



INSTALLATION INSTRUCTIONS

Amarr Residential Steel Garage Doors

Lincoln LI1000 - LI2000-LI3138-LI3000 / Hillcrest HI1000-HI2000-HI3138-HI3000
 Classica CL1000-CL20000-CL3000 / Heritage HR1000-HR2000-HR3000
 Olympus OL3138-OL3200 / Designer's Choice DC3138-DC3200 / Carriage Court CC4000
 Supplemental Installation Instructions Included.

For Professional Dealer Installation

Amarr Company
 165 Carriage Court
 Winston Salem, NC 27105

www.amarr.com
 877-512-6277



High spring tension can cause serious injury or death.
 Do not attempt to remove, repair, or adjust any springs, any RED colored fasteners, or the hardware to which the RED colored fasteners are attached. Removal, adjustment, or repair must be made by a trained garage door technician.

NOTICE

Failure to comply with these instructions invalidates the warranty. Before you begin the installation, read all of the instructions thoroughly.

To download instructions:
www.amarr.com

IMPORTANT Wind Load Notice

- Contact your local building official for specific Wind Load requirements in your area.
- Doors must be designed with Wind Load requirements in mind.
- The forces a garage door system transmits to the building structure openings, such as jambs, spring anchor pads, headers, and horizontal track must be considered.

IMPORTANT

WE RECOMMEND THAT INSTALLATION OF GARAGE DOORS BE PERFORMED BY A QUALIFIED GARAGE DOOR INSTALLER.

We recommend that a team of two individuals perform the installation.

In the event that an electric opener is installed, remove pull ropes and disable locks. The top section must be reinforced, as shown in these instructions, with a strut spanning the entire length of the top section. See page 5, step 21.

Damage to the garage door due to an improperly installed or adjusted electric opener is not covered by Amarr's warranty.

Actual number of door sections and number of panels may vary from illustrations.

Be sure all warning labels and tags are properly affixed to door and that the Owners Manual and these instructions are posted on or near the door. For replacement documents call: 877-512-6277.

Tools Required:

- Six Foot (6') Step Ladder
- Level 24" or 48"
- Claw Hammer
- (3) 16-Penny Nails
- Lock Grip Pliers
- Socket Wrench
- Sockets: 3/8", 7/16" and 9/16"
- Wrenches: 3/8", 7/16" and 9/16"
- Electric Drill
- Drill Bits: 3/32", 3/16", 1/4", and 3/8"
- Chalk
- Saw Horses
- Tape Measure

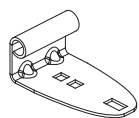
Not Included/Purchase Separately:

- Perimeter Seal / White Aluminum Brads
- Operator Bracket
- Track Hanger Angle / Additional Lag Screws
- Winding Bars

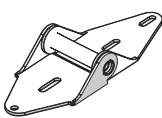
Hardware (Not Actual Size)



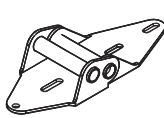
Bottom Bracket (Left and Right)
 (Left Shown/Assembled)



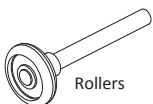
Step Plate / Lift Handle



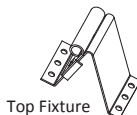
Center Hinge



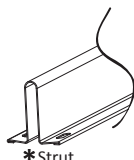
Roller Hinge



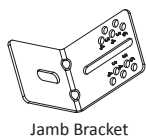
Rollers



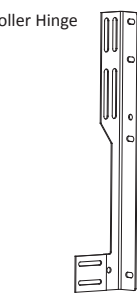
Top Fixture



*Strut



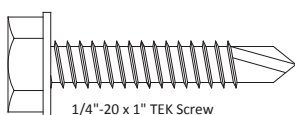
Jamb Bracket



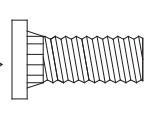
Flag Bracket (Left & Right)
 Right Shown

* Not Used On All Doors

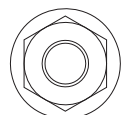
Fasteners (Actual Size)



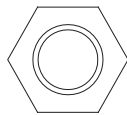
1/4"-20 x 1" TEK Screw



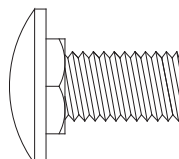
1/4" x 5/8" Track Splice Bolt



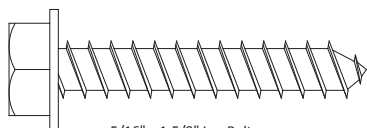
1/4" - 20 Hex Nut



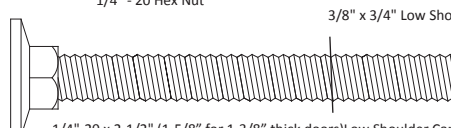
3/8" - 16 Hex Nut



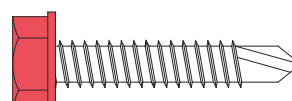
3/8" x 3/4" Low Shoulder Carriage Bolt



5/16" x 1-5/8" Lag Bolt



1/4"-20 x 2-1/2" (1-5/8" for 1-3/8" thick doors) Low Shoulder Carriage Bolt



1/4"-20 x 1" RED TEK Screw



3/8" - 16 RED Hex Nut



RED fasteners must be used where required. These fasteners hold parts which are under extreme tension. RED fasteners are not to be loosened or removed except by garage door professionals.

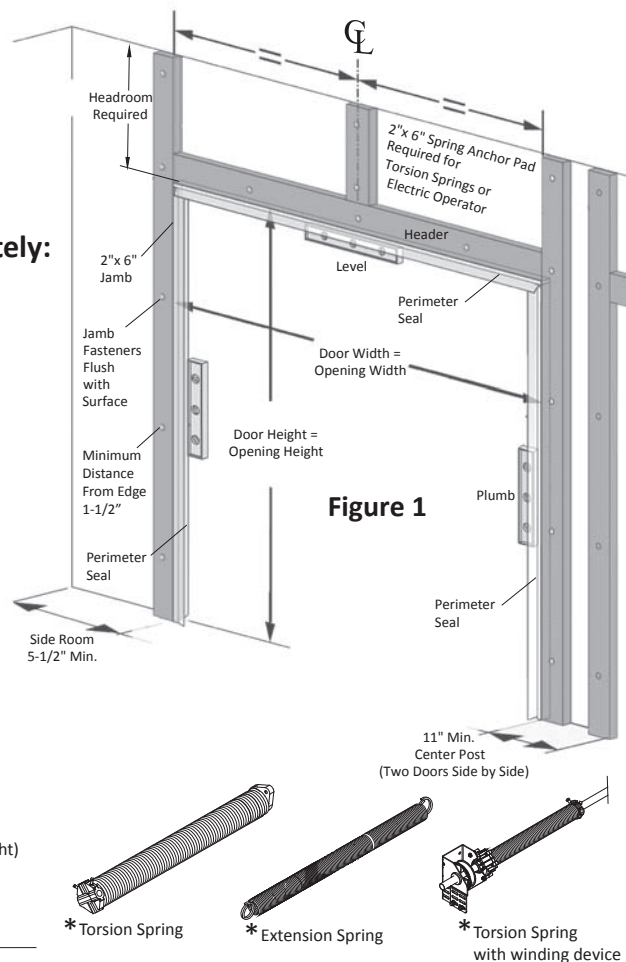


Figure 1

Step 1: Framing the Opening
The garage door opening should be approximately the same size as the door (Figure 1). The opening must be framed with 2" x 6" minimum wood jambs. Torsion Spring and Opener applications require 2" x 6" minimum Spring Anchor Pads. The jambs must be plumb and the header level for a square opening. The jambs should extend to the same height as the headroom required (Table 1). All jamb fasteners should be flush with the jambs and securely anchored to the wall. All fasteners should have a minimum edge distance of 1-1/2" to prevent splitting.

Step 2: Perimeter Seal Installation
Perimeter Seal is to be purchased separately. It is not supplied with your door (see Supplement Page 1 for details).

Step 3: Section Selection
Check the section height chart (Table 2) to ensure proper quantity of sections. The bottom section has a rubber weather seal on the bottom. The inside of the sections have pre-drilled holes for most fasteners.

Note: If additional reinforcement (struts) are supplied with your door, refer to page 8 for proper location, and Page 5, Step 21 for strut installation instructions.

Step 4: Safety Bottom Bracket Installation
Locate the Safety Bottom Bracket assembly (Figure 2). Separate all four parts by snapping apart (Figure 3). Place the bottom section face down on a sturdy pair of padded saw horses (Figure 4). Attach the left Bottom Bracket Base to the bottom of the left end stile (Figure 4A). Fasten the base with (2) 1/4" x 1" RED TEK Screws. Align the Bottom Bracket Roller Carrier with the matching holes in the base and attach with (2) 1/4" x 1" TEK Screws. Insert the Roller into the Bottom Bracket Roller Carrier (Figure 4B). Repeat this procedure for the right end stile.

Note: Holes in the stiles may not line up with all fixtures, handles, and locks. Use a 3/32" drill bit to start pilot holes for fasteners where pre-drilled holes are not provided.

Step 5: Lift Cable Installation
Secure the lift cable to the bottom bracket by hooking the looped end of the cable over the lifting stud (Figure 4B). If two sets of cables are supplied, use the longer cables as lift cables.

Step 6: Roller Hinge Installation
Roller Hinges have a number stamped on them for identification (Figure 4D). All Roller Hinges are attached to the end stiles with (2) 1/4"-20 x 1" TEK Screws, with the center line of the hinge aligned along the section break.

Start with a #1 Roller Hinge on the bottom section. Insert rollers as shown (Figure 4D & Table 3).

Note: #1 Roller Hinges are always used as Center Hinges. All other Roller Hinges must not be used as Center Hinges. They are all marked with their identifying numbers.

Step 7: Center Hinge Installation
Position the Center Hinge as shown (Figure 4E). All Center Hinges are attached with (2) 1/4"-20 x 1" TEK Screws in the lower section.

Note: Shown is a Single Center Hinge door, your application may have more Center Stiles and Center Hinges.

Step 8: Step Plate / Lift Handle Installation
Drill two (2) 1/4" holes straight through the Center Stile using the two dimples near the bottom of the section as a template. Install the Step Plate / Lift Handle (outside & inside) using (2) 1/4" - 20 x 2-1/2" Carriage Bolts and 1/4"-20 Nuts (bolt heads should be on the outside) (refer to Figure 4C). Do not over-tighten, you could crush the section.

Note: An additional pair of Step Plates / Lift Handles *must* be installed at either the bottom of the second section or the bottom of the third section (you may choose which location works best for your application). Repeat Step 8 for these additional handles. The bottom of these Step Plate / Lift Handles should be a minimum of 4" from the bottom of the section, so the center hinge will clear when fastened (refer to Figure 4F).

Table 1 - Headroom Chart

Type of Spring	Track Radius	Min. Headroom Required	Min. Headroom Req'd w/ Opener
Extension	12"	12"	15"
Extension	15"	15"	18"
Torsion	12"	12"	15"
Torsion	15"	15"	18"

Table 2 - Door Height Configuration

Door Height	Section Height For doors over 8' tall, contact Amarr Garage Doors	
	18"	21"
6'-0"	4	
6'-3"	3	1
6'-6"	2	2
6'-9"	1	3
7'-0"		4
7'-3"	NA	NA
7'-6"	5	
7'-9"	4	1
8'-0"	3	2

Table 3 - Roller Progression Chart

Section #	Roller Hinge # 2" Track
#5	5
#4	4
#3	3
#2	2
Bottom #1	1

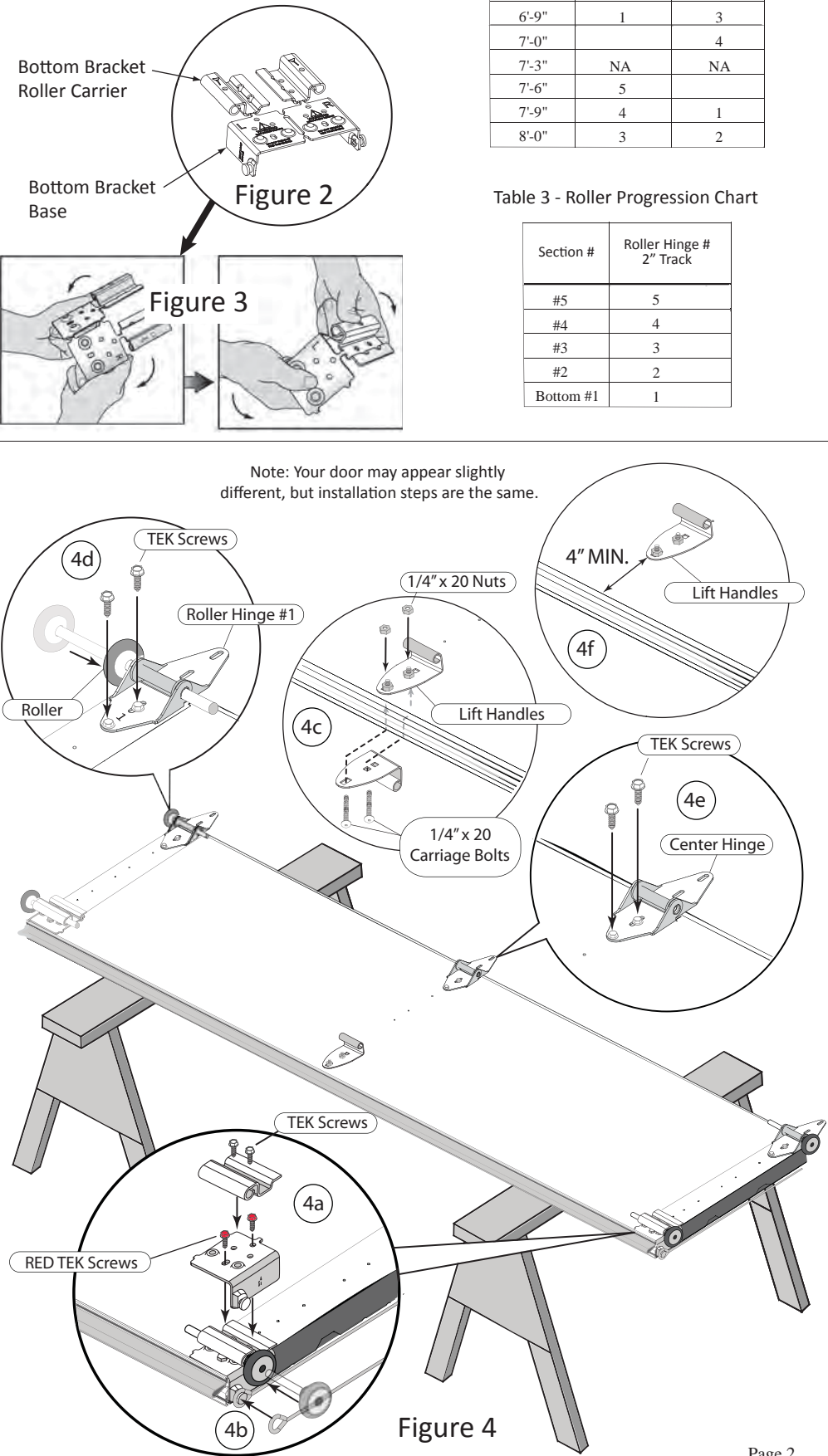


Figure 4

Step 9: Stacking the Bottom Section in the Opening

Place the bottom section (with hardware installed) in the opening against the Perimeter Seal and centered from side to side (Figure 5). Place a level on the top of the section (Figure 5A). If necessary, use a piece of wood as a shim under the low side to make the section level (Figure 5B).

Step 10: Securing the Section in the Opening
Temporarily secure the section in the opening by driving a 16-penny nail into the jamb at each end of the section and carefully bend it over the edge of the section to secure in place (Figure 5C). Make sure the section is securely held in place.

Steps 11-15: Track Assembly and Attachment

Step 11: Jamb Bracket to Track Attachment (Right Side)

Align the lower Universal Jamb Bracket with the flat side of the track as shown in Figure 6A & 6B. Attach with (1) 1/4" x 5/8" Track Splice Bolt and (1) 1/4"-20 Hex Nut. Hand tighten. Repeat this step for the upper jamb Bracket. See the Jamb Bracket Location chart for placement.

Note: This will allow for slight adjustments during the installation.

Note: 1/4"-20 Hex Nuts always go on the outside of the track.

Step 12: Flag Bracket Attachment (Right Side)
Position the flat side of the Flag Bracket with the flat side of the track (Figure 6C). Loosely attach the lower slot of the Flag Bracket to the top of the Vertical Track with (2) 1/4" x 5/8" Track Splice Bolts and (2) 1/4"-20 Hex Nuts.

Note: 1/4"-20 Hex Nuts always go on the outside of the track

Step 13: Positioning the Track on the Door (Right Side)

Place the Vertical Track with Jamb Brackets attached over the rollers as shown (Figure 7C).

Note: If you raise one side of the bottom section to level it, you MUST raise the track on that side the same amount for the door to operate properly.

Note: Vertical Tracks must be level with each other for the door to function properly. The bottom of the track MUST be equal to the bottom of the section. If not level, raise the lower track but not higher than 3/8" from the floor (Figure 7D). Vertical Tracks must be plumb as well.

Note: Maintain 3/8" space between the door edge and the vertical track (Figure 7C).

Step 14: Mounting the Vertical Track to the Jamb (right side)

With both tracks properly aligned, securely fasten each Jamb Bracket to the jamb with (1) 5/16"x1-5/8" Lag Bolt (Figure 7A). Note: Predrill a 3/16" hole to prevent splitting of wood.

Step 15: Mounting the Flag Bracket to the Jamb (right side)

Secure the Flag Brackets (keeping them plumb) with (3) 5/16"x1-5/8 lag bolts to the jamb (Figure 7B). Note: Predrill 3/16" hole to prevent splitting of wood.

Repeat Steps 11 thru 15 for the left side Vertical Track.

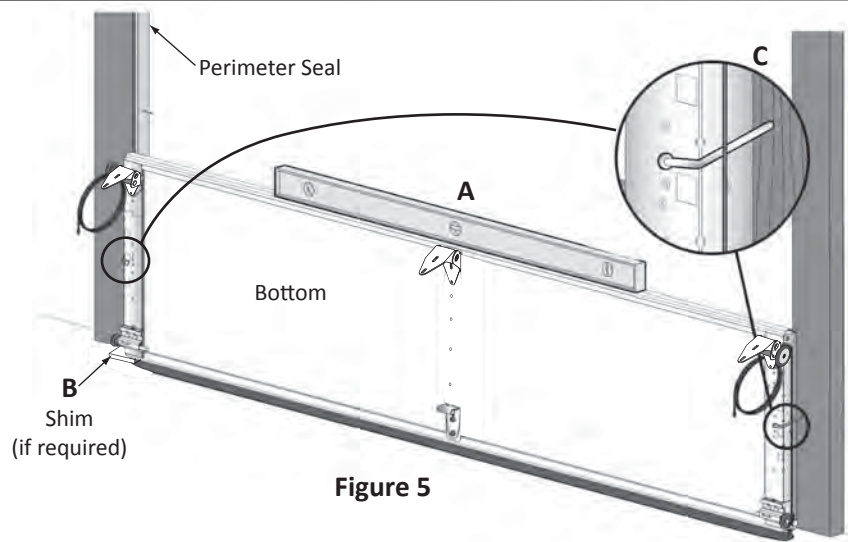


Figure 5

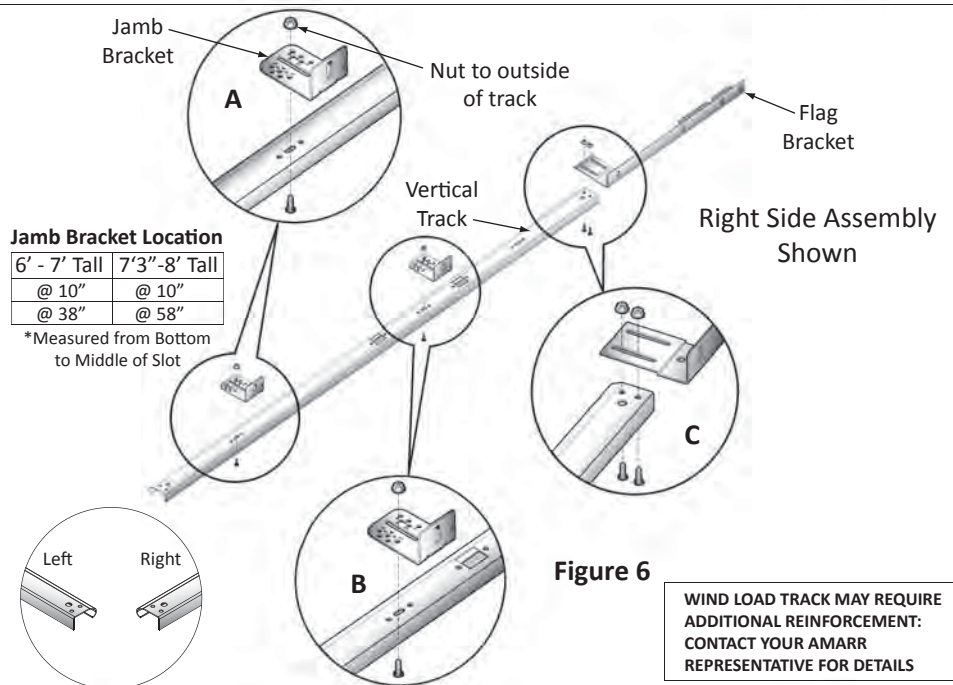


Figure 6

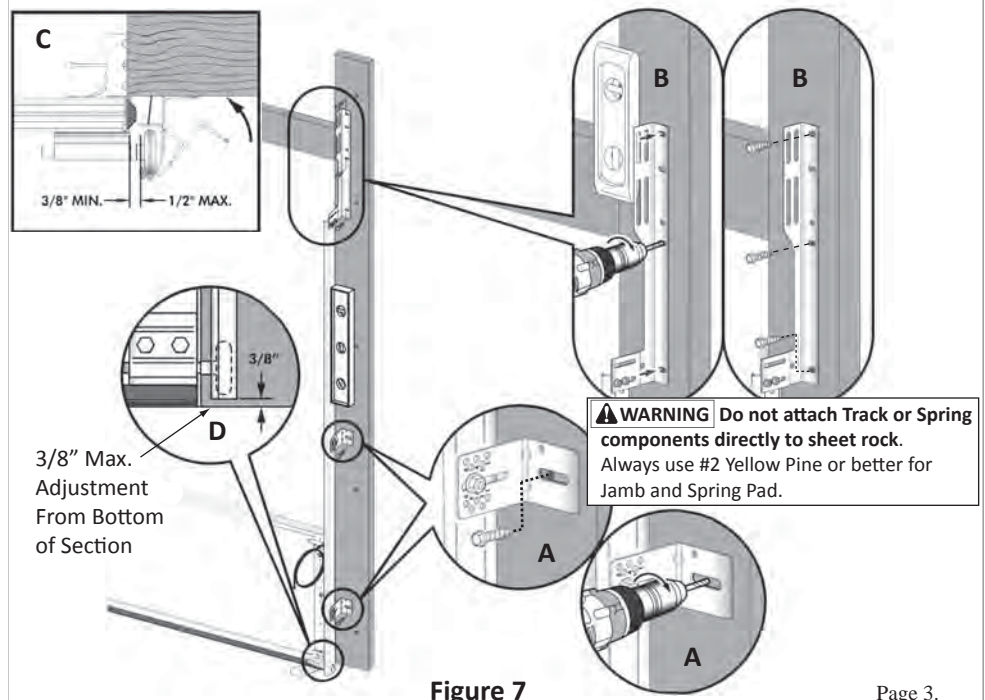


Figure 7

Step 16: Installing Intermediate Section Hardware

Note: "Intermediate" refers to sections above the bottom section and below the top section.

Place the second section face down on the padded saw horses.
Install the #2 Roller Hinges and Rollers (#3 for 3 section doors) as shown on Page 2, Step 6.
Install the Center Hinge(s) as shown on Page 2, Step 7.

Note: Install locks if required or provided. See Supplement Page 1 or instructions provided with the lock for details.

Note: If additional reinforcement (struts) are supplied or required with your door, refer to page 8, for proper location.

Note: Begin with Page 5, Step 21 for Strut Installation instructions.

Step 17: Stacking Intermediate Section(s) in Opening
Carefully lift the Intermediate Section, with the rollers, roller carriers, center hinges, and struts (if required) to the top. Slide the rollers down into the track (Figure 8). Slowly lower the section down onto the bottom section that you stacked earlier (Figure 9).

Step 18: Center Hinge(s) Installation
Once the section is in place, push up the upper leave(s) of the Center Hinge(s) and attach to the section above with (2) 1/4"x 1" TEK Screws (Figure 10).

Step 19: Roller Hinge Installation (Left & Right)
Once the section is in place, push up the upper leave(s) of the Roller Hinge(s) and attach to the section above with (2) 1/4"x 1" TEK Screws (Figure 11).

Note: Repeat steps 16-19 for each intermediate section required (Figure 12).

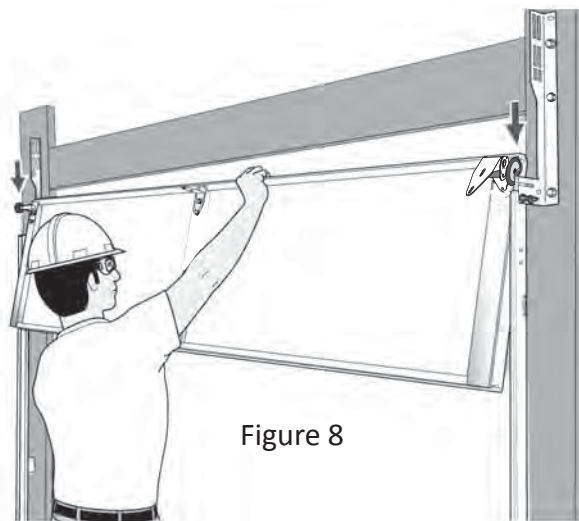


Figure 8

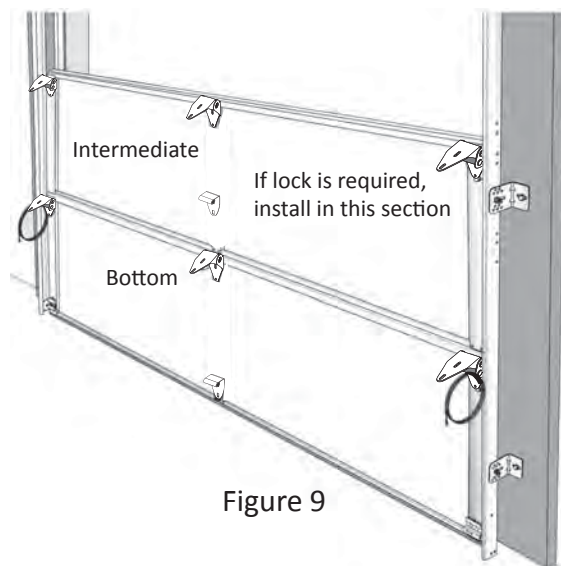


Figure 9

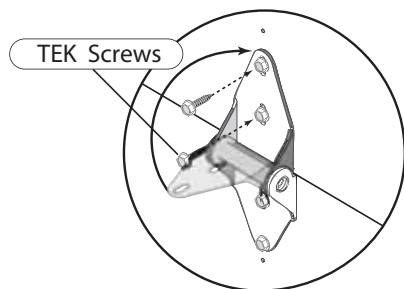
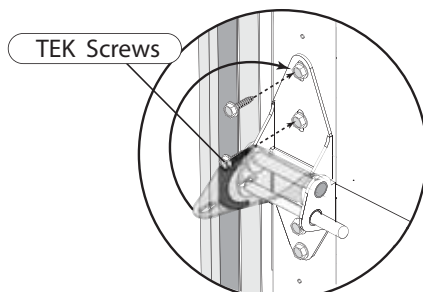


Figure 10



Left side shown

Figure 11

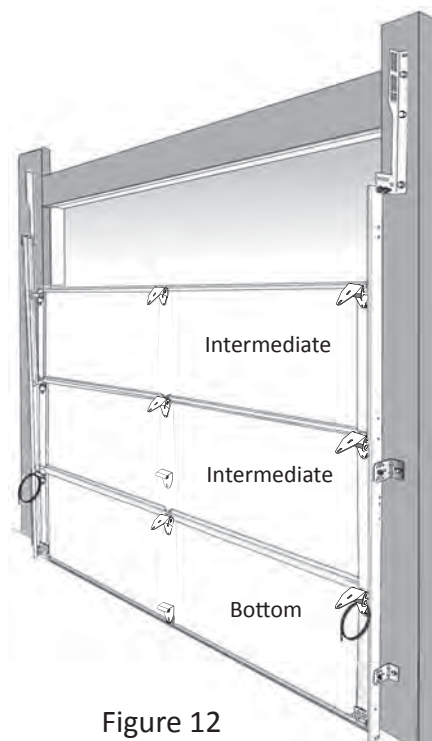


Figure 12

Step 20: Installing Top Section Hardware
Place the top section face down on your padded saw horses. Locate the Stile Stiffener(s).

Note: If struts are not required, skip to Step 22.

Step 21: Strut Installation

If Strut(s) are required, location is shown on page 8. Install using (2) 1/4" x 1" TEK Screws into each end stile (Figure 14C).

Attach Strut(s) to the center stile with (2) 1/4" x 1" TEK Screws, (Figure 14A).

Note: Due to lack of available head room (refer to Page 2, Table 1), you may require a Low Head Room application. If this is the case, skip Step 22 and go to Step 23.

Step 22: Top Fixture Installation (Standard Head Room)

Align the Top Fixtures with holes on the end stiles. Secure the fixture to the end stiles with (3) 1/4" x 1" TEK Screws (Figure 13A). Insert Rollers as shown (Figure 13A). Leave the slide loose for adjustment later.

Step 23: Top Fixture Installation (Low Head Room)

Attach the Flat Top Fixture (for Low Head Room applications), (Figure 14B) on the top corner of the end stiles. Secure the fixture to the end stiles with (2) 1/4" x 1" TEK Screws (Figure 14B). Insert Rollers as shown (Figure 14B). If a strut is required, refer to Step 21 for instructions. In this case the Strut will mount on top of the lower portion of the Low Head Room Flat Top Fixture (Figure 14B).

Step 24: Stacking the Top Section in the Opening
Carefully lift the Top Section, with the rollers, top fixtures and struts (if required). Slowly lower the section on to the previously installed intermediate section. Temporarily secure the top section by driving a 16-penny nail into the header and carefully bending it over (Figure 15A).

Step 25: Center Hinge(s) Installation

Once the top section is secured, push up the upper leave(s) of the Center Hinge(s) and attach to the upper section with (2) 1/4" x 1" TEK Screws (Page 4, Step 18).

Step 26: Roller Hinge Installation

Once the top section is secured, push up the upper leave(s) of the Roller Hinge(s) and attach to the top section with (2) 1/4" x 1" TEK Screws (Page 4, Step 19).

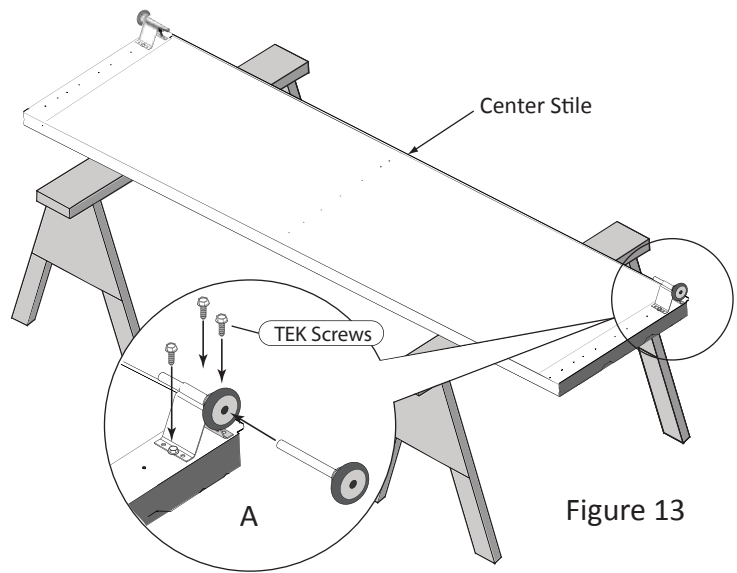


Figure 13

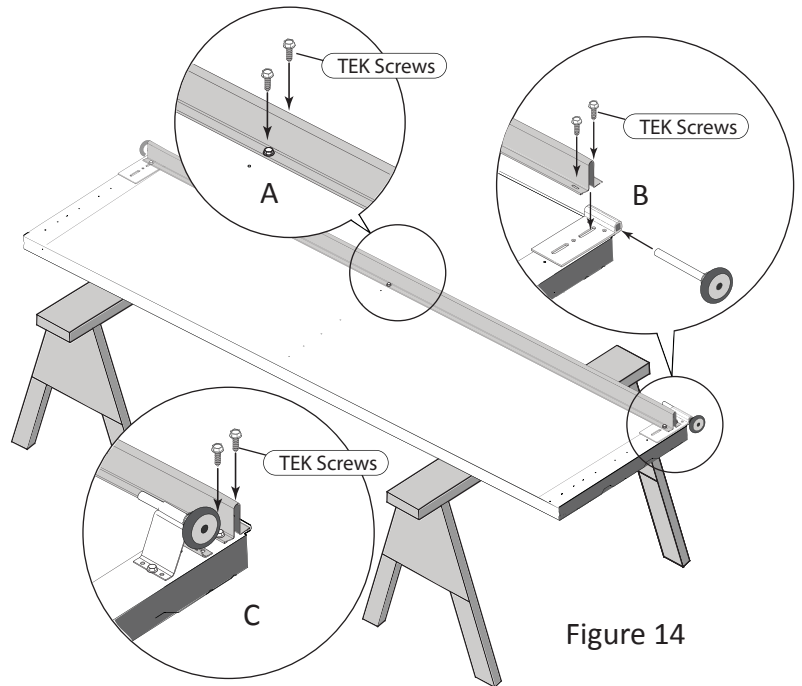


Figure 14

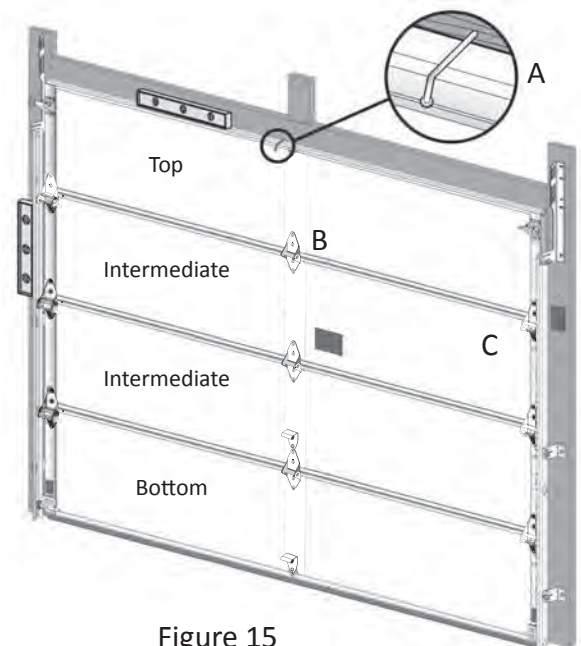


Figure 15

Note: For doors requiring a Low Head Room Installation (see Page 2, Table 1), see Supplement Page 2 or 3.

Step 27: Horizontal Track to Flag Bracket Attachment (Left Side Assembly shown)
Place the curved end of the Horizontal Track Assembly over the roller in the Top Fixture and attach to the Flag Bracket with (2) 1/4"x5/8" Track Splice Bolts and (2) 1/4"-20 Hex Nuts (Figure 16A). Temporarily support the back end of the track using a rope or wire attached to the ceiling to support the back end of the track.

Note: 1/4"-20 Hex Nuts always go on the outside of the track.

Step 28: Horizontal Angle to Flag Bracket Attachment
Attach the end of the Horizontal Angle to the Flag Bracket with (1) 3/8"x3/4" Low Shoulder Carriage Bolts and (1) 3/8"-16 Hex Nut (Figure 16B).

Note: For 2" thick doors use the second slot on the Flag Bracket (farthest from the jamb).

Note: 3/8"-16 Hex Nuts always go on the outside of the assembly (away from the door).

Step 29: Track Hanger Installation (see Supplement Page 4)
Replace support rope or wire with metal Angle Hangers (Purchased separately, recommend minimum 14 gauge) (Figure 16C & E). Hangers need to be level and plumb. Angle must fasten to studs (see Supplement).

Note: Repeat steps 27 - 29 for Right Side Horizontal Assembly.

Important: Horizontal Track must be spaced 3/8" from the sections to prevent the sections from falling out of the track.

Step 30: Inspecting the Track Installation
Using a tape measure and level, make sure the track is level and square with the opening (Figure 16). Make sure that the distance between the track and the door is equal at the bottom of the Vertical Track, at the curve of the horizontal, and at the back of the Horizontal Track (approximately 3/8"). Adjustment to the track position may need to be made later, after the springs are installed and the door is opened to maintain the proper spacing.

Step 31: Adjusting the Top Fixture
With the door in the closed position, tighten the slide on the Top Fixture by pushing the top section tight against the opening and lightly pulling the top slide toward the inside of the garage (Figure 16D). Tighten the nuts.

Step 32: Remove all Temporary Nails

Step 33: Pull Rope Installation (no Electric Opener only)
If an electric opener is not used, attach one end of the pull rope to the Safety Bottom Bracket and the other end to the second Jamb Bracket. To prevent accidents, **DO NOT INSTALL PULL ROPE IF ELECTRIC OPENER IS USED.**

⚠ DANGER Go to page 7 for Torsion Spring installation instructions. Refer to the Supplemental Instructions for Extension Spring installation instructions. After springs are installed, proceed to Step 34.

Step 34: Secure the Perimeter Seal
Close the door from the outside and permanently nail the Perimeter Seal for a snug fit so that the seal does not bind the door. Wax the hard edge of the seal to prevent binding (if necessary).

Step 35: Install Safety Stickers to Door
Install supplied Safety Stickers as shown in Fig 16.

Step 36: Final Check
A. Make sure there is a 3/8" clearance between the door and the track along the entire horizontal and vertical track assemblies. Adjust as necessary.
B. Make sure the door is square with the opening.
C. If the door does not operate easily, make sure that the door to track spacing is correct and that the door is not binding.

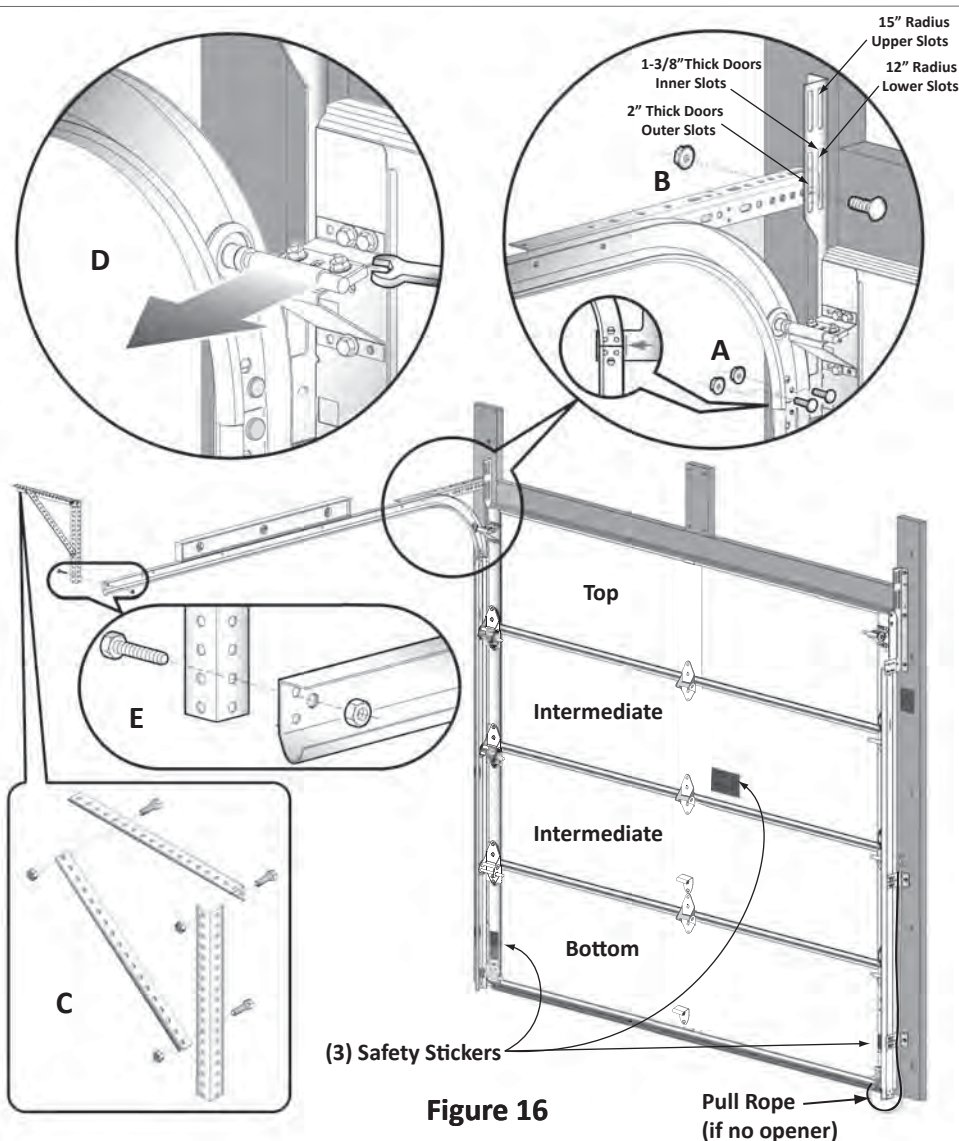


Figure 16

⚠ WARNING Do not attach Track or Spring components directly to sheet rock. Always use #2 Yellow Pine or better for Jamb and Spring Pad.

READ THE OWNER'S MANUAL FOR OPERATION, WARRANTY, SAFETY, AND MAINTENANCE INSTRUCTIONS.

⚠ DANGER

High spring tension can cause serious injury or death. Do not attempt to remove, repair, or adjust any springs, any RED colored fasteners, or the hardware to which the RED colored fasteners are attached. Removal, adjustment, or repair must be made by a trained garage door technician.

Torsion Spring Installation Instructions

Note: Doors may be supplied with 1 or 2 Torsion Springs. Directions for installation are the same.

Note: Doors may be supplied with extension springs. See Supplemental Instructions, Page 5 for details.

Note: Doors may be supplied with a spring winding device. See instructions provided by the manufacturer, in the box for details.

Step 1: End Bearing Plate Attachment (Left Side)

Note: Use ladder where required.

Attach the left side End Bearing Plate to the Flag Bracket and Horizontal Angle with (2) 3/8"x3/4" Low Shoulder Carriage Bolts and (2) 3/8"-16 Hex Nuts (Figure 1A & B).

Note: 3/8"-16 Hex Nuts always go to the outside of the Flag Bracket.

Secure the Tab on the End Bearing Plate, to the Jamb/Spring pad with (1) 5/16"x1-5/8" Lag Bolt (Figure 2A). Pre-drill a 3/16" pilot hole to prevent splitting the wood.

Repeat Step 1 for the Right Side End Bearing Plate

Step 2: Torsion Spring Unit Installation:

Slide the left side (Red) drum onto the shaft. The Set Screws should be facing toward the center of the shaft. Next, slide the left side Torsion Spring (Red) onto the shaft, with the set screws facing toward the outside, then slide the Nylon Bearing onto the shaft (the Nylon Bearing should be turned so it is able to slide into the spring, Figure 3A). If your door requires (2) springs, slide the Right/Black spring on facing in the opposite direction of the Left/Red spring. Slide on the right side (Right/Black) drum with the set screws facing toward the middle.

Step 3: Installing the Torsion Spring Unit

Keeping the shaft level, slide the complete Spring Assembly into the Left and then Right side End Bearing Plates (Figure 3). There should be an equal amount of the shaft protruding from each End Bearing Plate (Fig 3).

Step 4: Installing the Center Bearing Plate

The Center Bearing Plate must be mounted in the center of the shaft, and level with the End Bearing Plates so the shaft is level. Fasten the Center Bearing Plate to the Spring Anchor Pad with (2) 5/16"x1-5/8" RED Lag Bolts (Figure 3B). Pre-drill a 3/16" pilot hole to prevent splitting the wood.

Step 5: Installing the Spring(s)

Do not remove the Warning Label from the Center Bearing Plate. Slide the spring against the Center Bearing Plate, with the Nylon Bearing inserted into the spring (Figure 3A). Using (2) 3/8"x1-1/2" screws and (2) 3/8-16 RED Hex Nuts, fasten the spring(s) to the Center Bearing Plate (Figure 3C). If two springs are required, the screws go through both Springs and the Center Bearing Plate. Tighten securely.

Step 6: Installing the Lift Cables

Bring the Left Side Lift Cable up between the door and the track, behind the Torsion Shaft and over the Left Side Drum. Slide the drum against the End Bearing Plate. Hook the Cable Stop into the notch on the outside edge of the drum (Figure 4). Turn the drum with your hand until the cable is snug. Using only your fingers, tighten the (2) Set Screws on the drum finger tight. Then, turn each screw 1/2 to 1 turn with a wrench.

Note: Do not over tighten the Set Screws, this could damage the Torsion Shaft.

Using a pair of Lock Pliers, clamp the shaft from the outside of the End Bearing Plate, so that the cable does not loosen or unwind (Figure 3D). The back of the Lock Pliers should rest solidly against the jamb/header. This will prevent the drum from unwinding or rising up as you wind the spring.

Repeat Step 6 for the Right Side Cables and Drum.

Step 7: Winding the Torsion Spring(s)

Mark a straight line on the Spring(s) with a piece of chalk (Figure 6, Step 1). Insert the Winding Bars completely into the full depth of the holes in the Winding Cone. Always wind pushing the Winding Bars up (Figure 5 Step 2) 1/4 turn at a time. When the correct number of turns are on the spring(s) (Table 3 & Figure 6 Step 3), keeping tension with the Winding Bar, using only your fingers, tighten the Set Screws on the spring(s) finger tight. Then, turn 1/2 to 1 turn with a wrench.

Note: Do not over tighten the Set Screws, this could damage the Torsion Shaft.

Very carefully remove the Winding Bars and the Lock Pliers.

Note: There should be no tension on the Winding Bars.

Test your installation by working the door up and down. The door should balance (not go up or down) at 2', 3' and 4' off the floor.

Proceed to Step 34, Page 6 to finish with the installation.

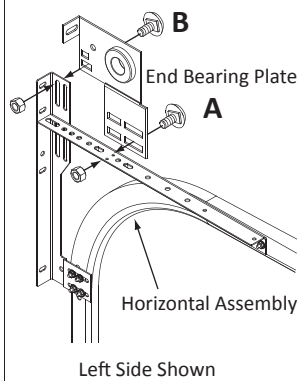


Figure 1

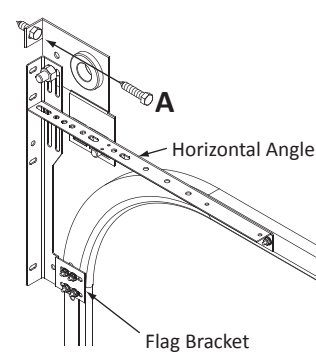


Figure 2

Table 3 - Number of Turns Required for Springs

Door Height	Turns 12 Radius	Turns 15 Radius	Turns LHR
6'-0"	6.7	7.1	6.3
6'-2"	6.9	7.2	6.4
6'-3"	7.0	7.3	6.5
6'-5"	7.2	7.4	6.6
6'-6"	7.2	7.5	6.7
6'-9"	7.4	7.7	6.9
6'-10"	7.5	7.8	7.1
7'-0"	7.6	7.9	7.2
7'-1"	7.7	8.0	7.3
7'-4"	8.0	8.2	7.5
7'-6"	8.1	8.4	7.6
7'-8"	8.2	8.5	7.8
7'-9"	8.3	8.6	7.9
8'-0"	8.5	8.8	8.1

Note: For doors over 8' tall, contact Amarr Garage Doors.

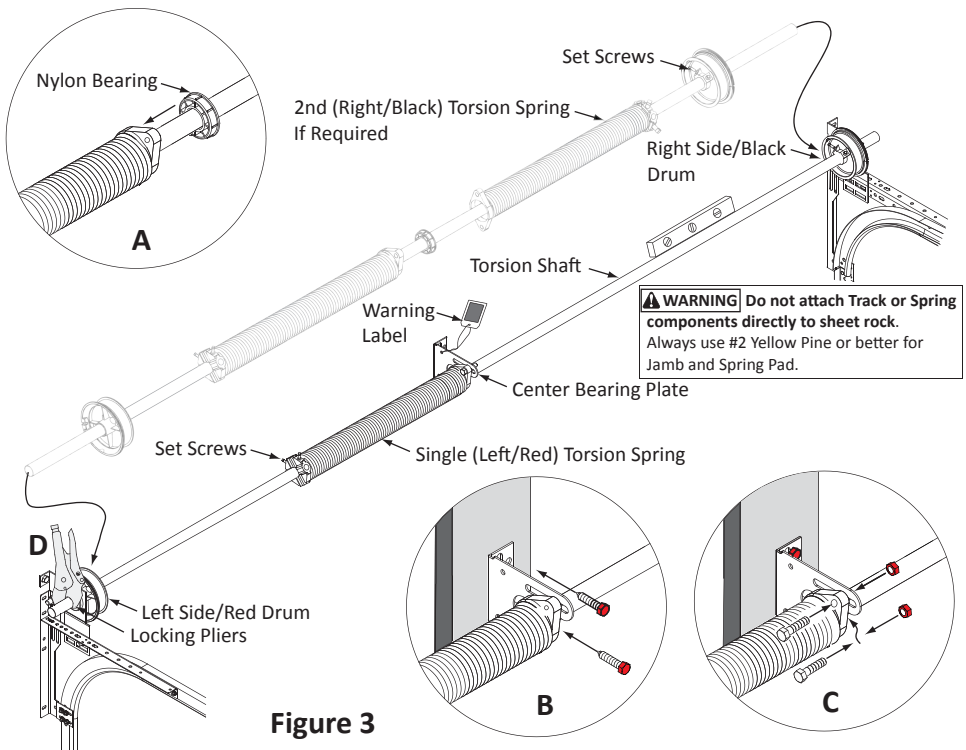


Figure 3

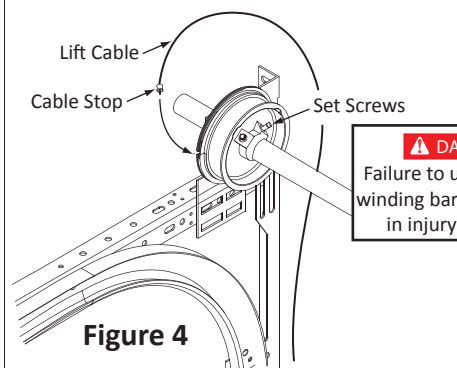


Figure 4

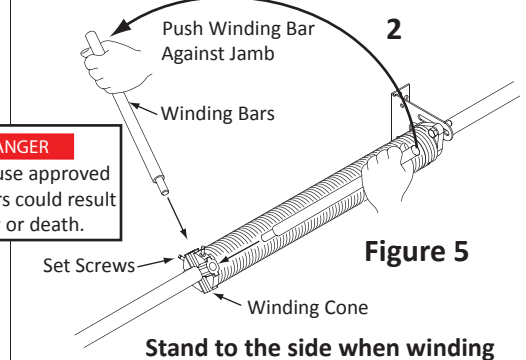


Figure 5

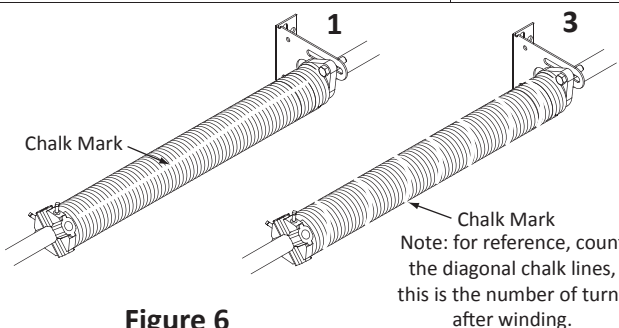


Figure 6

Step 1 of 3: Number of Struts & Strut Size

Model	Width	3 Sections	4 Sections	5 Sections
Carriage Court 4000 Classica 1000 / 2000 / 3000	6'-0"-14'-0"	0 Struts†	0 Struts†	0 Struts†
Designer's Choice 3138 / 32000 Hillcrest 3138 / 3000*	14'-2"-16'-0"	(2) 2" Struts	(1) 2" Strut	*(1) 2" Strut (2) 2" Struts
Lincoln 3138 / 3000* Olympus 3138 / 3200	16'-2"-18'-0"	(3) 3" Struts	*(1) 2" Strut (3) 2" Struts	*(1) 2" Strut (4) 2" Struts
	18'-2"-20'-0"		*(2) 3" Struts (3) 2" Struts	*(2) 3" Struts (4) 2" Struts
Hillcrest 1000 / 2000 Lincoln 1000 / 2000	16'-2"-18'-0" 18'-2"-20'-0"		(4) 2" Struts (4) 3" Struts	(5) 2" Struts (4) 3" Struts

†Minimum (1) strut required on window section and/or top section for door with opener.

*Minimum (1) strut required on top section for doors with opener.

Step 2 of 3: Strut Location

Indicates placement of struts based on number of struts required and number of sections.

4 Sections		5 Sections	
Top	1	Top	1
Int	3	Int	4
Int	2	Int	2
Bot	4	Bot	5
# Struts		# Struts	

Strut Detail Example:

16'-0" width x 8'-0" tall - (5) Sections - (3) 2" - 20 ga Struts

Step 1: Number of struts - (3) 2" 20 ga.

Step 2: Strut Location

Step 3: Strut Attachment

(A) (B)	Top	1
(C) (D)	Int	
(C) (D)	Int	2
(C) (D)	Int	
(C) (D)	Bot	3

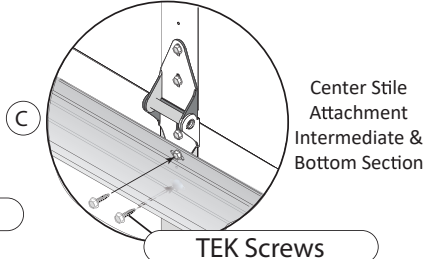
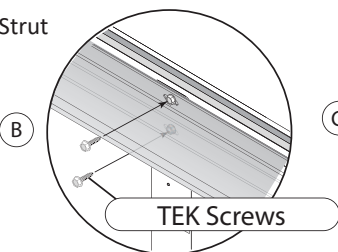
5 Sections

SEE PAGE 5, STEP 21 FOR INSTALLATION DETAILS.

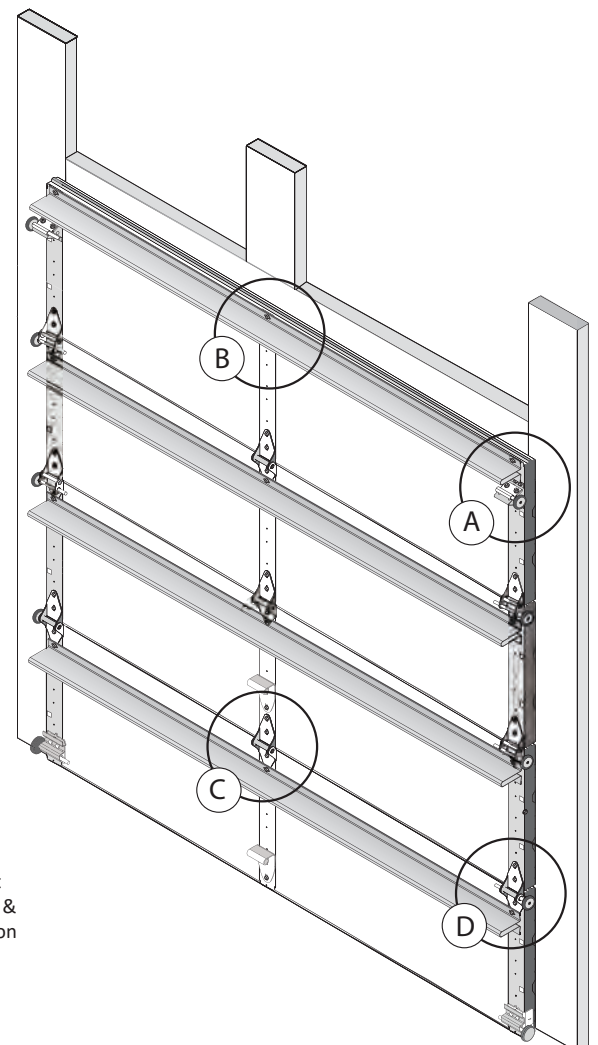
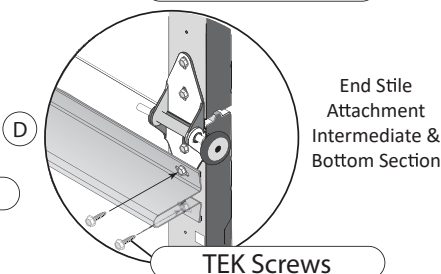
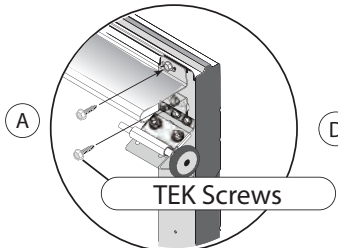
Step 3 of 3: Strut Attachment

1st Strut

Center Stile Attachment
Top Section



End Stile Attachment
Top Section



IMPORTANT NOTICE

DAMAGE TO THE GARAGE DOOR DUE TO AN IMPROPERLY INSTALLED OR ADJUSTED ELECTRIC OPENER IS NOT COVERED BY THE WARRANTY.

ELECTRIC OPENER ATTACHMENT

When installing a garage door opener, the following applies:

1. The door springs must be in good working order and the door must be balanced (should be able to raise the door 1/2 way and have the door stay in place).
2. The top section of the door MUST include a strut in order to reinforce the opener arm lift point (as illustrated in Page 5, Step 21).
3. Disconnect and/or remove all locks and pull ropes. Attempting to use the opener while door is locked will damage your garage door.

IMPORTANT NOTICE

YOUR DOOR MAY REQUIRE ADDITIONAL REINFORCEMENT TO MEET SPECIFIC WIND LOAD REQUIREMENTS. ENTREMATICS RECOMMENDS THAT YOU CONTACT YOUR LOCAL BUILDING OFFICIAL FOR SPECIFIC WIND LOAD REQUIREMENTS IN YOUR AREA.

MANY AMARR DOORS HAVE ENGINEERING DRAWINGS TO MEET WIND LOAD REQUIREMENTS. DOORS MUST BE ASSEMBLED PRECISELY AS SHOWN IN THE DRAWINGS.