

8700

TORSION

FRONT MOUNT LOW HEADROOM

INSIDE HOOK-UP

MH

INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL

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IMPORTANT NOTICES!

Wayne-Dalton highly recommends that you read and fully understand the Installation Instructions and Owner's Manual before you attempt this installation.

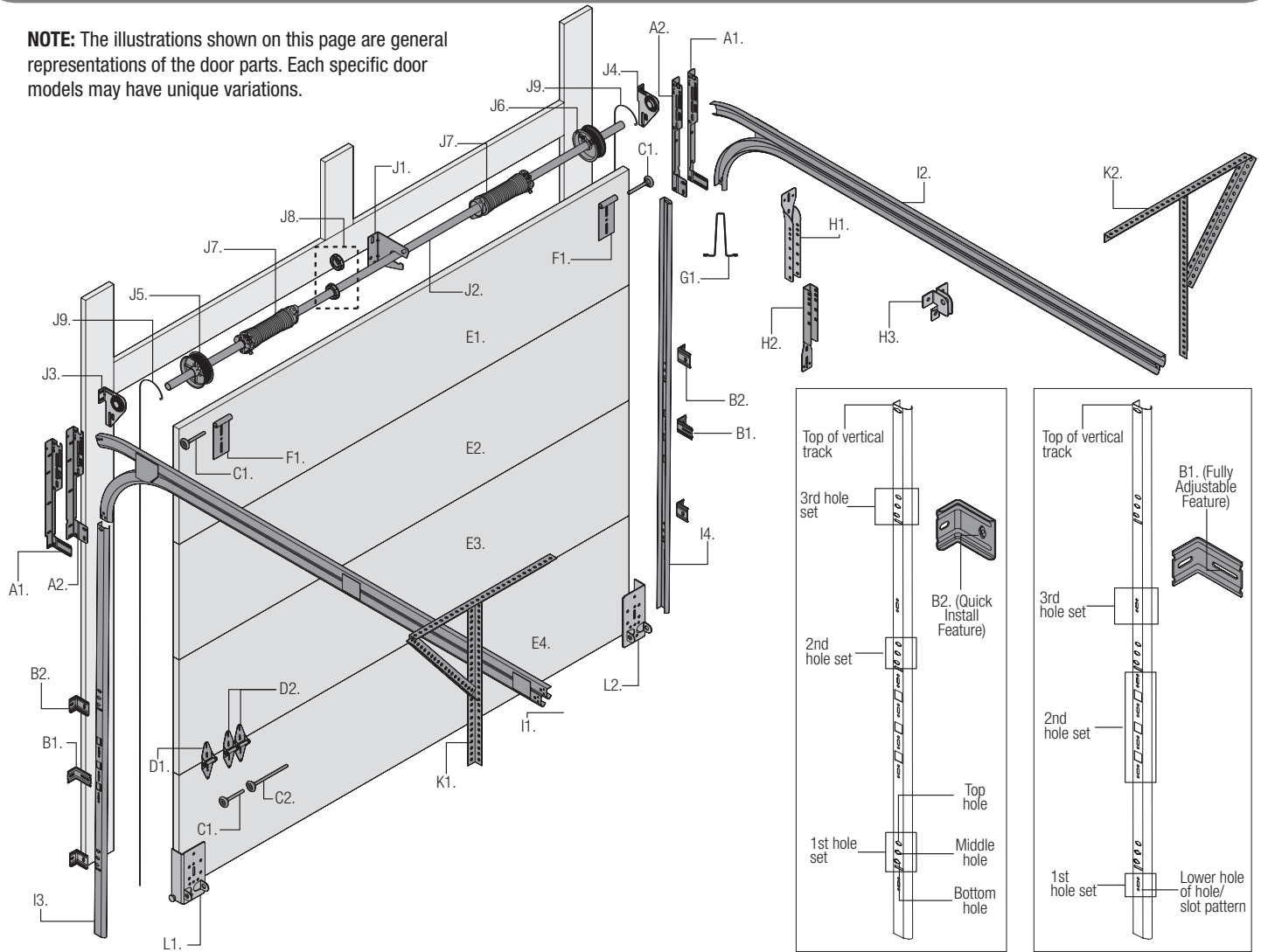
To avoid possible injury, read the enclosed instructions carefully before installing and operating the garage door. Pay close attention to all warnings and notes. After installation is complete, fasten this manual near garage door for easy reference.

The complete Installation Instructions and Owner's Manual are available at no charge from:

Wayne-Dalton, a Division Of Overhead Door Corporation,
P.O. Box 67, Mt. Hope, OH., 44660,
Or Online At www.Wayne-Dalton.com

PARTS BREAKDOWN

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



A. FLAG ANGLES (AS REQUIRED):

- A1. Fully Adjustable (F.A.) Flag Angles
- A2. Quick Install (Q.I.) Flag Angles

B. JAMB BRACKETS (AS REQUIRED):

- B1. Fully Adjustable (F.A.) Jamb Brackets
- B2. Quick Install (Q.I.) Jamb Brackets

C. TRACK ROLLERS:

- C1. Short Stem Track Rollers
- C2. Long Stem Track Rollers

D. GRADUATED END HINGES:

- D1. Single Graduated End Hinges (S.E.H.), Anti-Pinch
- D2. Single Graduated End Hinges (S.E.H.), Industry Standard
- D3. Double Graduated End Hinges (D.E.H.), Anti-Pinch
- D4. Double Graduated End Hinges (D.E.H.), Industry Standard

E. STACKED SECTIONS:

- E1. Top Section
- E2. Intermediate(s) Section
- E3. Lock Section
- E4. Bottom Section

F. TOP FIXTURES:

- F1. Top Fixtures

G. STRUT(S):

- G1. Struts (U-shaped)

H. DRAWBAR OPERATOR BRACKET (FOR TROLLEY OPERATED DOORS):

- H1. Top Halve Drawbar Operator Bracket
- H2. Bottom Halve Drawbar Operator Bracket
- H3. Drawbar Operator Bracket (Supplied By Others) (As Required)

I. TRACKS:

- I1. Left Hand Horizontal Track Assembly
- I2. Right Hand Horizontal Track Assembly
- I3. Left Hand Vertical Track
- I4. Right Hand Vertical Track

J. TORSION SPRING ASSEMBLY:

- J1. Center Bracket
- J2. Torsion Shaft
- J3. Left Hand End Bearing Bracket
- J4. Right Hand End Bearing Bracket
- J5. Left Hand Cable Drum
- J6. Right Hand Cable Drum
- J7. Right Hand and Left Hand Torsion Springs (As Required)
- J8. Center Bracket Bushing
- J9. Counterbalance Lift Cables

K. REAR BACK HANGS:

- K1. Left Hand Rear Back Hangs Assemblies
- K2. Right Hand Rear Back Hangs Assemblies

L. BOTTOM CORNER BRACKETS (AS REQUIRED):

- L1. Left Hand Bottom Corner Bracket
- L2. Right Hand Bottom Corner Bracket

Important Safety Instructions

DEFINITION OF KEY WORDS USED IN THIS MANUAL:

⚠ WARNING

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH; IF NOT AVOIDED, COULD RESULT IN SEVERE OR FATAL INJURY.

CAUTION: PROPERTY DAMAGE OR INJURY CAN RESULT FROM FAILURE TO FOLLOW INSTRUCTIONS.

IMPORTANT: REQUIRED STEP FOR SAFE AND PROPER DOOR OPERATION.

NOTE: Information assuring proper installation of the door.

READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A TRAINED DOOR SYSTEMS TECHNICIAN DO THE INSTALLATION OR REPAIRS.

- 1. READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.**
- Wear protective gloves during installation to avoid possible cuts from sharp metal edges.
- It is always recommended to wear eye protection when using tools, otherwise eye injury could result.
- Avoid installing your new door on windy days. Door could fall during the installation causing severe or fatal injury.
- Doors 12'-0" wide and over should be installed by two persons, to avoid possible injury.
- 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.
- Due to constant extreme spring tension, do not attempt any adjustment, repair or alteration to any part of the door, especially to springs, spring brackets, bottom corner brackets, fasteners, counterbalance lift cables or supports. To avoid possible severe or fatal injury, have any such work performed by a trained door systems technician using proper tools and instructions.
- On electrically operated doors, pull down ropes must be removed and locks must be removed or made inoperative in the open (unlocked) position.
- Top section of door may need to be reinforced when attaching an electric opener. Check door and/ or opener manufacturer's instructions.
- 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.
- This door may not meet the building code wind load requirements in your area. For your safety, you will need to check with your local building official for wind load code requirements and building permit information.

After installation is complete, fasten this manual near the garage door.

IMPORTANT: STAINLESS STEEL OR PT2000 COATED LAG SCREWS MUST BE USED WHEN INSTALLING CENTER BEARING BRACKETS, END BRACKETS, JAMB BRACKETS, DRAWBAR OPERATOR MOUNTING/ SUPPORT BRACKETS AND DISCONNECT BRACKETS ON TREATED LUMBER (PRESERVATIVE-TREATED). STAINLESS STEEL OR PT2000 LAG SCREWS ARE NOT NECESSARY WHEN INSTALLING PRODUCTS ON UN-TREATED LUMBER.

NOTE: It is recommended that 5/16" lag screws are pilot drilled using a 3/16" drill bit, prior to fastening.

IMPORTANT: 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.

⚠ WARNING

PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE, THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY.

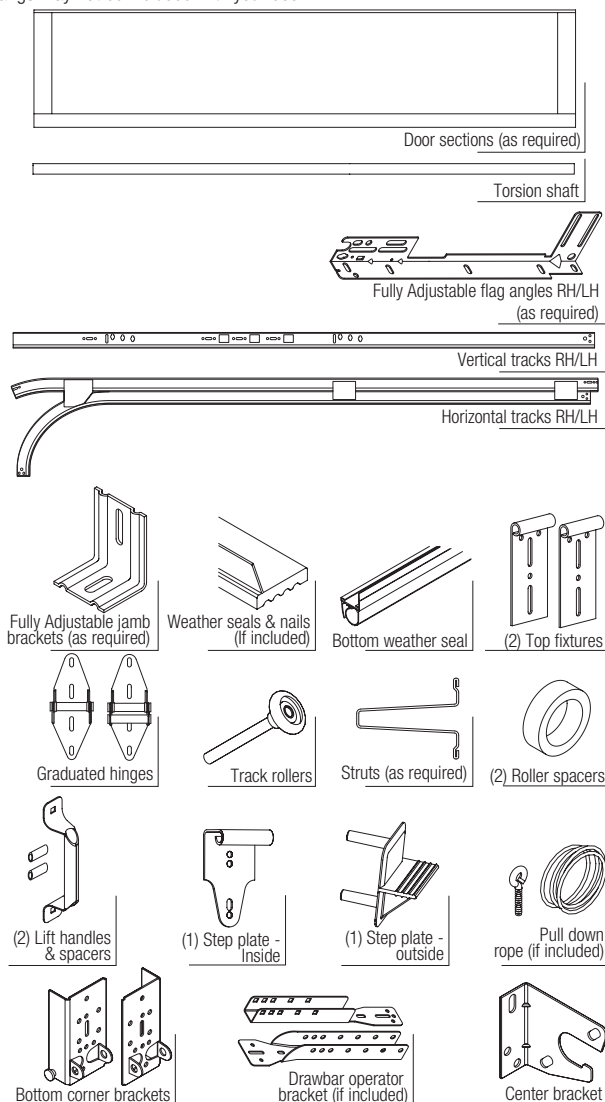
IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

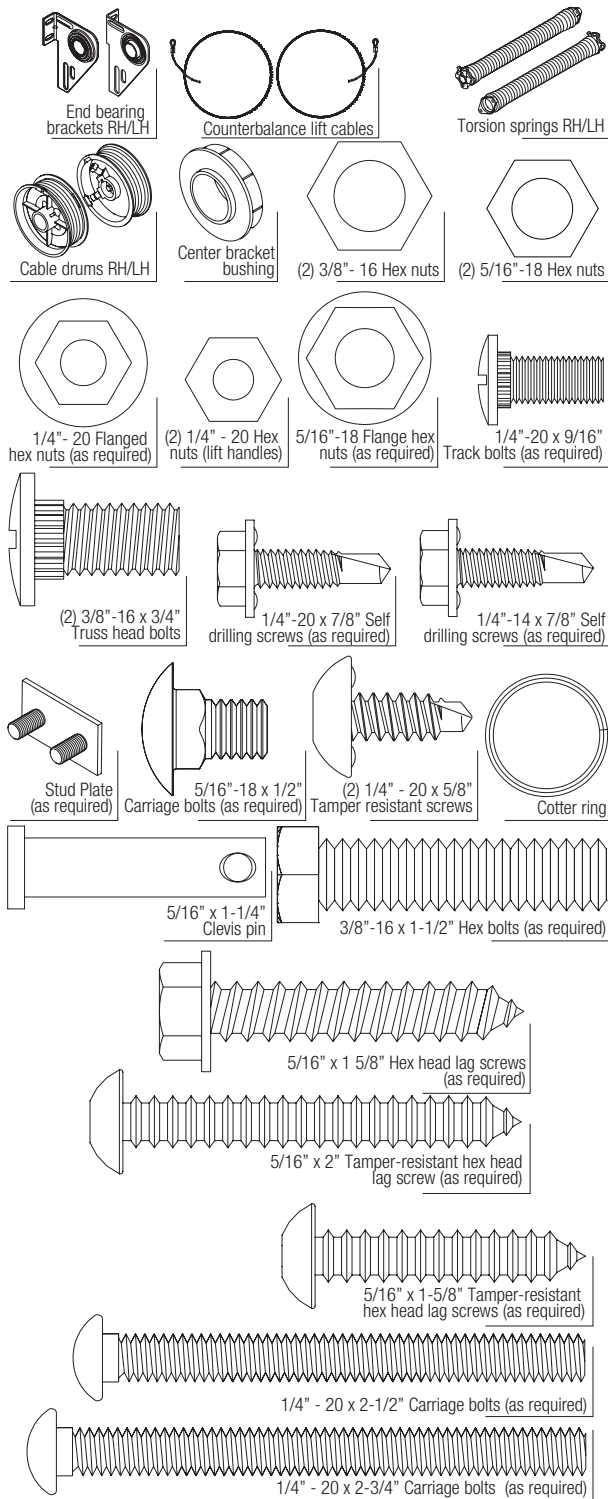
Tools Required

- Power drill
- Drill bits: 1/8", 3/16", 9/32", 7/16", 1/2"
- Ratchet wrench
- Socket driver: 7/16"
- Sockets: 7/16", 1/2", 9/16", 5/8"
- Phillips head screwdriver
- Locking Pliers
- (2) Vice clamps
- Wrenches: 3/8", 7/16", 1/2", 9/16", 5/8"
- 1/4" Torx bit
- Approved winding rods
- Hammer
- Tape measure
- Step Ladder
- Level
- Pencil
- Leather gloves
- Safety glasses

Package Contents

NOTE: Depending on the door model, some parts listed will not be supplied if not required. Rear Back Hangs may not be included with your door.



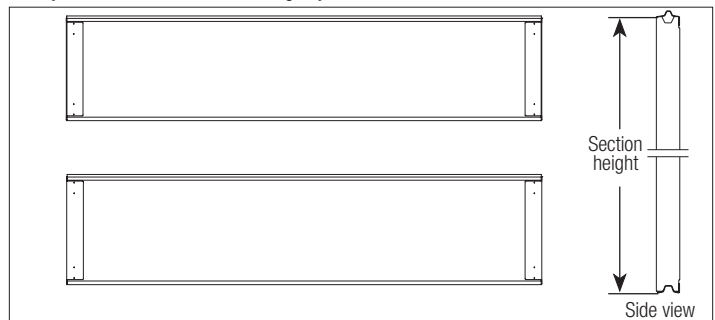


Door Section Identification

Door Height	Bottom	Lock	Intermediate I (Third)	Intermediate II (Fourth)	Top
6'0"	18"	18"	18"	N/A	18"
6'3"	21"	18"	18"	N/A	18"
6'6"	21"	18"	18"	N/A	21"
6'9"	21"	21"	21"	N/A	18"
7'0"	21"	21"	21"	N/A	21"
7'6"	18"	18"	18"	18"	18"

7'9"	21"	18"	18"	18"	18"
8'0"	21"	18"	18"	18"	21"

When installing your door you must use sections of the appropriate height in the right stacking order. What sections heights you need to use in what order depends on the height of your door. Unless your door is five sections in height, you will not receive an Intermediate II section.



Removing an Existing Door

IMPORTANT: COUNTERBALANCE SPRING TENSION MUST ALWAYS BE RELEASED BEFORE ANY ATTEMPT IS MADE TO START REMOVING AN EXISTING DOOR.

⚠ WARNING

A POWERFUL SPRING RELEASING ITS ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY. TO AVOID INJURY, HAVE A TRAINED DOOR SYSTEMS TECHNICIAN, USING PROPER TOOLS AND INSTRUCTIONS, RELEASE THE SPRING TENSION.

For detailed information see supplemental instructions "Removing an Existing Door/ Preparing the Opening". These instructions are not supplied with the door, but are available at no charge from Wayne-Dalton, A Division Of Overhead Door Corporation, P.O. Box 67, Mt. Hope, OH., 44660, or at www.Wayne-Dalton.com.

Preparing the Opening

IMPORTANT: IF YOU JUST REMOVED YOUR EXISTING DOOR OR YOU ARE INSTALLING A NEW DOOR, COMPLETE ALL STEPS IN PREPARING THE OPENING.

To ensure secure mounting of track brackets, side and center brackets, or steel angles to new or retro-fit construction, it is recommended to follow the procedures outlined in DASMA technical data sheets #156, #161 and #164 at www.dasma.com.

The inside perimeter of your garage door opening should be framed with wood jamb and header material. The jambs and header must be securely fastened to sound framing members. It is recommended that 2" x 6" lumber be used. The jambs must be plumb and the header level. The jambs should extend a minimum of 12" (305 mm) above the top of the opening for Torsion counterbalance systems. For low headroom applications, the jambs should extend to the ceiling height. Minimum side clearance required, from the opening to the wall, is 3-1/2" (89 mm).

IMPORTANT: CLOSELY INSPECT JAMBS, HEADER AND MOUNTING SURFACE. ANY WOOD FOUND NOT TO BE SOUND, MUST BE REPLACED.

For Torsion counterbalance systems, a suitable mounting surface (2" x 6") must be firmly attached to the wall, above the header at the center of the opening.

NOTE: Drill a 3/16" pilot hole in the mounting surface to avoid splitting the lumber. Do not attach the mounting surface with nails.

WEATHERSTRIPS (MAY NOT BE INCLUDED):

Depending on the size of your door, you may have to cut or trim the weatherstrips (if necessary) to properly fit into the header and jambs.

NOTE: If nailing product at 40°F or below, pre-drilling is required.

NOTE: Do not permanently attach weatherstrips to the header and jambs at this time.

For Quick Install track: For the header, align the weatherstrip with the inside edge of the header and temporarily secure it to the header with equally spaced nails. Starting at either side of the jamb, fit the weatherstrip up tight against the temporarily attached weatherstrip in the header and flush with the inside edge of the jamb. Temporarily secure the weatherstrip with equally spaced nails. Repeat for other side. This will keep the bottom section from falling out of the opening during installation. Equally space nails approximately 12" to 18" apart.

For Fully Adjustable track: For the header, align the weatherstrip 1/8" to 1/4" inside the header edge, and temporarily secure it to the header with equally spaced nails. Starting at either side of the jamb, fit the weatherstrip up tight against the temporarily attached weatherstrip in the header and 1/8" to 1/4" inside the jamb edge. Temporarily secure the weatherstrip with equally spaced nails. Repeat for other side. This will keep the bottom section from falling out of the opening during installation. Equally space nails approximately 12" to 18" apart.

Headroom requirement: Headroom is defined as the space needed above the top of the door

for tracks, springs, etc. to allow the door to open properly. If the door is to be motor operated, 2-1/2" (64 mm) of additional headroom is required.

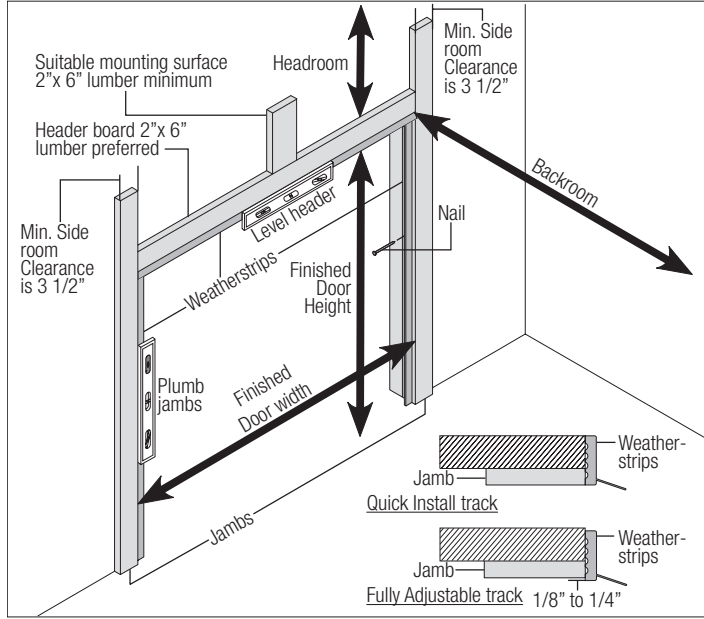
Backroom requirement: Backroom is defined as the distance needed from the opening back into the garage to allow the door to open fully.

BACKROOM REQUIREMENTS

DOOR HEIGHT	TRACK	MANUAL LIFT	MOTOR OPERATED
6'0" to 7'0"	12",15" Radius	102" (2591 mm)	125" (3175 mm)
7'1" to 8'0"	12",15" Radius	114" (2896 mm)	137" (3480 mm)

HEADROOM REQUIREMENTS

TRACK TYPE	SPACE NEEDED
3" LHR	8" (203 mm)
6" LHR	8-3/4" (222 mm)



INSTALLATION

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.

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

1

Fully Adjustable Flag Angles

Tools: None

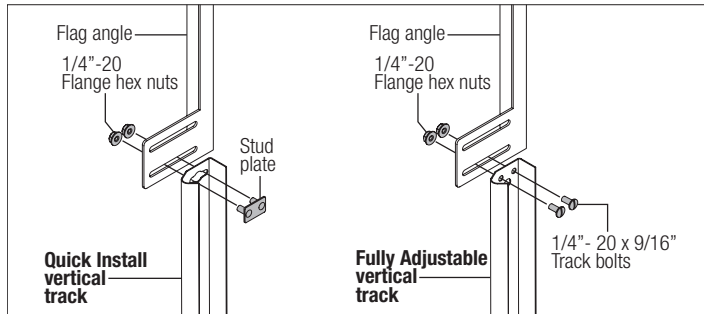
NOTE: If you have Quick Install flag angles, skip this step.

NOTE: If you have riveted track, skip this step.

NOTE: Flag angles are right and left handed.

If you have Quick Install vertical tracks, hand tighten the left hand flag angle to the left hand vertical track using (1) stud plate and (2) 1/4" - 20 flange hex nuts. Repeat for the other side.

If you have Fully Adjustable vertical tracks, hand tighten the left hand flag angle to the left hand vertical track using (2) 1/4" - 20 x 9/16" track bolts and (2) 1/4" - 20 flange hex nuts. Repeat for other side. Flange nuts will be secured after flag angle spacing is completed in step, Top Section.



2

Fully Adjustable Jamb Brackets

Tools: None

NOTE: If you have Quick Install jamb brackets, skip this step.

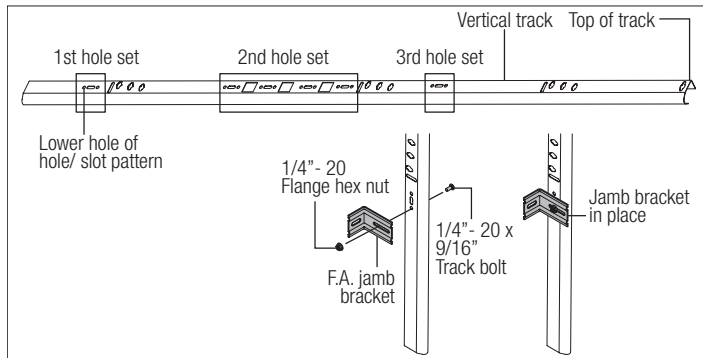
NOTE: If you have riveted track, skip this step.

NOTE: The bottom jamb bracket is always the shortest bracket, while the center jamb bracket is the next tallest. If three jamb brackets per side are included with your door, you will have received a top jamb bracket, which is the tallest.

To attach the bottom jamb bracket, locate lower hole of the hole/ slot pattern of the 1st hole set on the vertical track. Align the slot in the jamb bracket with the lower hole of the hole/ slot pattern. Secure jamb bracket using (1) 1/4" - 20 x 9/16" track bolt and (1) 1/4" - 20 flange hex nut. Repeat for other side.

Place the center jamb bracket over the lower hole of the hole/ slot pattern that is centered between the bottom jamb bracket and flag angle of the 2nd hole set. Secure jamb bracket using (1) 1/4" - 20 x 9/16" track bolt and (1) 1/4" - 20 flange hex nut. Repeat for other side.

If a top jamb bracket was included, secure it to vertical track using the lower hole of the hole/ slot pattern in the 3rd hole set and (1) 1/4" - 20 x 9/16" track bolt and (1) 1/4" - 20 flange hex nut. Repeat for other side.



3

Bottom Weather Seal

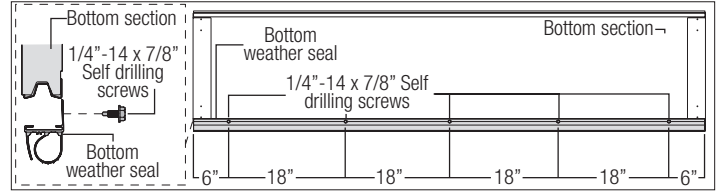
Tools: Power Drill, 7/16" Socket driver, Tape measure

NOTE: Refer to door section identification, located in the pre-installation section of this manual.

Determine what size section you need to use for the bottom section. Select proper bottom

section.

Align the ends of the bottom weather seal with the bottom of the section and attach with 1/4" - 14 x 7/8" self drilling screws, one on each end at least 6" from the end of the section and one every 18" in between.



4

Counterbalance Lift Cables

Tools: Power Drill, 7/16" Socket driver, Tape measure

NOTE: Refer to door section identification, located in the pre-installation section of this manual.

Starting on the left hand side, attach left hand bottom corner bracket to the left corner of the bottom section, making sure it is seated to the edges of the end cap, with (5) 1/4" - 14 x 7/8" self drilling screws and (1) 1/4" - 14 x 5/8" tamper resistant self drilling screw. Repeat for other side.

NOTE: All doors are provided with the tamper resistant fastener for the bottom corner brackets. However, the professional installer is most likely to have the proper tool to install this fastener. If the homeowner does not have the proper tool to install the tamper resistant fastener, use a regular 1/4" - 14 x 7/8" self drilling screw in it's place.

WARNING

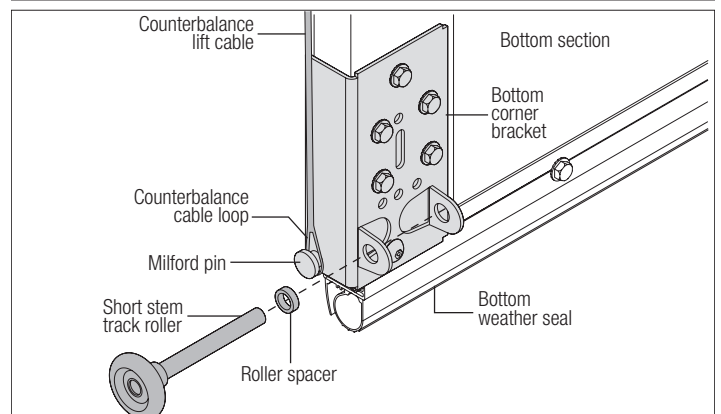
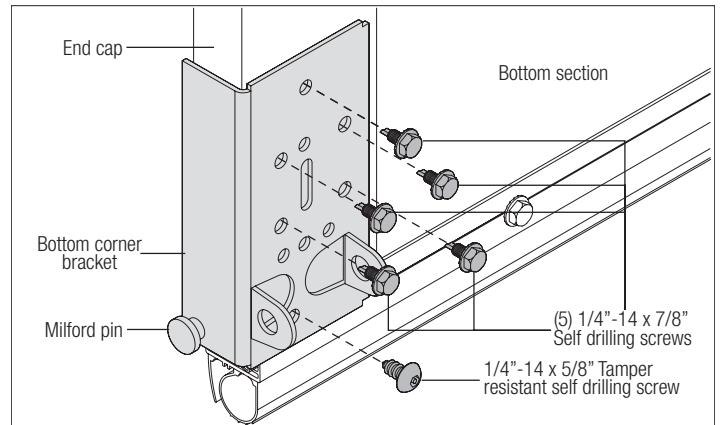
FAILURE TO ENSURE TIGHT FIT OF CABLE LOOP OVER MILFORD PIN COULD RESULT IN CABLE COMING OFF THE PIN, ALLOWING THE DOOR TO FALL, POSSIBLY RESULTING IN SEVERE OR FATAL INJURY.

Uncoil the counterbalance lift cables and slip the loop at the ends of the cables over the milford pins on the bottom section.

NOTE: Check to ensure cable loop fits tightly over the milford pins.

Insert a short stem track roller with roller spacer into the bottom corner bracket. Repeat for other side.

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.



5

Graduated Hinge Attachment

Tools: Power drill, 7/16" Socket driver

NOTE: Refer to door section identification, located in the pre-installation section of this manual.

NOTE: The graduated hinges can be identified by the number stamped onto their lower hinge leaf.

Locate the bottom section, (2) #1 graduated end hinges (wide body) for the end stiles and depending on the width of your door, enough #1 center hinge(s) (narrow body) for each of the pre-marked center hinge locations. Starting on the left hand side of the bottom section, align the lower hinge leaf of the #1 graduated end hinge over the holes, located at the top of the end caps. Also, align the lower hinge leaves of the #1 center hinges (narrow body) with the pre-marked locations at the center locations at the top of the section. Attach lower hinge leaves to the section using (2) 1/4"-14 x 7/8" self drilling screws.

IMPORTANT: ONCE THE 1/4"-14 X 7/8" SELF DRILLING SCREWS ARE SNUG AGAINST THE LOWER HINGE LEAFS, TIGHTEN AN ADDITIONAL 1/4 TO 1/2 TURN TO RECEIVE MAXIMUM DESIGN HOLDING POWER.

IMPORTANT: PUSH & HOLD THE HINGE LEAF SECURELY AGAINST THE SECTION WHILE SECURING WITH 1/4"-14 X 7/8" SELF DRILLING SCREWS. THERE SHOULD BE NO GAP BETWEEN THE HINGE LEAF AND THE SECTION.

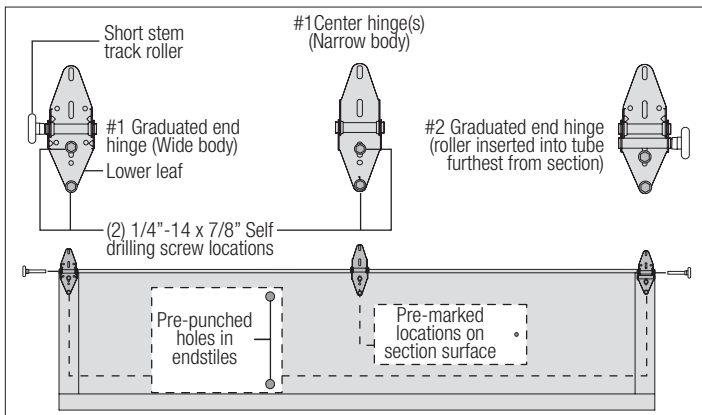
Place a short stem track roller into each graduated end hinge. Repeat graduated hinge attachment using the appropriate graduated end hinges for all remaining sections except the top section.

IMPORTANT: WHEN PLACING SHORT STEM TRACK ROLLERS INTO THE #2 GRADUATED END HINGES AND HIGHER, THE SHORT STEM TRACK ROLLER GOES INTO HINGE TUBE FURTHEST AWAY FROM SECTION.

Use (2) #2 graduated end hinges (wide body) and the required number of #1 center hinge(s) (narrow body) for each of the center hinge pre-marked location(s) along the top edge of the lock section (second section).

Use (2) #3 graduated end hinges (wide body) and the required number of #1 center hinge(s) (narrow body) for each of the center hinge(s) (narrow body) pre-marked location(s) along the top edge of the intermediate I section (third section).

Use (2) #4 graduated end hinges (wide body) and the required number of #1 center hinge(s) (narrow body) for each of the center hinge pre-marked location(s) along the top edge of the intermediate II section (third section).



6

Strut Attachment

Tools: Power drill, 7/16" Socket driver, (2) Saw horses, Tape measure

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 (second) section, intermediate I (third) section, intermediate II (fourth section on a five section door) and top section. Measure your sections to make sure they are the correct height as indicated on the chart.

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

Using sawhorses, lay sections together on a flat smooth surface. Ensure the hinges are on top of their corresponding sections. Referring to the strutting schedule, determine how many struts your door needs and on what sections they are needed to be installed.

NOTE: Sections not noted in the strutting schedule, do not require a strut.

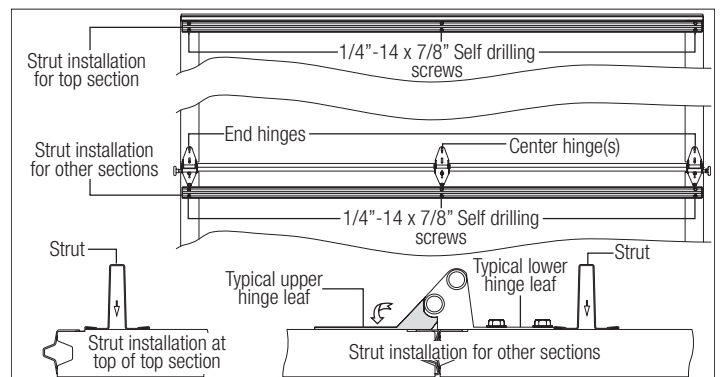
NOTE: All strut(s) are placed at the top of the section.

INSTALLATION ON ALL SECTIONS (EXCEPT TOP SECTION): Place the strut on the section up against the bottom of the hinges. Center the strut side to side on the section as shown. Secure to the section using (2) 1/4"-14 x 7/8" self drilling screws at each end hinge location and (2) 1/4"-14 x 7/8" self drilling screw at each center hinge location.

INSTALLATION ON TOP SECTION: Place the strut on the top section, center the strut side to side on the top edge of the top section. Loosely fasten to the section using (2) 1/4"-14 x 7/8" self drilling screws at each endstile. The 1/4"-14 x 7/8" self drilling screws for the endstiles will be secured after step, Top Fixture is completed. Next, secure strut to the section using (2) 1/4"-14 x 7/8" self drilling screw at each center hinge location at each pre-marked location.

Strutting Schedule

Section	Quantity	Section	Solid / Windows	Door Width		
				6'0" - 10'0"	12'0"	13'0" - 18'0"
4	Top	Solid	N/A	1	1	
		Windows	1	1	1	
	Intermediate	Solid	N/A	N/A	N/A	
		Windows	1	1	N/A	
	Lock	Solid	N/A	N/A	N/A	
	Bottom		N/A	N/A	1	
5	Top	Solid	N/A	1	1	
		Windows	1	1	1	
	Intermediate II	Solid	N/A	N/A	N/A	
		Windows	1	1	N/A	
	Intermediate	Solid	N/A	N/A	1	
		Windows	1	1	1	
	Lock	Solid	N/A	N/A	N/A	
	Bottom	Windows	N/A	N/A	1	

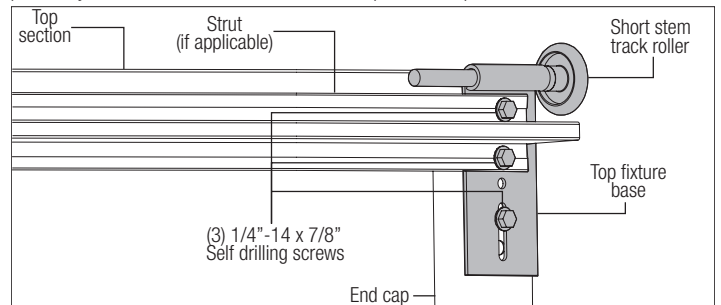


7

Top Fixtures

Tools: Power drill, 7/16" Socket driver, (2) Saw horses, Tape measure

Remove, but retain the 1/4"-14 x 7/8" self drilling screws from the right side of the strut, allowing enough room to slide the top fixture between the top section and the strut (if applicable). Slide the top fixture between the strut and top section. Align the edge of the top fixture parallel to the top section edge. Secure the top fixture to the top section using (1) 1/4"-14 x 7/8" self drilling screw through the lower slot of top fixture. Adjust the top fixture, if necessary. Finish re-attaching the strut using the (2) 1/4"-14 x 7/8" self drilling screws removed previously. Insert a short stem track roller into top fixture. Repeat for left hand side.



8

Step Plate

Tools: Power Drill, 7/16" Drill Bit, Phillips Screwdriver, Tape Measure

NOTE: Refer to door section identification, located in the pre-installation section of this manual.

On the inside of the bottom section, locate the vertical center of the door.

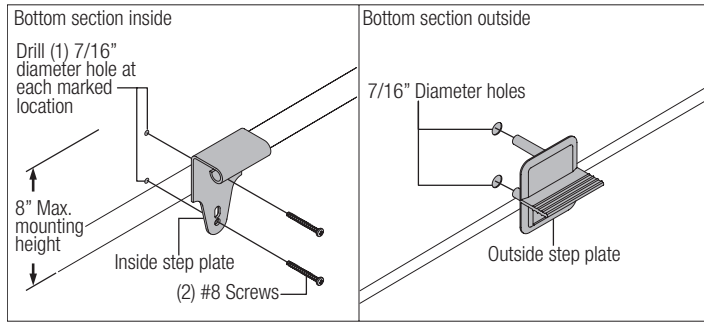
Center the inside step plate vertically no higher than 8" from the bottom of the door to the top of the step plate.

IMPORTANT: DO NOT MOUNT THE STEP PLATE HIGHER THAN 8" FROM THE BOTTOM OF THE SECTION.

Using the inside step plate's second top most hole and bottom hole as a template, drill 7/16" diameter holes through the entire section.

NOTE: Be extremely careful to keep drill straight when drilling through the section.

Now insert the outside step plate into the holes through the front of the door, mounting the two step plates back to back. Secure step plates together with two No. 8 screws through the inside step plate and into the outside step plate.



9

Lift Handle

Tools: Pencil, Power Drill, (9/32, 1/2") Drill Bits, (2) Saw horses, Tape Measure, 7/16" Wrench

NOTE: Refer to door section identification, located in the pre-installation section of this manual

Using sawhorses, lay the bottom and lock sections together on a flat smooth surface. Ensure the hinges are on top of their corresponding sections.

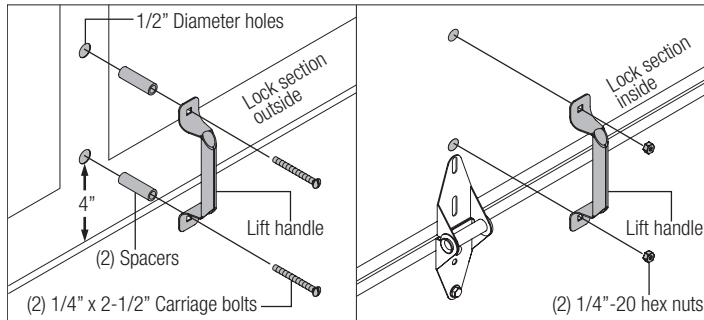
Locate the vertical center of the lock (second) section of the door and position the lift handle's bottom hole 4" from the bottom of the lock section along the vertical center on the outside of the door. Use the holes in the lift handle as a template to mark the hole locations.

IMPORTANT: THE LIFT HANDLE AND THE STEP PLATE NEED TO BE VERTICALLY ALIGNED.

Drill 9/32" diameter holes through the section at each marked location. Enlarge the holes from outside the door to 1/2" diameter through the section. Assemble the outside and inside lift handles to the section using (2) 1/4" x 2-1/2" carriage bolts and (2) 1/4"-20 hex nuts and spacers.

WARNING

TO AVOID POSSIBLE INJURY, LIFT HANDLES THAT ARE INSTALLED WITHIN 4 INCHES (102MM) OF A SECTION INTERFACE SHALL PROMOTE VERTICAL ORIENTATION OF THE HAND.

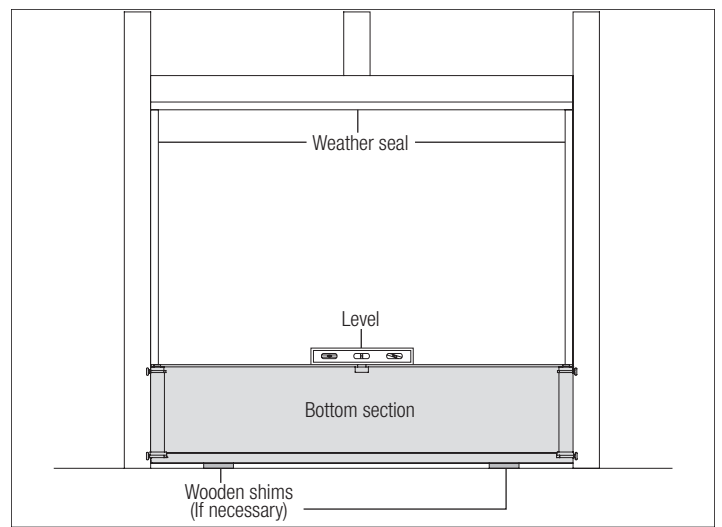


10

Bottom Section

Tools: Level, Wooden shims (if necessary)

Center the bottom section in the door opening. Level the section using wooden shims (if necessary) under the bottom section.



11

Vertical Tracks

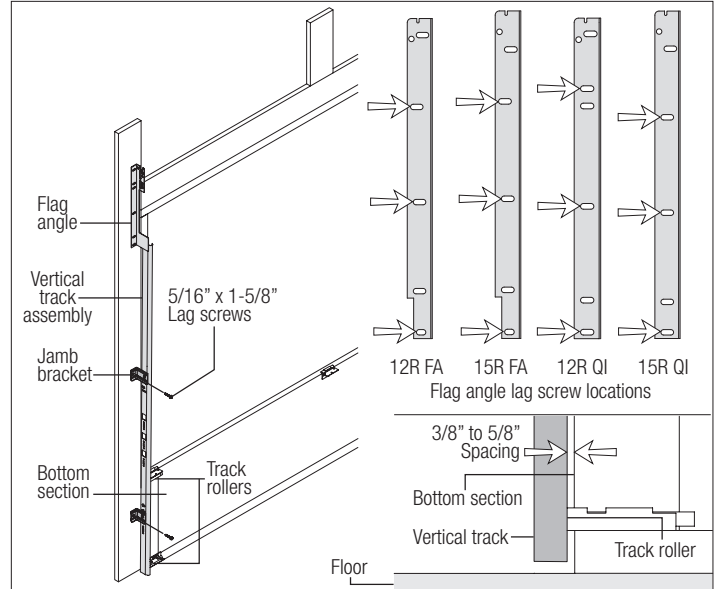
Tools: Power Drill, 3/16" Drill bit, 7/16" Socket driver, Tape measure, Level, Step ladder

IMPORTANT: IF YOUR DOOR IS TO BE INSTALLED PRIOR TO A FINISHING CONSTRUCTION OF THE BUILDING'S FLOOR, THE VERTICAL TRACKS AND THE DOOR BOTTOM SECTION ASSEMBLY SHOULD BE INSTALLED SUCH THAT WHEN THE FLOOR IS CONSTRUCTED, NO DOOR OR TRACK PARTS ARE TRAPPED IN THE FLOOR CONSTRUCTION.

IMPORTANT: THE TOPS OF THE VERTICAL TRACKS MUST BE LEVEL FROM SIDE TO SIDE. IF THE BOTTOM SECTION WAS SHIMMED TO LEVEL IT, THE VERTICAL TRACK ON THE SHIMMED SIDE MUST BE RAISED THE HEIGHT OF THE SHIM.

Position the left hand vertical track assembly over the track rollers of the bottom section. Make sure the counterbalance lift cable is located between the track rollers and the door jamb. Drill 3/16" pilot holes into the door jamb for the lag screws.

Loosely fasten jamb brackets and flag angle to the jamb using 5/16" x 1-5/8" lag screws. Tighten lag screws, securing the bottom jamb bracket to jamb, maintain 3/8" to 5/8" spacing, between the bottom section and vertical track. Hang counterbalance lift cable over flag angle. Repeat same process for other side.



12

Stacking Sections

Tools: Power drill, 7/16" Socket driver

NOTE: Refer to door section identification, located in the pre-installation section of this manual.

NOTE: The sections can be identified by the graduation of the factory installed graduated end hinges. The smallest graduated end hinge on section should be stacked on top of the bottom section, with each graduated end hinge increasing as the sections are stacked, see Parts Breakdown on page 2.

NOTE: Make sure end and center hinges are flipped down, when stacking another section on top.

Place track rollers into graduated end hinges of remaining sections.

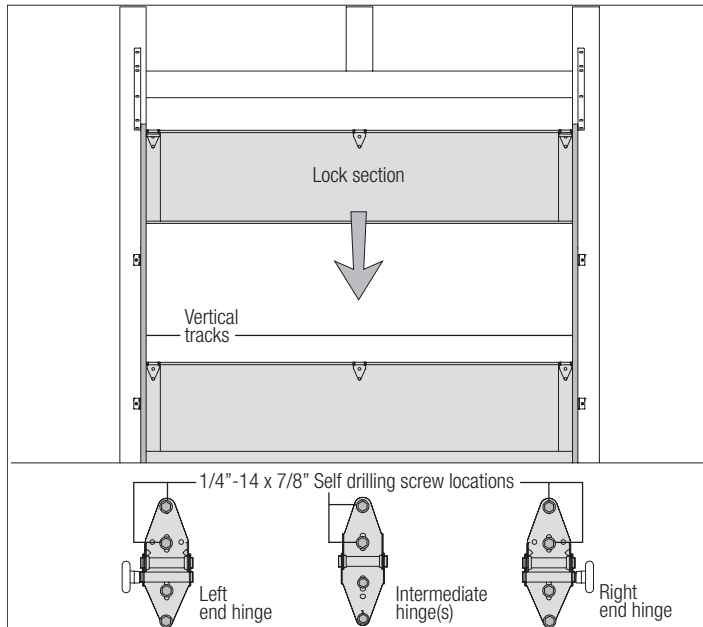
NOTE: Larger doors will use long stem track rollers with double graduated end hinges.

With assistance, lift second section and guide the track rollers into the vertical tracks. Lower section until it is seated against bottom section. Flip hinges up. Fasten center hinge(s) first; then end hinges last using 1/4"-14 x 7/8" self-drilling screws.

Repeat same process for other sections, except top section.

IMPORTANT: PUSH & HOLD THE HINGE LEAFS SECURELY AGAINST THE SECTIONS WHILE SECURING WITH 1/4"-14 x 7/8" SELF-DRILLING SCREWS. THERE SHOULD BE NO GAP BETWEEN THE HINGE LEAFS AND THE SECTIONS.

NOTE: Install lock at this time (sold separately). See optional installation step, Side Lock.



13

Top Section

Tools: Hammer, Step ladder, Tape measure

Place the top section in the opening. Temporarily secure the top section by driving a nail into the header near the center of the door and bending it over the top section. Now, flip up the graduated end and center hinge leaves, hold tight against section, and fasten center hinges first and end hinges last (refer to step, Stacking Sections). Vertical track alignment is critical. Position flag angle between 1-11/16" (43 mm) to 1-3/4" (44 mm) from the edge of the door; tighten the bottom lag screw. Flag angles must be parallel to the door sections. Repeat same process for other side.

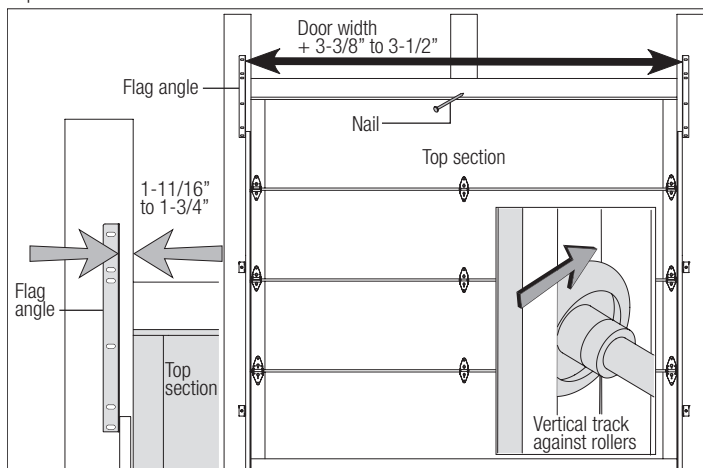
IMPORTANT: THE DIMENSION BETWEEN THE FLAG ANGLES MUST BE DOOR WIDTH PLUS 3-3/8" (86MM) TO 3-1/2" (89 MM) FOR SMOOTH, SAFE DOOR OPERATION.

FOR QUICK INSTALL TRACK:

Complete the vertical track installation by securing the jamb bracket(s) and tightening the other lag screws. Repeat for other side.

FOR FULLY ADJUSTABLE TRACK:

Complete the vertical track installation by securing the jamb bracket(s) and tightening the other lag screws. Push the vertical track against the track rollers so that the track rollers are touching the deepest part of the curved side of the track; tighten all the track bolts and nuts. Repeat for other side.



14

Drawbar Operator Bracket

Tools: Level, Power drill, 7/16" Socket driver, Tape measure

IMPORTANT: WHEN CONNECTING A TROLLEY TYPE GARAGE DOOR OPENER TO THIS DOOR, A WAYNE-DALTON OPERATOR/ TROLLEY BRACKET MUST BE SECURELY ATTACHED TO THE TOP SECTION OF THE DOOR IF ONE HAS BEEN PROVIDED, ALONG WITH ANY STRUTS PROVIDED WITH THE DOOR (IF A WAYNE-DALTON OPERATOR/ TROLLEY BRACKET WAS NOT PROVIDED WITH YOUR DOOR, THEN USE THE ONE PROVIDED BY YOUR OPERATOR MANUFACTURER). THE INSTALLATION OF THE OPERATOR MUST BE ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND FORCE SETTINGS MUST BE ADJUSTED PROPERLY.

NOTE: For retro fit applications, the drawbar operator bracket must be aligned with an existing operator.

NOTE: Refer to illustrations to determine which top fixtures were supplied with your door.

FOLLOW THE CORRESPONDING STEP BELOW:

A: Place the bottom half of drawbar operator bracket inside the top half of drawbar operator bracket and flush against the inside surface of the top section. Adjust both the top and bottom halves out as far apart as possible on the section surface. Secure the bottom half drawbar operator bracket and the top half drawbar operator bracket together using (4) 5/16"-18 x 1/2" carriage bolts and (4) 5/16"-18 flange hex nuts.

NOTE: Install the 5/16"-18 x 1/2" carriage bolts and the 5/16"-18 flange hex nuts as far apart as possible, prior to securing both top and bottom halves together.

Now, locate the center of the top section and align the center of the holes in the drawbar operator bracket assembly vertically.

Slide the top half of the drawbar operator bracket under the strut, keeping the drawbar operator bracket aligned with the center line. Remove the strut's screws, if necessary and attach to the top section (through strut if necessary) using (3) 1/4"-20 x 7/8" self drilling screws.

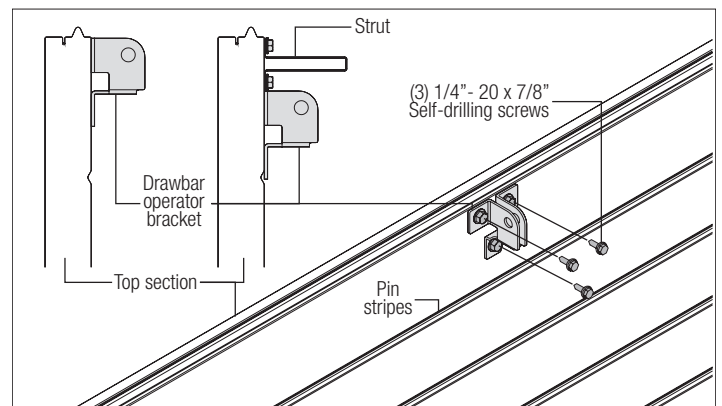
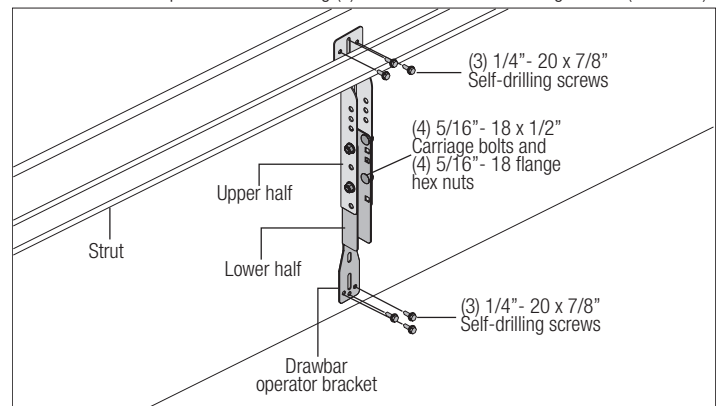
NOTE: If your door lacks a strut on the top section, ignore the previous paragraph.

Attach the bottom half of the drawbar operator bracket to the section surface using (3) 1/4"-20 x 7/8" self drilling screws.

NOTE: When attaching drawbar operator bracket to top section with strut, apply additional pressure to thread into the strut.

B: Locate the center of the top section. Position the drawbar operator bracket under the strut (if applicable) or align the drawbar operator bracket top edge with the top edge of the top section, as shown.

Attach the drawbar operator bracket using (3) 1/4"-20 x 7/8" self drilling screws (as shown).



15

Horizontal Tracks/Q.I Flag Angles

Tools: Ratchet wrench, 9/16" Socket, 9/16" Wrench, level, Step ladder

NOTE: If you have Quick Install flag angles, complete this step.

To install horizontal track, place the top rail end over the top track roller of the top section. Align key slot of the bottom rail end of horizontal track with the Quick Install tab of the flag angle. Push curved portion of horizontal track down to lock in place.

⚠ WARNING

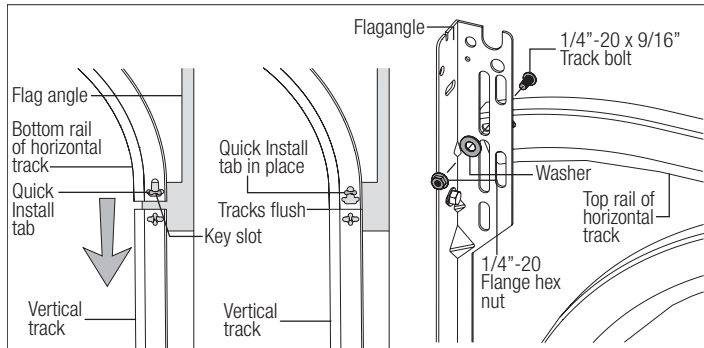
DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP, REAR BACK HANGS, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

Level the horizontal track assembly and bolt the top rail of the horizontal track to the encountered slot in the flag angle using (1) 1/4"-20 x 9/16" track bolt, (1) 1/4"-20 flange hex nut and (1) 5/16 washer. Repeat for other side.

Remove the nail that was temporarily holding the top section in place, installed in step, Top Section.

IMPORTANT: FAILURE TO REMOVE NAIL BEFORE ATTEMPTING TO RAISE DOOR COULD CAUSE PERMANENT DAMAGE TO TOP SECTION.

NOTE: If an iDrive® opener will be installed, position horizontal tracks slightly above level.



16

Horizontal Tracks/F.A. Flag Angles

Tools: Ratchet wrench, 7/16" Socket, 9/16" Socket, 9/16" Wrench, level, Step ladder, Flat tip screwdriver

NOTE: If you have Fully Adjustable flag angles, complete this step.

To install horizontal track, place the top rail end over the top track roller of the top section. Align the bottom rail end of the horizontal track with the top of the vertical track. If you have Quick Install horizontal track, tighten the bottom rail of the horizontal track to the flag angle with (1) stud plate and (2) 1/4"-20 flange hex nuts. If you have Universal horizontal track, tighten the bottom rail of the horizontal track to the flag angle with (2) 1/4"-20 x 9/16" track bolts and (2) 1/4"-20 flange hex nuts.

⚠ WARNING

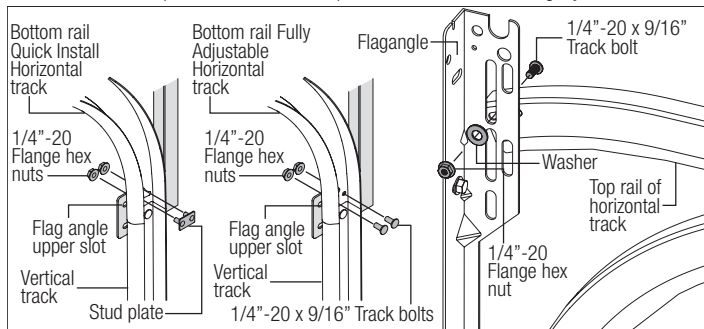
DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP, REAR BACK HANGS, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

Level the horizontal track assembly and bolt the top rail of the horizontal track to the encountered slot in the flag angle using (1) 1/4"-20 x 9/16" track bolt, (1) 1/4"-20 flange hex nut and (1) 5/16 washer. Repeat for other side.

Remove the nail that was temporarily holding the top section in place, installed in step, Top Section.

IMPORTANT: FAILURE TO REMOVE NAIL BEFORE ATTEMPTING TO RAISE DOOR COULD CAUSE PERMANENT DAMAGE TO TOP SECTION.

NOTE: If an iDrive® opener will be installed, position horizontal tracks slightly above level.



17

End Bearing Brackets

Tools: Step ladder, Power drill, 7/16" Socket driver

NOTE: Right and left hand is always determined from inside the garage looking out.

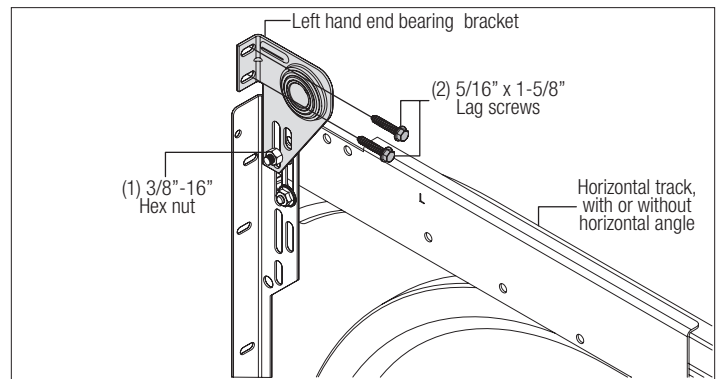
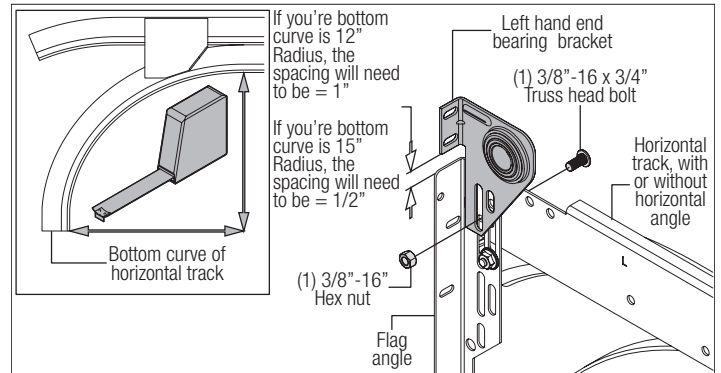
First, using a tape measure, determine if the bottom curve of the horizontal track is either 12" or 15" radius. End bearing brackets are right hand and left hand. Starting with the left hand

side, position the left hand end bearing bracket above the left hand flag angle, as shown. Loosely attach the end bearing bracket to the flag angle using (1) 3/8"-16 x 3/4" truss head bolt and (1) 3/8"-16 nut.

NOTE: Ensure the 3/8"-16 x 3/4" truss head bolt is going through the inside portion of flag angle first and the 3/8"-16 hex nut is on the outside of the flag angle, as shown.

IMPORTANT: SPACING SPECIFIED BELOW MUST BE MAINTAINED BETWEEN THE END BEARING BRACKET AND THE FLAG ANGLE, PRIOR TO SECURING THE END BEARING BRACKET TO FLAG ANGLE AND JAMB. THIS IS TO ENSURE PROPER CLEARANCE OF THE COUNTERBALANCE LIFT CABLE.

The spacing between the end bearing bracket and the flag angle is critical. Position the end bearing bracket between 1" (12" Radius) or 1/2" (15" Radius) from the top edge of flag angle. Once the end bearing bracket is properly positioned, tighten the 3/8"-16 nut to secure the end bearing bracket to the flag angle. Next, secure the end bearing bracket to the jamb using (2) 5/16" x 1-5/8" lag screws, as shown. Repeat same process for the other side.



18

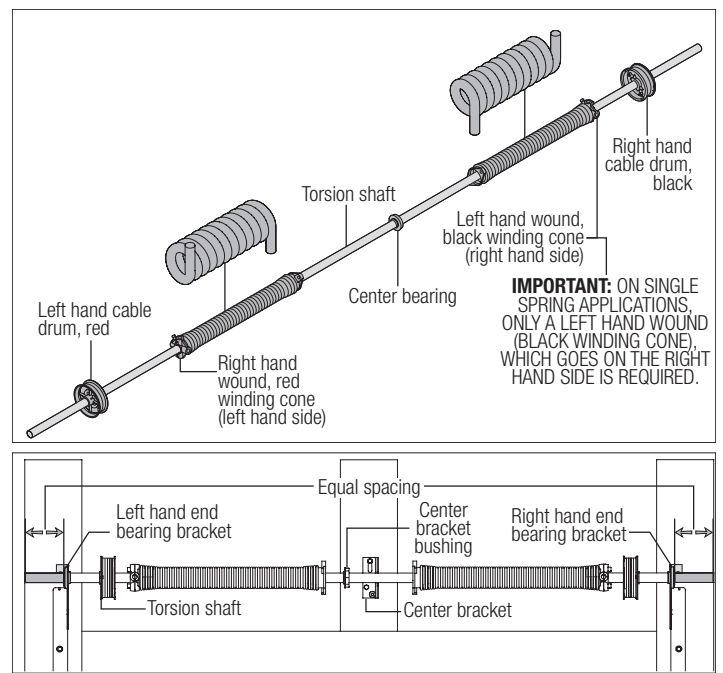
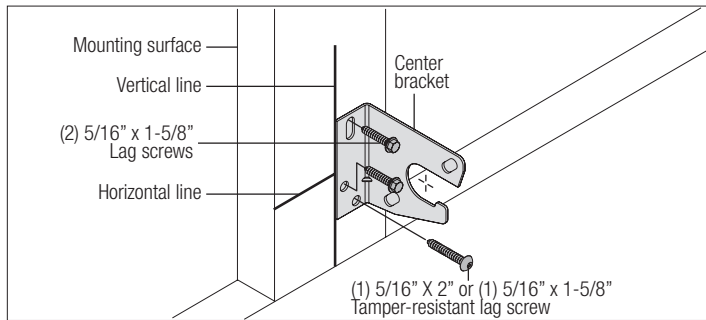
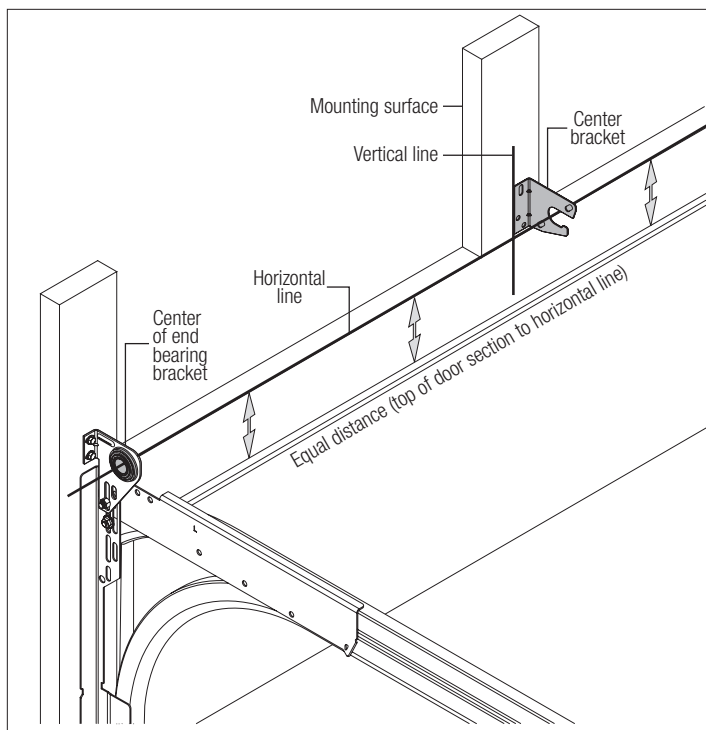
Center Bracket

Tools: Step ladder, Power drill, 7/16" Socket driver, 1/4" Torx bit, Level, Tape measure, Pencil

Locate the center of the door. Mark a vertical pencil line on the mounting surface above the door, at the center. Measure from the center of the bearing, in one of the end bearing brackets, downwards, to the top of the door. Using that measurement, measure that distance upwards from the top of the door to the mounting surface and mark a horizontal pencil line which intersects the vertical pencil line. Align the edge of the center bracket with the vertical pencil line and the center of the center bracket with the horizontal pencil line; this is to ensure the torsion shaft is level between the center and end bearing brackets.

Attach the center bracket to the mounting surface, using (2) 5/16" x 1-5/8" lag screws and (1) 5/16" x 2" tamper-resistant lag screw.

IMPORTANT: USE A 5/16" X 1-5/8" TAMPER-RESISTANT LAG SCREW INSTEAD OF THE 5/16" X 2" TAMPER-RESISTANT LAG SCREW IF MOUNTING SURFACE IS MOUNTED OVER MASONRY. TAMPER-RESISTANT LAG SCREW MUST BE ATTACHED THROUGH THE BOTTOM HOLE OF THE CENTER BEARING BRACKET.

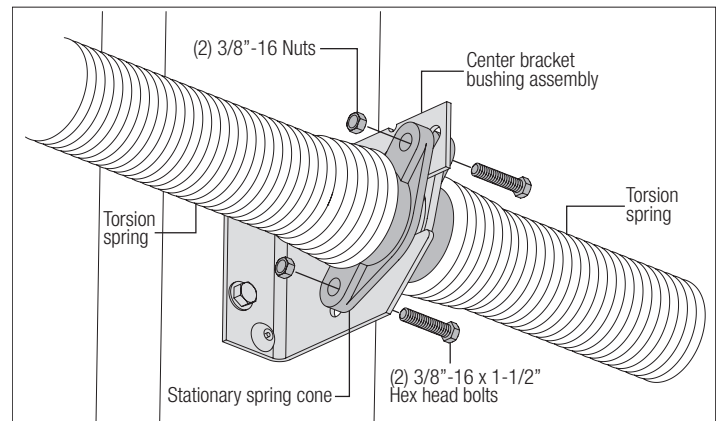
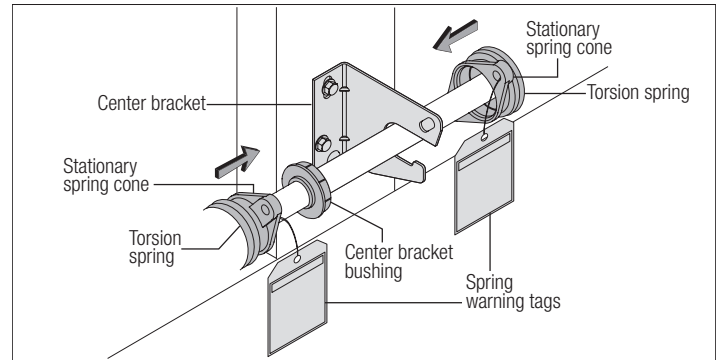


20 Torsion Spring Attachment

Tools: Step Ladder, 1/2" Wrench

Slide the center bracket bushing into the center bracket. Align the stationary spring cone(s) with the holes in the center bracket bushing assembly. Secure the torsion spring(s) to the center bracket bushing assembly with (2) 3/8"-16 x 1-1/2" hex head bolts and (2) 3/8"-16 nuts.

IMPORTANT: THE SPRING WARNING TAG(S) SUPPLIED MUST BE SECURELY ATTACHED TO THE STATIONARY SPRING CONE(S) IN PLAIN VIEW. SHOULD A REPLACEMENT SPRING WARNING TAG BE REQUIRED, CONTACT WAYNE-DALTON FOR FREE REPLACEMENTS.



21 Counterbalance Lift Cables

Tools: Step Ladder, Locking Pliers, 3/8" Wrench

Starting on the left hand side, thread the counterbalance lift cable up and around the front side of the left hand cable drum.

19

Torsion Spring Assembly

Tools: Step Ladder

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

NOTE: Identify the torsion springs provided as either right hand wound (red winding cone), which goes on the LEFT HAND SIDE or left hand wound (black winding cone), which goes on the RIGHT HAND SIDE.

Facing the inside of the door, lay the torsion shaft on the floor. Lay the torsion spring with the black winding cone and the black cable drum at the right end of the torsion shaft. Lay the torsion spring with the red winding cone and the red cable drum at the left end of the torsion shaft.

NOTE: The set screws used on all torsion winding cones and cable drums are now colored red. DO NOT identify right and left hand by the set screw color.

Slide the center bracket bushing onto the torsion shaft followed by the torsion springs and cable drums.

IMPORTANT: THE CENTER BRACKET BUSHING, TORSION SPRINGS, AND CABLE DRUMS MUST BE POSITIONED, AS SHOWN.

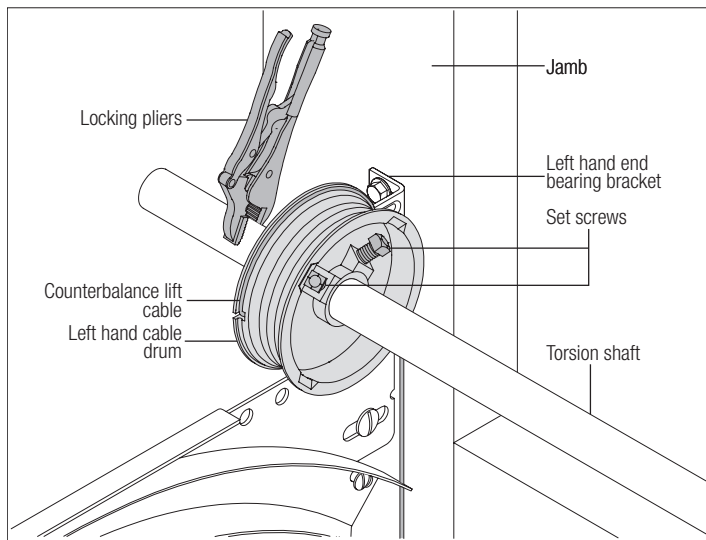
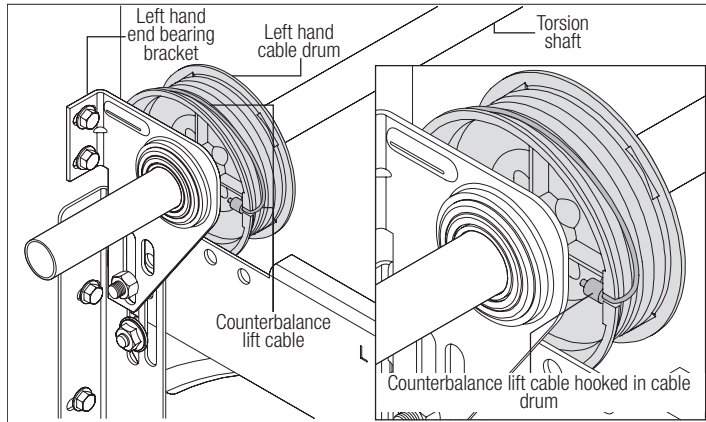
With assistance, pick up the torsion spring assembly and slide one end of the torsion shaft through one end bearing bracket. Lay the middle of the torsion shaft into the center bracket. Slide the other end of the torsion shaft into the other end bearing bracket. Position the torsion shaft so that equal amounts of the shaft extend from each end bearing brackets.

IMPORTANT: VERIFY THAT THERE ARE NO COUNTERBALANCE LIFT CABLE OBSTRUCTIONS.

Hook the counterbalance lift cable into the left hand cable drum. Slide the left hand cable drum up against the left hand end bearing bracket. Counterbalance lift cable should terminate at the 3 o'clock position. Tighten the (2) set screws in the drum to 14-15 ft. lbs. of torque (once set screws contact the shaft, tighten screws one full turn). Rotate the left hand drum and torsion shaft until counterbalance lift cable is taut. Now attach locking pliers to the torsion shaft and brace locking pliers up against jamb to keep counterbalance lift cable taut.

Repeat for right hand side.

IMPORTANT: INSPECT EACH COUNTERBALANCE LIFT CABLES MAKING SURE THEY ARE SEATED PROPERLY ONTO THE CABLE DRUMS AND THAT BOTH COUNTERBALANCE LIFT CABLES HAVE EQUAL TENSION.



22

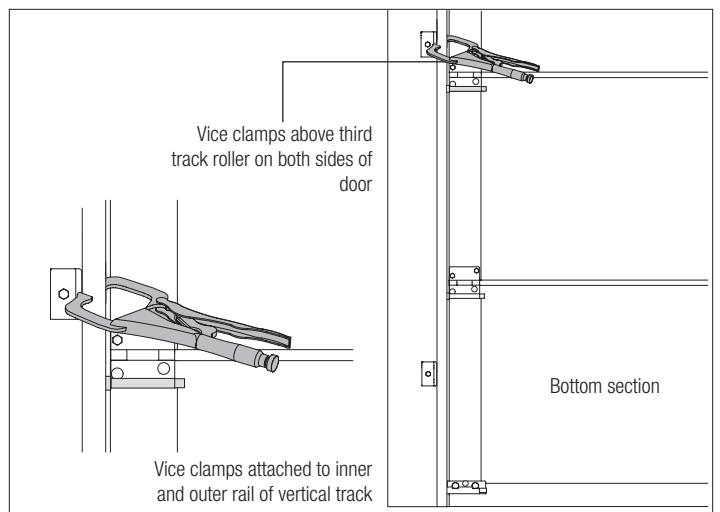
Securing Door For Spring Winding(s)

Tools: Vice Clamps

With the door in the fully closed position, place vice clamps onto both vertical tracks just above the third track roller. This is to prevent the garage door from rising while winding springs.

WARNING

FAILURE TO PLACE VICE CLAMPS ONTO VERTICAL TRACK CAN ALLOW DOOR TO RAISE AND CAUSE SEVERE OR FATAL INJURY.



23

Winding Springs

Tools: Step Ladder, Approved winding bars, 3/8" Wrench

Position a ladder slightly to the side of the spring so that the winding cone is easily accessible, and so your body is not directly in line with the winding bars.

Check the label attached to the spring warning tag for the required number of complete turns to balance your door.

Door Height	Approximate Spring Turns
6'0"	6-7/8 Turns
6'3"	7-1/8 Turns
6'5"	7-1/4
6'6"	7-3/8 Turns
6'8"	7-1/2
6'9"	7-5/8 Turns
7'0"	7-7/8 Turns
7'3"	8 Turns
7'6"	8-1/4 Turns
7'9"	8-1/2 Turns
8'0"	8-3/4 Turns

WARNING

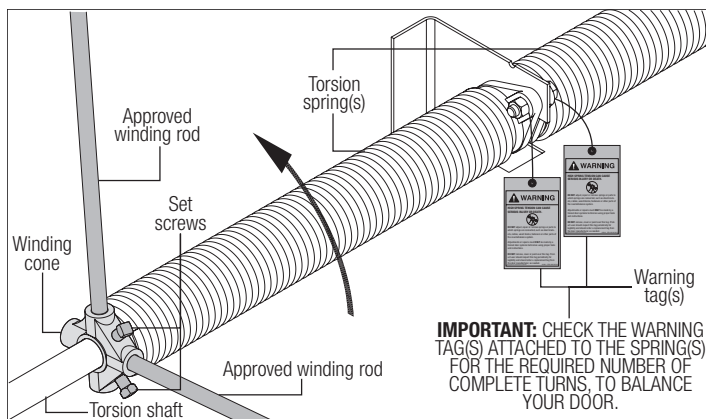
PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY.

Alternately inserting the winding rods into the holes of the springs winding cone, rotate the winding cone upward toward the ceiling, 1/4 turn at a time, until the required number of complete turns for your door height is achieved. As the last 1/8 to 1/4 turn is achieved, securely hold the winding rod while tightening both set screws in the winding cone to 14-15 ft. lbs. of torque (once set screws contact the torsion shaft, tighten screws one full turn).

Carefully remove winding rod from winding cone. Repeat for the opposite spring. While holding the door down to prevent it from raising unexpectedly in the event the spring(s) were over-wound, carefully remove the locking pliers from the torsion shaft and vertical tracks.

Adjustments to the number of turns stated may be necessary. If door rises off floor under spring tension alone, reduce spring tension until door rests on the floor. If the door is hard to rise or drifts down on its own, add spring tension.

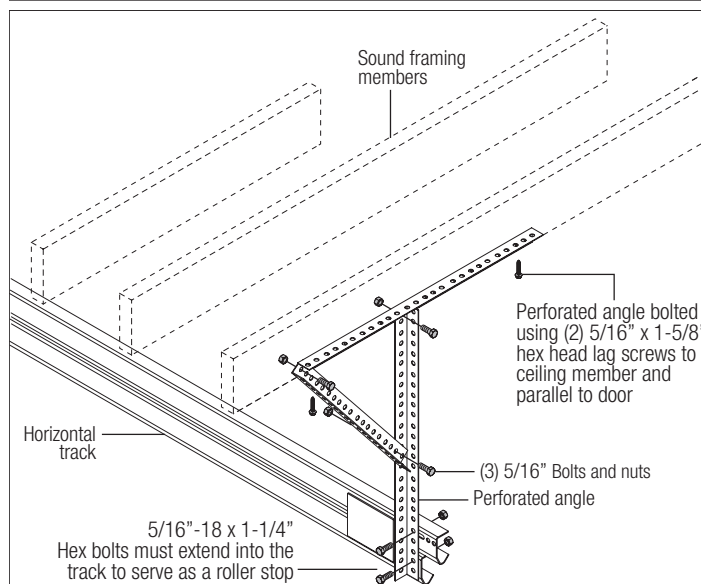
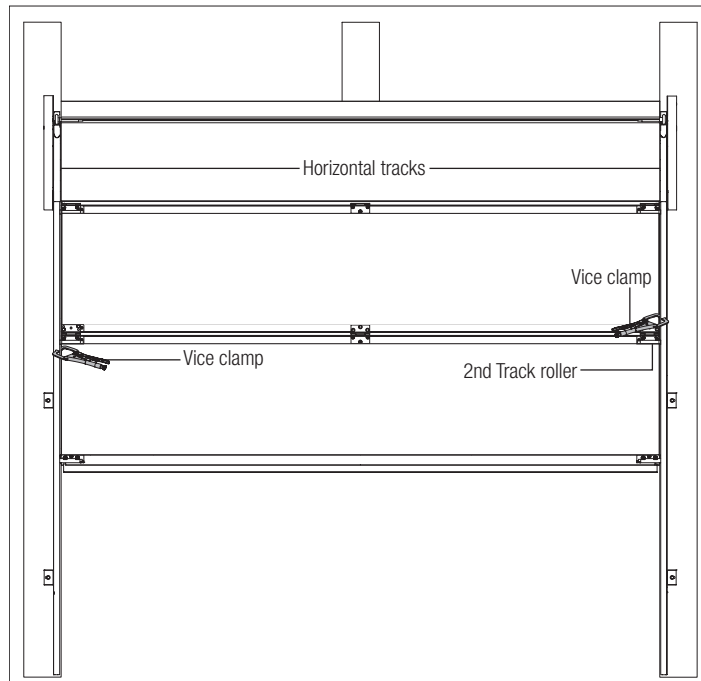
NOTE: An unbalanced door such as this can cause garage door opener operation problems.



If door still does not balance correctly, contact a qualified door agency. If the door still does not operate easily, lower the door into the closed position, UNWIND THE SPRING(S) FULLY (Reference the insert "Removing The Old Door/Preparing The Opening" section on torsion spring removal), and recheck the following the items:

- 1.) Check the door for level.
- 2.) Check the torsion shaft for level.
- 3.) Check the track spacing.
- 4.) Check the counterbalance lift cables for equal tension.
- 5.) Check the track for potential obstruction of the track rollers.
- 6.) Clamp locking pliers onto track and rewind springs.

IMPORTANT: If door still does not operate properly, then contact a trained door system technician.



24

Rear Back Hangs

Tools: Ratchet wrench, 1/2" Socket, 1/2" Wrench, (2) Vice clamps, Tape measure, Level, Hammer, Step Ladder

IMPORTANT: HOLD THE DOOR DOWN TO PREVENT IT FROM RISING UNEXPECTEDLY IN THE EVENT THE SPRING(S) WAS OVER-WOUND AND CAUTIOUSLY REMOVE VICE CLAMPS FROM VERTICAL TRACKS.

Raise the door until the top section and half of the next section are in the horizontal track radius. Do not raise door any further since rear of horizontal tracks are not yet supported.

WARNING

RAISING DOOR FURTHER CAN RESULT IN DOOR FALLING AND CAUSE SEVERE OR FATAL INJURY.

Clamp a pair of vice clamps onto the vertical tracks just above the second track roller on one side, and just below the second track roller on the other side. This will prevent the door from raising or lowering while installing the rear back hangs.

Using perforated angle (may not be supplied), (2) 5/16" x 1-5/8" hex head lag screws and (3) 5/16" bolts with nuts (may not be supplied), fabricate rear back hangs for the horizontal tracks. Attach the horizontal tracks to the rear back hangs with 5/16"-18 x 1 hex bolts and nuts (may not be supplied). Horizontal tracks must be level and parallel with door within 3/4" to 7/8" maximum of door edge.

NOTE: If an iDrive® opener is installed, position horizontal tracks one hole above level when securing it to the rear back hangs.

WARNING

KEEP HORIZONTAL TRACKS PARALLEL AND WITHIN 3/4" TO 7/8" MAXIMUM OF DOOR EDGE, OTHERWISE DOOR COULD FALL, RESULTING IN SEVERE OR FATAL INJURY.

IMPORTANT: DO NOT SUPPORT THE WEIGHT OF THE DOOR ON ANY PART OF THE REAR BACK HANGS THAT CANTILEVERS 4" OR MORE BEYOND A SOUND FRAMING MEMBER.

NOTE: If rear back hangs are to be installed over drywall, use (2) 5/16" x 2" hex head lag screws and make sure lag screws engage into solid structural lumber.

NOTE: 26° angle must be attached to sound framing members and **nails should not be used.**

Now, permanently attach the weatherstrips on both door jambs and header. The weatherstrips were temporarily attached in Preparing the Opening, in the pre-installation section of this manual.

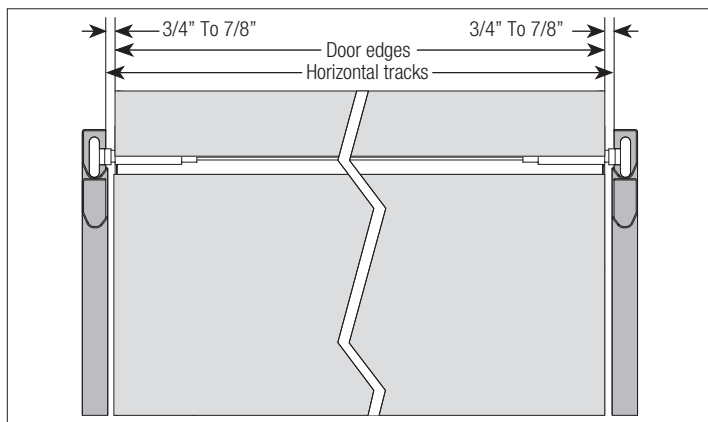
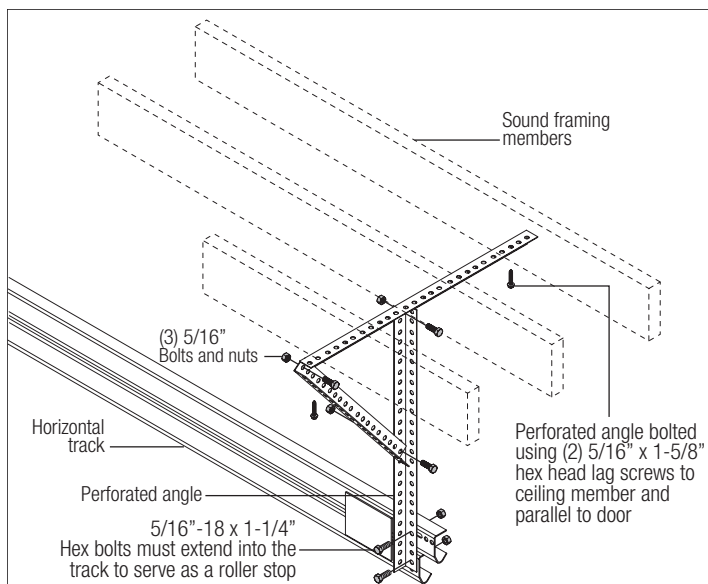
NOTE: When permanently attaching the weatherstrips to the jambs, avoid pushing the weatherstrips too tightly against the face of door.

WARNING

PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY.

Now, lift door and check its balance. Adjustments to the required number of spring turns stated may be necessary. If door rises off floor under spring tension alone, reduce spring tension until door rests on the floor. If the door is hard to raise or drifts down on its own, add spring tension. A poorly balanced door can cause garage door operator operation problems.

To adjust spring tension, fully close door. Apply vice grips to track above third track roller. Insert a winding rod into the winding cone. On single spring doors, counterbalance lift cable tension must be maintained by placing vice grips on torsion shaft before loosening set screws in the winding cone. Push downward on the winding rod while carefully loosening the set screws in the winding cone. BE PREPARED TO SUPPORT THE FULL FORCE OF THE TORSION SPRING ONCE THE SET SCREWS ARE LOOSE. Carefully adjust spring tension 1/4 turn. Retighten both set screws in the winding cone and repeat for the other side. Recheck door balance DO NOT ADJUST MORE THAN 1/2 TURN FROM THE RECOMMENDED NUMBER OF TURNS.



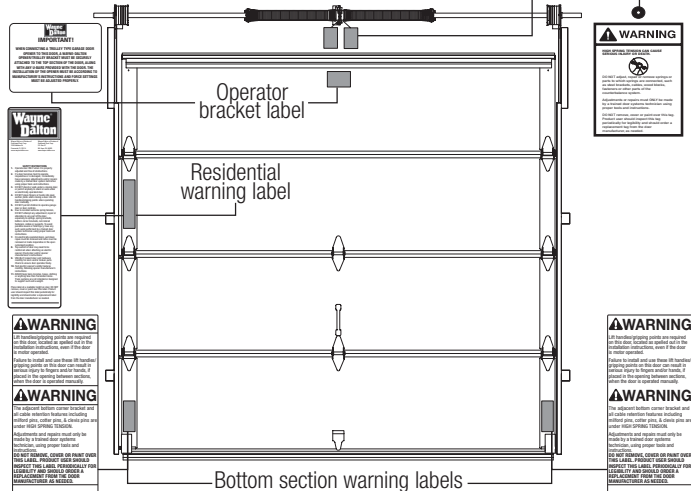
25 **Label Placement**
Tools: Step Ladder

IMPORTANT: USING THE ILLUSTRATION, ATTACH THE APPROPRIATE LABELS TO THE APPROPRIATE LOCATION ON THE SECTION, AS SHOWN.

NOTE: The Spring Warning tag(s) are factory attached (one per spring).

NOTE: Because of different configurations, some labels may require minor relocations.

Factory Attached, Torsion spring tag(s) (one per spring)



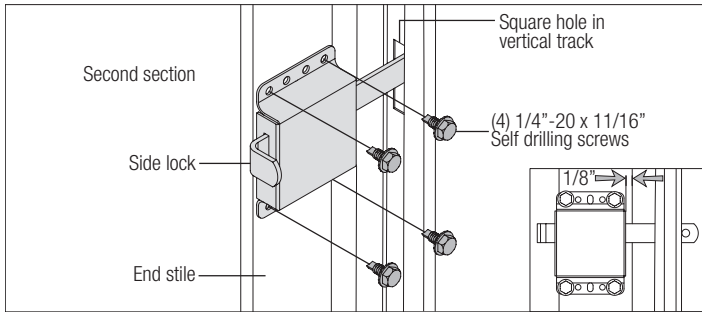
Optional Installation

Inside Lock

Tools: Power drill, 7/16" Socket driver, Tape measure

Install the inside lock on the second section of the door. Secure the lock to the section with (4) 1/4"-20 x 11/16" self drilling screws. 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.

IMPORTANT: INSIDE LOCK(S) MUST BE REMOVED OR MADE INOPERATIVE IN THE UNLOCKED POSITION IF AN OPERATOR IS INSTALLED ON THIS DOOR.



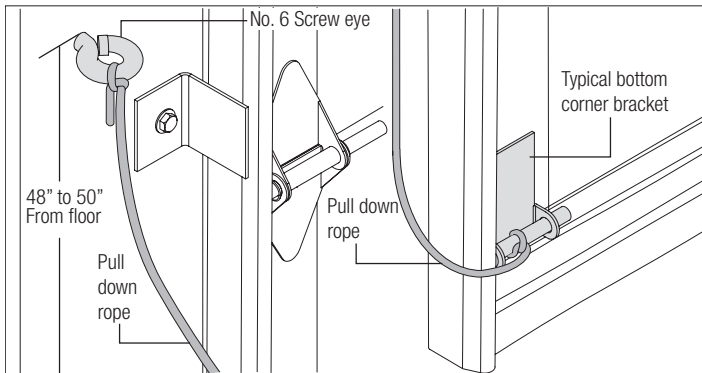
Pull Down Rope

Tools: Power drill, 1/8" Drill bit, Tape measure

WARNING

DO NOT INSTALL PULL DOWN ROPE ON DOORS WITH OPERATORS. CHILDREN MAY BECOME ENTANGLED IN THE ROPE CAUSING SEVERE OR FATAL INJURY.

Measure and mark the jamb approximately 48" to 50" (1220 to 1270 mm) from floor on the right or left side of jamb. Drill 1/8" pilot hole for no. 6 screw eye. Tie the pull down rope to the no. 6 screw eye and to the bottom corner bracket, as shown.

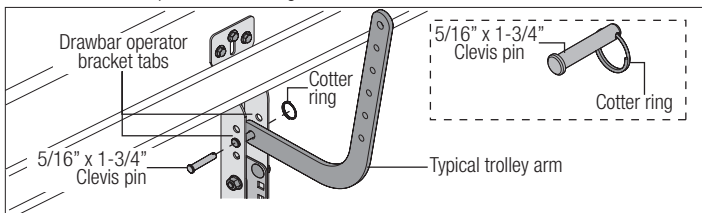


Door Arm Hookup

Tools: Needle nose pliers

NOTE: If overhead door operator/ trolley bracket was installed, follow these directions.

Align hole in the door arm with holes in drawbar operator bracket tabs, as shown. Attach with 5/16" x 1-3/4" cotter pin and cotter ring.



Cleaning Your Garage Door

Like any other exterior surface, Wayne-Dalton garage doors will have dirt exposure from atmospheric conditions. Ordinarily, the cleaning action of rainfall will be adequate to wash the door, or the door can be washed periodically by hosing with a garden hose and clear water (in particular) for the areas not accessible to rain. If you desire to do a more thorough cleaning, or where soil collection conditions occur, follow these simple instructions.

1. Use a soft-bristled, long-handled washing brush. It attaches to your garden hose and makes washing your garage door easier. Do not rub vigorously which may create glossy areas over the vinyl finish.
2. For hard-to-remove dirt, such as soot and grime found in industrial areas, wash the garage door down with a mild solution consisting of the following ingredients:

One cup detergent (with less than 0.5% phosphate) dissolved into five gallons of warm water.

NOTE: The use of detergents containing greater than 0.5% phosphate is not recommended for use in general cleaning of garage doors.

NOTE: Be sure to clean behind weather stripping on both sides and top of door.

3. Start at the bottom and work up to the top, as less streaking will result. Immediately following all washing operations, thoroughly rinse the surface area with fresh water from a garden hose.

This cleaning and maintenance information is suggested in an effort to be of assistance; however, manufacturer cannot assume responsibility for results obtained which are dependent on the cleaning solution and method of application.

CAUTION: DO NOT PAINT DOOR. PAINTING DOOR WILL VOID YOUR WARRANTY.

Operation and Maintenance

OPERATING YOUR GARAGE DOOR...

Before you begin, read all warning labels affixed to the door and the installation instructions and owner's manual. When correctly installed, your Wayne-Dalton door will operate smoothly. Always operate your door with controlled movements. Do not slam your door or throw your door into the open position, this may cause damage to the door or its components. If your door has an electric opener, refer to the owner's manual to disconnect the opener before performing manual door operation below.

Manual door operation:

For additional information on manual garage door operations go to www.dasma.com and reference TDS 165.

IMPORTANT: DO NOT PLACE FINGERS OR HANDS INTO SECTION JOINTS WHEN OPENING AND/OR CLOSING A DOOR. IF PROVIDED, ALWAYS USE LIFT HANDLES/ SUITABLE GRIPPING POINTS WHEN OPERATING THE DOOR MANUALLY.

Opening a Door: Make sure the lock(s) are in the unlocked position. Lift the door by using the lift handles/ suitable gripping points only. Door should open with little resistance.

Closing a Door: From inside the garage, pull door downward using lift handles/ gripping point only or a high friction area only. If you are unable to reach the lift handles/ suitable gripping points only, use pull rope affixed to the side of door. Door should close completely with little resistance.

Using an electric opener:

IMPORTANT: PULL ROPES MUST BE REMOVED AND LOCKS MUST BE REMOVED OR MADE INOPERATIVE IN THE UNLOCKED POSITION.

When connecting a trolley type garage door opener to this door, an opener and/or trolley bracket must be securely attached to the top section of the door, along with any struts provided with the door. Always use the opener and/or trolley bracket supplied with the door. To avoid possible damage to your door, Wayne-Dalton recommends reinforcing the top section with a strut (may or may not be supplied). The installation of the opener must be according to manufacturer's instructions and force settings must be adjusted properly. Refer to the owner's manual supplied with your electric opener for complete details on installation, operation, maintenance and testing of the opener.

MAINTAINING YOUR GARAGE DOOR...

Before you begin, read all warning labels affixed to the door and the installation instructions and owner's manual. Perform routine maintenance steps once a month, and have the door professionally inspected once a year. Review your Owner's Manual for the garage door. These instructions are available online at www.Wayne-Dalton.com. For additional information on garage door/opener maintenance go to www.dasma.com and reference TDS 151, 167 and 179.

Monthly Inspections:

1. Visual Inspection: Closely inspect jambs, header and mounting surface. Any wood found not to be structurally sound must be replaced. Inspect the springs, cables, rollers, pulleys, back hangs and other door hardware for signs of worn or broken parts. Tighten any loose screws and/or bolts. Check exterior surface of the door sections for any minor cracks. Verify door has not shifted right and/or left in the opening. If you suspect problems, have a trained door system technician make the repairs.

⚠ WARNING

GARAGE DOOR SPRINGS, CABLES, BRACKETS, AND OTHER HARDWARE ATTACHED TO THE SPRINGS ARE UNDER EXTREME TENSION, AND IF HANDLED IMPROPERLY, CAN CAUSE SEVERE OR FATAL INJURY. ONLY A TRAINED DOOR SYSTEM TECHNICIAN SHOULD ADJUST THEM, BY CAREFULLY FOLLOWING THE MANUFACTURER'S INSTRUCTIONS.

⚠ WARNING

NEVER REMOVE, ADJUST, OR LOOSEN THE BOLTS, SCREWS AND/OR LAG SCREWS ON THE COUNTERBALANCE (END OR CENTER BEARING BRACKETS) SYSTEM OR BOTTOM BRACKETS OF THE DOOR. THESE BRACKETS ARE CONNECTED TO THE SPRING(S) AND ARE UNDER EXTREME TENSION. TO AVOID POSSIBLE SEVERE OR FATAL INJURY, HAVE ANY SUCH WORK PERFORMED BY A TRAINED DOOR SYSTEMS TECHNICIAN USING PROPER TOOLS AND INSTRUCTIONS.

Torsion Springs: The torsion springs (located above the door) should only be adjusted by a trained door systems technician.

2. Door Balance: Periodically test the balance of your door. If you have a garage door opener, use the release mechanism so you can operate the door by hand when doing this test. Start with the door in the fully closed position. Lift the door to check its balance. Torsion spring(s) need adjustment if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). DO NOT attempt to repair or adjust Torsion Springs yourself. DO NOT attempt to repair or adjust Torsion Springs yourself. Contact a trained door system technician to adjust springs using proper tools and instructions.

3. Lubrication: The door should open and close smoothly. Ensure the door rollers are rotating freely when opening and closing the door. If rollers do not rotate freely, clean the door tracks, removing dirt and any foreign substances. Clean and lubricate (use a non-silicon based lubricant) hinges, steel rollers and bearings. DO NOT lubricate plastic idler bearings, nylon rollers, door track. DO NOT oil a cylinder lock, if actuation is difficult use a graphite dust to lubricate.

Limited Warranty Model 8700

Subject to the terms and conditions contained in this Limited Warranty, Wayne-Dalton ("Manufacturer") warrants the sections of the door, which is described at the top of this page, for a period of **TEN (10) YEARS** from the date of installation against:

- i) Peeling, flaking, chipping or cracking due to defects in material or workmanship.
- ii) Fading, other than as may result from normal weathering. For purposes of this Limited Warranty, "fading" is defined as a loss of color, that after cleaning with the recommended solution, deviates more than four (4) color standard units from the original color, as measured by a recognized industry-approved spectrophotometer.

The Manufacturer warrants the garage door hardware (except springs) and the tracks of the above-described door, **TEN (10) YEARS**, against defects in material and workmanship, subject to all the terms and conditions below.

The Manufacturer warrants those component parts of the door not covered by the preceding provisions of this Limited Warranty against defects in material and workmanship for a period of **ONE (1) YEAR** from the date of installation.

This Limited Warranty is extended only to the person who purchased the product and continues to own the premises (where the door is installed) as his/her primary residence ("Buyer"). This Limited Warranty does not apply to residences other than primary, or to commercial or industrial installations, or to installations on rental property (even when used by a tenant as a residence). This Limited Warranty is not transferable to any other person (even when the premises is sold), nor does it extend benefits to any other person. As a result this Limited Warranty does NOT apply to any person who purchases the product from someone other than an authorized Wayne-Dalton dealer or distributor.

The Manufacturer will not be responsible for any damage attributable to improper storage, improper installation, or any alteration of the door or its components, abuse, damage from corrosive fumes or substances, salt spray or saltwater air, fire, Acts of God, failure to properly maintain the door, or attempt to use the door, its components or related products for other than its intended purpose and its customary usage. This Limited Warranty does not cover ordinary wear. The Limited Warranty for the sections of the door will be voided if sections are painted. This Limited Warranty will be voided if any holes are drilled into the door, other than those specified by the Manufacturer.

THIS LIMITED WARRANTY COVERS A CONSUMER PRODUCT AS DEFINED BY THE MAGNUSON-MOSS ACT. NO WARRANTIES, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) WILL EXTEND BEYOND THE TIME PERIOD SET FORTH IN UNDERSCORED BOLD FACE TYPE IN THIS LIMITED WARRANTY, ABOVE.

- Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Any claim under this Limited Warranty must be made in writing, within the applicable warranty period, to the dealer from which the product was purchased. Unless the dealer is no longer in business, a written claim to the Manufacturer will be the same as if no claim had been made at all.

At the Manufacturer's option, pursuant to the dealer having notified the Manufacturer of a warranty claim, a service representative may inspect the product on site, or Buyer may be required to return the product to the Manufacturer at Buyer's expense. Buyer agrees to cooperate with any representative of the Manufacturer and to give such representative full access to the product with the claimed defect and full access to the location of its installation.

If the Manufacturer determines that the claim is valid under the terms of this Limited Warranty, the Manufacturer will cause the defective product to be repaired or replaced. The decision about the manner in which the defect will be remedied will be at the discretion of the Manufacturer, subject to applicable law. **THE REMEDY WILL COVER ONLY MATERIAL. THIS LIMITED WARRANTY DOES NOT COVER OTHER CHARGES, SUCH AS FIELD SERVICE LABOR FOR REMOVAL, INSTALLATION, SHIPPING, ETC.**

Any repairs or replacements arranged by Manufacturer will be covered by (and subject to) the terms, conditions, limitations and exceptions of this Limited Warranty; provided, however, that the installation date for the repaired or replaced product will be deemed to be the date the original product was installed, and this Limited Warranty will expire at the same time as if there had been no defect. If a claim under this Limited Warranty is resolved in a manner other than described in the immediately preceding paragraph, then neither this Limited Warranty nor any other warranty from the Manufacturer will cover the repaired or replaced portion of the product.

THE REMEDIES FOR THE BUYER DESCRIBED IN THIS LIMITED WARRANTY ARE EXCLUSIVE and take the place of any other remedy. The liability of the Manufacturer, whether in contract or tort, under warranty, product liability, or otherwise, will not go beyond the Manufacturer's obligation to repair or replace, at its option, as described above. **THE MANUFACTURER WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES**, including (but not limited to) damage or loss of other property or equipment, personal injury, loss of profits or revenues, business or service interruptions, cost of capital, cost of purchase or replacement of other goods, or claims of third parties for any of the foregoing.

- Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

No employee, distributor, dealer, representative, or other person has the authority to modify any term or condition contained in this Limited Warranty or to grant any other warranty on behalf of or binding on the Manufacturer, and anyone's attempt to do so will be null and void.

Buyer should be prepared to verify the date of installation to the satisfaction of the Manufacturer.

The rights and obligations of the Manufacturer and Buyer under this Limited Warranty will be governed by the laws of the State of Ohio, USA, to the extent permitted by law.

- This Limited Warranty gives you specific legal rights and you may also have other rights, which may vary from State to State.

Covered by one or more of the following Patents; 5,408,724; 5,409,051; 5,419,010; 5,495,640; 5,522,446; 5,562,141; 5,566,740; 5,568,672; 5,718,533; 6,019,269; 6,089,304; 6,644,378; 6,374,567; 6,561,256; 6,527,037; 6,640,872; 6,672,362; 6,725,898; 6,843,300; 6,915,573; 6,951,237; 7,014,386; 7,036,548; 7,059,380; 7,121,317; 7,128,123; 7,134,471; 7,134,472; 7,219,392; 7,254,868. Canadian: 2,384,936; 2,477,445; 2,495,175; 2,507,590; 2,530,701; 2,530,74; 2, 2,532,824. Other US and Foreign Patents pending.

Please Do Not Return This Product To The Store

Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local yellow pages business listings or go to the **Find a Dealer** section online at www.Wayne-Dalton.com

Thank you for your purchase.

AFTER INSTALLATION IS COMPLETE, FASTEN THIS MANUAL NEAR THE GARAGE DOOR.