGES, COULD RESULT IN SEVERE OR FATAL INJURY.

DANGER

EXTREME CAUTION SHOULD BE USED WHEN WINDING SPRINGS AS FAILURE TO FOLLOW THE INSTRUCTIONS OR USE THE PROPER TOOLS CAN LEAD TO SERIOUS INJURY TO PERSONS AND PROPERTY. BEFORE ATTEMPTING TO WIND THE SPRING, MAKE SURE YOU HAVE READ AND UNDERSTAND THE INSTRUCTIONS. IF YOU ARE UNCLEAR ON ANY ASPECT OF THE INSTALLATION PROCEDURES, YOU SHOULD CONSULT A TRAINED DOOR SYSTEMS TECHNICIAN.

- **READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF YOU ARE IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A TRAINED DOOR SYSTEMS TECHNICIAN DO THE INSTALLATION OR REPAIRS.**
- Wear protective gloves and eye protection during installation, to avoid possible injury.
- **DO NOT** install door in windy conditions. Door could fall during the installation, causing severe or fatal injury.
- Doors 12'-0" wide and larger should be installed by two persons, to avoid possible injury.
- On electrically operated doors, pull down ropes must be removed and locks must be removed or made inoperative in the open (unlocked) position, unless electrical interlocks are installed.
- Impact guns are not recommended. When installing 5/16" lag screws using an electric drill/ driver, the drill/ drivers clutch must be set to deliver no more than 200 in-lbs of torque. Fastener failure could occur at higher settings.
- Check with your local building official for wind load code requirements and building permit information.
- For windloaded doors, the wind performance is achieved via the entire door system and component substitution is not authorized without express permission by the manufacturer.
- For door heights greater than 10 feet or a door balance weight greater than 400 pounds, Chain Hoist or Motor Operator is recommended.

CAUTION

IF ANY PART OF THE DOOR IS TO BE INSTALLED ONTO PRESERVATIVE-TREATED WOOD, PTFE-COATED OR STAINLESS STEEL FASTENERS MUST BE OBTAINED AND USED. REPLACEMENT FASTENERS MUST BE OF AT LEAST EQUAL STRENGTH AND SIZE AS ORIGINAL FASTENERS. IF THE ORIGINAL FASTENER WAS RED-HEAD, THE REPLACEMENT FASTENER MUST BE RED-HEAD ALSO. CONTACT OVERHEAD DOOR CORPORATION FOR FASTENER STRENGTH VALUES IF NEEDED.

Operation:

⚠ WARNING

TO PREVENT DEATH OR SERIOUS INJURY WHILE OPERATING THE DOOR, ENSURE THE PATH OF THE DOOR IS NOT OBSTRUCTED BY ANY PERSON OR OBJECT AND ADHERE TO THE FOLLOWING SAFETY MEASURES.

- Operate door only when it is properly adjusted and free from obstructions.
- If a door becomes hard to operate, inoperative or is damaged, immediately have necessary adjustments and/ or repairs made by a trained door system technician using proper tools and instructions.
- **DO NOT** stand or walk under a moving door, or permit anybody to stand or walk under an electrically operated door.
- **DO NOT** place fingers or hands into open section joints when closing a door. Use lift handles/ gripping points when operating door manually.
- **DO NOT** permit children to operate garage door or door controls. Severe or fatal injury could result should the child become entrapped between the door and the floor.
- Visually inspect door and hardware monthly for worn and or broken parts. Check to ensure door operates freely. Test electric opener's safety features monthly, following opener manufacturer's instructions.
- **NEVER** hang tools, bicycles, hoses, clothing or anything else from horizontal tracks. Track systems are not intended or designed to support extra weight.

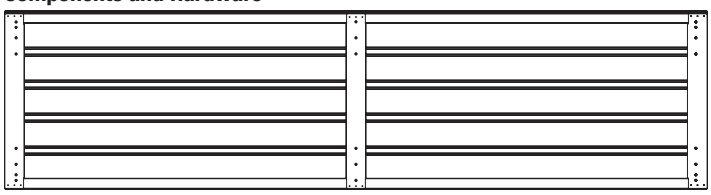
Potential Hazard	Effect	Prevention
 Moving door	**⚠ WARNING** Could result in Death or Serious Injury	Keep people clear of opening while Door is moving. Do **NOT** allow children to play with the Door Opener. Do **NOT** operate a Door that jams or one that has a broken spring.
 High tension spring	**⚠ DANGER** Will result in Death or Serious Injury	Do **NOT** try to remove, install, repair or adjust springs or anything to which door spring parts are fastened, such as, wood blocks, steel brackets, cables or other like items. Installations, repairs and adjustments must be done by a trained door system technician using proper tools and instructions.

IMPORTANT: RIGHT and LEFT hand is determined inside the building looking out.

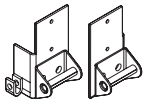
Package Contents

NOTE: Depending on the door model, some parts listed may not be required, and will not be supplied.

Components and Hardware



Door sections (as required)

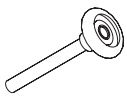


Bottom corner brackets

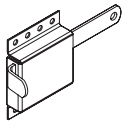
Bottom corner bracket roller holders

Clevis pin (as required)

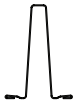
Cotter pin (as required)



Track rollers



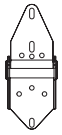
Inside lock (if included)



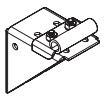
3" Strut (if included)

4" Strut (if included)

Center hinges



End hinges (as required)

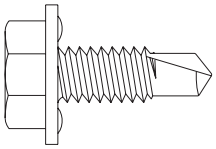


Top fixture assemblies (as required)

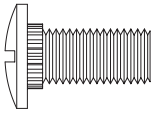
Pull down rope (if included)

Figure 2

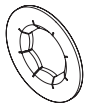
Fasteners



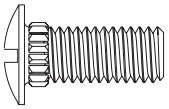
1/4"-20 x Self drilling screws (as required)



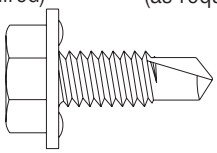
1/4"-20 x 9/16" Track bolts (as required)



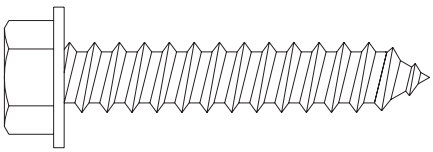
Pushnuts (as required)



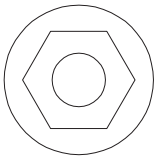
1/4"-20 x 5/8" Track bolts (as required)



1/4"-14 x 7/8" Self drilling screws (as required)



5/16" x 1-5/8" Hex head lag screws (as required)



1/4"- 20 Flanged hex nuts (as required)

Figure 3

Door Section Identification

See Figure 4 and Figure 7 For The Following Steps.

When installing your door you must use sections of the appropriate height in the right stacking order. Door sections are either 24", 21" or 19" in Section Height. Refer to the Door Information Label attached to the side of each section below to determine the right stacking order.

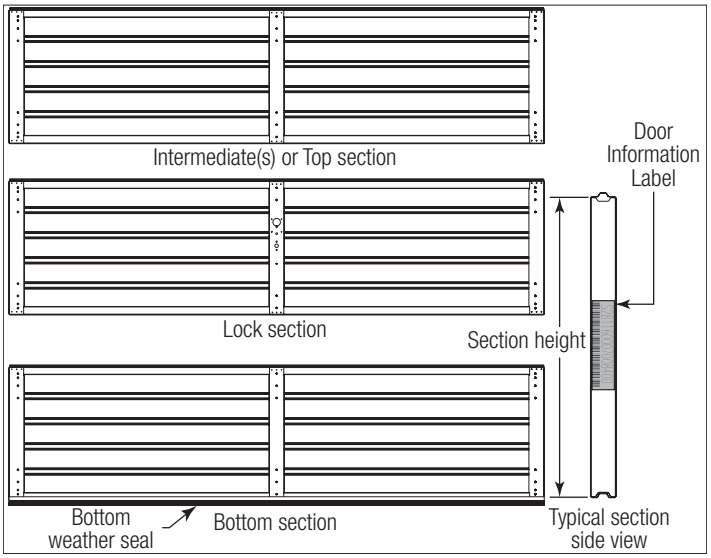


Figure 4A

DENOTES KIND OF SECTION:

T = Top Section

I = Intermediate Section

X = Sash Section

L = Lock Section

B = Bottom Section

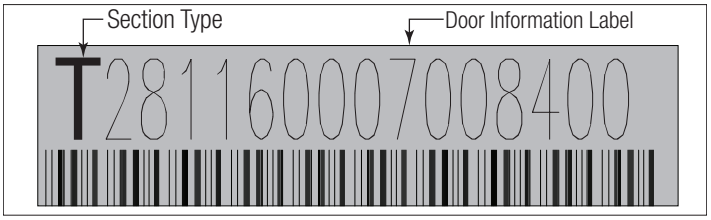


Figure 4B

Tools Required

Personal Protection Equipment (PPE)

Figure 5

Hand Tools

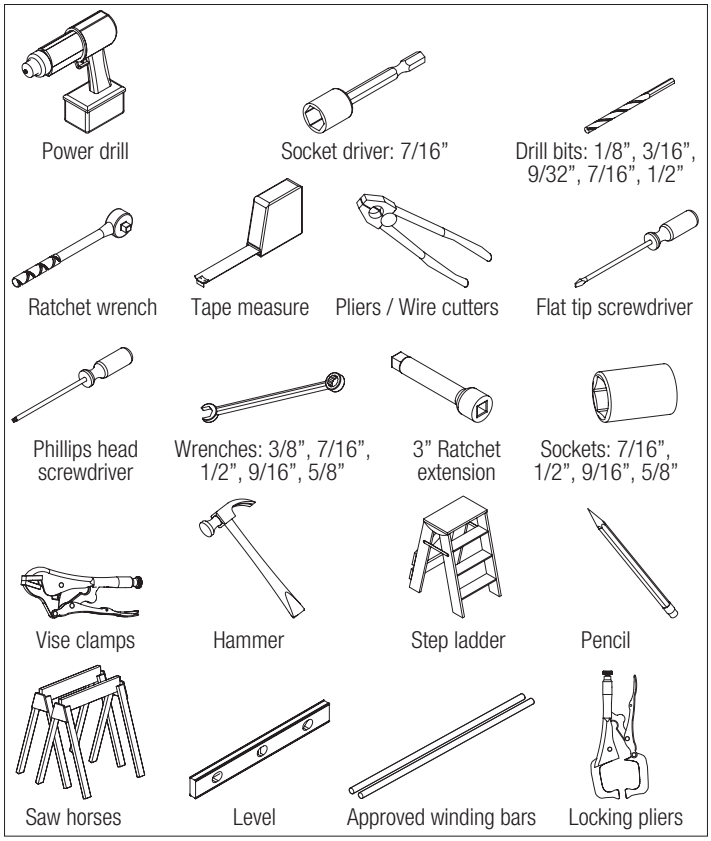


Figure 6

BREAKDOWN OF PARTS

NOTE: The illustrations shown on this page are general representations of the door parts. Each specific door models may have unique variations.

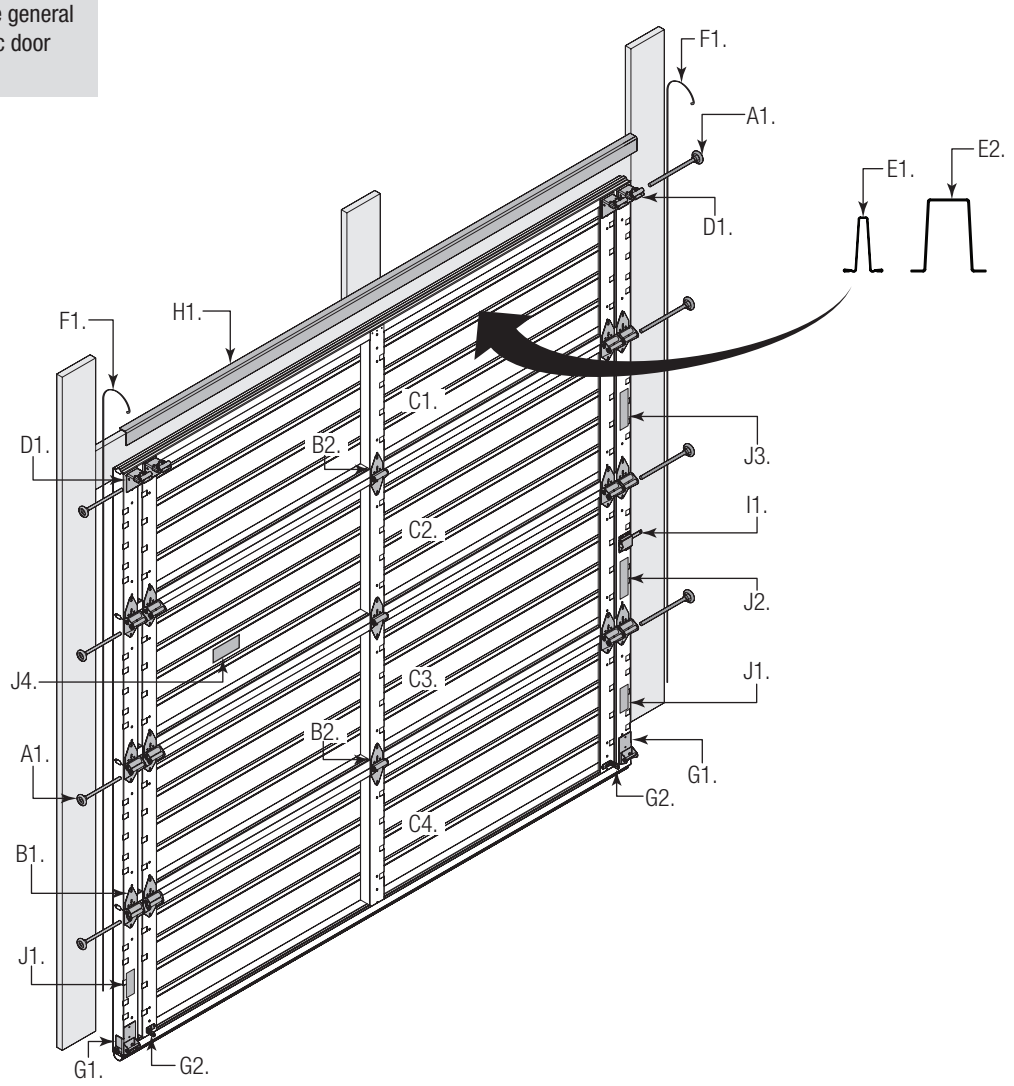


Figure 7 - Door Components

A. TRACK ROLLERS (AS REQUIRED):

- A1. Long Stem Track Rollers

B. GRADUATED END HINGES (AS REQUIRED):

- B1. Double Graduated End Hinges (D.E.H.), Industry Standard
- B2. Center Hinges (As Required)

C. STACKED SECTIONS:

- C1. Top Section
- C2. Intermediate(s) Section
- C3. Lock Section
- C4. Bottom Section

D. TOP FIXTURES (AS REQUIRED):

- D1. Top Fixture Assemblies

E. STRUT(S) (AS REQUIRED):

- E1. 3" Strut
- E2. 4" Strut

F. CABLES:

- F1. Counterbalance Lift Cables

G. BOTTOM CORNER BRACKETS (AS REQUIRED):

- G1. Left Hand and Right Hand Bottom Corner Brackets
- G2. Left Hand and Right Hand Bottom Corner Bracket Roller Holders

H. DRAWBAR OPERATOR REINFORCING ANGLE (AS REQUIRED):

- H1. Drawbar Operator Reinforcing Angle

I. INSIDE LOCK:

- I1. Lock Assembly

J. LABELS:

- J1. Bottom Bracket Warning Labels - 408616-0004
- J2. Painting Instruction Label - 408616-0003
- J3. Warning Label - 408616-0001
- J4. Windload Label

INSTALLATION INSTRUCTIONS

Door Installation Instructions

BEFORE INSTALLING YOUR DOOR, BE CERTAIN THAT YOU HAVE READ AND FOLLOWED ALL OF THE INSTRUCTIONS COVERED IN THE PRE-INSTALLATION SECTION OF THIS MANUAL. FAILURE TO DO SO MAY RESULT IN AN IMPROPERLY INSTALLED DOOR.

IMPORTANT: Reference TDS 160 for general garage door terminology at **www.dasma.com**.

NOTICE

IF THE DOOR WILL BE EXPOSED TO A SIGNIFICANT AMOUNT OF ROAD SALT, PAINT THE BOTTOM GALVANIZED STEEL WEATHER RETAINER TO INHIBIT RUSTING.

1 ATTACHING BOTTOM CORNER BRACKETS

IMPORTANT: Refer to door section identification, located in the pre-installation section of this manual or refer to Breakdown of Parts.

⚠ WARNING

ENSURE TIGHT FIT OF CABLE LOOP OVER PIN TO PREVENT COUNTERBALANCE LIFT CABLE FROM COMING OFF THE PIN, WHICH COULD ALLOW THE DOOR TO FALL AND RESULT IN DEATH OR SERIOUS INJURY.

See Figure 8 and Figure 9 for the following steps.

1a. Uncoil the counterbalance lift cables.

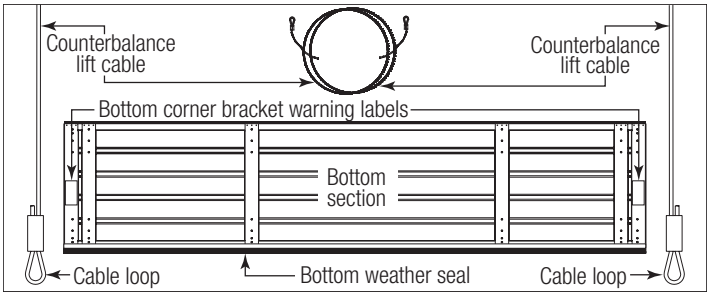


Figure 8

IMPORTANT: Refer to Package Contents / Breakdown of Parts, to determine which bottom corner brackets you have.

1b. Secure the cable loop to the clevis pin and bottom corner bracket using a flat washer and a cotter pin. Repeat for other bottom corner bracket.

1c. Refer to the Windload Specification Sheet for proper installation of the bottom corner bracket and if applicable the bottom corner bracket roller holder. Starting on the left hand side, position the left hand bottom corner bracket to the left corner of the bottom section, making sure it is seated to the edges of the end stile.

1d. Attach the bottom corner bracket to the bottom section using (4) 1/4" - 14 x 7/8 self drilling screws.

1e. If a bottom corner bracket roller holder was supplied, insert the long stem track roller and slide the roller holder in place.

1f. Mark the hole locations on the section and remove the long stem track roller.

1g. Attach roller holder to the section using (2) 1/4" - 14 x 7/8" self drilling screws.

1h. Re-insert the long stem track roller into the bottom corner bracket.

1i. Slide the track roller through the roller holder and slide a pushnut onto the shaft prior to sliding the shaft through the opposite side.

1j. Repeat the same process for the right hand side.

1k. Reference Breakdown of Parts and attach bottom bracket warning label above each bottom corner bracket.

NOTE: Verify bottom weather seal (bottom seal) is aligned with door section. If there is more than 1/2" excess bottom weather seal on either side, trim bottom weather seal even with door section.

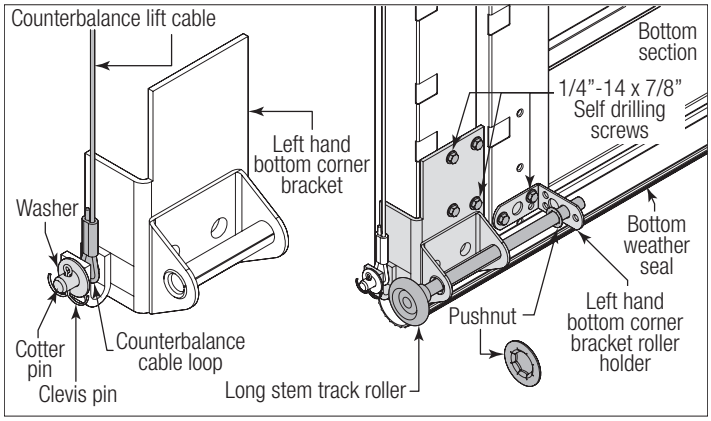


Figure 9

2 ATTACHING HINGES

NOTE: Refer to door section identification, located in the pre-installation section of this manual to determine what size sections you need to use as your lock, intermediate(s) and top section. Measure your sections to make sure they are the correct height as indicated on the chart.

NOTE: All graduated end hinges are numbered as their placement is important. Starting from the bottom section, attach graduated end hinges in numerical order starting with Number 2 end hinge for 2" track and Number 4 hinge for 3" track.

See Figure 10 for the following steps.

2a. Refer to the Windload Specification Sheet for proper installation of the hinges and pushnuts if applicable.

2b. Locate the bottom section and the appropriate number of graduated end hinges for the end stiles.

2c. Starting on the left hand side of the bottom section, align the lower hinge leaf of the graduated end hinge over the two punch marks, located at the top of the single end stile.

2d. Attach lower hinge leaf to the section using (3) 1/4" - 14x 7/8" self drilling screws.

NOTE: If double end hinges are supplied, insert the long stem track roller and slide the second end hinge in place. Attach lower hinge leaf to the section using (3) 1/4" - 14x 7/8" self drilling screws. Repeat the same process for the right hand side.

NOTE: Only install the graduated end hinges to one side of the section. The opposite side will be assembled according to Step "Stacking Sections".

2e. Insert the appropriate short / long stem track roller into each graduated end hinges.

2f. Install the pushnut onto the roller shaft.

To Install Center Hinges:

2g. At the center of the bottom section, align the lower hinge leaf of the #1 center hinge over the two punch marks, located at the top of the center stile(s).

2h. Attach lower hinge leaf to the section using (2) 1/4" - 14x 7/8" self drilling screws.

2i. If applicable, repeat the same process for other center hinges.

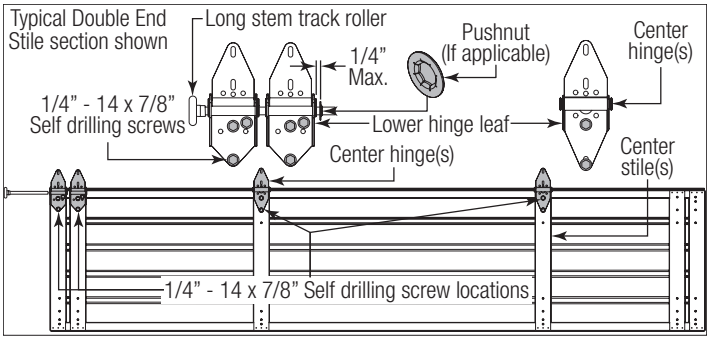


Figure 10

3 ATTACHING STRUTS

NOTE: Depending on the size of your door, one or more sections may require a strut(s).

See Figure 11 and Figure 12 for the following steps.

3a. Using sawhorses, lay sections together on a flat smooth surface. Ensure the graduated end hinges and center hinges are on top of their corresponding sections.

3b. Refer to the Windload Specification Sheet for the strutting schedules and their placement onto the sections.

3c. Place the appropriate strut on the section, except the top section.

3d. Center the strut side to side on the section surface.

3e. Secure the strut to the section using (4) 1/4" - 14 x 7/8" self drilling screws at each end stiles and (4) 1/4" - 14 x 7/8" self drilling screws at each center hinge location.

3f. Reference Breakdown of Parts and attach the warning, painting and the windload labels on the appropriate sections.

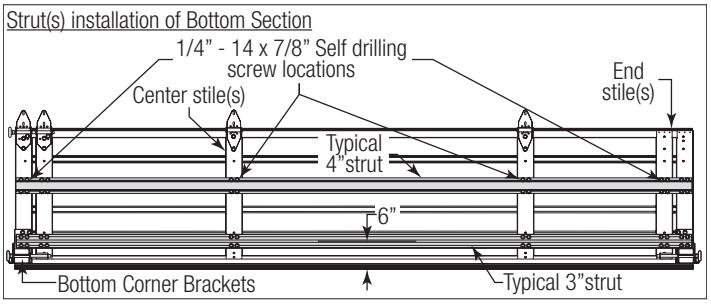


Figure 11

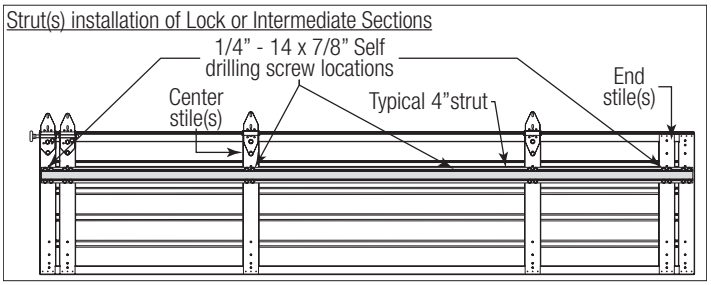


Figure 12

4 POSITIONING SECTIONS INTO TRACK

NOTE: Do not install top section of door at this time. Top door section should be installed **AFTER** horizontal track or upper vertical track has been installed.

See Figure 13 through Figure 15 for the following steps.

4a. Refer to Commercial Track Installation Instructions 408207-0001. Refer to the Windload Specification Sheet for the additional fasteners to be installed on each track clips and vertical track.

4b. Center the bottom section with hardware and rollers attached in the door opening.

4c. Level the section using wooden shims (if necessary) under the bottom section. When the bottom section is leveled, temporarily hold it in place by driving a nail into the jamb and bending it over the edge of the bottom section on both sides.

4d. Brace door section in opening until graduated end hinges or top fixtures and rollers are installed and secured to door section.

4e. Insert roller into graduated end hinge on intermediate section. Hook roller into track and swing section into place. Set section on top of lower section.

4f. Insert rollers into corresponding loose end hinge. Hook roller into track and swing graduated end hinge onto door section.

4g. Secure graduated end hinges to door section.

4h. Attach upper half of center and graduated end hinges to bottom of next highest section.

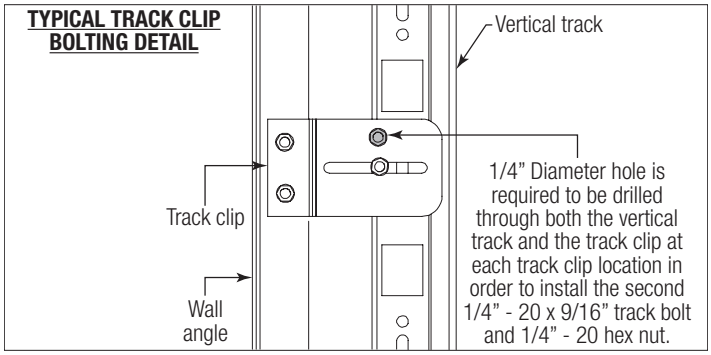


Figure 13

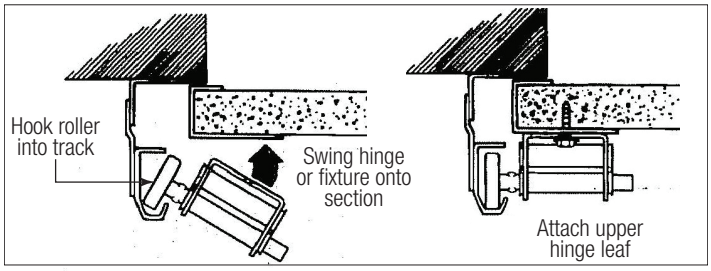


Figure 14

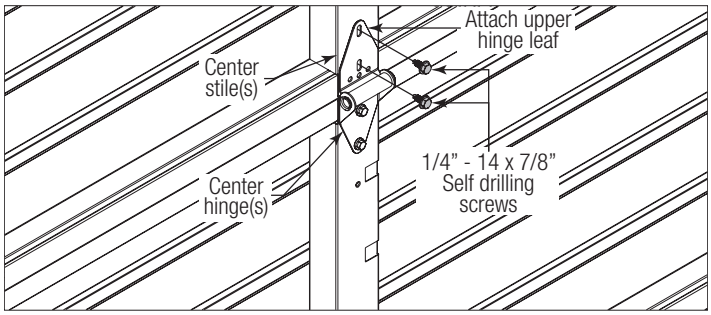


Figure 15

5 ATTACHING LIFT HANDLES / STEP PLATE

See Figure 16 and Figure 17 for the following steps.

Lift Handles:

5a. Locate lift handles vertically above bottom rail on first center stile over on the #2 section side.

5b. Use lift handle as a guide, drill (2) 1/4" though the center stile.

5c. Secure the lift handles with (2) 1/4" carriage bolts, washers and nuts.

Step Lift Handles:

5a. Locate step lift handles horizontally on bottom section above bottom corner brackets.

5b. Use step lift handle as a guide, drill (2) 1/4" though the end stile.

5c. Secure the step lift handles with (2) 1/4" carriage bolts, washers and nuts.

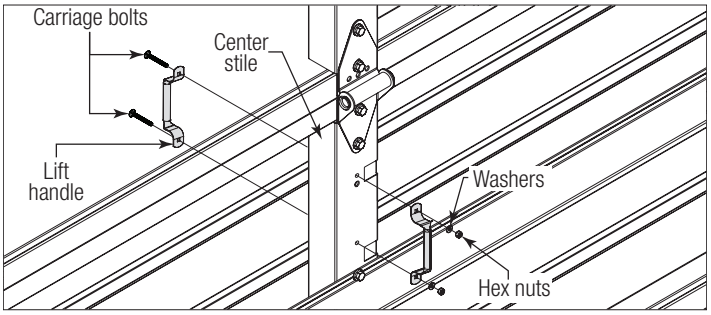


Figure 16

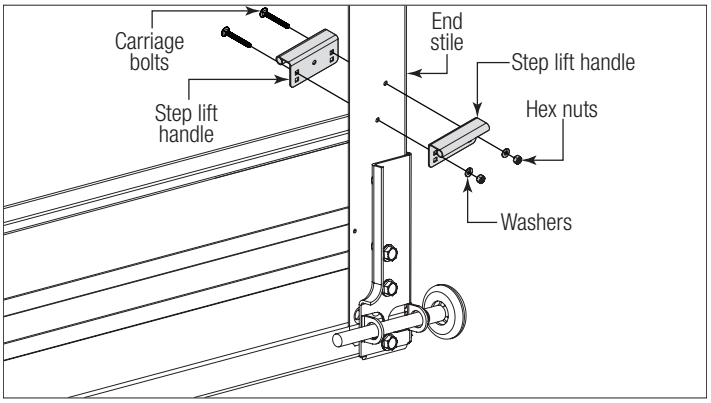


Figure 17

6 ATTACHING KEYED LOCK

CAUTION

DO NOT DRILL LOCK SECTION OR INSTALL LOCK ON DOORS WITH OPENERS. THE DOOR AND OR OPENER MAY BE DAMAGED IF THE OPENER IS USED WHILE THE DOOR IS LOCKED.

NOTE: Common practice for doors with the odd number of raised panels is to mount the lock towards the right side of the section when looking out.

IMPORTANT: Remove all burrs from the drilled holes before installing the lock to the section.

See Figure 18 through Figure 20 for the following steps.

6a. From the inside of the lock section, locate the (4) hole pattern in the center stile of the lock section. Using the (4) holes as a template, drill (4) 1/8" diameter holes through the section.

6b. Using the illustration below and from the outside of the lock section, enlarge the (4) pre-drilled holes to their appropriate hole diameter.

NOTE: Pay close attention not to drill through or enlarge holes in the center stile.

CAUTION

DO NOT DRILL THROUGH OR ENLARGE HOLES ON THE INSIDE OF THE DOOR SECTION.

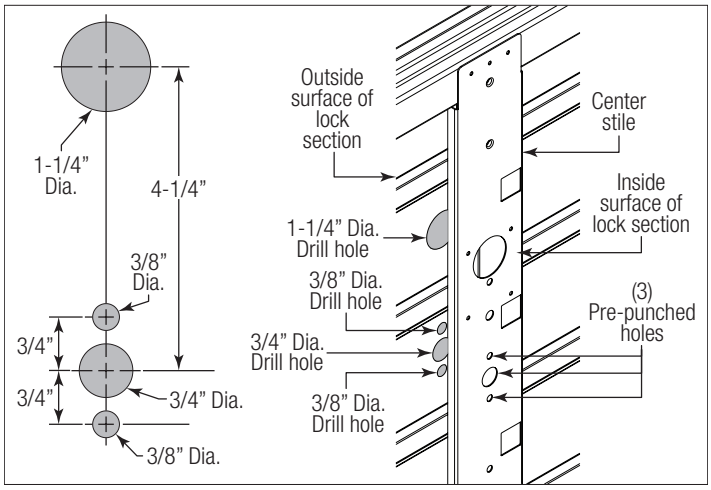


Figure 18

6c. From the outside of the lock section insert the (2) spacers and the outside lock handle through the section.

6d. From the inside of the lock section secure the handle using (2) #10 - 24 x 1-3/4" pan head screws.

6e. Assemble the rim cylinder and the trim ring together. From the outside of the lock section insert the rim cylinder through the section.

6f. From the inside of the lock section secure the rim cylinder using (2) #10 - 24 x 1-3/4" pan head screws.

6g. Place the lock plate over the 1-1/4" diameter center stile hole and fasten with (2) #10 - 24 x 1-3/4" pan head screws into the rim cylinder.

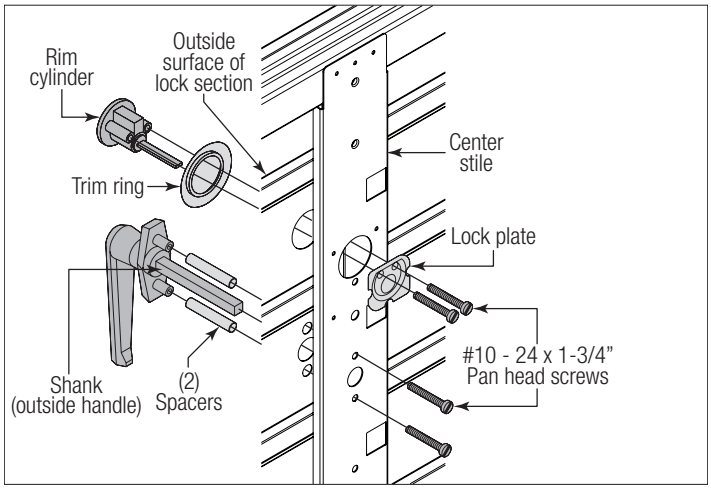


Figure 19

6h. From inside the section, slip the lock disk onto the square shank of the outside handle.

6i. Secure with the inside lock handle and tinnerman lock nut.

NOTE: Insert a 7/16" ID x 2" long pipe over the shank of the outside handle and pound on the tinnerman nut to secure parts.

6j. Insert the night latch onto the stem of the rim cylinder and secure with (4) #8 x 3/4" sheet metal screws.

6k. Position guide on end stile 3/4" away from edge of section and align with the slot in vertical track. Using the guide as a template, pilot drill 1/8" diameter holes into the end stile and secure guide to end stile using (2) 1/4" - 20 x 5/8" self drilling screws. If necessary, repeat the guide mounting process for other end or center stiles.

6l. Attach the spring to the lock bar and secure to the center stile using a #12 x 1/2" sheet metal screw.

6m. Operate the lock several times to make sure the lock bars move in and out of the vertical track smoothly. Adjust the lock bar guides up or down, if necessary.

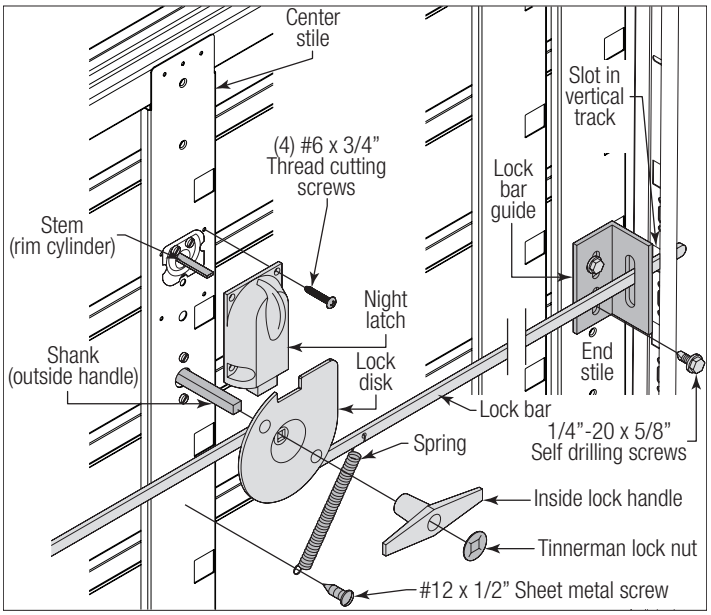


Figure 20

7 ATTACHING INSIDE LOCK

IMPORTANT: Inside lock(s) must be removed or made inoperative in the unlocked position if an operator is installed on this door.

See Figure 21 for the following steps.

7a. Position the inside lock on the second section of the door.

7b. Square the lock assembly with the door section, and align with the square hole in the vertical track. The inside lock should be spaced approximately 1/8" away from the section edge.

7c. Secure the lock to the section with (4) 1/4" - 20 x 11/16" self drilling screws.

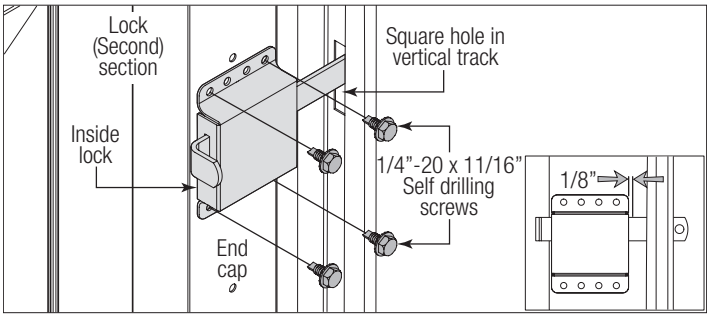


Figure 21

8 ATTACHING TOP FIXTURES

See Figure 22 and Figure 23 for the following steps.

8a. Attach top fixture using four fasteners and insert rollers.

8b. Insert the long stem track roller and slide top fixture in place. Attach to section with same procedure.

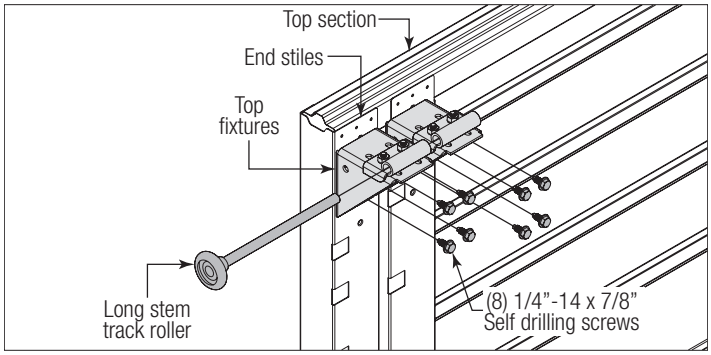


Figure 22

8c. Refer to the Windload Specification Sheet for the top section strutting schedule and their placement onto the section. Reference Step "Attaching Struts" and install the strut onto the top section.

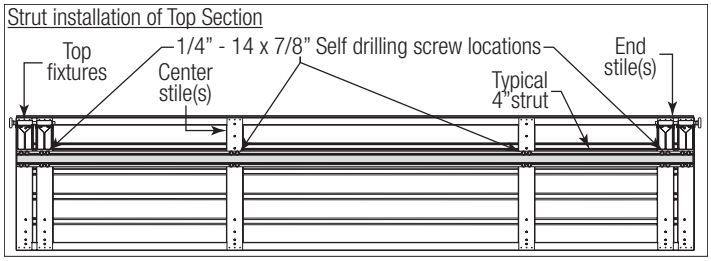


Figure 23

9 FINAL ADJUSTMENTS

9a. On manually operated doors, attach pull down rope to bottom corner bracket and long track bolts located at a jamb above mid point of door height using a rope washer.

9b. Attach the pull down rope on same side of door as lock assembly.

9c. Adjust top fixtures to seat top section against header or header seal.

9d. Adjust lock rod keeper on track, if necessary, for secure locking and ease of operation.

9e. Lubricate all moving parts (hinge barrels, rollers, lock etc.) with regular grade machine oil.

9f. Affix warning label 408616-0002 to wall next to hoist hand chain.

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OVERHEAD DOOR®

One Year Limited Warranty

The authorized distributor of Overhead Door Corporation products whose name appears below ("Seller") warrants the products sold under this warranty to be free from defects in material and workmanship under normal use and service for a period of **ONE YEAR**. Labor to repair or replace is included during this warranty period. This warranty extends only to the original purchaser ("buyer"), and expires one year after the date of installation.

Seller's sold obligation under this warranty is limited to repairing or replacing any part, which shall be determined by Seller to be defective, and is conditioned upon buyer giving written notice of any such defect to Seller within the warranty period. If Seller concludes that repair or replacement is necessary, Seller will commence work within a reasonable time after the decision to repair or replace is made.

This warranty does not apply to any product which has been altered, modified, damaged or deteriorated due to abuse, neglect, misuse or by accident. Warranty will be **VOID** if any repairs are made or attempted to be made by any person not authorized by the Seller, or if proper maintenance and painting practices are not followed.

THERE IS NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER IMPLIED WARRANTY BEYOND THE ONE-YEAR PERIOD DESCRIBED ABOVE. SELLER WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR ANY FURTHER LOSS WHICH MAY ARISE IN CONNECTION WITH ANY CLAIM.

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

Seller has not established any informal dispute settlement procedure of the type described in the Magnuson-Moss Warranty Act. Claims under this warranty must be made in writing to the Selling Distributor whose name and address appears below within the applicable warranty period. (Proof of purchase and identification as the original purchaser may be required).

DOOR TYPE: _____

OPERATOR TYPE: _____

CUSTOMER NAME (ORIGINAL PURCHASER): _____

CUSTOMER INSTALLATION LOCATION: _____

ORDER # _____

DATE OF INSTALLATION: _____

NAME OF DISTRIBUTOR/INSTALLER: _____

SIGNATURE OF DISTRIBUTOR/INSTALLER: _____

R900-972

Thank you for your purchase.

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If you need assistance, please contact your local Overhead Door™ Distributor. To find your local Overhead Door™ Distributor, refer to your local yellow pages business listings or go to the Find a Overhead Door™ Distributor section Online at **www.OverheadDoor.com**.

After installation is complete, leave this Sectional Door Installation Instructions with the owner, or fasten it near garage door for easy reference.