The

Floating™ Bed Installation Manual (Section I)









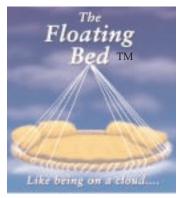
Pat. Pend.

This document is Section I only. It contains: Pre-Installation Preparation Installer Guidelines; Installing a Ceiling Mount / Hanging Ring

Section II (assembly, hanging and usage instructions, etc) is not in this document; refer to the Complete Manual.

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Floating™ Bed Installation (Section I) Manual



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Floating Bed™ Liability waiver, warning, and disclaimer

The lawyers forced us to do this.

We have done what we could do to make The Floating Bed as safe as possible. But there may be inherent risks in using it, as there may be with any device. You agree to read the manual and all safety warnings carefully, and follow them. You agree to accept any possible risks, if you keep this bed, or you must return it now, for a refund. You also agree to supply us your address and/or other contact method, so that we can inform you with a warning of any possible risks, or modifications, or recalls.

You agree to get professional installation, and you are personally responsible for any installation you do, or get someone else to do. We are not responsible for any injury or property damage that occurs in, in connection with, or as an indirect result from use of this device.

Traditional beds and hammocks also involve risk, for example, as does the use of virtually any device or invention. This device is new, possibly with unknown risks, as well as the benefits. It's impossible to eliminate risk from all activity. Using this device involves some risk. The bed can collide with objects or persons. The hoop or cords could fail in any of several ways, through accident, misuse, manufacturing flaw, or deliberate sabatoge. The installer may not do a proper job. He may not follow the directions, or properly inspect your ceiling structurally, or securely attach the hanging ring to your ceiling. The mounting method or fixture, or attachment point, or supporting member(s) could bend, break, or fail in any number of ways. Although some failure modes would give warning before they dropped the bed, occupants, or the support fell on occupants, it is possible that an instantaneous failure could occur. This potentially could, without warning, drop the occupant(s). The hanging ring, ceiling, stand, tree, or other object could fall on the occupant(s), resulting in mild or serious injury, or death.

Children and especially infants should not be left unattended in or near the bed. They could fall out, get caught or choked on the cords, or if they are standing on the ground close to it, they could be struck by it as it swings.

You agree to be responsible for guests in your device. You agree to warn them of these and all risks, and not to hold us liable for any injury you or any others may incur in conjunction with it. By keeping installing, or using this bed, you agree to relieve The Floating Bed Co., Inc., and it's dealers, suppliers and contractors of responsibility for any injury that you or anyone using the device might sustain.

We believe we are offering a great new product with exceptional value, but we are a new company, and this is a new design. No other warrantee for the Floating Bed, or any intended use, is offered.

Please read the Liability Waiver because you, the customer, must agree to these terms. If you disagree, after reading the Liability Waiver and the manual, you must now return the bed, and we will not accept your order. Your installation and use of this device is proof of your contract of agreement to this liability waiver.

If you return the bed immediately now, within 3 days of receiving it, because you do not agree to these terms, then we will give you a full refund of your purchase price.

Thanks,

The Floating Bed Co.

Floating Bed General Information

Thank you for your purchase of a Floating Bed. We believe that this is the most sophisticated sleeping and relaxation device ever created. The warning and disclamer notwithstanding, we have done everything we could to make it as safe as possible. We recommend that you read the entire manual carefully, and follow the guidelines.

Since it is a new product, with new benefits, The Floating Bed does require some education, and lifestyle or use of space changes. We believe that you will find that it is well worth taking the time now, in order to discover and create for yourself a new way of relaxation, sleep, and hanging out with your friends.

This manual is thorough, and it contains many things you will want to know to properly use and get the most out of your new bed, sofa, toy, and health device.

Some other general information:

Some sections refer to specific situations that may not apply to you. You may have your bed indoors, and don't care about outdoor use. (However, once you purchase a bed, it is possible to unhook it from an indoor mounting ring and simply carry it to an outdoor hanging location; simply adjust the length of the Cascade Lines if the hanging height is much different.) You may or may not get a mattress, etc. Call us if you have any questions.

Recommended Sheets for your Floating Bed (use normal, rectangular K & Q sheets), With our Round Memory Foam Mattress -

Bed Model	Bottom Fitted	Top (flat)
Small Youth Floating Bed (6')	Queen	Twin or Double
Large Youth Floating Bed (6'6")	Eastern King any depth pocket	Double or Queen
Queen Floating Bed (7'4")	Eastern King 12" or more pocket	Queen or King
King Floating Bed (8')	Eastern King 15" -18" pocket	King

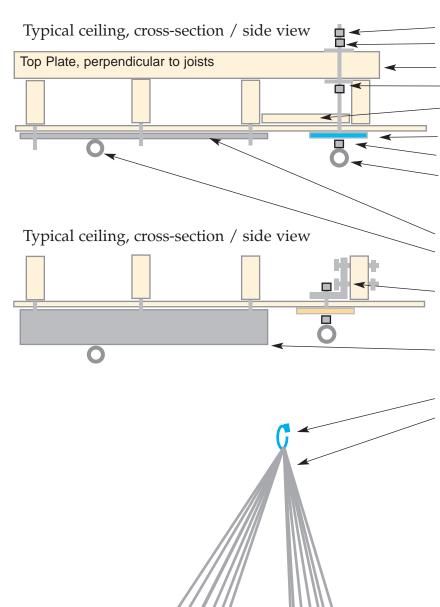
If you use sheets, but do not have our round memory foam mattress, and wish to use the Hoop/Cascade Line "tuck-in feature" to hold the sheets in place,

Floating Bed Queen size:

use King flat for bottom, Queen Flat for top sheet (or use King flat, although it's a little bit extra wide)

Floating Bed King size:

use King flat sheet for bottom, King flat for top sheet.



pat. pend.

Nut #4 Nut #3, lock washer, thick washer Top Beam or Plate

Nut #2, washer

eye bolt lateral blocking brace

Ceiling Trim Ring Nut #1, ideally, between eye and trim eye bolt /Hanging Ring

OR (3 alternate Hanging Ring methods): Under Ceiling Mounting Plate, custom, with Hanging Ring, bolt or welded

OR

Angle Iron or plate, bolt to side of joist

OR wall-to-wall exposed Add-a-Beam

Carabiner

32 Cascade lines (standard, other options)

hoop (4 options: 6', 6'6", 7' 4", or 8' dia.) 4 or 6 tube sections, stainless steel Two hinge ends, 2 or 4 insert joint ends 8 or 12 net attachment tabs

Two hinge collars
Four hinge pin bolts & nuts
Four locking bolts & nuts
Four hinge stiffening inserts (internal)
4-6 insert joint locking bolts & nuts

(optional) Fabric hoop cover, with Hoop foam (bump absorber foam)

net knot row (where ends tie together)

2 - 8 Weights (optional) under the net Net attachment rope (spiral wrap) Cascade Line attachment rope net weave stay 1/8" (anti-unravel cords) 16 cord locks Net safety rope ("X" ropes under net) Tether option; rope + elastic shock cord Tether floor attachment (Pad Eye)

Various Brackets & Hanging Options



Standard thru the ceiling



concrete ceiling





For exposed flat or vaulted ceilings,

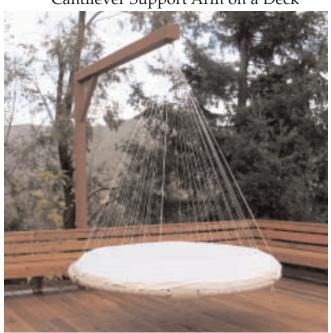
Or, bolt to joists hidden above sheet rock ceilings, with or without attic access.

Custom bracket

Cantilever Support Arm on a Deck



Custom bracket: 4" angle iron in a "cross," bolted to joists



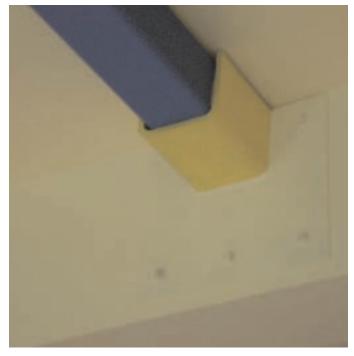
Various Brackets & Hanging Options

Add-a-Beam: Below the ceiling mounting method.

4" square steel tube, attached to side walls. OK, the blue is a bit extreme; you could paint it brown and it looks much like a wood beam.







Angle Iron in attic: 2 sections overlap, above joists



Homeowner and installer: please read this document entirely and carefully.

Planning The Installation

To the homeowner:

We require that this installation is done by a professional carpenter, familar and experienced in home building and remodeling. Although installing the Floating Bed is not rocket science, you must get a carpenter who you can trust. We are available to give as much advice as he will take, but since we are not at the site, the actual installation is your responsibility, and a matter between you and your installer. If possible get these instructions to the installer beforehand, so he can come to the site better prepared. Spend some time discussing the installation and your preferences with him. Expect him to spend some time thinking and planning, and making 2-3 trips to the hardware store. An installer on the site looking everything over is your best preparation for a good installation. If the two of you wish, we can supply additional hardware, even fabricated or welded brackets if necessary, but we will need to have an idea of what you need. You may want to make drawings or photos of the room, and sketches and dimensions of proposed hardware, especially if you want our help with that.

Two more points: Landlords, don't worry. After the installation, the ceiling will be stronger than it was before. If your tenant moves, the hardware can be removed with minor effort to restore the ceiling to the way it looked originally.

To the installer:

This document is a brief set of guidelines that may help you, a construction professional, save time in deciding how to create a secure attachment point for the Top Ring of the Floating Bed. It assumes that you are installing the bed in a structurally sound building, deck, etc. We will not be at the installation site, and ultimately the safety of the installation is your responsibility. Remember that the safety of all future occupants of the Floating Bed will depend on your installation, so do it right. We recommend that you call us (at 888 528 6031 x103, central time zone) before starting, for more detail. Also, we would appreciate a call after you finish, to tell us how your installation went, how these instructions could be improved, and what else you encountered or used that we can tell future installers about. We check our voice mail outside work hours when possible, so call at any time and leave a message with callback #. If you give us your contact information (phone # and/or email) we can update you on future information, and put you in our files as an experienced installer for your area for future customers.

Installation Materials & Tools.

Because your approach to mounting the Floating Bed's Hanging Ring or Eye Bolt will depend on the room, we do not supply hardware for this purpose unless you special order it from us. You will need some type of mounting ring, typically a long 3/4" Eye Bolt. It must be a forged eye, ideally threaded all the way, and long enough to span the ceiling sheet rock, joists, top & bottom plates, & nuts. This usually takes an eye bolt that is 12 - 18", so measure first. Our optional ceiling trim kit contains an 18" all-thread eye bolt, a stiff Ceiling Trim Ring, nuts & washers. It may save you some trouble finding this hardware.

You may need other bolts, nuts, washers, lock nuts, plates, lumber, wood screws, etc. You will need a ladder and tools such as a drill, saw, level, hand tools, wrenches, etc. You may have custom metal plates or other hardware welded or fabricated, locally or by us. Call for details.

Discuss and Measure twice, Install once.

The most important necessity is creating a solid, secure, <u>immovable</u> Top Ring or Eye Bolt. The second important goal is to center the Top Ring (thus the bed) in the ideal location, to allow the maximum possible swing distance in all directions, and such that it won't bump into anything (especially something that it could break on contact, such as a window, etc.). Ideally, mount the Top Ring in a place that is both secure & good for swing distance and usability.

Take time to read this document, think about it, and discuss it together. Look at the space and how you intend to use it carefully, because a little planning now will make using the bed a lot easier and a lot more fun in the long run.

Consider whether you want the Floating Bed as your main bed (in your bedroom), or an alternate room for occasional sleeping, sofa or recreational use, guest use, or outdoors. (Of course it is easy to move the bed, if you create hanging points in different locations.) You may have to choose between a large room or space (for max swing distance) vs your ideal room for use.

Location, Location, Coverall swinging distance minimums and maximums.

It is important that this Top Ring is in the most central or ideal spot in the available space. There is no absolute rule on wall clearance, but more is better, and this becomes more critical with higher ceilings. A free-swinging Floating Bed (that is, one <u>without</u> an elastic tether to limit it's range of motion) ideally needs a bit of room to move. (See **Pre-installation Guide**.)

Best-case swing distance vs worst-case.

For example, let's assume a 7'4" dia bed, suspended from an 8' ceiling.

An ideal setup (not always possible) should have a free-swinging space (a <u>circle</u> drawn on the floor, centered on the bed's center) of about 12' in diameter that is free and clear of objects or walls. This diameter clear circle is recommended because the bed will swing about 2' when an adult gets in the bed normally. (However, if someone dives in or enters with exaggerated motion, the bed will swing farther, and may still bump slightly. So if you intend to rock vigorously, a little more clearance is better.) With taller ceilings, swing distance increases slightly, and thus slightly greater clearance may be needed for taller ceilings.

However, the swing distance can be reduced under certain conditions. For example, you can enter gracefully, or a bottom tether and/or weight kit can be used. If a padded hoop frame is used, then even if the bed does bump the wall, it absorbs the shock. With the padded hoop, bumps will not mark the wall if they are mild. For example, with an 8' ceiling in a 11' square room, the bed will not bump if it is entered moderately, but if someone does enter recklessly then the bump would be mild, with the padded frame. Also, you may adjust ground clearance to reduce swing or to swing over low objects, or swing under high ones.

It is also important to give consideration for doors, windows, and other room features that will limit available swing distance or cause problems if contact occurs.

Since many rooms do not have enough space free of obstruction, or wall clearance, it may be practical in those rooms to use an elastic tether and/or weight kit to limit the swinging. (See the section following on tethering.) Or, consider another room or outdoor location.

Though we don't emphasize it, some owners have been happy with Floating Beds installed in rooms which were only 2' wider than the bed (9' 6" wide wall separation) in one direction. (They orient the doors to enter so the bed swings in the long room direction.) So there is no cut-and-dried answer to required space.

It is normal to have questions about room size and swing distance. Do yourself a favor; feel free to call us for advice. **Our Pre-Installation Guide has more advice on this topic.**

Floating Bed Entry Doors - Opening Orientation

The ceiling eye bolt you install must be oriented so the Floating Bed doors open in the desired direction. The bed's 2 door openings will be in the same direction as the hole in the eye bolt. (If you are looking thru the bolt's eye, you will be looking thru the 2 bed doors.) Most users locate the bed's door openings on the right & left side (3 & 9 o'clock), thus the head & foot are on the top & bottom (i.e. 12 and 6 o'clock). However, some users prefer the main door opening at the foot of the bed. Think about this, and call us for advice if you are unsure.

Starting the Installation

The ceiling area that you attach to (spread the load over) must be capable of supporting 2000 lbs continuously, without sagging, or cracking sheet rock. This is not as hard to achieve as many homeowners think. The best installations require big wood members, or steel if you want to go for it. (Steel is great but will require precise cutting and drilling, so plan ahead.)

There are 4 Standard Methods to mount the Top Hanging Ring / Eye Bolt. (Also see <u>drawings</u> & <u>photos</u> on <u>pages</u> 5 - 7 at the beginning of this section) Read all 4 methods; you may find advice in one that applies to another that you choose.

1. Above the joists (or ceiling), with a top plate / beam.

If there is access to the attic, or an unused area or room above the Floating Bed room, then put a beam of wood or steel on <u>top</u> of the ceiling joists, to attach the Top Ring/Eye Bolt to.

Wood: Depending on the joists, a "top plate" or beam of 6" x 6" or 4" x 12" wood or similar, can be attached on top of the joists, and perdendicular to them. Thicker is better (if joists are springy, etc). It should be very stiff, because if it bends, the bed will actually be supported mainly by the 2 joists in the middle. Of course you must make sure that the ceiling joists are structurally capable of supporting the weight of the bed & occupants, without cracking the rock. Then it's a simple matter of spreading the weight over enough area to support the load.

Steel: This makes for the best installation, but it may take more effort (to drill). Steel is not essential, unless the distances are long or there are other problems. $4'' \times 1/4''$ angle iron (or thicker) is ideal. It can be cut (for easy handling & attic insertion) and bolted together with 2' - 3' overlap in the critical, weaker center area. $1/4'' \times 3''$ square steel tube or larger also works.

Across the Joists: If possible, the top plate should span (and rest on) the two opposing loadbearing walls, or come close. Then you don't have to worry about ceiling strength. If this is not possible, but the ceiling joists are 2" x 6" built to code, on 16" centers, and they are solid, with-

<u>out any significant bounce</u> or "give," then your top plate should span at least 6 joists (or ideally more). If you find weaker joists, or have any doubt about the strength of the ceiling to support 2000 lbs, without sagging, then span more joists, or tie in to additional structural members.

Parallel to the Joists: You can also add a joist, or else reinforce an existing joist, to span between the opposing side walls. Size it according to span tables to hold 2000 lbs with 1/4" flex maximum. 4" x 3/8" (or thicker) angle iron is best, or 4" x .25" wall square steel tube or channel is usually enough. Place it adjacent to an existing joist, and bolt them together with several 1/2" bolts & washers. Steel 3/8" flat strip is usually ok too, but you must create a way (welded thick flange, etc) to attach the 3/4" eye bolt to it. The steel should be long enough to reach the supporting walls, or come within 6", on both ends.

Plan to insert a 3/4" eye bolt, from below, up through the ceiling. It must be long enough to pass through the bottom Trim Ring, ceiling sheet rock, the ceiling joists, and through your top plate / angle iron / etc, and still allows for 2 nuts and a large washer on top of the top plate. Also put a nut on the eye bolt below the top plate, so you can cinch the bolt tightly, so it can't wobble, and so it will not rotate freely. Use washers and lock washers liberally. Make sure the two top nuts are cinched down to each other very firmly, and lock washers are below the two top nuts and the washer above the top plate. This eye bolt needs to be at least 12" long, and often even longer, in order to span the distance. An 18" bolt will work in nearly any ceiling.

To prevent bolt wobble, noise, & other problems, you should mount a stiff Ceiling Trim Ring/plate below the ceiling. Ideally this Trim Ring should be 6"x 6" or so, round or square, with a 3/4" hole in the center (the diameter of your eye bolt shaft). The Trim Ring can be made of 1/8" steel, 1/4" Aluminum, 1/2" Masonite, 3/4" hardwood, or other material. It should look good (rounded edges, painted white or to match the ceiling, etc.). Also, install a lateral blocking brace between the 2 ceiling joists as shown in the drawing.

Our Ceiling Trim kit: For simplicity buy it to save you some trouble, unless you have a better plan. It has a 3/4" x 18" all-threaded Eye Bolt, 6" round Ceiling Trim Ring, nuts & washers.

The correct tightening order for the nuts (see drawing pg #5 for detail):

- a. Tighten the lower nut above the top plate (Nut #3) in the attic first, to pull the Hanging Ring and Trim Ring up to 1/8" 1/4" below the ceiling sheet rock. You must have someone watching below, to be sure you do not pull it up too far, and risk cracking the ceiling.
- b. Tighten the topmost nut (Nut #4) down to Nut #3, very tightly to lock Nuts #4 & 3 together.
- c. Tighten the Nut #2 below the top plate, very tightly so the eye bolt <u>cannot rotate at all, ever</u>. During this step, you must orient the eye ring opening so the Floating Bed's doors open in the desired direction (as explained earlier).
- d. Last, tighten (elevate) the bottom Nut #1 to hold the Ceiling Trim Ring up against the ceiling. It should be in contact, but not so tight as to risk cracking the sheet rock. This will clamp the Trim Ring up against the ceiling sheet rock. This will keep the eye bolt immovable and quiet, because the ceiling and joists will be "sandwiched" between the Top Plate / beam & the Ceiling Trim Ring; the eye bolt clamps it all together.

The Ceiling Trim Ring will also cover the hole you have made in the ceiling and prevent any debris or insulation from drifting down. However, if anything in your installation is too loose, the eye bolt and plate(s) will move from side to side, cause noise, aggravation or long-term problems, so do whatever it takes to make your structure rigid. If motion occurs, fasten the bolt more rigidly. You may have to get creative here.

After all nuts are tightened and everything is rigid and secure, use wood screws to anchor your top plate / beam to the joists (or other structure) so it won't move <u>or</u> rock.

If you mount everything rigidly so nothing can move <u>even slightly</u>, you will save yourself a lot of trouble later, and the homeowner will be much happier with the installation over time. Any additional bracing to prevent lateral or vertical motion will be useful. (Other ties to ceiling joist sides or structural members, etc.) Remember though, you <u>must</u> have a nut under the top plate too, so don't let your bracing get in the way of placing and tightening that nut.

2. Below (or within) the ceiling attachment; exposed beam or bottom plate. (See photos at the beginning of this section)

If access to the attic or room above is impossible, then the Floating Bed can be attached to the ceiling from below, using a"Bottom Mounting Plate" to spread the load. In this case, you must first check if the ceiling joists appear to be structurally sound, and if the area you intend to spread the load over is capable of supporting the weight (2000 lbs, as before). The best below ceiling mounting means use steel. Use shapes or thicknesses that will not bend, and/or long enough to rest on load-bearing walls, This will reduce concern about the ceiling strength. Steel will be heavy, so you probably will need a helper.

- a. Add-a-Beam A relatively simple below ceiling mount can be made by adding an exposed beam, below the ceiling. (See photo pg #7.) It can be 4" x 1/4" or thicker square tube, painted brown to resemble a wood beam. Attach it very securely to opposing supporting walls, flush up against the ceiling. (Imagine a giant closet rod, with substantial end blocking on, or inside, the side walls.) It can also be screwed to the ceiling joists for added strength and to prevent "bounce". (Shapes other than square tube are fine, if you do the load calculations.)

 Bolt or weld a ring or U-ring to it where the bed is to be hung. (The ring can be a 2" ID steel ring, or a U-ring, with a 2" opening.) This may seem like some trouble but it looks nice, is strong, and makes everyone confident that it will not fall if you do it correctly.

 We sell a kit with the side flanges & sliding hanging ring; all you need is the 4" steel tube. Call.
- **b.** Concealed Beam A way to conceal this added beam is to open up a channel in the ceiling sheet rock, adjacent to a ceiling joist, and install the new beam, angle iron, or flat strip <u>above</u> the sheet rock instead. Attach it to opposing supporting walls, or bolt it to the side of an existing beam. Add new sheet rock below the beam to patch the ceiling, etc. This is often easier than homeowners think. (See page #11 above, parallel to joist installation.)
- **c. Flat bottom plate or strip** This can be used for an installation, either surface mounted, or flush mounted (less intrusive). It can be made of steel, or less ideally, wood. Since this is the least ideal structural method, you must be very careful if you choose this approach.

Steel Bottom Plate: Use a thick steel plate for strength and the best looking results. Weld a ring to it, or drill for an Eye Bolt. Span 6 or more joists, or better yet go from wall to wall. For examples, consider $3/4" \times 6"$ strip, or $3/8" \times 12"$ plate (both are 15 lb/ft).

You can surface mount the bottom plate, or remove some ceiling sheet rock to flush mount it; then it can be painted and feathered in to match the ceiling. (We can fabricate this steel bottom plate if you want.) Flat stock will bend if it is long, so the thicker it is the better.

<u>Much better</u>: if 4" angle iron, channel, or other steel "shape" is acceptable, the vertical leg(s) will minimize sagging, and you get <u>far</u> more strength with lighter material.

Wood Bottom Plate: Otherwise, if you have ceiling joists of 2"x 6" on 16" centers and they are very sound, then a 2" thick very high grade plywood bottom plate, 88" + long (to span at least 6 ceiling joists) and 24" or more wide, <u>may</u> be sufficient. Drill it for a 1/2" or 3/4" Eye Bolt, 4" - 6" long, near the center or correct location. Place a large thin metal plate <u>and</u> a washer above the wood, & a washer below the wood, to reinforce the hole for the Eye Bolt. However, since <u>wood will bend more and is less certain than steel</u>, you must verify that it will support the weight, that your attachment means are sound, and you have covered enough area. If in doubt, make it bigger, thicker, etc.

For Steel or Wood Bottom Plates: You should first roughly locate the joists with a good studfinder or other means. After that, make small exploratory holes on each side of each ceiling joist so you know <u>absolutely exactly</u> where the centers are. Then drill small pilot holes into each joist, checking to be sure that they are strong.

(In fact, since you will be covering the ceiling with the plate anyway, we recommend that you open up some sheet rock and carefully inspect the condition of the joists.)

Once the joist locations are exactly measured, then drill through your bottom plate to match the joist locations & pilot holes absolute dead center, and use sufficient quality, size & head size, and number of <u>structural wood screws</u> (i.e., Ziptips) to attach your bottom plate to the ceiling joists.

3. To an exposed beam, or other exposed structural member.

Some rooms may have a beam or other large framing member which is exposed <u>and</u> in an ideal location. Metalwork can bolt or lag screw directly to (or between) such beams. A properly designed thick plate, angle iron, or structural shape, correctly bolted to an existing beam, can look nice and actually strengthen the beam, which is the goal. It should have a welded Top Ring, or flange for it, for hanging the bed. Since there are many variations on this method, call for advice. We can design it for your local welder, or we can make it.

(Also, see photos page #6.)

You may install an eye bolt through a large beam as well, but this is not recommended; consider carefully whether the eye bolt hole could weaken the beam.

4. Indoor stand.

A fourth method, an indoor stand for rooms with ceilings less than 10', is under development and almost ready. Call if you are interested. Otherwise, our outdoor stand may work indoors for you, if you have a large room, and if the ceiling is 10' or higher.

Other Installation Considerations, for Homeowner & Installer to read

Hoisting It Up Against The Ceiling For Day Time Storage

Call for details on the hoist. We always discuss that first on the phone.

Limiting the Motion, and / or Tilt

Adding the tether can absolutely limit the swinging of the bed.

Adding weight with the weight kit, will reduce both the <u>swinging and tilt</u> behavior somewhat. In scientific language, we say the <u>damping</u> (tether) and <u>inertia</u> (weight) are fully adjustable. Practically speaking, that means you can adjust the way the bed feels and moves to your taste. <u>So allow as much swing space as possible, and simply add the tether or weight if desired.</u>

Tethering the Bed

With the tether, you can absolutely limit the swing distance to any practical size you want. Tethering will take some ingenuity and experimenting to limit the motion just the right way for your space.

Experiment with the tether as follows. Fashion one end of it from strong rope, and tie the end of that to a shorter piece (4" - 6" or so, plus the knots) of large size shock cord. This will allow the bed to swing completely free, until the short shock cord engages and stops it.

Tie the rope end to the center of the rope safety "x" brace under the bed, where the ropes cross and tie together. Attach the other (shock cord) end to a pad eye, on the floor below the bed. If the pad eye is <u>centered</u> under the bed, the swinging will be equally limited in all directions. If the pad eye is located <u>off center</u>, it will limit swing in the opposite direction, and the bed will swing more freely toward the pad.

(See dwg pg #5: with pad eye to the left, the bed swings far left, not so far to the right.)

Some people may object to attaching the tether's pad eye to the floor, even though it is under the bed. In that case, a very heavy weight, like 2 - 4 sand bags, with a non-sliding bottom surface or mat may be used instead of a permanent floor attachment. However, be aware that this weight may slide if too much swinging force occurs. You can use this for testing tether locations temporarily too.

A more complex tether can be made which will limit swinging in one direction while allowing somewhat more swinging at right angles to the swing-limited direction. This is done by anchoring a rope, cable, or small diameter pipe to the floor, oriented so it is running lengthwise in the direction that you want to have greater swing distance. Attach the top of the tether to the "X" rope below the bed as above. Attach the bottom end of the elastic tether to a round cylindrical object that surrounds the floor-anchored line or pipe, and is capable of sliding on it without binding or appreciable friction. However, this can get a bit "tweaky" if not done just right.

Or, a tether can be attached to the hoop itself, which will allow the bed to swing toward the tether, but not as far away from it, or in the opposite direction. It will also prevent the bed from rotating.

Other Installation Considerations, for Homeowner & Installer to read

The Weight Kit

By increasing the weight, you increase the Floating Bed's inertia.

As you progressively add more weight, it will:

Decrease the swinging distance, for a push (or bed entry) of any given force. (Hovever, if you provide a stronger push, or jump in harder, it may swing as far, and the swing lasts longer.) Decrease the tendency somewhat of the bed to move away when you enter it.

Decrease the tendency to tilt when you or your partner move around within it, get in, or out.

Some people are concerned about these things before spending time in the Floating Bed. However, after a few days with the bed, this worry goes away, for most people. However, it is always an option you have. Try your bed a few days before you decide if this matters to you. How to add weight: we have fabric bags that hold weights (typically flat barbell plate weights) that are tied snugly up under the net, out of sight. You can easily add 100 - 300 lbs if you like.

Outdoor Floating Beds: Using a Tree, or our 4-Pod (Pyramid) Stand as a Support

Trees vs stands

A tree seems like an obvious place to hang your bed, and it can be. However, some trees are much better than others for this purpose. The tree must have a sturdy limb which is strong enough to hold the bed & occupants, out at a distance from the tree trunk. 6' is the minimum top ring attachment distance from the trunk, for reasonable swinging in that direction. As the limb height increases, so does the potential bed swinging distance. Hanging it farther out on a limb allows more swinging, but you must balance that against limb strength.

Some trees tend to drip sap, some attract birds and thus droppings, and all of them occasionally shed leaves or needles and potentially other debris. Also, they block your view of the sky. The shade may be great in the daytime, but at night will obscure your view of the stars, which is one of the nice things about the outside bed.

Some trees are easy installs, which is a bonus. A tree can be a good temporary install for testing your bed too, but also consider the outdoor 4-pod stand for it's advantages. Go out and get to know your tree, to help decide. It is not easy to do engineering calculations on the strength of a tree limb, so do not take a chance unless you are certain.

Stands: Tripods vs 4-pods

The yard is a great place for a unit, and there is often more space for it to swing outdoors than inside a modest home, or a home with smaller rooms. Our 4-legged "pyramid" shaped stand allows the best use of available space, greatest swing distance. It allows you to set up the Floating Bed in the ideal location & to move it if necessary.

We do not make a 3 leg tripod stand, because three legs take about as much space as four, but

Other Installation Considerations, for Homeowner & Installer to read (cont'd)

do not provide nearly as much swing space (between the legs).

The 4-pod is easy to build, and relatively inexpensive. We sell a welded steel Top Connector Bracket, with four open sockets. You simply buy four desired lengths of 4"x4" lumber locally (we often recommend 16' long legs, but any length between 14' - 20' is great). They will cost you about \$80-\$100 per length in Grade A wood. Finish them as desired, insert them into the sockets, screw in 4 keeper screws, and you have your 4-legged stand. It is quick to set up, but it's best to have 2 people when you put it up. (The separate stand manual describes the stand and set up.)

With our standard 45° top angles, the "ground footprint" will be a square, the same size as the length of the legs (14′ - 20′ square) but we can custom make other top angles. You can calculate the size yourself, or call us for a discussion about which angle and leg length best suits your available yard space, your intended hanging height, and swing distance.

We also have **Aluminum Stands** if you want that look, or absolute long life / no maintenance. Our lightweight portable Aluminum stand legs collapse to 8' sections for those who want portability. It weighs about 150 lbs, and can be set up in less than an hour (after you do it once to learn how).

We have a heavier non-telescoping Aluminum Stand for permanent or commercial use.

We also have open weave shade sails, and rainproof Top Caps & Side Sunshades which attach to the 4-pod legs to make the bed more comfortable in direct sunlight or rain. (These options are easier to implement on the stand than in a tree.)

We also have other options now available (such as the tent), or soon to be available. Call for details or with your suggestions.

Contact Us

We want to hear back from you, so we can provide the best product and service. We also offer a \$100 cash rebate for new customer referrals (if they purchase a bed directly from us), after you install the unit. We also offer up to \$50. if you submit ideas, uses, or improvements we accept and use, or photos we use. This applies to installers, as well as users. To qualify, please call for complete details on both of these offers.

Thanks, John Huff or Jerrie Noyes 641 472 6651