

INSTALLATION INSTRUCTIONS

Amarr Commercial Sectional Garage Doors

Model 1000	Model 2000	Model 2700
Model 1350	Model 2400	Model 3500
Model 1380	Model 2500	Model 3550
Residential Vista Collection		Model 2720



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/installation_instructions.html

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.

If a trolley opener is used, 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 & 6, Step 19 and page 8 step 3 of 3.

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. If you need these, please call: 877-512-6277.

Tools Required:

- Ladder - Minimum Height of Door + 1'
- Level 24" or 48"
- Claw Hammer
- 16-Penny Nails
- Lock Grip Pliers
- Socket Wrench
- Sockets: 3/8", 7/16", 1/2" and 9/16"
- Wrenches: 3/8", 7/16", 1/2" and 9/16"
- Electric Drill
- Drill Bits: 3/32", 3/16", 1/4", and 3/8"

Not Included/Purchase Separately:

- Perimeter Seal
- Operator Bracket
- Track Hanger Angle
- Winding Bars

Step 1: Determine Proper Track to Jamb Mount Application

Below are four examples of possible Track to Jamb Mount Applications. Prepare your Jambs as shown in the examples below and in Figure 1.

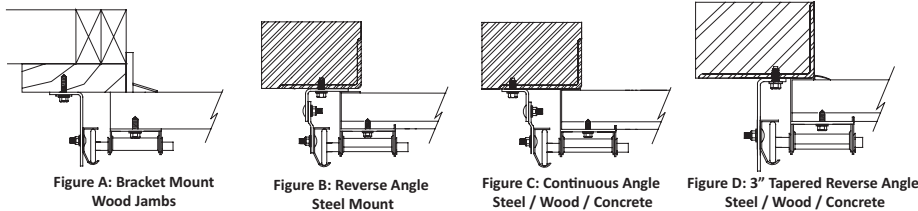


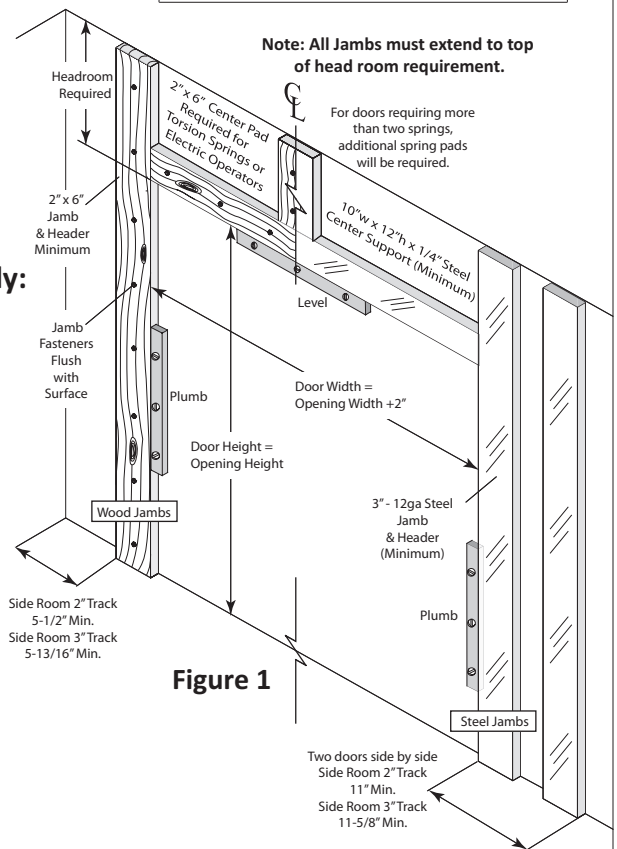
Figure A: Bracket Mount Wood Jambs
2 x 6 - #2 Yellow Pine or better required

Figure B: Reverse Angle Steel Mount

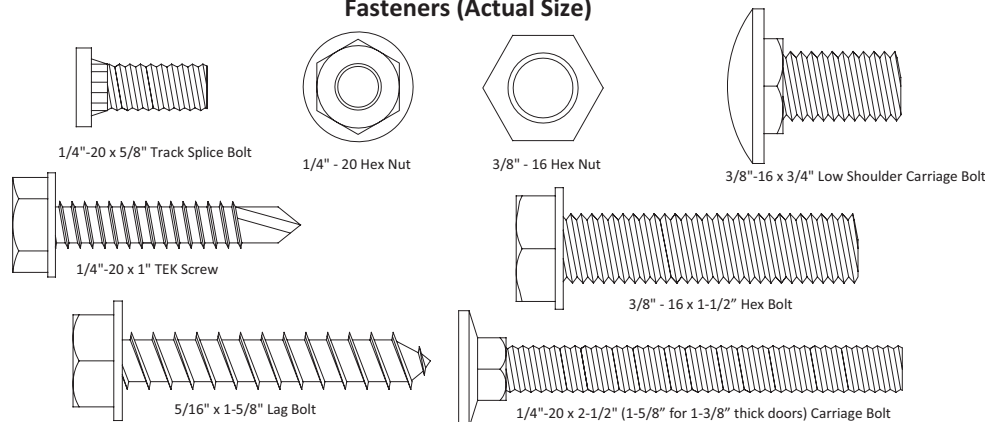
Figure C: Continuous Angle Steel / Wood / Concrete

Figure D: 3" Tapered Reverse Angle Steel / Wood / Concrete

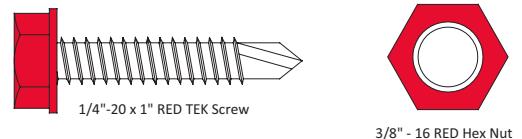
Correct opening dimensions are 2" less than door width and 1" less than door height. Prepare openings as shown. Jambs must be plumb and the header must be level.



Fasteners (Actual Size)



WARNING
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.



Step 2: Framing the Opening

The garage door opening must be 2" less than door width and equal to the door height. The opening must be framed with 2" x 6" minimum wood jambs, 3"-12 ga minimum steel studs, or concrete. The jambs must be plumb and the header level for a square opening. All jamb fasteners should be flush with the jambs and securely anchored to the wall.

Step 3: Perimeter Seal Installation

Perimeter Seal is to be purchased separately. It is not supplied with your door and is not required.

Step 4: Bottom Section Assembly

The bottom section has a rubber weather seal on the bottom. If not, slide the Rubber Astragal into the Retainer.

Note A: If additional reinforcement (struts) are supplied with your door, refer to page 8 for proper number, size and location. Refer to Page 5 & 6, Step 19 for strut installation instructions.

Step 5: Bottom Bracket Installation

Place the bottom section face down on a sturdy pair of padded saw horses (Figure 2). Insert the Cable Pin into the square hole in the Bottom Bracket, from the inside. Then insert the looped end of the Lift Cable onto the Cable Pin. Push the Cable Pin through the round hole in the Cable Pin. With the Lift Cable securely installed, slide the Cotter Pin (Figure 2a) through the hole in the Cable Pin, then bend out one leg of the Cotter Pin. Slide the right Bottom Bracket to the bottom of the right end stile (Figure 2a). Fasten the Roller Carrier with (4) 1/4-20 x 1" RED TEK Screws, to the Bottom Bracket. Insert the Long Stem Roller into the Bottom Bracket (Figure 2a).

Repeat Step 5 for the left side Bottom Bracket.

Note B: Some Bottom Brackets may require cutting a slot into the Rubber Weatherseal so the bracket can sit flush.

Note C: 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 6: Lift Handle Installation (Models 1350, 3500, 35502000, 2400 & 2500)
Install the inside and outside Lift Handles using (4) 1/4-20 x 1" TEK screws as shown (Figure 2b).

Step 6a: Lift Handle Installation (Models 1000, 1380 & 2700)
Install the inside and outside Lift Handles using (2) 1/4 -20 Carriage Bolts and (2) 1/4 -20 nuts (Figure 2c).

Step 7: Roller Hinge Installation

Roller Hinges have a number stamped on them for identification (Figure 2d). 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.

2" Track: Start with a #1 Roller Hinge on the bottom section. Insert rollers as shown (Figure 2d & Table 3).

3" Track: Start with a #3 Roller Hinge on the bottom section. Insert rollers as shown (Figure 2d & Table 3).

Note D: Doors Requiring Double End Stiles (DES)

Doors wider than 16'-2" require DES (Figure 2f). Additional Roller Hinges must be installed to the inside of the outside Roller Hinges (repeat Step 7, with the Roller Hinges mounted to the inside). **DES for 2" track** will require the installation of (2) Flat Leaf Hinges to the inside of each Bottom Bracket.

Step 1: Align the top Flat Leaf Hinge with the bottom hinge (Figure 2f-1) The bottom hinge is a spacer.

Step 2: Slide these two hinges over the Long Stem Roller (Figure 2f-2)

Step 3: Fasten with (3) 1/4-20 x 1 RED TEK Screws (Figure 2f-3).

Repeat Step 7 for Right Side.

Note E: #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.

Table 1 - Headroom Chart

TORSION SPRING HEAD ROOM REQUIREMENTS FOR STANDARD LIFT DOORS					
TRACK RADIUS	DOOR HEIGHT	END BEARING PLATE	DRUM	HEADROOM (2" TRACK)	HEADROOM (3" TRACK)
15"	UP TO 8' TALL	3-3/8" EBP	D400-96	15-1/4"	16-3/8"
	8'3" - 12' TALL	3-3/8" EBP	D400-144	15-1/4"	16-3/8"
	12'3" - 16' TALL	4-3/8" EBP	D525-216	15-3/4"	16-7/8"
	16'3" - 18' TALL	4-3/8" EBP	D525-216	16-1/4"	16-7/8"
	18'3" - 20' TALL	5" OR 6" EBP	D800-384	19"	20"
FOR LOW HEADROOM TORSION TO THE FRONT DOORS					
UP TO 8' TALL	3-3/8" EBP	D400-96	11-3/16"	12-1/8"	
8'3" - 12' TALL	3-3/8" EBP	D400-144	11-3/16"	12-1/8"	
12'3" - 16' TALL	4-3/8" EBP	D525-216	12-3/16"	13-1/8"	
16'3" - 18' TALL	4-3/8" EBP	D525-216	12-3/16"	13-1/8"	
18'3" - 20' TALL	5" OR 6" EBP	D800-384	15-1/16"	16"	
FOR LOW HEADROOM TORSION TO THE REAR DOORS					
UP TO 8' TALL	3-3/8" EBP	D400-96	6-1/2"	7-5/8"	
8'3" - 12' TALL	3-3/8" EBP	D400-144	6-1/2"	7-5/8"	
12'3" - 16' TALL	4-3/8" EBP	D525-216	6-1/2"	7-5/8"	
16'3" - 18' TALL	4-3/8" EBP	D525-216	6-1/2"	7-5/8"	
18'3" - 20' TALL	5" OR 6" EBP	D800-384	7-5/16"	8-1/2"	

Note: An additional 4" of headroom is required if trolley operator is installed.

Table 2 - Door Height Configuration

Door Height	21" Sections	24" Sections
70"	4	
73"	3	1
76"	2	2
79"	1	3
80"		4
83"	Not Available	
86"	Not Available	
89"	5	
90"	4	1
93"	3	2
96"	2	3
99"	1	4
100"		5
103"	Not Available	
106"	6	
109"	5	1
110"	4	2
113"	3	3
116"	2	4
119"	1	5
120"		6
123"	7	
126"	6	1
129"	5	2
130"	4	3
133"	3	4
136"	2	5
139"	1	6
140"		7
143"	7	1
146"	6	2
149"	5	3
150"	4	4
153"	3	5
156"	2	6
159"	1	7
160"		8

*Heights above 16'0"
Contact Amarr Engineering

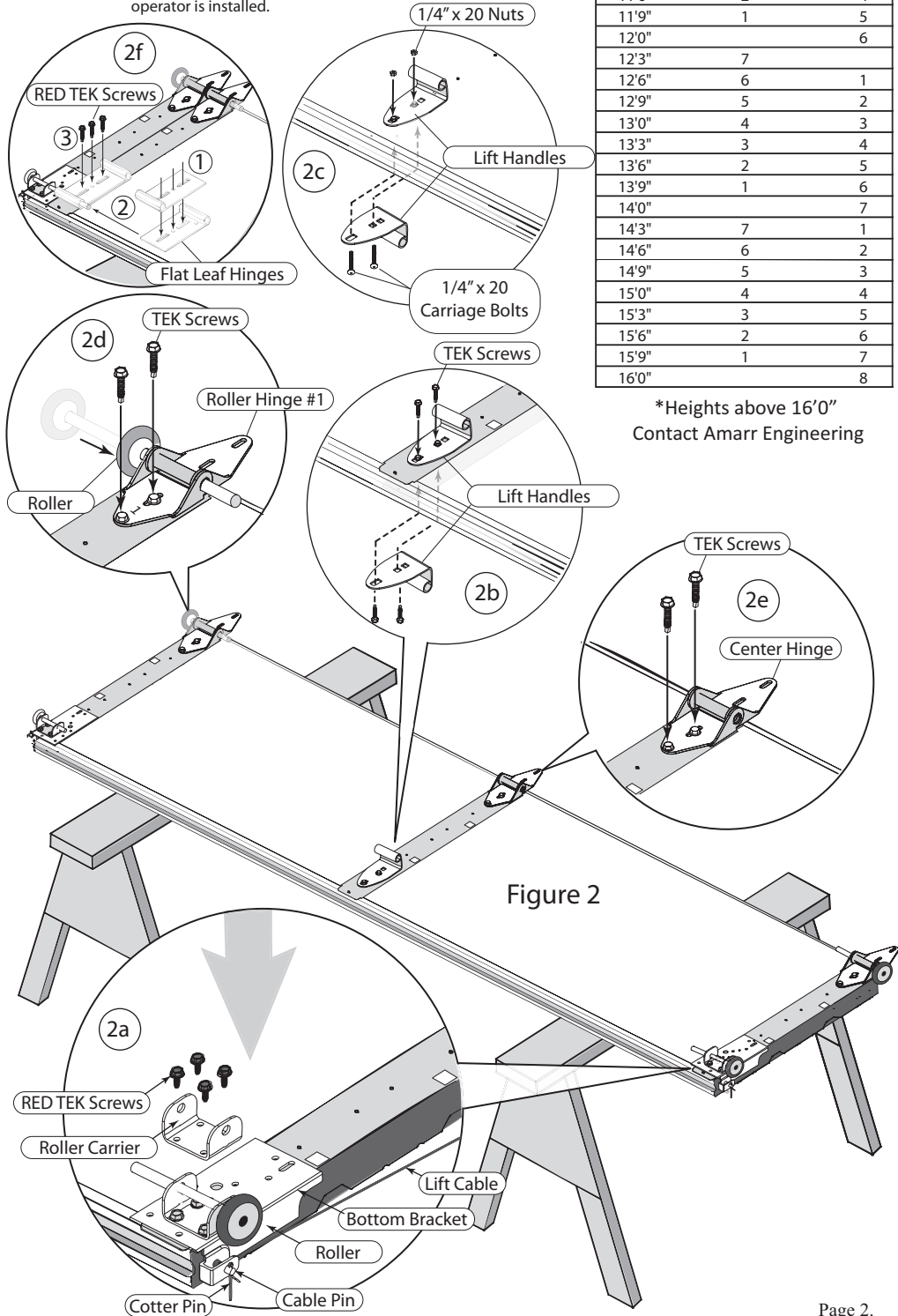


Table 3 - Roller Hinge Progression		
Section #	Roller Hinge # 2" Track	Roller Hinge # 3" Track
#8	8	10
#7	7	9
#6	6	8
#5	5	7
#4	4	6
#3	3	5
#2	2	4
Bottom #1	1	3

*Heights above 16'0" Contact Amarr Engineering

Step 8: Center Hinge Installation

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

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

Step 9: Stacking the Bottom Section in the Opening
Bring the Bottom Section (with hardware installed) to the opening. Place against the Jamb and center from side to side (Figure 3). Place a level on the top of the section (Figure 3a). If necessary, use a shim under the low side to make the section level (Figure 3b).

Note B: 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 (Figure 3b).

Note C: Temporarily loop the lift cables and hang them over the rollers (Figure 3c). This will keep them out of the way until ready for use.

Note D: Lay down the upper leaves of the Roller Hinges and Center Hinges before proceeding to the next step.

Step 10: Installing Angle Mount Track Assembly

Option A: Lift the Left Side Vertical Track Assembly up and down onto the Left Side Roller and against the Jamb (Figure 4a).

Option B: Bring the Left Side Vertical Track Assembly over to the jamb. Rotate the track assembly into place around the rollers (Figure 4b).

Note E: Maintain a 1/2" space between the door edge and the vertical track assembly (Figure 4b).

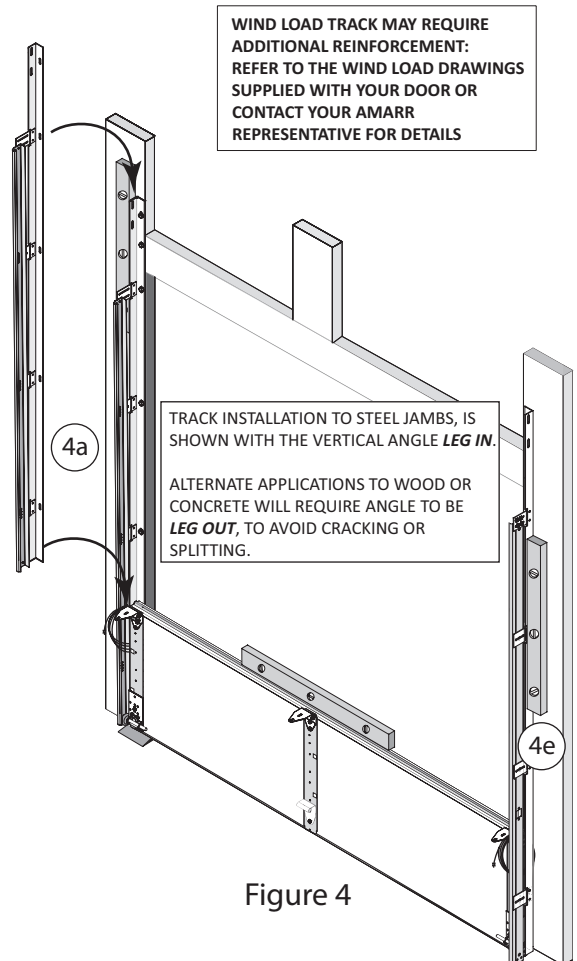
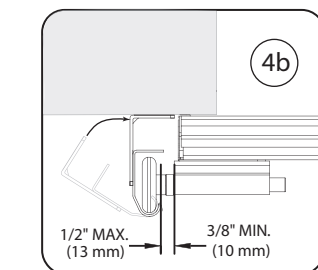
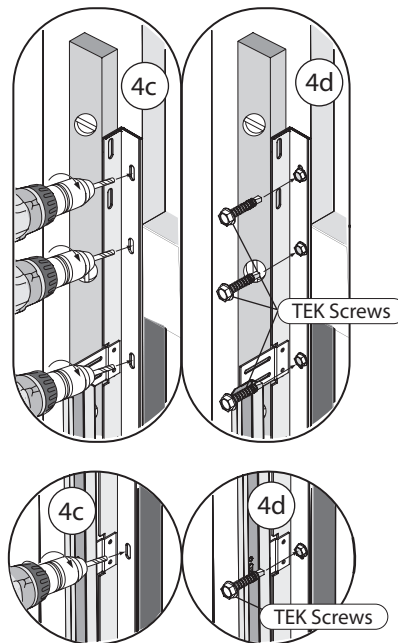
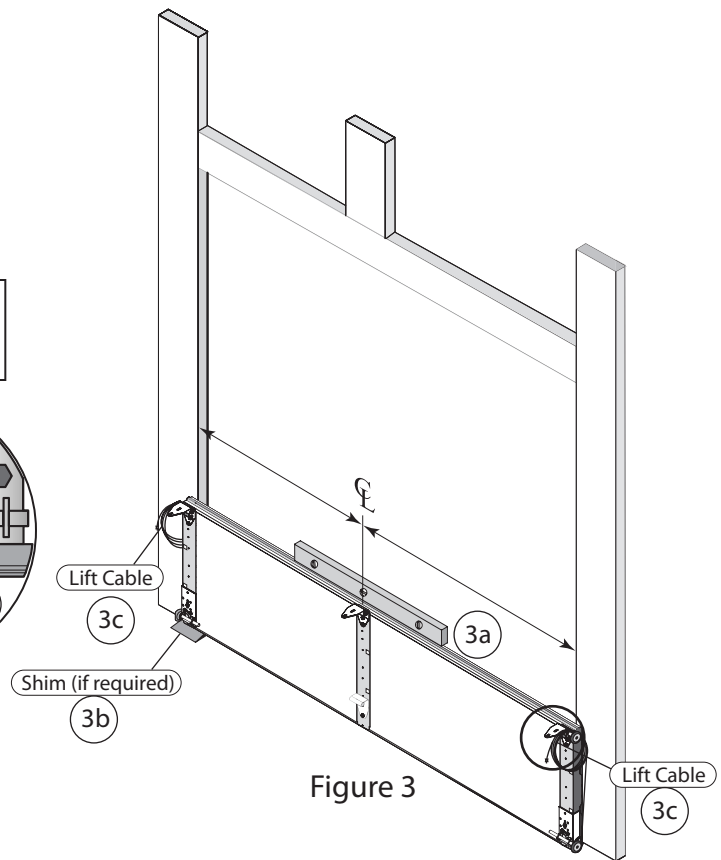
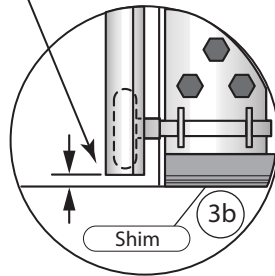
Using a level against the Track Assembly (Figure 4e), be sure the assembly is plumb. Pre-drill holes through the slots in the angle (using a 3/16" drill bit), to help start the TEK Screws into the jamb (Figure 4c). With the track assembly properly aligned and plumb, securely attach the Track Assembly to the jamb using (1) 1/4"-20 x 1" TEK Screw in every slot in the Vertical Angle as shown (Figure 4d).

Note F: Your application may require more or fewer TEK Screws to fasten to the jamb, depending on the height of the door.

Note G: Vertical tracks must be level with each other for the door to function properly. If not level (one side has been shimmed), raise the vertical track on that side equal to the shim under the bottom section (Figure 3b). Vertical tracks must be plumb as well.

Repeat Step 10 for Right Side Vertical Track Assembly (Figure 4e)

Track raised the same amount as the section when a shim is used.



WARNING Do not attach Track or Spring components directly to sheet rock.

Step 12: Installing Intermediate Section Hardware

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

Place the second section face down on the padded saw horses. Install the **left side** #2 Roller Hinge and Roller as shown on Page 2, Step 7 (Figure 2d). Do not install the right side Roller Hinge at this time. Install the Center Hinge(s) as show on Page 2 (Figure 2e), Page 3, Step 8.

Note B: Install locks if required or provided. See Supplemental Instructions or instructions provided with your locks for installation instructions.

Note C: If additional reinforcement (struts) are supplied or required with your door, refer to Page 8 for proper location. Refer to page 5 & 6, Step 19 for Strut Installation instructions.

Step 13: Installing Intermediate Sections in the Opening

Carefully lift the Intermediate Section, with Roller, Roller Hinges, Center Hinge(s) and Strut(s) (if required) to the height of the Bottom Section (or next intermediate section). Bring the door in at a 45° angle and insert the left side roller into the left side vertical track (Figure 5a). Carefully rotate the Intermediate Section around until it is parallel and lines up with the section below. Slowly lower the section down onto the bottom section that you stacked earlier (Figure 5b).

WARNING

Note: Care must be taken to avoid pinching or otherwise injuring your fingers.

After the Intermediate Section is seated, install the right side Roller Hinge with the Roller (inserting the Roller into the track) using (2) 1/4-20 x 1" TEK Screws (Figure 6a).

Note D: Lay down the upper leaves of the Roller Hinges and Center Hinges before proceeding to the next step (Figure 6a & b).

Repeat Steps 12 & 13 as Required for Intermediate Sections. Refer to Page 3 - Table 3 for correct Roller Hinge progression.

Go to Step 14 when all Intermediate Sections are installed. **Do not install the Top Section at this time.**

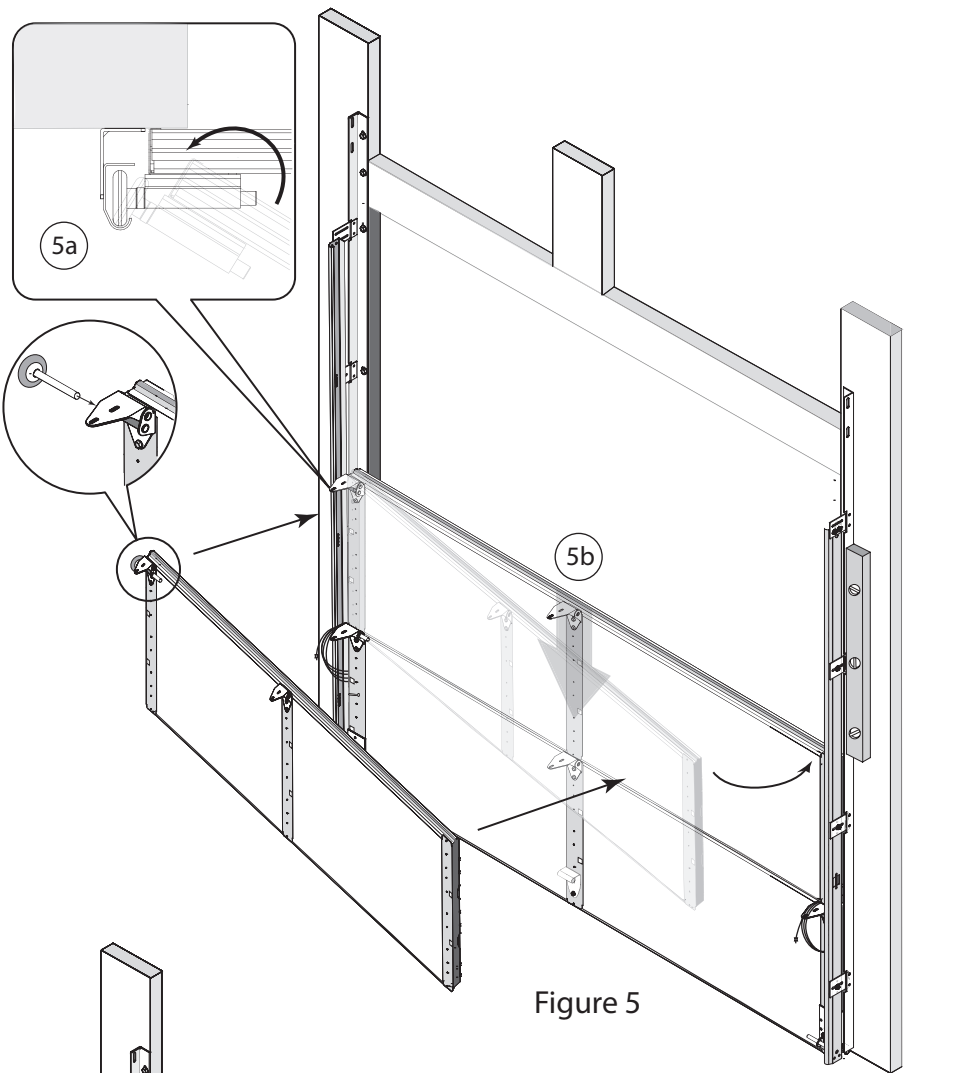


Figure 5

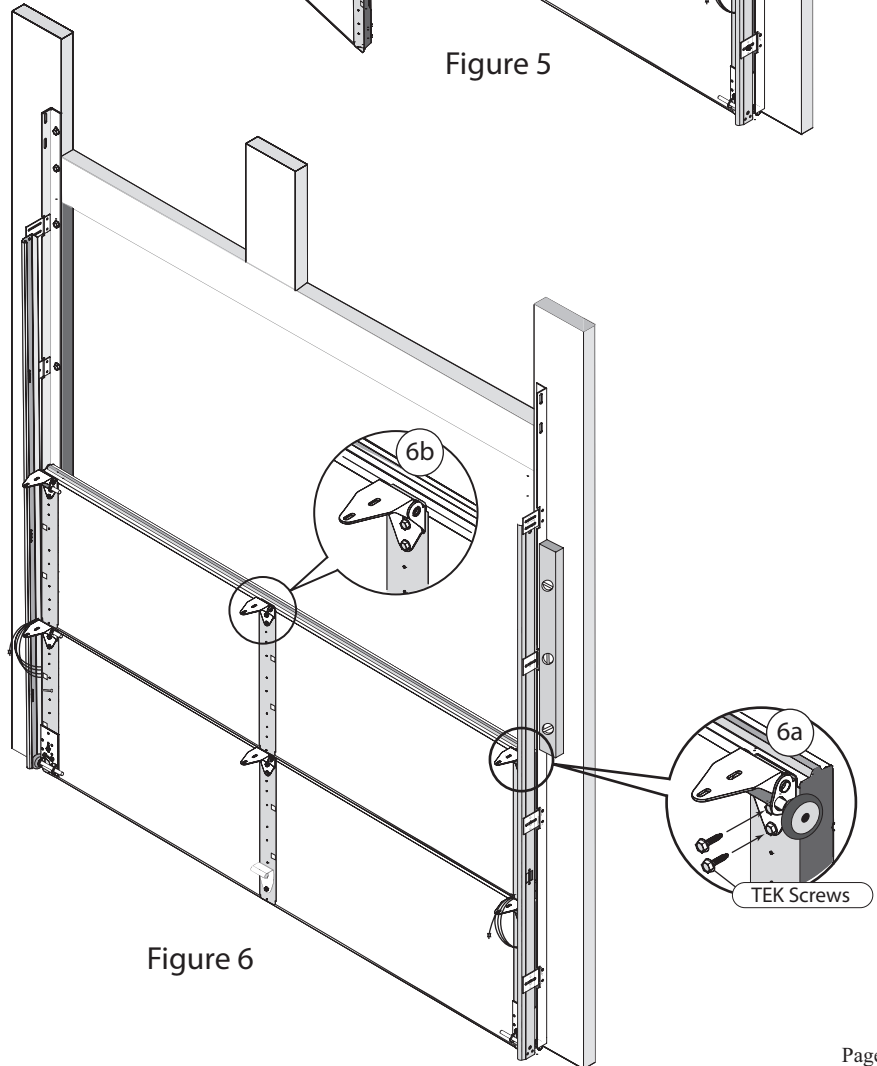


Figure 6

Step 14: Horizontal Track to Vertical Track Attachment. (Left Side Assembly shown)

Attach the radius (curved) end of the Horizontal Track Assembly to the Vertical Track with (2) 1/4" x 5/8" Track Splice Bolts and (2) 1/4"-20 Hex Nuts (Figure 7a). Temporarily support the back end of the track using a rope or wire attached to the ceiling.

Note: 1/4"x20 Hex Nuts always go on the outside of the assembly (away from the door).

Step 15: Horizontal Angle to Vertical Angle Installation
Attach the end of the Horizontal Angle to the Vertical Angle with (1) 3/8" x 3/4" Low Shoulder Carriage Bolt and (1) 3/8"-16 Hex Nut (Figure 7b).

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

Step 16: Track Hanger Installation
(See Supplement)

Replace the support rope or wire with metal Angle Hangers (Figure 7c & 7d). Angle is purchased separately, minimum 14 ga. Hangers need to be level and plumb. Angle must fasten to studs (see supplement).

Note A: Doors 12' tall and taller require additional Intermediate Hangers (Figure 7e - Supplement Page 4).

Note B: Repeat Steps 14-16 for Right Side Horizontal Assembly.

Important: Horizontal Track must be spaced 1/2" from the sections to prevent the sections from falling out of the track.

Step 17: Inspecting the Track Installation
Using a tape measure and level, make sure the track is level and square with the opening (Figure 7). Make sure that the distance between the track and the door is equal at the bottom of the Vertical Track, at the radius of the horizontal, and at the back of the Horizontal Track (approximately 1/2"). Adjustment to the track position may need to be made later (to maintain the proper spacing) after the springs are installed and the door is opened and closed.

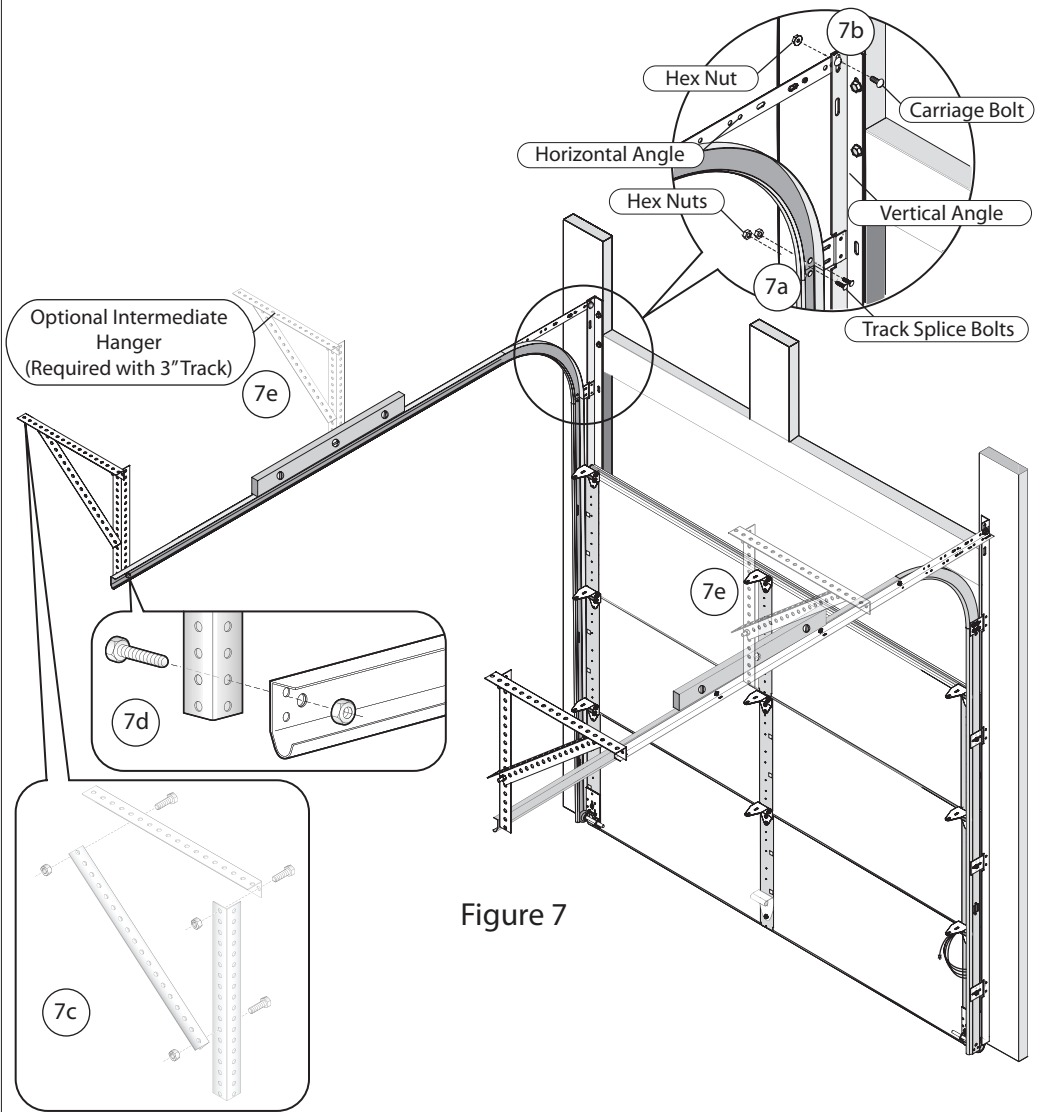


Figure 7

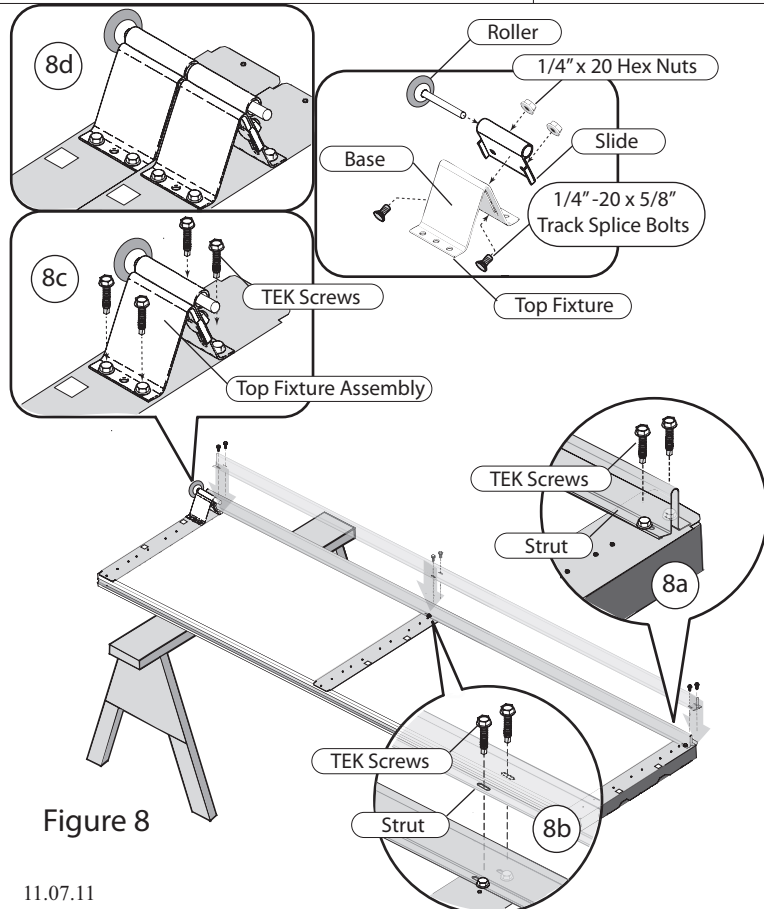


Figure 8

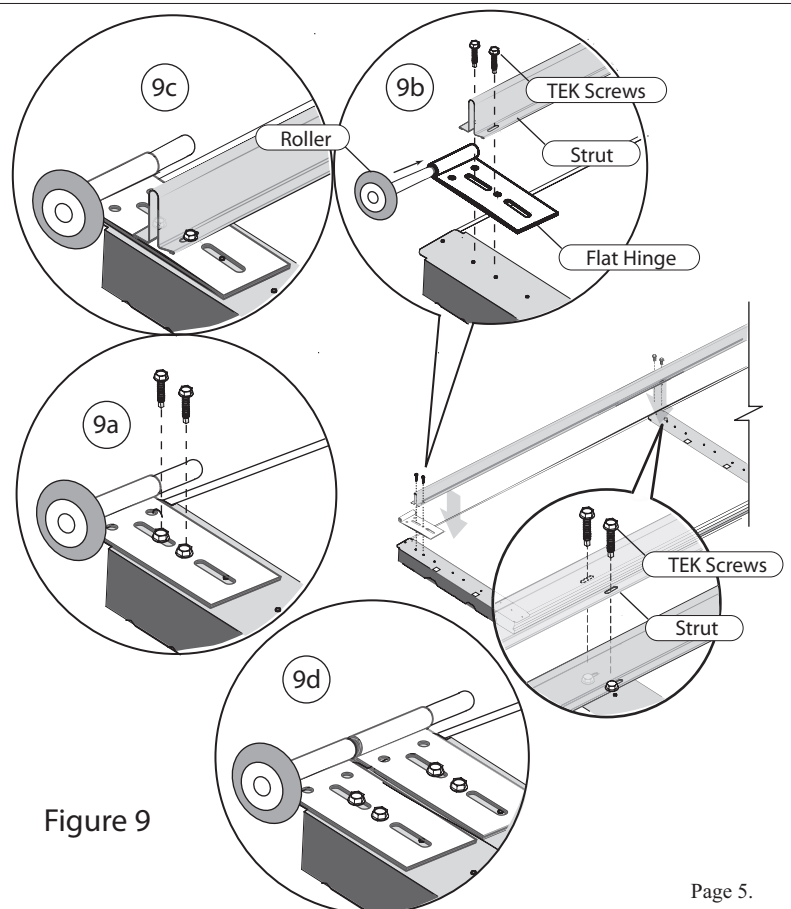


Figure 9

Step 18: Installing Top Section Hardware

Place the top section face down on your padded saw horses.

Note A: If struts are not supplied or required skip to Step 20.

Note B: 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 19 & 20 and go to Step 21.

Step 19: Strut Installation

If Struts are required, location is shown on page 8. Install using (2) 1/4-20 x 1" TEK Screws into each Center and End Stile (Figure 8a & 8b).

Step 20: Top Fixture Installation (Standard Lift, High Lift, or Vertical Lift)

Align the Top Fixture Assembly, with holes on the left side End Stile, near the top. Secure the fixture to the End Stile with (4) 1/4-20 x 1" TEK Screws (Figure 8c). Insert the rollers as shown (Figure 8c). Leave the slide loose for later adjustment.

Step 21: Flat Hinge Installation (Low Head Room Only)

For doors with no Struts required, attach the Flat Top Fixture to the left side End Stile, using (2) 1/4-20 x 1" TEK Screws (Figure 9a).

For doors that require struts, attach the Strut on top of the Flat Hinge (Fig 9b) and to the top of the stile (Figure 9c) using (2) 1/4-20 x 1" TEK screws at each Center and End Stile. Insert the Rollers as shown (Figure 9b & 9c).

Note C: For doors requiring Double End Stiles (DES), refer to Figure 8d, or Figure 9d (**Low Head Room assemblies only**).

Note D: Flat Leaf Hinges may require additional adjustment after Top Section is placed in opening.

Step 22: Stacking the Top Section in the Opening

Carefully lift the Top Section, with the Roller, Top Fixture, and Struts (if required) to the height of the last intermediate section. Bring the door in at a 45° angle and insert the left side roller into the left side track (Figure 10a). Carefully rotate the Top Section around until it is parallel and lines up with the section below. Slowly lower the section down onto the section below (Figure 10b).

Step 23: Installing the Right Side Top Fixture Assembly

Align the Right Top Fixture Assembly, with holes on the Right Side End Stile.

Note E: The Right Side Top Fixture must be attached at the same height as the left side fixture.

Secure the fixture to the End Stile with (4) 1/4-20 x 1" TEK Screws (Figure 11a). Insert the rollers as shown (Figure 11a). Leave the slide loose for later adjustment.

Step 24: Center Hinge 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) 1/4-20 x 1" TEK Screws (Figure 11b). Do this for all Center Hinges.

Step 25: End Hinge Installation

Push up the upper leave(s) of the End Hinge(s) and attach to the upper section with (2) 1/4-20 x 1" TEK Screws (Figure 11c). Do this for all End Hinges.

Step 26: Adjusting the Top Fixture

With the door in the closed position, tighten the slide on both Top Fixtures by pushing the top section tight against the opening and lightly pulling the top slide toward the inside of the garage (Figure 11d). Tighten the Hex Nuts.

Step 27: Pull Rope Installation (no Electric Opener only)

If an electric opener is not used, attach one end of the pull rope to the Bottom Bracket and the other end to the second Track Clip. To prevent accidents, DO NOT INSTALL PULL ROPE IF ELECTRIC OPENER IS USED.

⚠ DANGER Go to page 7 for Torsion Spring Installation Instructions. After springs are installed, proceed to Step 28.

Step 28: Install Safety Stickers to Door

Install supplied Safety Stickers as shown (Figure 11e).

Step 29: Final Check

A. Make sure there is a 1/2" 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.

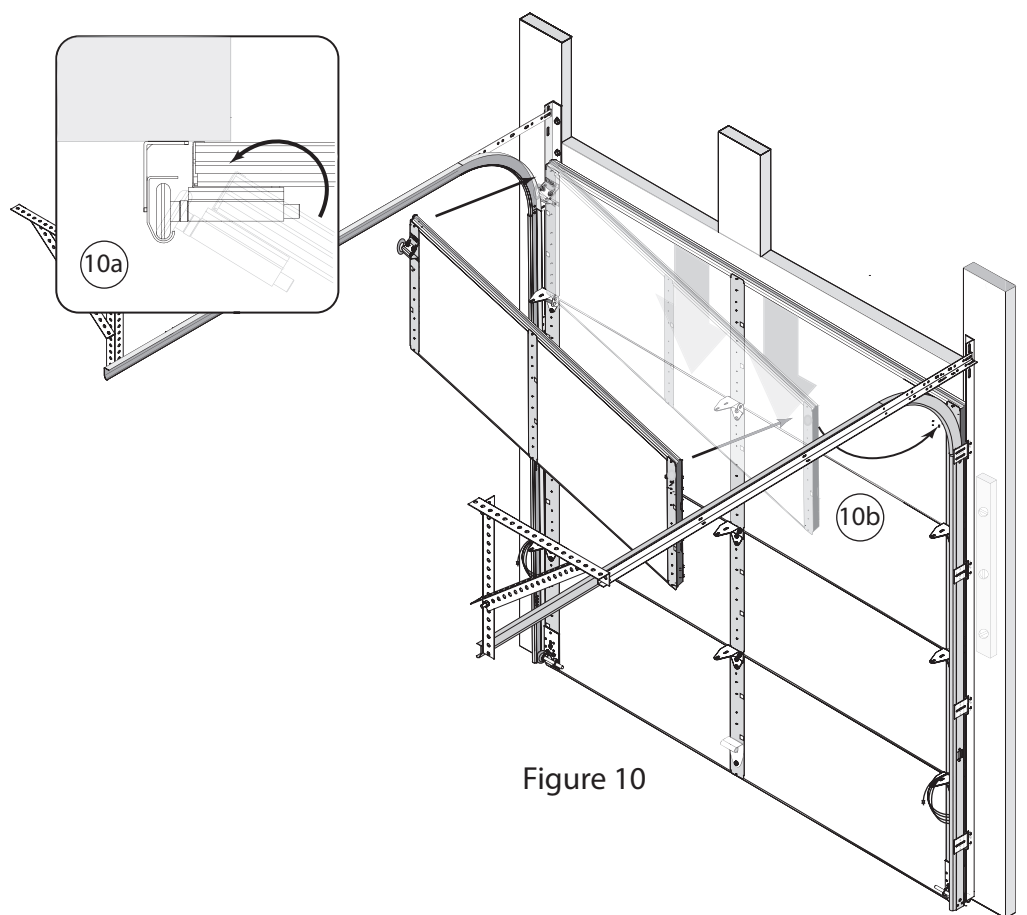


Figure 10

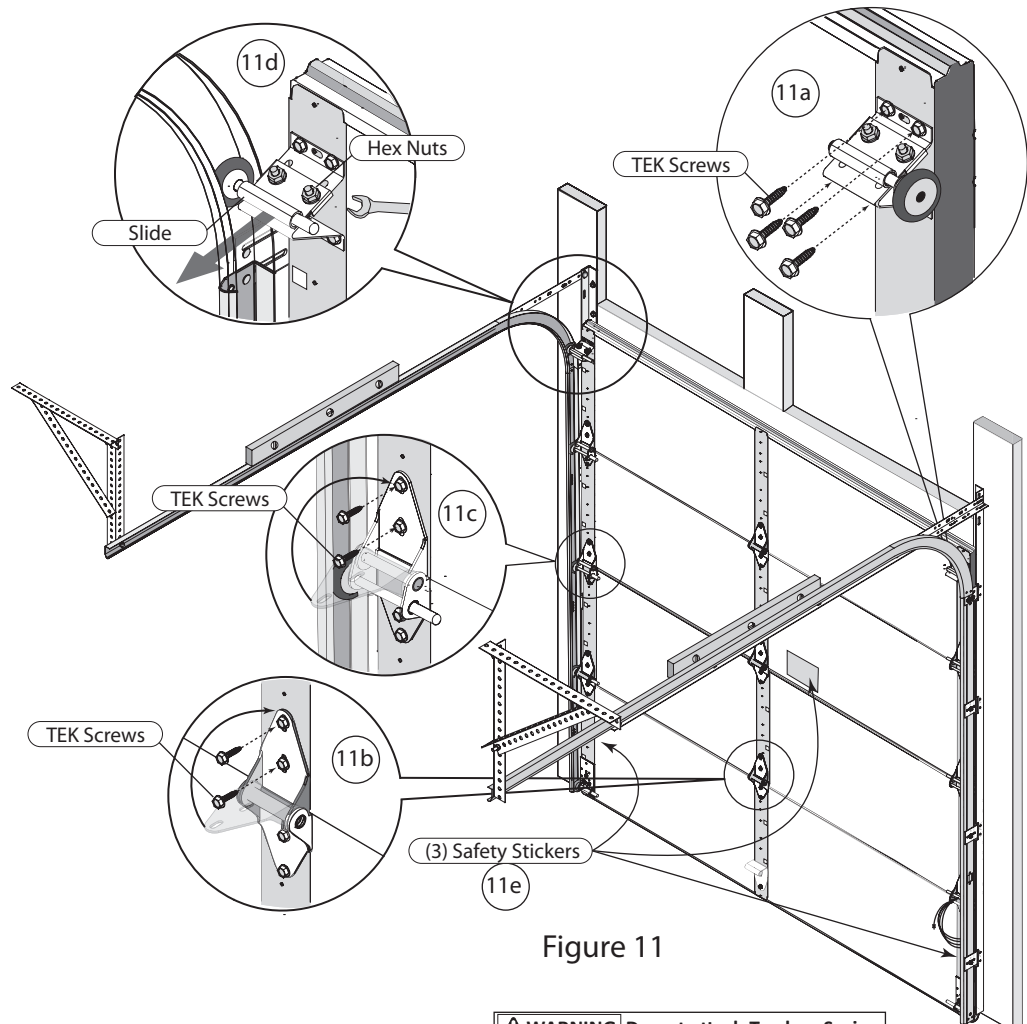


Figure 11

⚠ WARNING Do not attach Track or Spring components directly to sheet rock.

⚠ 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 A: Doors may be supplied with 1, 2 or 4 Torsion Springs. Directions for installation are the same.

Step 1: End Bearing Plate Attachment (Left Side)

Note: Use ladder where required. Attach the left side End Bearing Plate to the Vertical Angle and Horizontal Angle with (2) 3/8"x3/4" Low Shoulder Carriage Bolts and (2) 3/8"-16 Hex Nuts (Figure 1a).

Note B: 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) 1/4-20 x 1" TEK Screw (Figure 2a). Pre-drill a 3/16" pilot hole.

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 left side drum, then slide the Steel Bearing onto the shaft (the Steel 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 (Figure 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) 1/4-20 x 1" TEK Screw (Figure 3b). Pre-drill a 3/16" pilot hole to prevent the wood from splitting.

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 Steel Bearing inserted into the spring (Figure 3a). Using (2) 3/8"x1-1/2" Bolts 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 until the set screws come in contact with the drum. Then, turn each screw 1/2 to 1 turn with a wrench.

Note C: 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 3). 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. **The cables must remain tight, drums must be synchronized with equal turns.**

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 5, Step 1). Insert the Winding Bars completely into the full depth of the holes in the Winding Cone.

Note D: Do not remove one Winding Bar until the other is completely seated into the full depth of the hole and you have a firm grip and complete control of the other Winding Bar

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 5, 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 E: 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 Page 6, Step 28 to finish with the installation.

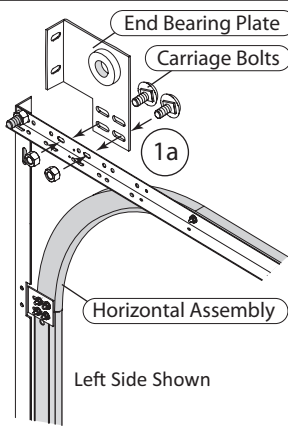


Figure 1

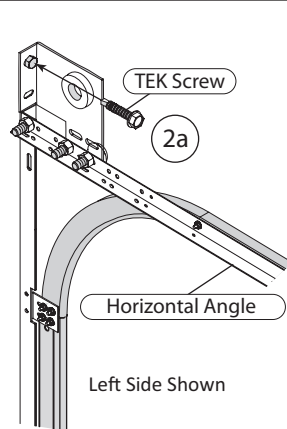


Figure 2

Table 3 - Required Number of Turns Standard Lift Drums

Door Height	Turns 12 Radius	Turns 15 Radius	Turns LHR
7'-0"	7.6	7.9	7.2
7'-3"	7.7	8.0	7.3
7'-6"	8.0	8.2	7.5
7'-9"	8.1	8.4	7.6
8'-0"	8.2	8.5	7.8
8'-3"	NA	NA	NA
8'-6"	NA	NA	NA
8'-9"	9.1	9.4	8.7
9'-0"	9.4	9.6	8.9
9'-3"	9.6	9.9	9.2
9'-6"	9.8	10.1	9.4
9'-9"	10.1	10.3	9.6
10'-0"	10.3	10.5	9.9

Note: For doors over 10' tall, contact Amarr Garage Doors.

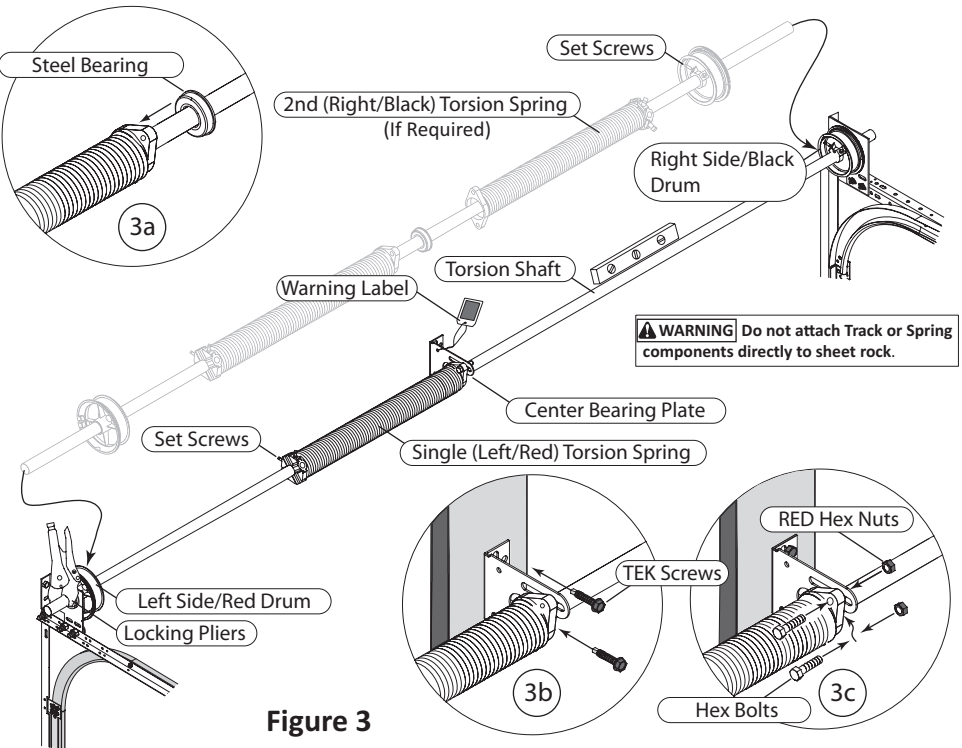


Figure 3

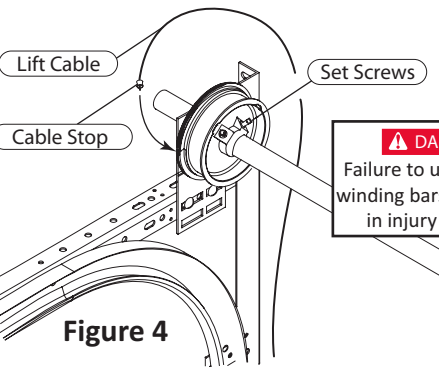


Figure 4

These instructions apply to:

- * Hollow Torsion Tubes
- * 1 & 2 Spring Applications
- * 3-3/4" Springs or smaller
- * Single Center Bearing Plate

Instructions for other spring applications may be found in the Supplemental Instructions and/or supplied with springs.

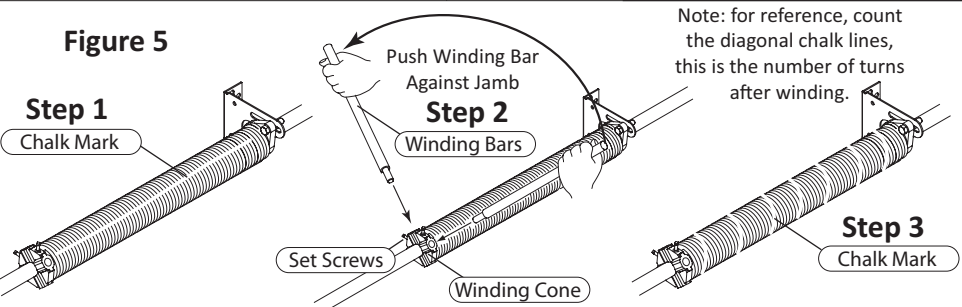


Figure 5

Stand to the side when winding

Step 1 of 3: Number of Struts & Strut Size

Model	Door Width	Door Height	Struts Req'd
Models 2000, 2400, 2500, & 3500 2" Open Back *	8'-2" - 14'-2"	7' - 16'	0 Struts ★
	14'-4" - 20'-2"	7' - 16'	(1) 2" 20 ga Strut Per Section
	20'-4" - 24'-2"	7' - 16'	(1) 3" 20 ga Strut Per Section
Model 1380 1-3/8" EPS	8'-2" - 14'-2"	7' - 16'	0 Struts ★
	14'-4" - 16'-2"	7' - 10'	(3) 2" 20 ga Struts
	14'-4" - 16'-2"	11' & 12'	(4) 2" 20 ga Struts
Model 2700 2" Polyurethane	8'-2" - 12'-2"	7' - 16'	0 Struts ★
	12'-4" - 16'-0"	7' - 16'	(3) 2" 20 ga Struts
	16'-2" - 18'-2"	7' - 16'	(1) 2" 20 ga Struts Per Section
	18'-4" - 24'-2"	7' - 16'	(1) 3" 20 ga Struts Per Section
Model 1000 2" EPS	8'-2" - 12'-2"	7' - 16'	0 Struts ★
	12'-4" - 14'-2"	7' - 16'	(3) 2" 20 ga Struts
	14'-4" - 18'-0"	7' - 10'	(3) 2" 20 ga Struts
	14'-4" - 18'-0"	11' - 14'	(4) 2" 20 ga Struts
	14'-4" - 18'-0"	15' & 16'	(5) 2" 20 ga Struts
	18'-2" - 20'-0"	7' & 8'	(3) 2" 20 ga Struts
	18'-2" - 20'-0"	9' - 16'	(1) 2" 20 ga Strut Per Section
	† 22'2 and wider use 3" 18 ga struts 20'-2" - 24'-2"	7' - 16'	(1) 3" 20 ga Strut Per Section †
Model 1350 1-3/8" Polyurethane	8'-2" - 14'-2"	7' - 14'	0 Struts ★
	14'-4" - 16'-2"	7' - 10'	(3) 2" 20 ga Struts
	14'-4" - 16'-2"	11' - 12'	(4) 2" 20 ga Strut
	14'-4" - 16'-2"	13' - 14'	(1) 2" 20 ga Strut Per Section
	16'-4" - 18'-2"	7' & 8'	
Model 2720 2" Polyurethane	8'-2" - 15'-10"	7' - 16'	(0) Struts
	16'-0" - 18'-2"	7' - 16'	(1) 2" 20ga Strut Per Section
	18'-4" - 28'-2"	7' - 16'	(1) 3" 20ga Strut Per Section

- ★ Minimum (1) strut required, on top section, for doors with *Trolley Operators*
- * Instructions supplied separately with model 3550 doors.

IMPORTANT NOTICE

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

ELECTRIC OPENER ATTACHMENT

When installing a garage door opener, the following applies:

- 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).
- The top section of the door MUST include a strut in order to reinforce the opener arm lift point (as illustrated in Page 5-6, Step 19). *Trolley operators only.*
- 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. AMARR 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. **CONTACT AMARR IF WINDLOAD DRAWINGS AND STRUT SCHEDULES WERE NOT SUPPLIED WITH YOUR DOOR.**

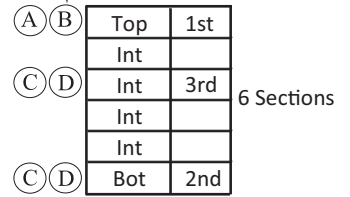
Strut Detail Example:

14'-4" x 12'-0" Model 1000 - (6) Sections - (3) 20 ga Struts

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

Step 2: Strut Location

Step 3: Strut Attachment



SEE PAGE 5 & 6, STEP 19 FOR INSTALLATION DETAILS.

Step 2 of 3: Strut Location

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

Door Height	# Sections
7'-0" - 8'-0"	4
8'-9" - 10'-0"	5
10'-6" - 12'-0"	6
12'-3" - 14'-0"	7
14'-3" - 16'-0"	8

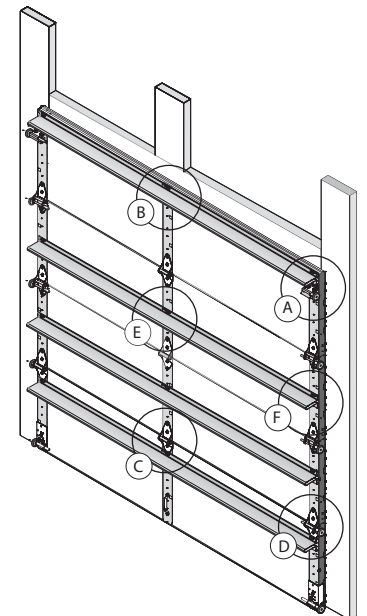
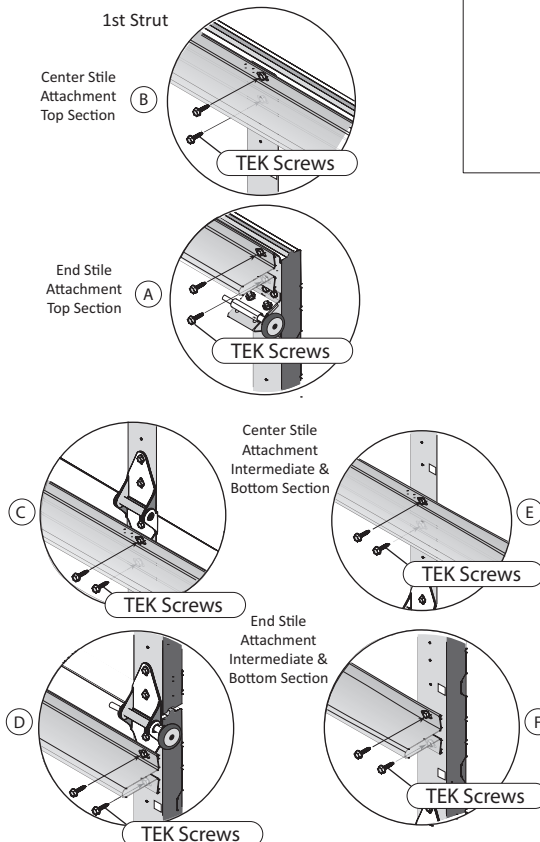
4 Sections		5 Sections	
Top	1st	Int	4th
Int	4th	Int	3rd
Int	3rd	Int	5th
Bot	2nd	Bot	2nd

Struts # Struts

6 Sections		7 Sections		8 Sections	
Top	1st	Int	7th	Top	1st
Int	6th	Int	5th	Int	8th
Int	3rd	Int	3rd	Int	5th
Int	5th	Int	6th	Int	6th
Int	4th	Int	4th	Int	7th
Bot	2nd	Bot	2nd	Int	4th
		Bot	2nd	Bot	2nd

Struts # Struts # Struts

Step 3 of 3: Strut Attachment





165 Carriage Court,
Winston Salem, NC 27105
www.amarr.com - 877-512-6277

To download instructions:
www.amarr.com/installation_instructions.html

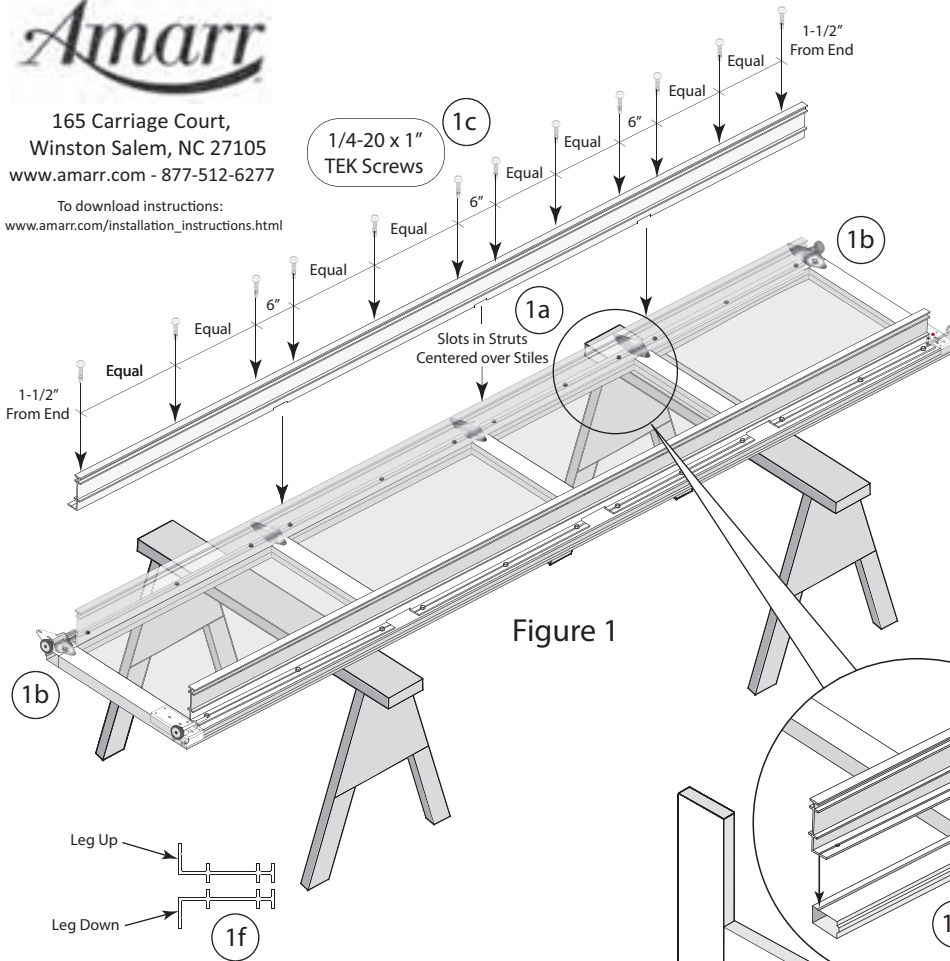


Figure 1

SUPPLEMENTAL INSTALLATION INSTRUCTIONS Amarr Manufactured Aluminum Full View Model 3550 & Vista Collection

Note A: These instructions begin following Step 8, Page 3 of the Basic Commercial Instructions.

Note B: For Model 3550 doors wider than 16'2"
* **All sections** will require (1) Aluminum Strut, attached at the top of each section.

* **Bottom sections** will require (1) Aluminum Strut, attached at the top of the section, leg up and (1) Aluminum Strut, attached at the bottom of the section, leg down (see Figure 1f for leg up/down illustration).

Step 1: Place the bottom section on a pair of padded saw horses (Figure 1).

Step 2: Align the slots in the struts with the center stiles of the section (Figures 1a). The small groove in the struts should also be aligned directly over the matching groove in the section rail (Figure 1d, shown with rail cut-away for clarity).

Note C: For Single End Stile sections there should be 3" from the end of the struts to the end of the section (Figure 1b). For Double End Stile sections there should be 6" from the end of the struts to the end of the section.

Step 3: Fasten the struts to the section using 1/4-20 x 1" TEK Screws (Figure 1c).

- * (1) TEK Screw should be used at each end stile
- * (2) TEK Screws should be used at each Center Stile
- * (1) TEK Screw should be used centered between each Stile

Note D: The TEK Screws should be installed in the pre-drilled holes located on the small groove as shown in Figure 1e.

Note E: Figure A shows strut installation on a bottom section. Strut installation will be the same for all intermediate and top sections but with only **one strut at the top of the section**.

Step 4: Resume installation of sections, as shown starting with Step 9, Page 3 of the Basic Commercial Instructions, with the required Aluminum Struts installed.

IMPORTANT NOTICE

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

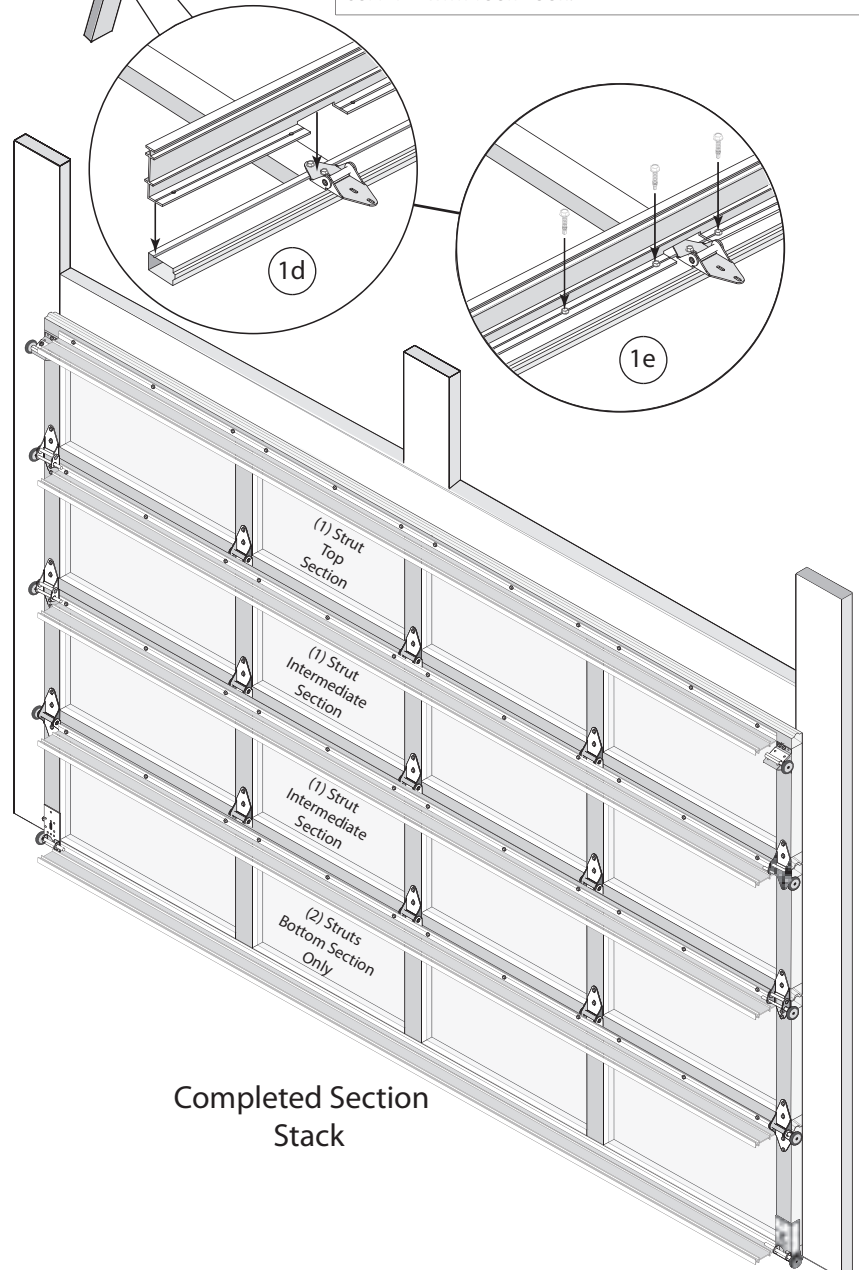
ELECTRIC OPENER ATTACHMENT

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. When used with a Trolley Operator, the top section of the door MUST include a strut in order to reinforce the opener arm lift point (as illustrated in Page 5-6, Step 19).
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. AMARR 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. **CONTACT AMARR IF WINDLOAD DRAWINGS AND STRUT SCHEDULES WERE NOT SUPPLIED WITH YOUR DOOR.**



Completed Section Stack

INSTALLATION SUPPLEMENTAL INSTRUCTIONS

Amarr Commercial Steel Garage Doors

Model 1000 - 2" EPS

Model 1380 - 1-3/8" EPS

Model 2000 - 20 Gauge

Model 2700 - 2" FIP

Model 2400 - 24 Gauge

Model 2500 - 25 Gauge

Model 3500 - Aluminum

Model 1350 - 1-3/8" FIP



165 Carriage Court, Winston Salem, NC 27105

www.amarr.com - 877-512-6277

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.

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/installation_instructions.html

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.

Page 1 - Slide Lock Installation

Page 5 - High Lift

Page 2 - New Universal End Bearing Plate

Page 6 - Vertical Lift

Page 3 - Low Head Room - Torsion Front

Page 7 - Follow the Roof Pitch

Page 4 - Low Head Room - Torsion Rear

Page 8 - Back Hang Installation

NOTICE

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

Slide Lock Installation Instructions

NOTE: Do not install Slide Locks if your door is equipped with an Electric Garage Door Opener.

NOTE: If you are going to install an Electric Garage Door Opener later, remember to remove or disable the Slide Locks. You can disable the lock by opening the dead bolt and putting a lock or bolt through the lock hole (Fig 4).

NOTE: Locks (including Slide Locks) will damage your Electric Garage Door Opener and your door if the lock is engaged when the operator tries to raise the door. This will invalidate the door warranty.

Note: Doors may not be supplied with Slide Locks and fasteners. These items must be purchased separately.

Note: These instructions show a Double Layer door but apply to Single and Triple layer doors as well.

Note: It is best to knock out the tab from the inside before the track is installed.

Step 1: (Right Side) Using a hammer and punch, knock out the pre-punched rectangular metal tab from the Horizontal Track (Fig 1).

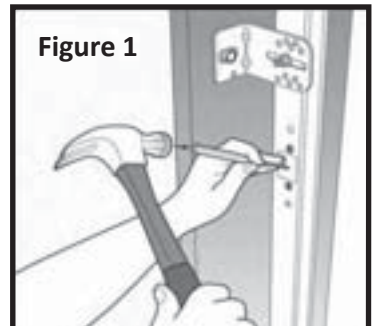
Step 2: With your door in the fully closed position, locate your lock so that the slide will line up with the center of this rectangular hole (Fig 3, Fig 4). Securely fasten the Slide Lock to the 2nd section with (2) 1/4" x 5/8" Universal Screws (Fig 2). You may need to pre-drill 3/32" pilot holes if holes in the section do not line up with this location.

Step 3: With your door in the fully closed/down position, test the Slide Lock for ease of operation. Adjust the lock up or down if necessary (Fig 3, Fig 4).

Repeat Steps 1-3 for the left side.

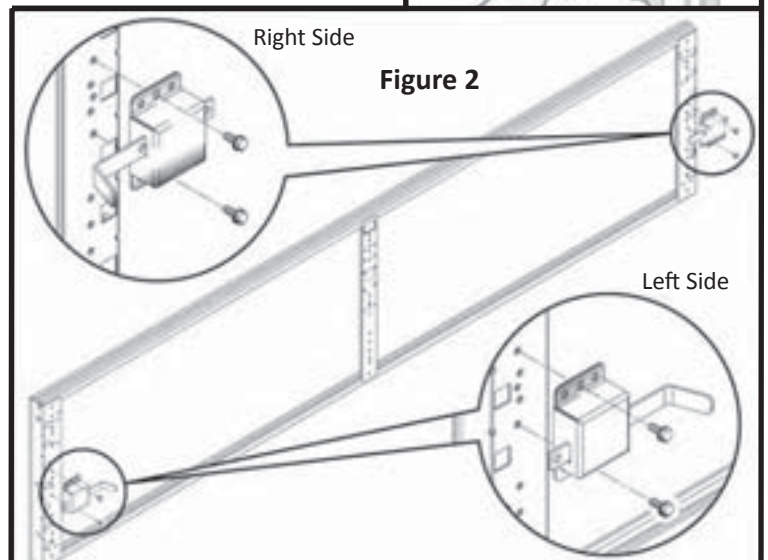
NOTE: Other locks may be provided with your doors. Refer to installation instructions included with the lock for details.

Figure 1



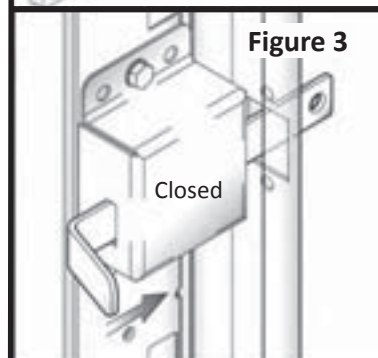
Right Side

Figure 2



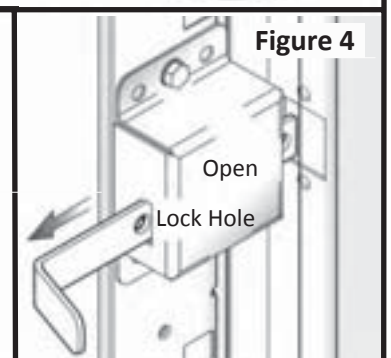
Left Side

Figure 3



Closed

Figure 4



Open

Lock Hole

⚠ 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.

Universal End Bearing (EBP) Installation Instructions

Note A: Doors may be supplied with 1,2 or 4 Torsion Springs. Directions for installation of the Universal End Bearing Plate are the same.

Note B: Doors weighing up to 800 lbs. will require the 400 lb. Extended Bolt on Bearing (p/n 99199781). 1" Shaft only.

Note C: Doors weighing over 800 lbs. will require the 900 lb. Bolt on Bearing with Spacer.

Note D: Example shown is left side, leg out, installation to wood or concrete. For installation to steel, you may reverse the Universal End Bearing Plates to install leg in. See page 1 of the Basic Instructions for further details.

Left Side Universal End Bearing Plate Installation

Note E: Drums can be identified for model and left or right by finding the description and L or R on the same side of the drum as the set screws (Figure 3b).

Step 1: Determine the Center Line of the Bolt on Bearing (Figure 1a) and mark or scribe. When the Bolt on Bearing is aligned correctly, the Center Line is 2" from either side. Slots should run horizontally as shown in Figure 1a.

Step 2: Align the Center Line mark with the 3-3/8", 4-3/8", 5" or 6" mark on the Universal End Bearing Plate (Figure 1b). Choose the dimension that matches the drum you are using by referencing Chart 1 below.

Example: The 400-144 drum would use the 3-3/8" mark.

Step 3: After correct alignment has been determined, fasten the Bearing to the Bearing Plate with (4) 3/8-16 x 3/4" Low Shoulder Carriage Bolts and (4) 3/8-16 Hex Nuts (Figure 1c & 1d).

Note F: 3/8"-16 Hex Nuts always go to the outside of the Universal Bearing Plate, away from the drums.

Step 4: With the leg against the jamb, fasten the completed Universal End Bearing Plate Assembly to the Horizontal Angle and Vertical Angle using (3) 3/8-16 x 3/4" Low Shoulder Carriage Bolts and (3) 3/8"-16 Hex Nuts (Figure 2a). Slots will line up with holes in the Horizontal and Vertical Angle. To determine which row of slots to fasten the Universal End Bearing Plate to, refer to Chart 2 and Figure 2b.

Example: applications using the 800-384 drums (5" or 6" EBP dimension, Chart 1), and 15R track, you would use the lower row of slots marked 5-6 in Figure 2b, and as illustrated in Figure 2a.

Note G: For all 12" radius applications use the row of slots identified in Figure 2b.

Step 5: Press the leg of the Universal Bearing Plate against the Jamb. Pre-drill a 3/16" pilot hole and attach the Universal Bearing Plate to the jamb with (1) 1/4-20 x 1" TEK Screw (Figure 2c).

⚠ WARNING Do not attach Track, EBP or Spring components directly to sheet rock.

Note H: Universal End Bearing Plate is shown with the leg mounted facing out (leg out), but may be mounted leg in. **Bearing must always be mounted to the outside, away from the drum.**

Repeat Steps 1-5 for the Right Side End Bearing Plate

For Torsion Spring Installation Instructions refer to page 7, Steps 1-7, of the Basic Installation Instructions.

Note I: Doors exceeding 800 lbs. (using the 900 lb. Bolt on Bearing) **require** a Spacer (supplied with the bearing) to be installed between the drums and the Universal Bearing Plate (Figure 3a). The Spacer will position the drums off the side of the Universal Bearing Plate so the Carriage Bolt heads do not interfere with the Drums.

Chart 1 - Reference Figure 1b

Bolt-on Bearing Spacing	
Drums	Dimension
400-96	3-3/8
400-144	3-3/8
525-216	3-3/8
800-384	5 - 6
5250-54	4-3/8
5750-120	5 - 6
6375-164	5 - 6

Chart 2 - Reference Figure 2b

Univ. Bearing Plate Spacing	
Drums	Dimension
400-96	3-3/8 or 4-3/8
400-144	3-3/8 or 4-3/8
525-216	3-3/8 or 4-3/8
800-384	5 - 6
5250-54	3-3/8 or 4-3/8
5750-120	5 - 6
6375-164	5 - 6

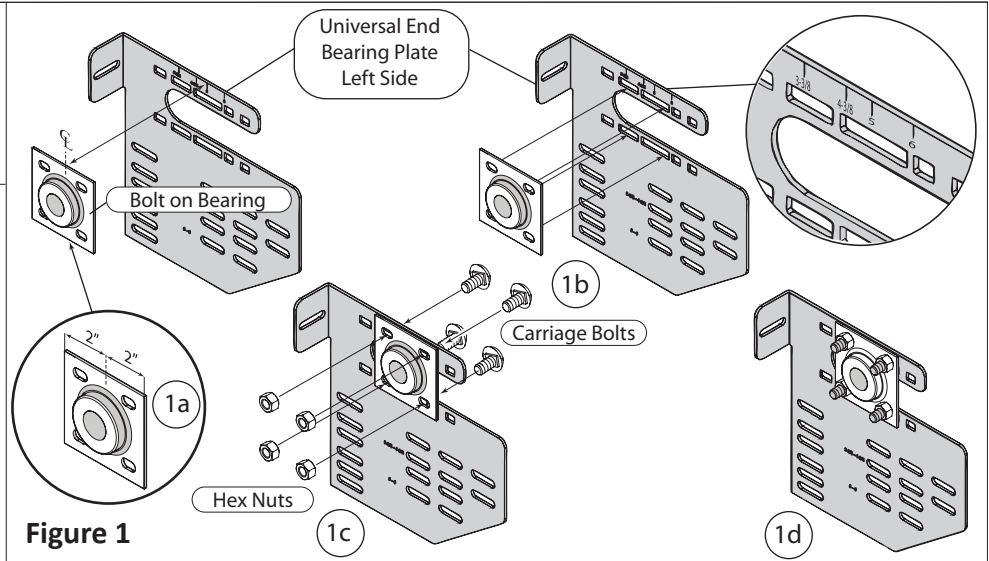


Figure 1

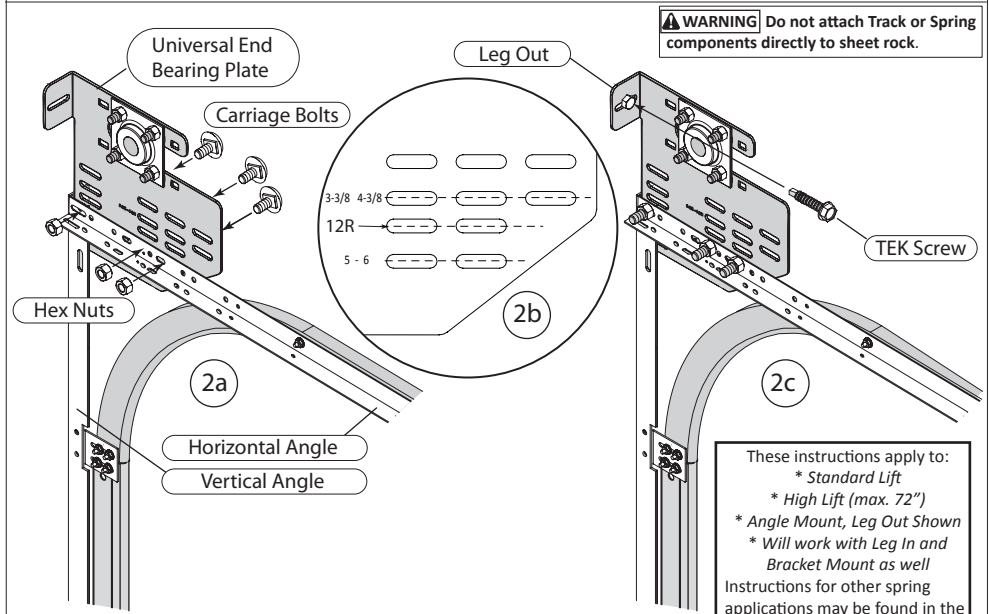


Figure 2

Left Side Shown

These instructions apply to:
 * Standard Lift
 * High Lift (max. 72")
 * Angle Mount, Leg Out Shown
 * Will work with Leg In and Bracket Mount as well
 Instructions for other spring applications may be found in the Supplemental Instructions and/or supplied with springs.

⚠ DANGER
 Failure to use approved winding bars could result in injury or death.

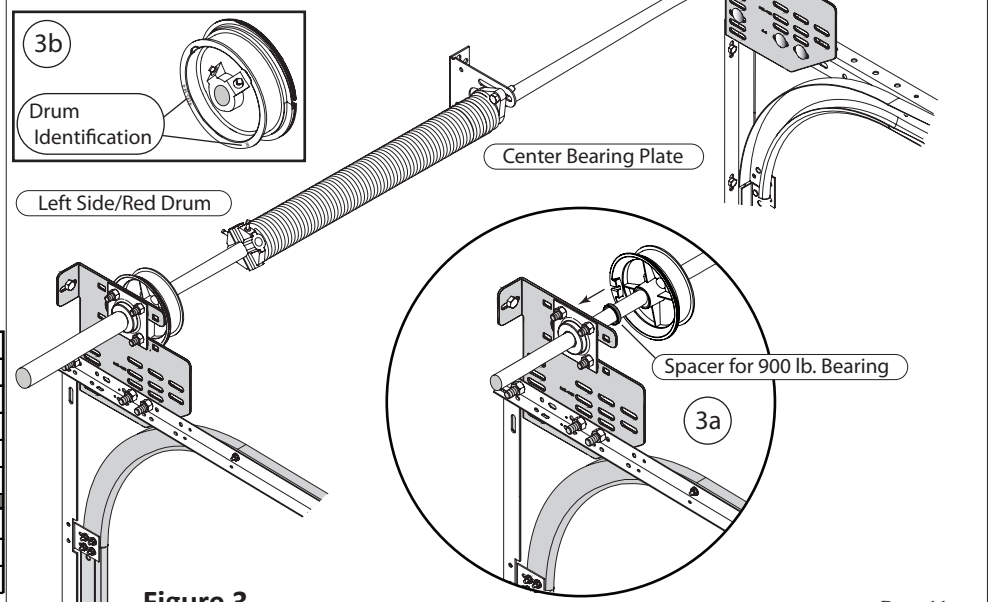


Figure 3

Low Head Room Front (LHF) Track Installation Instructions

Step 1: LH Bottom Bracket Attachment

Place the bottom section face down on a sturdy pair of padded saw horses (Figure 1). Insert the Cable Pin into the square hole in the Bottom Bracket, from the inside. Then insert the looped end of the Lift Cable onto the Cable Pin. Push the Cable Pin through the round hole from the inside (Figure 1a). With the Lift Cable securely installed, slide the Cotter Pin through the hole in the Cable Pin, then bend out one leg of the Cotter Pin. Slide the right Bottom Bracket to the bottom of the right end stile. Fasten the bracket with (3) 1/4"-20 x 1" RED TEK Screws. Insert the Long Stem Roller into the Bottom Bracket.

Repeat Step 1 for the left side LH Bottom Bracket.

Note: The LH Bottom Brackets will be used for Low Headroom Outside Hook Up applications.

Step 2: Horizontal Track to Vertical Track Attachment. (Left Side Assembly shown)

Attach the radius (curved) end of the Horizontal Track Assembly to the Vertical Track with (2) 1/4" x 5/8" Track Splice Bolts and (2) 1/4"-20 Hex Nuts (Figure 2a). Temporarily support the back end of the track using a rope or wire attached to the ceiling.

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

Note: In a Low Head Room installation, only the Top Rollers go into the Upper Horizontal Track. All other Rollers go into the Lower Horizontal Track.

Step 3: Starter Plate to Vertical Angle Attachment

Attach the end of the Starter Plate to the Vertical Angle with (1) 3/8" x 3/4" Low Shoulder Carriage Bolt and (1) 3/8"-16 Hex Nut (Figure 2b).

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

Step 4: Track Hanger Installation (Figure 2c)

SEE PAGE 8 OF THE SUPPLEMENTAL INSTRUCTIONS FOR DETAILS.

Note: Repeat steps 1-3 for Right Side Horizontal Track to Vertical Angle Attachment.

Important: Track needs to be spaced minimum 1/2" from the sections to prevent the sections from falling out of the track.

Step 5: Inspecting the Track Installation

Make sure track is level and square with the opening. Make sure that the distance between the track and the door is the same at the bottom of the vertical track, at the curve of the horizontal, and at the back of the horizontal track (approximately 1/2"). Adjustment to the track position may need to be made later, after the door is opened to maintain the proper spacing.

Step 5: Remove all Temporary Nails

Step 6: Pull Rope Installation

If an electric opener is not used, attach one end of the pull rope to the Low Head Room Bottom Bracket and the other end to the second jamb bracket.

⚠ DANGER For Torsion Spring Installation, go to page 7 of the Basic Commercial Installation Instructions.

Note: As with Low Head Room rear mount, Commercial LH front mount requires drums to be moved to the outside, with the Red Drum mounting on the right side and the Black Drum mounted on the left side (Figure 2d).

After the springs are installed, proceed to page 6, Step 22 of the Basic Door Installation Instructions to finish the installation.

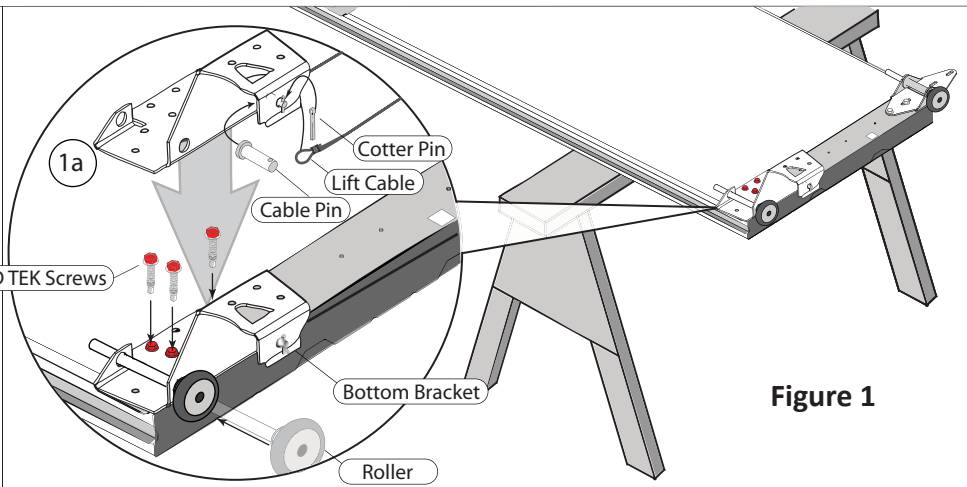


Figure 1

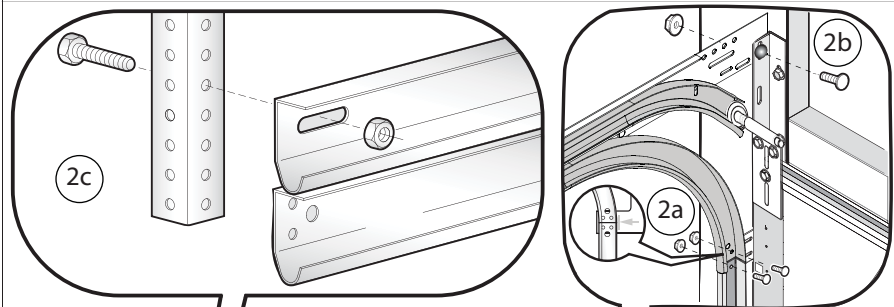
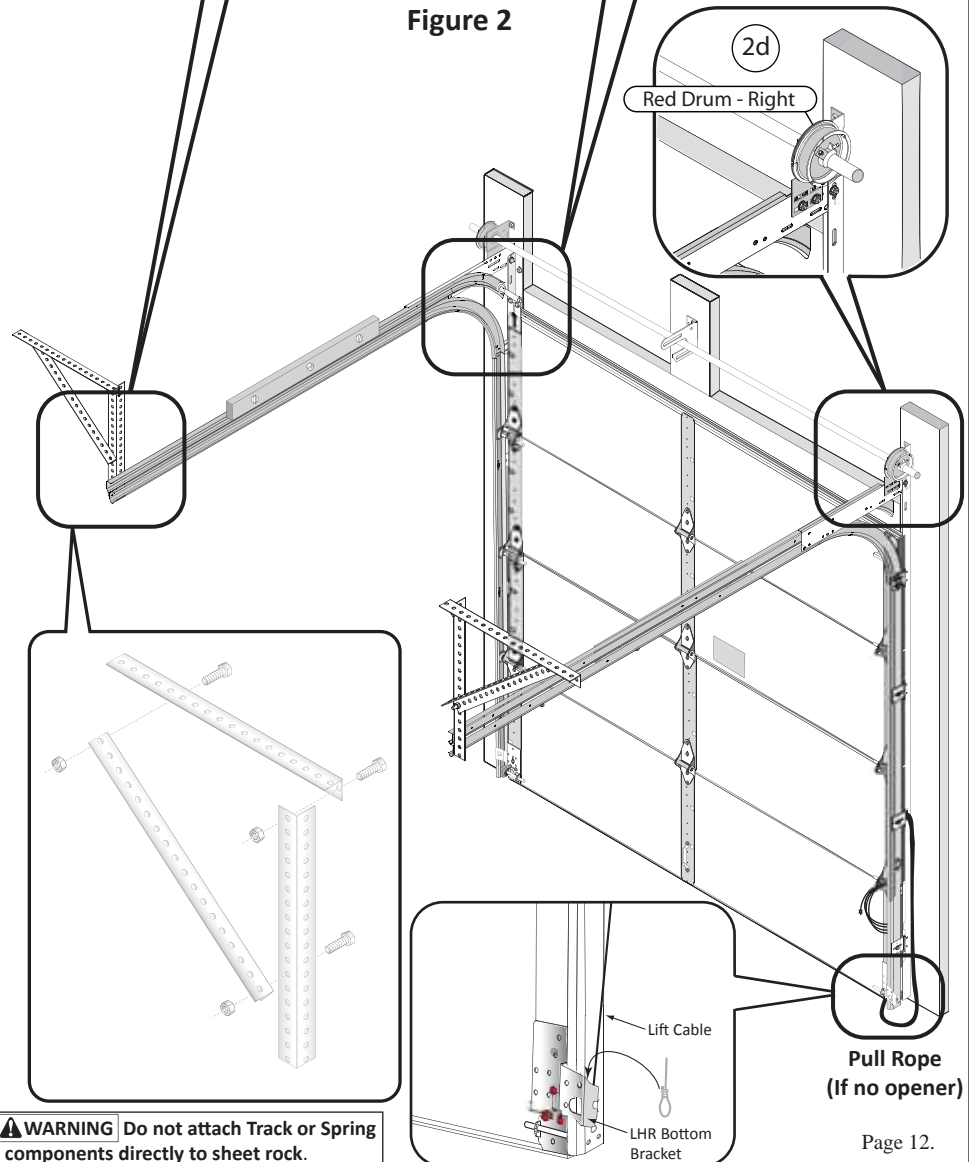


Figure 2



⚠ WARNING Do not attach Track or Spring components directly to sheet rock.

⚠ 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.

Low Head Room Rear (LHR) Mount Track Installation Instructions

Step 1: Attach the Low Head Room Bottom Bracket to the bottom of the section. Install the Out Side Hook-Up (OHU) Bottom Bracket as shown in Fig 1, using (3) 1/4"x5/8" RED Universal Fasteners. Repeat for the left side Bottom Bracket.

Step 2: Attach the Track Hangers as shown on Page 8 of the Supplemental Instructions (left & right). Do not fasten to end of track. Fasten next to the Junction Plate as shown in Fig 2 (right shown).

Step 3: Fasten the Right Side Flat End Bearing Plate as shown in Fig 3, using (2) 3/8"x1-1/2" Machine Bolts and (2) 3/8"-16 Hex Nuts as show (Fig 3). Repeat this step with the Left Side Flat End Bearing Plate.

Step 4: Install the Torsion Shaft with the Spring(s) and Nylon Bearing, through the Flat End Bearing Plates (Fig 4).

Step 5: Using the Torsion Shaft as a reference and keeping the shaft level, install an additional Track Hanger assembly to support the Center Bearing Plate (Fig 5).

Note: Install this Track Hanger and Center Bearing Plate as close to the middle of the torsion bar as possible allowing room for an opener if installed.

⚠ WARNING This Track Hanger Assembly will not only support the Center Bearing Plate but will need to be strong enough to withstand the torque produced by the spring(s). Additional Lag Bolts into your structure are recommended.

Step 6: Attach the Center Bearing Plate to the center Track Hanger with (2) 3/8"x1-1/2" RED Machine Bolts and (2) 3/8"-16 RED Hex Nuts (Fig 5).

Note: Be sure the Torsion Shaft is level.

Step 7: Install the Left Side Spring and Nylon Bearing as shown in Figure 5. Attach the spring to the Center Bearing Plate with (2) 3/8"x1-1/2" RED Machine bolts and (2) 3/8"-16 RED Hex nuts.

Step 8: Install the Cable Drum (marked Red) onto the right side of the shaft as shown in Figure 6. Slide the Cable Drum (marked Black) on the left side of the shaft, outside of the track, as shown in the assembled drawing.

Note: Cable Drums are reversed due to outside hook-up.

Step 9: Attach one Pulley to the Sheave Support (Fig 7A) with (1) 3/8"x1-1/2" RED Machine bolt and (1) 3/8"-16 RED Hex nut. Repeat for the left side Pulley and Sheave Support.

Step 10: Attach one Pulley and Sheave Support Assembly to the Starter Plate, (Fig 7B) in a slot and hole, between the upper and lower horizontal track, with (2) 1/4-20x1 Machine bolts and (2) 1/4-20 Hex Nuts. Repeat for the left side Sheave Support Assembly.

Step 11: Attach the looped end of the Lift Cable to the right side OHU Bottom Bracket (Fig 1 & 6). Loop the cable over the Pulley and run back to the Drum, inserting the cable stop into the slot in the Drum. Repeat for the left side Drum.

Step 12: Pull Rope Installation
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.

⚠ DANGER For Torsion Spring Installation, go to page 7 of the Door Installation Instructions.

After the springs are installed, proceed to page 6, Step 28 of the Door Installation Instructions to finish the installation.

02.23.11

Assembled View

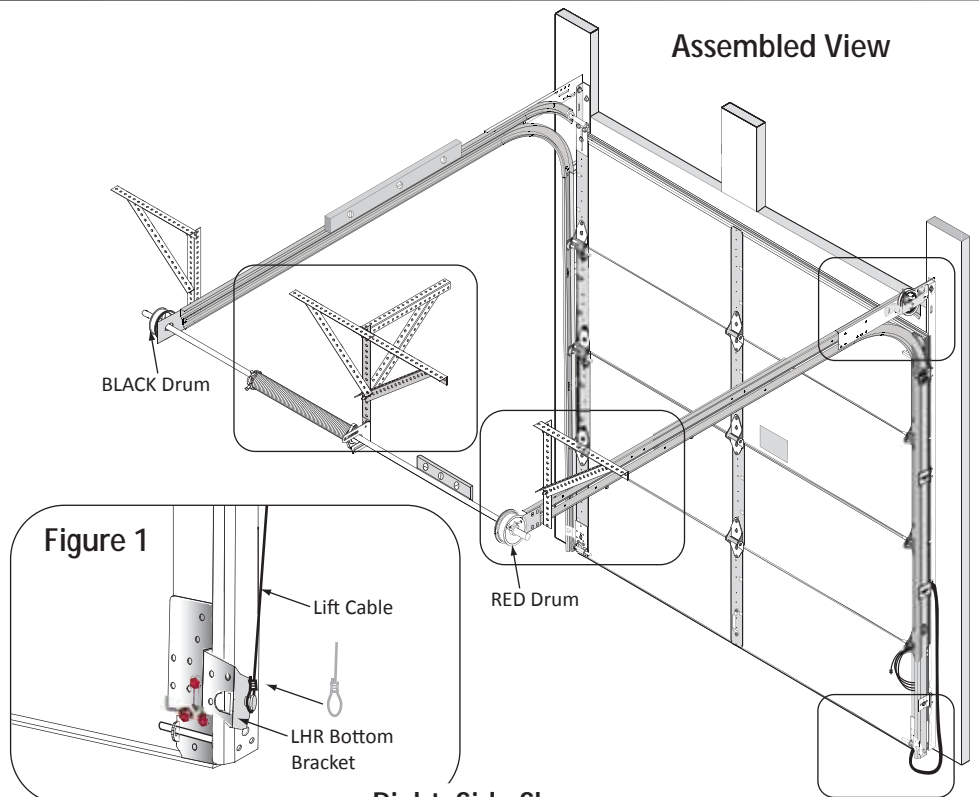
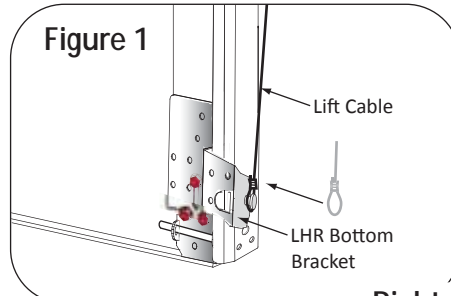


Figure 1



Right Side Shown

Figure 2

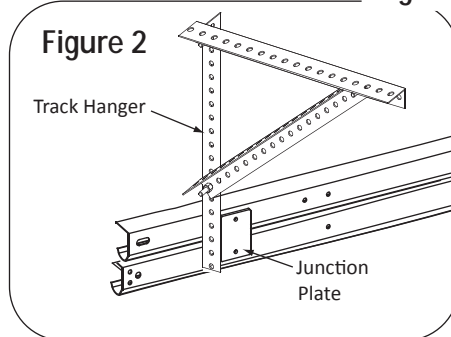


Figure 3

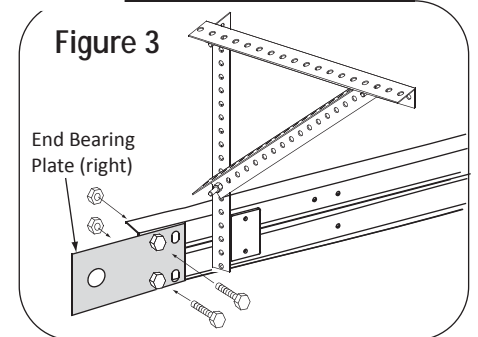


Figure 4

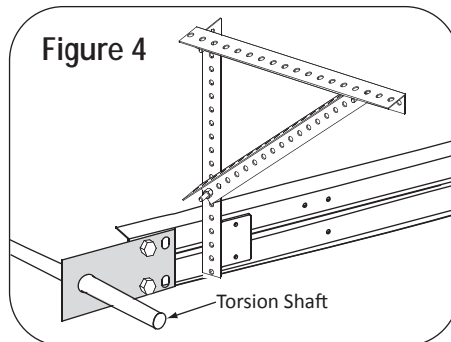


Figure 5

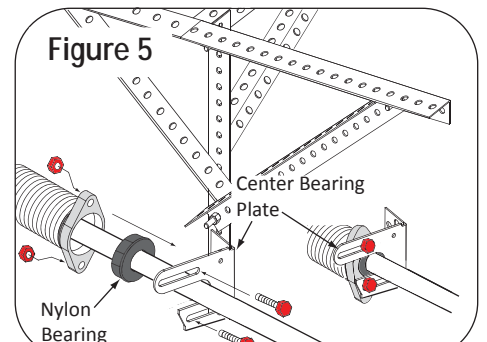


Figure 6

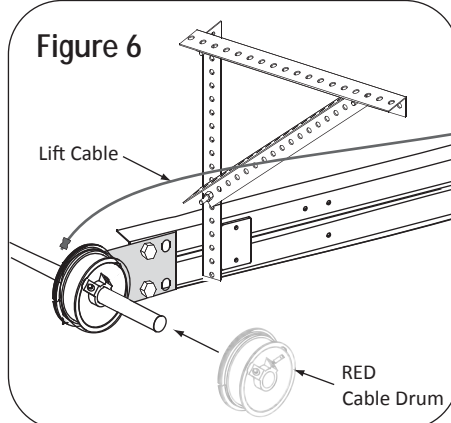
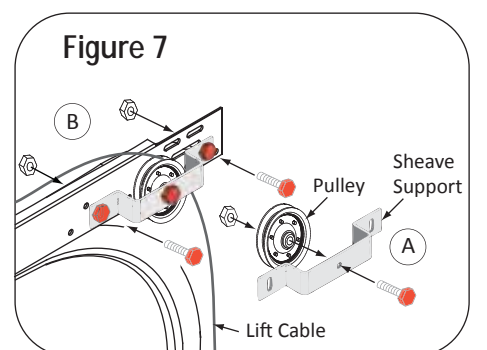


Figure 7



Installation Instructions for High Lift Applications

Note: Begin from **Step 14**, page 5, of the **Basic Instructions**. Vertical Track Assembly should be installed, level and plumb, as shown (Figure 6, page 4).

Note: Shown is a 48" High Lift Standard, Reverse Angle (leg in), application. Your installation may require leg out, bracket mount or 3" tapered reverse angle mount to meet your specific jamb application.

Note: Use ladder where required.

Step 1: Installing the *Left Side* High Lift Assembly (HL). Raise the HL Assembly so that the HL Angle and Track align with the Vertical Track and Angle (Figure 1).

Note: It is important that this transition be aligned correctly for the rollers to travel smoothly.

Using a level against the HL assembly, be sure the HL assembly is plumb. Pre-drill holes through slots in the angle (using a 3/16" drill bit) to help start the TEK screws into the jamb (Figure 1a & 1b). With the HL assembly properly aligned and plumb, securely attach the HL assembly to the jamb using (2) 1/4"-20 x 1" TEK screws in the Vertical Angle as shown (Figure 1c & 1d).

Note: Continue the process of pre-drilling and attaching 1/4"-20x1" TEK screws through all remaining slots in the angle.

Attach the HL Splice Plate to the Lower and Upper Vertical Angle using (2) 3/8"-16 x 3/4" Low Shoulder Carriage Bolts and (2) 3/8"-16 Hex Nuts (Figure 1e & 1f).

Attach the HL Track to the Splice Plate already attached to the Lower Vertical Angle with (2) 1/4"-20 x 5/8" Track Splice Bolts and (2) 1/4"-20 Hex Nuts (Figure 1g & 1h).

Note: Hex Nuts always go to the outside of the assemblies, away from the door.

Repeat Step 1 for the Right Side High Lift Assembly.

Note: Before beginning this step, assemble the Right and Left side Universal End Bearing Plates (EBP) as shown on page 2 of the Supplemental Instructions.

Step 2: Installing the *Left Side* Horizontal Track and Universal End Bearing Plate Assembly (EBP). Attach the curved end of the Horizontal Assembly to the HL Vertical Assembly with (2) 1/4"-20 x 5/8" Track Splice Bolts and (2) 1/4"-20 Hex Nuts (Figure 2a & 2b). Temporarily support the back end of the track using a rope or wire attached to the ceiling.

Note: It is important to support the back end of the Horizontal Assembly to prevent damaging the track.

Note: The Horizontal Angle will not reach the Vertical Angle as it would in a Standard Lift application (Figure 2c). This is correct.

Attach the EBP to the inside of the Horizontal and Vertical Angle (Figure 2d, 2e & 2f) using (3) 3/8"-16 x 3/4" Low Shoulder Carriage Bolts and (3) 3/8"-16 Hex Nuts.

Pre-drill a hole through slot in the EBP (using a 3/16" drill bit) to help start the TEK screw into the jamb (Figure 2g & 2h). With the Horizontal Track assembly properly aligned and level, securely attach the EBP to the jamb using (1) 1/4"-20 x 1" TEK screw as shown (Figure 2g & 2h).

Repeat Step 2 for the Right Side Horizontal Track and Universal End Bearing Plate Assembly.

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

Step 3: Inspecting the Track Installation
Using a tape measure and level, make sure the track is level and square with the opening. 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"-1/2"). Adjustment to the track position may need to be made later (to maintain the proper spacing) after the springs are installed and the door is opened and closed.

Go to Page 5 of the Basic Commercial Instructions and begin with **Step 16: Track Hanger Installation**, to continue with installation.

Bumper Spring Installation - Required

After all sections and springs have been installed and tested for correct operation, Bumper Springs will need to be installed.

Note: Use ladder where required.

Important: After the springs are wound special attention must be taken to assure that the door does not travel past the end of the horizontal tracks.

Step 1: Installing the *Left Side* Bumper Spring. Raise the door the required amount for your application or to the bottom of horizontal jamb.

Step 2: Place the Bumper Spring so that it is making light contact with the top of the section (Figure 3a). Mark or scribe where the holes in the Bumper Spring mounting bracket meet the inside of the track (Figure 3b).

Step 3: Using a 7/16" drill bit, drill (2) holes where marked on the track.

Step 4: Securely fasten the Bumper Spring mounting bracket to the inside of the track using (2) 3/8"-16x1-1/4" bolts and (2) 3/8"-16 nuts.

Repeat Steps 1-4 for the Right Side Bumper Spring.

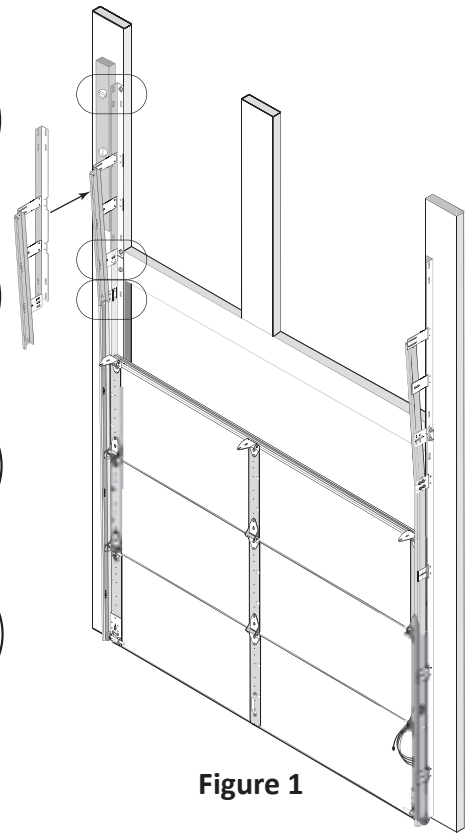
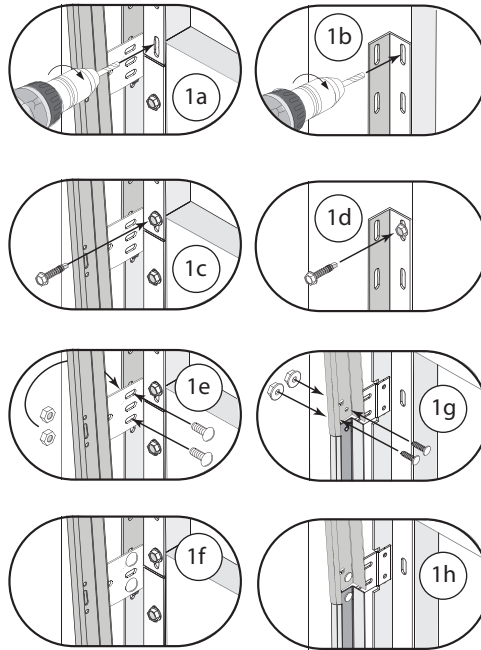


Figure 1

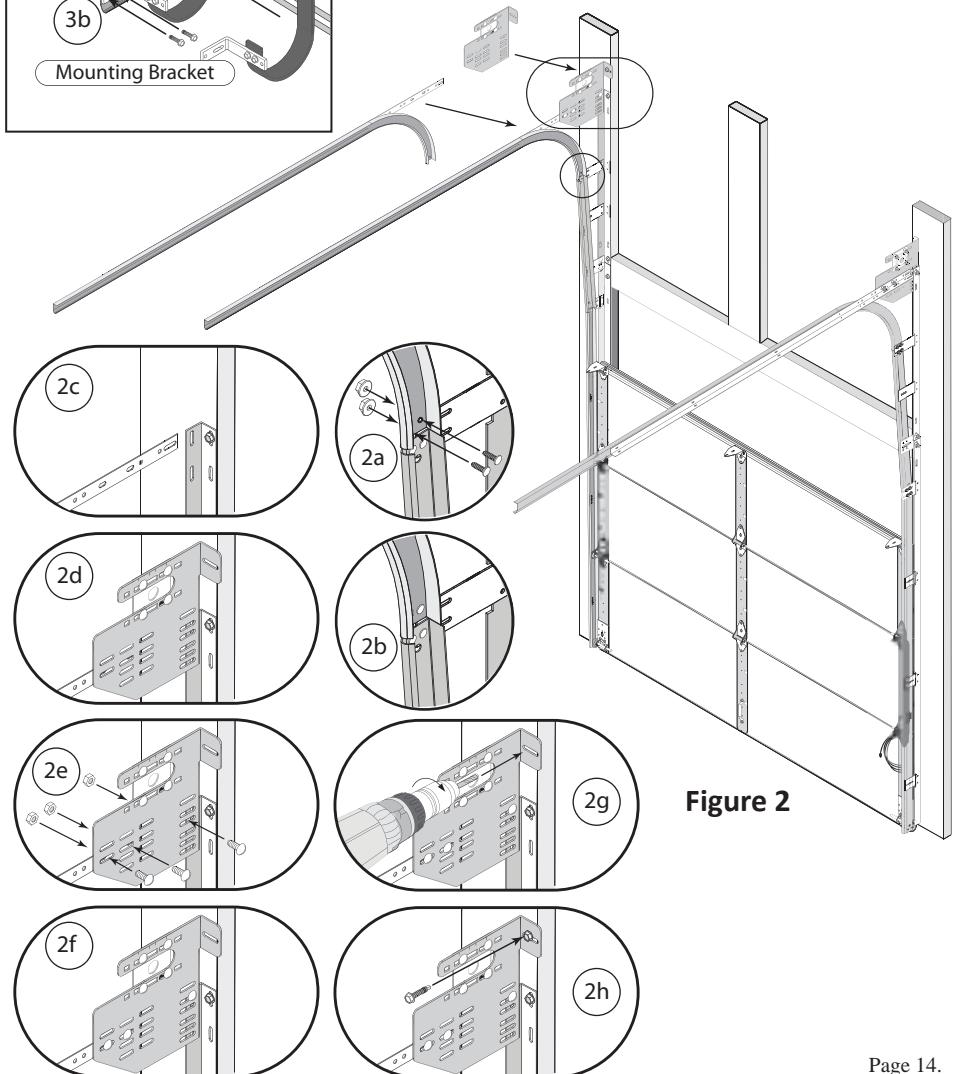
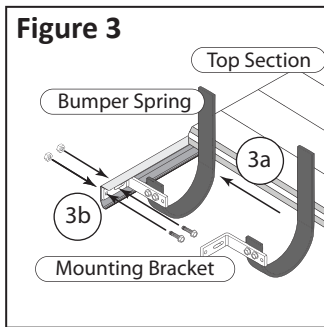


Figure 2

⚠ 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.

Installation Instructions for Vertical Lift Applications

Note: Begin from **Step 14**, page 5, of the **Basic Instructions**. Vertical Track Assembly should be installed, level and plumb, as shown (Figure 6, page 4).

Note: Shown is a Vertical Lift Standard, Reverse Angle (leg in), application. Your installation may require leg out, bracket mount or 3" tapered reverse angle mount to meet your specific jamb application. Basic installation will be the same.

Note: Use ladder where required.

Step 1: Installing the *Left Side* Vertical Lift Assembly (VL). Raise the VL Assembly so that the VL Angle and Track align with the Lower Vertical Track and Angle (Figure 1).

Note: It is important that this transition be aligned correctly for the rollers to travel smoothly.

Using a level against the VL assembly, be sure the VL assembly is plumb. Pre-drill holes through slots in the angle (using a 3/16" drill bit) to help start the TEK screws into the jamb (Figure 1a & 1b).

With the VL assembly properly aligned and plumb, securely attach the VL assembly to the jamb using (2) 1/4-20 x 1" TEK screws in the Vertical Angle as shown (Figure 1c & 1d).

Note: Continue the process of pre-drilling and attaching 1/4-20x1" TEK screws through all remaining slots in the angle.

Attach the VL Splice Plate to the Lower and Upper Vertical Angle using (1) 3/8"-16 x 3/4" Low Shoulder Carriage Bolts and (1) 3/8"-16 Hex Nuts (Figure 1e & 1f).

Attach the VL Track to the Splice Plate already attached to the Lower Vertical Angle with (2) 1/4"-20 x 5/8" Track Splice Bolts and (2) 1/4"-20 Hex Nuts (Figure 1g & 1h).

Note: Hex Nuts always go to the outside of the assemblies, away from the door.

Repeat Step 1 for the Right Side Vertical Lift Assembly.

Important: Vertical Track must be spaced 3/8"-1/2" from the sections to prevent the sections from falling out of the track.

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

Go to Page 6 of the Basic Commercial Instructions and begin with **Step 18: Installing Top Section Hardware**, to continue with installation.

Bumper Spring Installation - Required

After all sections and springs have been installed and tested for correct operation, Bumper Springs will need to be installed.

Note: Use ladder where required.

Step 1: Installing the *Left Side* Bumper Spring. Raise the door the required amount for your application or to the bottom of header.

Important: After the springs are wound special attention must be taken to assure that the door does not travel past the end of the vertical tracks.

Step 2: Place the Bumper Spring so that it is making light contact with the top of the section (Figure 2a). Mark or scribe where the holes in the Bumper Spring mounting bracket meet the inside of the track (Figure 2b).

Step 3: Using a 7/16" drill bit, drill (2) holes where marked on the track.

Step 4: Securely fasten the Bumper Spring mounting bracket to the inside of the track using (2) 3/8"-16x1-1/4" bolts and (2) 3/8"-16 nuts.

Repeat Steps 1-4 for the Right Side Bumper Spring.

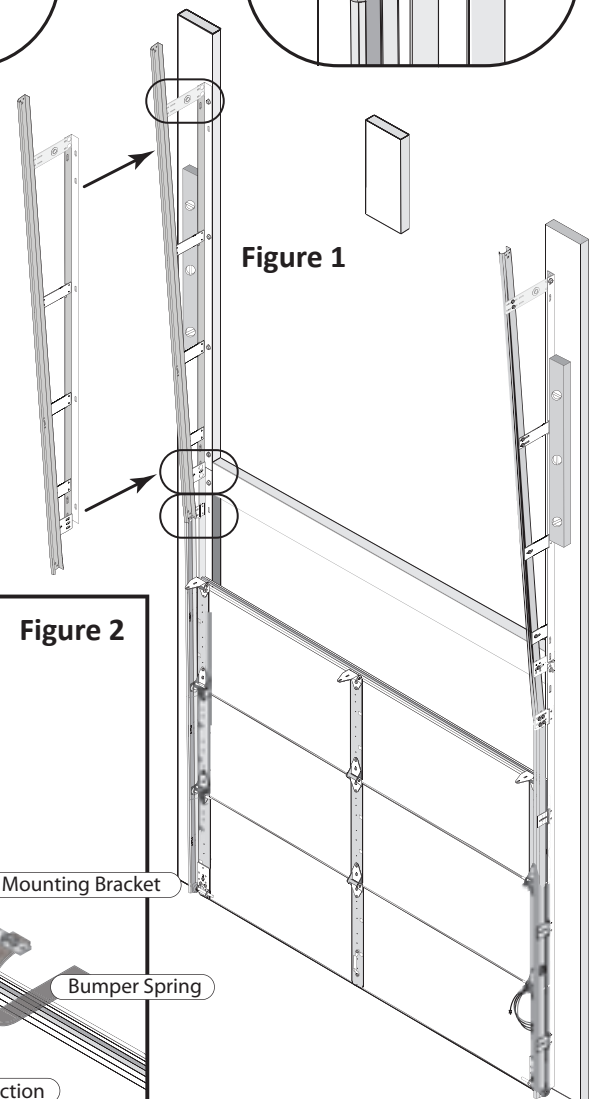
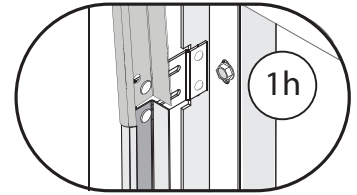
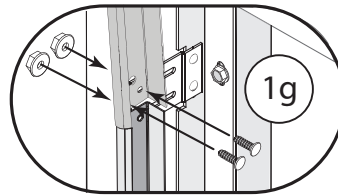
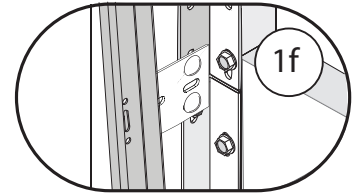
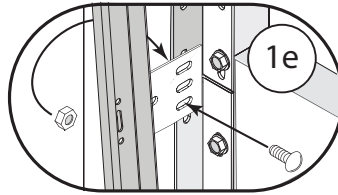
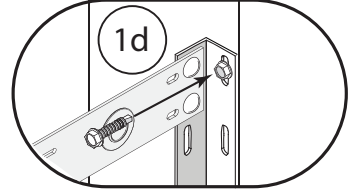
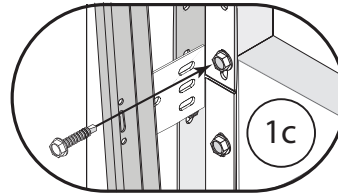
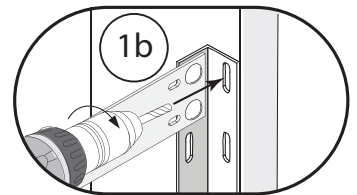
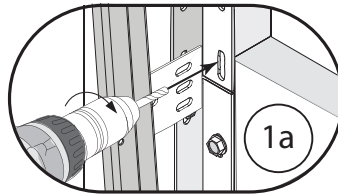


Figure 1

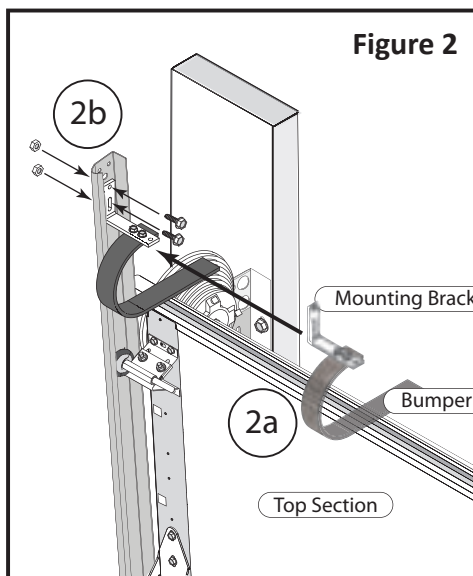


Figure 2

FOLLOW-THE-ROOF-PITCH &
HIGH LIFT FOLLOW-THE-ROOF-PITCH
TRACK APPLICATIONS
require specific installation instructions
NOT packed with this kit.

For instructions specific to your application:

Email - engineeringdept@amarr.com

or

Call - Curtis Terry - 336-251-1301

Mike Jones - 336-251-1305

with any questions or if you need instructions faxed
or mailed to you.

Attempted installation without proper instructions
will invalidate the ***Amarr Limited WARRANTY.***

Track Hanger Installation Instructions

Note: Doors are not supplied with Track Hanger or fasteners. These items must be purchased separately.

Step 1: (Right Side shown) Keeping the horizontal track square, level, and parallel to each other, mark a spot on your ceiling directly above the end of the horizontal track (Fig 1). Note: If your ceiling is not finished in sheet rock, skip to step 3.

Step 2: Using a hammer, tap around your mark to find a ceiling joist/beam and mark the spot (Fig 2/3/4). Then, move to the right or left approximately 18"-24" and tap around to find a second ceiling joist/beam (Fig 2/3).

Step 3: Mark and cut a piece of hanger angle to span the distance between the ceiling joists/beams plus 4" (Fig 8/9).

Step 4: Securely fasten each end of the hanger angle to the ceiling joists/beams using (2) 5/16"x1-5/8" Lag Bolts (Fig 5/6). Note: Pre-drill the two 3/16" holes to prevent splitting of the wood.

Step 5: Measure the distance from the bottom of the Horizontal Track to the top of the Hanger Angle (Fig 7). Mark and cut a piece of Hanger Angle this distance (Fig 8/9).

Step 6: Mark and cut a short piece of Hanger Angle to form a 45° brace (Fig 8/9/10). Securely fasten the Hanger Angles using (3) 3/8"x1-1/2" Machine Bolts and (3) 3/8"-16 Hex Nuts as shown in Figure 10.

Step 7: (Standard Lift) Securely fasten the vertical Hanger Angle to the Horizontal Track using (1) 3/8"x1-1/2" Machine Bolt and (1) 3/8"-16 Hex Nut (Fig 11).

Step 7: (Low Head Room) Securely fasten the vertical Hanger Angle to the Upper Low Head Room Horizontal Track using (1) 3/8"x1-1/2" Machine Bolt and (1) 3/8"-16 Machine Bolt (Fig 12).

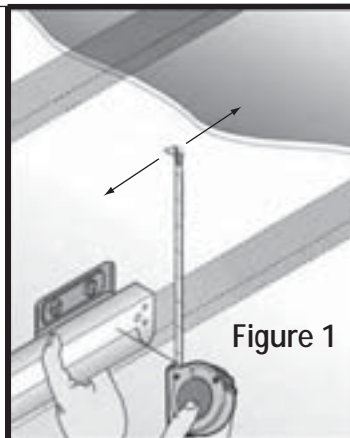


Figure 1

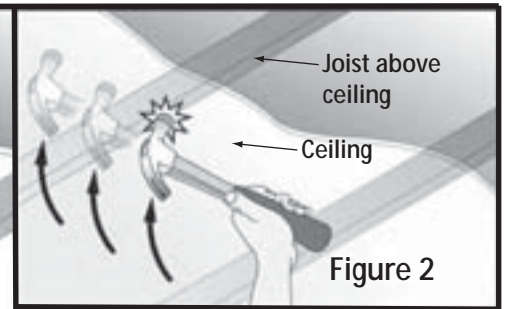


Figure 2

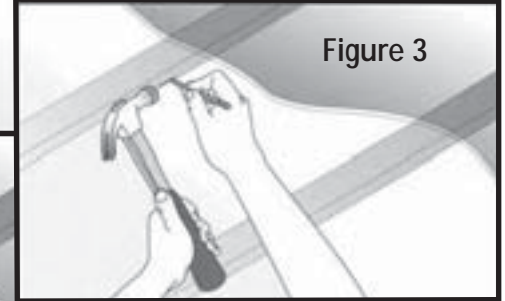


Figure 3

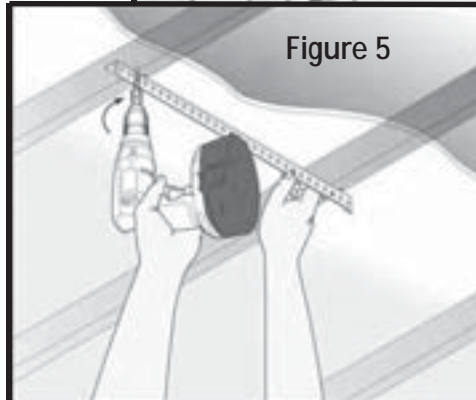


Figure 5

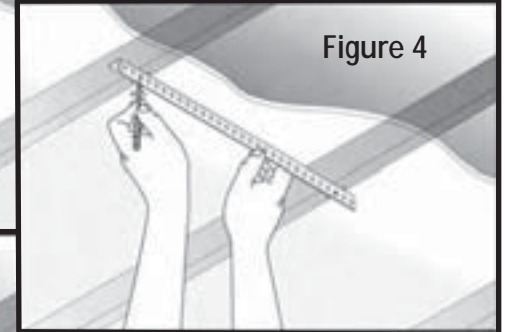


Figure 4

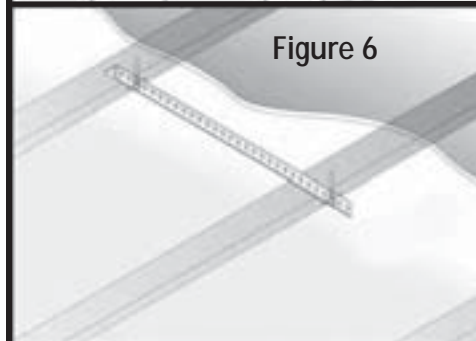


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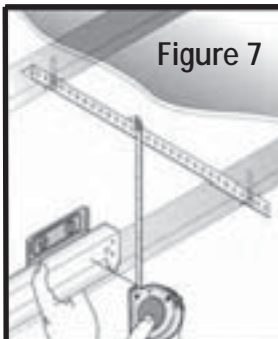


Figure 7

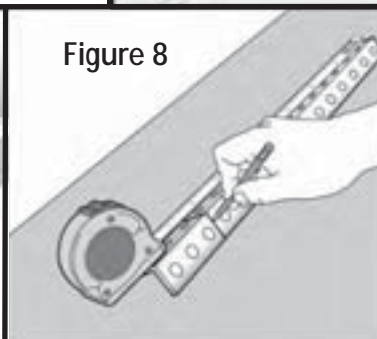


Figure 8

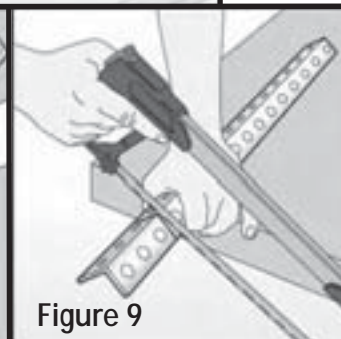


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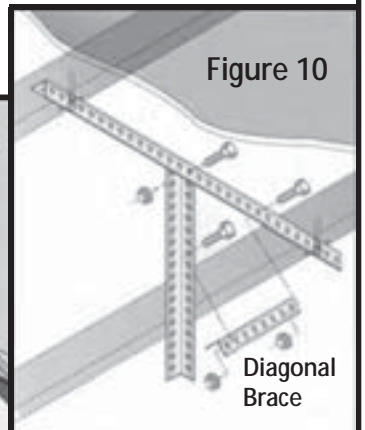


Figure 10

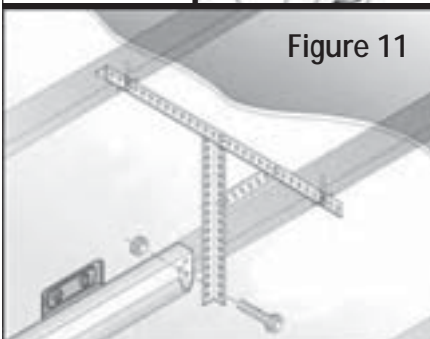


Figure 11

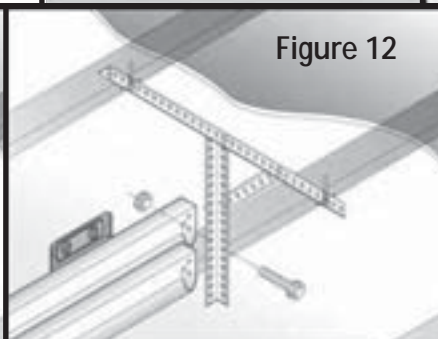
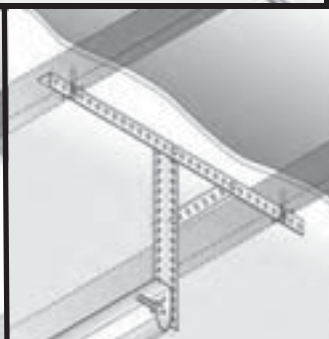
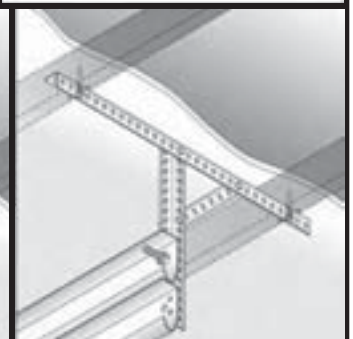


Figure 12



Finished Standard Assembly



Finished Low Head Room Assembly