# DO NOT DEVIATE FROM THESE PLANS!

If you want to modify these plans IN ANY WAY, please CALL US FIRST toll-free:

1-877-966-3852

Unapproved changes can cause your Murphy bed to NOT WORK CORRECTLY and will VOID your warranty.

## **PLEASE NOTE:**

This kit is engineered to work with ANY mattress that meets these <u>WEIGHT</u> and <u>THICKNESS</u> specifications:

SIZE OF BED	THICKNESS (including any pillow top)	WEIGHT
TWIN	Up to 12 inches	35 to 50 pounds
FULL	Up to 12 inches	50 to 65 pounds
QUEEN	Up to 12 inches	65 to 80 pounds

# Create-A-Bed®LLC

### NOTE: DO NOT deviate from these plans.

These plans are for constructing an ADJUSTABLE

### TWIN HORIZONTAL BED

### using **PLYWOOD** material

If you are missing any parts or have ANY questions pertaining to materials or construction please phone the manufacturer.

### **TOLL FREE 1-877-966-3852**

Power Drill TOOLS NEEDED:

Drill Bits: 1/8" 1/4" 5/16", 1" Forstner Bit, 5/8" Forstner Bit,

3/4" Forstner Bit

Power Saw, Table Saw or Circular Saw

Jigsaw or Coping Saw

Phillips-Head and Flat-Head Screwdrivers or Driver Bits for Drill

Tape Measure

#4 Allen Wrench

Hammer

Chisel

Clamps

Straight Edge or Framing Square

Household Iron for Veneer Tape and Utility Knife

7/16" Socket, Wrench, or Driver

1/2" Wrench

Stud Finder

### © Create-A-Bed®LLC 2014, 2017, 2018, 2021

murphy bed mechanism

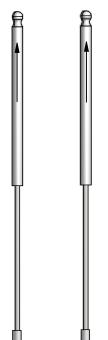
1800 Taylor Avenue Louisville, KY 40213

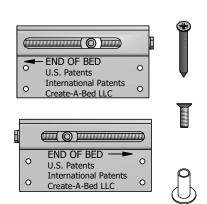
www.createabed.com

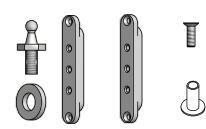
TOLL FREE: 1-877-966-3852

# Create-A-Bed®LLC

# TWIN HORIZONTAL (SIDEBED) murphy bed mechanism PLYWOOD CONSTRUCTION







Two (2) ADJUSTABLE UPPER PLATES with four (4) "T" NUTS with MACHINE screws

two (2) BALL STUDS

two (2) BLACK BALL STUD SPACERS

Two (2) ADJUSTABLE LOWER PLATES with four (4) #10 x 1-5/8" screws four (4) "T" nuts with machine screws





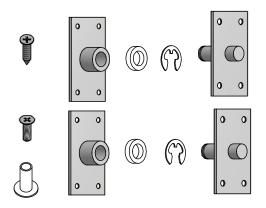


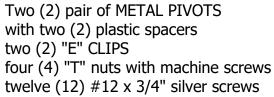
Two (2) BED STOPS with two (2) #10 x 3/4" black screws

Two (2) GAS SPRINGS



Two (2) ELASTIC MATTRESS RETANING STRAPS





One (1) CONSTRUCTION booklet
One (1) ASSEMBLY AND INSTALLATION booklet
Online Video: <a href="https://bit.ly/AdjustableHorizontal">https://bit.ly/AdjustableHorizontal</a>
© CREATE-A-BED<sup>®</sup> LLC 2014, 2017, 2018, 2021

Two (2) Metal Pivoting Legs

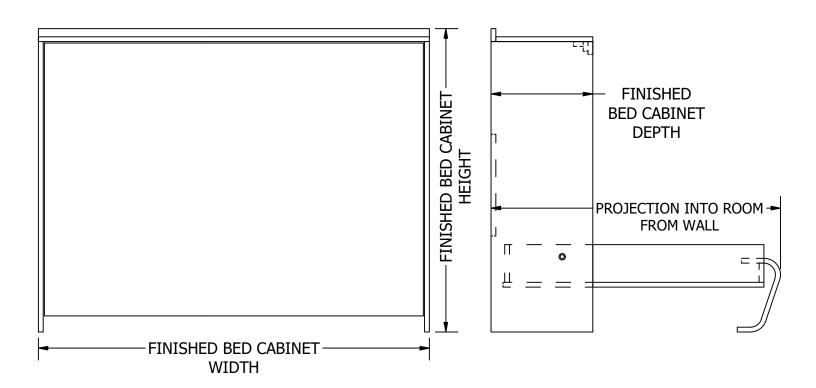
Two (2) 1/4" x 2" Leg Support Rail screws

Four (4) Black #10 x 3/4" screws

Four (4) "T"nut with machine screws

Protected By U.S. Patents #8,850,637, #8,898,831 Protected By Canada Patents #2,871,969, #2,897,339 Protected By China Patent #ZL 201380032662.0 Protected By Mexico Patent #351674

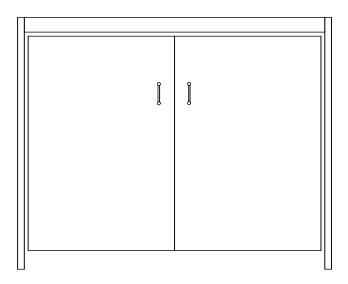
### 



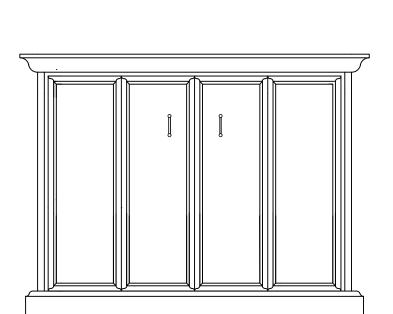
### OUTSIDE-EDGE TO OUTSIDE-EDGE FINISHED HORIZONTAL BED CABINET DIMENSIONS

SIZE	HEIGHT	WIDTH	DEPTH	PROJECTION
TWIN	47-3/8"	80-7/8"	15-7/8"	46"
FULL	62-7/16"	80-7/8"	15-7/8"	61"
QUEEN	68-7/16"	85-7/8"	15-7/8"	67"

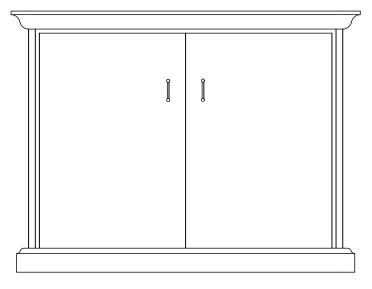
### Some design options... or create your own!



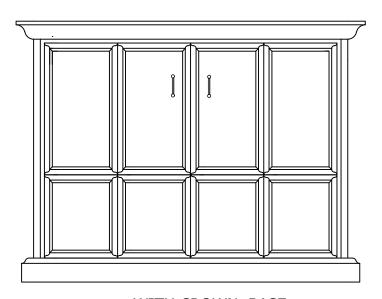
**BASIC BED** 



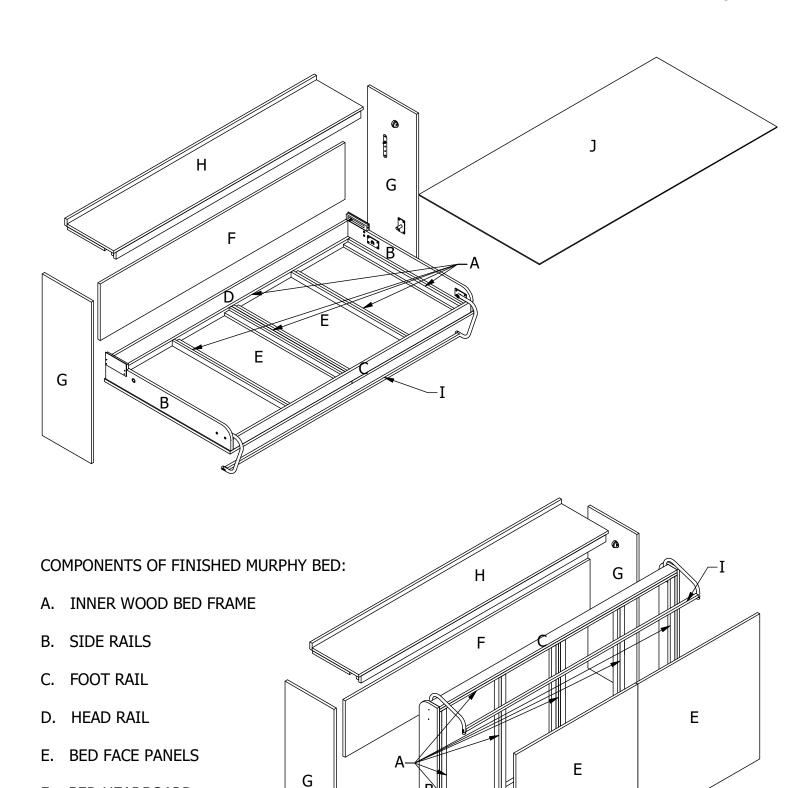
WITH CROWN, BASE AND FULL-LENGTH FACE PANEL MOLDING



WITH CROWN AND BASE MOLDING



WITH CROWN, BASE AND SPLIT FACE PANEL MOLDING



B

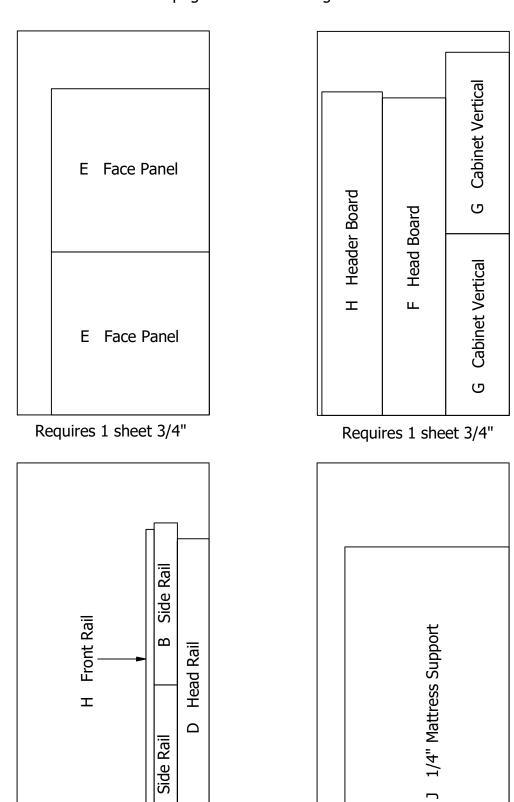
- H. BED HEADER
- I. LEG SUPPORT RAIL

**BED HEADBOARD** 

**BED CABINET VERTICALS** 

J. 1/4" PLYWOOD MATTRESS SUPPORT

TWIN SIDEBED (HORIZONTAL) PLYWOOD CUTTING GUIDE Requires 3 sheets of 3/4" x 4' x 8' and 1 sheet of 1/4" x 4' x 8' NOTE: Refer to page 6 for the cutting dimensions.



Requires 1 sheet 3/4"

Ω

Requires 1 sheet 1/4"

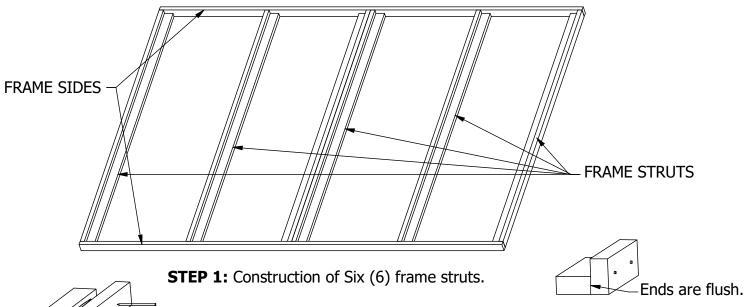
### TWIN SIZE HORIZONTAL (SIDE) BED WITH 3/4" PLYWOOD FACE PANEL BILL OF MATERIALS / CUT SHEET

FRAME STRUTS: *Solid wood: FRAME SIDES: *Solid wood:		12 pieces 2 pieces	
IMPORTANT: PLYWOO _B. SIDE RAILS:		2 pieces	
	3/4" X 3" X 77"	1 piece	
D. HEAD RAIL:	3/4" X 5-7/8" X 77"	1 piece	
E. BED FACE PANEL:	3/4" X 39-1/2" X 40-3/4"	2 pieces	
F. BED HEADBOARD:	3/4" X 15-7/8" X 79-3/8"	1 piece	
G. BED CABINET VERTICALS:	3/4" X 15-7/8" X 45-3/8"	2 pieces	
H. BED HEADER: HEADERBOARD: FRONT RAIL: FRONT RAIL SUPPORT: *Solid wood: REAR RAIL: *Solid wood: MOUNTING CLEATS: *Solid wood:	3/4" X 2" X 80-7/8"	1 piece 1 piece 2 pieces 1 piece 2 pieces	
I. Leg Support Rail (wood or metal):	3/4" X 3/4" X 75-1/4"	1 piece	
J. 1/4" PLYWOOD mattress support:	1/4" X 39" X 77"	1 piece	
_K. VENEER or MELAMINE TAPE:	13/16" X 75 feet		
_L. WOOD GLUE:	One 8 ounce bottle		
_M. CONSTRUCTION ADHESIVE:	One 10 ounce tube	(NOT NEEDED with	
_N. FINISH NAILS:	One box of 1-1/4" One box of 1-1/2"	PLYWOOD INSTRUCTIONS	
_O. SCREWS:	#8 1-1/4" coarse thread Bo #8 1-1/2" coarse thread 30 #8 2" coarse thread 40	x of 100	
P. DESIRED CABINET HANDLES OR PU	ILLS	2 HANDLES	

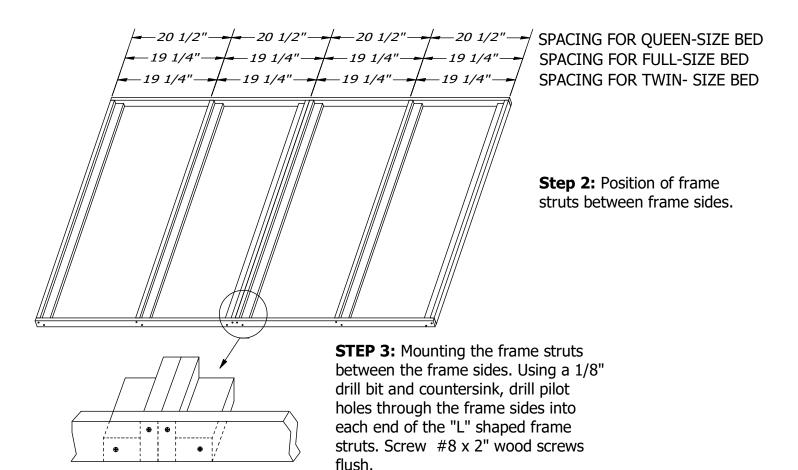
Mattress thickness CAN NOT exceed 12 inches in thickness – including pillow top.

Glue-

See Bill of Materials / Cut Sheet (PART A) for Twin, Full or Queen size frame struts and frame sides dimensions.

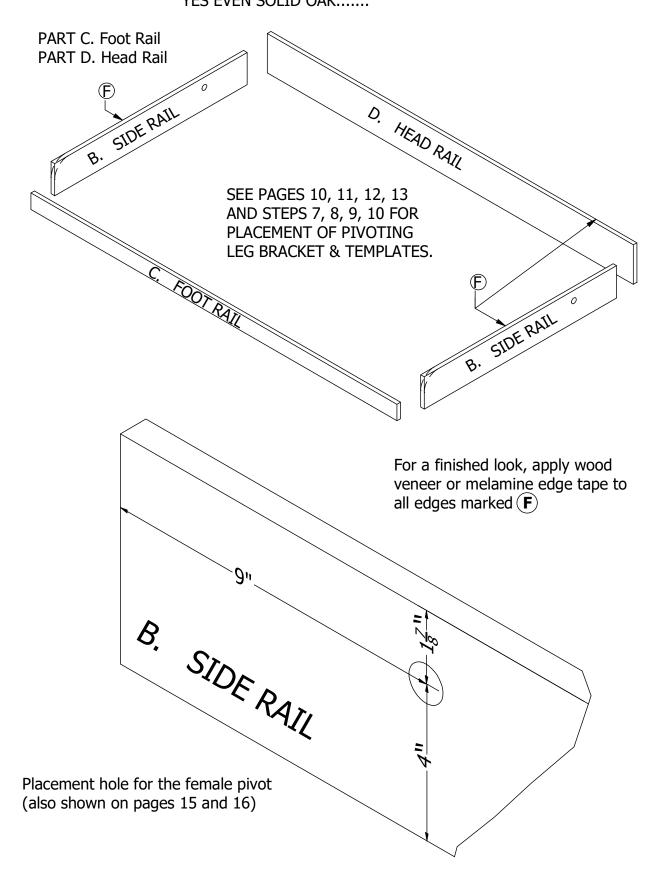


Run a bead of wood glue along inside edge. Making sure ends are flush, drill pilot holes approximately 8" apart and nail with 1-1/2" finish nails, or you can use #8 x 1-1/2" screws.

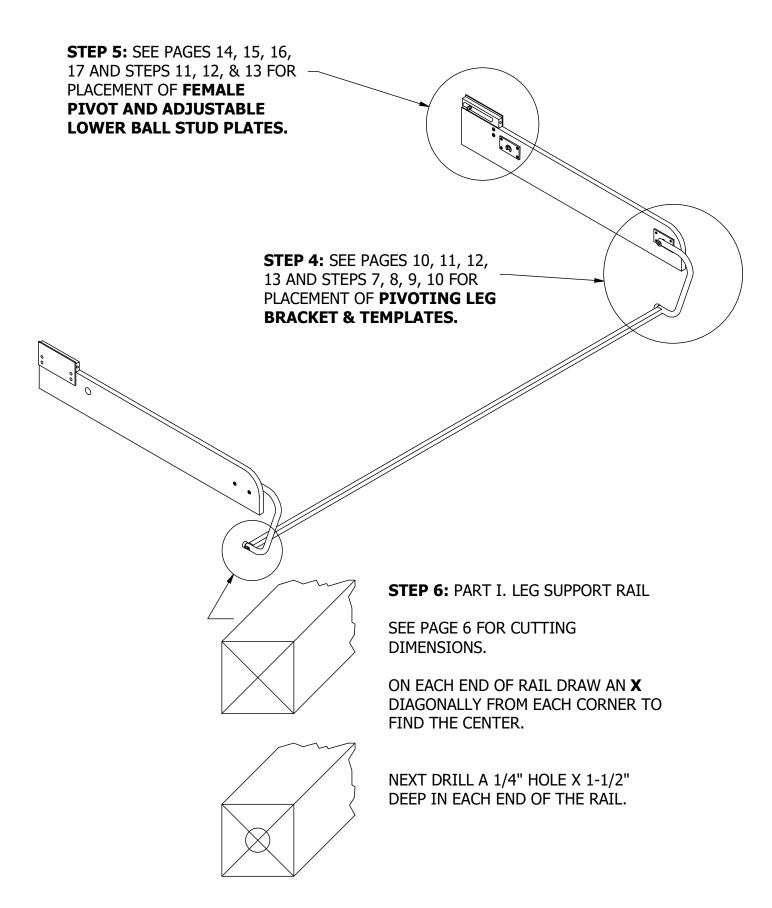


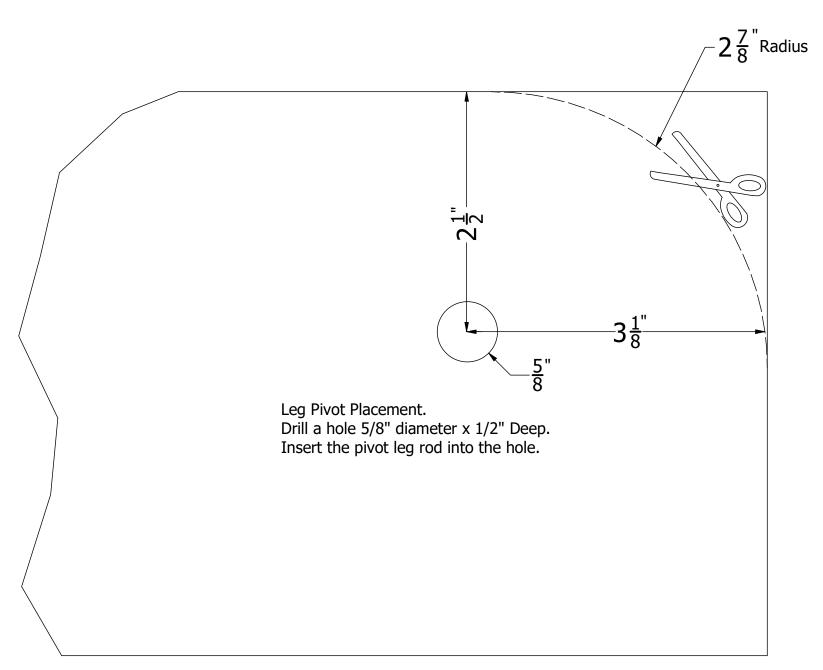
#### PART B. Side Rails: (MUST BE MADE OF PLYWOOD)

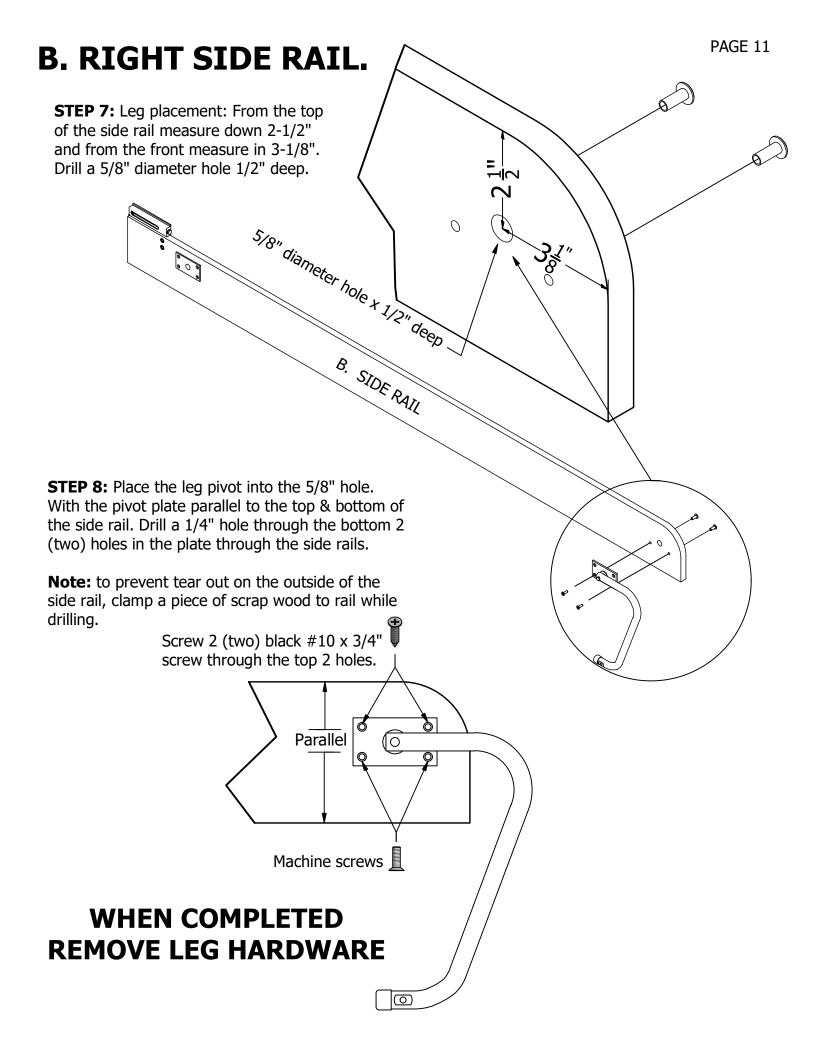
Why?.. This is where the stress takes place. Plywood is stronger than solid wood. YES EVEN SOLID OAK......

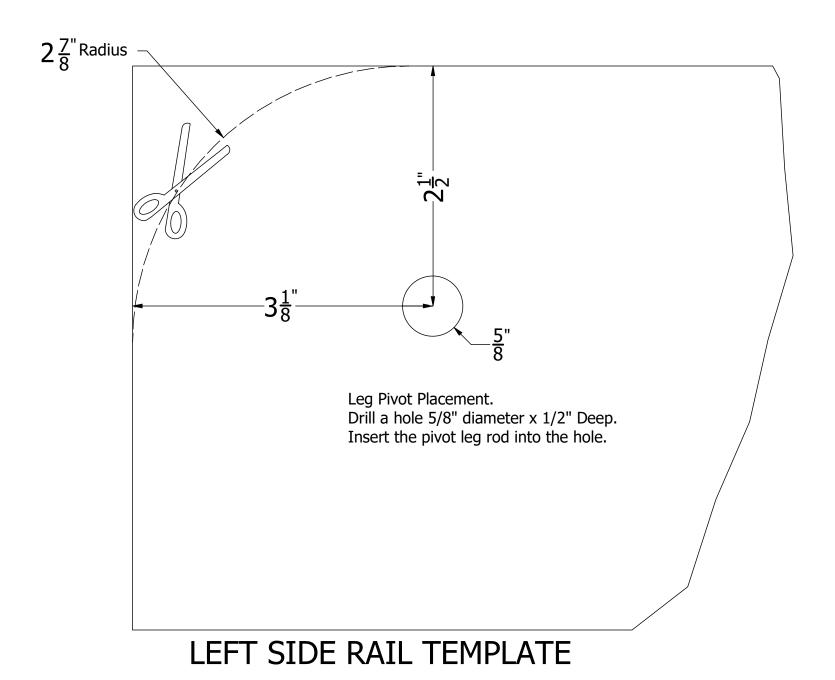


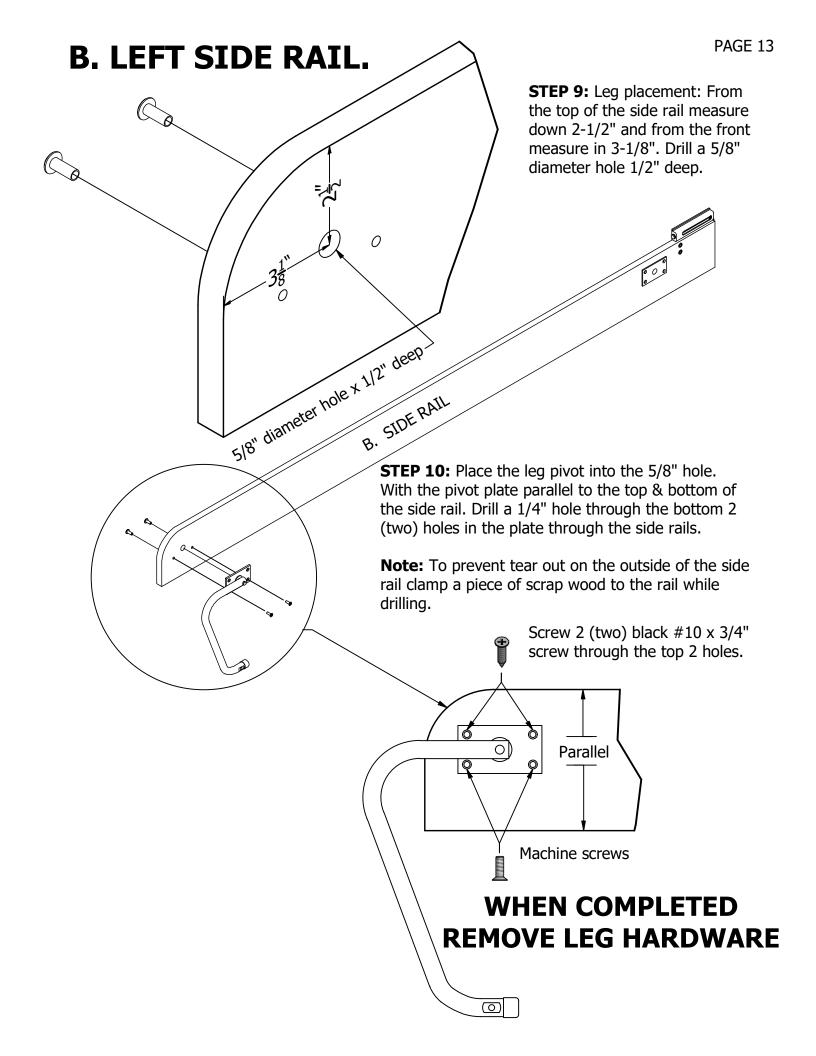
### HARDWARE PLACEMENT FOR B. SIDE RAILS



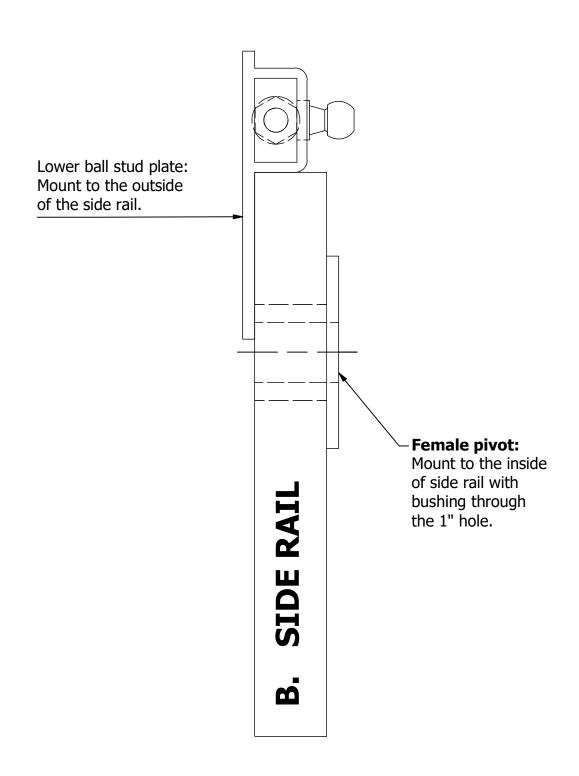


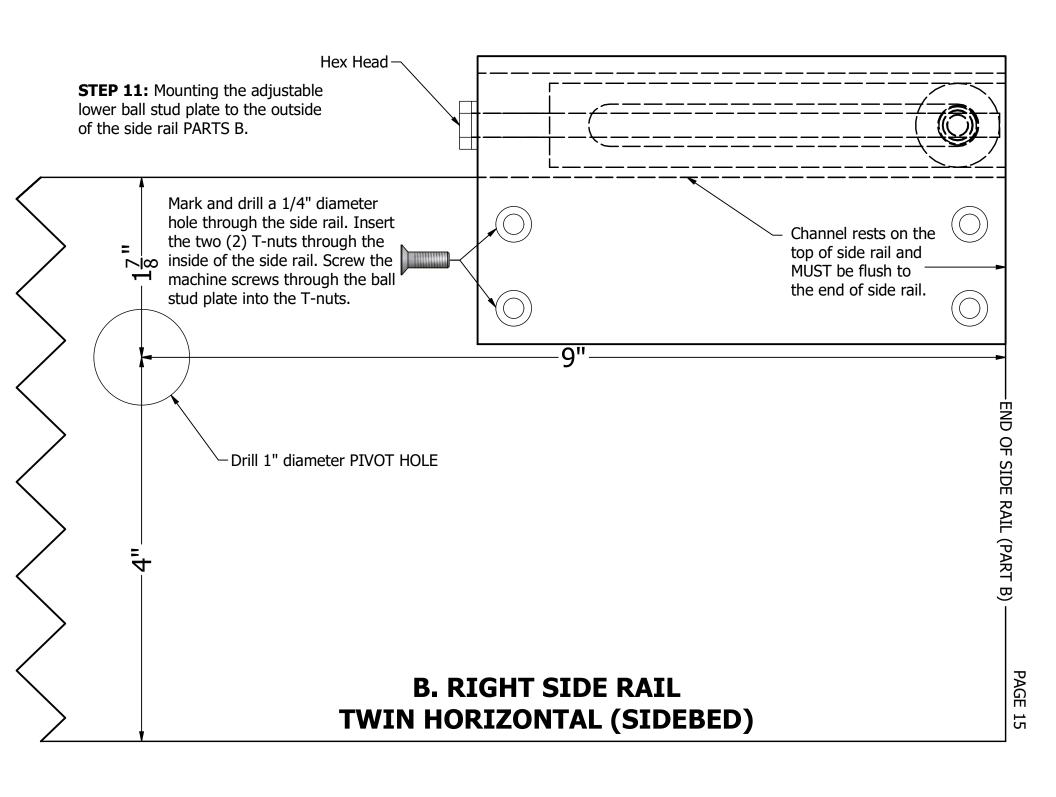


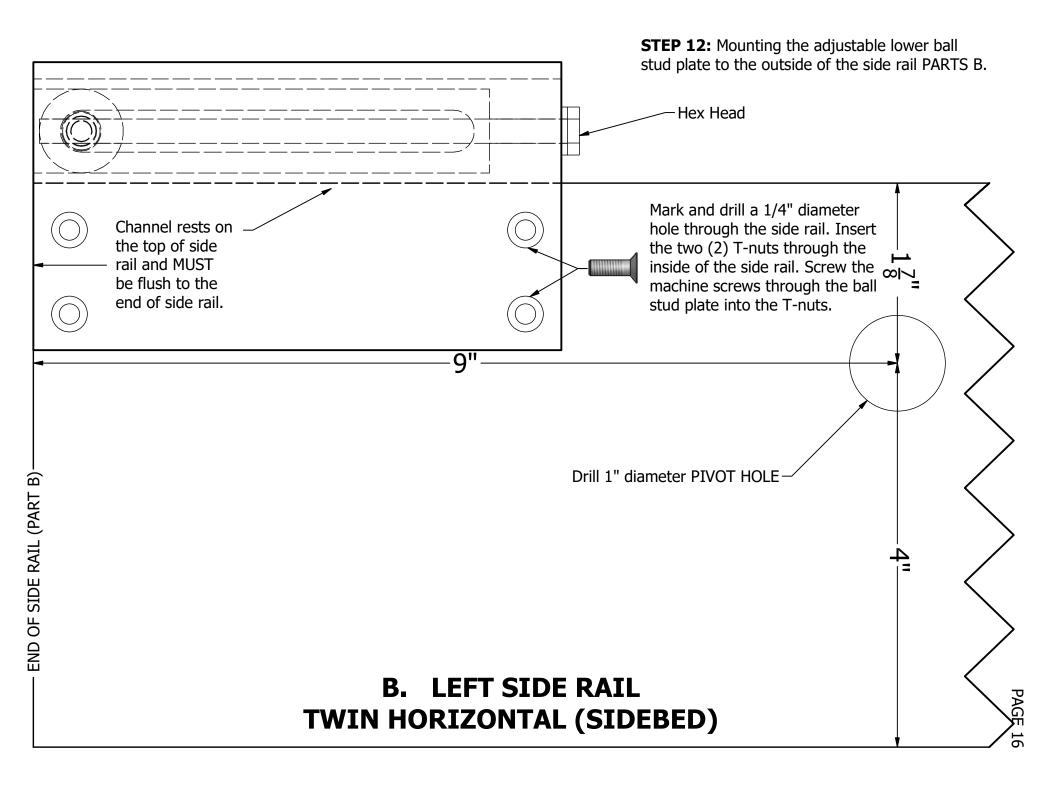


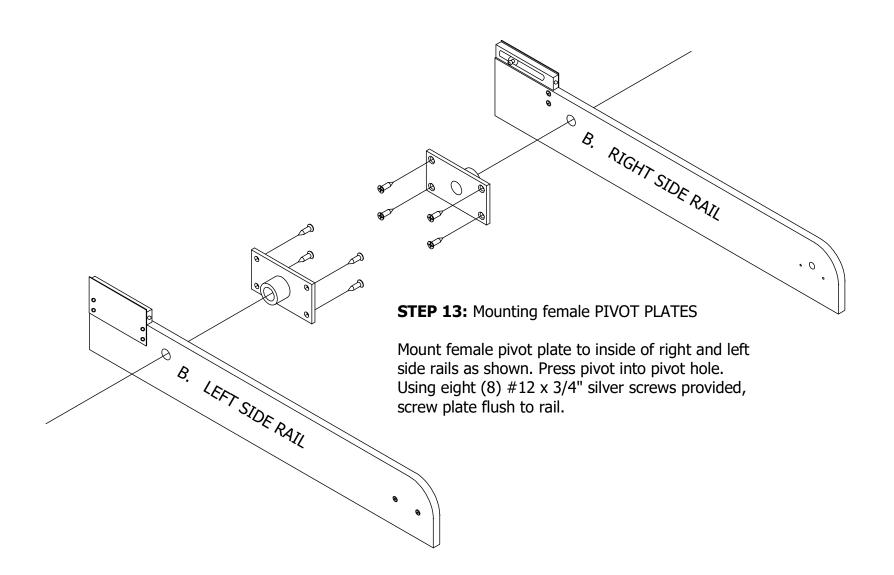


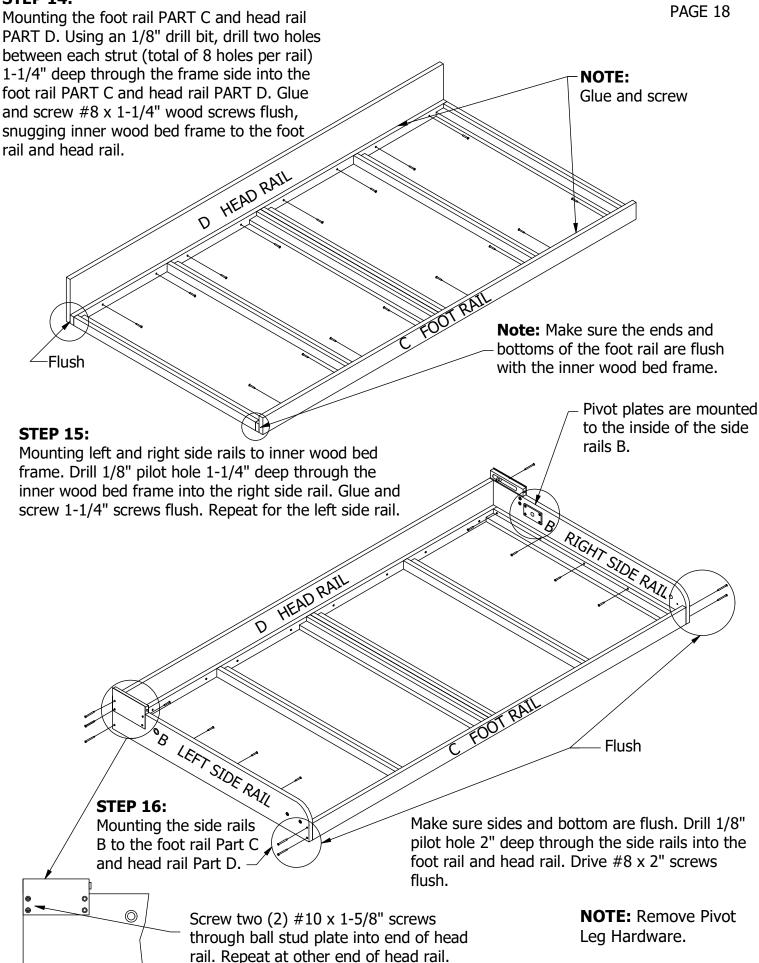
This page pertains to the orientation and mounting positions of the lower ball stud plates and female pivots, **USE WITH PAGE 15**, **16**, **& 17** 

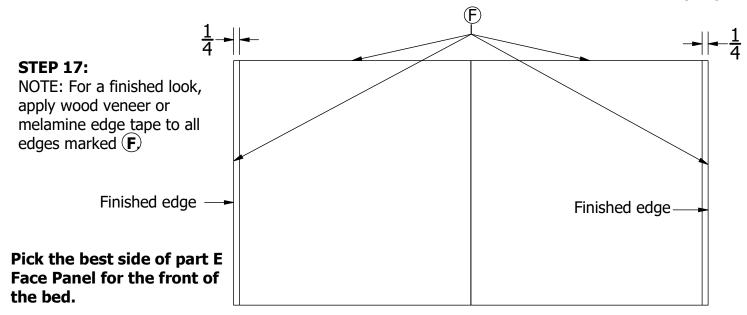


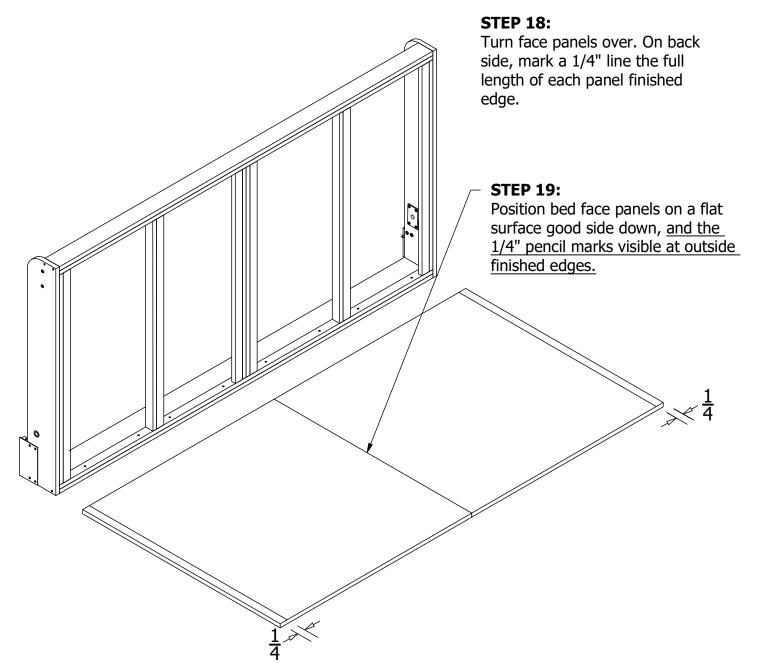


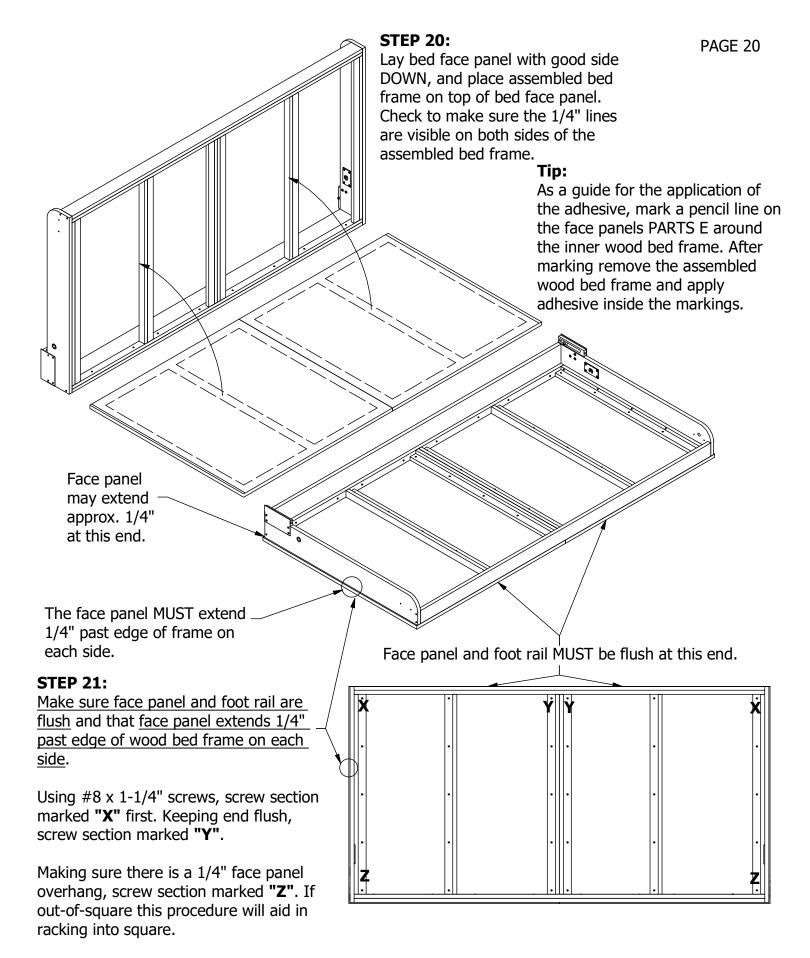




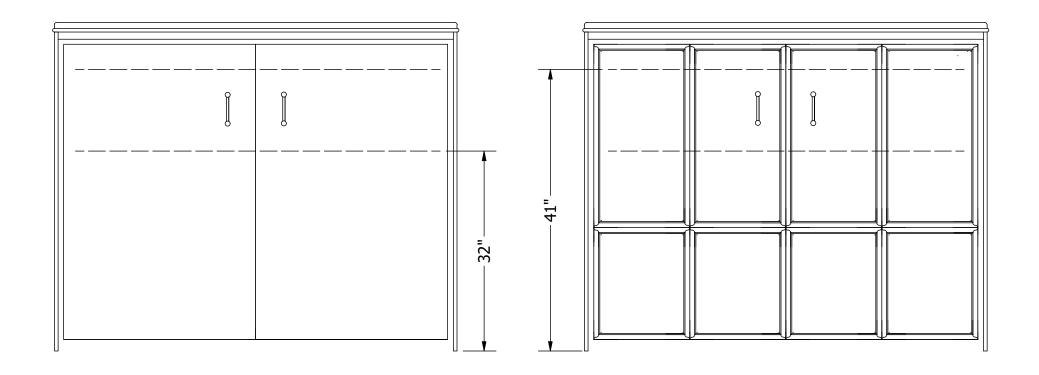




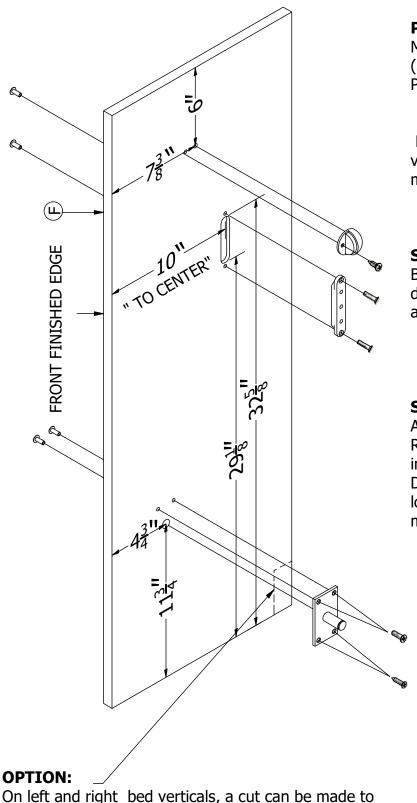




Screw remaining struts to face panel 6 inches apart.



Placement of cabinet handles for optimal leverage should be between 32" and 41" on face panel PART E.



accommodate existing base molding so cabinet will

fit flush against the wall.

**PART G:** BED CABINET VERTICALS (LEFT) Measurements for TWIN HORIZONTAL (Sidebed) ONLY Using 3/4" PLYWOOD Face Panel.

**NOTE:** For a finished look, apply wood veneer or melamine edge tape to all edges marked **(F.)** 

#### **STEP 22:**

BED STOP: Drill a hole 5/16" diameter x 1/2" deep. Insert the bed stop pin into hole and attach with a #10 X 3/4" black screw.

#### **STEP 23:**

ADJUSTABLE UPPER BALL STUD PLATE: Rout out 3/4" x 1/4" deep x 3-1/2" long and insert the adjustable upper plate into hole. Drill 1/4" holes through the mounting locations and secure with "T" Nuts and machine screws.

#### **STEP 24:**

MALE PIVOT PLATE: Drill a hole 5/8" diameter x 1/2" deep. Insert the 1/2" end of rod into hole. Drill two (2) holes 1/4" diameter through the vertical using the upper holes in the pivot plate as a guide. Tap "T" Nuts into two (2) upper holes from outside, then screw 1/4" machine screws through pivot plate into "T" Nuts. Screw two (2) #12 x 3/4" screws through pivot plate holes into vertical.

**PART G:** BED CABINET VERTICALS (RIGHT) Measurements for TWIN HORIZONTAL (Sidebed) ONLY Using 3/4" PLYWOOD Face Panel.

**NOTE:** For a finished look, apply wood veneer or melamine edge tape to all edges marked  $\widehat{\mathbf{F}}$ 

#### **STEP 25:**

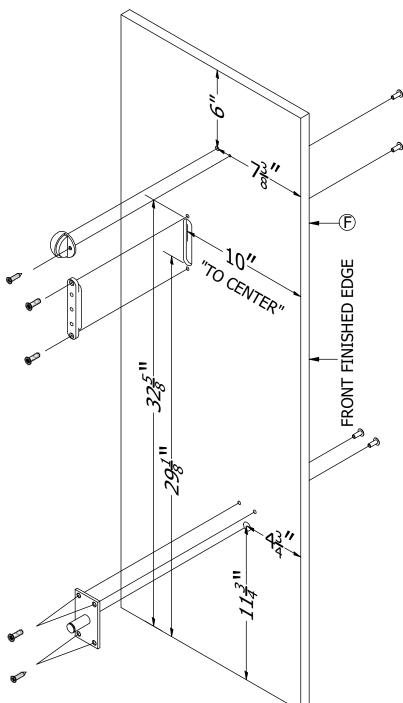
BED STOP: Drill a hole 5/16" diameter x 1/2" deep. Insert the bed stop pin into hole and attach with a #10 X 3/4" black screw.

#### **STEP 26:**

ADJUSTABLE UPPER BALL STUD PLATE: Rout out 3/4" x 1/4" deep x 3-1/2" long and insert the adjustable upper plate into hole. Drill 1/4" holes through the mounting locations and secure with "T" Nuts and machine screws.

#### **STEP 27:**

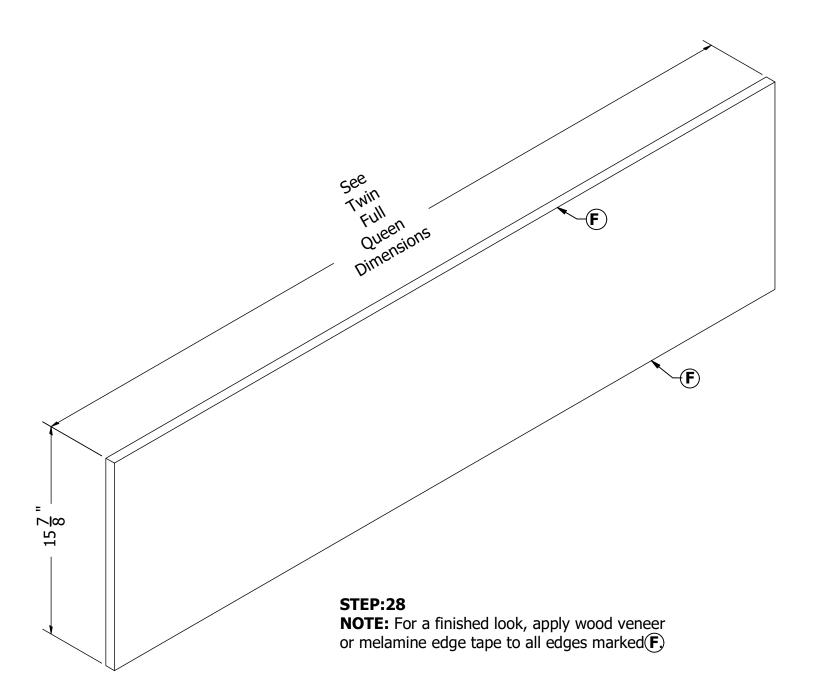
MALE PIVOT PLATE: Drill a hole 5/8" diameter x 1/2" deep. Insert the 1/2" end of rod into hole. Drill two (2) holes 1/4" diameter through the vertical using the upper holes in the pivot plate as a guide. Tap "T" Nuts into two (2) upper holes from outside, then screw 1/4" machine screws through pivot plate into "T" Nuts. Screw two (2) #12 x 3/4" screws through pivot plate holes into vertical.



#### **OPTION:**

On left and right bed verticals, a cut can be made to accommodate existing base molding so cabinet will fit flush against the wall.

### PART F: BED HEADBOARD

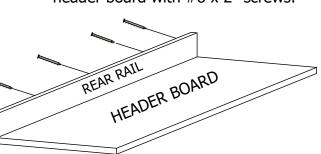




**Note:** For a finished look, apply wood veneer or melamine edge tape to all edges marked **F**.

#### **STEP 29:**

Drill five (5) pilot holes through rear rail. Glue and screw rear rail to header board with #8 x 2" screws.



#### **STEP 30:**

YOUNTING CLEAT

Drill six (6) 1/8" pilot holes in front rail support, then glue and screw togrther with 1-1/2" wood screws or nails. This the same operation as performed on struts.

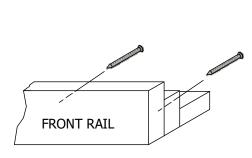
REARRAIL

HEADER BOARD

FRONT RAT

(F)

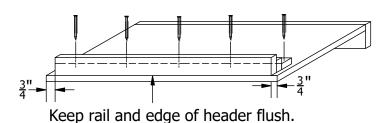




MOUNTING CLEAT

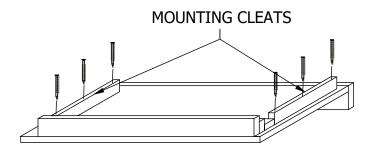
#### **STEP 31:**

Attaching the front rail to the front rail support: Drill six (6) pilot holes 1-1/4" deep through rear of support into rear of front rail, then glue and screw together with 1-1/4" wood screws.



#### **STEP 32:**

Turn header board over (top down) and position assembled rail and supports 3/4" in from each side of header board. Being sure to keep rail and edge of header board flush, drill five (5) pilot holes 1-1/4" deep in front rail support into header, then glue and screw to header board with 1-1/4" wood screws.



#### **STEP 33:**

Cut two (2) mounting cleats to fit between front rail and back of header board and attach to header board with 1-1/4" wood screws 3/4" from edge of header.

**STEP 34:** Now refer to the **ASSEMBLY BOOKLET** for assembling and installing your murphy bed.

# ASSEMBLY INSTRUCTIONS FOR THE HORIZONTAL (Sidebed)

### Create-A-Bed®

MURPHY BED

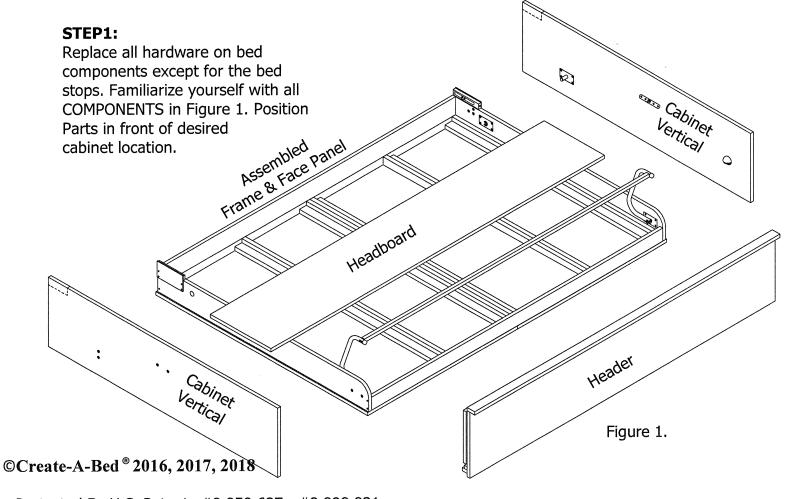
### **WARNING!**

This bed contains stored mechanical energy which can cause serious injury if improperly handled. Your bed MUST! MUST! be securely anchored to the wall! READ INSTRUCTIONS THOROUGHLY BEFORE

ASSEMBLY AND DISASSEMBLY!

If you have ANY questions, call **TOLL FREE** (877) 966-3852

Tools needed: Power Drill, Stud Finder, Tape Measure, Phillips-Head Screwdriver, Flat-head Screwdriver, #4 Allen Wrench, 7/16" Socket, 1/2" Wrench, Clamps and Drill bits appropriate for your mounting surface see (step 16 on page 10).

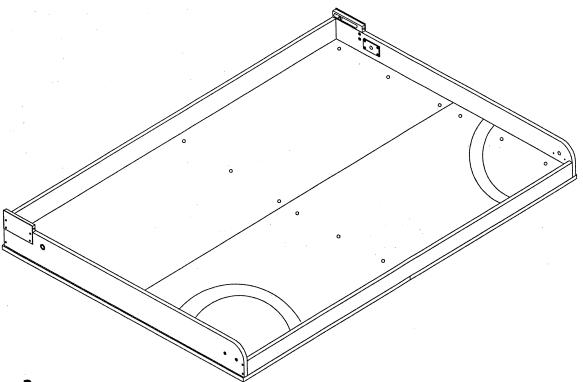


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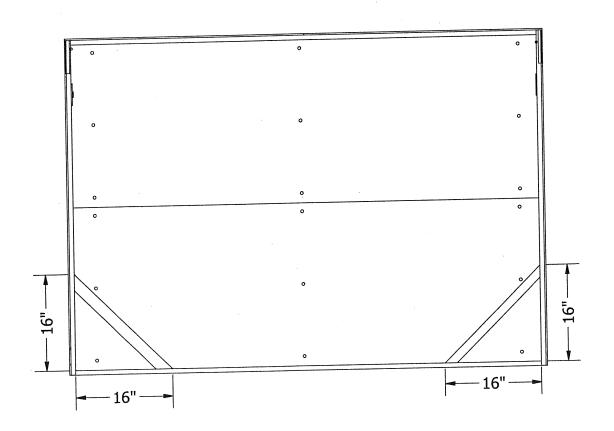
Protected By Canada Patents #2,871,969 , #2,897,339

Protected By China Patent #ZL 201380032662.0

Protected By Mexico Patent #351674



Step 2: Lay 1/4" plywood mattress support (PART J) on inner bed frame and attach with screws do not glue. Screw ends of both mattress retaining straps thru 1/4" plywood (PART J) into inner wood bed frame, 16 (sixteen) inches from front corners of face panel as shown.

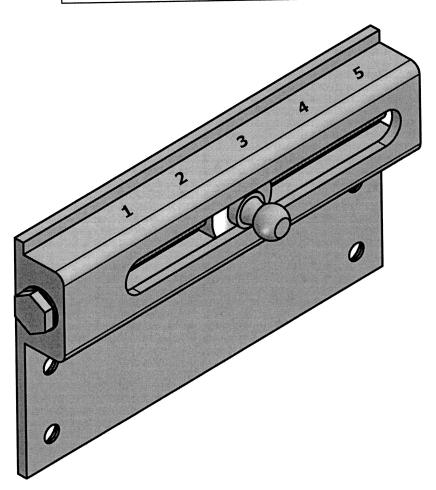


### Initial Settings for Adjustable Lower Ball Stud Plate Using 3/4" Material

These settings are **SPECIFIC** to the size and style of bed you ordered. **See Page 11 for instructions on how to adjust your bed to balance correctly.** 

### HORIZONTAL (sidebed) PLYWOOD

Queen	SET ON #3
Full	SET ON #3
Twin	SET ON #3

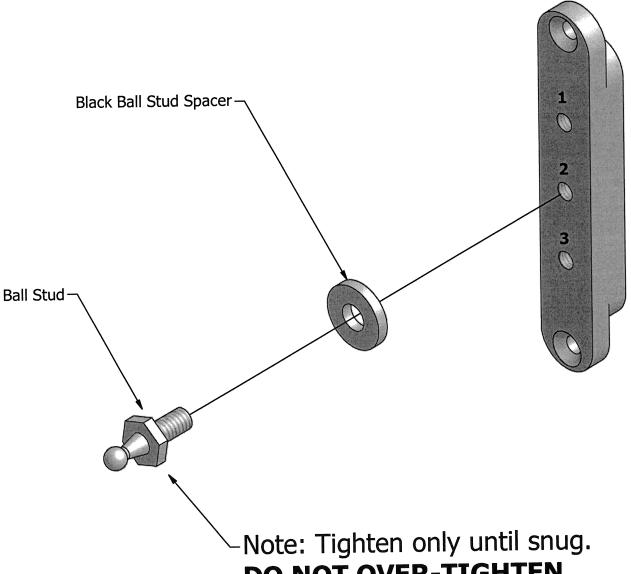


### Settings for Adjustable Upper Ball Stud Plate Using 3/4" Material

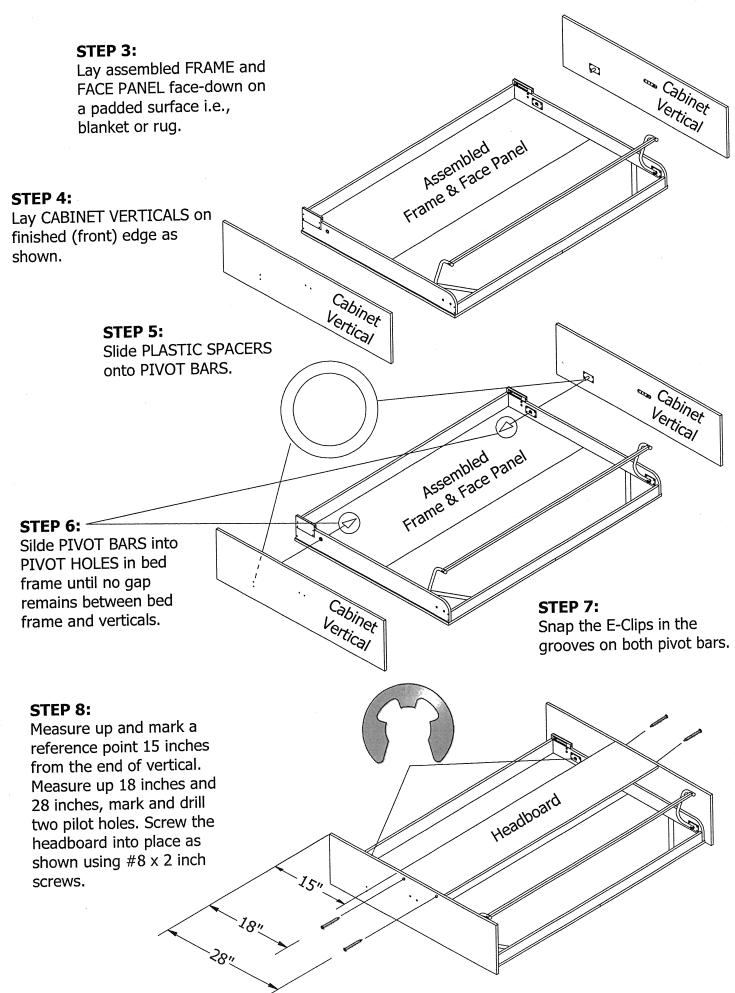
These settings are **SPECIFIC** to the size and style of bed you ordered.

### HORIZONTAL (sidebed) PLYWOOD

Queen	USE #1
Full	USE #1
Twin	USE #1



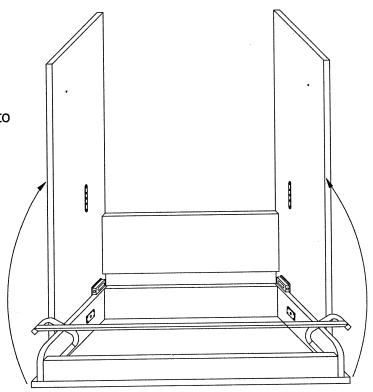
DO NOT OVER-TIGHTEN.



#### STEP 9:

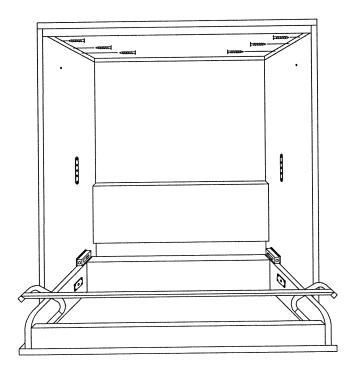
With the BED FACE PANEL remaining face-down on padding, and legs in the closed position slowly and carefully rotate the CABINET VERTICALS & the HEADBOARD assembly into its upright position.

**NOTE:** To prevent damage to the legs be sure they are in the closed position when rotating the bed into the upright position.

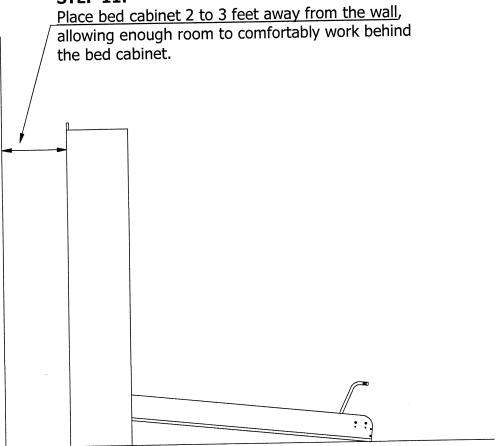


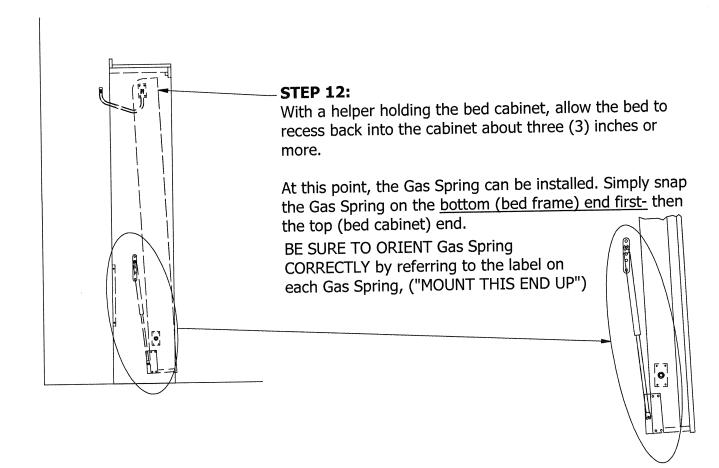
#### **STEP 10:**

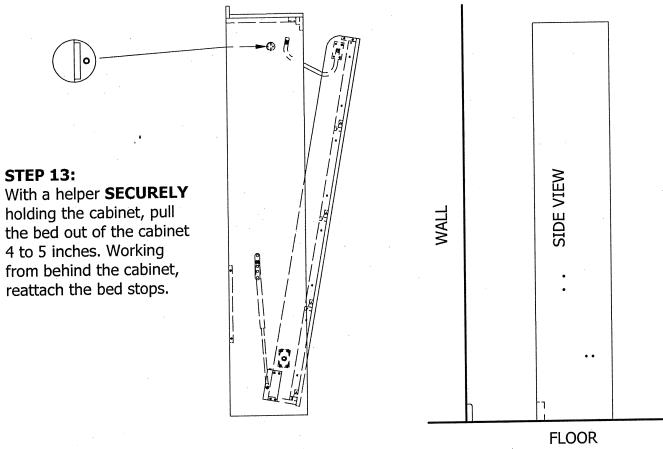
Place the header between the bed verticals, making sure the nailed rail is in front, and the screwed rail is in the rear. Be sure top front and top rear of the header is FLUSH with the top front and top rear of the bed verticals. Using #8 x 1-1/4 inch screws, drill and screw through mounting cleats into the bed verticals, three (3) on each side.



**STEP 11:** 





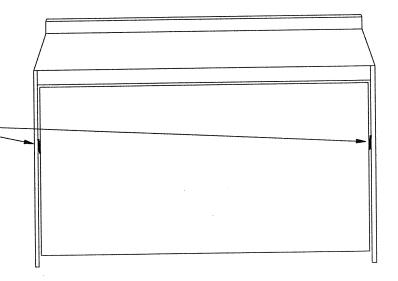


#### **STEP 14:**

If the room has existing base molding, make a cut at the bottom rear of the cabinet verticals to accommodate the existing base molding. If room does not have base molding, simply place cabinet flush against wall.

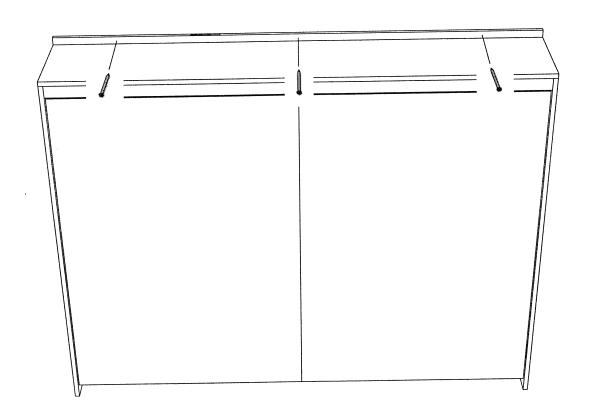
#### **STEP 15:**

After assuring that the top and bottom of the bed cabinet are against the wall, center the face panel between the verticals by placing a piece of folded cardboard between the face panel and each of the two verticals as illustrated.



STEP 16 IS <u>VERY</u>, <u>VERY IMPORTANT</u>!!! YOUR BED <u>MUST</u> BE SECURELY AND CORRECTLY ANCHORED TO THE WALL to assure proper operation and to avoid possible injury.

**NOTE:** When the bed is lowered, it wants to pull the bed cabinet down with it, so the bed cabinet **MUST** be securely anchored to the wall using the correct fasteners for your type or wall.



See STEP 16 on PAGE 10 for Anchoring Instructions

#### STEP 16: MOUNTING THE BED CABINET TO THE WALL

If the wall has **WOOD** studs, use 3" COARSE THREAD drywall screws or 3" lag screws:

Locate and mark the centers of the studs in desired wall location using a good studfinder.

Drill three (3) pilot holes through the rear rail of the Bed Header into the wall for a twin or full size bed and four (4) for a queen size bed. Drive three (3) 3" drywall screws or lag screws through the rear rail of the Bed Header into the studs for a twin or full, and drive four (4) screws for a queen size bed.

If the wall is **CONCRETE, MORTAR OR BRICK** construstion, use masonry screws:

Drill three (3) pilot holes through the rear rail of the Bed Header into the wall for a twin or full size bed and four (4) for a queen size bed. Using a 5/32" 4" concrete drill bit, drill through the pilot holes into the wall two (2) inches deep. Anchor the bed by screwing 3/16" x 2-1/4" masonry screws through the rear rail of the Bed Header into the wall.

If the wall has **METAL** studs, use 3/16" x 4" toggle bolts: Locate and mark the centers of the studs in desired wall location using a good studfinder.

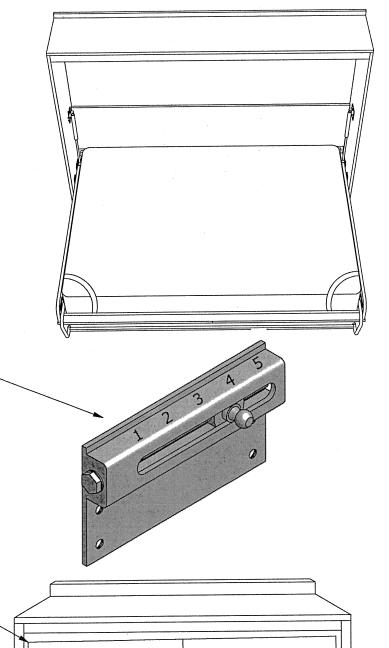
Drill three (3) pilot holes through the back rail of the Bed Header into the wall for a twin or full size bed and four (4) for a queen size bed. Using a 9/16" drill bit, drill holes at the pilot holes through the metal studs. Be sure you drill through the studs. Insert the toggle bolt screws through the pilot holes in the rear rail of the Bed Header. Now thread the toggle wings on the screws. Fold the wings back completely and push the wings through the metal studs until the wings spring open. Pull the Header Rail back to hold the wings against the inside of the stud and tighten the screws with a screwdriver.

#### **STEP 17:**

Holding the BED FACE PANEL in the down position, place the innerspring mattress on the bed and secure with ELASTIC RETAINING STRAPS.

**NOTE:** When Lowering the bed with the mattress it may seem very difficult. If the bed has to much power, i.e. - wants to close - you can easily decrease your bed's-lifting power by using a socket wrench or driver. Turn the Hex Head to the right to move the ball stud to a smaller number - from five to four, or four to three. Be sure to adjust BOTH SIDES equally. Remember: SMALL adjustments make BIG, BIG differences in your bed's lifting power.

Narrowest Gap



#### **STEP 18:**

Close bed. If the gap around the bed is uneven, <u>push or gently kick the base</u> of the CABINET on the side with the NARROWEST gap until desired gap is obtained.

#### **STEP 19:**

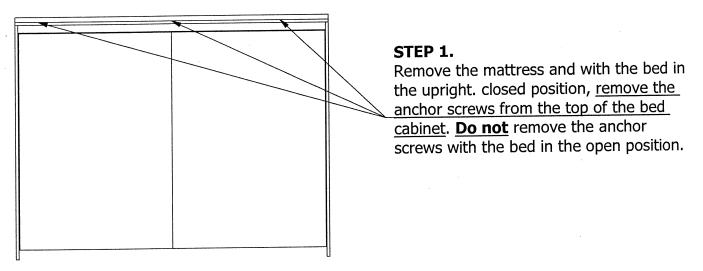
Close bed. Apply base molding (if applicable) from outside of vertical to outside of vertical.

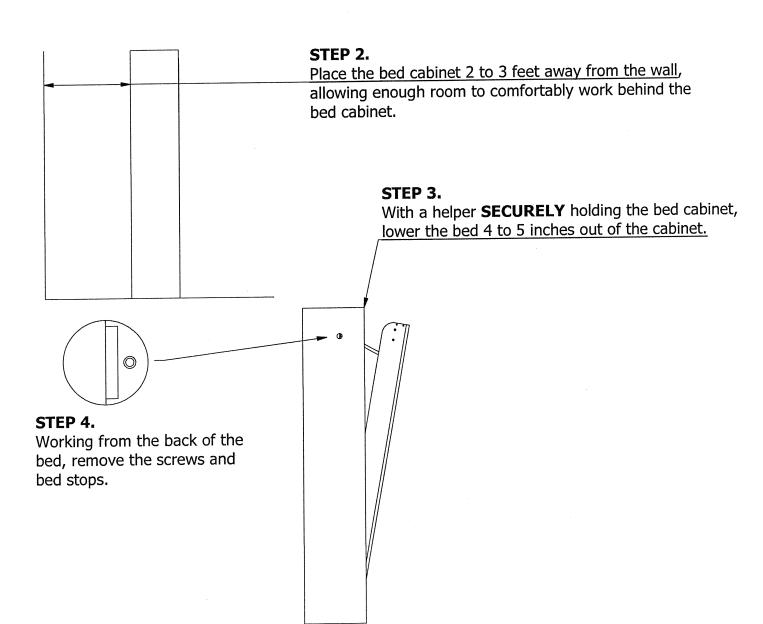
# PROBLEM SOLVING

- Q: The gas spring won't hand-compress... has it "frozen up?
- A: The design and construction of the gas spring's internal parts won't allow it to "freeze up." Each piston contains as much as 240 pounds of pressure, so they cannot be compressed by hand. Please refer to ASSEMBLY BOOKLET, page 7 step 12.
- Q: The bed is very hard to open and it wants to spring closed.
- A: Your mechanism is designed to have the optimum mechanical leverage to comfortably raise and lower the bed. Place the mattress on the bed. The mattress is the counter-balance, i.e., this is what offsets the force of the piston.
- Q: I've assembled the bed and attached it to the wall, but the bed face panel sags out of the cabinet... what do I do now?
- A: The mounting positions of the upper or the lower ball stud plates are incorrect. Check your measurements on PAGES 15, 16, 22 and 23. Remember... the measurements in the Orange (particle board) book ARE DIFFERENT from the measurements in the Green (plywood) book. If the face panel sags out of the cabinet and you FORCE it closed you will damage the head of the gas spring.

### REPLACING THE COUNTER BALANCE GAS SPRING

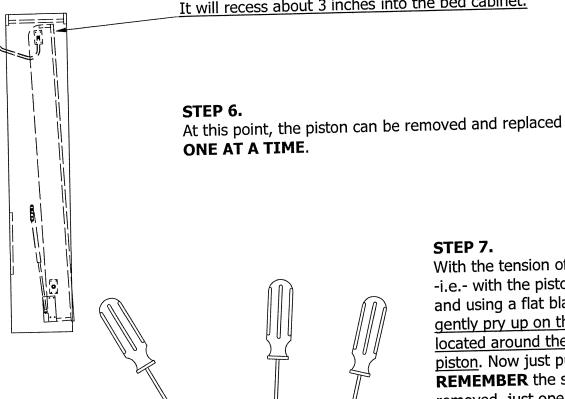
DO NOT ATTEMPT To Compress the gas spring by any other means than the one described in the step below.





#### STEP 5.

With your helper STILL HOLDING THE BED CABINET, allow the bed to pull back into the bed cabinet. It will recess about 3 inches into the bed cabinet.



With the tension off of the piston -i.e.- with the piston fully extended and using a flat blade screwdriver, gently pry up on the spring clip located around the plastic head of the piston. Now just pull the piston off -REMEMBER the spring clip isn't removed, just opened.



At this point, the new gas spring can be installed. Simply snap the new gas spring on the lower ball stud located on the bed rail - then the upper ball stud located on the bed vertical. BE SURE TO ORIENT THE GAS SPRING CORRECTLY by referring to the label on the gas spring. ( MOUNT THIS END UP )

#### STEP 9.

Repeat on the other side of the bed.

#### STEP 10.

Replace both bed stops and screws.

#### **STEP 11.**

Place the bed cabinet back against the wall and replace the screws, MAKING SURE THE BED IS SECURELY FASTENED TO THE WALL.