

Panel Bed Frame Kit

ASSEMBLY
INSTRUCTIONS

(SBF & SBLM)

SBLM VERSION B (NEW DRILLING PATTERN)



TWIN/TWIN XL | FULL | QUEEN | KING

866.844.9255 // MURPHYBEDDEPOT.COM

CARTON CONTENTS

Note: Each Frame Carton contains one Single, Double, Queen or King Steel Bed Frame complete with leg assembly and necessary hardware. Mechanism components are in separate carton.

QTY.	FRAME CARTON ITEMS (SBF)	COMMENTS	✓
2	Frame End Sections	Identical Head & Foot	<input type="checkbox"/>
2	Frame End Sections	Identical Right or Left	<input type="checkbox"/>
3(5)	Stiffeners - Bed Face (5 For King Size)	Space evenly between Frame Sides	<input type="checkbox"/>
2	Fold-away Legs	One Left - One Right	<input type="checkbox"/>
1	Leg Connector Rod	Stabilizes and Eases Leg Operation	<input type="checkbox"/>
2	PS-1 (L-Shaped 6 1/8"x2 1/2") 	Not Needed	<input type="checkbox"/>
HARDWARE CARD #3			
14	Bolt 10-24x1/2" (M6x12mm) Black	Bolt Frame corners	<input type="checkbox"/>
2	Bolt 10-24x1 1/4" (M6 x 32mm) Black	Bolt Leg Stop Foot corners	<input type="checkbox"/>
16	Nut 10-24 (M6) Black Nylock	Use with #1214 & #1213	<input type="checkbox"/>
4	Angle 1"x1"x1 3/4" (25x25x44mm) Black	Use inside Frame corners	<input type="checkbox"/>
2	1/2"x3/4" (13x19mm) Round Black Cylinder	Use with #1213 as Leg Stop	<input type="checkbox"/>
HARDWARE CARD #4			
2	1 1/2"x5/16" (T1.5x40mm) Black Washer	Secure Leg inside Frame	<input type="checkbox"/>
2	1 1/2"x.765" (T2.5x40mm) Black Washer	Secure Leg inside Frame	<input type="checkbox"/>
4	1 1/2"x.765" (T2.5x40mm) Black Nylon Washer	Between Leg & outside of Frame Inside and Out	<input type="checkbox"/>
2	Nut 5/16" (M8) Black Nylock	Secure Leg inside Frame	<input type="checkbox"/>
2	Bolt 1/4"-20 Black Hex Head	Attach Leg to Leg Rod	<input type="checkbox"/>
2	Star Washer for #1210	Attach Leg to Leg Rod	<input type="checkbox"/>
HARDWARE CARD #5			
1	Nylon Web Strap with Buckle	Secure Mattress to Bed Frame	<input type="checkbox"/>
2	3/4"x1/4" (T1.5x25mm) Washer	Secure Nylon Web Strap to Bed Face Panel under Mattress	<input type="checkbox"/>
2	#8x5/8" (M4x15mm) Wood Screw	Secure Nylon Web Strap	<input type="checkbox"/>
HARDWARE CARD #7 (KING SIZE INCLUDES 2 BAGS)			
110	#8x5/8" (M4x15mm) Wood Screw	Attach Steel Bed Frame to Bed Face	<input type="checkbox"/>

	MECHANISM CARTON ITEMS (SBLM)	COMMENTS	✓
1	Lift Mechanism - Right Side	Attach to Right Side Panel	<input type="checkbox"/>
1	Lift Mechanism - Left Side	Attach to Left Side Panel	<input type="checkbox"/>
1	18 Springs in total are included	Install correct number in each Mechanism	<input type="checkbox"/>
1	Steel Pipe	Used to set the Lift Mechanisms	<input type="checkbox"/>
HARDWARE CARD #2			
10	Machine Screw 5/16-18 x 1 1/4"	To attach Lift Mechanisms to Side Panels	<input type="checkbox"/>
4	Hex Head Bolt 5/16-18 x 1"	Attach Mechanism to Frame Side section	<input type="checkbox"/>
2	Allen Head Bolt 5/16-18 x 1"	Position Mechanism Arm on Frame Side section	<input type="checkbox"/>
14	Hex Head Nylock Nut	Secure Bolts and Screws	<input type="checkbox"/>
1	Allen Wrench 5/16"	For Allen Head bolts	<input type="checkbox"/>

PROJECT SECTIONS

- 1 Gather Tools & Hardware**
- 2 Obtain Wood & Cut Parts Using The Cabinet Cut list**
- 3 Mount The Lift Mechanisms To The Side Panels**
- 4 Install The Springs On The Lift Mechanisms**
- 5 Assemble The Bed Cabinet**
- 6 Attach Bed Cabinet Securely To Wall**
- 7 Assemble Steel Bed Frame & Face Panels**
- 8 Set The Lift Mechanism**
- 9 Install The Bed Face Panel Unit**
- 10 Install Handles, Legs, Mechanism Covers, & Mattress**
- 11 Enjoy Your New Finished Panel Bed!**

SECTION I: GATHER TOOLS AND HARDWARE

- Familiarize yourself with all components in the **Steel Bed Frame (SBF)** and **Spring Balance Lift Mechanism (SBLM)** cartons, and thoroughly study these **Assembly Instructions** to plan the steps required to complete this project.
- Study all illustrations and plan drawings. Make sure that the space available is adequate for the specified dimensions of the bed cabinet, both in the open and closed positions (see cut list pages to cross-check dimensions).

Note:

Make sure to use the cut list appropriate for the bed model you ordered (Vertical or Horizontal).

- Select Handles from your local decorative hardware supplier to pull the bed open. Have them on-site at the time of assembly. **Handles are not provided in in the Panel Bed Frame Kit.**
- Check to be sure that you have the **SBF** and **SBLM Cartons**, and the **Lumber Components** and **Hardware** before starting assembly.

OBTAIN THE FOLLOWING BEFORE ASSEMBLY

- **Tools:** 1/2" Box Wrench, 6" Square #2 and Philips #2 Bits, Drill / Driver, 6mm Hex Head Bit, (Deep) 8mm Socket Bit, (Deep) 1/2" Socket Bit, Philips #2 Screwdriver, 7/16" Socket Bit, 1/16" Drill Bit.
- **Hardware (Included in optional "Hardware Kit"):** 19x (horizontal 30x) 1"x1"x1 3/4" to 2" angle brackets, 3x 2"x2" (vertical only) angle brackets, 6x 2" (horizontal 3") wood screws or equivalent, according to wall construction (for securing to studs - see step 5.3), 82x (horizontal 120x) 3/4" wood screws. Horizontal also requires 28x 1 1/4" wood screws.
- **Cabinet Materials:** Obtain 2-5 sheets of 3/4"x48"x96" Plywood or MDF (See cut list for quantity needed), and 200 linear feet of 13/16" (21mm) iron on or peel and stick edge banding.
- **Finishing Materials:** Obtain sandpaper, paint and/or stain if desired. We recommended finishing cabinet parts before assembly.
- **Mattress:** Choose an appropriately sized mattress for your frame size, between 8" and 11" thick. The mattress must also be rigid enough to stand on end without sagging or doubling over. Some memory foam mattresses will work well and some will not.

Note: Hardware for cabinet assembly only included if optional "Hardware Kit" was purchased. Cabinet may be assembled using angle brackets (as shown), or pocket screws, or pins-and-cams.

SECTION 2: CABINET CUT LIST (VERTICAL ORIENTATION)

Visit MURPHYBEDDEPOT.COM/CUTLIST for a material cut list diagram.

□ Cut and finish all pieces before assembly

TWIN BED/TWIN XL

MATTRESS SIZE: 39" X 75" (XL 80") (990mm X 1905mm (XL 2032mm)) // 11" (280mm) MAX THICKNESS
OUTSIDE CABINET DIMENTIONS: 44 1/2"W X 83 1/4" (XL 88 1/4")H X 16"D
 (1130mm X 2115mm (XL 2242MM) X 406mm)
PROTRUSION FROM WALL: 85" (XL 90") (2146mm (XL 2286mm))
CABINET MATERIAL: Two sheets of 3/4" (19mm) thick Plywood or MDF

PART #	QUANTITY	DESCRIPTION	WIDTH	LENGTH	FINISH (TAPE) EDGES
1	2 (or 1)	Bed Face Panel (Doors)	21 1/4" (540mm) (or 1x @ double width)	77 5/16" (1964mm) (XL) 82 5/16" (2090mm)	4 Edges
2	2	Side Panel	16" (406mm)	83 1/4" (2115mm) (XL) 88 1/4" (2242mm)	2 Long Edges
3	2	Headboard (1) & Top Panel (1)	14 1/4" (362mm)	43" (1092mm)	2 Long Edges
4	1	Top Facia	2" (51mm)	43" (1092mm)	2 Long Edges
5	1	Bottom Rear Base	6" (152mm)	43" (1092mm)	2 Long Edges
6	1	Bottom Kick	4" (102mm)	43" (1092mm)	2 Long Edges

DOUBLE/FULL BED

MATTRESS SIZE: 54" X 75" (1372 X 1905mm) // 11" (280mm) MAX THICKNESS
OUTSIDE CABINET DIMENTIONS: 59 1/2"W X 83 1/4"H X 16"D (1151mm X 2115mm X 406mm)
PROTRUSION FROM WALL: 85" (2146mm)
CABINET MATERIAL: Three sheets of 3/4" (19mm) thick Plywood or MDF

PART #	QUANTITY	DESCRIPTION	WIDTH	LENGTH	FINISH (TAPE) EDGES
1	4 (or 2)	Bed Face Panel (Doors)	14 3/8" (365mm) (or 2x @ double width)	77 5/16" (1964mm)	4 Edges
2	2	Side Panel	16" (406mm)	83 1/4" (2115mm)	2 Long Edges
3	2	Headboard (1) & Top Panel (1)	14 1/4" (362mm)	58" (1473mm)	2 Long Edges
4	1	Top Facia	2" (51mm)	58" (1473mm)	2 Long Edges
5	1	Bottom Rear Base	6" (152mm)	58" (1473mm)	2 Long Edges
6	1	Bottom Kick	4" (102mm)	58" (1473mm)	2 Long Edges

QUEEN BED

MATTRESS SIZE: 60" X 80" (1524 X 2032mm) // 11" (280mm) MAX THICKNESS
OUTSIDE CABINET DIMENTIONS: 65 1/2"W X 88 1/4"H X 16"D (1664mm X 2242mm X 406mm)
PROTRUSION FROM WALL: 90" (2273mm)
CABINET MATERIAL: Three sheets of 3/4" (19mm) thick Plywood or MDF

PART #	QUANTITY	DESCRIPTION	WIDTH	LENGTH	FINISH (TAPE) EDGES
1	4 (or 2)	Bed Face Panel (Doors)	15 7/8" (403mm) (or 2x @ double width)	82 5/16" (2090mm)	4 Edges
2	2	Side Panel	16" (406mm)	88 1/4" (2242mm)	2 Long Edges
3	2	Headboard (1) & Top Panel (1)	14 1/4" (362mm)	64" (1626mm)	2 Long Edges
4	1	Top Facia	2" (51mm)	64" (1626mm)	2 Long Edges
5	1	Bottom Rear Base	6" (152mm)	64" (1626mm)	2 Long Edges
6	1	Bottom Kick	4" (102mm)	64" (1626mm)	2 Long Edges

SECTION 2: CABINET CUT LIST (VERTICAL CONTINUED)

KING BED

MATTRESS SIZE: 76" X 80" (1930mm X 2032mm) // 11" (280mm) MAX THICKNESS
OUTSIDE CABINET DIMENTIONS: 81 1/2"W X 88 1/4"H X 16"D (2070mm X 2242mm X 406mm)
PROTRUSION FROM WALL: 90" (2286mm)
CABINET MATERIAL: Four sheets of 3/4" (19mm) thick Plywood or MDF

PART #	QUANTITY	DESCRIPTION	WIDTH	LENGTH	FINISH (TAPE) EDGES
1	4 (or 2)	Bed Face Panel (Doors)	19 7/8" (505mm) (or 2x @ double width)	82 5/16" (2091mm)	4 Edges
2	2	Side Panel	16" (406mm)	88 1/4" (2242mm)	2 Long Edges
3	2	Headboard (1) & Top Panel (1)	14 1/4" (362mm)	80" (2032mm)	2 Long Edges
4	1	Top Facia	2" (51mm)	80" (2032mm)	2 Long Edges
5	1	Bottom Rear Base	6" (152mm)	80" (2032mm)	2 Long Edges
6	1	Bottom Kick	4" (102mm)	80" (2032mm)	2 Long Edges

SECTION 2: CABINET CUT LIST (HORIZONTAL ORIENTATION)

SINGLE/TWIN BED

MATTRESS SIZE: 39" X 75"(XL 80") (990mm X 1905mm (XL 2032mm)) // 11" (280mm) MAX THICKNESS
OUTSIDE CABINET DIMENTIONS: 80"(XL 85")W X 49 3/4"H X 16"D
 (2032mm (XL 2159MM) X 1264mm X 406mm)
PROTRUSION FROM WALL: 49" (1245mm)
CABINET MATERIAL: Three sheets of 3/4" (19mm) thick Plywood or MDF

PART #	QUANTITY	DESCRIPTION	WIDTH	LENGTH	FINISH (TAPE) EDGES
1	2 (or 1)	Bed Face Panel (Doors)	39" (990mm) (XL) 41.5" (1054mm) (or 1x @ double width)	41 3/4" (1060mm)	4 Edges
2	2	Side Panel	16" (406mm)	49 3/4" (1264mm)	2 Long Edges
3	1	Top Panel	16" (406mm)	78 1/2" (1994mm) (XL) 83 1/2" (2121mm)	2 Long Edges
4	1	Top Facia	2" (51mm)		2 Long Edges
5	1	Top Facia Stiffener	3" (76mm)		2 Long Edges
6	2	Top Rear Stiffener (1) / Bottom Rear Base (1)	4" (102mm)		2 Long Edges
7	2	Kick & Kick Stiffener	4" (102mm)		2 Long Edges
8	1	Head Board	15" (381mm)		2 Long Edges
9	1	Head Board Stiffener	6" (152mm)		0 Long Edges
10	1	Panel Connector	3" (76mm)		37" (940mm)

SECTION 2: CABINET CUT LIST (HORIZONTAL CONTINUED)

DOUBLE/FULL BED

MATTRESS SIZE: 54" X 75" (1372mm X 1905mm) // 11" (280mm) MAX THICKNESS
OUTSIDE CABINET DIMENTIONS: 80"W X 64 3/4"H X 16"D (2032mm X 1645mm X 406mm)
PROTRUSION FROM WALL: 64" (1626mm)
CABINET MATERIAL: Four sheets of 3/4" (19mm) thick Plywood or MDF

PART #	QUANTITY	DESCRIPTION	WIDTH	LENGTH	FINISH (TAPE) EDGES
1	2	Bed Face Panel (Doors)	39" (990mm)	56 3/4" (1441mm)	4 Edges
2	2	Side Panel	16" (406mm)	64 3/4" (1645mm)	2 Long Edges
3	1	Top Panel	16" (406mm)	78 1/2" (1994mm)	2 Long Edges
4	1	Top Facia	2" (51mm)	78 1/2" (1994mm)	2 Long Edges
5	1	Top Facia Stiffener	3" (76mm)	78 1/2" (1994mm)	2 Long Edges
6	2	Top Rear Stiffener (1) / Bottom Rear Base (1)	4" (102mm)	78 1/2" (1994mm)	2 Long Edges
7	2	Kick & Kick Stiffener	4" (102mm)	78 1/2" (1994mm)	2 Long Edges
8	1	Head Board	15" (381mm)	78 1/2" (1994mm)	2 Long Edges
9	1	Head Board Stiffener	6" (152mm)	78 1/2" (1994mm)	0 Long Edges
10	1	Panel Connector	3" (76mm)	52" (1321mm)	0 Long Edges

QUEEN BED

MATTRESS SIZE: 60" X 80" (1524mm X 2032mm) // 11" (280mm) MAX THICKNESS
OUTSIDE CABINET DIMENTIONS: 85"W X 70 3/4"H X 16"D (2159mm X 1797mm X 406mm)
PROTRUSION FROM WALL: 70" (1778mm)
CABINET MATERIAL: Four sheets of 3/4" (19mm) thick Plywood or MDF

PART #	QUANTITY	DESCRIPTION	WIDTH	LENGTH	FINISH (TAPE) EDGES
1	2	Bed Face Panel (Doors)	41.5" (1054mm)	62 3/4" (1594mm)	4 Edges
2	2	Side Panel	16" (406mm)	70 3/4" (1797mm)	2 Long Edges
3	1	Top Panel	16" (406mm)	83 1/2" (2121mm)	2 Long Edges
4	1	Top Facia	2" (51mm)	83 1/2" (2121mm)	2 Long Edges
5	1	Top Facia Stiffener	3" (76mm)	83 1/2" (2121mm)	2 Long Edges
6	2	Top Rear Stiffener (1) / Bottom Rear Base (1)	4" (102mm)	83 1/2" (2121mm)	2 Long Edges
7	2	Kick & Kick Stiffener	4" (102mm)	83 1/2" (2121mm)	2 Long Edges
8	1	Head Board	15" (381mm)	83 1/2" (2121mm)	2 Long Edges
9	1	Head Board Stiffener	6" (152mm)	83 1/2" (2121mm)	0 Long Edges
10	1	Panel Connector	3" (76mm)	58" (1473mm)	0 Long Edges

SECTION 3: MOUNT THE LIFT MECHANISMS TO THE SIDE PANELS

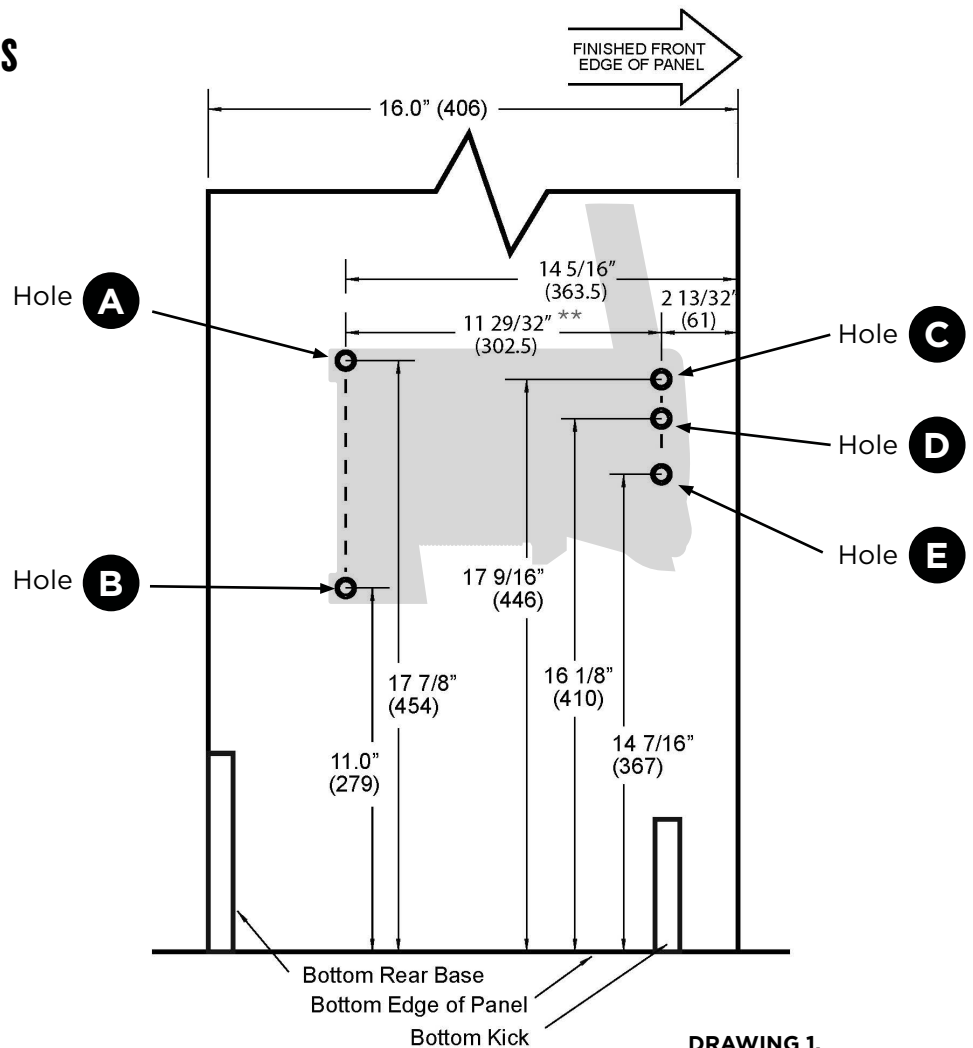
Notes:

1. This step remains the same for vertical or horizontal versions.
2. The numbers in parenthesis () are in millimeters
3. We provide the dimensions for all 5 holes, but this step is easier by drilling just **Hole C**, then making sure the mechanism is square, and using the mechanism as a template to drill the remaining 4 holes.

1. Exactly mark mounting **Hole C** on the inside of each panel, according to **Drawing 1**.
2. Drill a 1/16" (2mm) pilot hole for mounting **Bolt C**. Drill the final hole with a 5/16" (8mm) bit.
3. Countersink 5/8" diameter on the outside of the panels just deep enough for the 5/16" x 1 1/4" (8x32mm) countersunk machine screws in **Hardware Card #2 (Be very careful to avoid going any deeper than necessary when countersinking for these bolts)**.
4. Mount the lift mechanism to **Hole C** using 1 machine screw through the outside of the side panel threaded into the standoff at the top/front corner. Use a square along the top edge of the SBLM to make sure the top edge of the SBLM is perpendicular to the front edge of the end panel. Using the SBLM as a template, drill the remaining 4 holes, making sure to counter-sink the outside. Hand tighten all five machine screws before tightening with tools. The easiest way to tighten the bolts is with a 6mm hex head bit (included with the optional "Hardware Kit") in your drill, and a 1/2" box wrench. Alternatively, you can use a 1/2" socket and the provided Allen wrench, although this is more difficult because the space around several of the nuts is quite tight.

LIFT MECHANISM MOUNTING HOLES

VERSION B - NEW DRILLING PATTERN



DRAWING 1.

SECTION 4: INSTALL THE SPRINGS ON THE LIFT MECHANISMS

SPRING APPLICATION CHART

Notes:

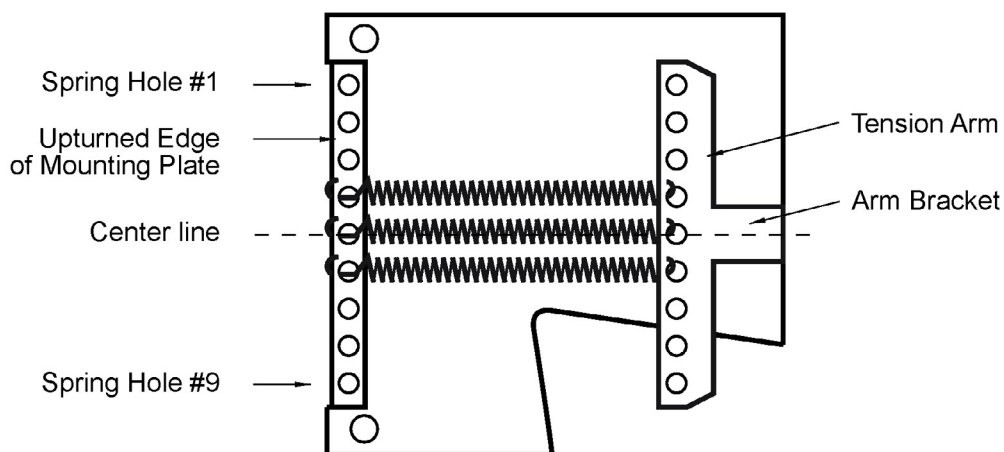
1. Please note these are recommendations only. The actual number of springs required will depend on the total weight of the bed-face unit including the mattress and all bedding.
2. After you have completed installing and checking the operation of your bed, you may find it necessary to add or remove springs to achieve the correct lift effort of between 5 to 10 pounds.

BED SIZE	BED PANEL MATERIAL		
	PLYWOOD	MDF	HORIZONTAL
SINGLE/TWIN	3-4 springs per side	3-5 springs per side	1-3 springs per side
DOUBLE/FULL	5-6 springs per side	5-7 springs per side	2-4 springs per side
QUEEN	6-7 springs per side	6-8 springs per side	3-5 springs per side
KING	8-9 springs per side	8-9 springs per side	N/A springs per side

Note:

It is easier to add springs after installation than it is to remove springs. We recommend starting with a lower number according to the chart above. To add or remove springs, the face panel must be removed and the SBLM arms unlocked. The cabinet may also need to be detached from the wall to allow enough room for adding or removing springs. It is a chore to do, but will result in a more perfectly balanced bed for ease of lowering and lifting for a long time to come.

- There are nine locations for springs. If the bed requires an even number of springs, do not use the center hole (#5 from the top). If the bed requires an odd number of springs, start with the center hole (#5 from the top) and work outward in both directions evenly.
- Hook each spring into the upturned edge of the Mounting Plate first, so that the open ends are facing outward. You may have to gently pry up the Tension Arm and slide the spring under and snap it into place in the proper hole, matching the same numbered hole from the mechanism back plate. You should have an equal number of springs on each side of the center hole.
- Use the same number of springs and the same layout on both the left and right Mechanisms.



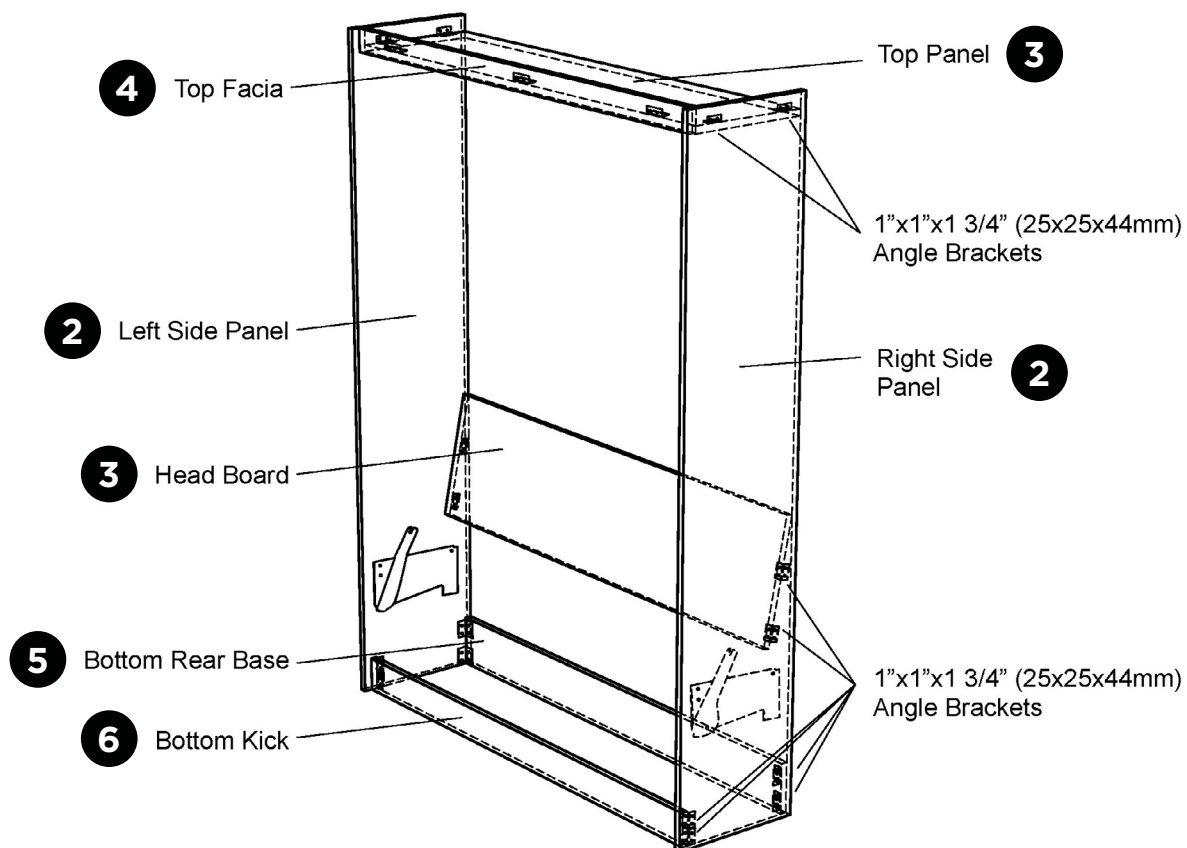
SECTION 5: ASSEMBLE THE BED CABINET (VERTICAL ORIENTATION)

- Assembly may be most easily accomplished by laying one **Side Panel (#2)** flat on a padded surface and attaching the top assembly (**#3&4**), Head Board (**#3**), Bottom Rear Base (**#5**), and Bottom Kick (**#6**). Then, lift the opposite Side Panel (**#2**) and place it on top of the already assembled parts and secure with the listed hardware (FOR TWIN/FULL/OR QUEEN SIZE VERTICAL BEDS ONLY!)
- If possible, the bed cabinet should be assembled in the room where it will be used.
- Be sure the Lift Mechanisms are securely installed.

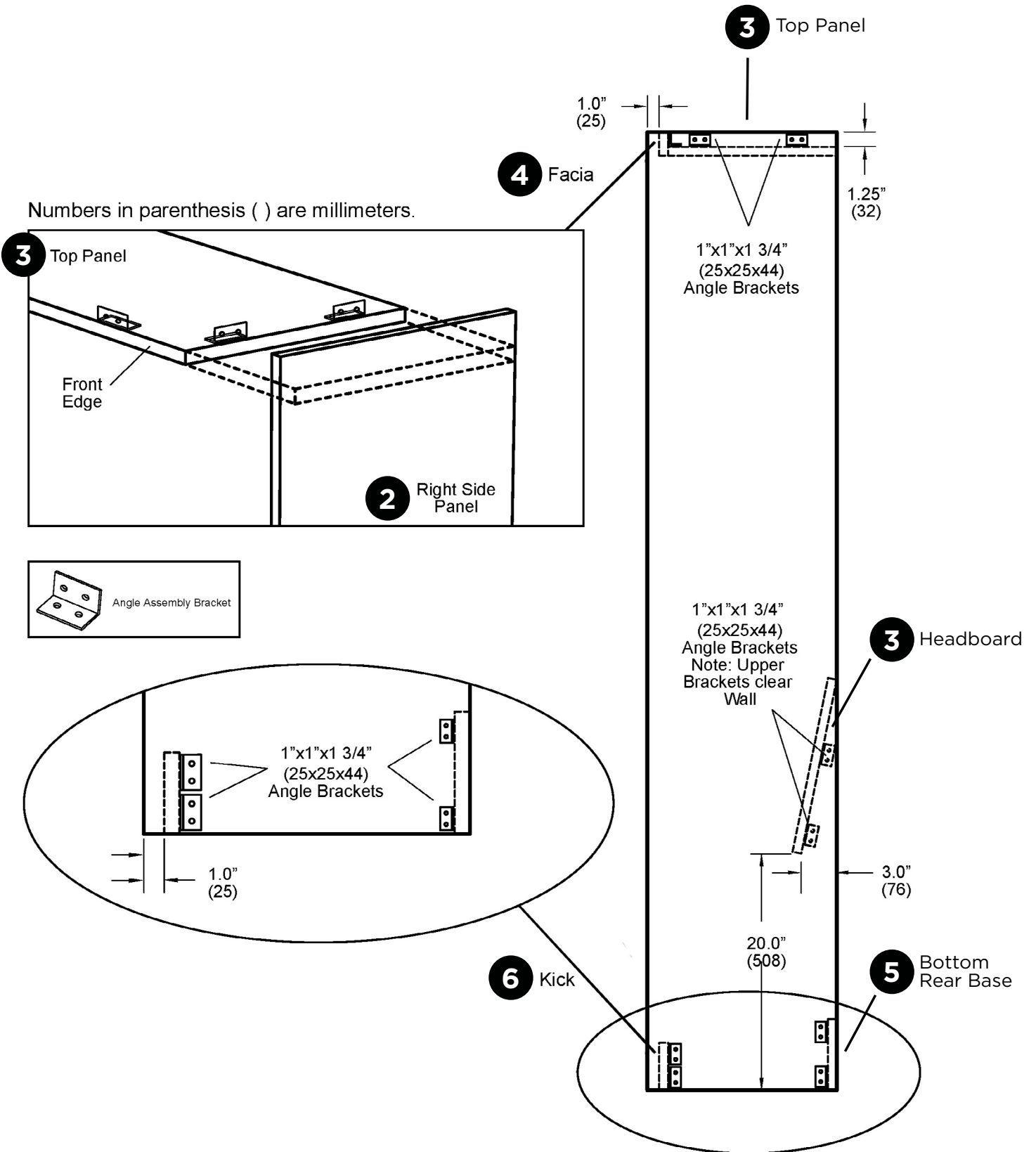
Note:

1. If the room is carpeted you may raise the Bottom Kick up 1/4" (7mm) to clear the carpet. More than 1/4" (7mm) will obstruct the operation of the bed.

- 1.** Locate the mounting position of the Head Board (**#3**) marking the left and the right side of the Side Panels (**#2**) 20" (508mm) from the floor and 3" (76mm) in from the back edge of the Panels. Note from drawings 6 & 7 that this mounts the bottom edge of the headboard out 3" (76mm) from the back or wall edge of the Side Panels. Use 1" x 1" x 1 3/4" (25mm x 25mm x 44mm) angle brackets (2 each side). Be sure the top bracket is set low enough not to protrude beyond the back of the cabinet. Use #8 x 3/4" (M4 x 19mm) screws.
- 2.** Use the angle brackets to assemble Bottom Rear Base (**#5**) and Bottom Kick (**#6**) in the positions shown in drawings 6 & 7. Use two angle brackets on each end.
- 3.** Attach the Top Fascia (**#4**) to the Top Panel (**#3**) as shown in **Drawings 3 & 4**. Be sure the Bottom edge of the Top Fascia is flush with the bottom edge of the Top Panel.
- 4.** Attach the top Assembly (**#3&4**) as shown in **Drawings 3 & 4**. Be sure the back edge of the Top Panel is flush with back of side panels (**#2**), and the top edge of the Top Fascia is flush with the top of the Side Panels.



SECTION 5: CONTINUED (VERTICAL ORIENTATION)



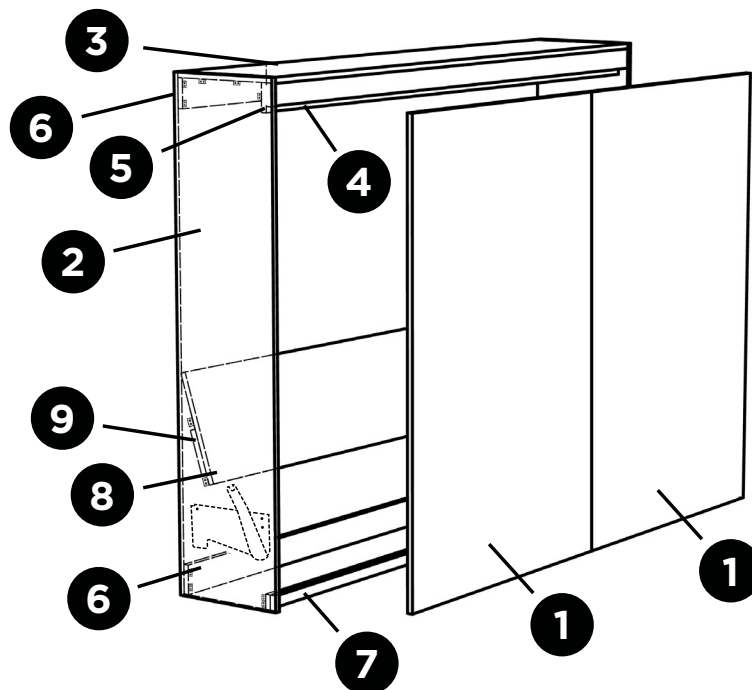
SECTION 5: ASSEMBLE THE BED CABINET (HORIZONTAL ORIENTATION)

- If possible, the bed cabinet should be assembled in the room where it will be used.
- Be sure the Lift Mechanisms are securely installed.

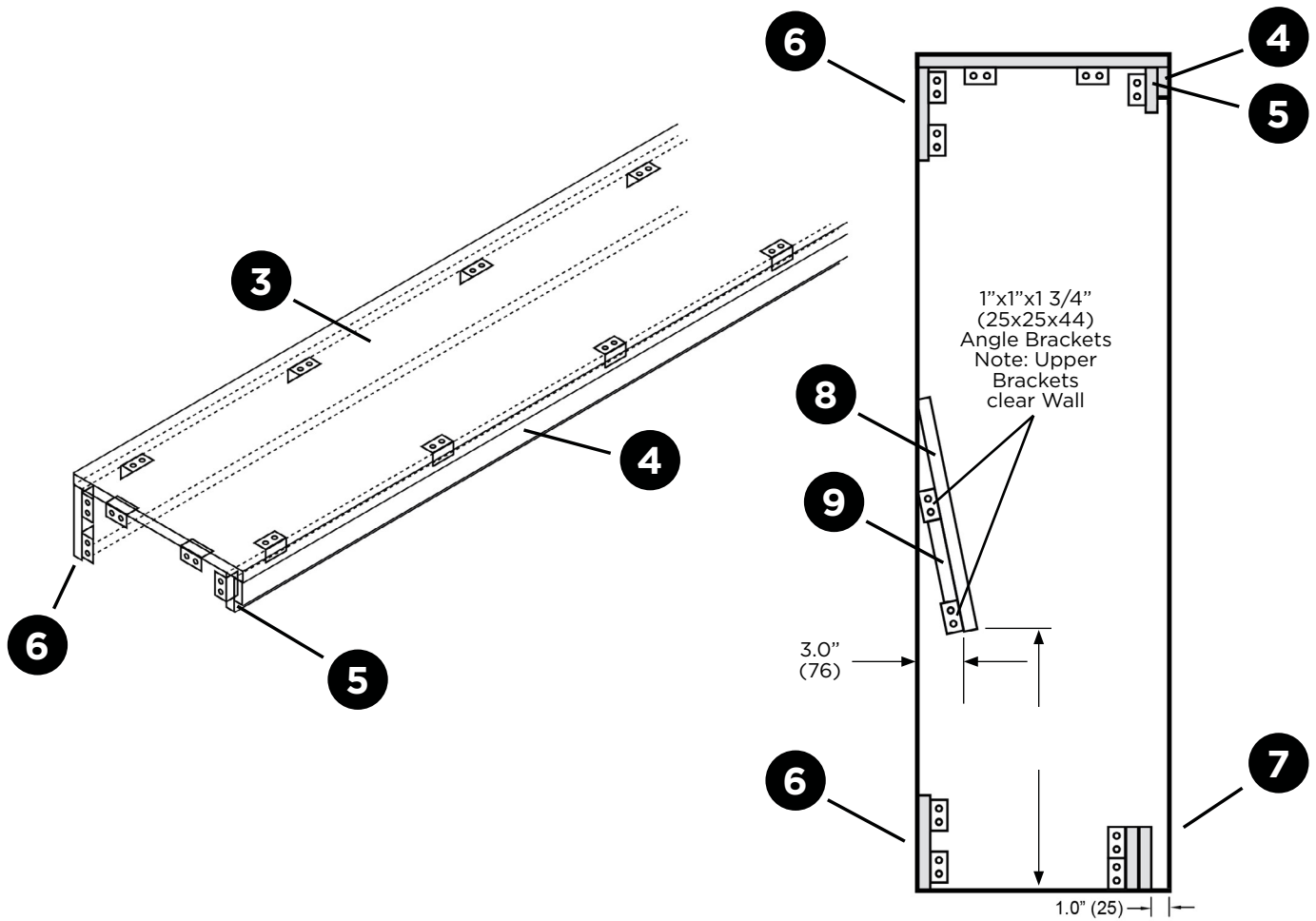
Note:

1. If the room is carpeted you may raise the Bottom Kick up 1/4" (7mm) to clear the carpet. More than 1/4" (7mm) will obstruct the operation of the bed.

1. Center, clamp, and mount the Kick Stiffener (#7) to the back of the Kick (#7) using 4x #8 x 1 1/4" (M4 x 32mm) wood screws (included in optional Hardware Kit), evenly spaced across the length. Clamp and mount the Top Fascia Stiffener (#5) to the back of the Top Fascia (#4) with 4x 1 1/4" wood screws, so that both short ends and one long edge are flush. Clamp and mount the Head Board Stiffener (#9) to the back of the Head Board (#8), 2" up from the bottom edge, using 8x 1 1/4" wood screws, in two rows evenly spaced across the length.
2. Attach the Top Fascia Assembly (#4&5) & Top Rear Stiffener (#6) to the bottom of the Top Panel (#3) as shown in **Drawings 6 & 7** (4 angle brackets each). Be sure the front edge of the Top Fascia is flush with the front edge of the Top Panel, and the rear edge of the Top Rear Stiffener is flush with the rear edge of the Top Panel.
3. Using 5 angle brackets per side, attach the Top Assembly as shown in **Drawings 5 & 6**. Be sure the front edge of the Top Panel is flush with the front of the Side Panels (#2), and the top of the Top Panel is flush with the tops of the Side Panels.
4. Locate the mounting position of the Head Board (#8) marking the left and the right side of the Side Panels (#2) 20" (508mm) from the floor and 3" (76mm) in from the back edge of the Side Panels. Note from drawing(s?) that this mounts the bottom edge of the headboard out 3" (76mm) from the back or wall edge of the Side Panels. Use 4x 1" x 1" x 1 3/4" (25mm x 25mm x 44mm) angle brackets (2 each side) immediately above and below the Head Board Stiffener (#9). Be sure the top bracket is set low enough not to protrude beyond the back of the cabinet. Use #8 x 3/4" (M4 x 19mm) screws.
5. Use 8 angle brackets to attach Bottom Rear Base (#6) and Kick Assembly (#7&7) in the positions shown in drawings. Use two angle brackets on each end of both.



SECTION 5: CONTINUED (HORIZONTAL ORIENTATION)



DRAWING 6.

SECTION 6: ATTACH BED CABINET SECURELY TO WALL

□ You may or may not wish to remove the baseboard to allow the bed cabinet to fit flush against the wall. If you do remove the baseboard, save for later trim and replacement. If you do not wish to remove the baseboard, you may use a shim or filler strip of the same thickness at the top, between the cabinet and the wall.

1. Prior to placing the cabinet against the wall, locate 3 studs or other wall frame members above the top panel (top of bed) If vertical, or below the Top Stiffener if horizontal.

2. Stand up the cabinet and place it against the wall. Make sure the cabinet is level and square. Measure diagonally to be sure of square. Bed will not operate if the cabinet is not square. Check for square from front to back as well as side to side. Use shims where necessary.

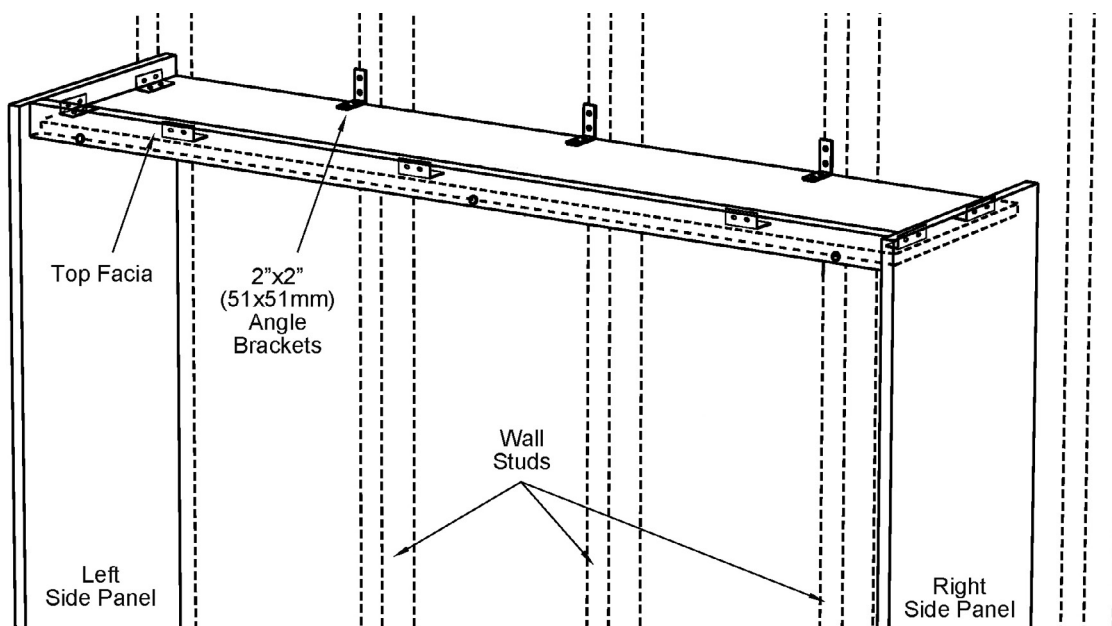


The cabinet must be secured to studs or other wall structural members using 2" x 2" (51mm x 51mm) L-brackets. If the wall is not a wood stud wall, use metal stud screws, or concrete expansion bolts if necessary.



3. (Vertical) Secure 2" x 2" (51mm x 51mm) L-brackets to the Top Panel with #8 x 3/4" (M4 x 51mm) wood screws, making sure they are aligned with the wall studs. Use two #8 x 2" (M4 x 51mm) wood screws in each of three 2" x 2" (51mm x 51mm) brackets to attach to the studs at the top level of the Top Panel (**see drawing 7**).

(Horizontal) Use 2x 3" Cabinet-Mounting Screws to attach the Top Rear Stiffener to each of the 3 studs.



DRAWING 7.

SECTION 7: ASSEMBLE STEEL BED FRAME & FACE PANELS

Note:

It is very important to have the bed frame centered, left to right, on the Bed Face Panels. Any error will be noticed in the vertical sightline when the bed is closed.

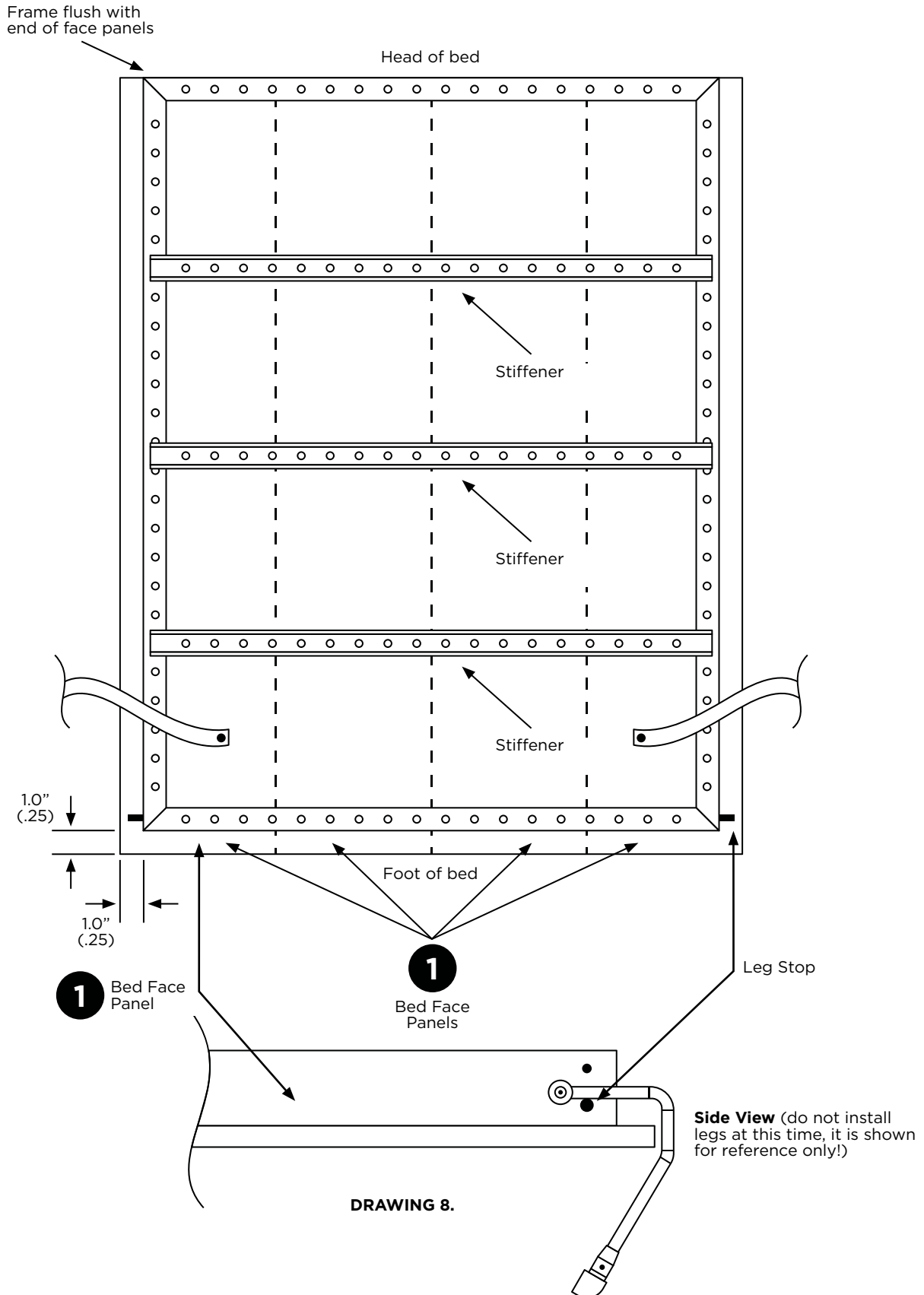
1. Lay the Bed Face down on a non-scratch surface such as carpet or a blanket.
2. Completely assemble the 4 frame sections with **Hardware Card #3**: 4x corner brackets, 14x 10-24"x1/2" bolts, 2x 10-24"x1 1/4" bolts, 16x nylock nuts, and 2x 1/2"x3/4" (13mm x 19mm) round cylinders (leg stops). Refer to drawing 12 to properly place the 1 1/4" bolts and 3/4" cylinders as leg stops at outer right and left bottom holes at the foot of the bed frame (1 1/4" bolts through cylinders then through frame then through the corner brackets).
3. With a helper, position the bed frame on the bed face panels so that the head end of the steel frame is flush with the head end of the Bed Face Panels. Refer to **Drawing 8 or 10**. Center the steel bed frame on the Bed Face Panels. Secure the foot end frame with one 5/8" #2 Phillips-drive screw (**Hardware Card #7**), into each of the Bed Face Panels. Re-measure and adjust if necessary (using new holes). Center and secure the head end of the steel bed frame in the same manner. Before proceeding, be sure that your steel stiffeners will fit well between the sides of the steel frame. Secure the steel bed frame and stiffeners to the bed face panels using 5/8" screws from **Hardware Card #7**.
4. Three steel stiffeners are provided for all beds (5 for king - see **Drawings 8 thru 10**). These notched stiffeners should be located and attached to divide the bed face length into four equal sections. Use caution to avoid damaging raised panels. Do not put screws through recessed areas. Stiffeners do not attach to steel bed frame. For Horizontal Beds with 2 or more Face Panels, it is recommended to reinforce the vertical seam(s) where the face panels meet with a 3/4"x3" (18x76mm) wood stiffener held in place with 12x 1 1/4" wood screws to the face panels. Use the steel stiffeners as well; one next to the wood stiffener and the other two equally spaced (see **Drawing 10**).

Note: King beds have 5 stiffeners (see **Drawing 9** for placement).

5. Attach the nylon web strap approximately 10" (460mm) down from the foot of the bed and 6" (150mm) in from the sides. The straps help secure the mattress in the vertical position (see drawing 10). **If desired, the leg rod will typically hold the mattress in place, making the strap unnecessary.**

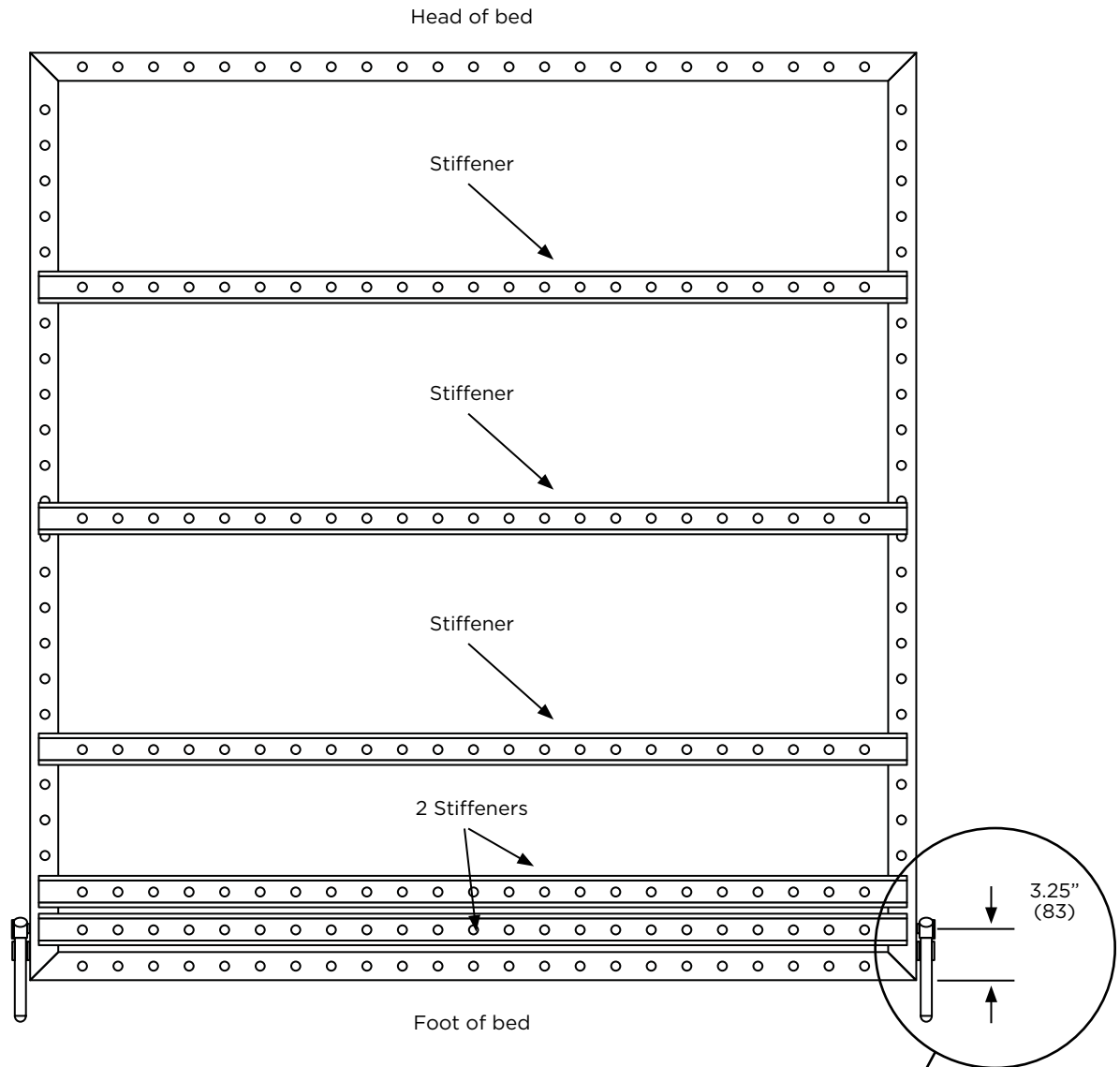
SECTION 7: CONTINUED

Wall/Cabinet - Vertical (twin through queen)



SECTION 7: CONTINUED

Stiffener Placement - King Beds Only



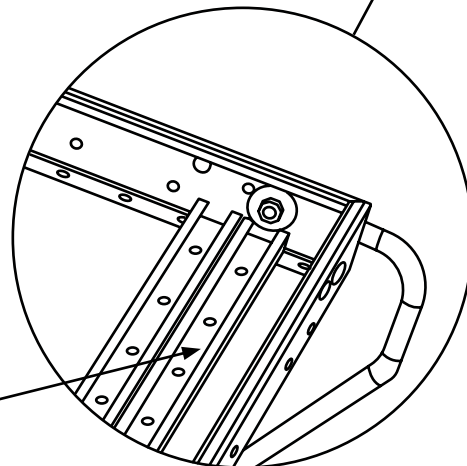
DRAWING 9.

Use 5 Stiffeners total:

3 equally spaced head to foot
2 against inside of rail (foot end)
to provide added strength

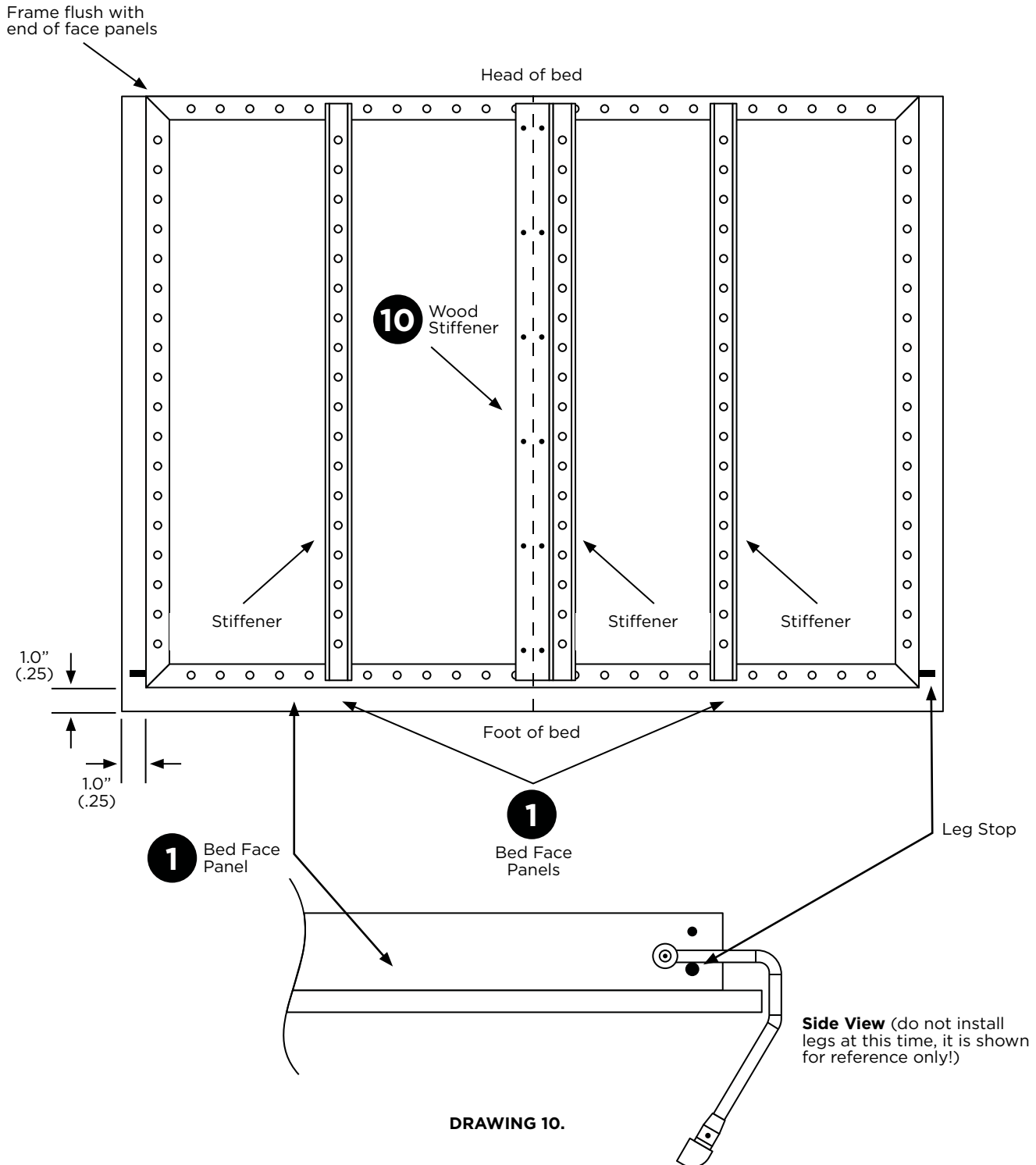
Note:

Lay this stiffener in place before installing legs,
but screw down only after legs are installed.

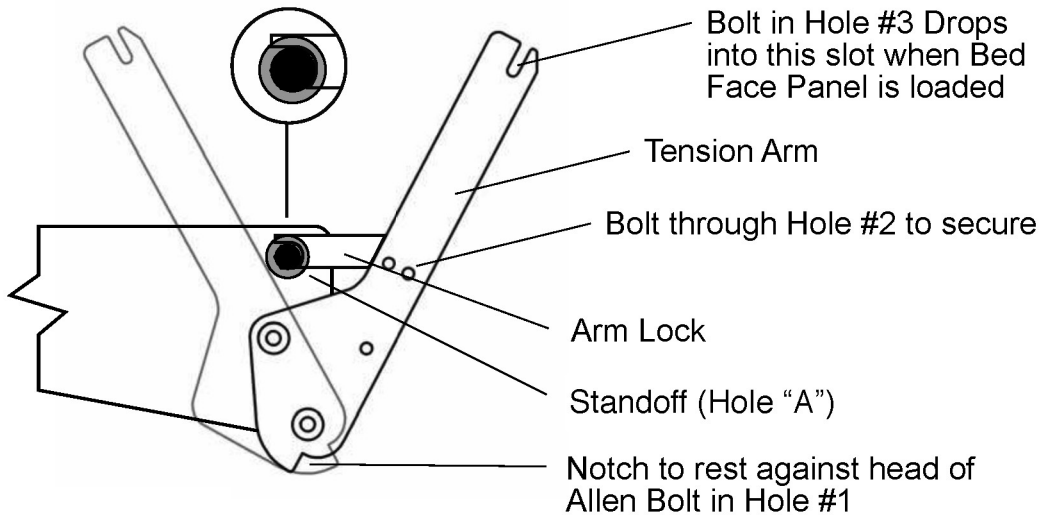


SECTION 7: CONTINUED

Wall/Cabinet - Horizontal (all sizes)



SECTION 8: SET THE LIFT MECHANISM



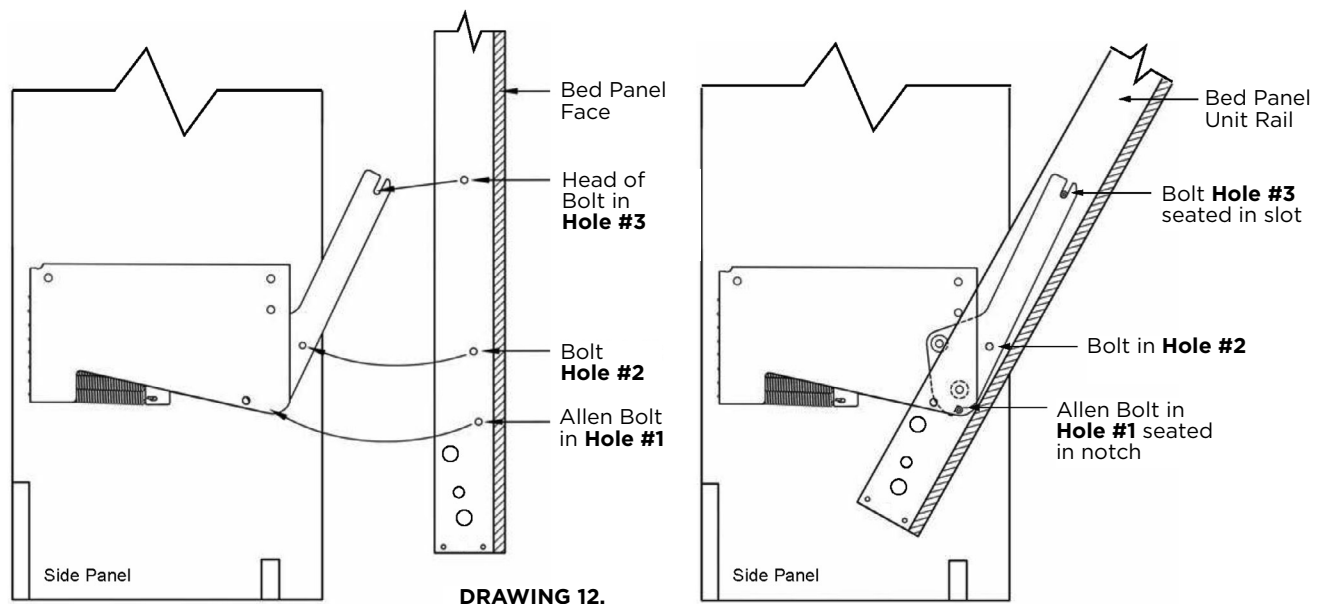
□ Holding one foot against the bottom front edge of the Side Panel and using the supplied steel tube, level the Tension Arm out until you can set the Arm Lock to the flanged standoff at hole A (see **Drawing 11**). This is the standoff at the top front corner of the mechanism.



If possible, have a helper assist in the setting of the mechanism and loading of the bed face panel. DO NOT reach behind the tension arm when you are doing the setting procedure.

SECTION 9: INSTALL THE BED FACE PANEL UNIT

1. Insert round head allen bolt (**Hardware Card #2**) from the outside of the frame through **Hole #1** on each side of the Steel Bed Frame, approximately 6 3/4" from head of frame. Use Nylock nuts to securely tighten.
2. Insert 5/16" hex head bolt from the outside of the frame into **Hole #3** on each side, approximately 19 1/4" from the head of the frame. and thread on Nylock nuts, only finger tight at this time. Pull bolt head away from frame, creating a gap between the bolt head and the bed frame.
3. Stand up the Bed Face Panel Assembly, which will be quite weighty at this point, onto the head end, with a helper. Lift and slide at a slight angle onto the SBLM arms, making sure to lift over Bottom Kick, to avoid damaging the Face Panels and Bottom Kick. Lift unit behind Bottom Kick evenly until the top bolt (Bolt #3) drops into the notched end of each tension arm. Gently tilt the bed face toward you until the Allen bolts in the bottom hole (Hole #1) are completely seated into the bottom notch of the Tension Arms.
4. Insert the remaining 5/16" Hex Head bolts through the tension arms into **Hole #2** (this will most likely require lifting the Bed Face Panel Assembly slightly, using the head of the steel frame, to align the holes on the Lift Mechanism and the Bed Frame). Secure and tighten with Nylock Nuts the bolts in Holes #2 and #3, on both sides.



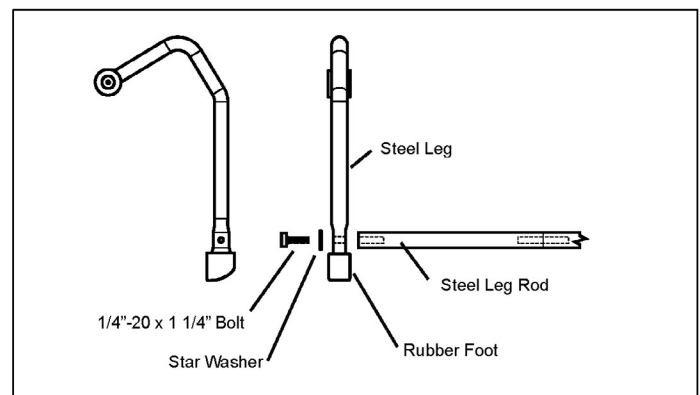
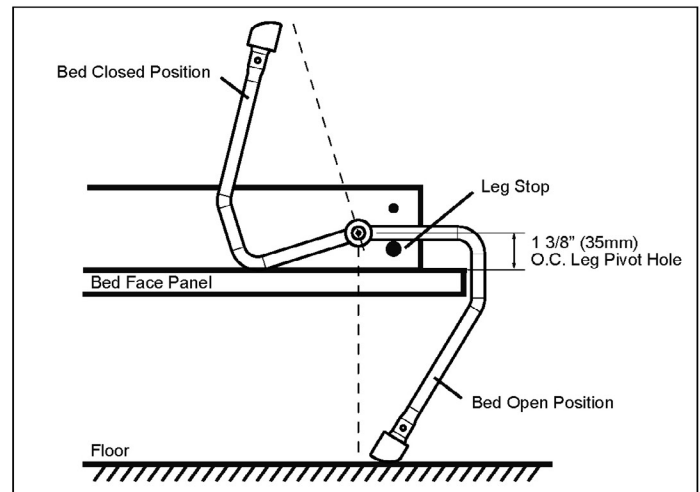
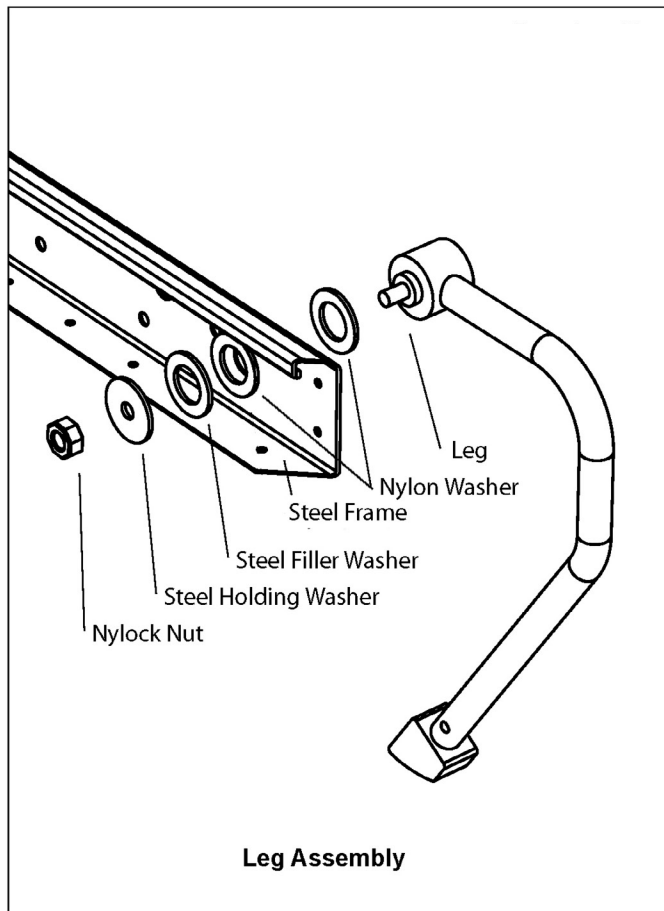
5. When all bolts are securely tightened, you may tilt the panel outward to approximately 45 degrees to release the arm locks. You will hear a click as they disengage. Check that the Bed Cabinet is level and square so the Bed Face has equal clearance of the Cabinet on both sides, top to bottom. If the Cabinet is leaning to one side, nudge it at the floor level, toward the side with a larger gap at the top.



Hold the face panel securely, do not let it slam shut. Balance is not achieved until the mattress is loaded in the bed.

SECTION 10: INSTALL HANDLES - LEGS - MECHANISM COVERS - MATTRESS

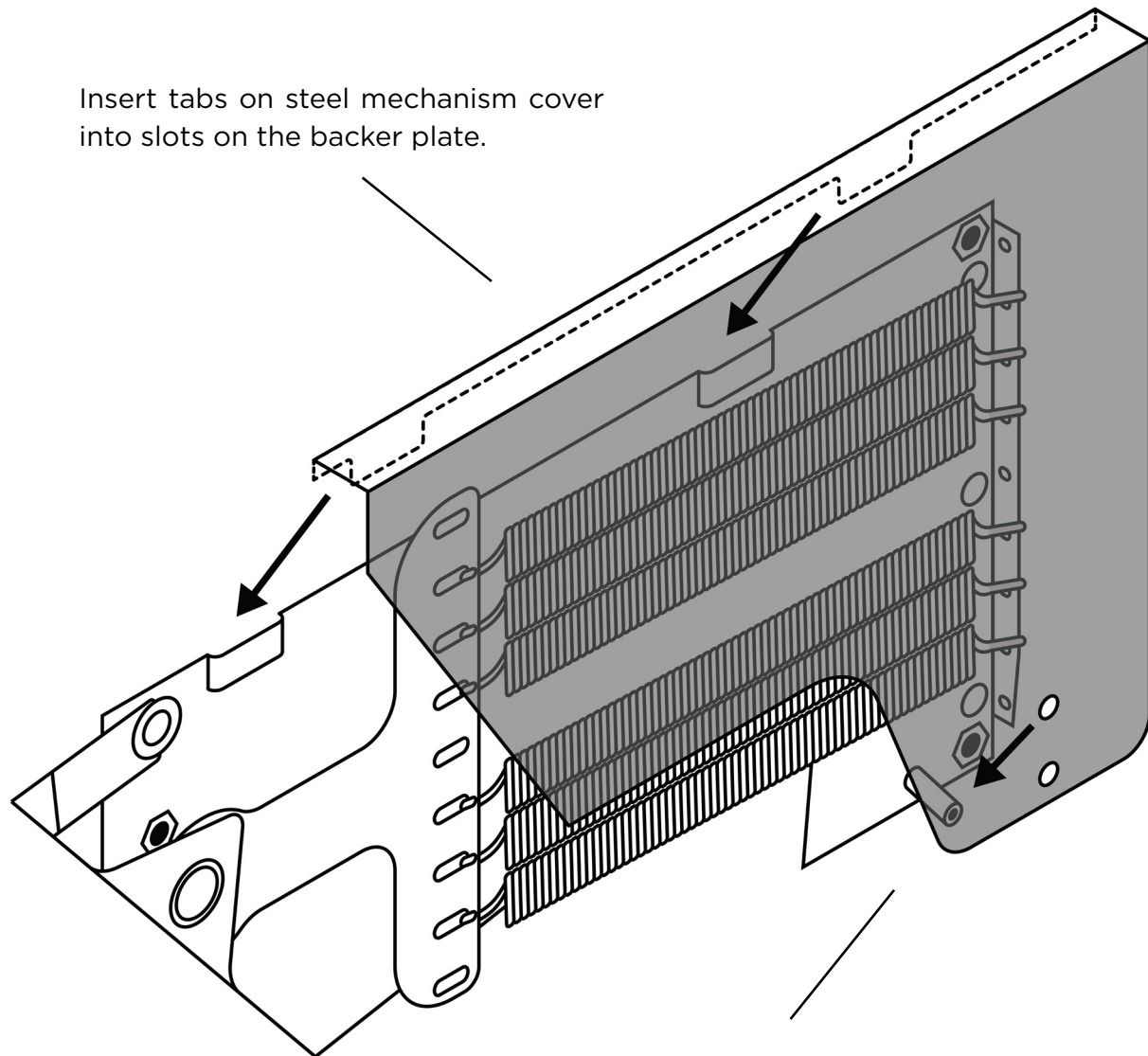
1. Position and secure handles for ease of operation. Recommended placement on vertical beds: approximately 16" (406mm) from the Panel top to the top of the handles. Be sure to avoid stiffeners.
2. Install legs with nylon washers on the inside and outside of the frame, and both the Steel Filler Washer and Steel Holding Washer (**Hardware Card #4**) on the inside. Tighten nut to have a small amount of friction when leg assembly is rotated from the up to down position (see **Drawing 13**).



3. Install Leg Connector Rod between Legs and secure with 1/4"x1 1/4" (M4x32mm) hex head bolts and star washers from **Hardware Card #4**. Be sure they are securely tightened so not to become loose. We recommend using thread-locking fluid on these bolts (see **Drawing 15**).
4. Install the mattress* (**see notes in introduction**)
5. If bed is too heavy to operate easily or slams shut, remove the Bed Face Panel and add or subtract springs. At this time, you may decide to use one more or less spring(s) on the left or right side Lift Mechanism (See Section 4).

SECTION 10: CONTINUED

- Slide the powder coated steel mechanism covers in place - secure with #8x1 1/4" (M4x32mm) black wood screws (**Hardware Card #2**) through the standoff on the backer plate (see **Drawing 16**).



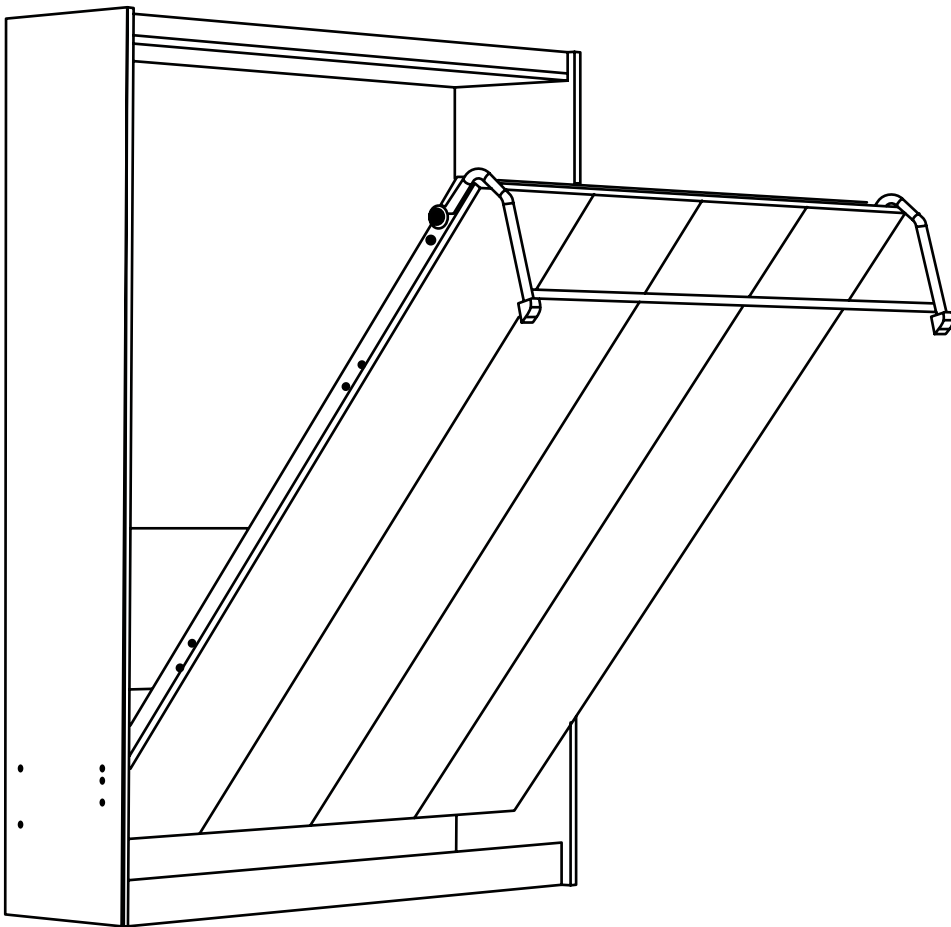
DRAWING 16.

Align top hole on steel mechanism cover with the standoff on the backerplate and secure with a #8x1 1/4" (M4x32mm) black wood screw (**Hardware Card #2**).

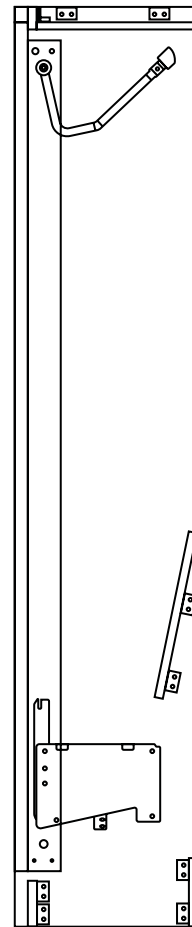
SECTION 11: ENJOY YOUR NEW FINISHED PANEL BED!

Note:

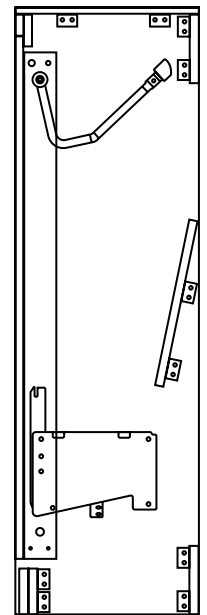
Bed linens may be stored on the mattress, but do not store pillows on the bed or inside the cabinet. Damage may occur if doing so.



DRAWING 17.



DRAWING 18.
(Vertical Bed
Cross Section)



DRAWING 19.
(Horizontal Bed
Cross Section)