Heritage and Stratford Doors with DuraSafe System

Insulated and Non-Insulated

INSTALLATION AND MAINTENANCE INSTRUCTIONS
RESIDENTIAL ONE AND TWO CAR DOORS

P.O. Box 288, Winston Salem, NC 27102-0288
www.amarr.com

⚠ DANGER ⚠

DOOR WILL BE UNDER CONSTANT SPRING TENSION. ADJUSTMENTS AND REPAIRS SHOULD BE PERFORMED BY A QUALIFIED DOOR SERVICE COMPANY.

⚠ WARNING ⚠

FAILURE TO COMPLY WITH THESE INSTRUCTIONS INVALIDATES THE WARRANTY. BEFORE YOU BEGIN THE INSTALLATION, READ ALL OF THE INSTRUCTIONS THOROUGHLY.

This door meets DASMA 116 pinch resistant requirements when installed with hardware shown in these installation instructions.

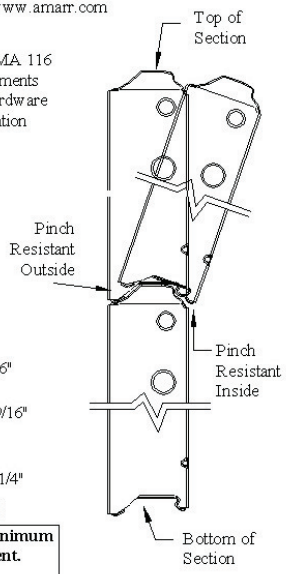


Figure 1-A

IMPORTANT

WE RECOMMEND THAT INSTALLATION AND/OR REPAIR OF GARAGE DOORS BE PERFORMED BY A QUALIFIED GARAGE DOOR INSTALLER.

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

Both one and two-car doors are installed in the same manner. Door widths up to 14' do not require struts unless required for windload or electric opener reinforcing.

In the event that an electric opener is installed, the top section must be reinforced, as shown in these instructions, with either a strut or with a single piece of 14-gauge angle iron spanning the entire length of the top section. See page 4, Steps 8a, 8b, 8c and 8d.

Remove pull ropes and disable locks when an electric opener is installed.

Damage to the garage door due to an improperly installed or adjusted electric opener is not covered by Amarr's warranty. See Table 2.

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 Homeowner Information Bag is posted on the door jamb and the warranty information is filled out (Figure 15).

Notice to Architects and Designers
Architects and designers should consider when designing a building the forces a garage door system transmits to the building structure openings, such as the jambs, anchor pads, headers, and horizontal track. Since these forces vary, load information may be obtained by contacting Amarr's Engineering Department.

Tools Required:

- Six Foot (6') Step Ladder
- Level 24" or 48"
- Claw Hammer
- (10) 16-Penny Nails
- Vise Grip Pliers
- Socket Wrench
- Sockets: 3/8", 7/16" and 9/16"
- Utility Knife
- Wrenches: 3/8", 7/16" and 9/16"
- Screwdriver
- Electric Drill
- Drill Bits: 3/32", 3/16" and 1/4"

Wind Load Notice:

These instructions include minimum requirements for reinforcement. Amarr recommends that you contact your local building offical for specific wind load requirements in your area.

Step 1:
The garage door opening MUST be the same size as the door (Figure 1). The opening must be framed with 2"x6" min wood jambs. 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 jambs and securely anchored to the wall.

Table 1 - Headroom Chart

Type of Spring	Track Radius	Minimum Headroom Required
Extension	12"	12"
Extension	15"	15"
Torsion	12"	12"
Torsion	15"	15"

Step 1a: Perimeter Seal Installation
Temporarily nail the perimeter seal to the edges of the jambs, flush with the inside (Figure 1).

Step 1b:
Check section height chart (Table 2) to ensure proper placement of sections. Except for bottom section (which has rubber on the bottom of it) all equal size sections are interchangeable. The inside of the sections have pre-drilled holes for most fasteners. The top of the sections have a tongue (Figure 1-A).

Table 2 - Section Height and # Chart

Door Height	Bottom Section	2nd (Lock) Section	3rd Section	4th Section	5th Section
6'0	18"	18"	18"	18"	-
6'3	21"	18"	18"	18"	-
6'6	21"	18"	18"	21"	-
6'9	21"	21"	18"	21"	-
7'0	21"	21"	21"	21"	-
7'3	N/A				
7'6	18"	18"	18"	18"	18"
7'9	21"	18"	18"	18"	18"
8'0	21"	18"	18"	18"	21"

Note: These are suggested section arrangements.

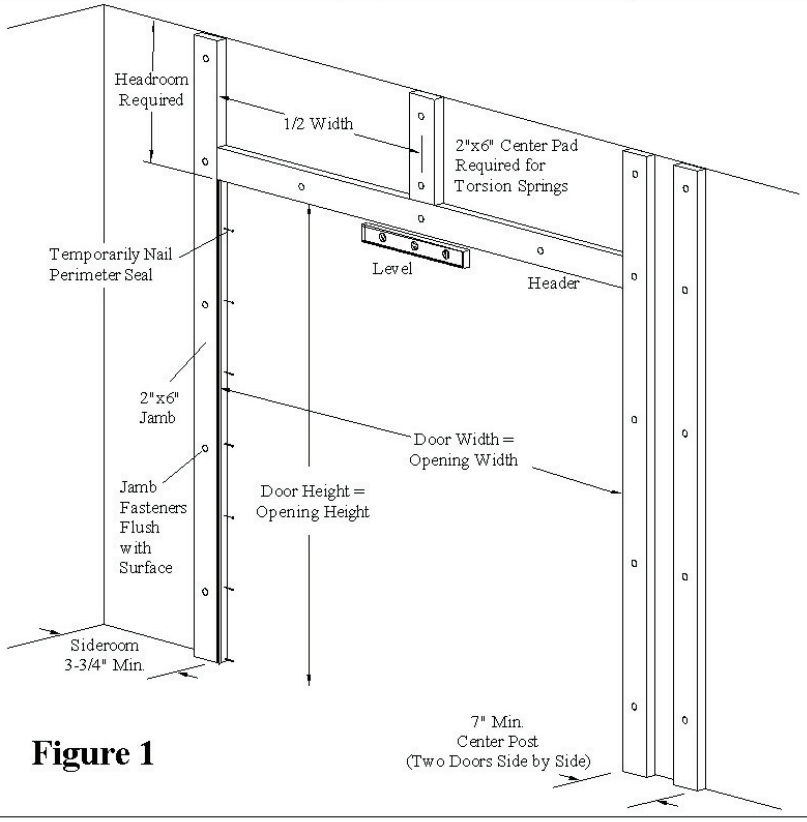
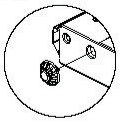


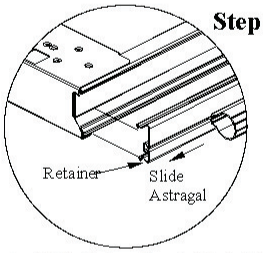
Figure 1

Step 2: Installing Bottom Section Hardware
Place the bottom section down on 2 or more sawhorses, (Figure 2). It is recommended to cover tops of sawhorses with carpet or cloth to prevent the door sections from being scratched or damaged.

Step 2a: Cable Guide Installation
Locate cable guides. If these are not already attached insert into extruded holes as shown. These are only used on the bottom section.



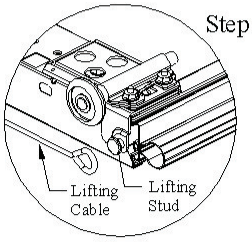
Step 2b: Bottom Retainer and Astragal Installation
Locate bottom retainer and vinyl astragal; install if not already done, as follows:
Bottom retainer should measure the same length as the bottom section, cut off any excess with a hacksaw. Snap bottom retainer into groove of bottom section starting at one end and working down length of section. Insert and slide vinyl astragal retainer.



Step 2c: Safety Bottom Bracket Installation
Locate safety bottom brackets; move slider portion of bottom bracket down to expose holes in base plate. Align bottom bracket (left and right) to the bottom of the end stiles aligning holes in base plate with holes (19,21,22) on end stiles (Figure 2). Attach each bottom bracket with (3) 1/4"x5/8" universal screws. Move slide fully up until it engages, it should lock and not move down.

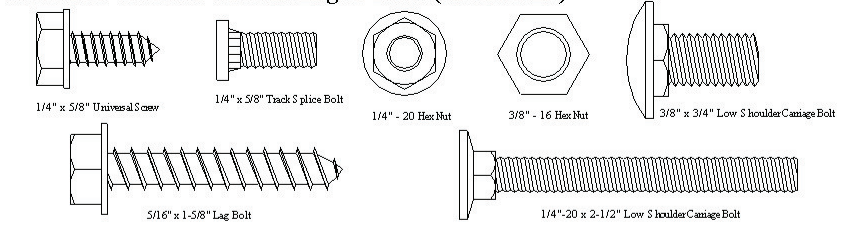
Note: Holes in stiles may not line up with all fixtures, handles and locks. Use 3/32" drill bit to start holes for fasteners where pre-drilled holes are not provided.

Step 2d: Cable Installation
Secure lift cable to the bottom bracket by hooking the looped end of the cable over the lifting stud. If two sets of cable are supplied, use the longer cable as lift cables. Insert rollers as shown.



Step 2e: Roller Carrier Installation
Roller carriers have numbers stamped on them for identification and their placement on the door is important (Figure 3). All roller carriers are attached to the end stiles with (2) 1/4"x5/8" universal screws, using holes (2 and 6). Insert rollers as shown.

Fasteners Used for Assembling of Door (Actual Size)



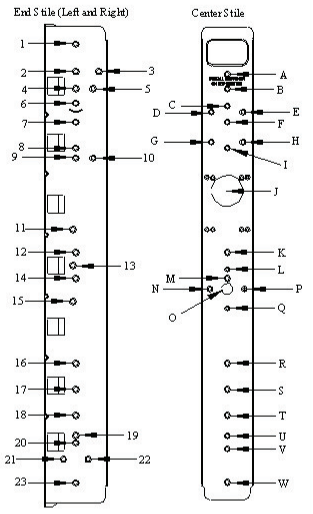
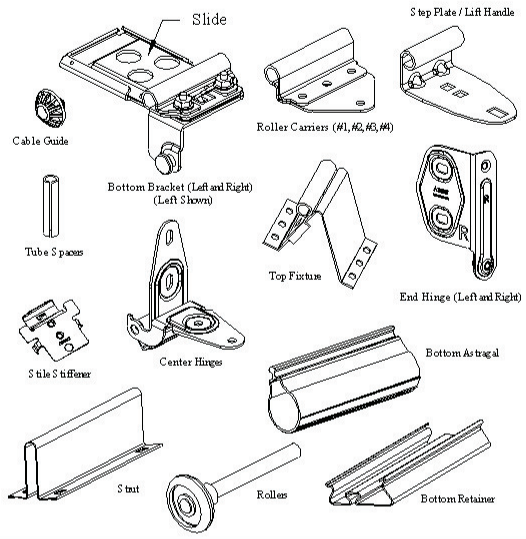


Figure 2

Parts for Assembling Sections (Not Actual Size)



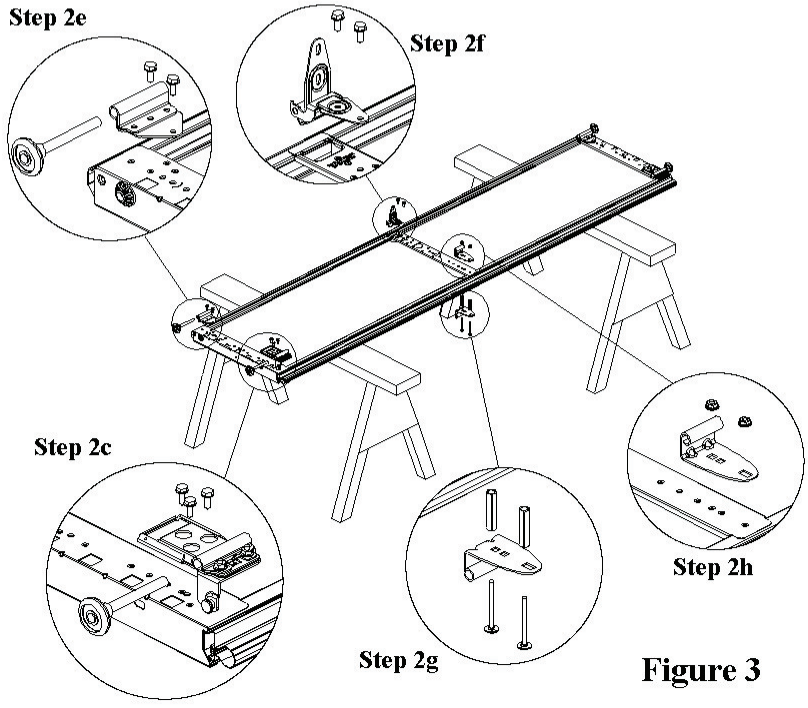


Figure 3

Step 2f: Center Hinge Installation
Locate the center hinge(s), rotate and insert the hinge(s) into the hinge pocket(s) as illustrated (Figure 3). All center hinges are attached using (2) 1/4"x5/8" universal screws using holes (B and C).

Steps 2g and 2h: Step Plate / Lift Handle Installation
Drill two (2) 1/4" holes straight through section using prepunched holes (U and W) as a template on the bottom end of the center stile. Install step plate / lift handle using (2) 1/4"-20 x 2-1/2" carriage bolts (head should be on the outside) and nuts (Figure 3).

Note: If your door is supplied with struts they must be attached according to (Figure 15). See strut schedule (Table 3) for location(s) of struts. All struts except on top section are to be attached just below the roller carriers and center hinges.

Step 3: Stacking Bottom Section in Opening
Place the hardwared bottom section in opening against the perimeter seal and centered from side to side. Place a level on the top of the section. If necessary, use a piece of wood as a shim under the low side to make level (Figure 4).

Note:
If it was required to raise one side of the bottom section to level it, that sides vertical track MUST be raised up the same distance for the door to operate properly.

Step 3a:
Temporarily secure section in opening by driving a 16-penny nail in the jamb at each end of the section and carefully bend it over the edge of the section to secure in place (Figure 4). Make sure section is securely held in place.

Warning: On a windy day door could fall during installation.

Note: Check the order in which the sections are to be stacked (Table 2).

Step 4: Installing Second Section Hardware
Place the second section (lock) section face down on saw horses. **Note: If the door will be installed with a lock, go to Step 4a on supplemental "Classic Lock" Installation Instructions sheet.**
Install #2 roller carriers as described in (Figure 3, Step 2e). Install center hinge(s) as described in (Figure 3, Step 2f). Go to Step 5.

Note:
If your door is supplied with struts they must be attached according to (Figure 15). See strut schedule (Table 3, Page 7) for location(s) of struts. All struts except on top section are to be attached as indicated in (Table 3, Page7) based on door width and height.

Step 5: Stacking Second Section in Opening
Place the hardwared second (lock) section on top of the bottom section and against the perimeter seal. Temporarily secure section in opening by driving a 16-penny nail in the jamb at each end of section and carefully bend it over the edge of the section to secure in place (Figure 4, Step 3a).

Step 5a: Center Hinge(s) Installation
Once section is secured, fold upper leaves of center hinge(s) up and attach to second section using (2) 1/4"x5/8" universal screws (Figure 5).

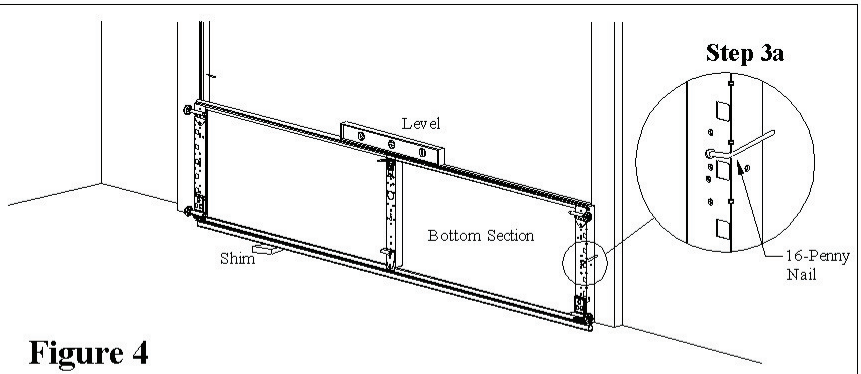


Figure 4

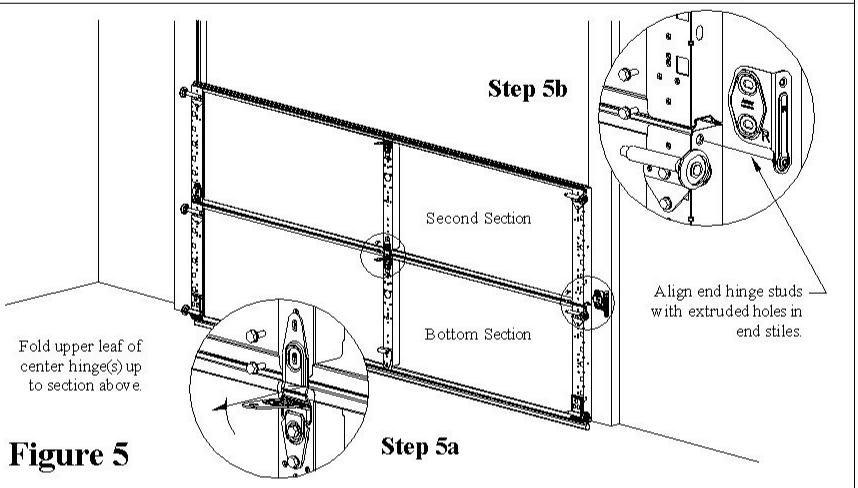


Figure 5

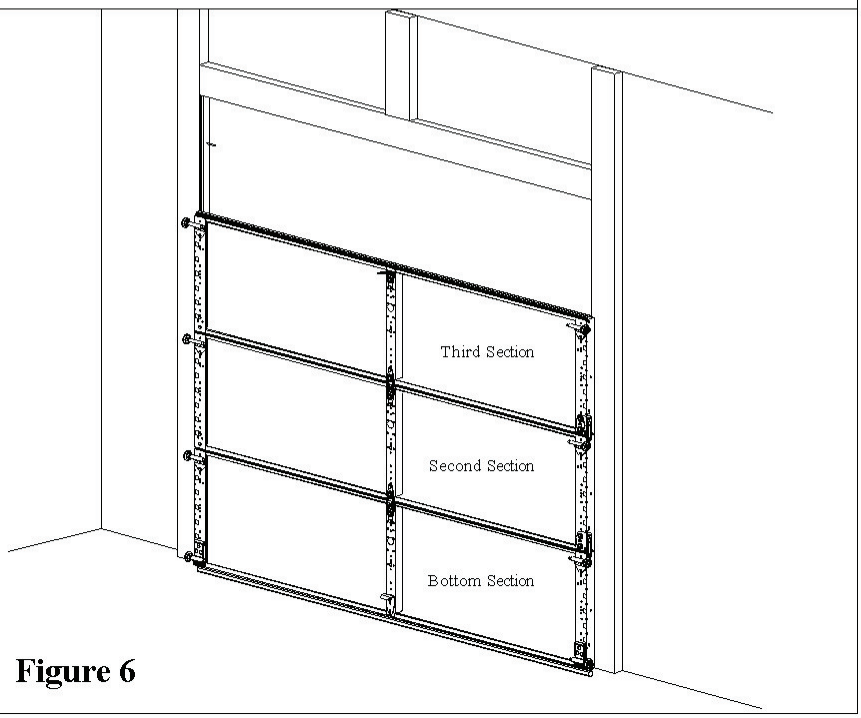


Figure 6

Step 5b: End Hinge Installation
Align the end hinge studs with the extruded holes in the edge of the end stiles and insert. Secure with (2) 1/4"x5/8" universal screws (Figure 5).

Caution: Firmly hold the end hinge in place, as you tighten screws, otherwise it may want to torque away from the section.

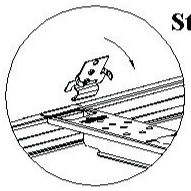
Step 6: Installing the Intermediate Section(s) Hardware
Place the third section face down on saw horses. Install #3 roller carrier as described in (Figure 3, Step 2c). Install center hinge(s) as described in (Figure 3, Step 2f).

Note:
If your door is supplied with struts they must be attached according to (Figure 15). See strut schedule (Table 3, Page 7) for location(s) of struts. All struts except on top section are to be attached as indicated in (Table 3, Page 7) based on door width and height.

Step 7: Stacking Third and Fourth (if Five Section) Section in Opening
Place the hardwared third section on top of the second section and against the perimeter seal. Temporarily secure section in place as before (Figure 4) . Repeat steps 5a and 5b (Figure 5). Note: If you have two sections remaining, repeat Step 6 using a #4 roller carrier and Step 7 for the fourth section.

Step 8: Installing Top Section Hardware
Place the top section face down on saw horses locate stile stiffener(s). **Note: Stile stiffeners MUST be installed along the top edge of the top section in the center stile hinge pocket(s), if your door has multiple center stiles, there should be one in each pocket.**

Step 8a and 8b: Stile Stiffener Installation
Position and rotate stile stiffener as shown below in (Step 8a). When installed correctly they should appear as shown in (Figure 7, Step 8b). Stile stiffeners, once installed, do not require any fasteners to secure in position. Side tabs will maintain part in hinge pocket.



Note: If struts not required skip to Step 8e.

Step 8c: Strut Installation
If strut is required (Table 3, Page 7) install along top rail of section using (2) 1/4"x5/8" universal screws and holes (1,2) on each end stile (Figure 8).

Step 8d: Strut Installation Continued
Attach strut between end stiles with (2) 1/4"x5/8" universal screws into stile stiffener using the top and bottom holes (Figure 8).

Step 8e: Top Fixture Installation
Align top fixtures with holes (4,5,9, Figure 7) on the top corner of each end stile and secure in place as shown using (3) 1/4"x5/8" universal screws (Figure 7). Insert rollers as shown.

Step 9: Stacking Top Section in Opening
Place the hardwared top section on top of third or fourth section and against the perimeter seal. Temporarily secure section in place as before (Figure 9).

4

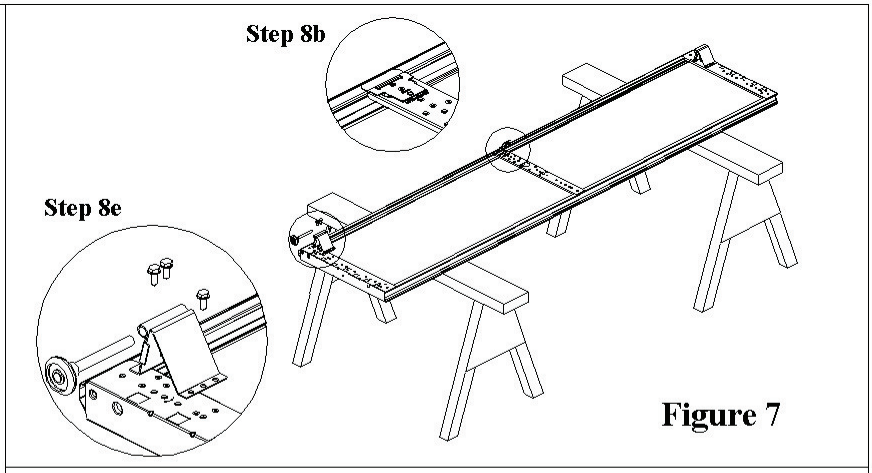


Figure 7

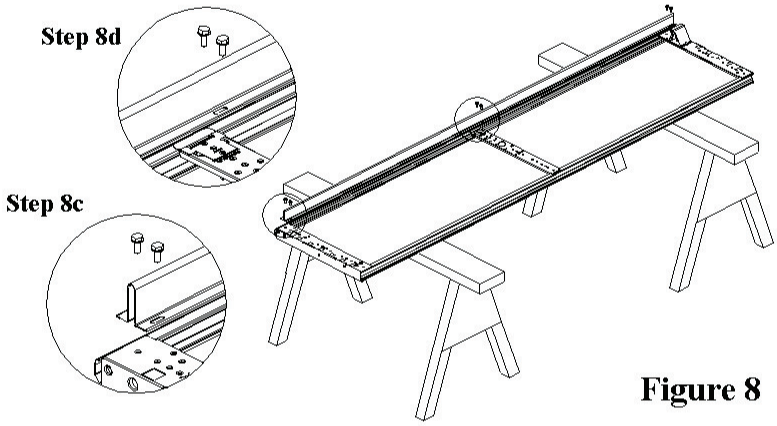


Figure 8

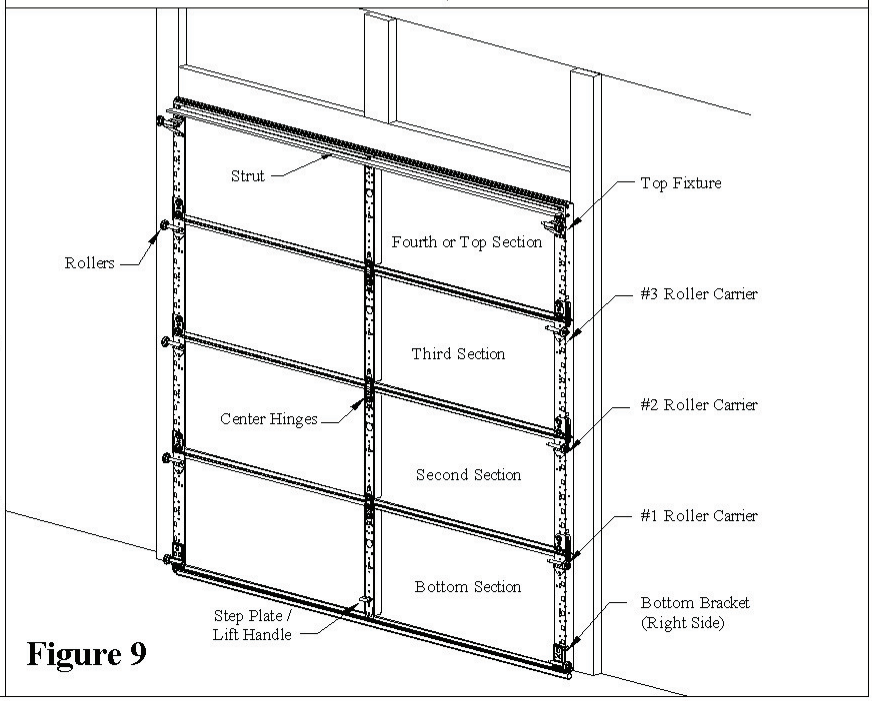


Figure 9

Note: For steps 10 - 18 perform steps for Left and Right sides

Step 10: Determine Type of Jamb Brackets
See Parts for Assembling track **(Figure 10)** to identify the jamb brackets supplied in your hardware kit. If you were supplied with universal jamb brackets go to Step 10b.

Step 10a: Jamb Bracket Attachment
There are two sizes of jamb brackets. The jamb brackets are numbered for identification. The smallest numbered jamb bracket is installed closest to the bottom of the vertical track (Figure 11).

Step 10b: Universal Jamb Bracket Attachment
The universal jamb brackets have numbered hole positions for identification of positioning. The proper holes to use for this door are either 4,5 (6'0 thru 7'0 tall doors) or 4,6 (7'6 through 8'0 tall doors). The smallest numbered hole is installed closest to the bottom of the vertical track (Figure 11).

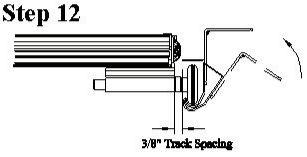
Step 10c: Attaching Jamb Brackets or Universal Jamb Brackets to the Vertical Track
Loosely attach with (1) 1/4"x5/8" track splice bolt and (1) 1/4"-20 hex nut. **Note: 1/4"-20 hex nuts always go on the outside of the track curve.** Position short side of bracket, and track toward the jamb. Loosely attach second jamb bracket toward the top of the vertical track (Figure 11). Hand tighten.

Step 11: Flag Bracket Attachment
Loosely attach flag bracket to the top of the vertical track with (2) 1/4"x5/8" track splice bolts and (2) 1/4"-20 hex nuts. **Note: 1/4"-20 hex nuts always go on the outside of the track curve.** Position with flat side of flag, and track facing toward the jamb (Figure 11). Hand tighten.

Note: If the door will be installed with a lock, go to Step 11a on Supplemental "Classic Lock" Installation Instructions sheet.
Lock and pull ropes should be removed and/or disengaged if electric operators are used. See notes for electric operator attachment. (Page 7).

Step 12: Positioning Track on Door
Place the vertical track with jamb brackets attached over the rollers as shown below. **Note: Maintain 3/8" space between door edge and vertical track, tops of vertical track must be level with each other.** (To determine, measure from the top of the tracks to top of door. If not level, raise track but not higher than bottom rollers.) Vertical tracks must be plumb.

Step 12



Step 13: Mounting Vertical Track to Jamb
With track properly aligned, securely fasten jamb brackets to jamb with (1) 5/16"x1-5/8" lag bolt (Figure 12). **Note: Predrill 3/16" hole to prevent splitting of wood.**

Step 14: Mounting Flag Bracket to Jamb
Secure flag brackets with (3) 5/16"x1-5/8" lag boilts to jamb (Figure 12). **Note: Predrill 3/16" hole to prevent splitting of wood.**

Parts for Assembling of Track (Not Actual Size)

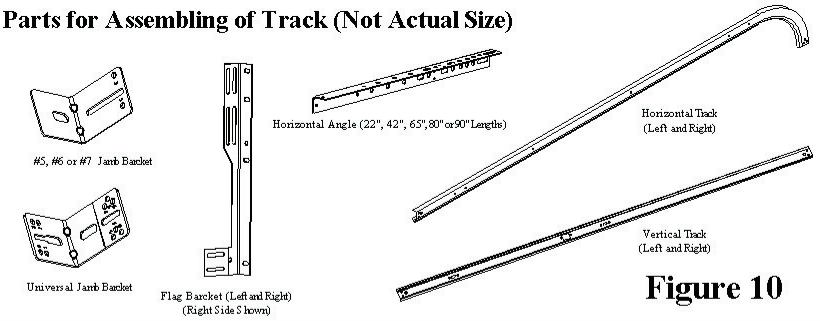


Figure 10

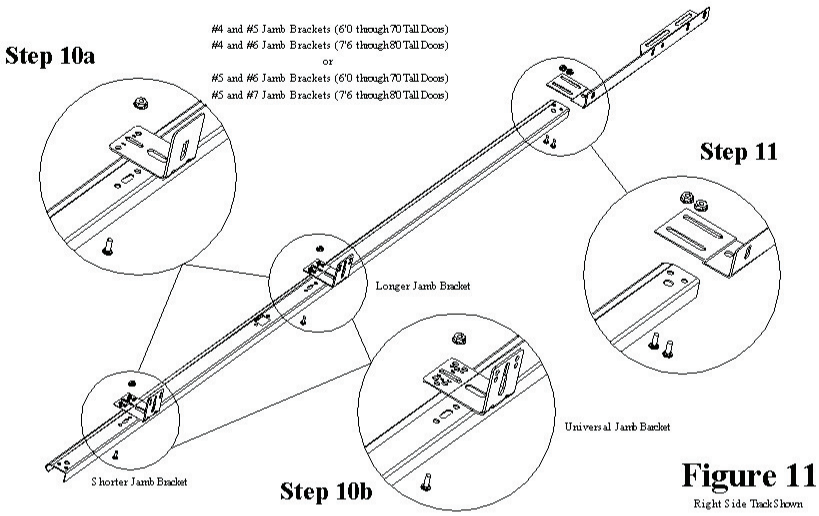


Figure 11
Right Side Track Shown

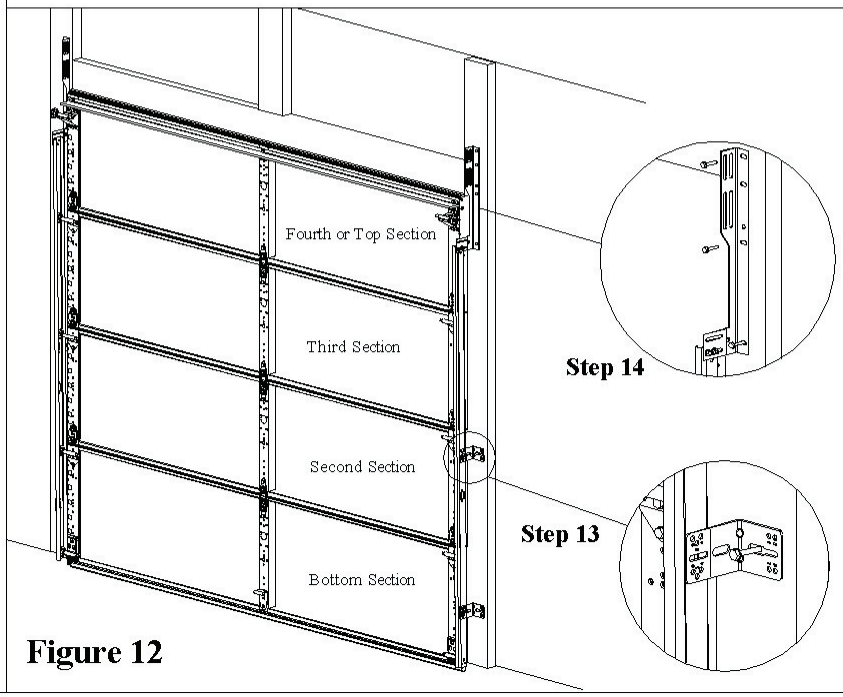


Figure 12

Step 15: Horizontal Angle Attachment
Install horizontal angle to horizontal track using 1/4"x5/8" track splice bolts and 1/4"-20 hex nuts (quantity based on angle length) (Figure 13). If not already done.

Step 16: Horizontal to Flag Bracket Attachment
Place curved end of horizontal track assembly over the roller in the top fixture and attach to flag bracket with (2) 1/4"x5/8" track splice bolts and (2) 1/4"-20 hex nuts. temporarily support back end of horizontal track using a rope or wire from the roof trusses to support back end (Figure 14).

Step 17: Horizontal Assembly 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 nuts (Figure 13).

Step 18: Track hanger Installation
Replace support rope or wire with metal angle hangers (supplied by installer, recommend minimum 14 gauge) (Figure 14).

Caution: Keep horizontal tracks close to the door so door will not fall out of track.

Step 19: Make sure track is level and square with opening (Figure 14). make sure distance between track and door is the same at the bottom of the vertical (Figure 14), at curve of horizontal and back of horizontal. Adjustment to track position may need to be made later, after the door is opened to maintain proper spacing.

Step 20:
Tighten the slide on the top fixture by pushing the top section tightly against the opening and lightly pulling the slide towards the inside of the garage (Figure 14). Tighten Nuts.

Step 21:
Remove all temporary nails used to secure door in opening.

Step 22:
If electric operator is not used, attach one end of pull rope to safety bottom bracket and the other end to the second jamb barcket.

INSTALL POWER UNIT IN ACCORDANCE WITH POWER UNIT INSTRUCTIONS. (See enclosed in instructions in homeowner's bag).

Step 23:
Close door from outside and permanently nail perimeter seal for a snug fit so that the seal does not bind the door. Wax inside edge of seal (vinyl flap) to prevent binding (if necessary).

Step 24:
Check spacing of door and track. Make sure there is 3/8" clearance between door and track along the entire horizontal and vertical track assemblies. Adjust as necessary.

Final Check:
1. As necessary, re-adjust spring tension by referring to spring power unit instructions.
2. Make sure door is square with opening.
3. If the door does not work easily, re-check installation to make sure spacing is correct and the door is not binding.

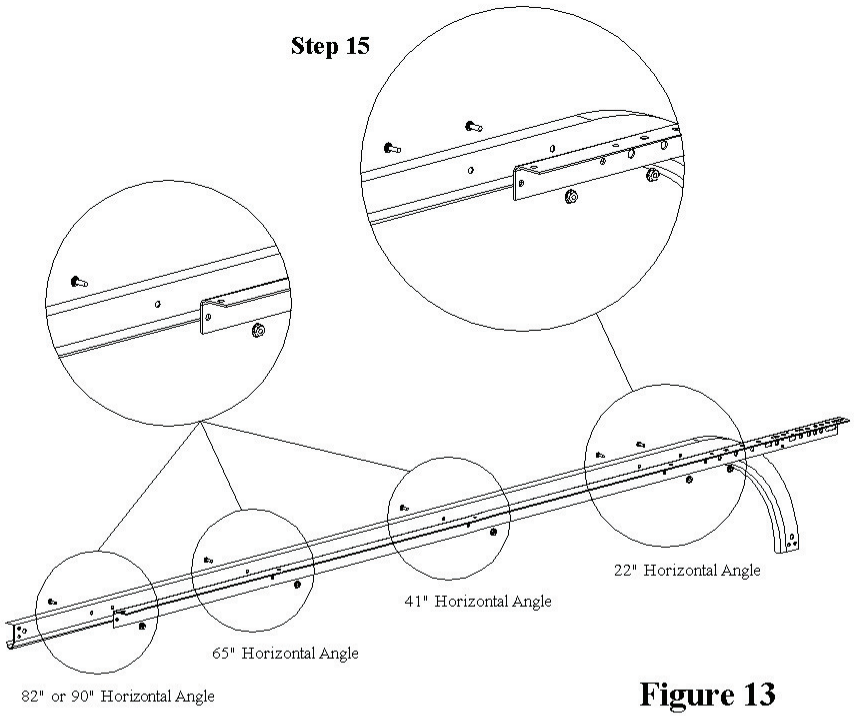


Figure 13

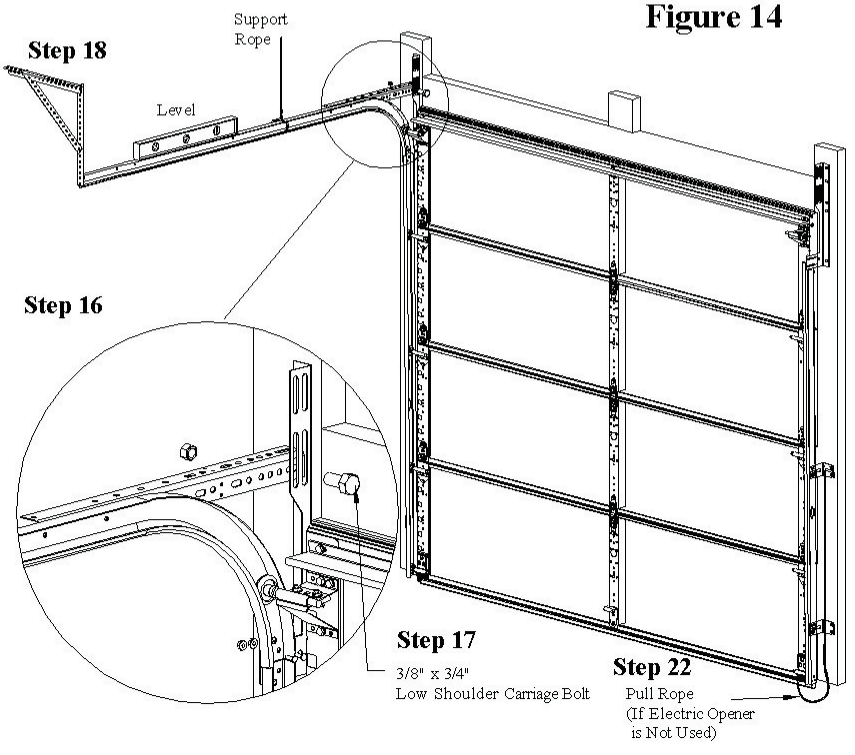


Figure 14

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 open).
2. The top section of the door **MUST** be reinforced in order to provide a connection point for the opener lifting arm (as illustrated in these instruction in steps 8a, 8b, 8c and 8d).
3. Disconnect and/or remove all locks and pull ropes. Attempting to use the opener while the door is locked will damage your garage door.

Table 3 -Strut Schedule

Door Width(s)	6'0", 6'3", 6'6", 6'9" & 7'0" 4 Sections	7'6", 7'9" & 8'0" 5 Sections
6'0 Through 14'0	None (0)	None (0)
15' Through 16'0	(1) One - Top of Top Section	(1) One - Top of Top Section
17' Through 18'0	(3) Three - Middle of Bottom Section, Above End Hinges on 3rd Section and Top of Top Section	(3) Three - Middle of Bottom Section, Above End Hinges on 3rd Section, and Top of Top Section
20'0 (Heritage Only)	(4) Four - Middle of Bottom Section, Below Roller Carriers on 2nd and 3rd Sections and Top of Top Section	(4) Four - Middle of Bottom Section, Above End Hinges on 3rd Section, Below Roller Carriers on 4th Section and Top of Top Section

IMPORTANT NOTICE

THESE ARE THE MINIMUM REQUIREMENTS FOR REINFORCEMENT. YOUR DOOR MAY REQUIRE ADDITIONAL REINFORCEMENT TO MEET SPECIFIC WIND LOAD REQUIREMENTS. AMARR RECOMMENDS THAT YOU CONTACT YOUR LOCAL BUILDING OFFICAL FOR SPECIFIC WIND LOAD REQUIREMENTS IN YOUR AREA.

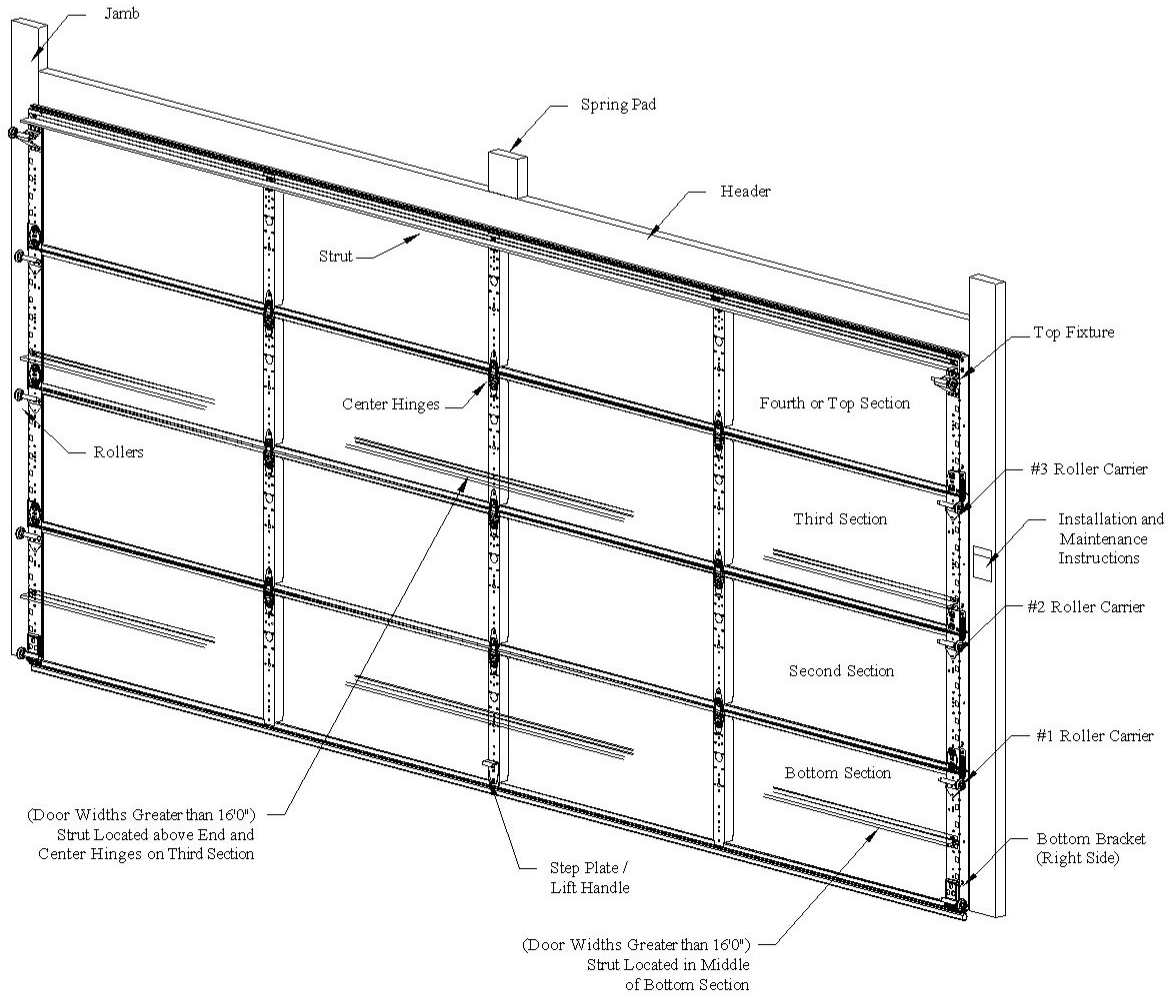


Figure 15

7

Maintenance for Overhead Sectional Garage Door and Opener

The following maintenance and inspections should be performed every six- (6) months:

Exterior Surface
Washing your door with light (non abrasive) soapy water will help keep your door looking like new. It will also help to remove any corresive (ie salt) residue that may be on the surface of your door. (Example: 5 gallons of water to 1 cup of Tide®). Car wash can be used to further protect the finish.

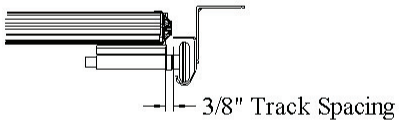
Painting for Steel Garage Doors: (**NOTE: PAINTING DOOR VOIDS THE PAINT FINISH WARRANTY**)
The factory applied finish on your metal garage door is a baked-on coating, designed to give trouble free performance for years with little service required. To paint, follow these instructions:
1. Close door, wipe down, and clean entire door with mild detergent to remove dirt. Rinse clean with water.
2. When door is dry, paint with two coats of high-grade exterior latex based paint. **DO NOT USE AN OIL BASED PAINT.**
3. Follow paint manufacturer's instructions and avoid painting at temperatures below 50 degrees F.

For complete instructions on "How to Paint Steel Garage Doors", contact your local Amarr Dealer or visit our website at www.amarr.com..

Track, Hinges, Rollers
Lighly oil (Example: 10W30 motor-oil) all sheaves, non-plastic rollers, roller shafts and hinges as needed.
(Note: Nylon rollers DO NOT need any type of lubricant added, these are self-lubricating)

Check springs and cable for wear and binding.

Inspection track alignment, the track should measure a minimum of 3/8" form the edge of the door. Backhang angle and sway braces should be tight and secure.



Torsion Springs
It is not recommended that anyone other than a garage door service professional lubricate or adjust torsion springs. (Note: these components are under high tension and can cause severe injury.)

Every Two Months

Weather-strip
Weather-stripping that is made of vinyl and rubber materials and should be cleaned with an all-purpose vinyl cleanser. Lubricate the flexible weather-stripping every two months (more frequently for high usage doors) with a silicon-based oil. (Do not use petroleum- based oils, as this will cause loss of elasticity. Petroleum attacks the rubber and decreases its flexibility.)
(Note: It is not recommended to paint over the flexible portion of the weather-strip.)

Every Month

Automatic Garage Door Opener
Lightly lubricate the opener track and trolley. Read the instructions, provided by the manufacturer of the opener, carefully as special lubricants may be recommended.

Every month close the door then disconnect the opener by pulling the release pull cord straight down and raise and lower the door several times by hand using the lift handle supplied. A properly balanced spring and door system will balance at all intervals of operation. (Note: If you have difficulty opening the door, your opener will have the same difficulty. Should the spring system need any necessary adjusting, this is to be performed by a garage door service professional.)

Many garage door openers can be equipped with accessory safety devices. Consider adding an electric eye or edge sensor as an extra measure of safety to protect against entrapment.

Safety Precautions
Your door is constructed of high quality components to provide years of continued service. Since it is a large moving object, periodic maintenance along with the following cautionary directions should be observed to ensure safe and reliable operation:

- Should your door become hard to operate or completely inoperative, it is recommended that a garage door service professional be contacted.
- Do not operate the door if you can not see the door.
- Operate door only when it is properly adjusted and free of obstructions.
- Door is constantly under extreme spring tension. Repairs and adjustments, especially to cables and spring assembly, can be hazardous and should be performed by a garage door service professional.
- Avoid standing in open doorway or walking through doorway while door is moving.

INSTALLATION INSTRUCTIONS

TORSION SPRING POWER UNIT

Amarr GARAGE DOORS
P.O. Box 288 • Winston-Salem, NC 27102-0288
www.amarr.com

DANGER

High Spring Tension can cause severe injury or death. **Do not** attempt to remove, repair or adjust torsion or extension spring assemblies, red-coated fasteners, or the hardware to which the red-coated fasteners are attached. Removal, adjustment or repair must be made by a professional door repair person.

WARNING

Failure to comply with these instructions invalidates the warranty.

These instructions are a supplement to Amarr's door installation instructions. Complete door installation should conform to both instructions.

Check headroom required on door installation instructions Table 1.

STEP 1: Assemble all parts to torsion spring shaft as shown in (Fig. 1 & 3).

NOTE: Some doors may be supplied with only 1 torsion spring. While these illustrations will show two springs - one spring installation is the same.

All black painted spring winding cones and drums must be on the right side and all red painted spring winding cones and drums must be on the left side, from the inside of the garage looking out.

STEP 2: **Lock door down securely with vise grips in track. This must be done to prevent door from opening prematurely which can cause an injury.**

STEP 3: Raise spring assembly over horizontal track and carefully support temporarily with a rope (Fig 3).

Bolt the two end bearing plates to horizontal angle with 2 (3/8" x 16 x 3/4") carriage bolts and nuts (Fig. 2 & 3). Install 1 5/8" lag bolt into upper flange of bearing plate & into jamb.

STEP 4: Level shaft and position center bearing plate and fasten 2 x 6 center pad with 2 (5/16" x 1-5/8") (Red) lag bolts making sure cutoff corner on bearing plate is at bottom to clear door (Fig. 3). Pre-drill 3/16" holes to prevent splitting. **CAUTION:** THE SPRING ANCHOR BRACKET MUST BE SECURELY FASTENED. TREMENDOUS TORQUE WILL BE EXERTED ON THIS BRACKET. **Check for a spring warning tag on center bearing plate.**

STEP 5: Bring cable up between wall and rollers and over the top of drum and insert cable end into drum slot (Fig. 1).

Slide drum against end bearing plate and make sure the slot is facing installer. Draw cables tight and tighten set screws on drum to lock into shaft. Recommended torque on set screws is 200 in-lbs. (16.7 ft-lbs.) to 240 in-lbs. (20 ft-lbs.). Be careful not to overtighten screws & puncture the tubing (Figs. 1, 2 & 3). After contact with the tubular shaft, turn screw an additional 1/2 to 1 full turn (approx. 18 ft-lbs.).

NOTE: At 2 full turns, a set screw will begin threading itself within the tubular shaft and can cause the strength of the tube to be reduced.

STEP 6: Repeat Step 5 to other side and draw a straight chalk line across each spring(s) (Fig. 1).

STEP 7: When spring assembly, cable and drums have been set in place, fasten vise grip to shaft and reset handle against wall to hold assembly in place and to maintain cable tension until winding is complete (Fig. 1).

CONTINUED ON REVERSE.

DO NOT ATTACH CENTER BEARING PLATE DIRECTLY TO SHEETROCK. ALWAYS USE A 2X6 CENTER PAD.

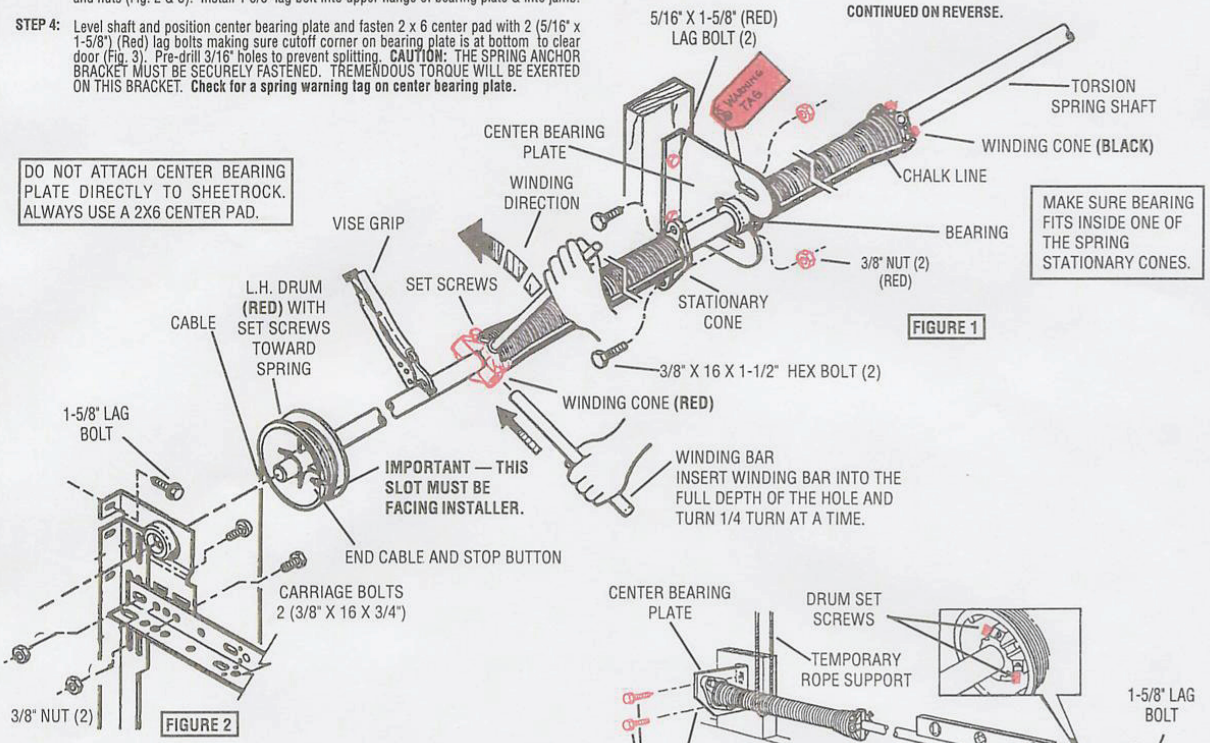


FIGURE 1

MAKE SURE BEARING FITS INSIDE ONE OF THE SPRING STATIONARY CONES.

FIGURE 2

TABLE 2

DOOR HEIGHT	DRUM	APPROXIMATE # OF TURNS ± 1/2 TURN
6'6"	400-8	7
7'	400-8	7-3/4
8'	400-8	8-3/4
9'	400-12	9-3/4
10'	400-12	10-3/4
12'	400-12	13
14'	5250-18	11
16'	5250-18	12-1/2

Each complete turn will show one spiral in the chalk line. By counting the spirals the number of turns can be measured.

Tighten spring set screws

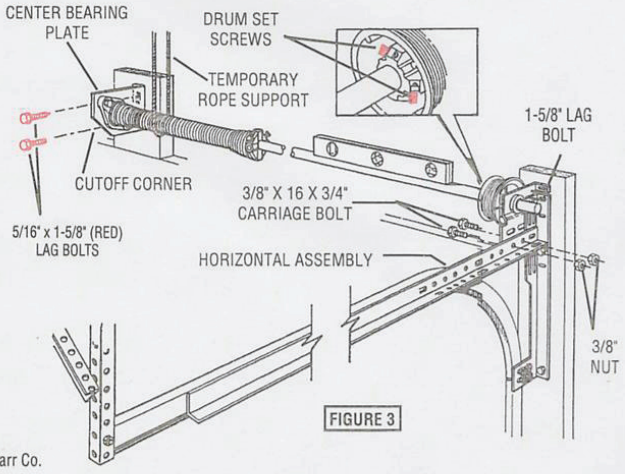


FIGURE 3

STEP 8: **WINDING SPRINGS IS THE MOST DANGEROUS PART OF THE DOOR INSTALLATION.**

Use two 1/2" diameter cold rolled steel spring winding bars 16" to 24" long for winding springs. Do not use screwdriver or any other object to wind springs - this can result in severe injury.

Position yourself on a sturdy ladder and keep slightly to the side of winding bars. NEVER WIND SPRINGS DIRECTLY IN FRONT OF YOU - THIS CAN RESULT IN INJURY. Keep a firm grip on the winding bars.

Insert winding bar into the full depth of the hole and be sure as you wind that bottom bar is securely in place before removing upper bar.

STEP 9: Wind each spring(s) in an upward direction 1/4 turn at time (Fig. 1) to the approximate number of turns according to Table 2.

Tighten the spring set screws. Be careful not to overtighten screws and puncture the tubing. Maintain equal turns on both springs.

ALWAYS TIGHTEN SET SCREWS IN WINDING CONES SECURELY TO SHAFT BEFORE REMOVING WINDING BARS.

STEP 10: Remove nails holding door and carefully remove vise grips on door and shaft and raise the door halfway to check spacing of door and horizontal track. Use vise grips to secure door in halfway up position. Make sure there is 3/8" clearance between door and track. **Permanently fasten rear track hangers and final tighten all bolts.**

Remove vise grips and raise the full height of door. **Be careful - door could still be extremely heavy to open or open very quickly!** A properly counterbalanced door should be able to be raised 3' - 4' off the floor and not move.

Open and close door several times to test operation of door. Readjust spring(s) as necessary according to steps 2, 7, 8, 9, & 10.

DOOR SHOULD OPERATE SMOOTHLY - CHECK OVER THE ENTIRE INSTALLATION. MAKE SURE CABLE DOES NOT BIND.

STEP 11: To complete installation, return to door installation instructions. Leave these instructions by the door for future reference.