Installation Instructions

Doors in Motion Wood Garage Doors

These installation instructions are only intended for Doors in Motion certified installers.

STEP 1 — Things to Know Before You Begin

- Read the instructions completely before starting the installation of the door. Becoming familiar with the components before assembling the door will reduce the installation time.
- Be sure all hardware components for your new door are included before removing existing door (see pages 8, 9). If your door is missing any parts, call the toll-free Consumer Services number listed on the front of this manual.
- Allow enough time to do the work; removing an existing door will take approximately 1–3 hours.
- An assistant may be required for lifting the unsprung door. It can weigh from 100 to 500 pounds.
- A typical installation takes from 9–12 hours to complete.
- Keep in mind when planning the installation that the garage will be open and unsecured when disassembling the old and assembling the new door.
- If the garage door is the only opening in the structure make sure everything you need is inside. You will have no way of leaving the garage until the track is assembled and installed. This will take approximately 5 hours.
- To avoid damage to the door, you must reinforce the top section of the door in order to provide a strengthened mounting point for the attachment of an automatic opener.
- To avoid installation problems that could result in personal injury or property damage, never reuse old track or hardware.

NOTICE

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

▲ DANGER

High spring tension can cause serious injury or death. Do not attempt to remove, repair, or adjust any springs, any <u>red-colored fasteners</u>, or the hardware to which the <u>red-colored</u> <u>fasteners</u> are attached.

- Doors installed in high wind load regions may require additional reinforcement beyond what is detailed in these instructions. Please refer to supplemental instructions for these areas.
- Express warranties apply only to doors installed using original, factory-supplied sections, parts, and hardware installed in strict accordance with these instructions.
- Track installations must use sway braces on the rear track hangers to prevent sideways movement. If the tracks are not firmly stabilized they might spread, allowing the door to fall and cause severe injury and damage.

STEP 2 — READ THIS SAFETY INFORMATION — IMPORTANT!

• Springs, cables, and bottom fixtures are under strong spring tension. **Do not attempt to loosen any fasteners on these components.** You could suddenly release spring forces and risk severe injury.

• If the garage door and/or any of the supporting tracks are damaged, operating the door could be hazardous. Call an authorized representative of the manufacturer or professional door repair service promptly.

• If repairs are ever required to your door, safety and trouble-free operation is best assured by using original replacement parts.

• Once you have completed the installation of your new garage door, please be sure that your garage complies with all applicable ventilation requirements before you enclose any vehicles in the garage. Good ventilation avoids fire and health hazards caused by fumes accumulating within a well-sealed garage.

Table 1: Hardware components



STEP 1 – Preparing Bottom Door Section

NOTE: Fig.1-B illustrates common terms used in this manual.

Step 1-1: Spread the hardware on the garage floor in groups so that you can easily find the new parts.

Step 1-2: Set the bottom section in place against the doorstop molding. Be sure the upper lip of the lap joint is up toward the inside. Center the section in the opening. If necessary, shim one side so that the section is level.

NOTE: The inside of a panel door can be identified by the marks made by the staples. Keep the staples to the inside for appearance and to assure proper alignment of the predrilled holes for the hinges.

Step 1-3: A level bottom section is critical to a well-fitting door. The bottom section of the closed door must come to rest level; otherwise door will not work properly

Step 1-4: Attach bottom roller brackets to both sides of the bottom section using (3) 1" Lag screws and (3) 1" red-coated lag screws. If installing with carriage bolts, pre-drill through the section with a 1/4" drill bit using the bracket as a template for the hole locations. If installing with screws, pre-drill 3/16" pilot holes, taking care not to drill completely through the section. (Fig 1-A)

NOTE: In order for the door to function correctly, both bottom brackets must be installed at the same vertical position on the bottom section



Step 1-5: Hinges are identified by a number 1, 2, 3, or sometimes 4 (5 section doors only) stamped on the bottom leaf. Using 1" lag screws, attach a number 1 hinge to each end stile using the pre-drilled holes along the top edge of the section (Fig 1-C). Attach (2) to the center mullion (Fig 1-D)



Fig 1-D



Step 2 – Installing Door Sections

Step 2-1: Place the bottom section in the opening so that it is against the stop molding and centered from side to side. Place a level on the section and use a piece of wood under one end or the other (if necessary) to make the section level. Fig 1-B illustrates bottom section with complete hardware.



Step 2-2: Remove the level and drive a 3" nail into the jambs at each end and bend it over the edge of the section to hold the section in place.

NOTE: These nails are all that will hold the door in place until all the tracks are secured to the back jambs. Be sure the nails hold the sections firmly in position.

Step 2-3: Place the next section face down on the sawhorses. If your door is pre-drilled for a lock, this section will be the one with holes in the center of the panel face. Identify the bottom edge.

Attach a No.2 hinge to each end at the top edge using 1" lag screws. Remember that the number is stamped on the side of the hinge that is attached to the section. Attach a No1 hinge to all other pre-drilled holes along the top of the section.



Step 2-4: Place the second section on top of the first section. Drive a 3" nail into the jambs at each end and bend it over the edges of the section to hold the section in place. Attach the hinges from the top of the first section to the bottom of the second.

Step 2-5: Place the third section on the sawhorses. Attach No.3 hinges to the ends at the top edge and No.1 hinges to all other sites along the top edge using 1" lag screws.

Step 2-6: If your door was supplied with struts, attach the long strut as shown in the illustration. The bottom edge of the strut should be 4" from the bottom of the section. Drill pilot holes no more than 1" deep at each hole in the strut. Install 1" lag screws at these locations.

Step 2-7: Place the third section on top of the other sections and nail in place as before. Attach the hinges from the top of the previous section to the bottom of the section.

If you have two sections left, repeat steps 2-5 and 2-7 using No.4 hinges on the end of the top edge and No.1 hinges at all other sites along the top edge.

Step 2-8: Place the last section on the sawhorses. Attach the top adjustable top fixture (Fig 2-B) as shown. The top of the bracket should be located 2-1/2" down from the top of the section, and the side edge of the bracket should be 1/4" from the edge of the section.



Step 2-9: If your door was supplied with struts, attach the last remaining strut (short strut) as shown. Center the strut with the top edge 1" to 1-1/2" from the top of the section. Drill pilot holes no more than 1" deep at each hole in the strut. Install 1/4" x 1" lag screws at these locations.

Step 2-10: Place the top section on top of the other sections and nail in place as before. Attach the hinges from the top of the previous section to the bottom of this section. (Fig 2-C)

NOTE: If your door is to be used with an electric operator and is over 3 meters in width <u>or</u> more than 4 sections high you must reinforce with a section wide strut or angle iron at of the top section before placing it in the opening.

Step 2-11: Place a roller in the top fixtures, bottom brackets and the tubes in the hinges at the ends of each section. Some hinges have two tubes, in which case the roller should be placed in the tube that is farthest from the face of the door. (FIG. 2-A)



Step 3-1: Loosely fasten the jamb brackets to the vertical track using one $1/4" \times 5/8"$ track bolt and 1/4" flange nut as shown Fig 3-A, with the head of the bolt inside the track. There are two sizes of brackets for 7' high doors, and three sizes for 8' high doors. The shortest track brackets should be installed ten inches from the bottom of the track with the flange facing the flat side of the track, one on the left and one on the right. The next larger sized pair of brackets should be installed centered on the track. If you have an 8' high door, the remaining pair of brackets should be installed ten inches from the top of the vertical track (Fig 3-C). The flat side of the track goes toward the wall.



Step 3-2: Loosely attach the flag bracket to the top of the track with two $1/4" \times 5/8"$ track bolts and 1/4" Keps nuts with the head of the bolts in the track. (Fig 3-B)



Step 3-3: Place the vertical track over the rollers on the door. Move the track close to the door so that the rollers are all the way into the hinges. Do not force the track too tightly or the door will bind. This should leave about 1/2" between the edge of the door and the track. Lift track about 1/2" from the floor and fasten the flag bracket and jamb brackets to the jamb with 5/16" x 1-5/8" lag screws. The flag bracket requires three screws, one each in the top, middle, and bottom holes. Do this for both sides of the door. When the jamb brackets and flag brackets are securely fastened to the jamb, tighten the track bolts and keps nuts connecting the flag brackets to the tracks. (Fig. 3-D)

NOTE: The tops of the vertical tracks must be level with each other. Check this by measuring from the top of the door sections to the top of the track on both sides. If they are not equal, cut some material off the bottom of one track to lower it or raise the other track.



Do not raise the vertical track beyond the bottom rollers on the bottom section of door.

Step 3-4: Fasten the horizontal angle to the horizontal (curved) track with two 1/4" x 5/8" track bolts and 1/4" Keps nuts so that the heads of the track bolts are on the inside of the track. On some doors this angle may be 82" long and will require three additional fasteners per side. If the angle has been preassembled, skip steps 3-4 and proceed with steps 3-5.

Step 3-5: Temporarily support the rear end of the track with a rope from the trusses overhead in the garage or on a tall ladder.

Step 3-6: Place the track over the roller in the top bracket. Attach the curved end of the horizontal track to the flag bracket with two 1/4" x 5/8" track bolts and 1/4" flange nuts so that the heads of the screws are on the inside of the track. The horizontal and vertical track must join together to form a continuous channel for the rollers. Attach the end of the horizontal angle to the top of the flag bracket with a 3/8" x 3/4" carriage bolt and 3/8" hex nut. (Fig 3-E) Use the top set of slots for 15" radius track, the bottom set of slots for 12" radius and low headroom track.



Step 3-7: Rear track hangers need to be made at this time. Use 1-1/4" x 1-1/4" punched angle, 13 gauge or 3/32" steel. These are not provided with the standard hardware. They are used to attach the rear of the horizontal track to the ceiling joist. Enough angle iron or punched angle should be purchased to make two rear track hangers. These hangers must be strong enough to hold the full weight of the door. Attach a bolt at least 1" long through the end of each track to stop the door at the end of its travel. (Fig 3-F)



▲ WARNING Sway braces must be used to prevent tracks from spreading and allowing the door to fall, which could cause serious injury. Bolts placed in the end of each track (FIG. 3-F) must be at least 1" long to prevent the top section from exiting the track.

NOTE: Rear track hangers should not be mounted any farther than 6" from the end of horizontal track.

Step 3-8: Placement of rear track hangers is critical for the door to operate properly. The rear track hangers should hold the horizontal track level and square to the door. Squareness should be measured by comparing two diagonal distances: 1) the distance from the top left-hand corner of the door to the rear of the right-hand horizontal track and 2) the distance from the top right-hand corner of the door to the rear of the left-hand horizontal track.

