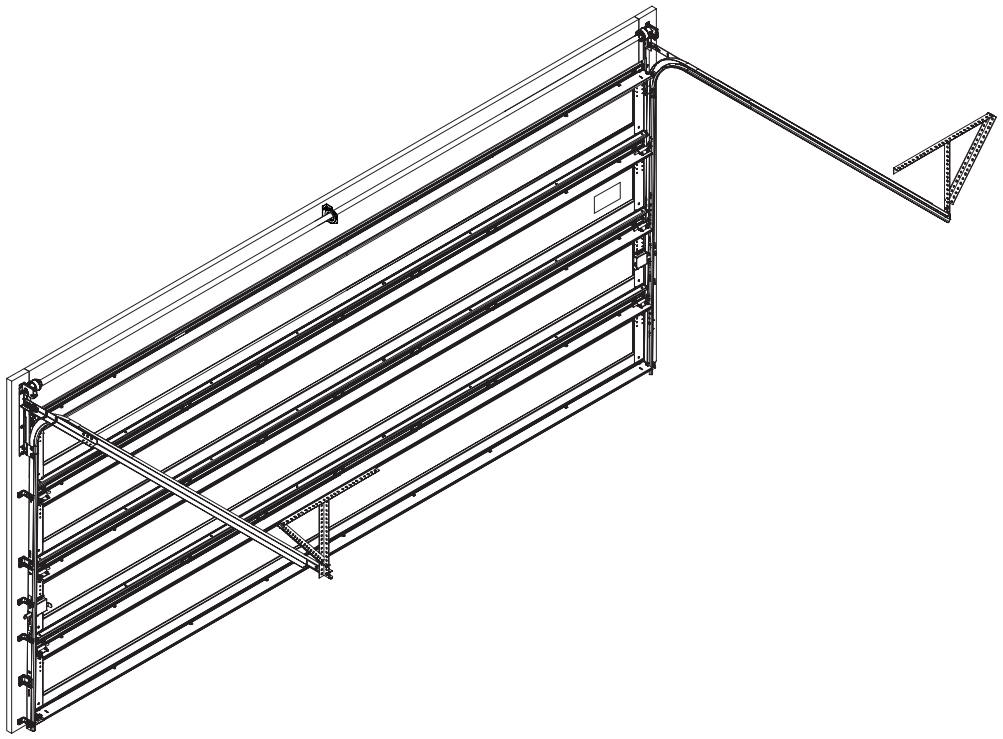
Wayne® Dalton

6100 Windload

TorqueMaster® Plus - Single and Double Spring

Installation Instructions and Owner's Manual



IMPORTANT NOTICE!

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.

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Part No. 341780 REV1 08/03/2009

Table of Contents

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.

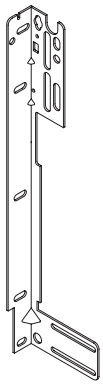
⚠ WARNING TO AVOID POSSIBLE INJURY, READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A TRAINED DOOR SYSTEMS TECHNICIAN DO THE INSTALLATION OR REPAIRS.

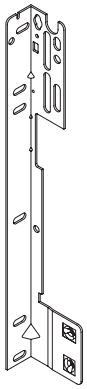
1. **READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.**
2. Wear protective gloves during installation to avoid possible cuts from sharp metal edges.
3. It is always recommended to wear eye protection when using tools, otherwise eye injury could result.
4. Avoid installing your new door on windy days. Door could fall during the installation causing severe or fatal injury.
5. Doors 12'- 0" wide and wider should be installed by two persons, to avoid possible injury.
6. Operate door ONLY when it is properly adjusted and free from obstructions.
7. 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.
8. DO NOT stand or walk under a moving door, or permit anybody to stand or walk under an electrically operated door.
9. DO NOT place fingers or hands into open section joints when closing a door. Use lift handles/gripping points when operating door manually.
10. 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.
11. 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, red colored fasteners, 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.
12. On electrically operated doors, pull down ropes must be removed and locks must be removed or made inoperative in the open (unlocked) position.
13. Top section of door may need to be reinforced when attaching an electric opener. Check door and/or opener manufacturer's instructions.
14. VISUALLY inspect door and hardware monthly for worn and or broken parts. Check to ensure door operates freely.
15. Test electric opener's safety features monthly, following opener manufacturer's instructions.
16. NEVER hang tools, bicycles, hoses, clothing or anything else from horizontal tracks. Track systems are not intended or designed to support extra weight.

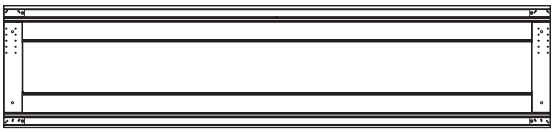
After installation is complete, fasten this manual near garage door.

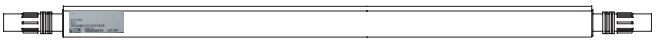
Package Contents

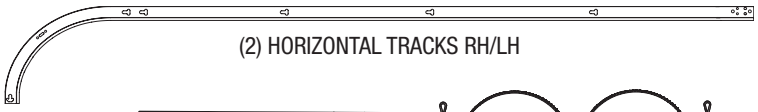
NOTE: DEPENDING ON THE DOOR MODEL, SOME PARTS LISTED WILL NOT BE SUPPLIED IF NOT NECESSARY. REAR SUPPORTS MAY NOT BE INCLUDED WITH YOUR DOOR.


(2) FULLY ADJUSTABLE RH/LH FLAGANGLES (AS REQUIRED)

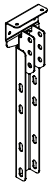

(2) QUICK INSTALL RH/LH FLAGANGLES (AS REQUIRED)

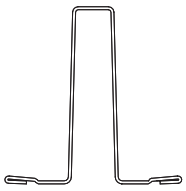

DOOR SECTIONS (AS REQUIRED)

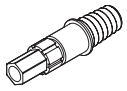

(1)TORQUEMASTER® SPRING TUBE

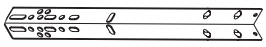

(2) HORIZONTAL TRACKS RH/LH

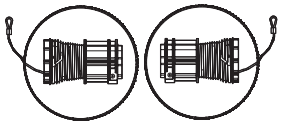

(2) VERTICAL TRACKS RH/LH

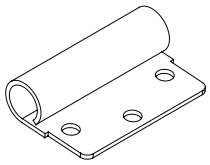

OPERATOR BRACKET

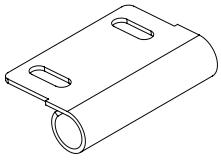

U-BARS (AS REQUIRED)

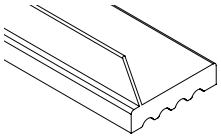

(1) LOOSE WINDING SHAFT (SINGLE SPRING ONLY)

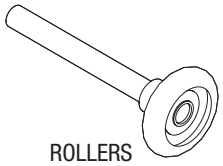

(2) HORIZONTAL ANGLES (21-15/16" OR 80") (AS REQUIRED)

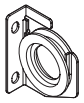

CABLE DRUM ASSEMBLIES (1) RIGHT & (1) LEFT

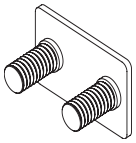

ROLLER SLIDE (AS REQUIRED)

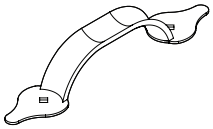

(2) TOP ROLLER SLIDE

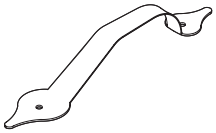

WEATHER SEAL & NAILS (IF INCLUDED)

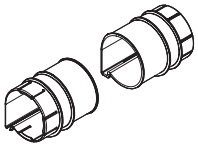

ROLLERS (AS REQUIRED)

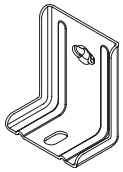

(1) CENTER BRACKET ASSEMBLY

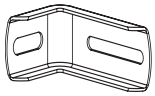

STUDPLATE (IF INCLUDED)

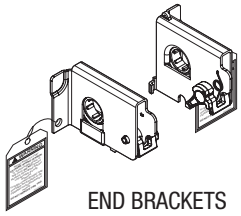

PULL HANDLES


LIFT HANDLES

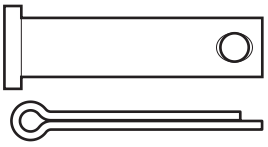

DRUM WRAPS (1) RIGHT & (1) LEFT


Q.I. JAMB BRACKETS (AS REQUIRED)

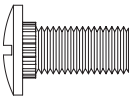

JBUS JAMB BRACKETS (AS REQUIRED)

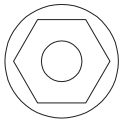

END BRACKETS (1) RIGHT & (1) LEFT

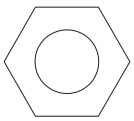

PULL ROPE (IF INCLUDED)

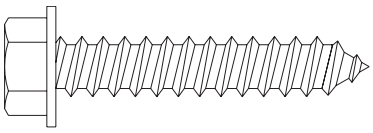

5/16"X 1-1/4" CLEVIS PIN & COTTER PIN

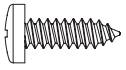

WINDLOAD LABEL

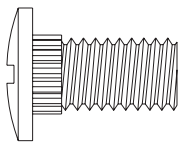

1/4" - 20 X 9/16" TRACK BOLTS

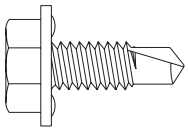

1/4"- 20 FLANGED HEX NUTS (AS REQUIRED)

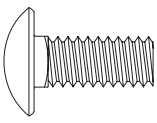

(2) 3/8"- 16 HEX NUTS

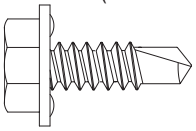

5/16" X 1 5/8" LAG SCREWS (AS REQUIRED)

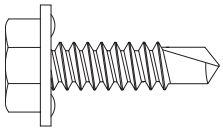

#10 X 5/8" PAN HEAD SELF TAPPING SCREWS (BLACK PAINTED HEADS)

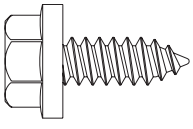

(2) 3/8"-16 X 3/4" TRUSS HEAD BOLTS


1/4"-20 X 11/16" SELF DRILLING SCREWS (AS REQUIRED)

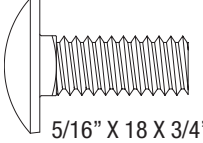

1/4"-20 X 5/8" CARRIAGE BOLTS


1/4"-14 X 5/8" SELF DRILLING SCREWS


1/4"-14 X 7/8" SELF DRILLING SCREWS


1/4"-14 X 5/8" SELF TAPPING SCREWS (AS REQUIRED)


(2) 5/16"HEX NUTS


5/16" X 18 X 3/4" CARRIAGE BOLTS (AS REQUIRED)

Door Section Identification

Tools Needed:

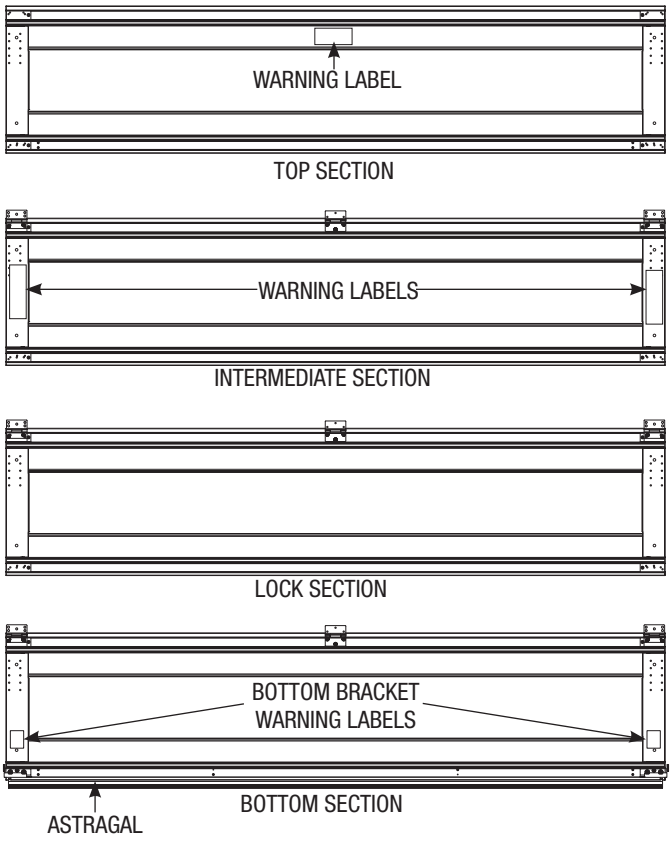
Hinges are always pre-attached at the top of each section (except top section).

The **BOTTOM SECTION** can be identified by the factory attached bottom astragal, and by the bottom bracket warning labels on each end stile.

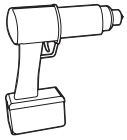
The **LOCK SECTION** can be identified by having no labels attached.

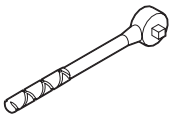
The **INTERMEDIATE SECTION** can be identified by having warning labels attached to the right and left end stile.

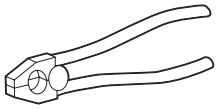
The **TOP SECTION** can be identified with no pre-installed end or center hinges and the warning label attached in the upper middle of the section.

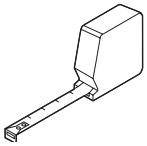


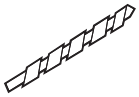
Tools Required

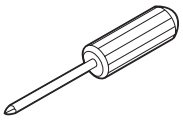

POWER DRILL

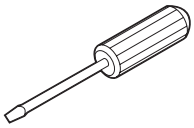

RATCHET WRENCH

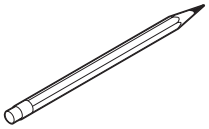

PLIERS/WIRE CUTTERS

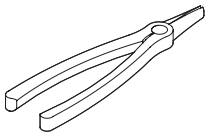

TAPE MEASURE


1/8", 3/16" DRILL BITS


PHILLIPS HEAD SCREWDRIVER

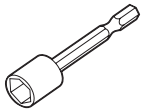

FLAT TIP SCREWDRIVER

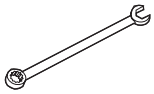

PENCIL

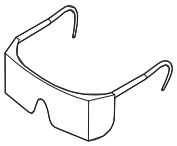

NEEDLE NOSE PLIERS

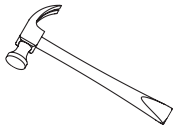

GLOVES

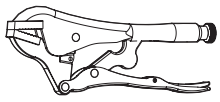

7/16", 1/2", 9/16", 5/8" SOCKETS

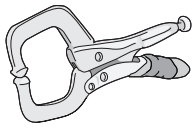

7/16" SOCKET DRIVER

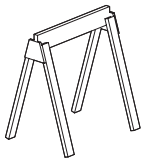

3/8", 7/16", 1/2", 9/16" WRENCHES

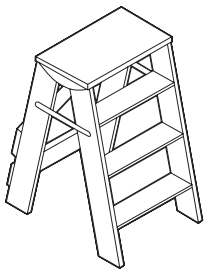

SAFETY GLASSES


HAMMER


VICE GRIPS


VICE CLAMPS


(2) SAW HORSES


STEP LADDER

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 available at no charge from Wayne-Dalton Corp., P.O. Box 67, Mt. Hope, OH 44660, or at www.wayne-dalton.com.

P5

Preparing the Opening

Tools Needed:

Recommended tools from page 5

⚠ WARNING FAILURE TO SECURELY ATTACH A SUITABLE MOUNTING PAD TO STRUCTURALLY SOUND FRAMING COULD CAUSE SPRINGS TO VIOLENTLY PULL MOUNTING PAD FROM WALL, RESULTING IN SEVERE OR FATAL INJURY.

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 TorqueMaster® 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 TorqueMaster® 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.

Weather Seal (May Not Be Included):

Cut the weather seal if necessary to fit the header and jambs.

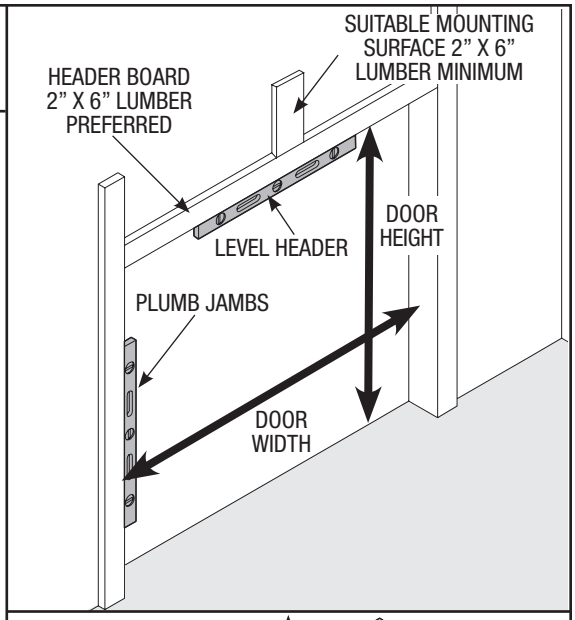
For quick install track: Align the header seal with the inside edge of the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and flush with the inside edge of the jamb. Temporarily secure the jamb seals with equally spaced nails. This will keep the bottom section from falling out of the opening during installation. Space nails approximately 12" apart.

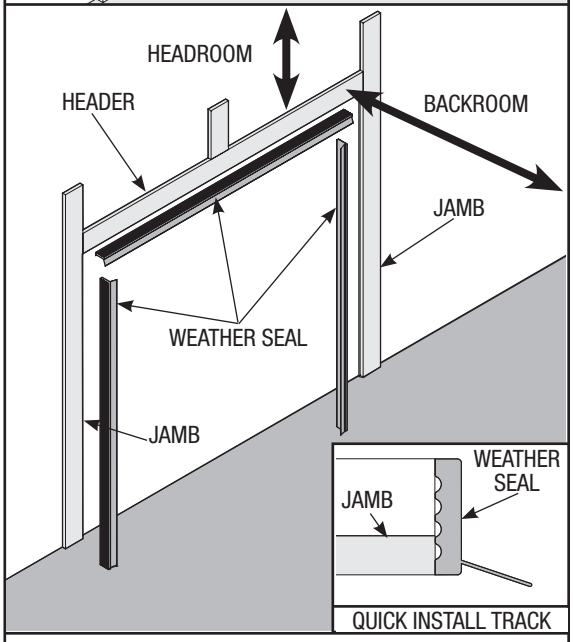
For fully adjustable track: Align the header seal 1/8" to 1/4" inside the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and 1/8" to 1/4" inside the jamb. Temporarily secure the jamb seals with equally space nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

NOTE: Do not permanently attach weather seal to the jamb at this time.

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.





HEADROOM REQUIREMENT

TRACK TYPE	TorqueMaster®
15" Radius track	12-1/2" (318 mm)
12" Radius track	11" (279 mm)

BACKROOM REQUIREMENT

DOOR HEIGHT	TRACK	MANUAL LIFT	MOTOR OPERATED
7'0"	12", 15" Radius	98" (2489 mm)	125" (3048 mm)
8'0"	12", 15" Radius	110" (2794 mm)	137" (3353 mm)

Installation

Begin the installation of the door by checking the opening. It must be the same size as the door. Vertical jambs must be plumb with header. Side clearance, from edge of door to wall, must be a minimum of 3-1/2" (89mm) on each side.

IMPORTANT: STAINLESS STEEL OR PT 2000 COATED LAG SCREWS MUST BE USED WHEN INSTALLING CENTER BEARING BRACKETS, END BRACKETS, JAMB BRACKETS, OPERATOR MOUNTING/SUPPORT BRACKETS AND DISCONNECT BRACKETS ON TREATED LUMBER (PRESERVATIVE-TREATED). STAINLESS STEEL OR PT 2000 COATED LAG SCREWS ARE NOT NECESSARY WHEN INSTALLING PRODUCTS ON UNTREATED LUMBER.

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

1

Attaching Quick Install Flag Angles to Vertical Tracks

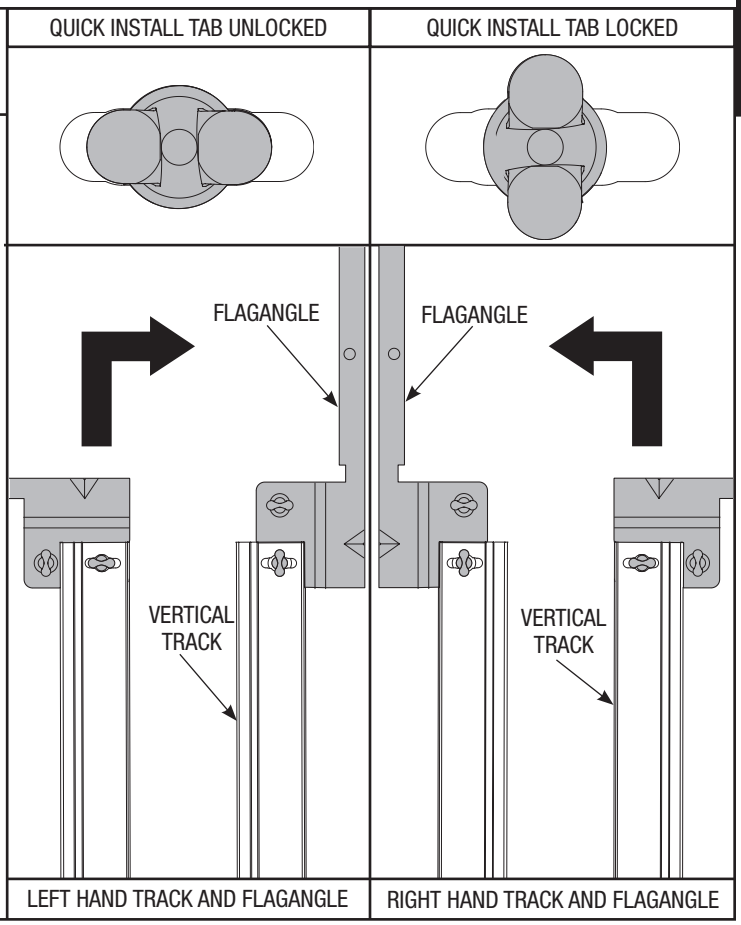
Tools Needed:

None

NOTE: If you have fully adjustable flagangles, skip this step and complete Step 2.

Place the lower quick install tab of the flagangle in the quick install feature of the vertical track. Give the flagangle 1/4 turn to lock in place. Repeat for other side.

NOTE: After completing this step, continue with Step 3.



2 Attaching Fully Adjustable Flagangles to Vertical Track

Tools Needed:

None

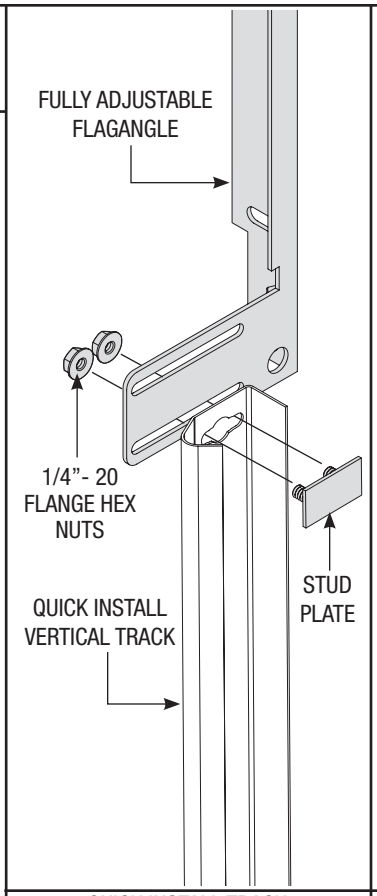
NOTE: If quick install flagangles were installed in Step 1, skip this step and continue with Step 3. If not, complete this step.

If you have quick install vertical track, hand tighten the flagangle to the vertical track using (1) stud plate and (2) 1/4" - 20 flange hex nuts. Repeat for other side.

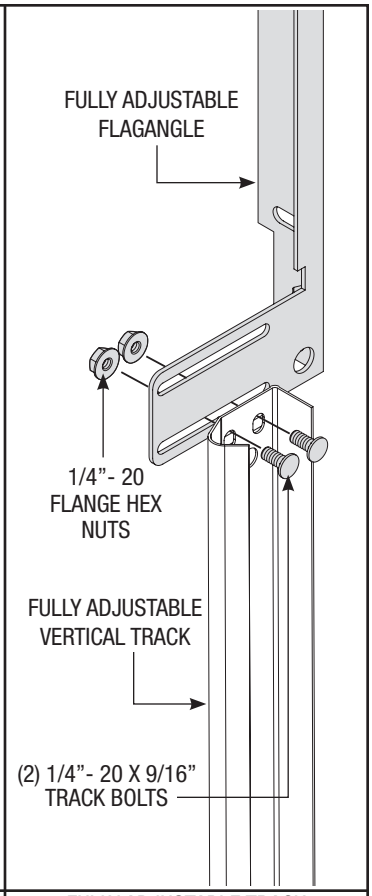
Secure the flange nuts after flagangle spacing is complete (Step 15).

If you have fully adjustable vertical track, hand tighten the flagangle to the vertical track using (2) 1/4"- 20 x 9/16" track bolts and (2) 1/4"- 20 flange hex nuts. Repeat for other side.

Secure the flange nuts after flagangle spacing is complete (Step 15).



QUICK INSTALL TRACK



FULLY ADJUSTABLE TRACK

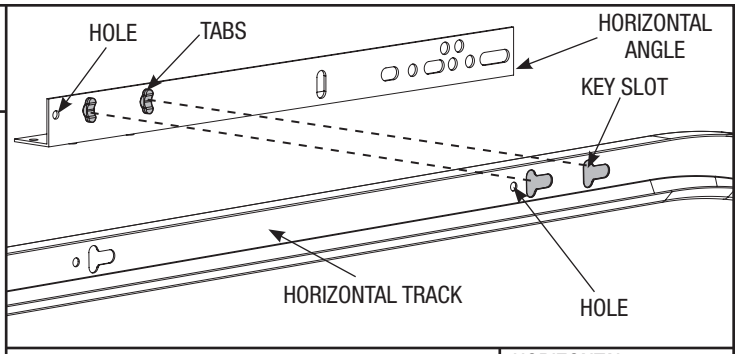
3 Horizontal Angles

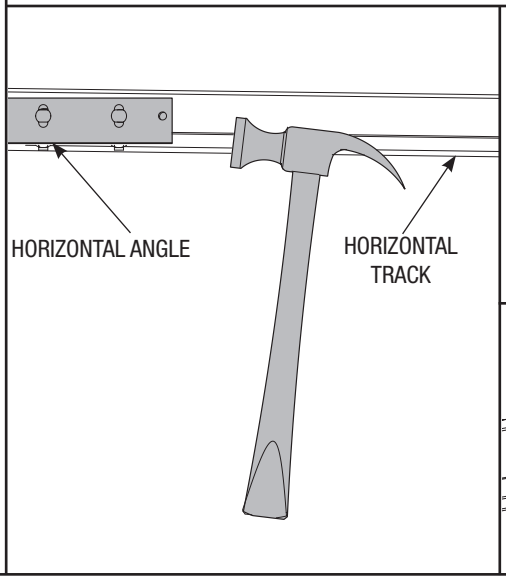
Tools Needed:

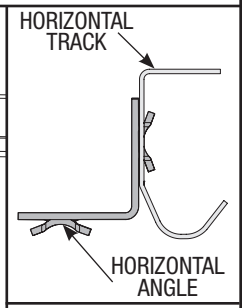
Hammer

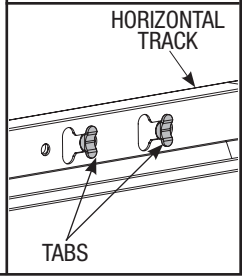
Position the horizontal angle as shown. Place tabs of horizontal angle in the key slot of horizontal track. Using a hammer, tap the horizontal angle towards the curved end of the track until the hole in track and angle are aligned. Set tracks aside.

NOTE: For larger doors, a full length horizontal angle may be spot welded to the horizontal track. If the horizontal angle is not welded, the horizontal angle must be installed as shown.









4 Installing The Jamb Brackets

Tools Needed:

None

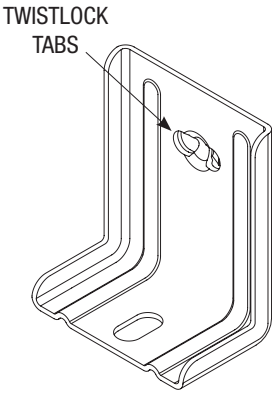
NOTE: The following (JBUS) denotes a slotted jamb bracket.

NOTE: The following (QI) denotes a quick install jamb bracket. No additional hardware is needed.

Measure the length of the vertical track. Using the jamb bracket schedule, determine the placement of the jamb brackets for your door height and track type.

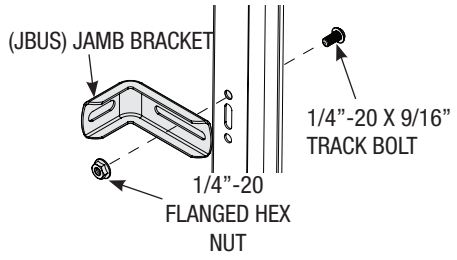
To install the (QI) jamb brackets: Align the twistlock tab on (QI) jamb bracket with the quick install feature in the track and turn the jamb bracket perpendicular to the track so the mounting flange is toward the back leg of the track.

To install the (JBUS) jamb brackets: Loosely fasten the (JBUS) jamb bracket to the track with a 1/4"-20 x 9/16" track bolt and nut.

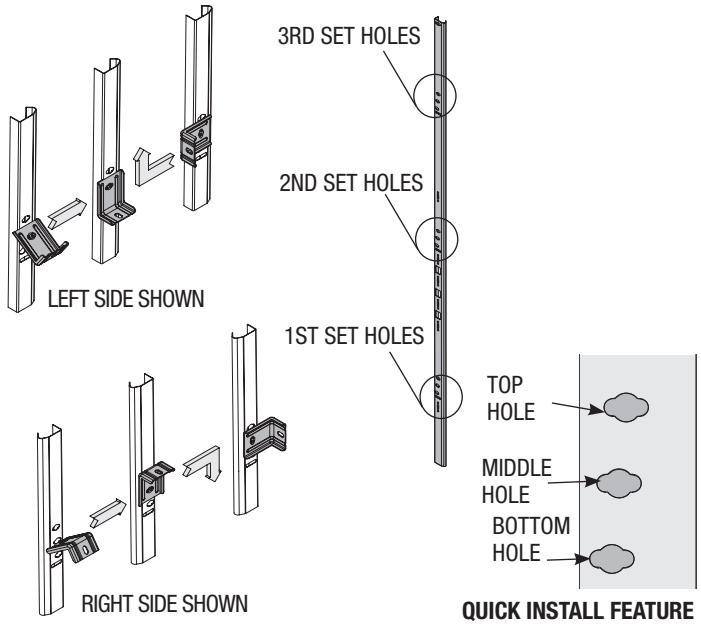


(JBUS) JAMB BRACKET SCHEDULE

DOOR HEIGHT	NO. OF SECTIONS	NO. OF JAMB BRACKETS (EACH JAMB)	LOCATION OF CENTER LINE OF JAMB BRACKETS MEASURED FROM BOTTOM OF TRACK (ALL DIMENSIONS ± 2")
WINDLOAD SPECIFICATION 0228			
7'-0" or Less	4	1	2", 63"
7'-1" to 8'-0"	4 or 5	1	2", 34"
WINDLOAD SPECIFICATION 0229, 0600, 0602, & 0606			
7'-0" or Less	4	2	25-1/2", 63"
7'-1" to 8'-0"	4 or 5	2	23", 34"
WINDLOAD SPECIFICATION 0235, 0236, 0237, 0604, & 0609			
7-0" or Less	4	3	2", 25-1/2", 63"
7'-1" to 8'-0"	4 or 5	3	2", 23", 34"
WINDLOAD SPECIFICATION 0230, 0232, 0233, 0234, 0601, 0603, 0605, 0607, & 0608			
7'-0" or Less	4	4	2", 25-1/2", 34", 63"
7'-1" to 8'-0"	4 or 5	5	2", 23", 34", 58", 75"



(Q.I.) JAMB BRACKET INSTALLATION



QUICK INSTALL FEATURE

JAMB BRACKET SCHEDULE

DOOR HEIGHT	1ST SET		2ND SET		3RD SET	
	JAMB BKT	POSITION	JAMB BKT	POSITION	JAMB BKT	POSITION
7'0" 76" Track (1930 mm)	QIJB - 5	BOTTOM	QIJB - 7	BOTTOM	NOT APPLICABLE	
8'0" 88" Track (2235 mm)	QIJB - 6	TOP	QIJB - 7	BOTTOM	QIJB - 9	TOP

5

Attaching U-Bars

Tools Needed:

Power Drill

7/16" Socket Driver

Saw Horses

NOTE: Double car door struts are color coded. 18 gauge (.046) have red ends. 20 gauge (.034) have blue ends.

Bottom Section:

1. If your doors windload option code begins with 06, place the U-Bar with the notched ends over the bottom rib of the bottom section, notches facing down. Center U-Bar left to right on section. If your doors windload option code begins with 02, place the U-Bar with the notched ends over the bottom rib of the bottom section, notches facing down. The end of the U-bar will fit between the bottom bracket flange and the bottom section rib. Center U-Bar left to right on section.

2. Fasten the U-Bar at each end through the top flange with (1) 1/4"-14 x 7/8" self drilling screw. If your doors windload option code begins with 02, also fasten the U-bar at each end to the bottom section rib with (2) 1/4"-14 X 5/8" self drilling screws, through the two holes in the bottom bracket flange.

3. Place (2) 1/4"-14 x 5/8" self tapping screws through each pre-punched hole at each intermediate hinge location.

4. Place the U-Bar over the top rib of the bottom section with the eight pre-punched holes, facing up. Center U-Bar left to right on section. Attach the U-Bar at each end through the bottom flange with (1) 1/4"-14 x 7/8" self drilling screw.

5. Finish securing the U-Bars to the section, by placing (2) 1/4" -14 x 5/8" self tapping screws midway between the end of the door and intermediate hinge locations and (1) 1/4" -14 x 5/8" self tapping screw approximately eight inches from each end.

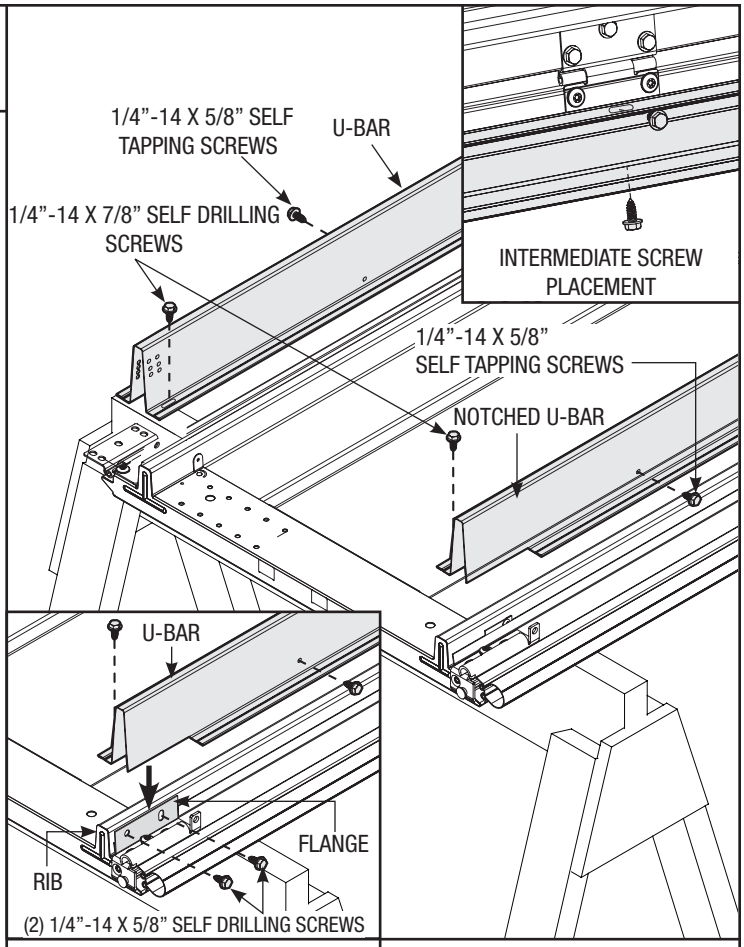
Intermediate/ Top Section(s):

1. Place the U-Bar over the top rib of each of the remaining sections with the (8) pre-punched holes at the ends, facing up. Center U-Bar left to right on section.

2. Fasten the U-Bar(s) at each end through the top and bottom flange with (2) 1/4"-14 x 7/8" self drilling screws.

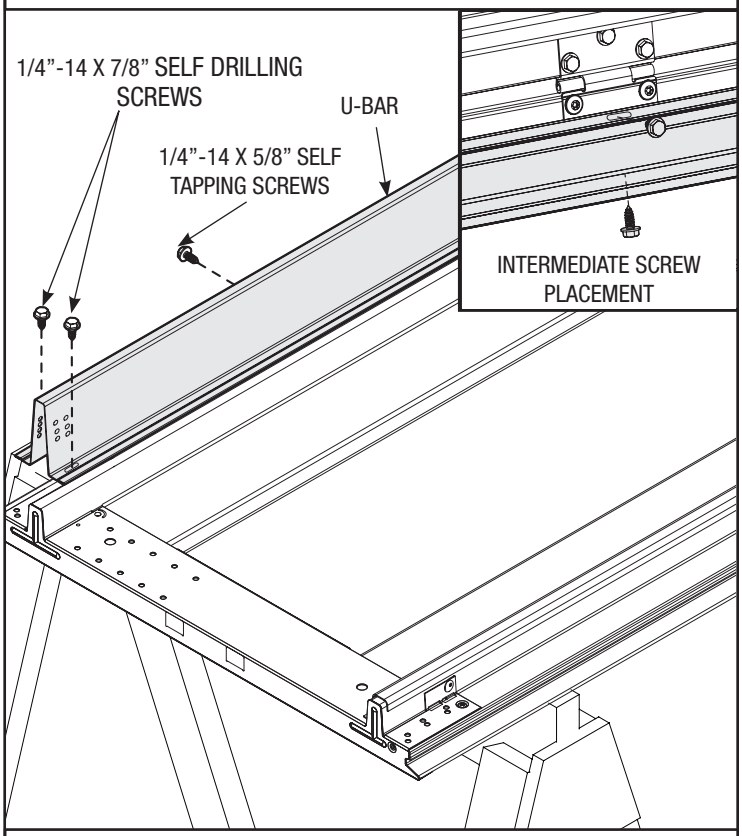
3. Place (2) 1/4"-14 x 5/8" self tapping screws through each intermediate hinge.

4. Finish securing the U-Bar(s) to the section, by placing (2) 1/4" -14 x 5/8" self tapping screws midway between the end of the door and intermediate hinge locations and (1) 1/4" -14 x 5/8" self tapping screw approximately eight inches from each end.



FOR OPTION CODES STARTING WITH 02 | FOR OPTION CODES STARTING WITH 06

BOTTOM SECTION



INTERMEDIATE SECTION

6

Pull Handle Installation

Tools Needed:

Tape Measure

Pencil

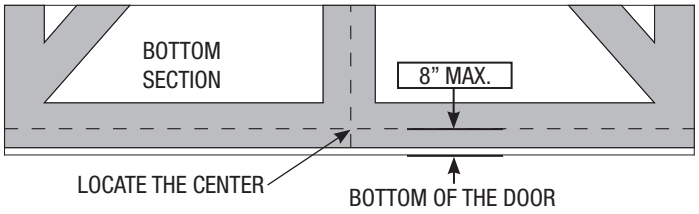
Power Drill

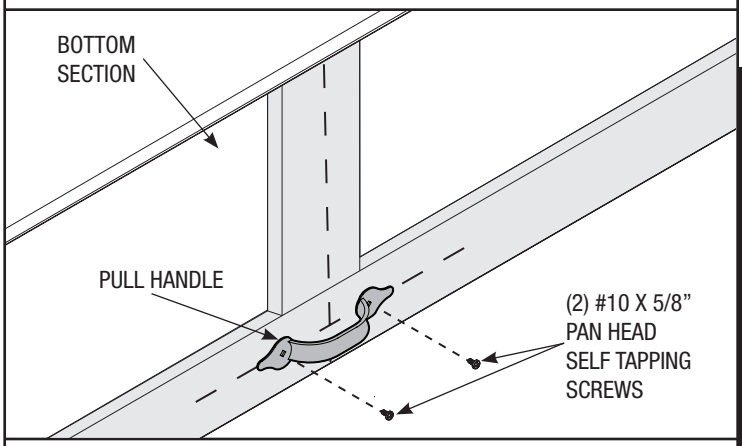
1/16” Drill Bit

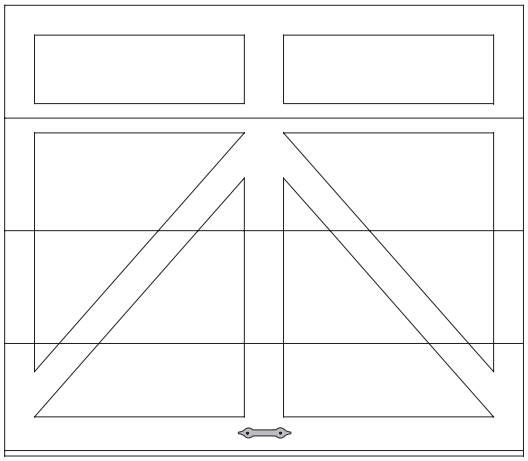
On single doors, locate and mark the horizontal and vertical center on the bottom rail of the bottom section.

Center the pull handle using the vertical and horizontal lines as reference on the bottom section rail as shown. Using the pull handle as a template, mark the two holes in the pull handle on the horizontal line of the bottom section rail. Drill a 1/16” pilot hole, then fasten pull handles using (2) #10 X 5/8” pan head self tapping screws.

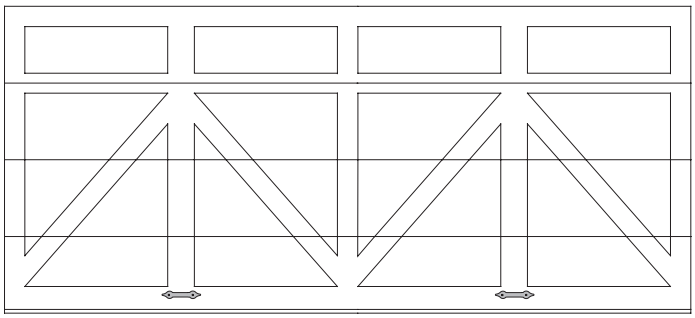
NOTE: Reference illustrations for pull handle positions on single and double car garage doors. If your door came with two pull handles they must be installed as shown in the bottom illustration.







PULL HANDLE PLACEMENT REFERENCE ON SINGLE WIDE DOORS



PULL HANDLE PLACEMENT REFERENCE ON DOUBLE WIDE DOORS

7

Lift Handle Installation

Tools Needed:

Tape Measure

Pencil

Power Drill

1/16” Drill Bit

NOTE: Reference illustrations for lift handle positions on single and double car garage doors.

Measure the width of the center stile which will receive the lift handle(s).

Divide that measurement in half and mark a vertical line on the center of the stile.

If you are installing two lift handles on the stile, you will need to measure from the edge of the center stile to the center line mark. Divide that measurement in half and draw a second and third vertical line parallel to the previously made center line mark.

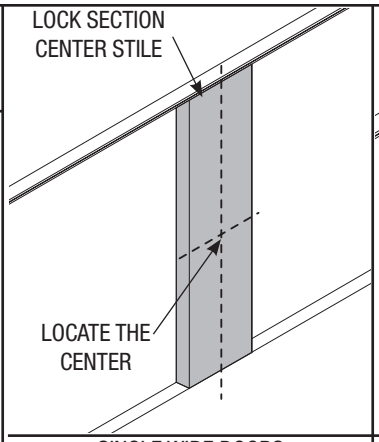
Measure the height of the panel. Divide that measurement in half and mark a horizontal line, intersecting the vertical line(s) previously marked. Measure up 3-7/8” from the intersecting line(s) and mark another horizontal line.

Use the point(s) where the top horizontal line intersects the vertical line(s) to locate the top hole of the lift handle(s).

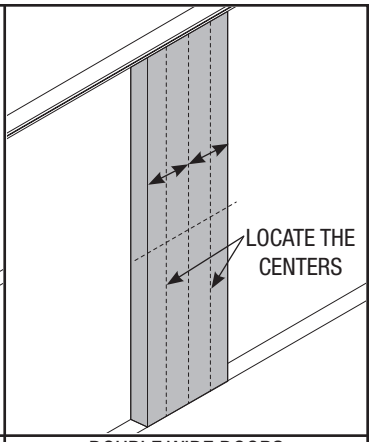
Using the lift handle as a template, mark this location on the stile. Keeping the carriage handle aligned on the vertical line, mark the lower carriage handle hole on the stile.

Drill 1/16” pilot holes, then fasten both lift handles using #10 X 5/8” pan head self tapping screws.

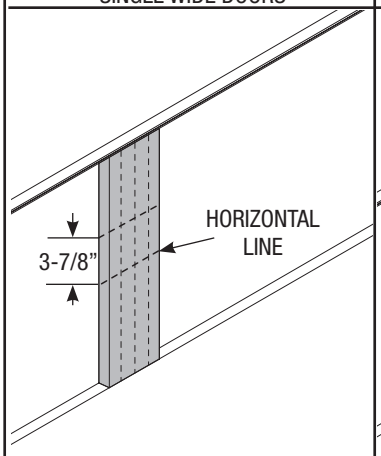
If the door came with two sets of lift handles repeat process.

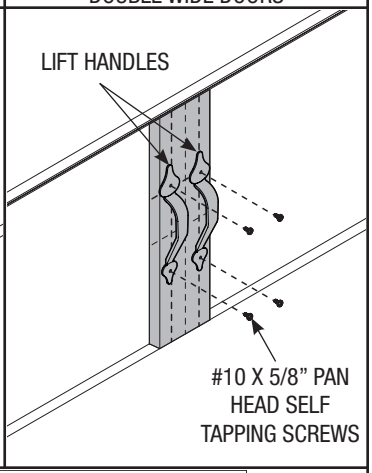


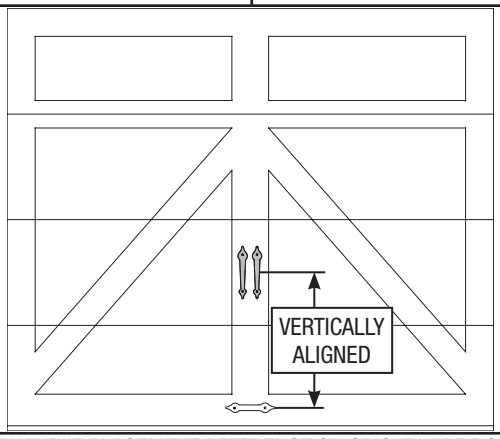
SINGLE WIDE DOORS



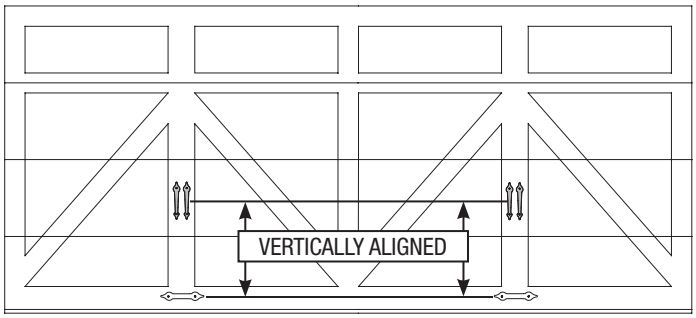
DOUBLE WIDE DOORS







LIFT HANDLE PLACEMENT REFERENCE ON SINGLE WIDE DOORS



LIFT HANDLE PLACEMENT REFERENCE ON DOUBLE WIDE DOORS

8 Roller Slides

Tools Needed:

Power Drill

7/16" Socket Driver

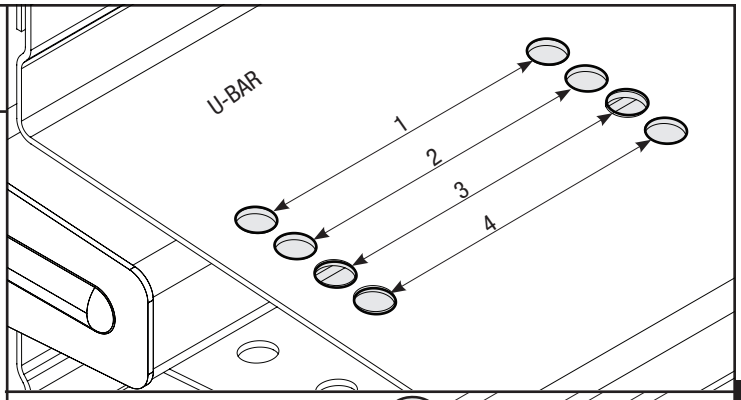
Starting with the bottom section, place a roller slide on the top left side of the U-Bar and align with the first set of holes (closest to the section) as shown. Attach the roller slide to the U-Bar with (2) 1/4"-14 x 5/8" self tapping screws. Repeat for opposite side. Install roller slides on the right and left side of each U-bar, on all remaining sections with the exception of the top section.

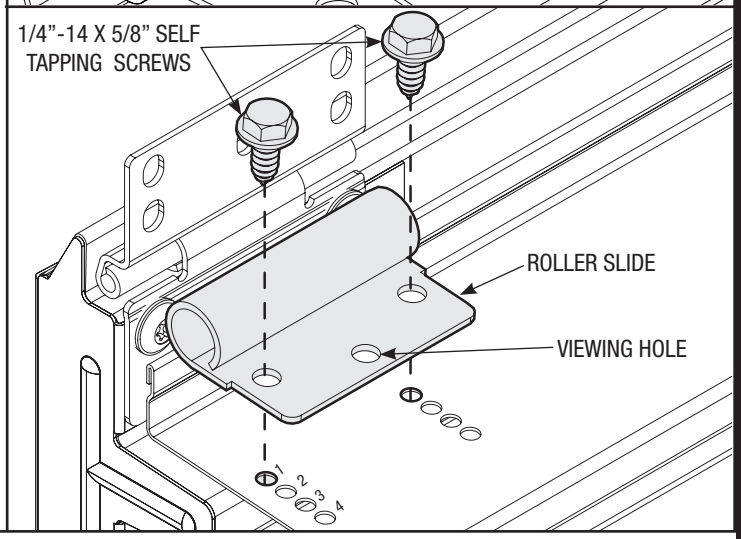
A viewing hole on the roller slide will allow for correct positioning of roller slide on U-bars. Place roller slides on the sections as follows:

Lock Section (second section) use the second set of holes.

Intermediate Section (Third section) use the third set of holes.

Fasten all roller slides to the U-bar with (2) 1/4"-14 x 5/8" self tapping screws.





9 Drums

Tools Needed:

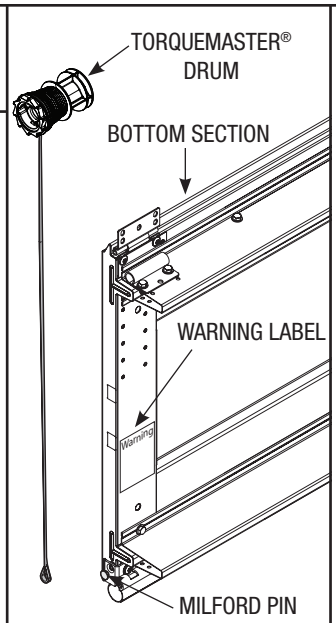
None

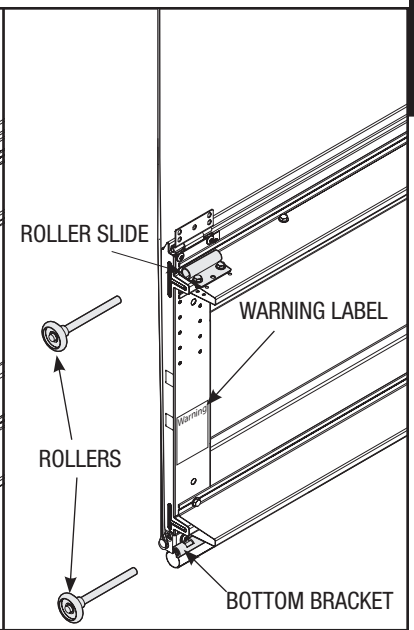
IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

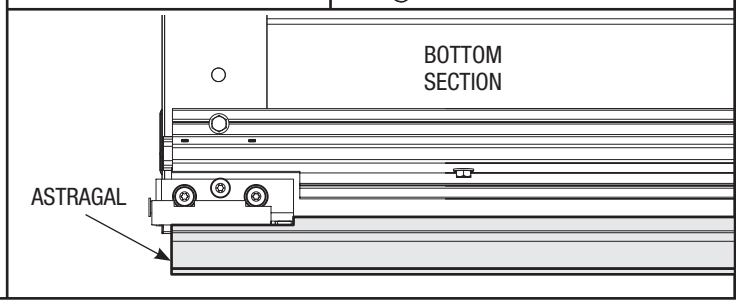
NOTE: For door section identification see page 4.

TorqueMaster® counterbalance drums are marked right and left hand. Uncoil the counterbalance cables and make sure you place the right hand cable loop on the right hand milford pin and place the left hand cable loop on the left hand milford pin. Insert a roller into bottom bracket of the bottom section and insert another roller in the roller slide at the top of the bottom section. Repeat for other side.

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





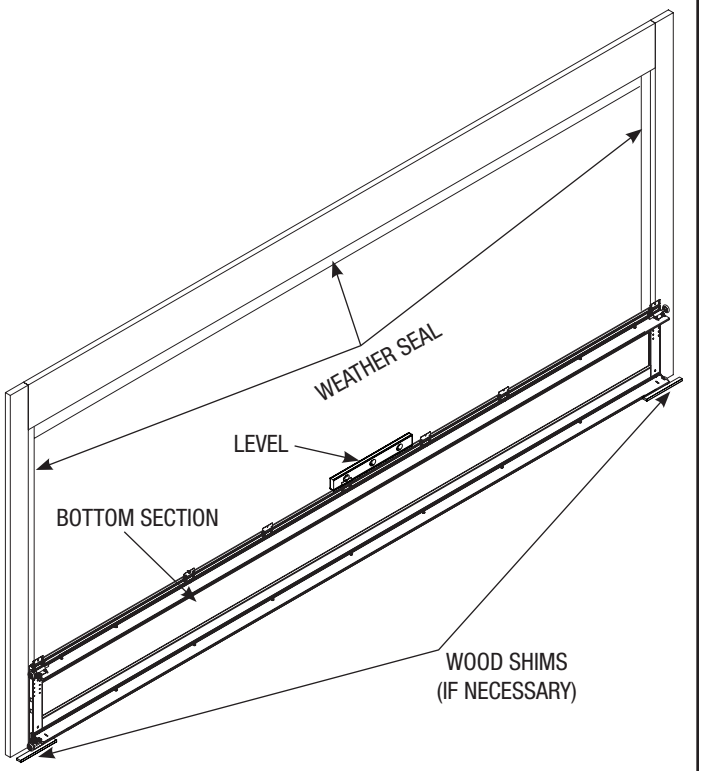


10 Bottom Section

Tools Needed:

Level

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



11 Vertical Track

Tools Needed:

3/16" Drill Bit

Power Drill

7/16" Socket Driver

Tape Measure

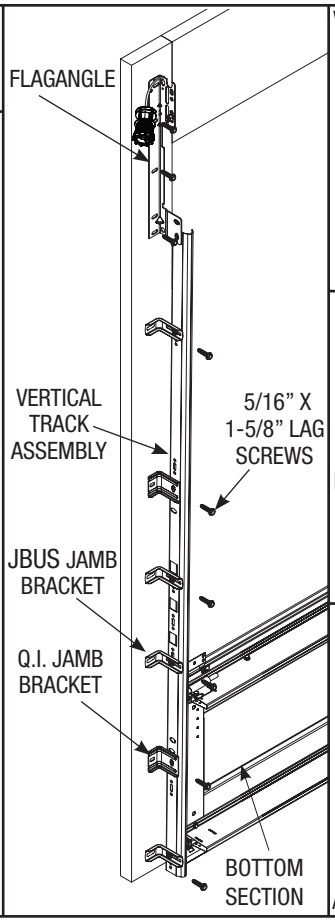
Level

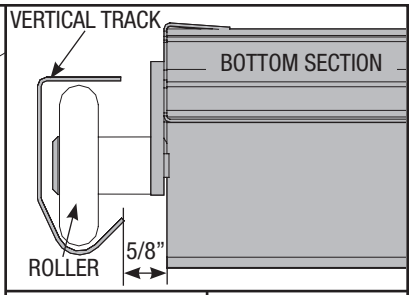
Step Ladder

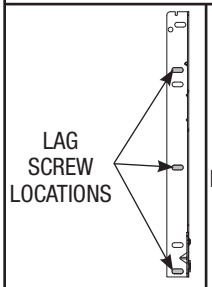
IMPORTANT: THE TOPS OF THE VERTICAL TRACKS MUST BE LEVEL FROM SIDE TO SIDE. IF THE BOTTOM SECTION WAS SHIMMED TO LEVEL IT. THE VERTICAL TRACK ON THE SHIMMED SIDE, MUST BE RAISED THE HEIGHT OF THE SHIM.

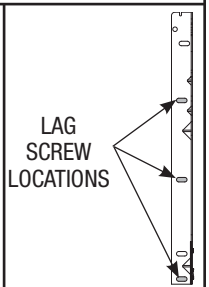
Position the left hand vertical track assembly over the rollers of the bottom section. Make sure the counterbalance cable is located between the rollers and the door jamb. Drill 3/16" pilot holes into the jambs for the lag screws. Loosely fasten jamb brackets and flagangle to the jamb using 5/16" x 1-5/8" lag screws. Tighten lag screw securing bottom jamb bracket to jamb, to maintain 5/8" spacing. Hang cable drum over flagangle.

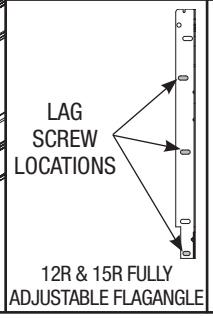
Repeat for the right hand side.

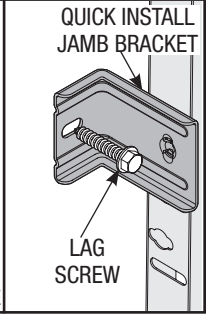












12 Stacking Sections

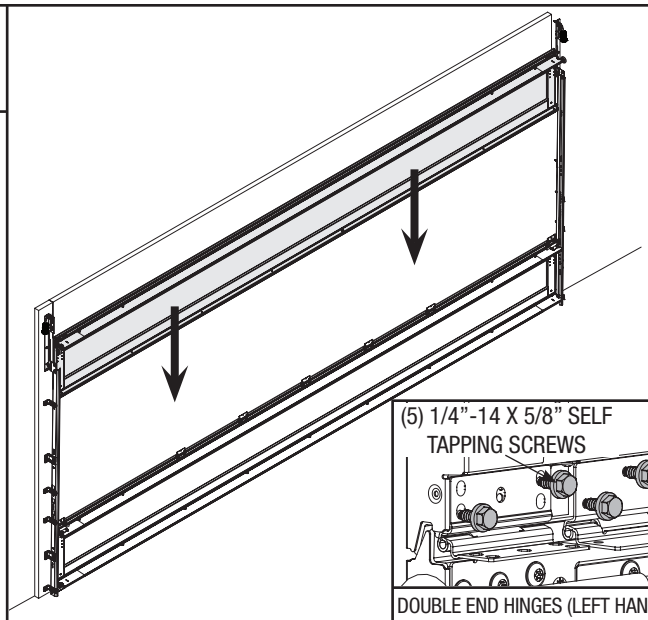
Tools Needed:

Power Drill

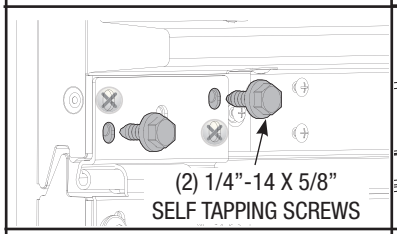
7/16" Socket Driver

NOTE: For door section identification see page 4.
NOTE: Make sure hinges are flipped down, when stacking another section on top.
NOTE: Larger doors will use long shaft rollers with double wide end hinges

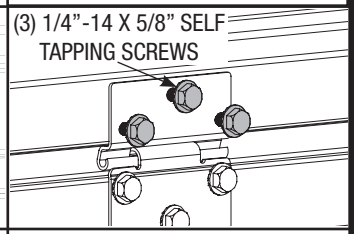
Place rollers in hinge tubes of the second section (lock section). With assistance, lift second section and guide rollers into the vertical tracks. Keep patterns on front of sections aligned, and fasten center hinges first and end hinges last with 1/4"-14 x 5/8" self tapping screws. Repeat for other section(s) except top section.
IMPORTANT: PUSH & HOLD THE HINGE LEAF AGAINST SECTION WHILE SECURING WITH 1/4"-14 X 5/8" SELF TAPPING SCREWS. END HINGES HAVE (2) SCREWS AND INTERMEDIATE HINGES HAVE (3) SCREWS; DOUBLE END HINGES HAVE (5) SCREWS.
NOTE: Lock(s) are required if door is not installed with opener. Install lock at this time (sold separately) see instructions in OPTIONAL INSTALLATION on page 32.



DOUBLE END HINGES (LEFT HAND SHOWN, RIGHT HINGE SYMMETRICALLY OPPOSITE)



END HINGES (LEFT HAND SHOWN, RIGHT HINGE SYMMETRICALLY OPPOSITE)



INTERMEDIATE HINGES

13 Top Roller Slides

Tools Needed:

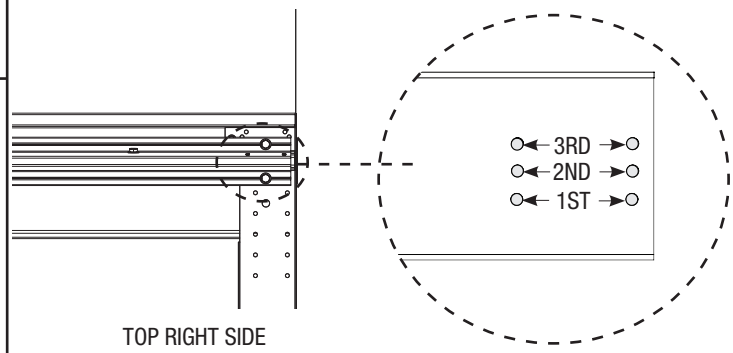
Power Drill

7/16" Socket Driver

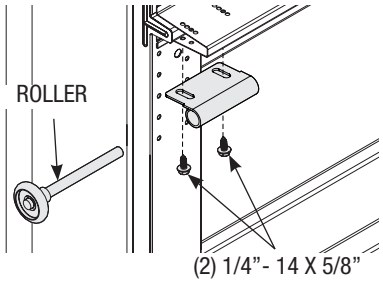
Step Ladder

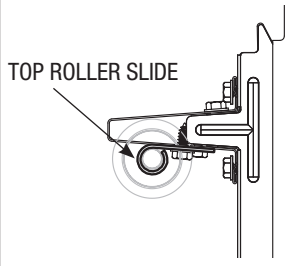
To install the top roller slides, align the slots in the top roller slide with the second set of holes on the bottom of the U-bar.

Loosely, fasten using (2) 1/4" - 14 x 5/8" self tapping screws. The bracket will be tightened and adjusted in Step 18. Insert rollers into top roller slide. Repeat for left side.



TOP RIGHT SIDE





14

Adjustable Operator Bracket Installation

Tools Needed:

Power Drill

7/16” Socket Driver

7/16” Wrench

IMPORTANT! WHEN CONNECTING A TROLLEY TYPE GARAGE DOOR OPENER TO THIS DOOR, A WAYNE-DALTON OPENER/TROLLEY BRACKET MUST BE SECURELY ATTACHED TO THE TOP SECTION OF THE DOOR, ALONG WITH ANY U-BARS PROVIDED WITH THE DOOR. THE INSTALLATION OF THE OPENER MUST BE ACCORDING TO MANUFACTURER’S INSTRUCTIONS AND FORCE SETTINGS MUST BE ADJUSTED PROPERLY.

Place the top half of the operator bracket inside the bottom half and hold flush against the inside of the top section (as shown). Adjust the top / bottom halves out against the U-bar and bottom rib; loosely secure both halves together with (4) 1/4” - 20 x 5/8” carriage bolts and nuts.

NOTE: Install the track bolts as far apart as possible (as shown), when fastening the top / bottom halves together.

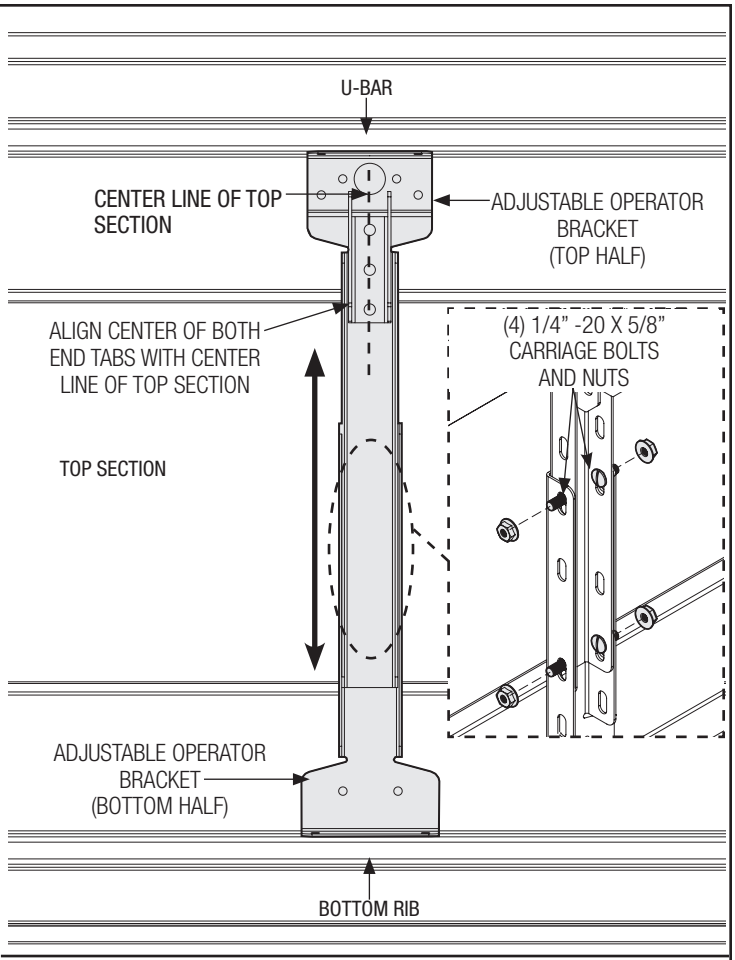
NOTE: For retro fit applications, the adjustable operator bracket must be aligned with the existing operator.

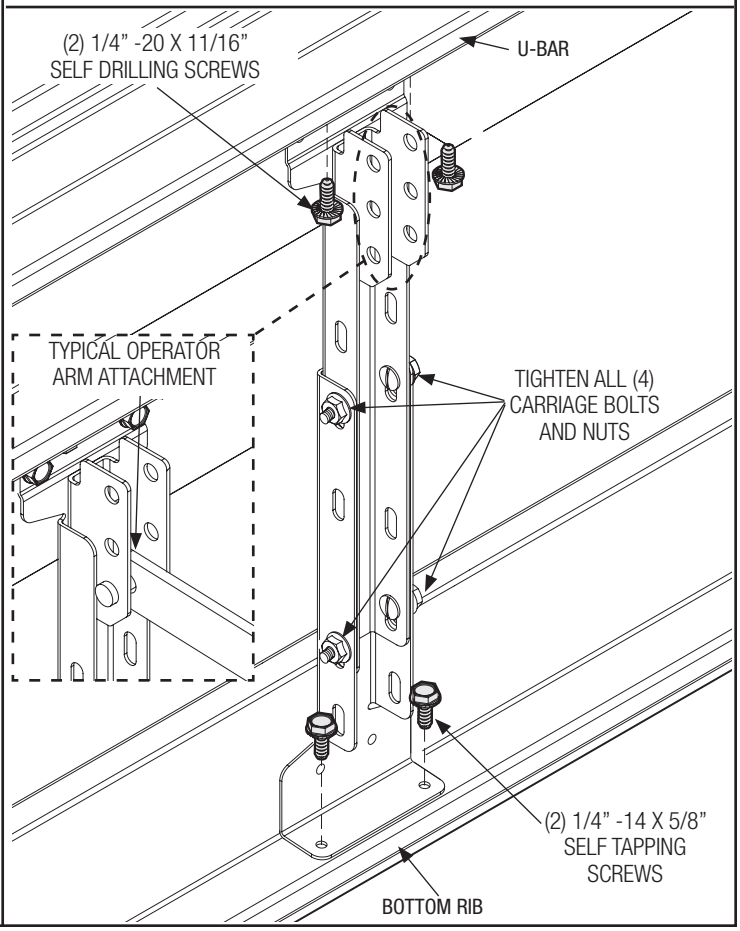
Locate the center of the top section and align the center of both end tabs of the adjustable operator bracket with the sections center line; align the adjustable operator bracket vertically.

To attach the adjustable operator bracket:

Attach the operator bracket to the U-bar with (2) 1/4” - 20 x 11/16” self drilling screws and the bottom rib with (2) 1/4” -14 x 5/8” self tapping screws (as shown).

Now tighten all (4) previously installed carriage bolts and nuts.





15

Top Section

Tools Needed:

Hammer

Step Ladder

Place the top section in the opening.

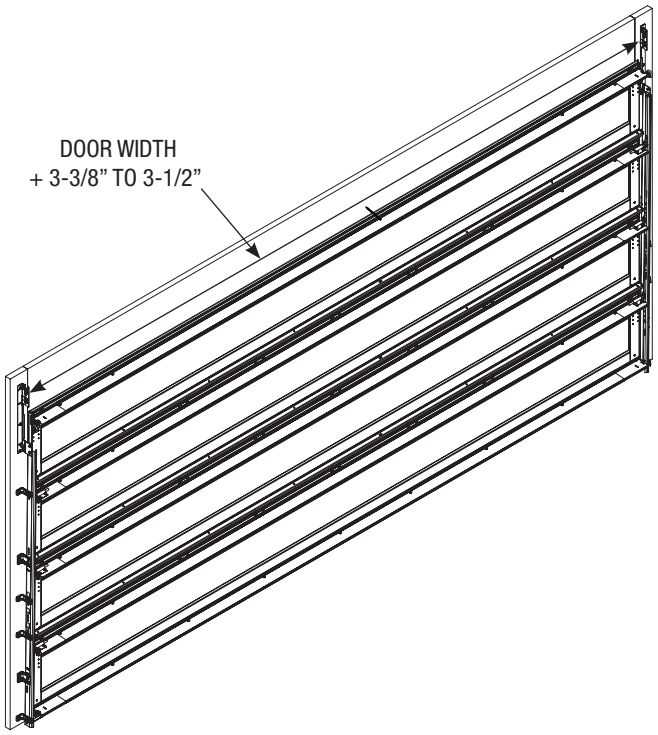
Temporarily secure the top section by driving a nail in the header near the center of the door and bending it over the top section.

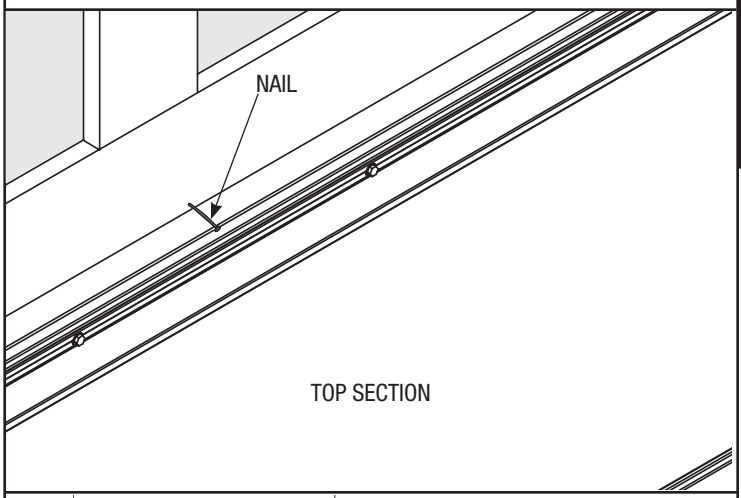
Now, flip up hinge leafs, hold tight against section, and fasten center hinges first, and end hinges last. (Refer to Step 12).

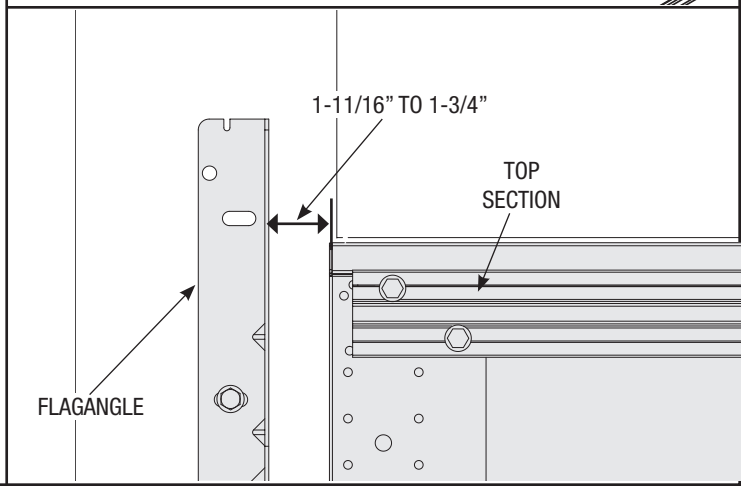
Position flagangle between 1-11/16" (43 mm) to 1-3/4" (44 mm) from the edge of the door; tighten the bottom lag screw. Flagangles must be parallel to the door sections. Repeat for opposite side.

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

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







16

Attaching Quick Install Flagangles to Horizontal Tracks

Tools Needed:
9/16” Socket
Ratchet Wrench
9/16” Wrench
Level
Step Ladder

NOTE: If you have fully adjustable flagangles, skip this step and complete Step 17.

To install horizontal track, place the curved end over the top roller. Align key slot of the horizontal track with the quick install tab of the flagangle. Push curved portion of horizontal track down to lock in place.

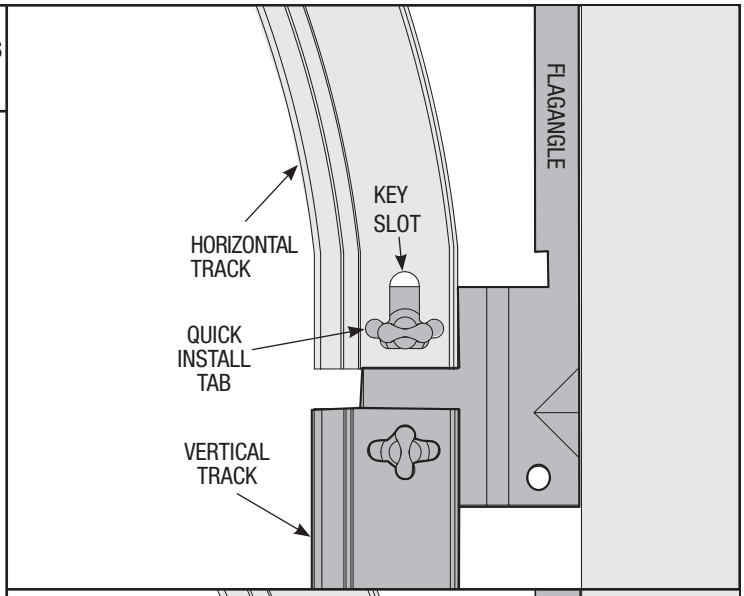
⚠ WARNING

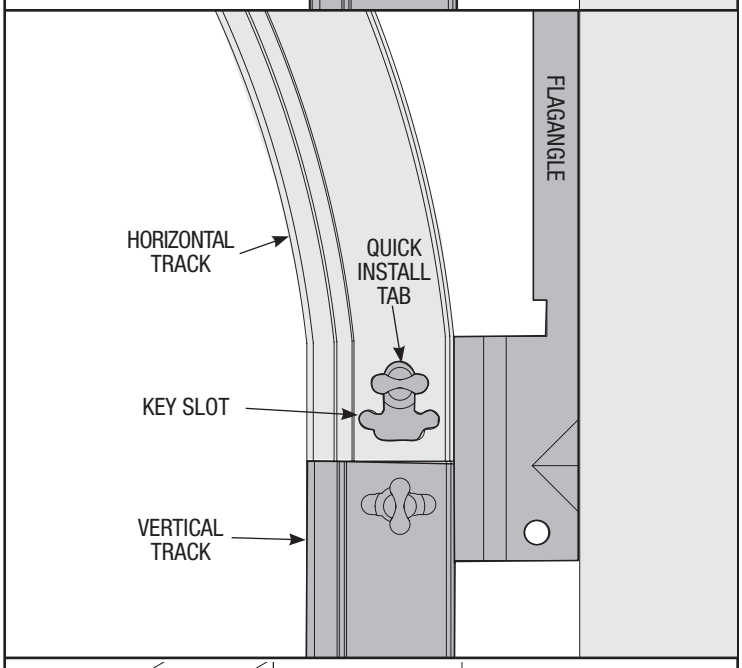
DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP 28, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

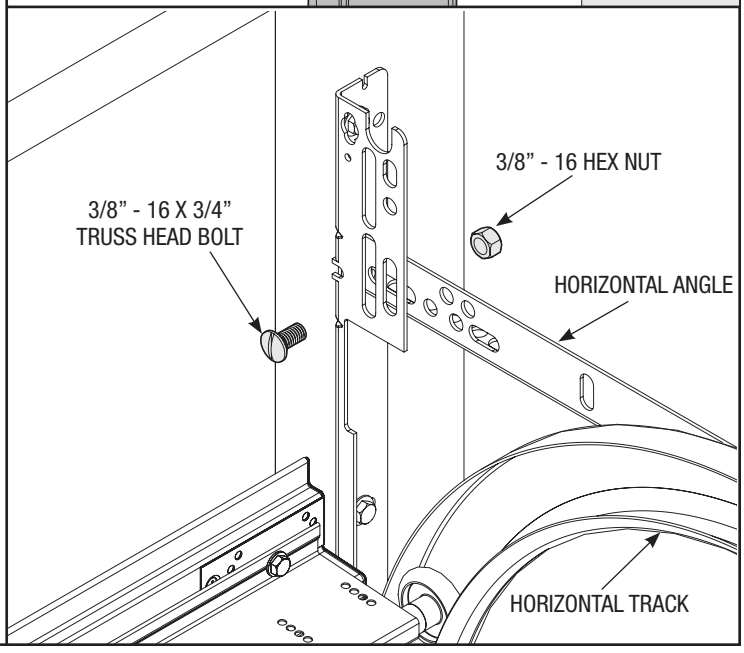
Level the horizontal track assembly and bolt the horizontal angle to the slot in the flagangle using (1) 3/8” - 16 x 3/4” truss head bolt and (1) 3/8” - 16 hex nut. Repeat for other side. Remove the nail that was temporarily holding the top section in place, installed in Step 15.

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

NOTE: If an *i*drive® opener will be installed, position horizontal tracks slightly above level.
NOTE: After completing this step, continue with Step 18.







17

Attaching Adjustable Flagangles to Horizontal Tracks

Tools Needed:
7/16" Socket
9/16" Socket
Ratchet Wrench
9/16" Wrench
Level
Step Ladder

NOTE: If quick install flagangles were installed in Step 16, skip this step and continue with Step 18. If not, complete this step.

To install horizontal track, place the curved end over the top roller. Align the bottom of the horizontal track with the vertical track. If you have quick install horizontal track, hand tighten the horizontal track to the flagangle with a studplate and (2) 1/4"-20 flange hex nuts. If you have fully adjustable horizontal track, hand tighten the horizontal track to the flagangle with (2) 1/4" - 20 x 9/16" track bolts and (2) 1/4"-20 flange hex nuts.

⚠ WARNING

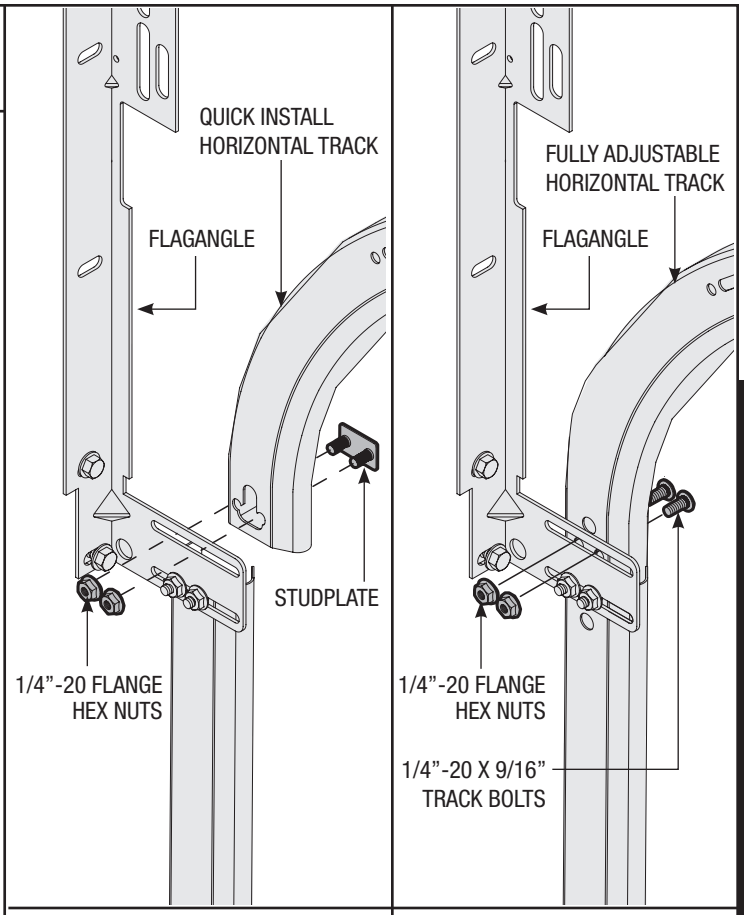
DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP 28, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

Level the horizontal track assembly and bolt the horizontal angle to the slot in the flagangle using (1) 3/8"-16 x 3/4" truss head bolt and (1) 3/8"-16 hex nut. Repeat for other side.

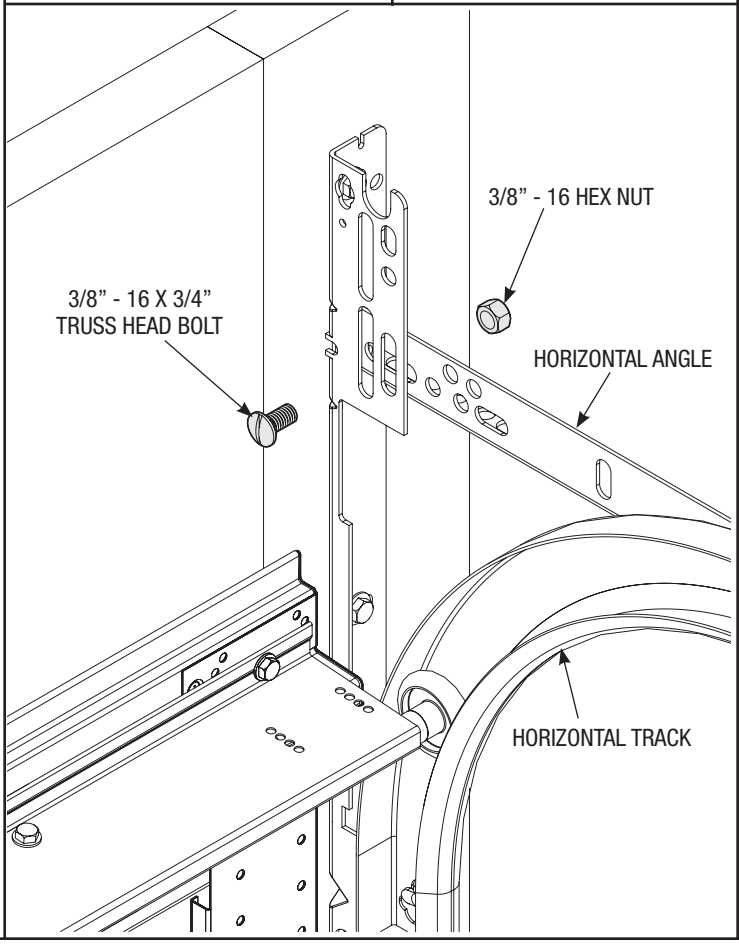
Remove the nail that was temporarily holding the top section in place, installed in Step 15.

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

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



QUICK INSTALL TRACK | FULLY ADJUSTABLE TRACK



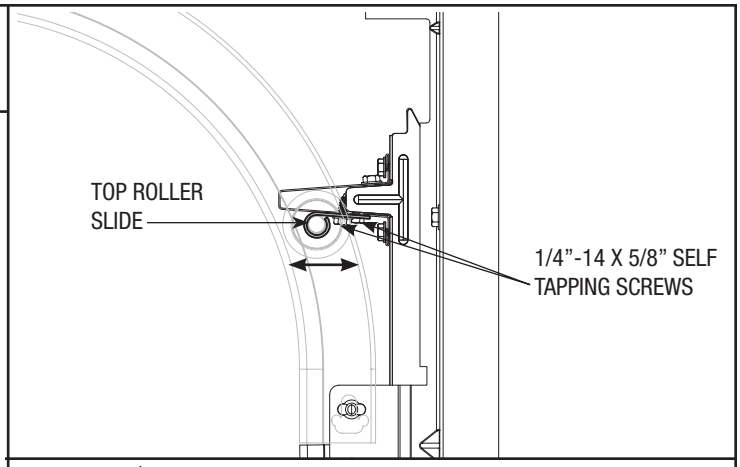
18 Adjusting Top Roller Slide

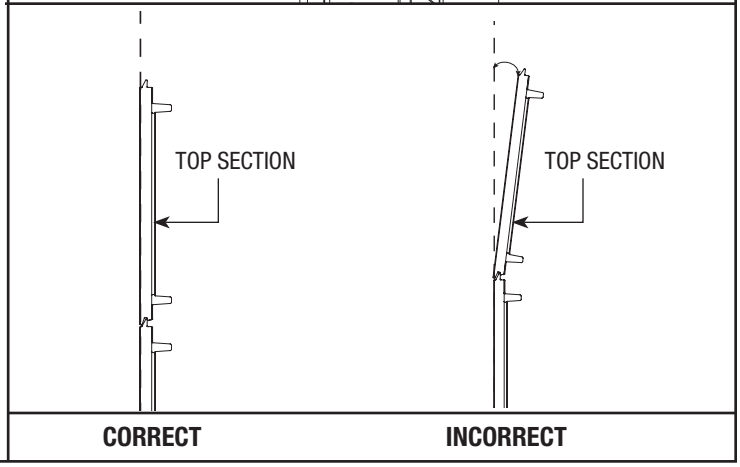
Tools Needed:
Power Drill
7/16” Socket
Driver
Step Ladder

With horizontal tracks installed, you can now adjust the top roller slide.

Vertically align the top section of the door with the lower sections. Once aligned, position the top roller, out against the horizontal track, while keeping the roller slide parallel with the section.

Maintaining the slide’s position, tighten the (2) 1/4” - 14 x 5/8” self tapping screws.



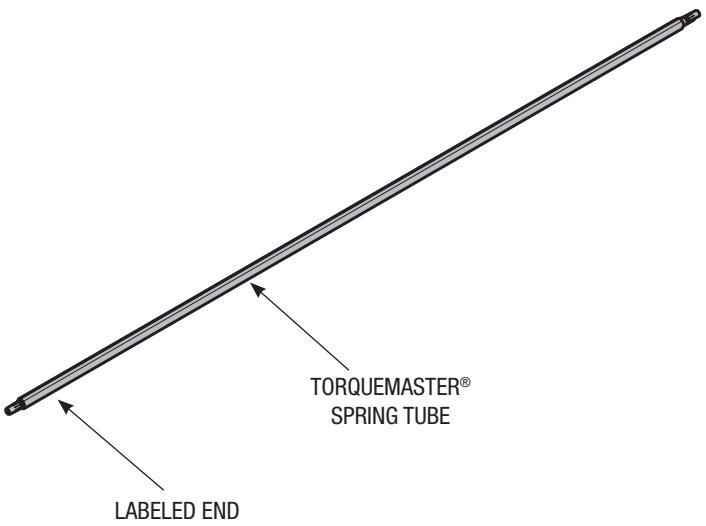


19 TorqueMaster® Spring Tube

Tools Needed:
None

TorqueMaster® springs come lubricated and pre-assembled inside the TorqueMaster® spring tube.

To install, lay the TorqueMaster® spring tube on the floor (inside garage) in front of the door with the labeled end to the left.



20

Center Bracket Bushing

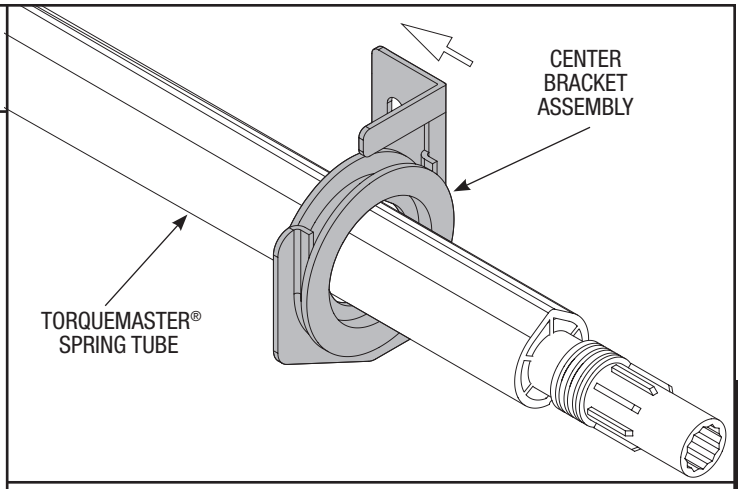
Tools Needed:

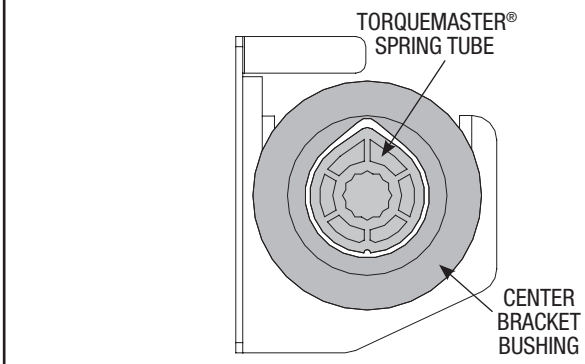
None

NOTE: If you are installing the idrive® opener with your garage door, skip this step and go to your idrive® Installation Instructions and Owner's Manual. After completing steps 1-13 of your idrive® Installation Instructions and Owner's Manual, rear supports will need to be fabricated/installed to support both horizontal tracks, see step 28.

NOTE: If you are not installing the *i*drive® opener on your garage door, you must install the center bracket bushing assembly. Follow these instructions for non-*i*drive® operated garage doors.

Being cam shaped the center bracket bushing only fits one way.
Slide the center bracket assembly towards the center of the TorqueMaster® spring tube, from the right side as shown.





21

Drum Wraps/ Cable Drums

Tools Needed:

Tape Measure

Step Ladder

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

Drum wraps are identified as right hand and left hand.

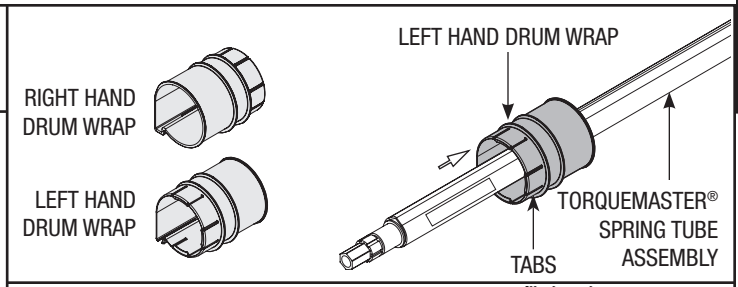
Slide the left hand drum wrap over the left side of the TorqueMaster® spring tube assembly with the tabs facing left. Continue sliding the left hand drum wrap towards the center of the TorqueMaster® spring tube assembly.

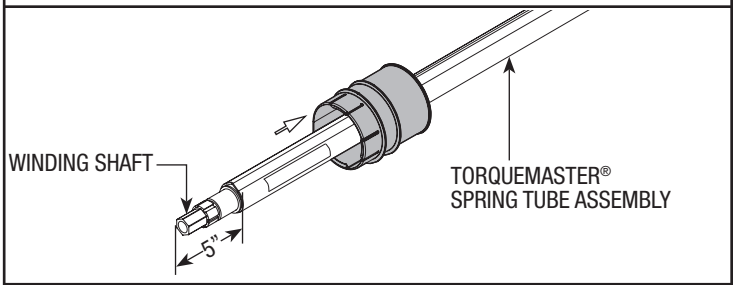
Repeat for right hand side.

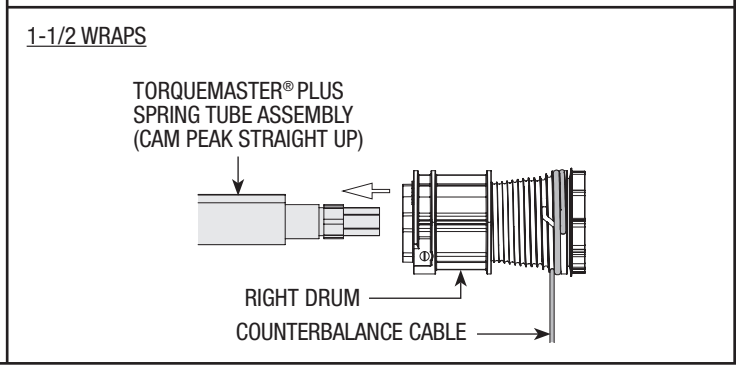
Shake the TorqueMaster® Plus spring tube assembly gently to extend the winding shafts out about 5" on each side. For single spring applications, there will be no left hand spring in the TorqueMaster® Plus spring tube assembly.

Lift the TorqueMaster® Plus spring tube assembly and rest it on the top of the flagangles.

NOTE: Cable drums are marked right and left hand. Cable drums and TorqueMaster® Plus spring tube assembly are cam shaped to fit together only one way.







INSTALLATION

Cable Drums Continued...

Pre-wrap the Torquemaster® Plus cable drum with the counter balance cable 1-1/2 wraps.

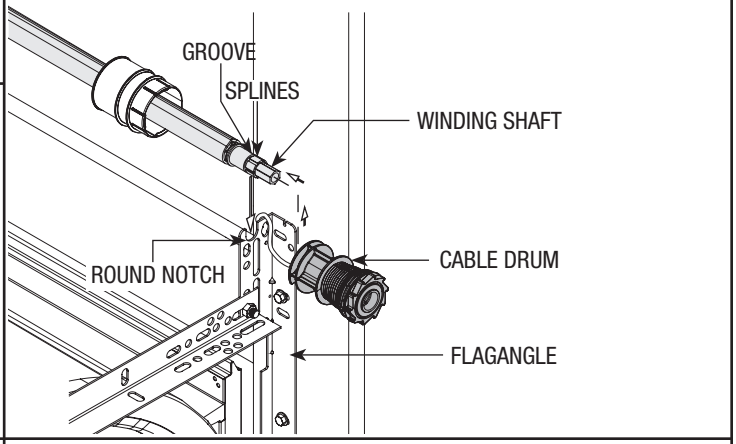
To install the cable drum, slide the correct cable drum over the winding shaft until the cable drum seats against the TorqueMaster® Plus spring tube assembly.

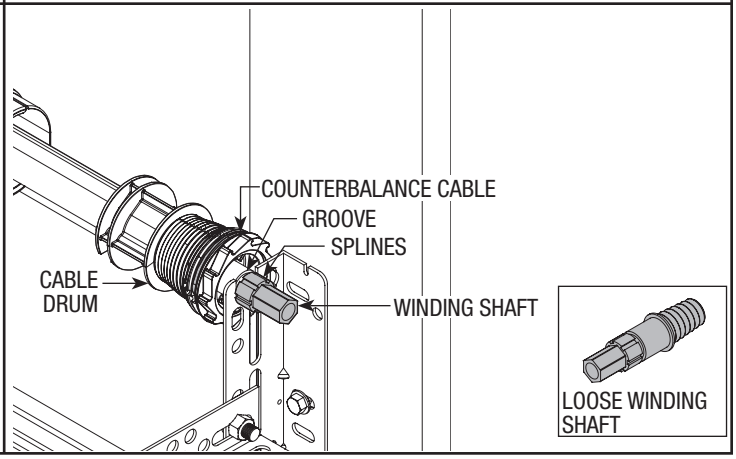
The winding shaft must extend past the cable drum far enough to expose the splines and the groove. Align the winding shaft groove with the round notch in the flagangle.

For double spring applications, repeat for opposite side.

For single spring applications, pre-wrap the left hand Torquemaster® Plus cable drum with counterbalance cable 1-1/2 wraps and insert the loose winding shaft into the cable drum prior to sliding the cable drum over the TorqueMaster® spring tube assembly.

NOTE: On single spring applications, take care in handling the loose winding shaft (left side) so that it does not slide back into the TorqueMaster® Plus spring tube assembly.





22

End Brackets

Tools Needed:

Power Drill

5/16” Wrench

7/16” Socket Driver

Step Ladder

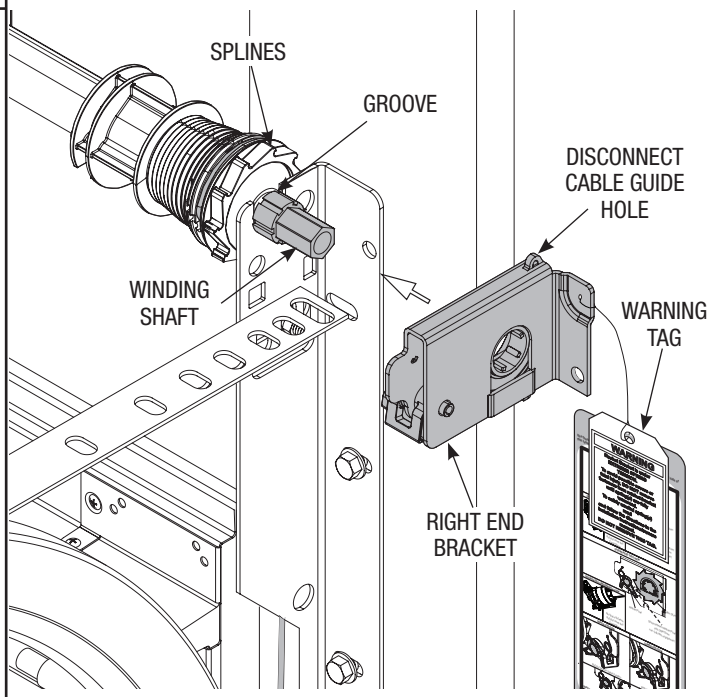
IMPORTANT: WARNING TAGS MUST BE SECURELY ATTACHED TO BOTH END BRACKETS.

End brackets are right and left hand. You can identify the right hand end bracket by the disconnect cable guide hole in the top of the bracket.

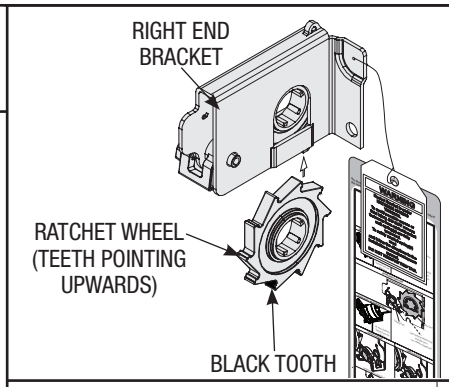
Beginning with either side, slide the end bracket onto the winding shaft so that the grooves in the ratchet wheel fit onto the winding shaft splines.

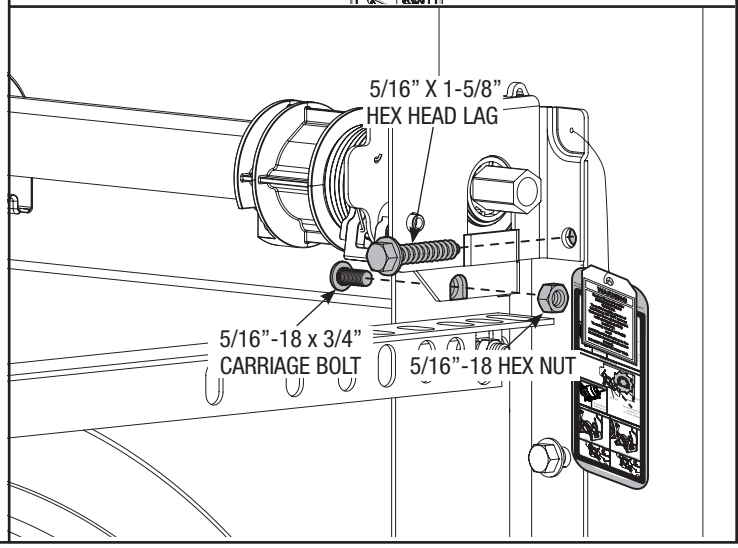
Secure end bracket to the jamb using (1) 5/16” x 1-5/8” hex head lag screw and (1) 5/16”-18 x 3/4” carriage bolt and hex nut.

Repeat for other end bracket.



End Brackets Continued...





23

Securing Center Bracket Assembly

Tools Needed:

Power Drill

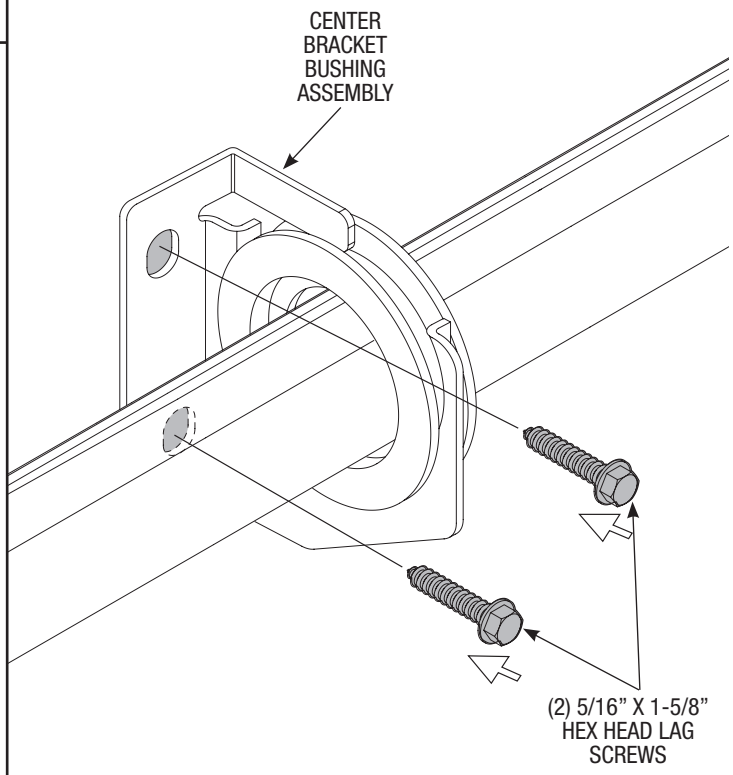
3/16" Drill Bit

7/16" Socket Driver

Step Ladder

NOTE: If you are not installing the *i*drive® opener on your garage door, you must install the center bracket bushing assembly, follow these instructions.

To locate the center bracket, mark the header halfway between the flagangles and level the TorqueMaster® spring tube. Drill 3/16" pilot holes into header for the lag screws. Fasten the metal bracket to the header using (2) 5/16" X 1-5/8" lag screws.



24

Securing Door for Spring Winding

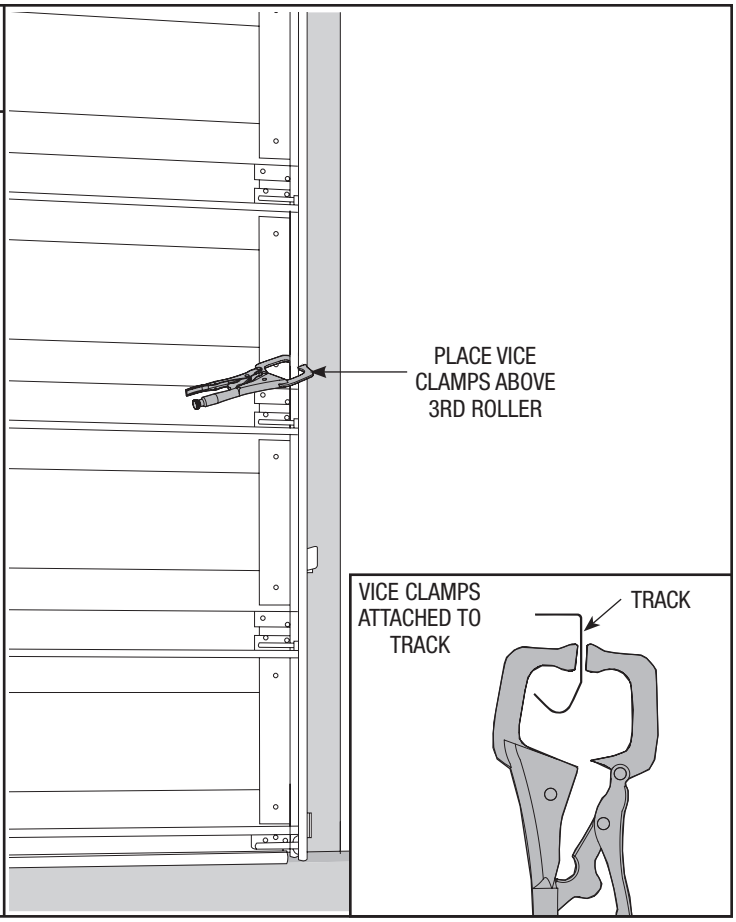
Tools Needed:

Vice Clamps

Place vice clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while winding the counterbalance springs.

⚠ WARNING

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



25

Cable Adjustment

Tools Needed:

Vice Grips

Pliers/Wire Cutters

Flat Tip Screwdriver

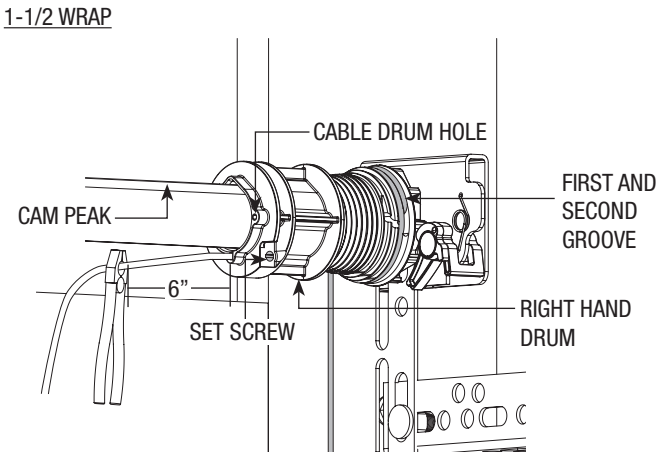
Step Ladder

Check to ensure the cable is aligned and seated in the first and second groove of the cable drum. Snug the set screw, and then tighten an additional 1-1/2 turns.

IMPORTANT: ENSURE THE CABLE IS ALIGNED AND SEATED IN THE FIRST GROOVE OF THE CABLE DRUM PRIOR TO WINDING SPRINGS.

Measure approximately 6” of cable and cut off excess cable. Insert end of cable in hole of cable drum.

NOTE: Illustrations show the right TorqueMaster® Plus drum, left TorqueMaster® Plus drum is symmetrically opposite.



26

Winding Springs

Tools Needed:

Ratchet Wrench

5/8” Socket

3” Extension

Gloves

Step Ladder

⚠ 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.

⚠ WARNING

IT IS RECOMMENDED THAT LEATHER GLOVES BE WORN WHILE WINDING THE TORQUEMASTER® PLUS SPRINGS. FAILURE TO WEAR GLOVES MAY CAUSE INJURY TO HANDS.

Double check to ensure the counterbalance cable is aligned in the first and second groove of the cable drum (Step 25).

There are two methods for counting the spring turns as you wind. One method is to identify the black tooth on the ratchet wheel inside of the end bracket. When the wheel makes one revolution and the tooth returns to its starting point, one turn has been made. The other method is to make a mark on the winding shaft (or socket) and end bracket, and count your turns in this manor.

Starting on the right hand side. Turn the pawl knob on the end bracket to the upper position. Using a ratchet wrench with a 16mm 5/8“ socket (**NOTE**: A 76 mm 3” extension is also recommended for added clearance from the horizontal angle.), wind the spring by rotating the winding shaft counter clockwise, while watching either the black tooth on the ratchet wheel or the mark on the winding shaft.

IMPORTANT: PAWL KNOB MUST BE IN UPPER POSITION TO ADD/ REMOVE REQUIRED NUMBER OF SPRING TURNS.

After 2-3 turns, remove the ratchet wrench and adjust the cable on the left side. Ensure the cables are in the first and second groove of the cable drums, as shown in Step 25.

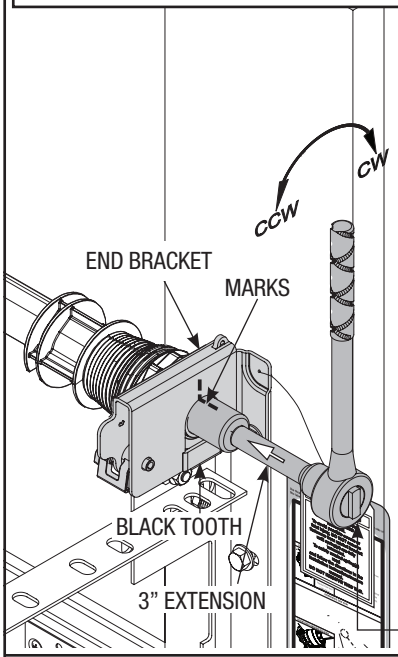
NOTE: Single spring application require no spring winding on the left hand side, but cable tension needs to be adjusted.

IMPORTANT: COUNTERBALANCE CABLE TENSION MUST BE EQUAL ON BOTH SIDES PRIOR TO FULLY WINDING SPRINGS.

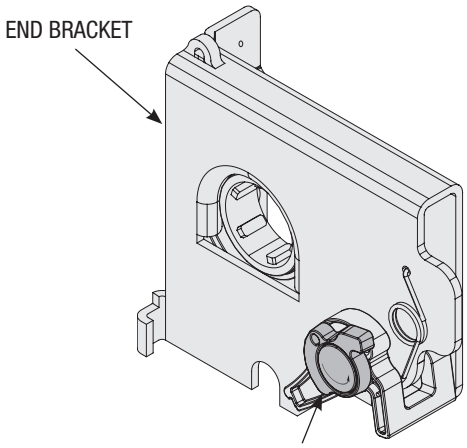
SEE THE SPRING TURN CHART FOR THE REQUIRED NUMBER OF TURNS:

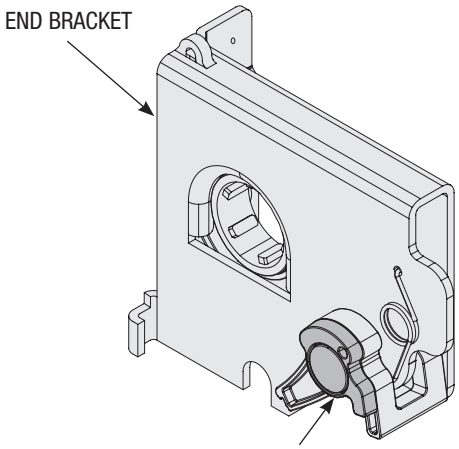
For single spring applications: Return to the right hand and continue winding the spring to the required number of turns for your door. Place pawl knob in lower position.

For double spring applications: Either use the black tooth on the ratchet



RECOMMENDED SPRING TURNS	
Door Height	**Spring Turns**
6’-0”	14
6’-3”	14-1/2
6’-5”	15
6’-6”	15
6’-8”	15-1/2
6’-9”	15-1/2
7’-0”	16
7’-3”	16-1/2
7’-6”	17
7’-9”	17-1/2
8’-0”	18





INSTALLATION

Winding Springs Continued...

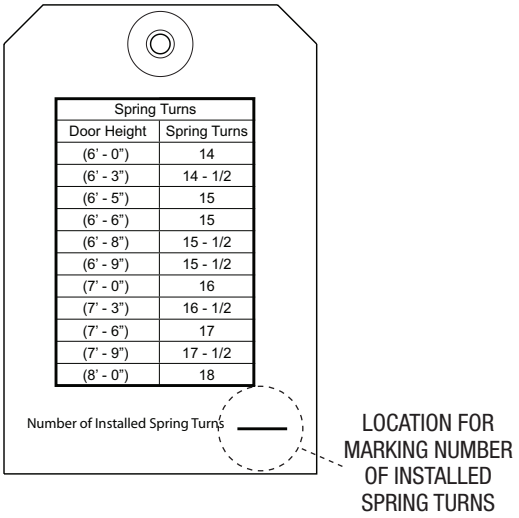
wheel for winding or place a mark on the winding shaft and end bracket. Place the ratchet with 5/8" socket onto the left hand winding shaft end. To wind the spring, rotate the winding shaft clockwise, while watching the black tooth on the ratchet wheel or the mark on the winding shaft.
Rotate the winding shaft to the required number of turns for your door. Then return to the right hand side and wind the right hand spring to the required number of turns. Place pawl knob in lower position on both sides.

IMPORTANT: Mark number of spring turns on TorqueMaster® Plus end bracket warning tag.

NOTE: Since total turns to balance door can deviate from SPRING TURN CHART values by ± 1/2 turn, adjustments to the recommended number of turns may be required AFTER rear hangers assembly is completed.

IMPORTANT! HOLD THE DOOR DOWN TO PREVENT IT FROM RISING UNEXPECTEDLY IN THE EVENT THE SPRING WAS OVERWOUND AND CAUTIOUSLY REMOVE VICE CLAMPS FROM VERTICAL TRACKS.

BACK OF TORQUEMASTER® PLUS END BRACKET WARNING TAG



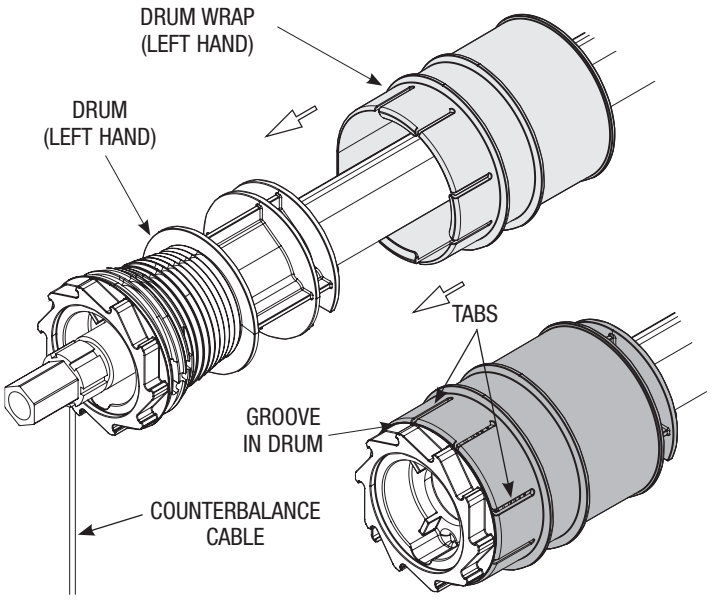
27

Drum Wrap Installation

Tools Needed:

Step Ladder

To install drum wraps, position the left hand drum wrap over the left hand drum, align with counterbalance cable; slide groove in drum wrap towards the left until tabs snap over drum between drum and ratchet gear. Repeat for right hand side.



28

Rear Support

Tools Needed:

Ratchet Wrench

1/2" Socket

1/2" Wrench

(2) Vice Clamps

Tape Measure

Level

Step Ladder

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

⚠ WARNING

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

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

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

⚠ WARNING

KEEP HORIZONTAL TRACK PARALLEL AND WITHIN 3/4" 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 HORIZONTAL TRACK HANGER THAT CANTILEVERS 4" OR MORE BEYOND A SOUND FRAMING MEMBER.

NOTE: If rear supports are to be installed over drywall, use (2) 5/16" x 2" hex head lag screws.

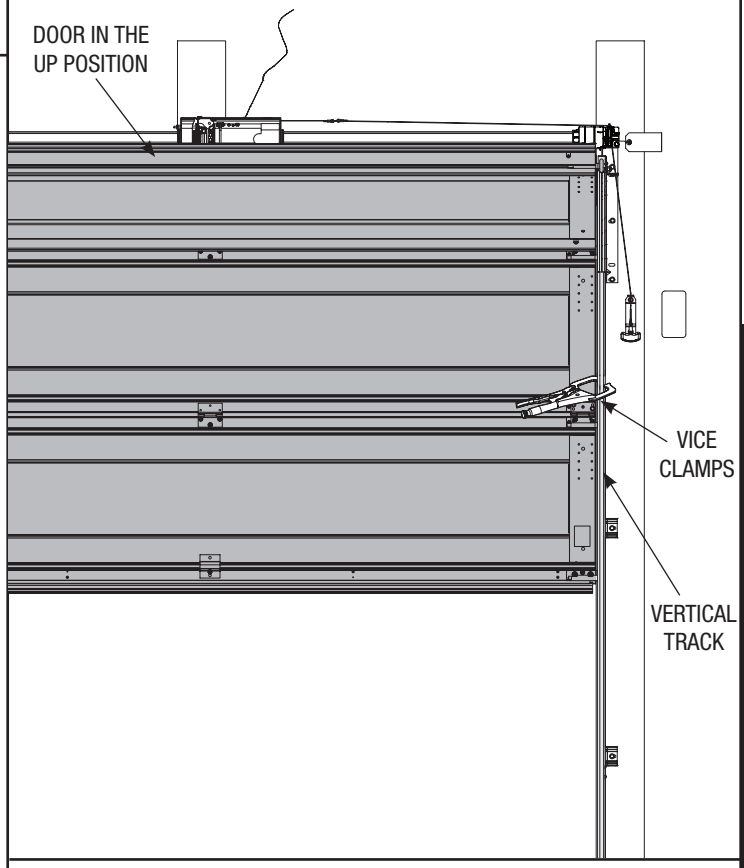
NOTE: If an idrive® opener is installed, position horizontal tracks one hole above level when securing it to rear supports.

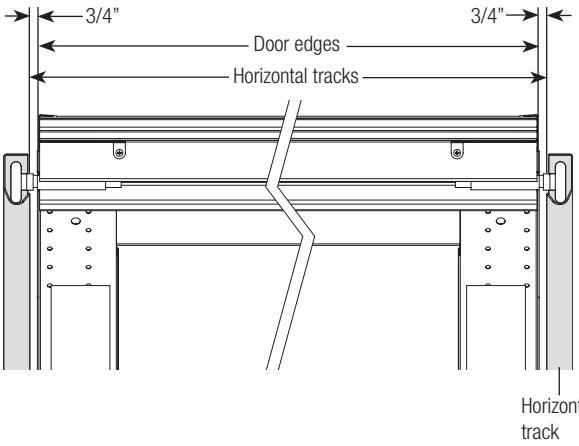
NOTE: 26" angle must be attached to sound framing members and nails should not be used.

Now, permanently attach the weather seal on both door jambs and header (Temporarily attached in PREPARING THE OPENING on page 6). Avoid pushing weather seal too tightly against face of door.

Place the windload label on the intermediate section, as shown.

Now, lift door and check it's balance. Adjust, if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). Anytime spring adjustments are made, ratchet pawl knob must be in the upper position to add/remove required number of spring turns (refer to step 26). To adjust springs, only add or remove a maximum of 3/10 of a turn (three teeth of ratchet wheel) at a time. Both sides need to be adjusted equally on double spring doors.





Rear Support Continued...

⚠ 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.

Add Spring Tension: The ratchet wheel is made of 10 teeth. To add spring tension, ensure the ratchet and socket is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side. Place the ratchet with 5/8" socket onto the winding shaft, pull down to add 3/10 of a turn. Watch as three teeth of the ratchet wheel pass over the pawl, creating three "clicks".

Remove Spring Tension: To remove spring tension, ensure the ratchet and socket is set so that it will tighten counter clockwise on the right hand side and clockwise on the left hand side. It is recommended that a regular 5/8" wrench be used. Place the wrench onto the winding shaft. Pull down on the wrench to relieve pressure between the pawl and the ratchet wheel. Push in on the pawl to allow the three ratchet wheel teeth to pass by the pawl, as you carefully allow the wrench to be rotated upward by the spring tension. Release the pawl to allow it to engage with the ratchet wheel.

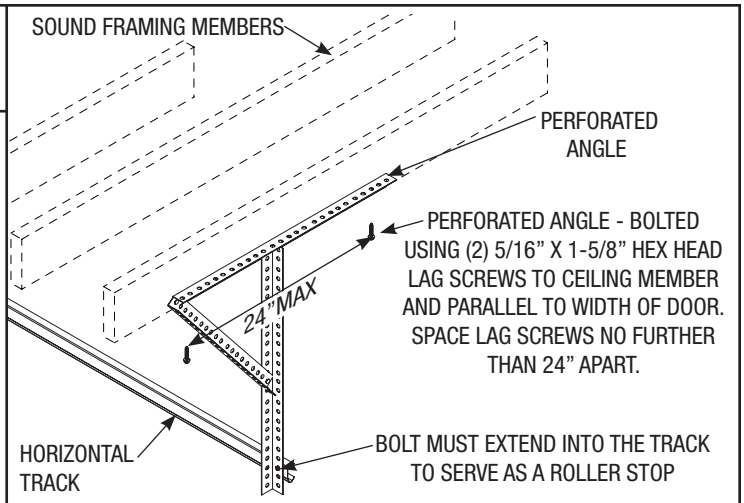
IMPORTANT: BE PREPARED TO HOLD THE FULL TENSION OF THE SPRING.

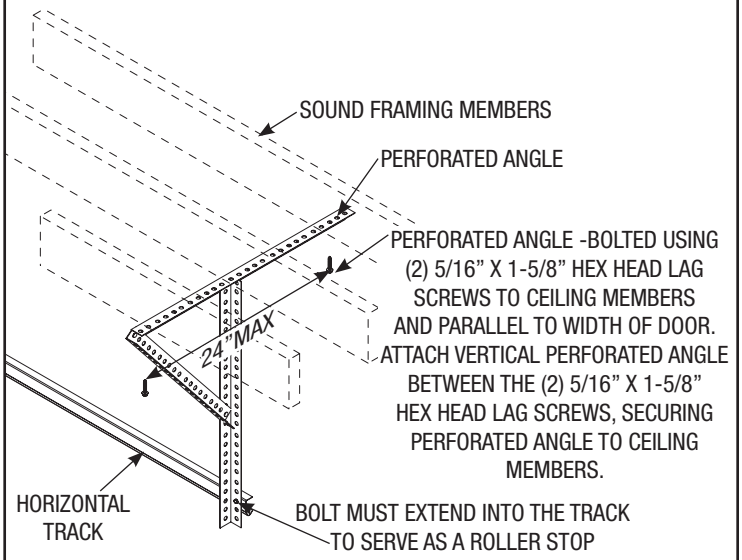
IMPORTANT: DO NOT ADD OR REMOVE MORE THAN 1 SPRING TURNS (1 SPRING TURN EQUALS 10 TEETH ON RATCHET WHEEL) FROM THE RECOMMENDED NUMBER OF TURNS SHOWN ON THE SPRING TURN CHART.

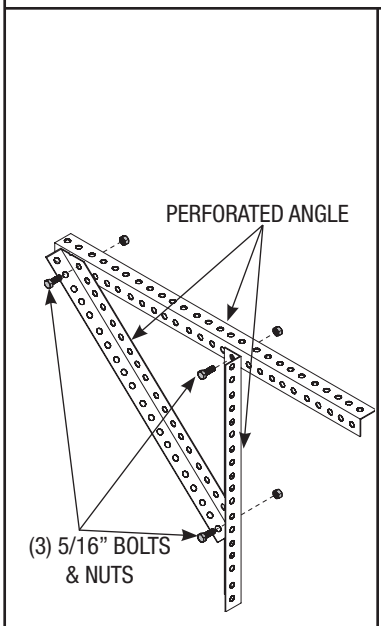
If the door still does not operate easily, lower the door into the closed position, UNWIND SPRING(S) COMPLETELY, and recheck the following items:

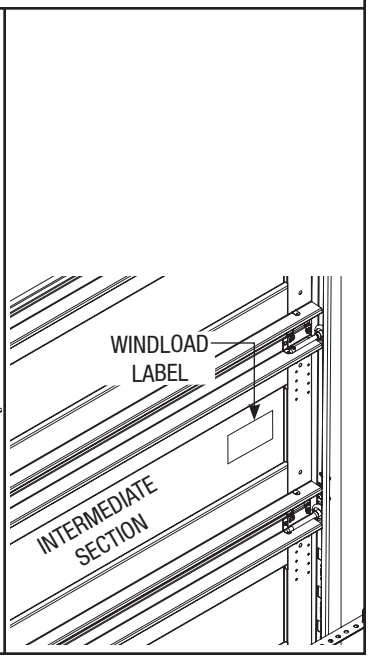
1.) Check the door for level.
2.) Check the TorqueMaster® tube and flagangles for level and plumb.
3.) Check the distance between the flagangles must be door width plus 3-3/8" to 3-1/2".
4.) Check the counterbalance cables for equal tension, adjust if necessary.
5.) Rewind the spring(s).
6.) Make sure door isn't rubbing on jambs.

NOTE: If an idrive® was installed and you have completed your rear support installation, refer to the idrive Installation Instructions and Owner's Manual to complete your idrive installation.









TorqueMaster® Plus Reset Instructions

Tools Needed:

5/8" Socket

Ratchet Wrench

3" Extension

Vice Clamps (Pair)

3" Extension

IMPORTANT! THE OPENER FORCE SETTINGS MUST BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. SOME LIGHTER WEIGHT DOORS ARE DESIGNED TO OPERATE WITH A SINGLE COUNTER-BALANCE SPRING. IF THAT COUNTER-BALANCE SPRING BREAKS AND THE OPENER'S FORCE SETTINGS ARE NOT ADJUSTED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS, THE OPENER MAY THEN HAVE THE CAPABILITY OF LIFTING THE DOOR TO THE OPEN POSITION, DESPITE THE BROKEN COUNTER-BALANCE SPRING. THIS SCENARIO WILL CAUSE THE COUNTER-BALANCE CABLES TO GO SLACK AND ENGAGE THE TORQUEMASTER® PLUS SAFETY SYSTEM. IF A PERSON IS UNAWARE OF THE SLACK CABLES AND THE ENGAGED TORQUEMASTER® PLUS SAFETY SYSTEM AND ACTIVATES THE MIS-ADJUSTED OPENER, DAMAGE WILL LIKELY OCCUR TO THE DOOR AND OPENER. THE POTENTIAL ALSO EXISTS THAT THE PERSON ACTIVATING THE OPENER UNDER THIS SCENARIO COULD BE SEVERELY INJURED.

⚠ WARNING

READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO RESET THE TORQUEMASTER® PLUS SYSTEM. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A TRAINED DOOR SYSTEMS TECHNICIAN RESET THE SYSTEM.

⚠ WARNING

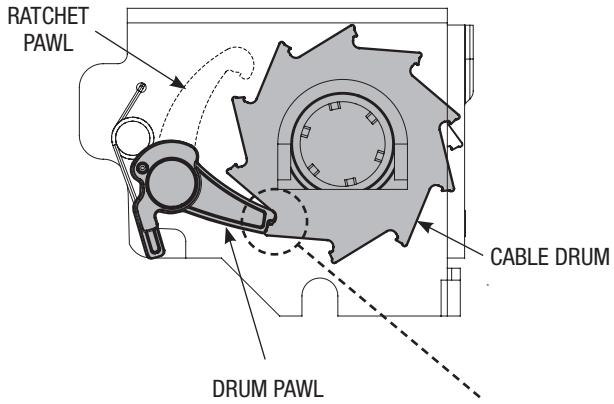
TO AVOID SEVERE OR FATAL INJURY, DO NOT STAND OR WALK UNDER A MOVING DOOR, OR PERMIT ANYONE TO STAND OR WALK UNDER AN ELECTRICALLY OPERATED DOOR

This door is equipped with a TorqueMaster® Plus system, a safety feature which prevents the door from rapidly descending in case of spring failure or forceful manual operation. If the system engages with the door in the open position, personal items that are left unattended in the garage or home are at risk to theft. To insure the safekeeping of these items, close the garage door.

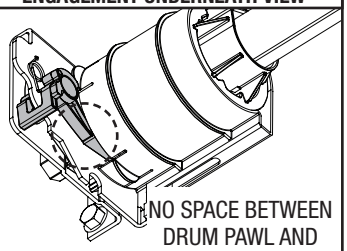
Typical signs of an engaged system:

Single spring system: Visually inspect the TorqueMaster® Plus right hand end bracket to confirm that the system has engaged (see illustration). If the system is engaged then the door will not close. If the opener force settings were properly set during the initial installation, the door will not open. If the opener can physically overcome the weight of the door and lift it to the open position, then the counterbalance cables will be slack.

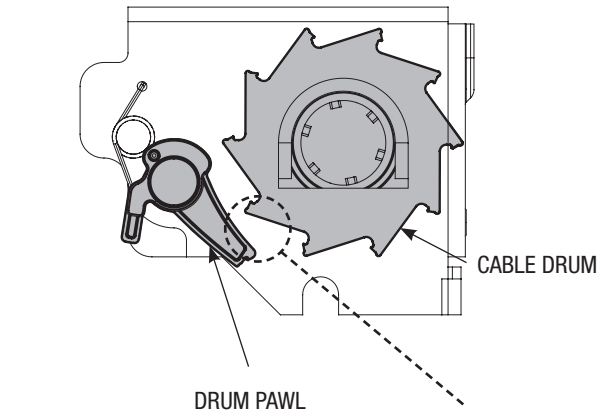
ENGAGEMENT SIDE VIEW



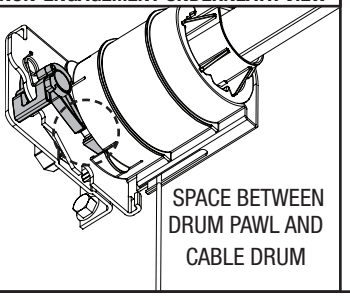
ENGAGEMENT UNDERNEATH VIEW



NON-ENGAGEMENT SIDE VIEW



NON-ENGAGEMENT UNDERNEATH VIEW



TorqueMaster® Plus Reset Instructions Continued...

If the system is engaged, DO NOT attempt to make the repairs. Instead, have a trained door system technician make the necessary repairs to cables, spring assemblies and other hardware.

Double spring system: Visually inspect the TorqueMaster® Plus end brackets to confirm that the system has engaged (see illustration). Door will open, but will not close. Door makes a distinct "clicking" noise upon being opened. If the system is engaged, carefully follow the reset instructions below or refer to the reset tag (attached to right hand end bracket) to reset the TorqueMaster® Plus system.

RESETTING AN ENGAGED TORQUEMASTER® PLUS DOUBLE SPRING SYSTEMS ONLY:

1. First, locate and visually inspect the TorqueMaster® Plus end brackets to confirm that the system is engaged (see illustration).
2. Disengage the opener (if installed) by pulling or placing the emergency disconnect in the manual operated position.
3. With assistance, raise the door to the fully open position.
4. Place vice clamps onto both vertical tracks just below the bottom roller on both sides.
5. Now is a good time to remove vehicles or personal items from garage to provide clear access to end brackets.
6. Flip the ratchet pawl knob on both end brackets to the upper position (see illustration).
7. Raise door 2"-3" and then lower door. Repeat this process until the system resets (see disengaged system illustrations).

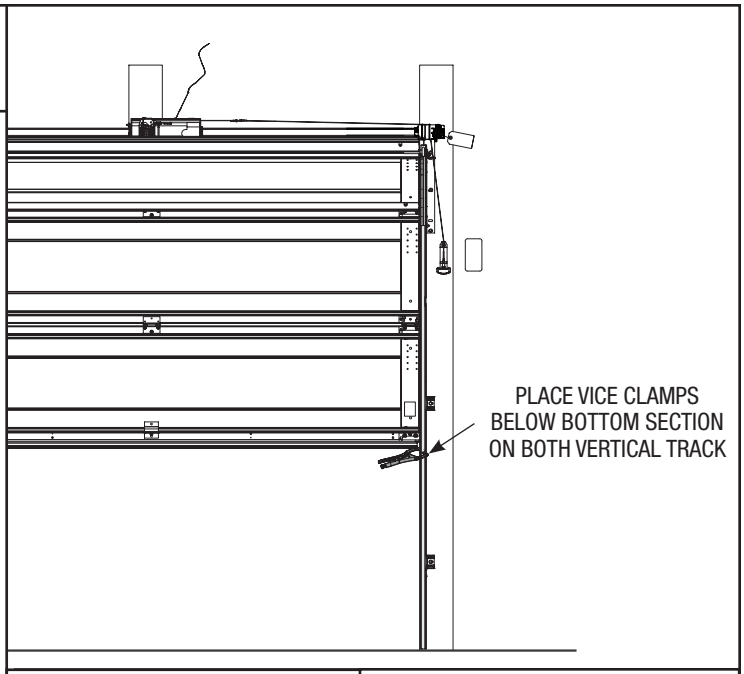
IMPORTANT: BE PREPARED TO SUPPORT THE TOTAL WEIGHT OF THE DOOR.

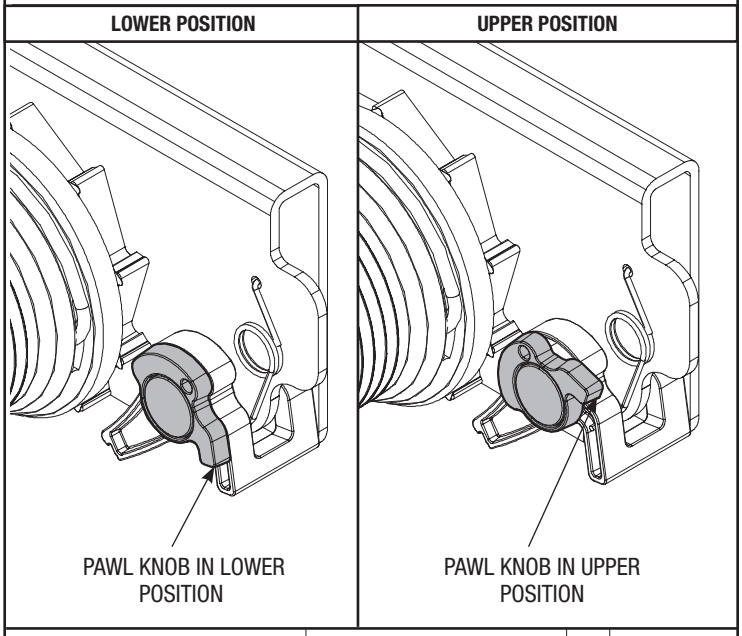
8. Cautiously remove the vice clamps from the vertical tracks. With assistance, lower door.

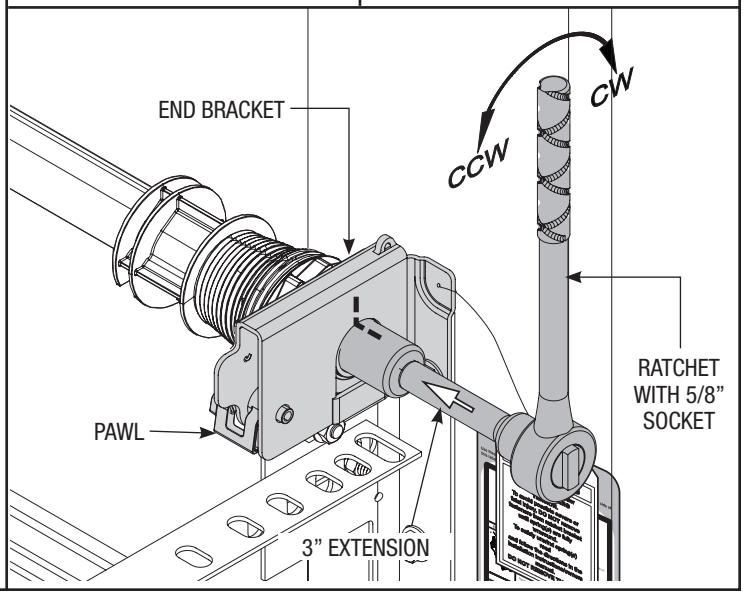
CHECKING SPRINGS FOR TENSION:

9. Starting on the right hand side, place a ratchet wrench with 5/8" socket on the TorqueMaster® Plus winding shaft (see illustration). Ensure ratchet is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side. If tension is present, remove the ratchet and check the left hand side. If springs have tension, proceed to the paragraph titled BALANCING DOOR; if no spring tension is present, contact a qualified door systems technician to replace the spring(s).

IMPORTANT! TO AVOID POSSIBLE INJURY, HAVE A TRAINED DOOR SYSTEM TECHNICIAN MAKE ADJUSTMENTS/ REPAIRS TO CABLES, SPRING ASSEMBLIES AND OTHER HARDWARE.







TorqueMaster® Plus Reset Instructions Continued...

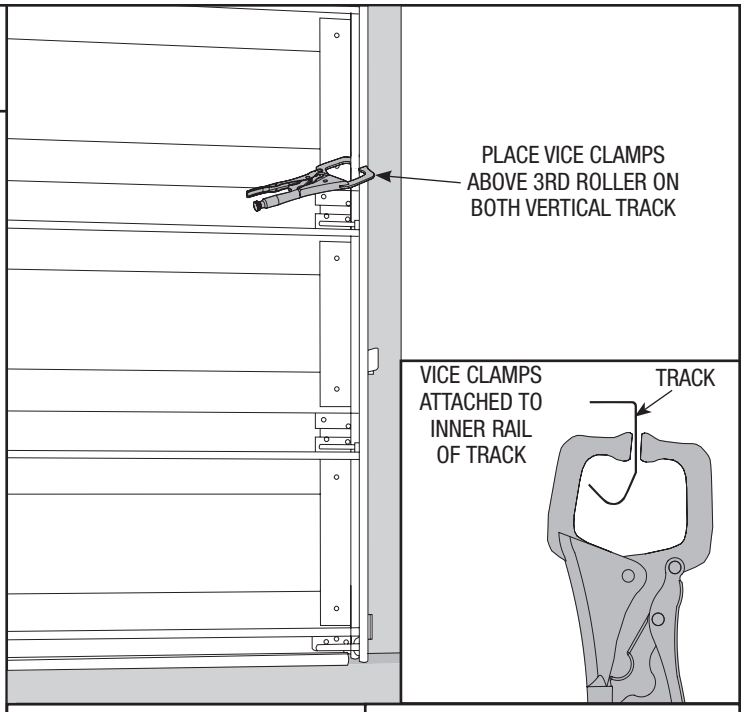
BALANCING DOOR:
Lift the door and check its balance. Adjust springs, if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). Anytime spring adjustments are made, ratchet pawl knob must be in the upper position (see illustration). An unbalanced door can cause idrive® or Torquemaster® Plus operation problems.
IMPORTANT! TO ADJUST SPRINGS, ONLY ADD OR REMOVE A MAXIMUM OF 3/10 OF A TURN (THREE TEETH ON THE RATCHET WHEEL) AT A TIME. BOTH SIDES NEED TO BE ADJUSTED EQUALLY ON DOUBLE SPRING DOORS.
Close the door and place vice clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while adjusting the counterbalance spring(s).

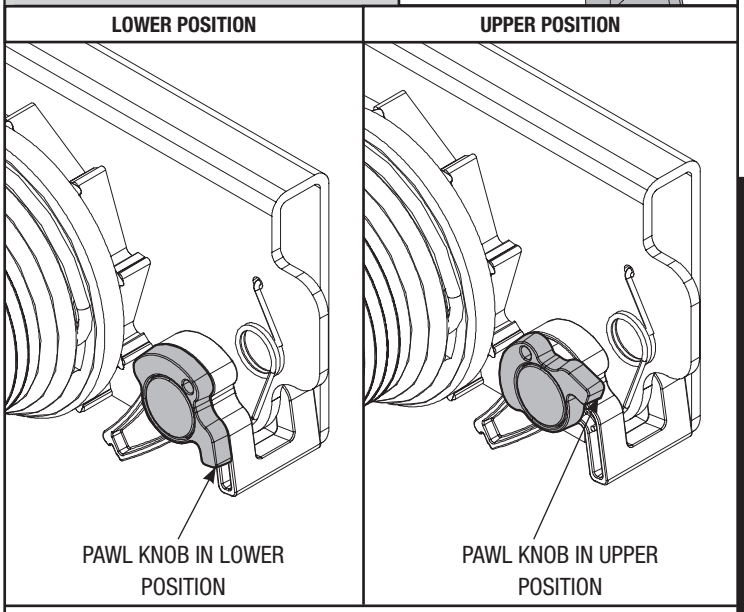
⚠ WARNING

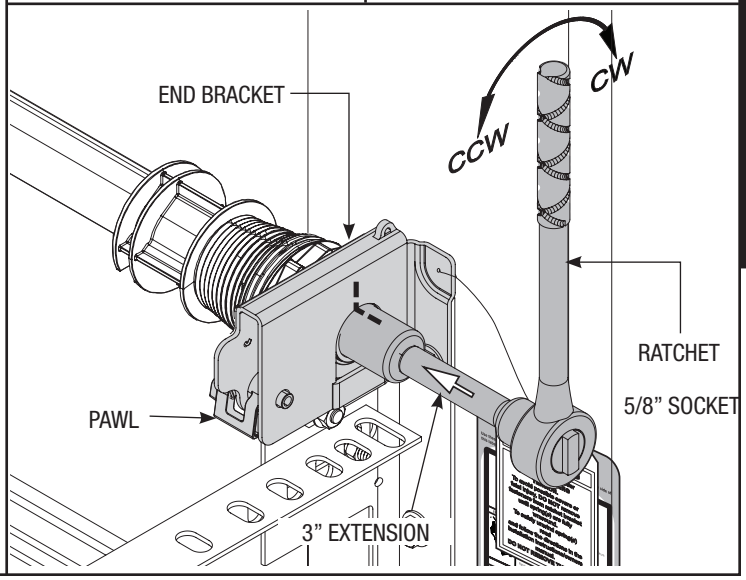
PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE, THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY.

To Add Spring Tension: The ratchet wheel is made of 10 teeth. To add spring tension, ensure the ratchet wrench is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side. Place the ratchet wrench with 5/8" socket onto the winding shaft, pull down to add 3/10 of a turn. Watch as three teeth of the ratchet wheel pass over the pawl, creating three "clicks".

To Remove Spring Tension: To remove spring tension, ensure the ratchet wrench is set so that it will tighten counter clockwise on the right hand side and clockwise on the left hand side. Place the ratchet wrench with 5/8" socket onto the winding shaft. Pull down on the ratchet to relieve pressure between the pawl and the ratchet wheel. Push in on the pawl to allow the three ratchet wheel teeth to pass by the pawl, as you carefully allow the ratchet wrench to be rotated upward by the spring tension. Release the pawl to allow it to engage with the ratchet wheel. Remove the vice clamps from the vertical tracks, re-check door balance and adjust if necessary. When door is balanced and adjusted properly, place the ratchet pawl knobs in the active position (lower position).







Side Lock

Tools Needed:

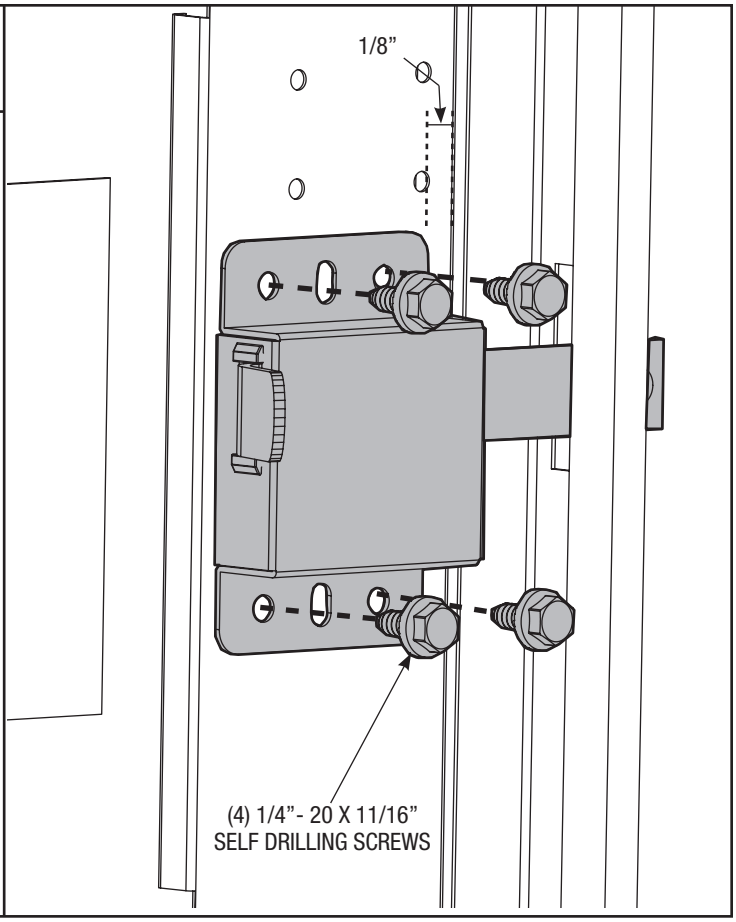
Power Drill

7/16” Socket Driver

Install the side 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 side lock should be spaced approximately 1/8” from the section edge.

IMPORTANT: SIDE LOCKS MUST BE REMOVED OR MADE INOPERATIVE IN THE UNLOCKED POSITION IF AN OPERATOR IS INSTALLED ON THE DOOR.

NOTE: After completing this step, continue with Step 13 on page 15.



Pull Rope

Tools Needed:

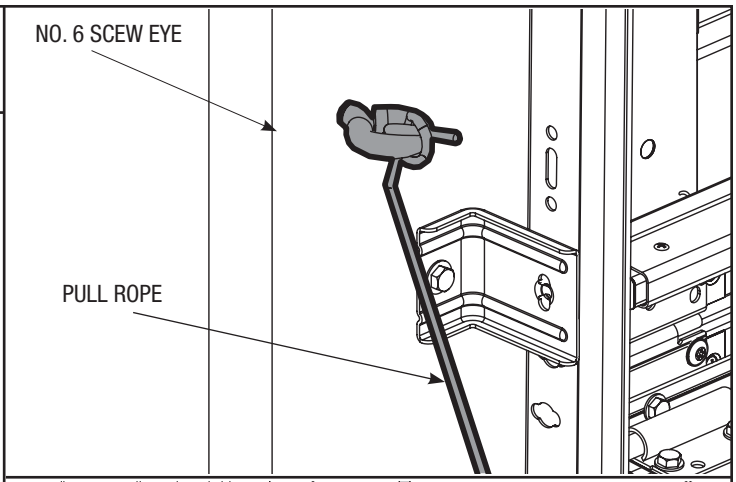
Power Drill

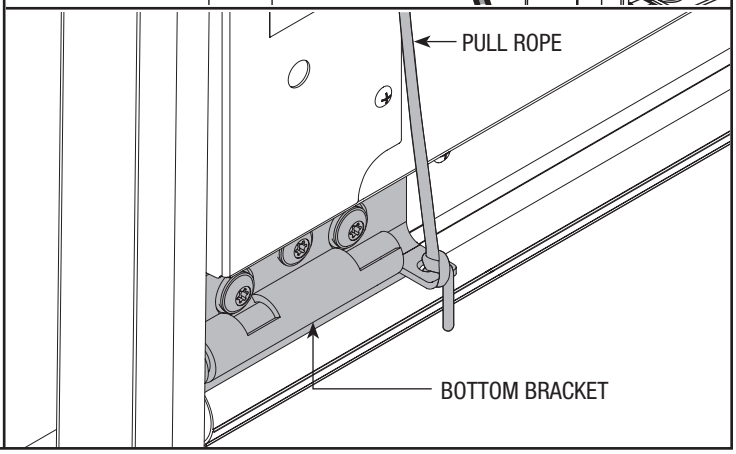
1/8” Drill Bit

⚠ WARNING

DO NOT INSTALL PULL ROPES ON DOORS WITH ELECTRIC 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 rope to the No. 6 screw eye and to the bottom bracket as shown.





Trolley Operator

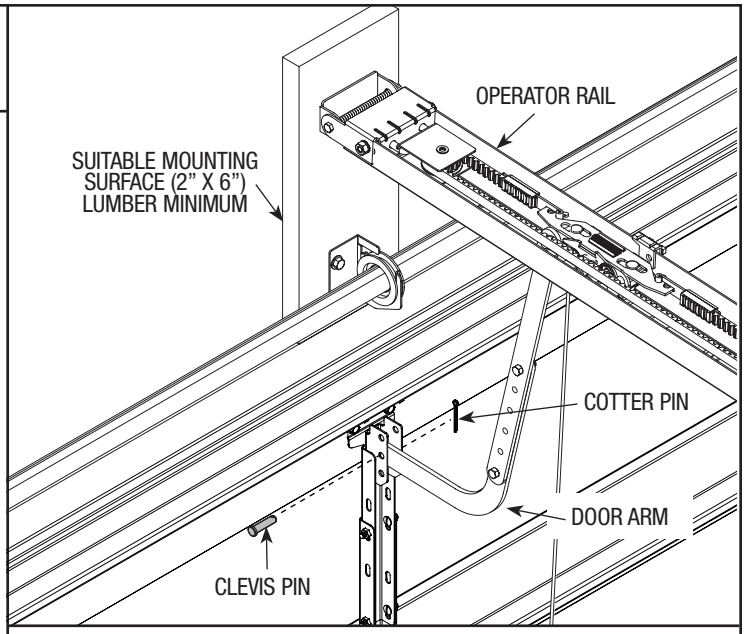
Tools Needed:

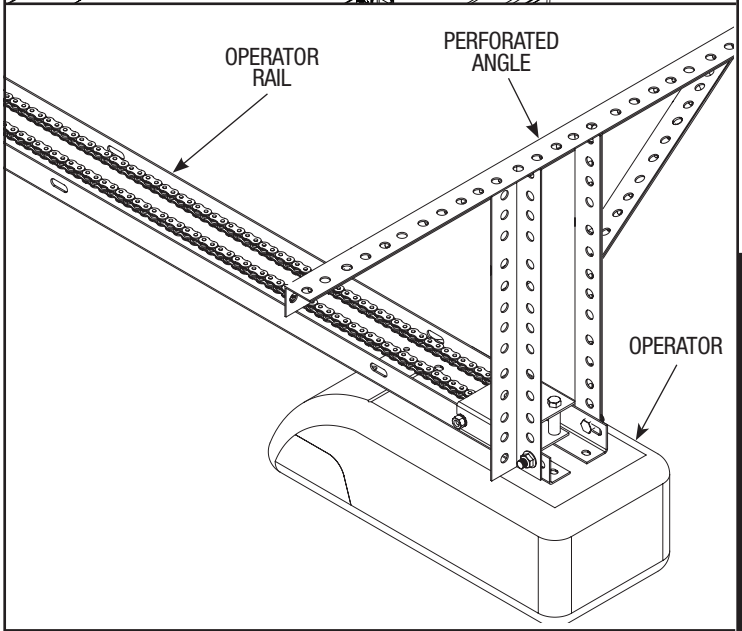
⚠ WARNING

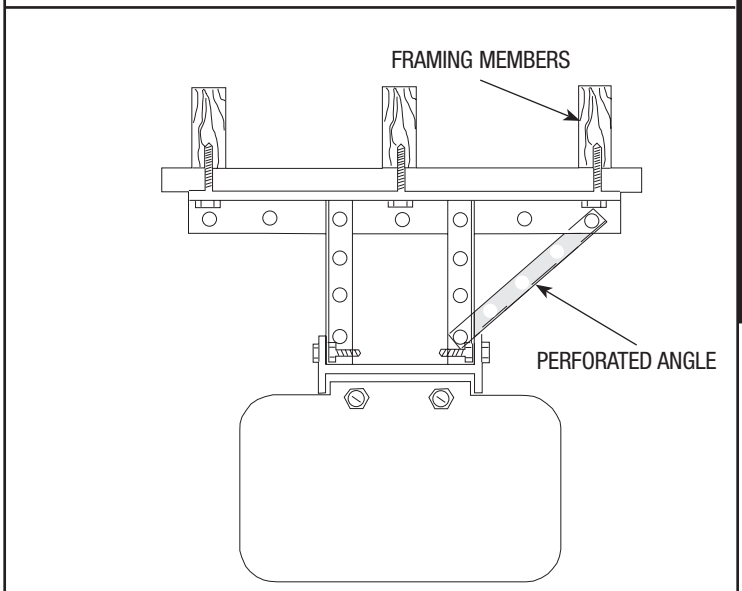
OPERATOR MUST BE TESTED AT TIME OF INSTALLATION AND MONTHLY THEREAFTER AS DESCRIBED IN YOUR INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL, TO ENSURE THAT DOOR SAFETY FEATURES FUNCTION. FAILURE TO TEST OR MAKE ANY NECESSARY ADJUSTMENTS OR REPAIRS, CAN RESULT IN SEVERE OR FATAL INJURY

1. Install operator rail 1/2" to 1-1/2" (13 - 38 mm) above high arc of top section of the door.
2. Mount operator to ceiling so that 1" to 1-1/2" (25 - 38 mm) clearance is maintained between trolley rail and top section when door is fully open (trolley rail will slope down towards rear).
3. Attach door arm to operator bracket installed in Step 14 with clevis and cotter pin.
4. Attach operator to a suitable mounting surface (2" x 6") lumber minimum.
5. Attach operator to ceiling framing members.

IMPORTANT: ANGLES MUST BE ATTACHED SECURELY TO FRAMING MEMBER(S).







Cleaning

Cleaning Your Garage Door
IMPORTANT: DO NOT USE A PRESSURE WASHER ON YOUR GARAGE DOOR!

While factory-applied finishes on garage doors are durable, it is desirable to clean them on a routine basis. Some discoloration of the finish may occur when a door has been exposed to
dirt-laden atmosphere for a period of time. Slight chalking may also occur as a result of direct exposure to sunlight.

Cleaning the door will generally restore the appearance of the finish. To maintain an aesthetically pleasing finish of the garage door, a periodic washing of the garage door is recommended.

The following cleaning solution is recommended:
A mild detergent solution consisting of one cup detergent (with less than 0.5% phosphate) dissolved into five gallons of warm water will aid in the removal of most dirt.

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.

CAUTION: NEVER MIX CLEANSERS OR DETERGENTS WITH BLEACH.

GLASS CLEANING INSTRUCTIONS
Clean with a mild detergent solution (same as above) and a soft cloth. After cleaning, rinse thoroughly.

ACRYLIC CLEANING INSTRUCTIONS
Clean acrylic glazing with nonabrasive soap or detergent and plenty of water. Use your bare hands to feel and dislodge any caked on particles. A soft, grit-free cloth, sponge or chamois may be used to wipe the surface. Do not use hard or rough cloths that will scratch the acrylic glazing. Dry glazing with a clean damp chamois.

NOTE: DO NOT USE any window cleaning fluids, scouring compounds, gritty cloths or solvent-based cleaners of any kind.

Painting

Painting Instructions For Steel and Wood Doors.

Steel (Surface Preparation for Painting)
Wax on the surface must be removed or paint peeling/flaking will result. To remove this wax, it will be necessary to lightly scuff the surface with a fine steel wool pad, saturated with soapy water. A final wipe and rinse should be done with clean water only, to remove any loose particles and any soapy film residue.

Surface scratches, which have not exposed the metal substrate, can be lightly buffed or sanded with 0000 steel wool or No. 400 sand paper to create a smoother surface. Care must be taken to not expose the substrate under the paint. Once the substrate is exposed, the likelihood for rusting is greatly increased.
If substrate is exposed, it must be treated to prevent rust from forming. Sand the exposed area lightly and paint with a high quality metal primer, specifically intended for galvanized surfaces, to protect the area from corrosion. Follow the drying time on primer can label before applying topcoat. The surface of the factory-applied finish, that is being painted, must not be too smooth, or the paint will not adhere to it. It is advisable to test in an inconspicuous area, to evaluate adhesion. If poor adhesion is observed, surface preparation for painting thefactory-applied finish, must be repeated until desired results are achieved. Again, care must be taken to not expose the substrate under the paint.

Steel (Painting)
After surface has been properly prepared, it must be allowed to dry thoroughly, then coated immediately with a premium quality latex house paint. Follow paint label directions explicitly. Oil base or solvent base paints are not recommended. Please note that if substrate is exposed and not properly primed, painting with latex paint may cause accelerated rusting of the steel in the exposed area.

NOTES:
1. Repainting of finish painted steel doors cannot be warranted, as this condition is totally beyond the door manufacturer's control.
2. Consult a professional coatings contractor if in doubt about any of the above directions.
3. Follow directions explicitly on the paint container labels for proper applications of coatings and disposal of containers. Pay particular attention to acceptable weather and temperature conditions in which to paint.

Painting Continued....

Wood (Preparation and Painting)
These instructions apply to all Wood Doors produced and sold by Wayne-Dalton Corp. The exterior surfaces, as well as all edges must be properly painted and maintained if satisfactory performance is to be achieved. The purpose for painting is to both protect and beautify the substrates. These requirements for finishing are intended to achieve both functions for reasonable service life of wood doors. Wood doors must be completely finished prior to installation, to ensure that the interior and exterior surfaces, as well as all edges of the doors are properly protected against moisture or other contaminants. Wood doors, in a non-finished condition, must not be transported or stored where the wood surfaces can be exposed to moisture or other contaminants.

Wood (Surface Preparation)
All surfaces must be clean, free of dust and dirt and any other contamination.

Wood (Painting)
Using painter's tape, tape off all metal surfaces. A premium quality latex house based finish paint is recommended for use over the factory latex based primer
Painting the wood surfaces with at least 2 coats of finish paint over the primer. Follow paint manufacture's label directions completely for all coatings. Once finished, remove painter's tape and touch up where necessary.

Wood (Maintenance and Refinishing)
Yearly inspection of all the wood surfaces of the garage door(s) will reveal the extent of weathering and the need for refinishing. When the finish becomes eroded or thin, clean and prime the areas of deterioration. Follow up with a complete refinishing of the door(s), according to the above directions, as well as the manufacturer's label directions. Protecting the door(s) from prolonged exposure to moisture and sunlight is vital in extending the service life of your garage door(s).

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

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Lifetime Limited Warranty
Model 6100

Subject to the terms and conditions contained in this Lifetime Limited Warranty, Wayne-Dalton Corp. ("Manufacturer") warrants the steel sections of the door, which is described at the top of this page, for as long as you own the door against:

(i) The door becoming inoperable due to rust-through of the steel skin from the core of the door section, due to cracking, splitting, or other deterioration of the steel skin, or due to structural failure caused by separation or degradation of the foam insulation.

(ii) Peeling of the original paint on the door as a result of a defect in the original paint or in the application of the original paint coating, in cases where the door sections and the original paint: (a) have not been subjected to adverse atmospheric conditions or contaminates (such as salt water or other marine environment, or to toxic or abrasive substances, including those in the air); (b) have been maintained in compliance with Manufacturer's recommendations; and (c) have not been subject to physical abrasion, impacted by a hard object, or punctured (including without limitation "paint rub" occurring in metal to metal contact and movement).

The Manufacturer warrants the factory applied wood overlay of the above-described door, against defects in material and workmanship for a period of **ONE (1) YEAR** from the date of installation, provided all exterior surfaces and edges of the wood overlay are properly painted according to Wayne-Dalton Corp.'s Maintenance and Painting Instructions found in your Installations Instructions and Owner's Manual. Bowing, checking and/ or cracking of the door overlay components is not considered a defect, but is an uncontrollable characteristic of wood.

The Manufacturer warrants the garage door hardware (except springs) and the tracks of the above-described door, for as long as you own the door, 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 Lifetime Limited Warranty against defects in material and workmanship for a period of **ONE (1) YEAR** from the date of installation.

The Manufacturer warrants the factory-applied finish and the factory attached Decatrim against fading and cosmetic changes from the time of installation for **TWO (2) YEARS**. If the sectional steel portion of door is re-stained or re-painted, the **TWO (2) YEARS** warranty for the factory-applied finish is void. The Model 6100 factory attached Decatrim is warranted against warping, peeling, chalking, or delamination from the time of installation for **TWO (2) YEARS**.

After a period of **TWENTY (20) YEARS**, from time of installation, replacement of Lifetime Limited Warranty materials will be pro-rated at 50 per cent of Manufacturer's published list pricing at time of claim, and you must pay this amount.

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. This Limited Warranty will be voided if the original finish is painted over, unless Manufacturer's preparation and painting instructions are followed explicitly. 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, 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 repair or replace the defective product. 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, PAINTING, 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.