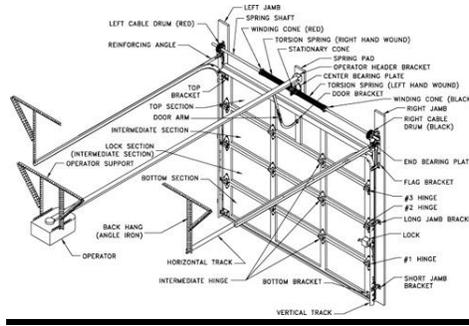


Garage Door Installation



WARNING: The installation of a garage door is a considerable job which requires knowledge and preparation. Torsion springs are under pressure and may cause damage or possible physical harm. This is why it is highly recommend you hire someone specialized to do the job.

Tools required (not included):

- Socket set – Standard & Metric
- Level
- Tape Measure
- Hammer
- Locking Pliers (Vise-grip)
- Tape Measure
- Drill
- Step Ladder
- Screwdrivers
- Open Wrenches – Standard & Metric
- Long Nails
- Winding Rods
- Ten 16-penny nails
- Drill Bits

Tools recommended (not included):

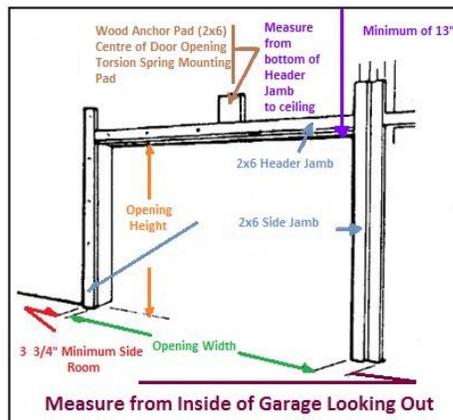
- Impact Gun
- Saw Horses

Possible required items:

- Perforated Steel hanging angle (for hanging vertical track from the ceiling)
- Bolts and nuts for hanging angle
- Weather stripping screws

Steps

1. Ensure your opening is the correct size for your door. For example if your door is 9' X 7', you'll need an opening of 9 feet wide by 7 feet high.



2. Confirm you have enough headroom. For example if your door is 7' high you'll require 13" of room above the door, if you are installing an opener you'll require 14". You will require this headroom as far back as the horizontal track goes. Typically 12" longer than the height of the door, 36" if an operator will be installed as well.
3. The header must be flush (on the same plane) with back jambs. The back jambs must be perpendicular, plumb, and square.
4. Open your hardware box and organize your hinges, rollers, nuts, bolts etc.
5. Measure, cut and install the top weather-strip using pan head screws. Pre-drill the holes approximately 8" apart for the screws. **For 16' doors two people are recommended to ensure the weather-strip does not bend or break.**



6. Measure cut and install the side weather-strips using pan head screws. Pre-drill the holes approximately 8" apart for the screws.
7. Install the bottom retainer onto the bottom panel. The screws are spaced 12" apart. (The boxes are labeled Top/Bottom).



8. Install the weather seal into the bottom retainer by sliding the rubber into the grooves on the bottom panel, the bottom retainer has different sized grooves, be sure the weather seal is slide into the correct holes. The weather strip may stick out from the ends. Cut to 3" past the end and tuck it back into itself, preventing the seal from sliding back or forth.



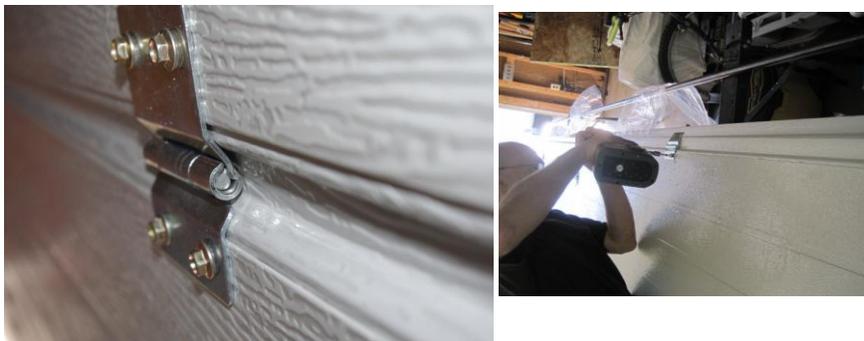
9. Install the bottom brackets using the self tapping screws with the rubber washers (6 per bracket)



10. Install the side brackets at the top of the panel with the small hinge upwards. See illustration.



11. Measure the location for the center hinge(s). One for the 9' wide panel and three for the 16' wide panel. (Middle of panel for 9' panel and every 48" for the 16' panel). Note: The center hinges are to be installed with the small side down and the large side up.



12. Attach the cables to the bottom bracket.

13. Place panel against opening, using a penny nail at each side to secure the door from falling in. (the weather-strip installed in steps 5 & 6 will prevent the door from falling out – if the door is wider it will have to be framed in for proper seal)

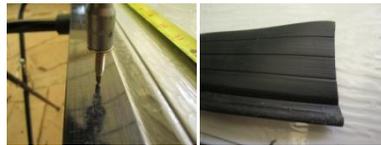


14. Insert the rollers into the appropriate locations in the bottom and end hinges. Hang the cables over the top roller.



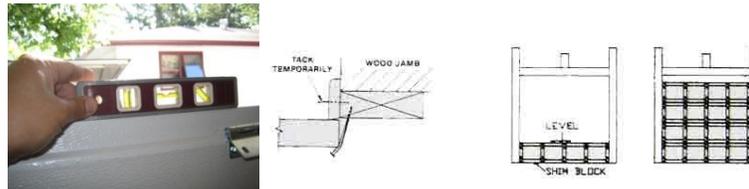
15. Take another panel and install the side brackets at the top of the panel with the small hinge upwards similar to step 9.

16. Install the top panel weather stop retainer onto the top panel (**NOTE: the top panel can be determined as it will be sitting loosely on the panel in the box**). The retainer and seal are two pieces and installed in the same process as the bottom panel, steps 7 and 8.



17. Place panel in opening on top of the bottom panel and repeat steps 12 & 13

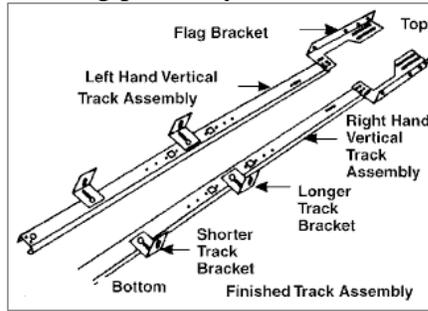
18. Take level, place on the top panel horizontally to ensure door is level. If not level use cardboard from wrap under bottom panel to level door.



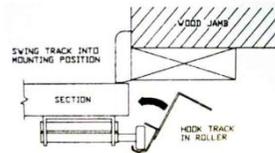
19. Repeat steps 14 through 16 twice more, noting on the top panel the top bracket is installed later.

20. Attach the two track brackets to the vertical track (straight not curved), you will most likely have to drill a hole for the bottom track bracket.

21. Attach the flag bracket with the end bearing plate to your vertical track.



22. Install vertical tracks on the sides of the door so that the track is level and approximately 1½” away from the wall. Using the lag bolts provided to secure the track to the wall. The tracks should not be directly on the floor, use the cardboard wrap to keep the track off the floor. The top of the tracks should be level, measure from the top of the vertical track to the hinge second from the bottom, ensure that that measurement is the same for both sides. If there is a difference of more than ½” move one side up or down to adjust.



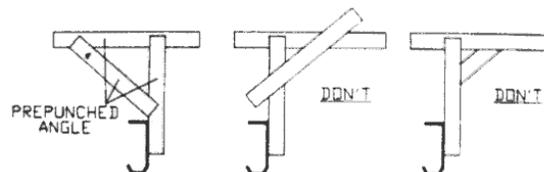
23. Attach the installed center and end hinges to the next panel above using the self tapping lag screws with the washers.

24. Install the perforated reinforcing angle on the flag bracket.



25. Attach the horizontal track (curved) to the vertical track at the flag bracket.

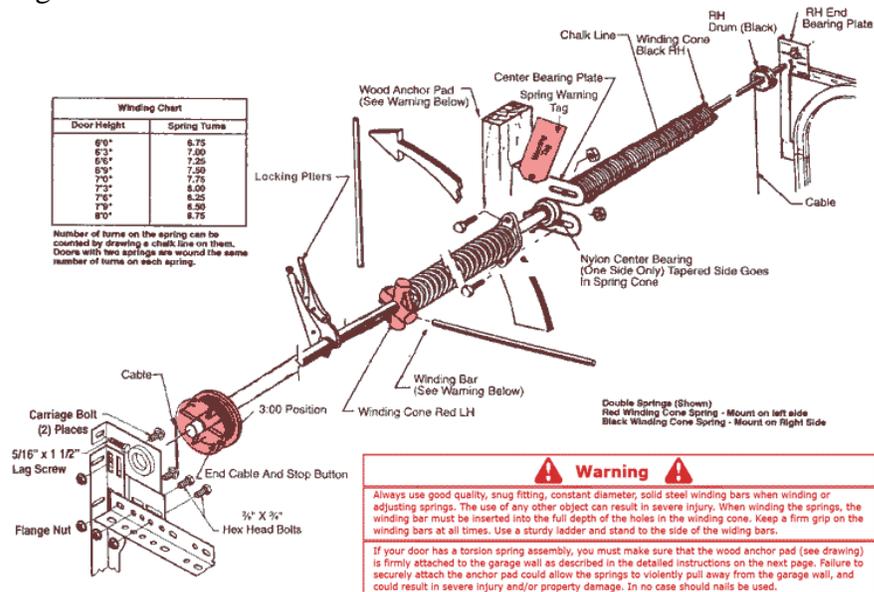
26. Attach the back of the horizontal track to the angle hanging from the ceiling, checking to ensure the track is in line with the vertical track.



27. Install the top bracket and roller ensuring the cable is hanging over the top roller (it should be running behind the rollers against the wall).

28. Remove the nails from the side of the panels.

29. Assemble the shaft with the springs, center anchor and drums. The drums are marked left and right and taper inward when installed. The spring (9' wide door) or springs (16' wide door) are right or left hand wind and must be installed correctly. A general rule is that when installed the spring should be pointing upward at the winding cone.



30. Place the shaft into the end bearing plates and once level use the lag bolts to secure the center bearing plate to the header.



31. Secure the springs to the center bearing plate using the largest bolts provided.

32. Attach the cables to the drums checking to ensure they are not tangled. Turn the drums until the cables are snug. Tighten the drums (10mm open end wrench) ensuring that cables are snug on both sides of the door.

33. Lock the shaft using the locking pliers so the shaft/drums do not move when winding the springs.

34. **NOTE: THIS STEP IS THE MOST DANGEROUS AND SHOULD BE DONE BY A PROFESSIONAL:** Using WINDING BARS wind the springs upward. The typical number of winds is one complete revolution per foot of door height. Therefore a 7' high door will have 7 complete revolutions. After winding one side tighten the set screws (10mm open end wrench) and then wind the other side.

35. **Check all the hinges, bolts and track brackets ensuring they are tight.** Adjust as necessary, noting that garage doors are floating and if they are installed too tight against the opening they will bind and may damage the door. **NEVER** remove the lag bolts from the spring anchor when the spring is under tension.
36. Remove the locking pliers from the shaft and slowly lift the door. If the door feels heavy and will not stay in position if let go you will need to add more winds to the spring(s) (½ revolutions at time). Be sure to use the locking pliers on the shaft again. If the door feels light and wants to rise on its own you will need to take off turns on the spring(s) (½ revolutions at time).
37. Once the door is balanced open slowly to ensure the tracks are not too far apart and the door will not fall down. If the track is spread too much adjust the hanging angle so the track is closer. If the track is too close move the hanging angle out.
38. With the door open check that the door is sitting level. You may be required to raise/lower one side of the horizontal track.
39. Once the door is balanced add an operator bracket to the door and then hook up / install your opener. **Be sure to use the center hinges provided with door only.** Refer to your opener manual for instructions.

