



Assembly Instructions

Overhead Storage Rack

4' x 8' 3' x 8' 2' x 8'

4' x 6' 3' x 6' 2' x 6'

4' x 4'



Two 4x8 Racks Pictured

Eagle Industrial Group, Inc.

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Lake Forest, CA 92630

877.655.3443

888.313.9228 fax

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Thank you for purchasing the best Overhead Storage Rack!

SafeRacks is the premier provider of overhead garage storage racks. Our goal is to provide the highest quality ceiling racks designed to utilize wasted space in your garage. We pride ourselves on delivering the best product and supporting it with outstanding service.

WARNING

THIS IS A DIY PROJECT. DO NOT ATTEMPT THIS INSTALLATION WITHOUT A BASIC UNDERSTANDING OF EVERYTHING THAT FOLLOWS IN THESE INSTRUCTIONS. WHILE THIS IS A RELATIVELY SIMPLE INSTALLATION PROCEDURE, IF YOU ARE NOT CONFIDENT WITH LOCATING AND ANCHORING TO CEILING JOISTS, DO NOT ATTEMPT THIS INSTALLATION WITHOUT HELP FROM SOMEONE WHO IS.

WARNING, DO NOT EXCEED THESE WEIGHT LIMITS

4' x 8' Frame	600 lbs.	3' x 6' Frame	400 lbs.
3' x 8' Frame	500 lbs.	2' x 6' Frame	300 lbs.
2' x 8' Frame	400 lbs.	4' x 4' Frame	300 lbs.
4' x 6' Frame	500 lbs.		

WARNING: Load heavy objects, distributed equally, nearest the vertical posts and light objects nearest the center. Read the safety label on the rack and do not overload the system. Do not climb on or hang from the storage rack. Routinely inspect the rack over time to ensure rivets and wire decking are seated properly. All stated weight limits are based on static loads with load distribution as stated above. Some horizontal deflection can be expected when racks are loaded near maximum limits.

These weight limits are based on a wood framed garage with a minimum of 2 x 6" (standard lumber) ceiling joists at 24" (or less) on-center with at least 2" of penetration for each lag screw used in each ceiling bracket. For truss framed garage ceiling structures, 2 x 4" (bottom truss cord) is acceptable.

NOTE: The weakest point in the entire system is the garage ceiling joists and rafter system. If, for any reason, you suspect the integrity of your ceiling structure is in question, discontinue the installation process.

THESE INSTRUCTIONS AND RESPECTIVE WEIGHT LIMITS DO NOT PRECLUDE SOUND JUDGMENT AND DECISION MAKING WHEN INSTALLING AND LOADING YOUR OVERHEAD RACK. BOTTOM LINE...BE CAREFUL, USE THE RACK WISELY AND ENJOY YOUR NEW FOUND SPACE!

Step 1

- Before you begin, gather the required tools listed below and ensure that you have the correct components as listed below for your rack.
- If you are missing any of the listed components in your packaging, please call 877.655.3443 to have them sent directly to you.

REQUIRED TOOLS:

- Rubber Mallet or Hammer
- Drill with 3/16" drill bit (capable of drilling 3" deep)
- Socket Wrench set and/or open end wrench or adjustable crescent wrench, socket drivers for drill
- Flat Head Screwdriver
- Tape Measure
- Stud Finder (if installing on ceiling drywall)
- Sturdy Ladder



COMPONENTS:

4 x 8' Unit:

8	Vertical Posts
2	48" Side Beams
2	96" C Channel Beams
1	48" Center Support
1	Hardware Bag
4	27" Ceiling Brackets
4	22.5" x 48" Wire Decking Units

4 x 6' Unit:

8	Vertical Posts
2	48" Side Beams
2	72" C Channel Beams
1	48" Center Support
1	Hardware Bag
4	27" Ceiling Brackets
3	22.5" x 48" Wire Decking Units

4 x 4' Unit:

8	Vertical Posts
4	48" Side Beams
1	Hardware Bag
4	27" Ceiling Brackets
2	22.5" x 48" Wire Decking Units

2 x 8' Unit:

8	Vertical Posts
2	24" Side Beams
2	96" C Channel Beams
1	24" Center Support
1	Hardware Bag
4	27" Ceiling Brackets
4	22.5" x 24" Wire Decking Units

3 x 8' Unit:

8	Vertical Posts
2	36" Side Beams
2	96" C Channel Beams
1	36" Center Support
1	Hardware Bag
4	27" Ceiling Brackets
4	22.5" x 36" Wire Decking Units

3 x 6' Unit:

8	Vertical Posts
2	36" Side Beams
2	72" C Channel Beams
1	36" Center Support
1	Hardware Bag
4	27" Ceiling Brackets
3	22.5" x 36" Wire Decking Units

2 x 6' Unit:

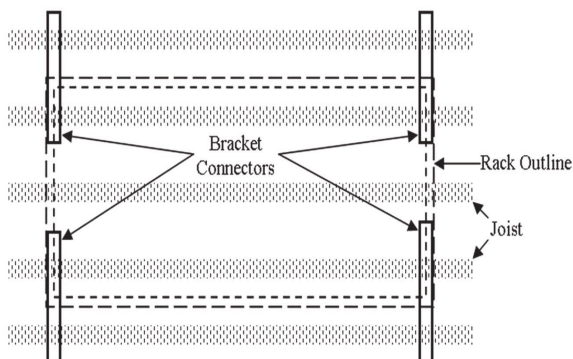
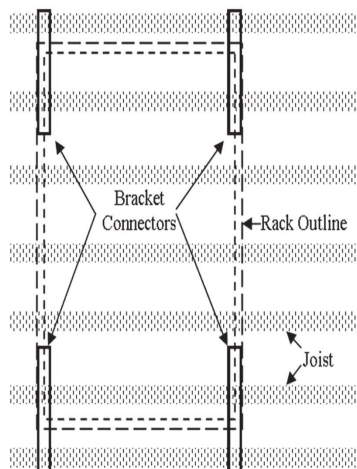
8	Vertical Posts
2	24" Side Beams
2	72" C Channel Beams
1	24" Center Support
1	Hardware Bag
4	27" Ceiling Brackets
3	22.5" x 24" Wire Decking Units

Hardware Bag (for all racks):

12	1/4-20 Serrated Locking Nuts
12	1/4-20 x 3/4" Hex Bolt (grade 5)
8	3" Lag Screw
32	5/16" Washer
4	10-24 Slot Head Bolt (not in 4x4)
4	10-24 Wing Nuts (not in 4x4)

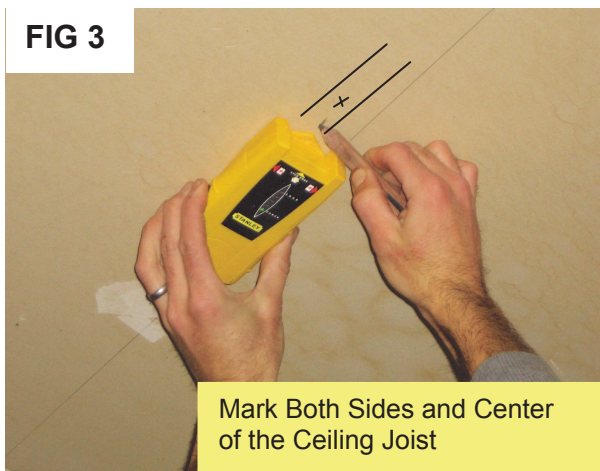
Step 2

- **Please read through this entire instruction manual before proceeding. Once you understand all of the installation steps, you can then proceed from this step with your actual installation.**
- Identify the ceiling location where the overhead rack will be installed; remember you will be utilizing at least the same area on the ceiling as the size rack you are installing. Be sure to take into consideration objects that could come into contact with the racks such as, garage doors, garage access doors, overhead lights, automobiles or auto parts, etc.
- **WARNING: This installation is intended for a wood framed home, if your home is steel framed, stop the installation and call 877.655.3443.**
- If your garage has a finished drywall ceiling, use a stud finder and locate the ceiling joists that are in the area of the intended unit. Determine the joist direction that applies to your installation. Your unit will either be installed parallel (Figure 1) or perpendicular (Figure 2) to the joist directions, unless your rack is a 4' x 4' unit in which case it is symmetrical in length and width.
- Regardless of the joist spacing in your ceiling (centers of 16", 18", 24", etc.), or the orientation of rack installation, you will anchor the supplied 27" ceiling brackets to at least 2 ceiling joists for each corner of the overhead rack as shown in figures 1 & 2. The vertical posts of your overhead rack need not be centered on the ceiling joists as shown in Figures 1 & 2.
- In some cases, such as a sloped ceiling, it may not be possible to attach the ceiling bracket to 2 separate ceiling joist. In these situations, it may be necessary to install your ceiling brackets along the ceiling joist, so that both lag bolts are in the same joist. Space your lag bolts as far apart as possible to help spread the load over a larger area of the ceiling joist.
- **WARNING: Regardless of whether you are installing your ceiling brackets on a single ceiling joist or between 2 joists, the vertical posts need to hang between 2 lag bolts anchored to your ceiling joist, or joists. DO NOT attach the vertical posts outside of the 2 lags in a cantilevered fashion.**
- In rare cases, ceiling joist may be at odd intervals or greater than 24" centers. If this is the case please contact us and we can supply longer ceiling brackets to suit your needs.
- Now that you have identified where your overhead rack will be located, mark the ceiling with the location of your first vertical post and then mark the location and direction of the ceiling joists on either side of it.
- **NOTE: If the lag bolts take excessive force to install during STEP 3, or if a lag bolt has broken during installation, the wood may be excessively hard or knotty. Ensure that the proper size and depth pilot hole has been drilled. Also, the threads and shank of the lags can be rubbed with a bar of soap to ease installation and prevent over-torquing.**

FIG 1*Parallel Configuration
View of ceiling***FIG 2***Perpendicular Configuration
View of ceiling*

Step 3

- Once you have identified where your rack will be located on your ceiling, you will know where your 4 vertical posts will be hanging. Choose one of the vertical posts to hang first, typically one against a wall or in a corner. All your other measurements in Step 5 will be taken from this post/ceiling bracket. After identifying the location of your first vertical post and the ceiling joists on either side of it, use a stud finder to locate the center of the ceiling joists by marking both sides with a pencil, then mark the center of the joist where the lag screw will go (Figure 3). The lag screws need to be placed in the exact center of the joist. Optionally, you can find the exact center of the joist by hammering a small nail or punch along your pencil lines to find the true edges of the joist (Figure 4).

FIG 3**FIG 4**

- Hold the ceiling bracket up to the marks that you have just made and ensure that the marks will line up with existing holes in the bracket. The ceiling bracket can be installed with the long slotted holes on the ceiling, or with the slotted holes away from the ceiling as shown in Figures 5 & 6. The slotted holes help align the bracket, or the vertical post to your desired location.
- Using a 3/16" drill bit, drill a pilot hole 3" deep at the marked locations. Ensure that the hole is in the center of each joist. Screw the 3" lag screw through the ceiling bracket into the drilled pilot holes using a washer under the head of each screw (Figure 5). **IMPORTANT: Ensure that each lag screw has at least 2 inches of penetration, or "bite" depth, into each ceiling joist. Be careful not to strip out the wood by over tightening. Once the lag screw is flush against the ceiling bracket and the bracket is flush against the ceiling so that it does not move, it is tight enough. If the lags take excessive force to install, stop and remove the lag, ensure that the proper size and depth hole was drilled, then rub the threads and shank of the lag with a bar of soap to ease installation.**



FIG 5

Note: The ceiling brackets shown in some illustrations may differ from what you have received. Ceiling brackets supplied with all DIY kits (do-it-yourself) will look like the ones shown in Fig 5 & 6.

Step 4

- Take the vertical posts and adjust them to the desired distance from the ceiling. Ensure the lower section of the vertical post is placed on the inside of the two post pieces. **IMPORTANT: Ensure the teardrop holes are facing down, and that all vertical posts are adjusted to the exact same length.**

- Use two nuts and bolts with washers to secure the posts together. Ideally put one nut and bolt assembly on each face of the vertical posts, with one at the top of the vertical post overlap and the other at the bottom (Figure 7).
- Next, using a single bolt with washers on both sides, connect the first vertical post assembly to the ceiling bracket that you installed in Step 3. (See Figure 6). **NOTE: Tighten the nut until it is snug and “bottomed” against the rest of the bolted assembly. DO NOT OVER TIGHTEN.**
- As stated previously, you may have the slotted holes mounted against the ceiling, or you may have the slotted holes hanging down to attach the vertical posts, as shown in Fig 5 & 6.

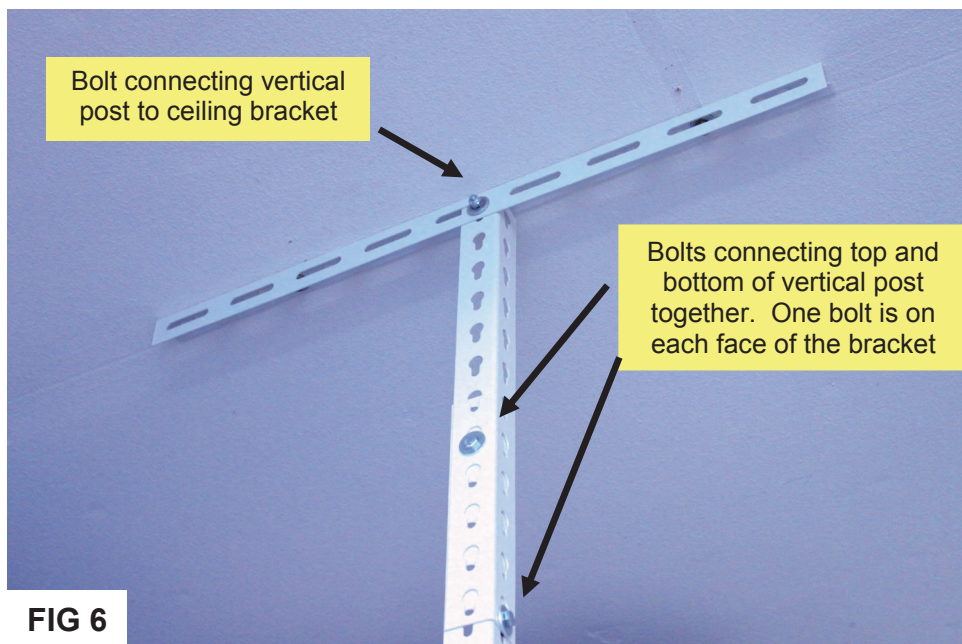
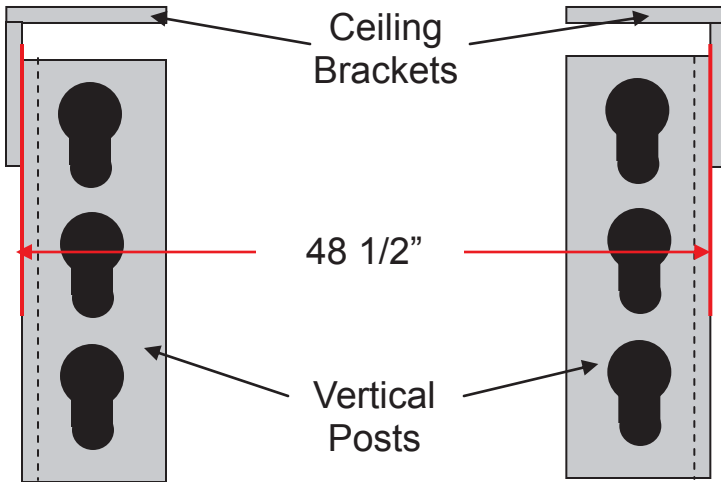
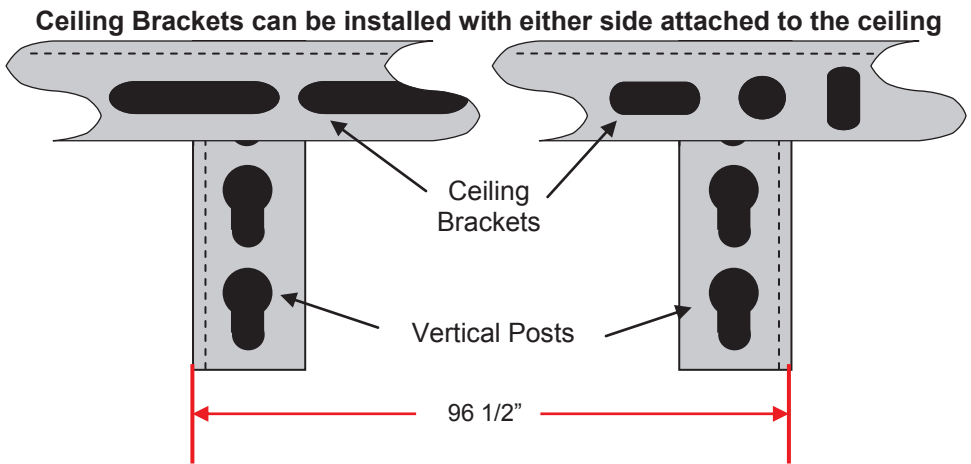


FIG 6

Step 5

- Use a tape measure and mark the remaining positions for the other three ceiling brackets. Add $\frac{1}{2}$ " to the length and width of your overhead rack to find the next location. In the examples below, a 4' x 8' overhead rack is shown in a perpendicular configuration. See the Illustrations on the following page.
- For other rack sizes, measure out the bracket placements in the same way by adding $\frac{1}{2}$ " to your length and width dimensions.
- Once you have marked the other three vertical post locations, repeat the process in Step 3 for anchoring the remaining 3 ceiling brackets.



Step 6

- Once all vertical posts are in place, start installation of the short side beams with the horizontal flange on top. Finish with installation of the long sides; the horizontal flange with the 45° angle cut at the end of the long beam should be on top. **WARNING: Opposite ends may come loose when hammering beams in place. Use a helper to ensure rivets do not come loose during the seating process.**
- Seat the rivets into the holes using a rubber mallet (Figure 7). A properly installed beam will have the beam rivets completely seated at the bottom of the teardrop holes in the vertical posts. Continue seating the remaining beams until finished.



FIG 7

Step 7

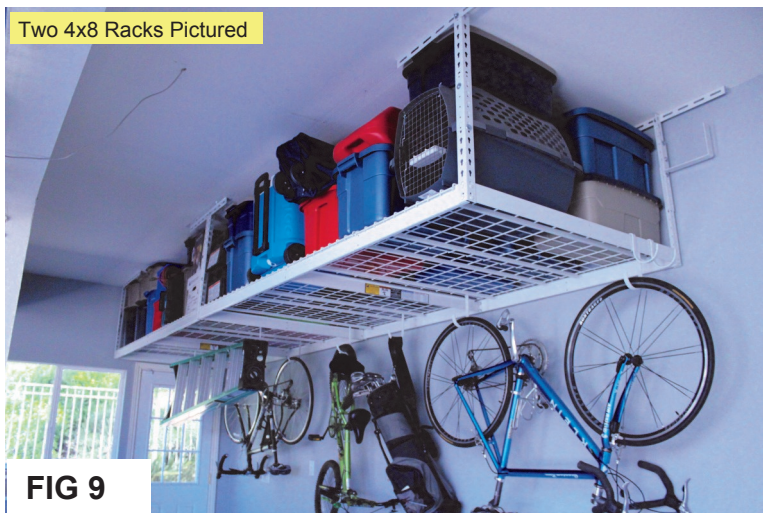
- Connect the center support (Not included with 4x4) using the remaining slot-head bolts and wing nuts (Figure 8). Use a flat head screwdriver to fully tighten the bolt to the wing nuts.



FIG 8

Step 8

- You are almost finished. Take the wire decking and place it on the racking unit. Wire decking remains in place by gravity and can slide freely side-to-side. There will be a small space between each deck (Figure 9).
- Take one last look at all the rivets to make sure they have not backed out during the installation process. Look at the ceiling bracket lag screws to make sure that they have not pulled out during the beam seating process. If they have, it is an indication that the lag screws may not be in the center of the ceiling joist, or that they were not fully tightened when installed.
- **Congratulations!** You are now ready to load your rack and enjoy the extra space that you have created.



Multiple Rack Steps:

- If you are installing multiple racks, end-to-end or side-by-side, you should utilize a 27" ceiling bracket per corner, per rack.
- At the corners where 2 vertical posts will be hanging side by side, you will install your ceiling brackets back to back and utilize 2 lag bolts per bracket as outlined in Step 3 (Figure 10 & 11). Depending on the direction of the ceiling joist in relation to your racks, your vertical posts will either be located on opposite sides of the ceiling brackets (as shown in Figure 11), or they will be located on the same side of the ceiling brackets (Figure 10). In either orientation, run your bolts through both ceiling brackets.



WARNING: Load heavy objects, distributed equally, nearest the vertical posts and light objects nearest the center. Read the safety label on the rack and do not overload the system. Do not climb on or hang from the storage rack. Routinely inspect the rack over time to ensure rivets and wire decking are seated properly.

WARNING, DO NOT EXCEED THESE WEIGHT LIMITS

4' x 8' Frame	600 lbs.	3' x 6' Frame	400 lbs.
3' x 8' Frame	500 lbs.	2' x 6' Frame	300 lbs.
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All stated weight limits are based on static loads with load distribution as stated above. Some horizontal deflection can be expected when racks are loaded near maximum limits.

REFER TO THE WARNING PAGE ON INSIDE COVER OF THIS MANUAL

Installation Tips - DO's and DON'Ts

Please read the following notes to ensure proper installation.

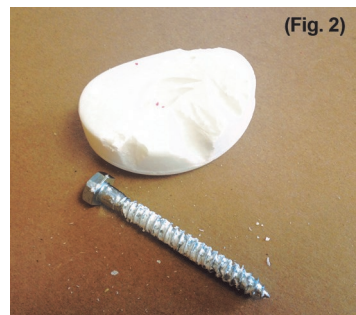
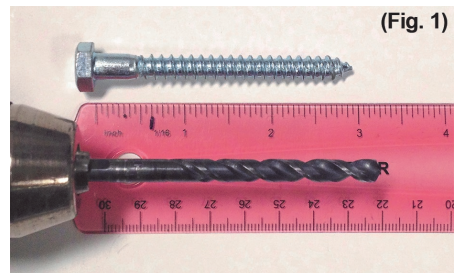
LAGS

Our lag screws are made according to industry standards ASME B18.2.1 and ASTM A 307, Grade A. They have a tensile strength of 60,000 psi.

Even though they are made to these standards, they will break if over-torqued. Lag screws can be over-torqued if the wood is excessively hard, knotty, or if the wood is wet. Also if the pilot hole is too small, or too shallow they may break. If the effort to install the lag screw switches from relatively hard to very easy, you have broken your lag screw.

FOLLOW THESE STEPS TO AVOID OVER-TORQUEING YOUR LAG SCREWS:

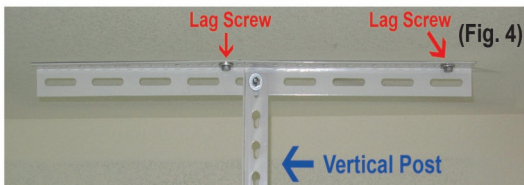
1. Ensure that you have drilled the pilot hole with a 3/16" drill (Fig. 1).
2. Ensure that you have drilled the pilot hole at least 3" deep (Fig. 1). There is a difference between a 3" long drill and having 3" of the drill protruding from the chuck. Ensure that you have 3" protruding from the chuck.
3. Rub the threads and shank of the screw with a bar of soap. (Fig. 2)



Ceiling Brackets and Vertical Posts

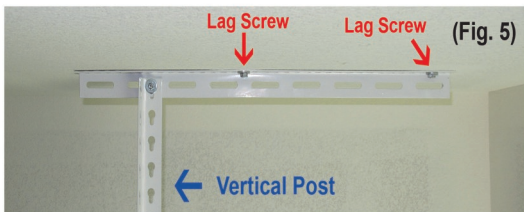
Our ceiling brackets are intended to be installed with a minimum of two Lag Screws. Please reference below for the correct way of positioning the vertical posts on the ceiling brackets.

Installed Correctly

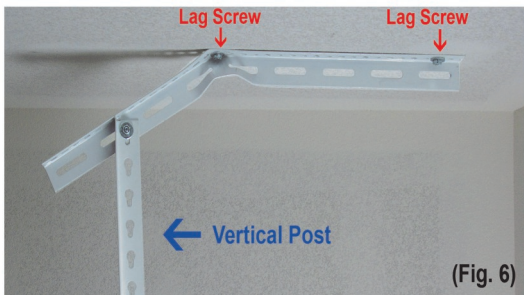


ALWAYS install your vertical posts between the lag screws in the ceiling bracket (Fig. 3 & 4).

Installed Incorrectly



DO NOT attach your vertical posts outside of the lag screws in a cantilevered fashion (Fig. 5 & 6).



WARNING

If you install your ceiling bracket & vertical posts as shown in Figure 5, your ceiling brackets will bend, causing your storage items to fall to the floor. (Fig. 6)

LIMITED LIFETIME WARRANTY

ALL EAGLE INDUSTRIAL GROUP, INC. (DBA SAFERACKS) OVERHEAD STORAGE RACKS

For a period of (30) thirty days from the date of purchase, should you not be satisfied with your product, you are entitled to a full refund less taxes, shipping & handling costs paid by the buyer.

What Is Covered? Eagle Industrial Group Inc. (EIG) warrants its overhead storage rack materials from manufacturing defects and defects from the product's workmanship for the lifetime of the product. The Lifetime Limited Warranty applies to the original Purchaser. The original Purchaser must provide the original sales receipt and proof of purchase from an approved dealer with any request for warranty claims.

What Will EIG Do? During the warranty period, EIG will repair or replace any product that fails to perform to EIG specifications. Such repair or replacement shall be determined by EIG and shall be limited to necessary adjustments or parts replacement and does not include reinstallation at the installation site. Reinstallation is the responsibility of the original Purchaser. This warranty does not cover any labor costs associated with service, removal or reinstallation of parts. At the option of EIG, the original purchase price may be refunded to the original Purchaser for a full refund and complete compensation of defect. Please contact the EIG Dealer with whom the original purchase was made. Taxes, shipping and handling charges will be the sole liability of the original Purchaser.

What Is Not Covered? The warranty applies to the original Purchaser for home, personal use only. No coverage is provided if the product is transferred to another structure. The original Purchaser must provide proof of purchase and the original receipt for coverage to be in effect. The warranty will be in effect only when the storage unit is properly installed by the original Purchaser or licensed dealer and the defect is not a result of improper or abusive treatment or improper installation. Coverage is not provided for discoloration, corrosion, rust or physical damage. Damage is not covered if storage loads are not evenly dispersed, as outlined in this manual, or the maximum load capacity exceeds those listed in this manual. If any other parts (not provided by the EIG manufacturer) are used in conjunction with the EIG product, the warranty shall be void.

THE WARRANTY WILL NOT BE IN EFFECT SHOULD THE INSTALLATION NOT ADHERE TO THE PUBLISHED INSTALLATION INSTRUCTIONS PROVIDED WITH EACH UNIT. THE WARRANTY DOES NOT PROVIDE COVERAGE IF THE PRODUCT MALFUNCTION IS DUE TO SHIPPING DAMAGE, PRODUCT MODIFICATION, IMPROPER INSTALLATION, IMPROPER MAINTENANCE, EFFECTS FROM BEING CONTACTED WITH A VEHICLE OR ANY OF ITS PARTS, OR CLAIMS MADE OUTSIDE THE WARRANTY PERIOD.

Warranty Limitations: No other warranties are expressed or implied for the storage product. In the absence of an implied warranty period under state law, seven years shall be the term of the implied warranty. EIG makes no other warranties under the terms of the Limited Warranty and the option of repair or replacement is EIG's only obligation. EIG is not responsible for any other special, consequential (including substrate failure) or incidental damages resulting from the purchase or installation of the unit, regardless of cause. Liability for any such losses (including, but not limited to, financial loss, or loss of facilities use) regardless of cause or breach of implied warranty is expressly disclaimed and excluded herein. Upon installing any EIG overhead storage unit, the customer agrees that he/she is utilizing the EIG overhead storage unit for personal, non-commercial, use only. By installing any EIG overhead storage unit, the customer agrees to the warranty and agrees that the delivered product was to his/her satisfaction and that installation was done per the instructions outlined in the "Assembly Instructions" manual provided with the purchased unit.

How State Law Relates To The Warranty: Please consult your state's laws regarding warranties. You may have rights in addition to the Limited Warranty. Some states do not allow limitations on how long an implied warranty lasts or limitations on incidental or consequential damages. So the above limitations or exclusions may not apply to you.

Outside the 50 United States and Canada, this warranty does not apply.

Keep this document and your sales/installation receipt together for future reference. To activate this warranty, you must register your products within 30 days of purchase. You can register at www.eagleindustrialgroup.com, these documents are required for warranty service.