

Instruction and User Guide

PLEASE READ OUR USER GUIDE CAREFULLY BEFORE USE

# TABLE OF CONTENTS | OAK + ICE

Carton Contents	01
Gather Tools & Hardware	02
Cabinet list	03
Mount The Lift Mechanisms To The Side Panels	04
Install The Springs On The Lift Mechanisms	05
Assemble The Bed Cabinet	06-08
Attach Bed Cabinet Securely To Wall	09
Assemble Steel Bed Frame & Face Panels	10-11
Set The Lift Mechanism	12
Install The Bed Face Panel Unit	13
Install Handles, Legs, Mechanism Covers, & Mattress	14-15
Enjoy Your New Finished Panel Bed!	16

# CARTON CONTENTS | OAK + ICE

**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	1
2	Frame End Sections	Identical Head & Foot	
2	Frame End Sections	Identical Right or Left	
3(5)	Stiffeners - Bed Face (5 For King Size)	Space evenly between Frame Sides	
2	Fold-away Legs	One Left - One Right	
1	Leg Connector Rod	Stabilizes and Eases Leg Operation	
	HARDWARE CARD #3		
14	Bolt 10-24x1/2" (M6x12mm) Black	Bolt Frame corners	
2	Bolt 10-24x1 1/4" (M6 x 32mm) Black	Bolt Leg Stop Foot corners	
16	Nut 10-24 (M6) Black Nylock	Use with #1214 & #1213	
4	Angle 1"x1"x1 3/4" (25x25x44mm) Black	Use inside Frame corners	
2	1/2"x3/4" (13x19mm) Round Black Cylinder	Use with #1213 as Leg Stop	
	HARDWARE CARD #4		
2	1 1/2"x5/16" (T1.5x40mm) Black Washer	Secure Leg inside Frame	
2	11/2"x.765" (T2.5x40mm) Black Washer	Secure Leg inside Frame	
4	11/2"x.765" (T2.5x40mm) Black Nylon Washer	Between Leg & outside of Frame Inside and Out	
2	Nut 5/16" (M8) Black Nylock	Secure Leg inside Frame	
2	Bolt 1/4"-20 Black Hex Head	Attach Leg to Leg Rod	
2	Star Washer for #1210	Attach Leg to Leg Rod	
	HARDWARE CARD #5		
1	Nylon Web Strap with Buckle	Secure Mattress to Bed Frame	
2	3/4"x1/4" (T1.5x25mm) Washer	Secure Nylon Web Strap to Bed Face Panel under Mattress	
2	#8x5/8" (M4x15mm) Wood Screw	Secure Nylon Web Strap	
	HARDWARE CARD #7 (KING SIZE INCLUDES 2 BAGS)		
110	#8x5/8" (M4x15mm) Wood Screw	Attach Steel Bed Frame to Bed Face	

	MECHANISM CARTON ITEMS (SBLM)	COMMENTS	1
1	Lift Mechanism - Right Side	Attach to Right Side Panel	
1	Lift Mechanism - Left Side	Attach to Left Side Panel	
1	18 Springs in total are included	Install correct number in each Mechanism	
1	Steel Pipe	Used to set the Lift Mechanisms	
	HARDWARE CARD #2		
10	Machine Screw 5/16-18 x 11/4"	To attach Lift Mechanisms to Side Panels	
4	Hex Head Bolt 5/16-18 x 1"	Attach Mechanism to Frame Side section	
2	Allen Head Bolt 5/16-18 x 1"	Position Mechanism Arm on Frame Side section	
14	Hex Head Nylock Nut	Secure Bolts and Screws	
1	Allen Wrench 5/16"	For Allen Head bolts	

# GATHER TOOLS AND HARDWARE | OAK + ICE

Familiarize yourself with all components in the <b>Steel Bed Frame (SBF)</b> and <b>Spring Balance Lift Mechanism (SBLM)</b> cartons, and thoroughly study these <b>Assembly Instructions</b> 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).
☐ Check to be sure that you have the <b>SBF</b> and <b>SBLM Cartons</b> , and the <b>Panel Components</b> and <b>Hardware</b> before starting assembly.

# CABINET LIST | OAK + ICE

# (VERTICAL ORIENTATION)

## 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)

PART #	QUANTITY	DESCRIPTION	WIDTH	LENGTH
1	4 (or 2)	Bed Face Panel (Doors)	14 3/8" (365mm) (or 2x @ double width)	77 5/16" (1964mm)
2	2	Side Panel	16" (406mm)	83 1/4" (2115mm)
3	2	Headboard (1) & Top Panel (1)	14 1/4" (362mm)	58" (1473mm)
4	1	Top Facia	2" (51mm)	58" (1473mm)
5	1	Bottom Rear Base	6" (152mm)	58" (1473mm)
6	1	Bottom Kick	4" (102mm)	58" (1473mm)
7	1	Top Facia Stiffener	(30mm)	58" (1473mm)
	34	Cam Locking Fittings		
	2	Angle Brackets	(84×52×60mm)	

#### **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)

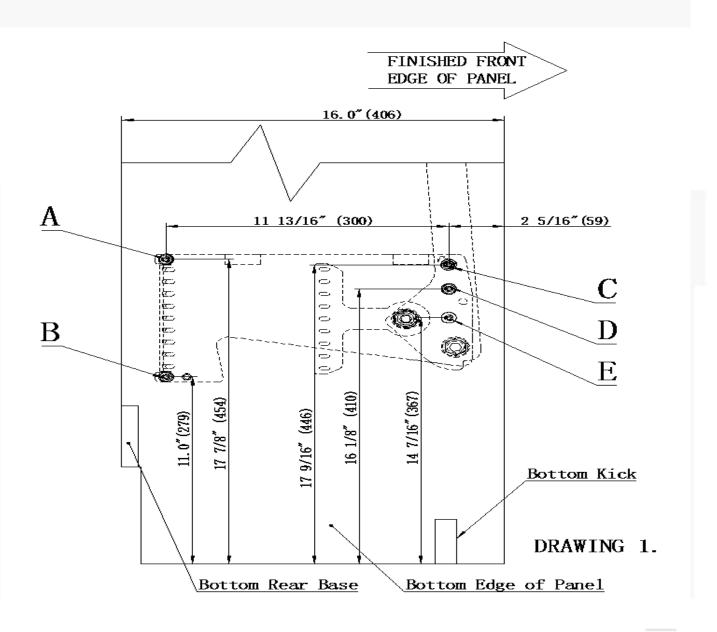
PROTRUSION FROM WALL: 90" (2273mm)

PART #	QUANTITY	DESCRIPTION	WIDTH	LENGTH
1	4 (or 2)	Bed Face Panel (Doors)	15 7/8" (403mm) (or 2x @ double width)	82 5/16" (2090mm)
2	2	Side Panel	16" (406mm)	88 1/4" (2242mm)
3	2	Headboard (1) & Top Panel (1)	14 1/4" (362mm)	64" (1626mm)
4	1	Top Facia	2" (51mm)	64" (1626mm)
5	1	Bottom Rear Base	6" (152mm)	64" (1626mm)
6	1	Bottom Kick	4" (102mm)	64" (1626mm)
7	1	Top Facia Stiffener	(30mm)	58" (1473mm)
	34	Cam Locking Fittings		
	2	Angle Brackets	(84×52×60mm)	

# MOUNT THE LIFT MECHANISMS TO THE SIDE PANELS | OAK + ICE

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



# INSTALL THE SPRINGS ON THE LIFT MECHANISMS | OAK + ICE

#### SPRING APPLICATION CHART

#### Notes:

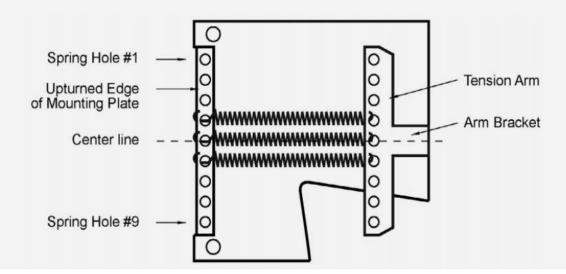
- 1. Please note these are recommendations only. The actual number of springs required will depend on the total weight of the bed-face unit including the mattress and all bedding.
- 2. After you have completed installing and checking the operation of your bed, you may find it necessary to add or remove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



## ASSEMBLE THE BED CABINET - VERTICAL

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□ 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!)

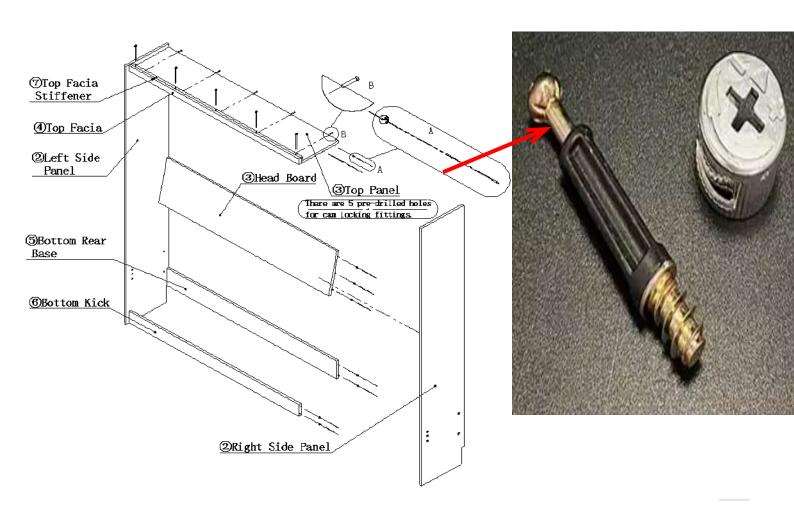
☐ If possible, the bed cabinet should be assembled in the room where it will be used.

☐ Be sure the Lift Mechanisms are securely installed.

#### Note:

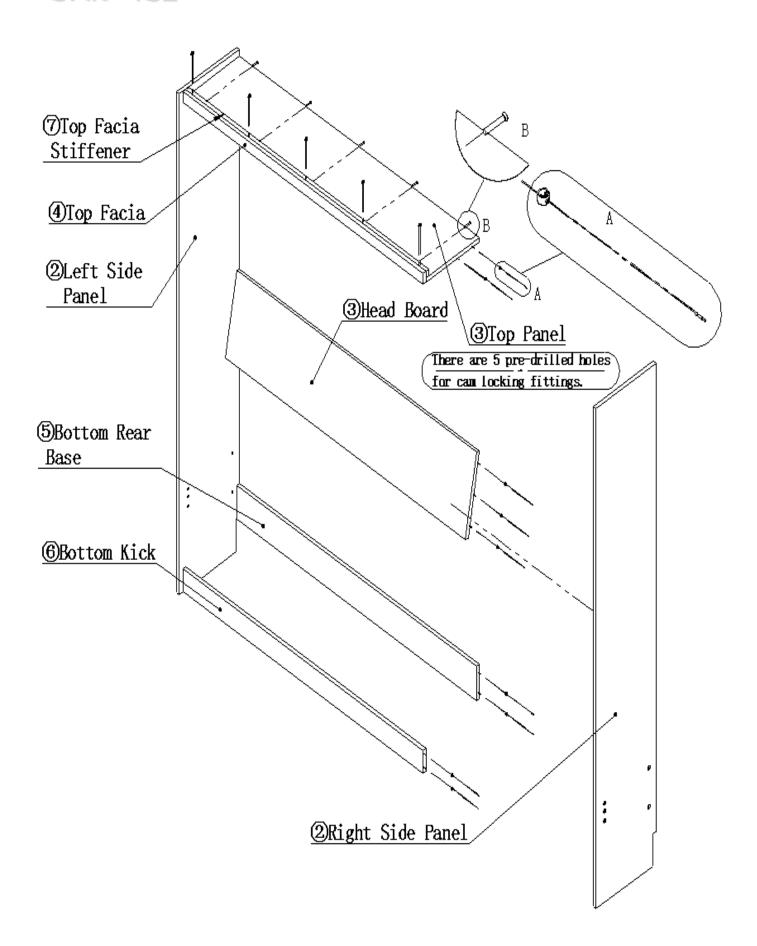
1. If the room is carpeted you may raise the Bottom Kick up 1/4" (7mm) to clear the carpet. More than 1/4" (7mm) will obstruct the operation of the bed.

- 1. Attach the headboard (#3) to each side panel (#2) using cam lock fittings supplied.
- 2. Use the cam lock fittings to assemble Bottom Rear Base (#5) and Bottom Kick (#6) in the positions shown in drawings 6 & 7. Use cam lock fittings on each end.
- **3.** Attach the Top Fascia (#3&7) to the Top Panel (#1) 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.
- 5. Use M5 x 35 screws to assemble Top Facial (#3) and Top Facia2 (#7).



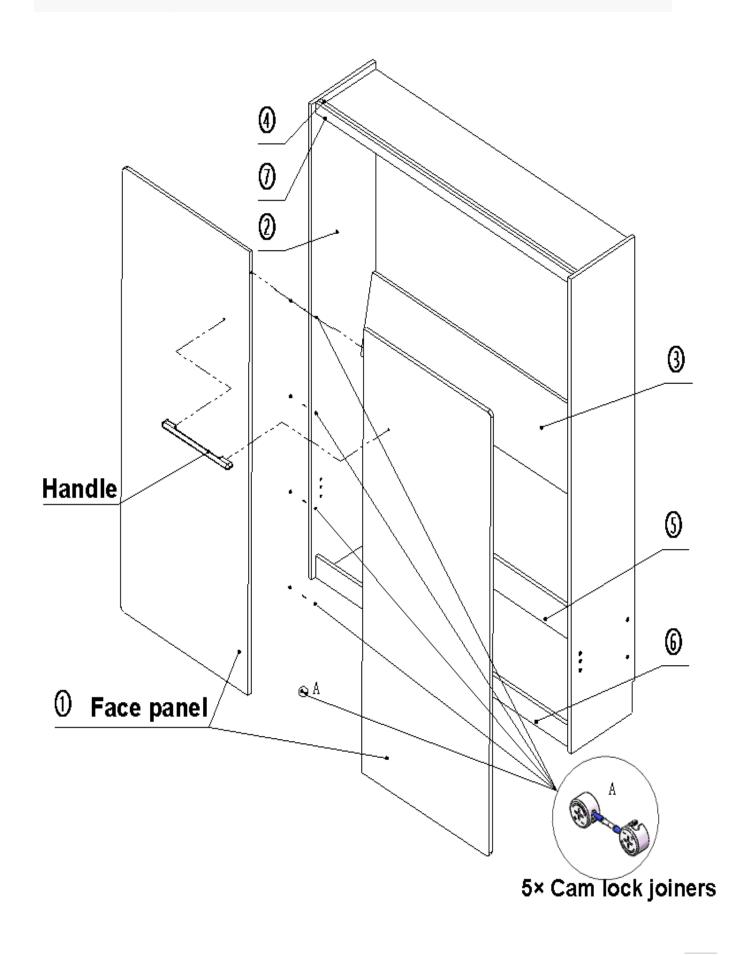
## ASSEMBLE THE BED CABINET - VERTICAL

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## ASSEMBLE THE BED CABINET - FACE PANEL

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#### ATTACH BED CABINET SECURELY TO WALL

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- ☐ 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.



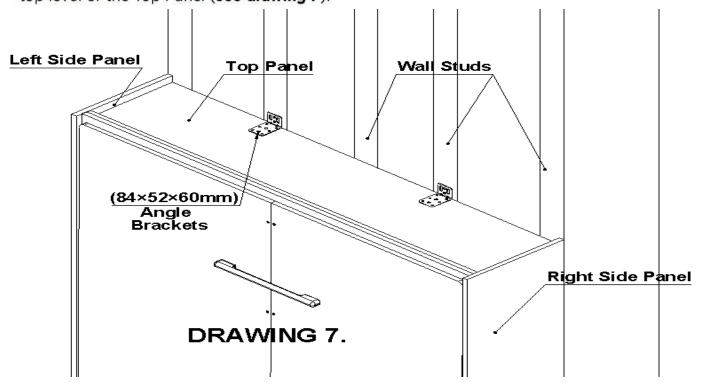
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The cabinet must be secured to studs or other wall structural members using 2" x 2" (51mm x 51mm) L-brackets. If the wall is not a wood stud wall, use metal stud screws, or concrete expansion bolts if necessary.

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**ALERT** 

**3. (Vertical)** Secure 84mm x 52mm x 60mm L-brackets to the Top Panel with #8 x 3/4" (M4 x 19mm) wood screws, making sure they are aligned with the wall studs. Use two #8 x 2" (M4 x 51mm) wood screws in each of two 84mm x 52mm x 60mm brackets to attach to the studs at the top level of the Top Panel (**see drawing 7**).



#### ASSEMBLE STEEL BED FRAME & FACE PANELS

#### Note:

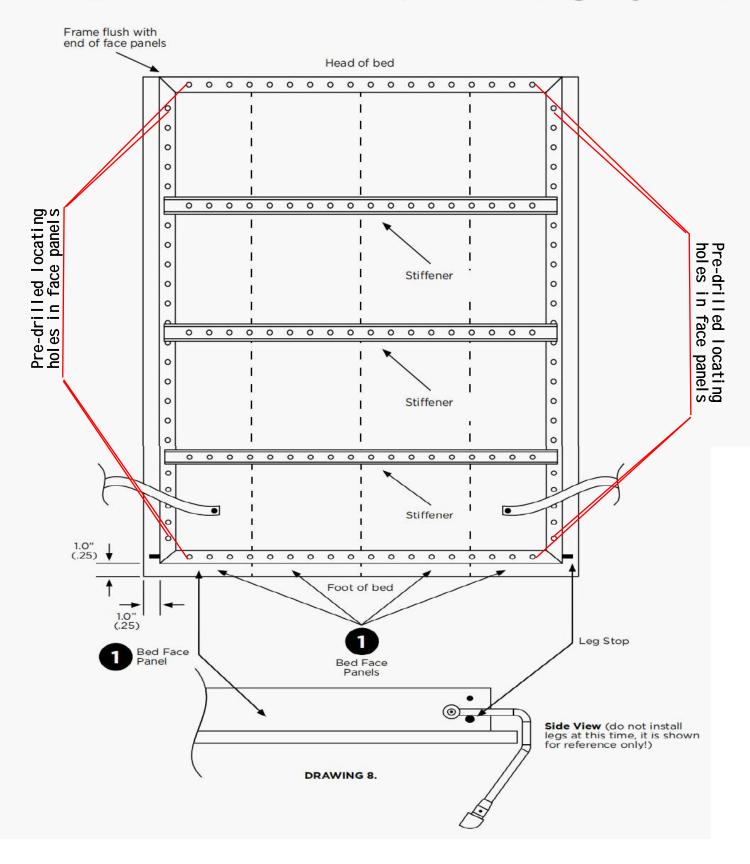
It is very important to have the bed frame centered, left to right, on the Bed Face Panels. Any error will be noticed in the vertical sightline when the bed is closed.

- 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 though frame then though 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**. Align the steel bed frame on the pre-drilled holes in each corner of the 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. 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. Securethe 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.

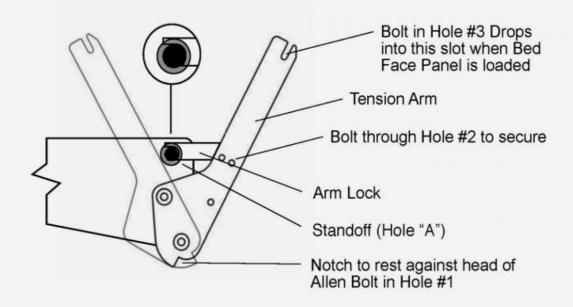
## ASSEMBLE STEEL BED FRAME & FACE PANELS

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# Wall/Cabinet - Vertical (twin through queen)



#### SET THE LIFT MECHANISM | OAK + ICE



☐ 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.

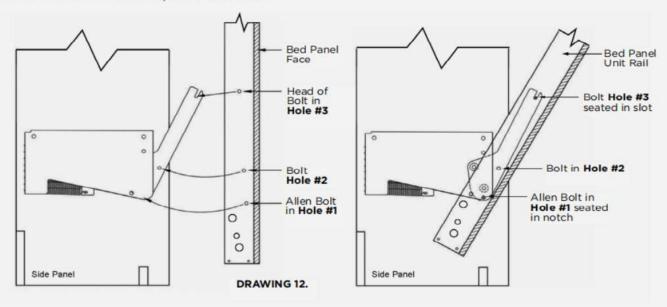


If possible, have a helper assist in the setting of the mechanism and loading of the bed face panel. DO NOT reach behind the tension arm when you are doing the setting procedure.

## INSTALL THE BED FACE PANEL UNIT | OAK +

ICE

- 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.



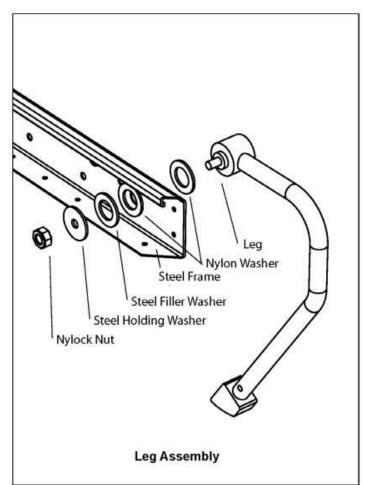
Hold the face panel securely, do not let it slam shut. Balance is not achived until the mattress is loaded in the bed.

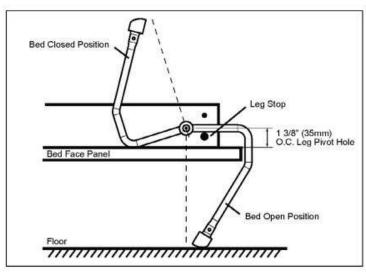
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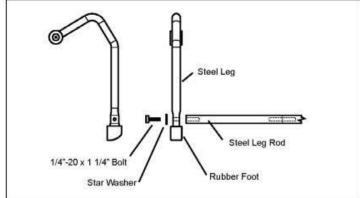
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# INSTALL HANDLES-LEGS-MECHANISM COVERS-MATTRESS | OAK + ICE

- 1. Position and secure handles for ease of operation. Using handle supplied and pre-drilled holes.
- 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).



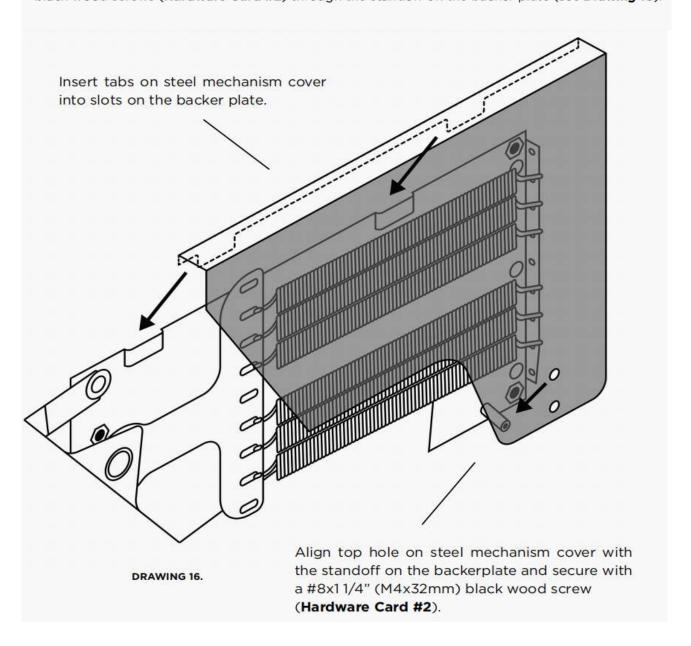




- **3.** Install Leg Connector Rod between Legs and secure with 1/4"x1 1/4" (M4x32mm) hex head bolts and star washers from **Hardware Card #4**. Be sure they are securely tightened so not to become loose. We recommend using thread-locking fluid on these bolts (see **Drawing 15**).
- 4. Install the mattress\* (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).

# INSTALL HANDLES-LEGS-MECHANISM COVERS-MATTRESS | OAK + ICE

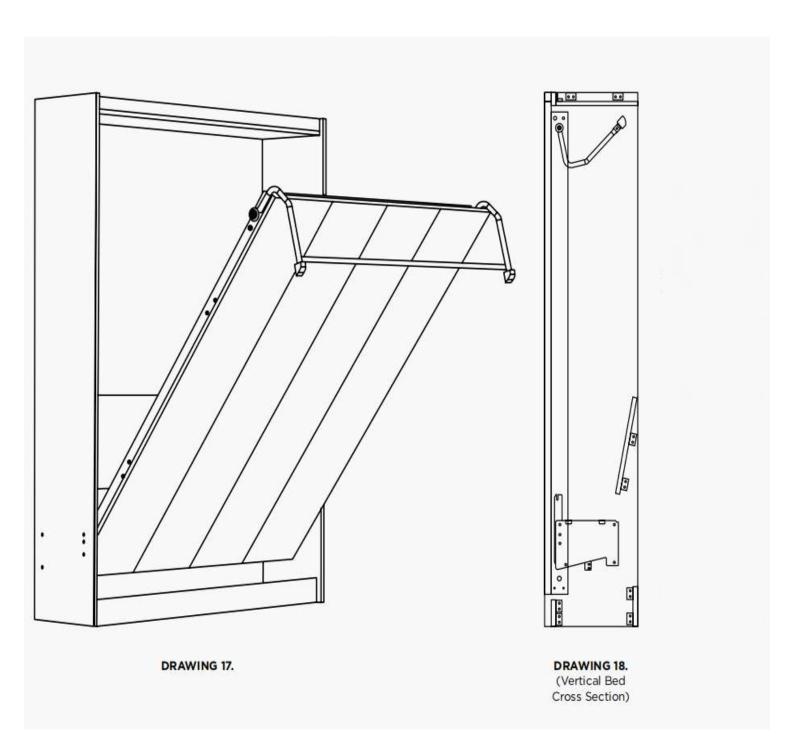
**6.** Slide the powder coated steel mechanism covers in place - secure with #8x1 1/4" (M4x32mm) black wood screws (**Hardware Card #2**) through the standoff on the backer plate (see **Drawing 16**).



# **ENJOY YOUR NEW FINISHED BED! | OAK + ICE**

#### 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.



# Mazon

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