# 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<sup>®</sup>LLC

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

These plans are for constructing an ADJUSTABLE

### TWIN VERTICAL 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

### TOOLS NEEDED:

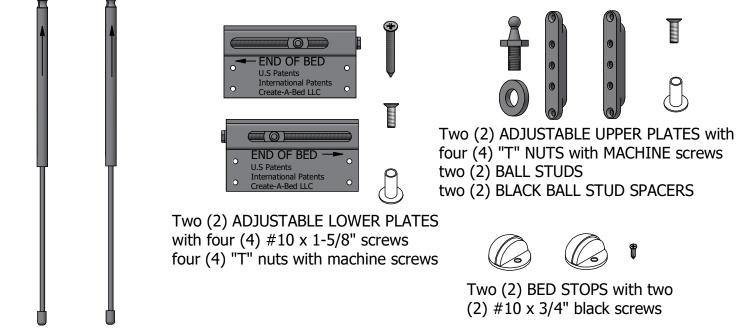
Power Drill Drill Bits: 1/8" 1/4" 5/16", 1" Forstner Bit, 5/8" Forstner Bit, 3/4" Forstner Bit Power Saw, Table Saw or Circular Saw Jigsaw or Coping Saw Phillips-Head and Flat-Head Screwdrivers or Driver Bits for Drill Tape Measure #4 Allen Wrench Hammer Chisel Clamps Straight Edge or Framing Square Household Iron for Veneer Tape and Utility Knife 7/16" Socket, Wrench, or Driver 1/2" Wrench Stud Finder

### © Create-A-Bed<sup>®</sup>LLC 2014, 2017, 2018, 2021

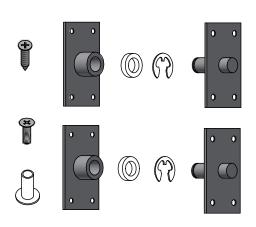
murphy bed mechanism 1800 Taylor Avenue Louisville, KY 40213 www.createabed.com TOLL FREE: 1-877-966-3852

Create-A-Bed<sup>®</sup>LLC

TWIN VERTICAL (UPRIGHT) murphy bed mechanism PLYWOOD CONSTRUCTION



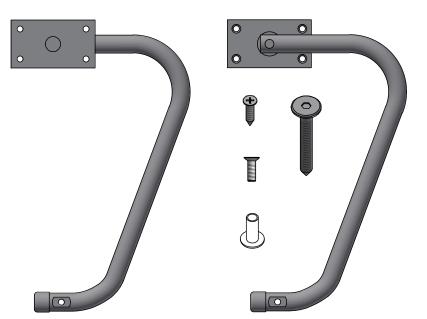
Two (2) GAS SPRINGS



Two (2) pair of METAL PIVOTS with two (2) plastic spacers two (2) "E" CLIPS four (4) "T" nuts with machine screws twelve (12) #12 x 3/4" silver screws

One (1) CONSTRUCTION booklet One (1) ASSEMBLY AND INSTALLATION booklet Online Video: <u>https://bit.ly/AdjustableVertical</u>

© CREATE-A-BED<sup>®</sup> LLC 2014, 2017, 2018, 2021



Two (2) Metal Pivoting Legs

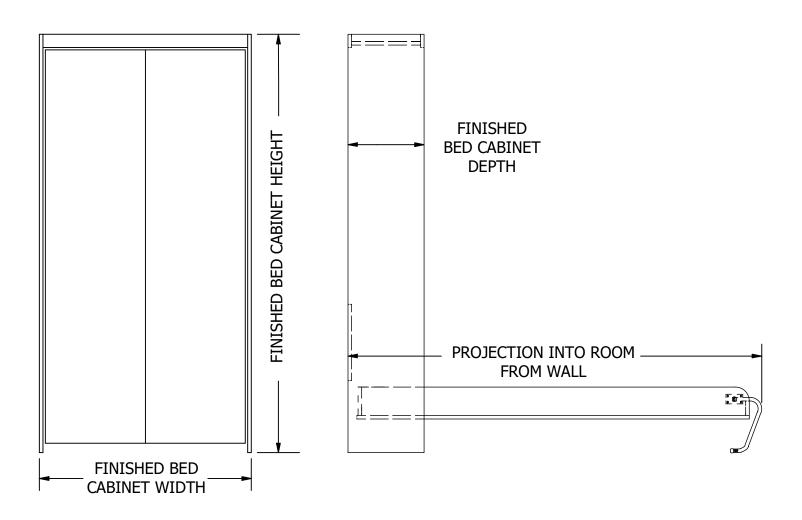
Two (2) 1/4" x 2" Leg Support Rail screws

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

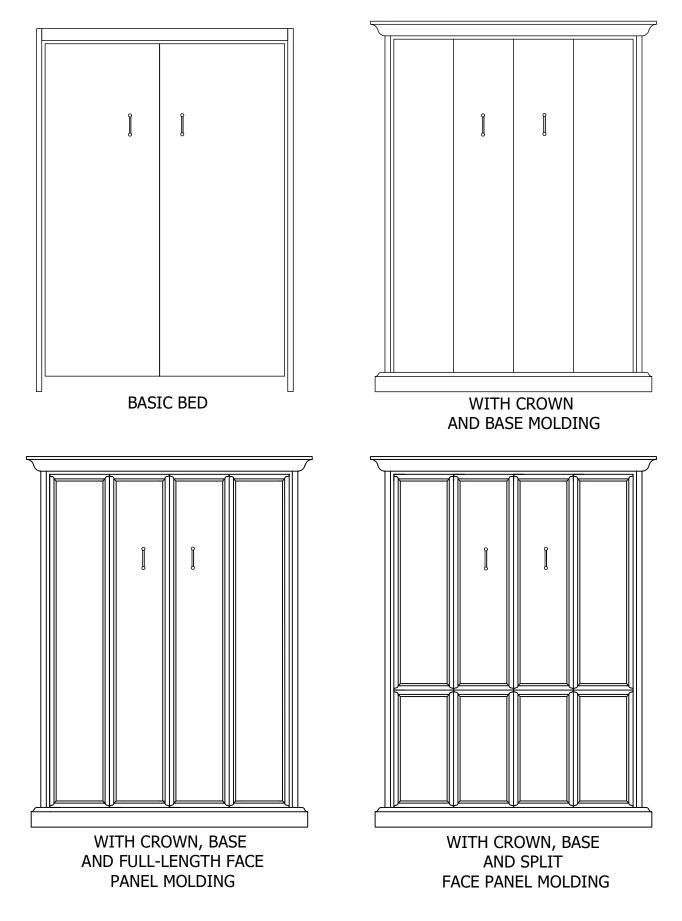
### Out-to-out dimensions of **VERTICAL STYLE** murphy bed cabinet constructed using the *Create-A-Bed*<sup>®</sup> mechanism

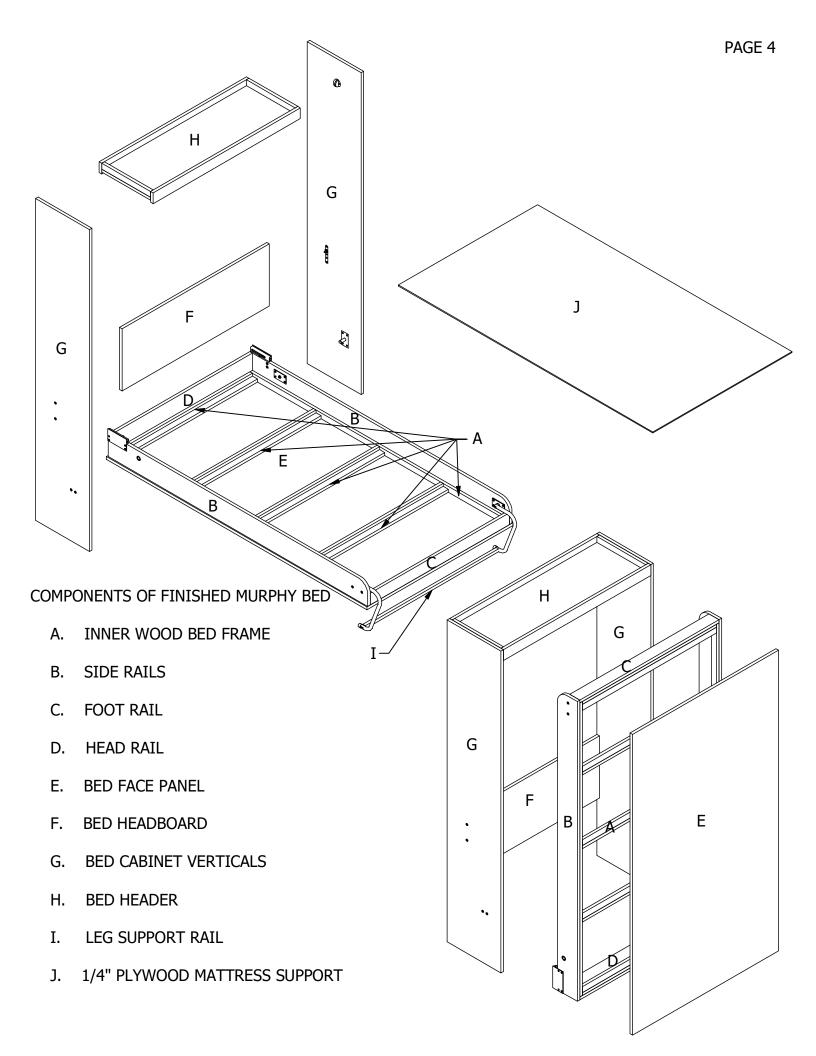


#### OUTSIDE-EDGE TO OUTSIDE-EDGE FINISHED VERTICAL BED CABINET DIMENSIONS

SIZE	HEIGHT	WIDTH	DEPTH	PROJECTION
TWIN	82-1/8"	44-7/8"	15-7/8"	83"
FULL	82-1/8"	59-7/8"	15-7/8"	83"
QUEEN	87-1/8"	65-7/8"	15-7/8"	87"

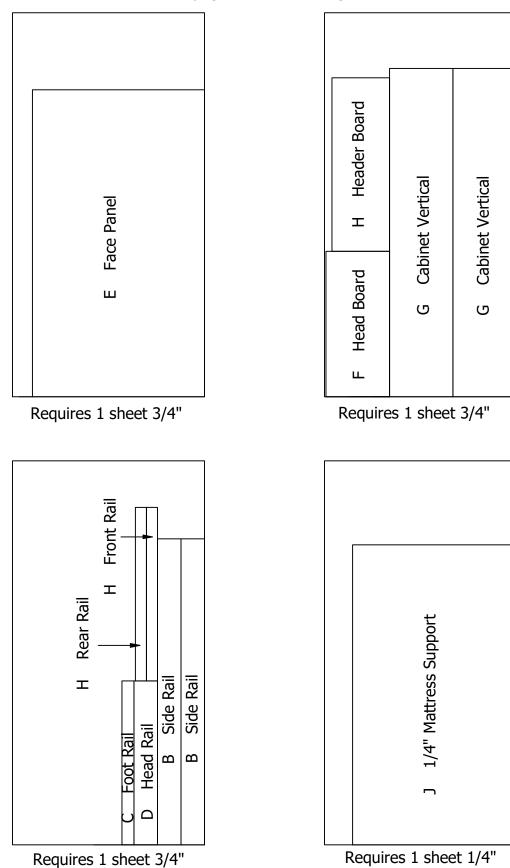
### Some design options... or create your own!





### **Twin Size Vertical Plywood Cutting Guide**

Requires: 3 sheets of 3/4" x 4' x 8' and 1 sheets of 1/4" x 4' x 8' NOTE: Refer to page 6 for the cutting dimensions.



#### TWIN SIZE ADJUSTABLE KIT VERTICAL BED WITH 3/4" PLYWOOD FACE PANEL BILL OF MATERIALS / CUT SHEET DO NOT SUBSTITUTE OTHER MATERIALS without calling Create-A-Bed toll-free FIRST

\_\_\_ check off as completed

A. INNER WOOD	BED FRAME:*To	be constructed of solid wood: poplar, clear pi	ne, maple, etc.*
FRAME STRUTS:	*SOLID WOOD*	3/4" X 1-1/2" X 39-1/2"	10 pieces
FRAME SIDES:	*SOLID WOOD*	3/4" X 1-1/2" X 75"	2 pieces

IMPORTANT: PLYWOOD <u>N</u> B. SIDE RAILS:	<u>IUST</u> BE USED FOR THESE PIECES: 3/4" X 5-7/8" X 76-1/2"	2 pieces
C. FOOT RAIL:	3/4" X 3" X 41"	1 piece
D. HEAD RAIL:	3/4" X 5-7/8" X 41"	1 piece
E. BED FACE PANEL:	3/4" X 43" X 76-3/4"	1 piece
F. BED HEADBOARD:	3/4" X 15-7/8" X 43-3/8"	1 piece
G. BED CABINET VERTICALS:	3/4" X 15-7/8" X 82-1/8"	2 pieces
<ul> <li>H. BED HEADER: HEADERBOARD: FRONT RAIL: REAR RAIL: MOUNTING CLEATS:*SOLID WOOD*</li> <li>I. Leg Support Rail:*SOLID WOOD*</li> <li>J. 1/4" PLYWOOD mattress support: K. VENEER or MELAMINE TAPE:</li> </ul>	3/4" X 14-3/8" X 43-3/8" 3/4" X 2-3/4" X 43-3/8" 3/4" X 2-3/4" X 43-3/8" 3/4" X 1-1/2" X 14-3/8" 3/4" X 3/4" X 39-1/4" 1/4" X 41" X 75" 13/16" X 80 feet	1 piece 1 piece 1 piece 2 pieces 1 piece 1 piece
L. WOOD GLUE:	One 8 ounce bottle	
		h ( 50
M. FINISH NAILS:	1-1/2" 2"	box of 50 box of 25
N. SCREWS:	<ul><li>#8 1-1/4" coarse thread</li><li>#8 1-1/2" coarse thread</li><li>#8 2" coarse thread</li></ul>	box of 100 box of 30 box of 40

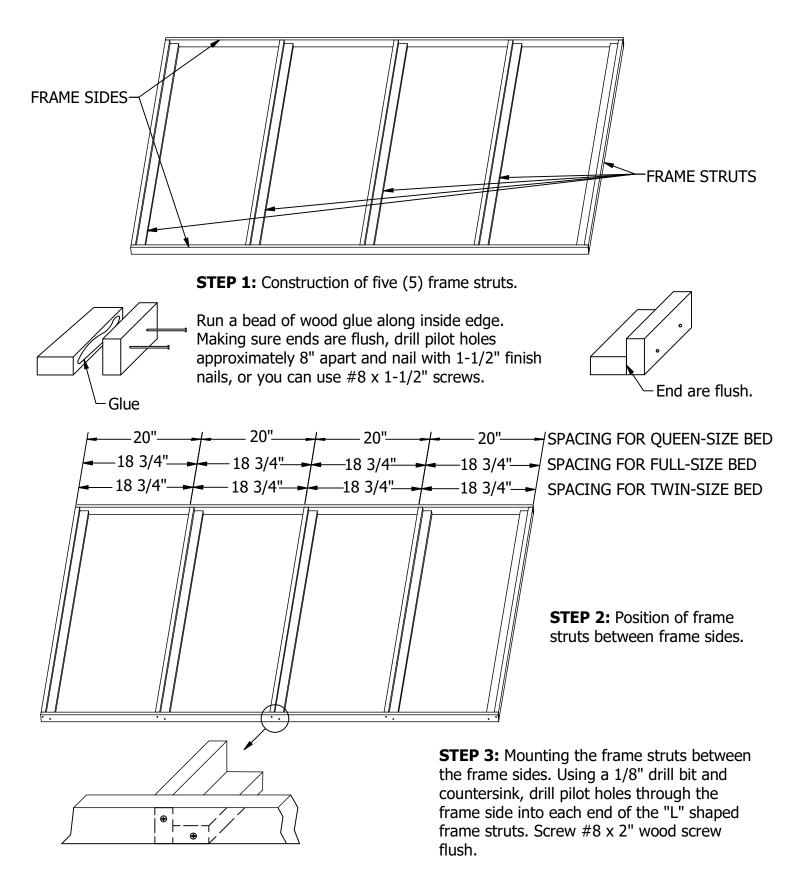
\_\_O. DESIRED CABINET HANDLES OR PULLS

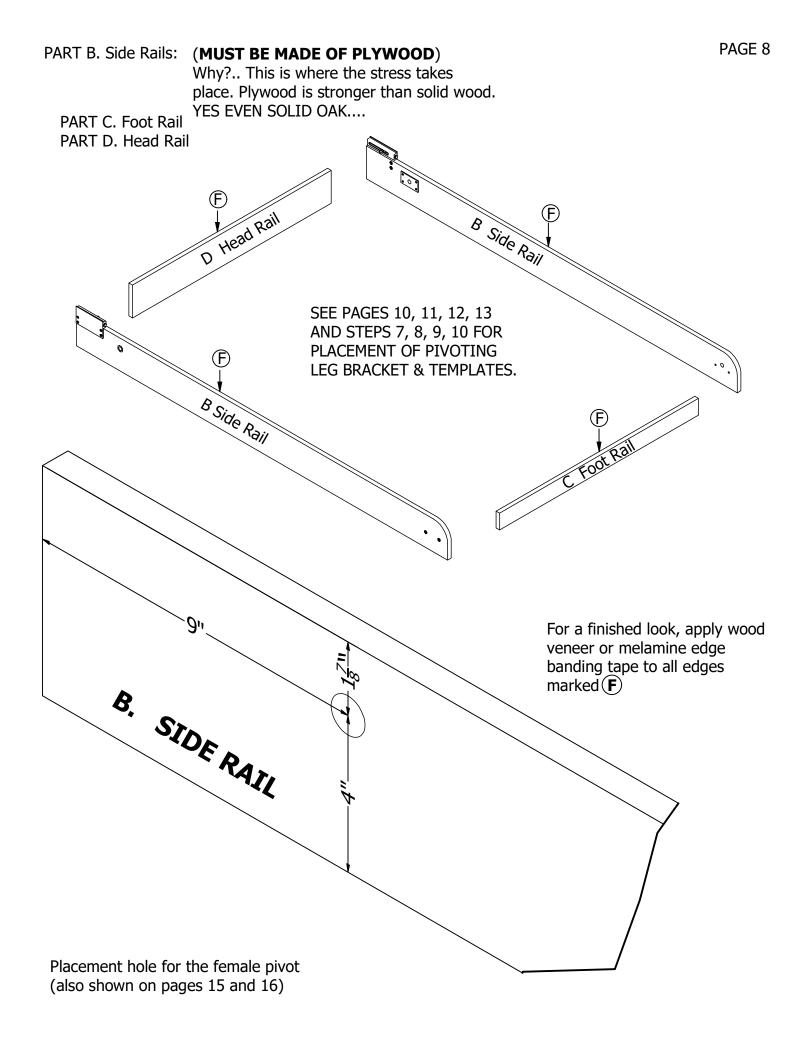
2 HANDLES

P. MATTRESS MATTRESS MUST WEIGH between 35 - 50 pounds Mattress dimensions must not exceed 39" x 75" Mattress thickness CANNOT exceed 12" in thickness – including pillow top

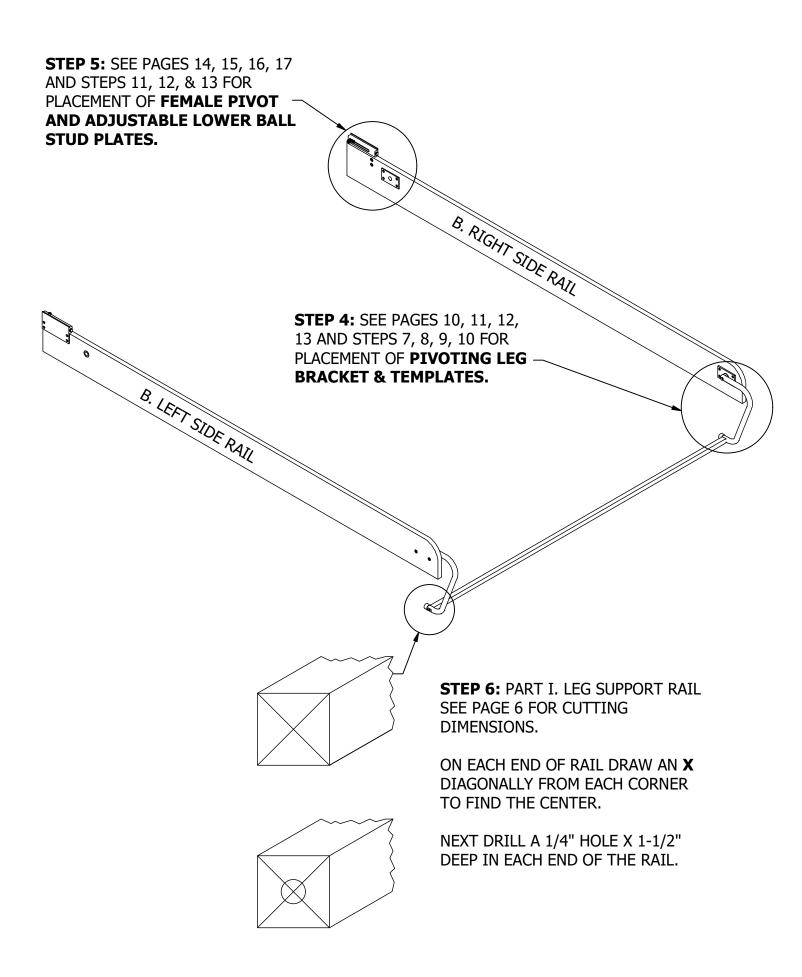
#### A. INNER WOOD BED FRAME

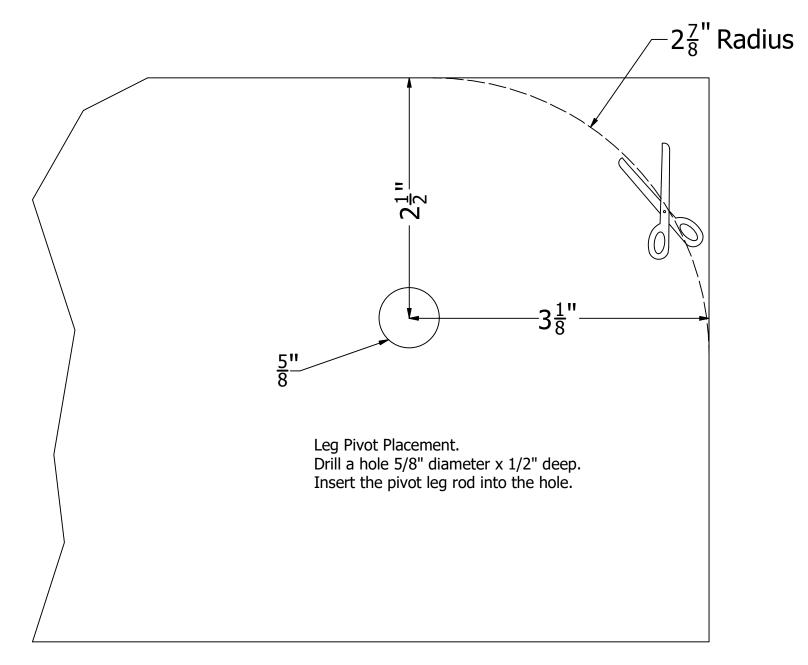
See Bill of Materials / Cut Sheet (PART A) for Twin, Full or Queen size frame struts and frame sides dimensions.



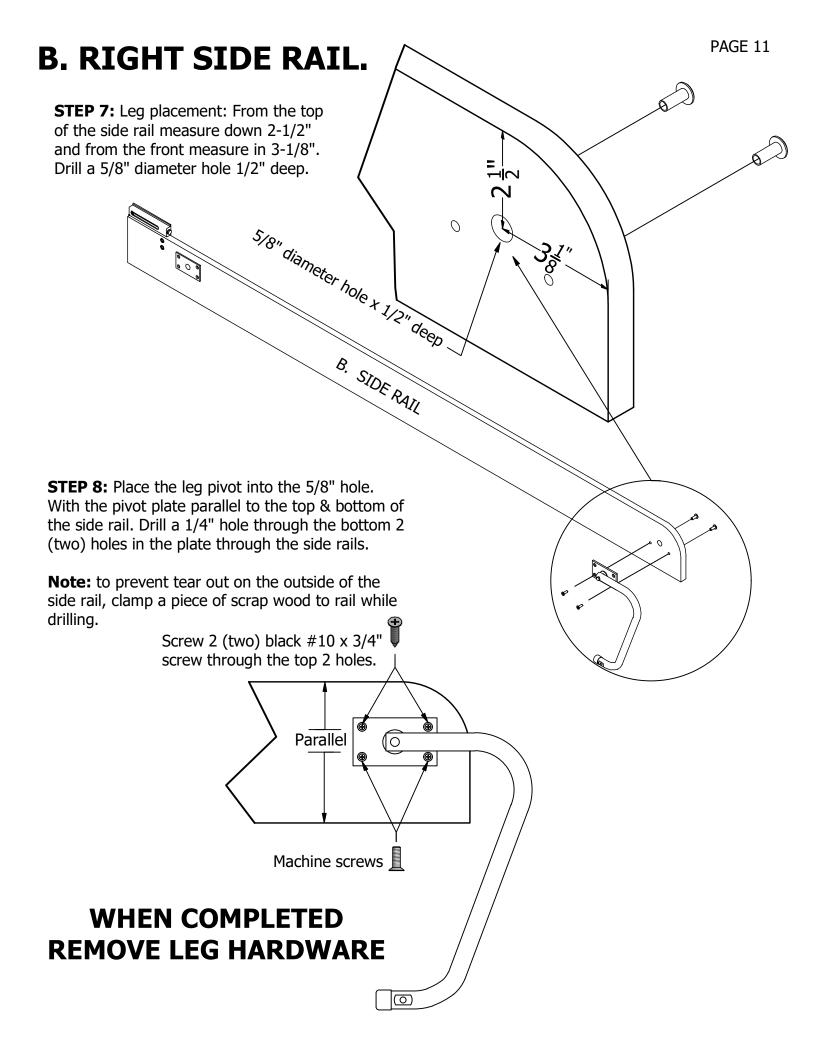


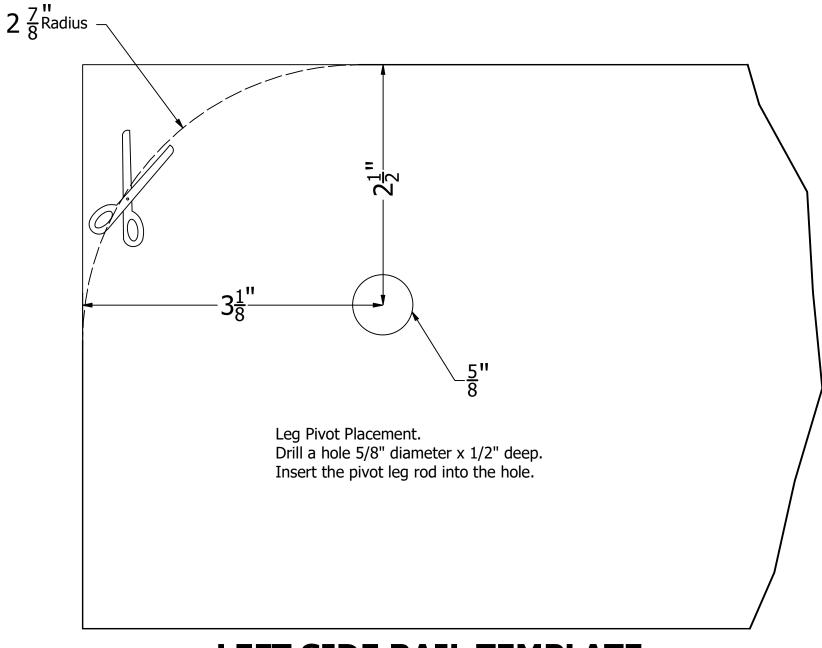
### HARDWARE PLACEMENT FOR B. SIDE RAILS





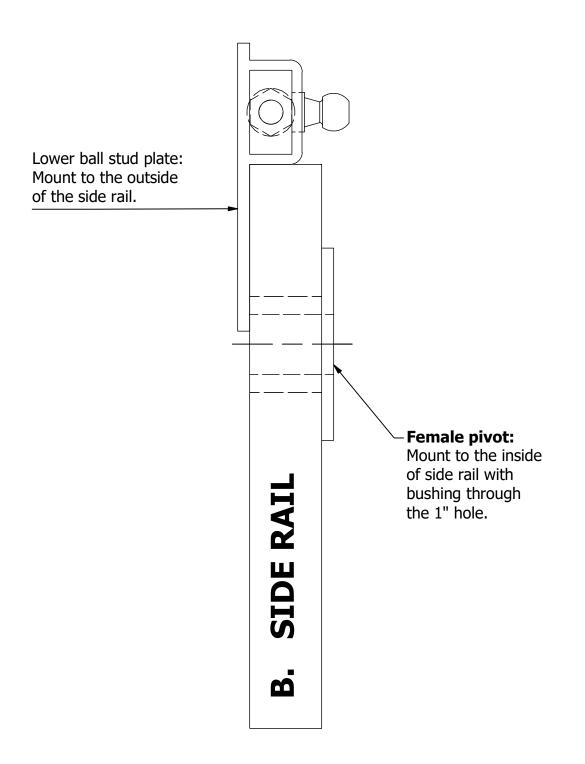
### **RIGHT SIDE RAIL TEMPLATE**

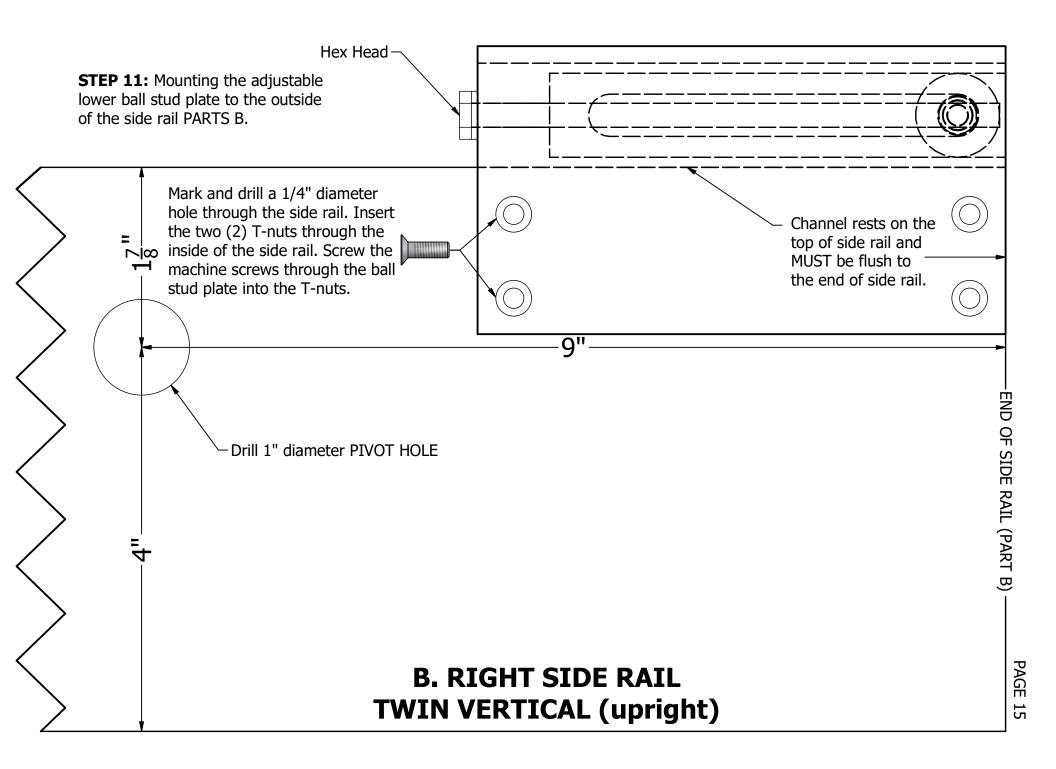


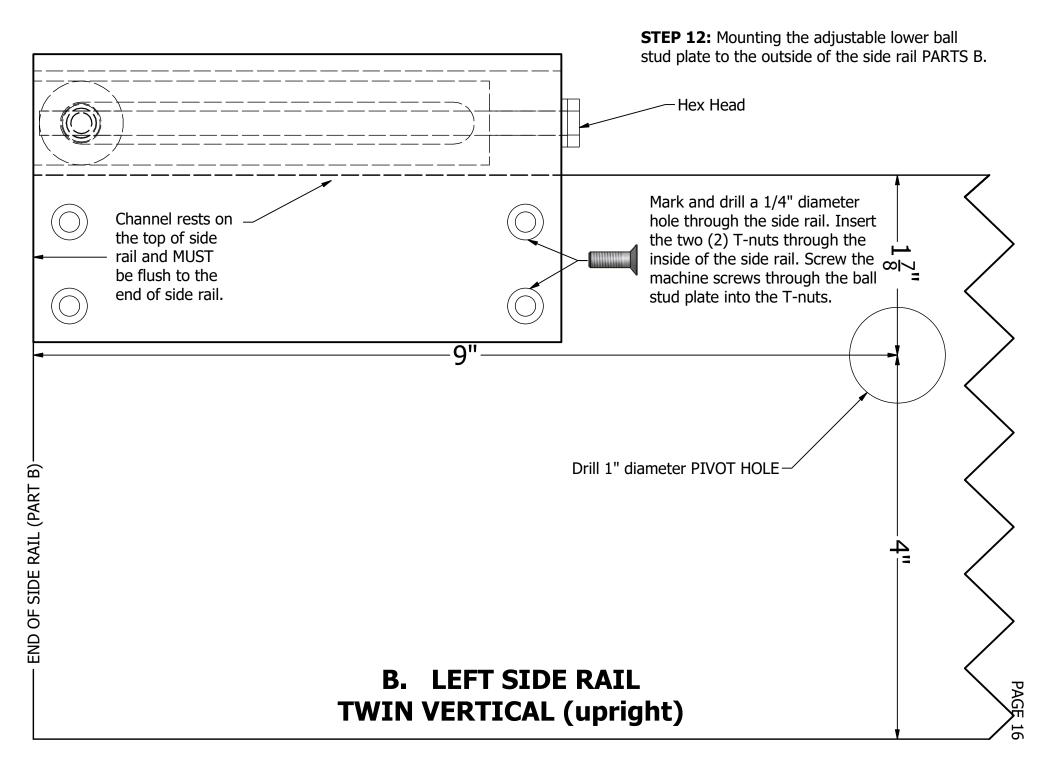


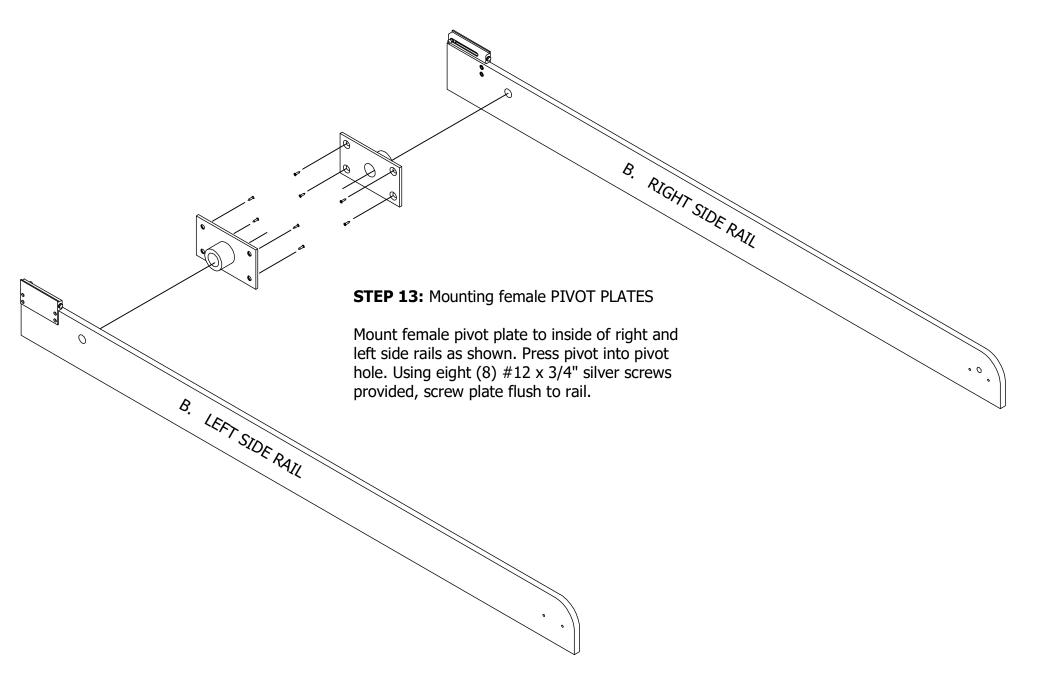
### LEFT SIDE RAIL TEMPLATE

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

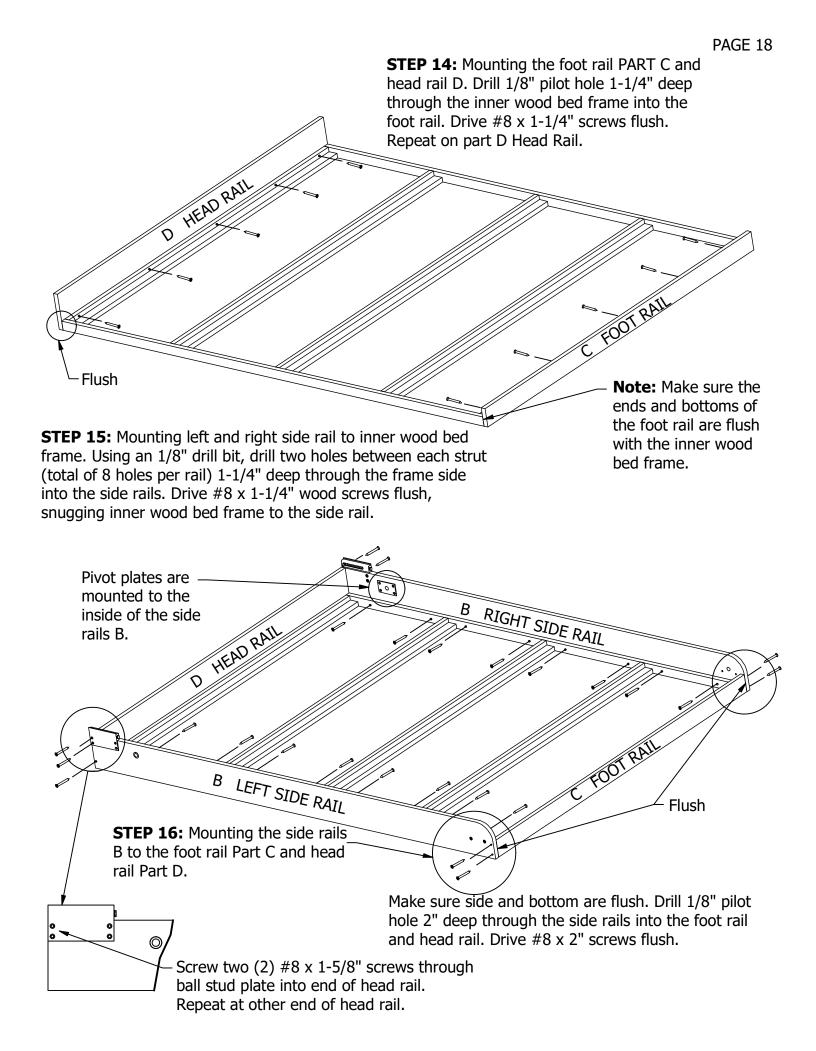






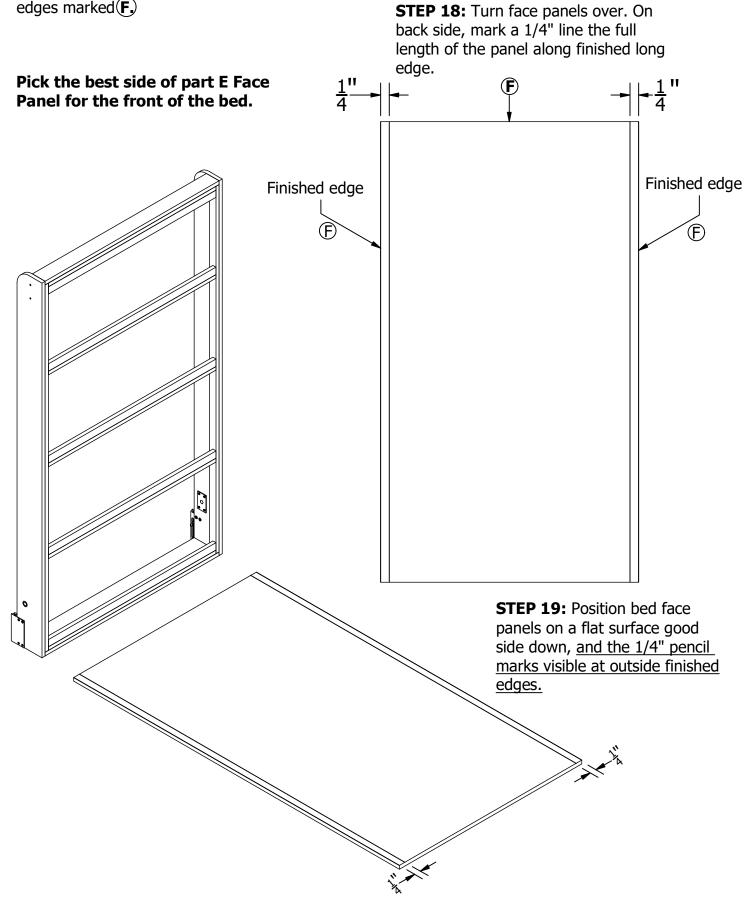


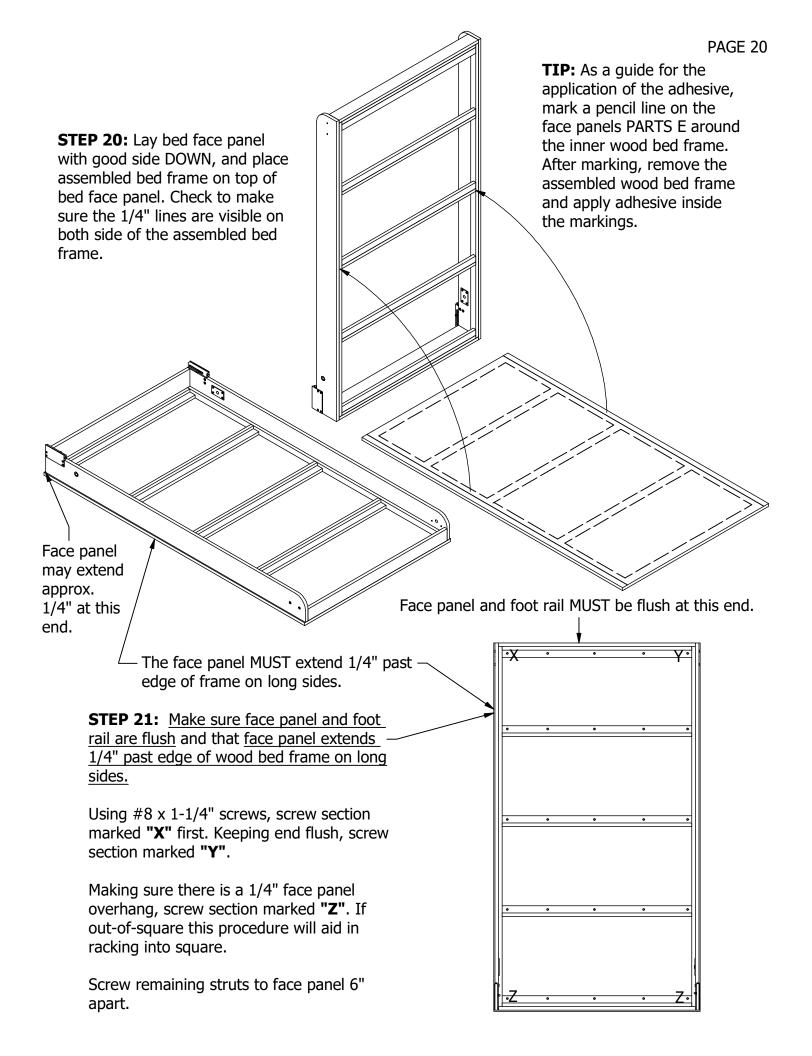
PAGE 17

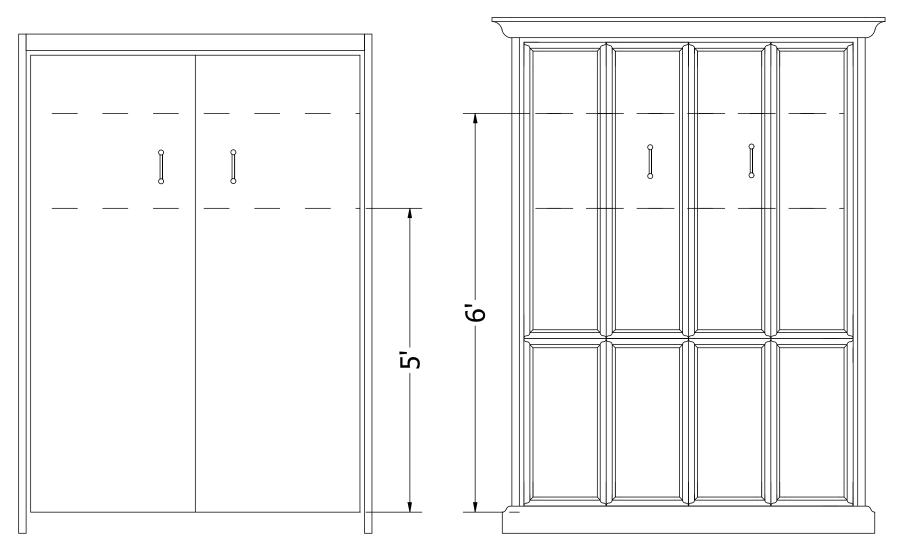


#### STEP 17:

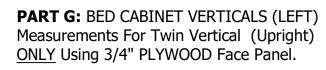
NOTE: For a finished look apply wood veneer or melamine edge tape to all edges marked  $(\mathbf{F})$ 







Placement of cabinet handles for optimal leverage should be between 5' and 6' on face panel PART E.



#### **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  $#10 \times 3/4$ " black screw.

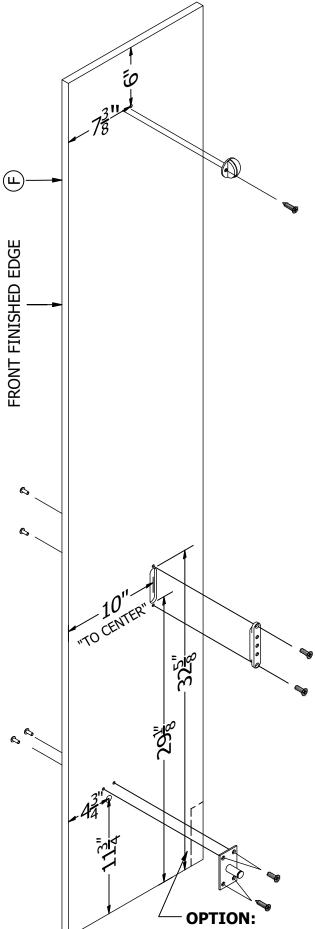
#### **STEP 23:**

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.

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 G:** BED CABINET VERTICALS (RIGHT) Measurements For Twin Vertical (Upright) <u>ONLY</u> Using 3/4" PLYWOOD Face Panel.

#### **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  $#10 \times 3/4$ " black screw.

#### **STEP 26:**

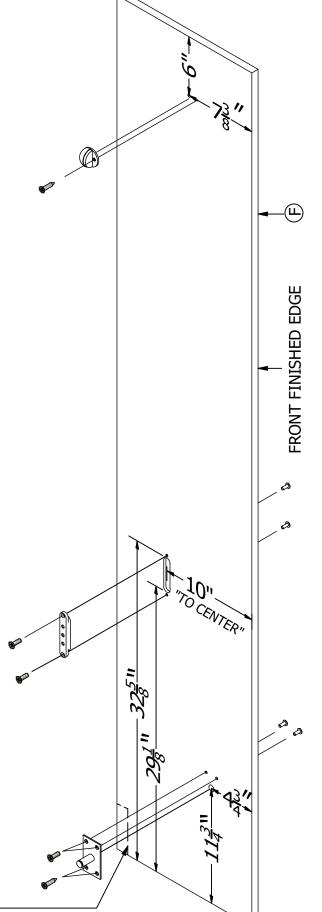
ADJUSTABLE UPPER BALL STUD PLATE: Rout out 3/4" x 1/4" deep x 3-1/2" long and insert the adjustable upper plate into hole. Drill 1/4" holes through the mounting locations and secure with "T" Nuts and machine screws.

#### **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.

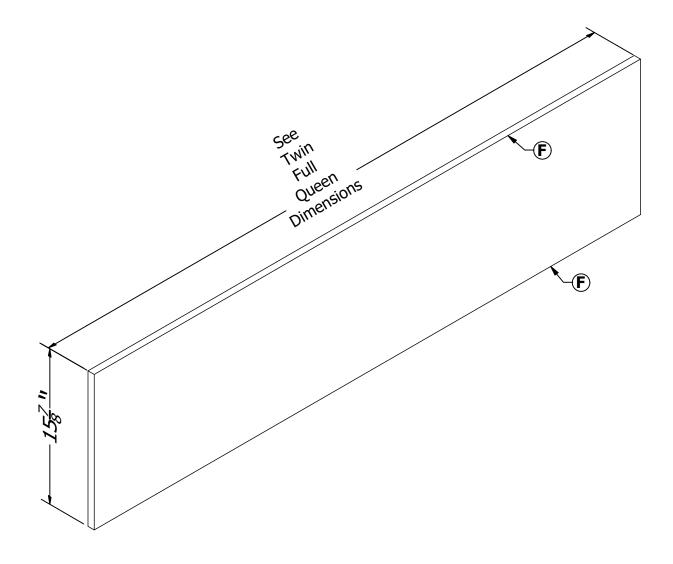
#### **OPTION:**

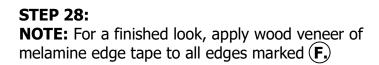
On left and right bed verticals, a cut can be made to accommodate existing base molding so cabinet will fit flush against the wall.



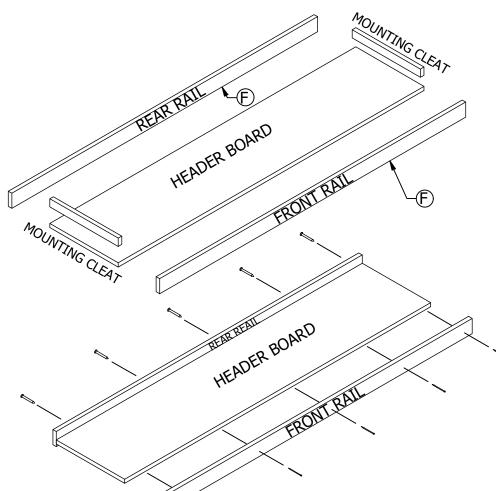
#### PAGE 24

### PART F: BED HEADBOARD





### PART H: BED HEADER COMPONENTS



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

#### **STEP 30:**

Using 2" finsih nails, glue and nail front rail to header board, maintaining a 1/2" lip on underside lip of header board.



#### **STEP 29:**

Using #8 x 2" screws, glue and screw rear rail to header board, maintaining a 1/2" lip on the underside of the header board.

### NOTE: REAR RAIL MUST BE GLUED AND SCREWED TO HEADER BOARD.

#### STEP 31:

Using #8 x 2" screws, glue and screw mounting cleats to header board between front and rear rails as shown.

**NOTE:** Be sure to drill pilot holes and counter-sink screws flush with the wood.

### STEP 32: Remove all Hardware, sand & finish all components!

### ASSEMBLY INSTRUCTIONS FOR THE VERTICAL (upright) Create-A-Bed<sup>®</sup>

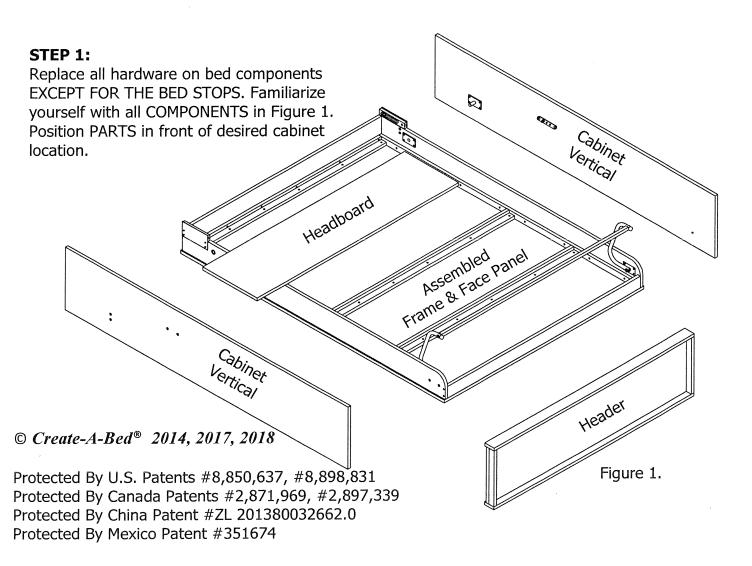
MURPHY BED

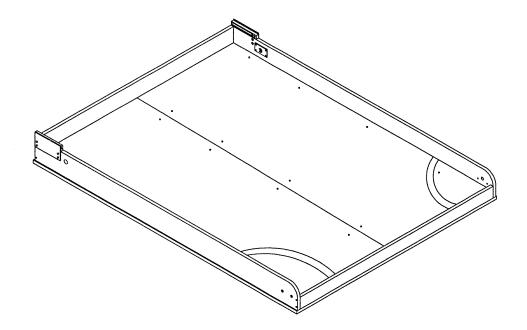
### WARNING!

#### 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

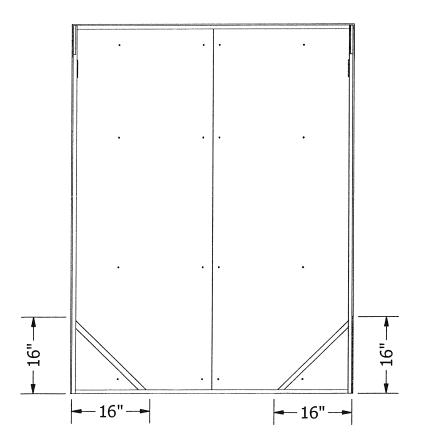
Tools needed: Power Drill, Stud Finder, Tape Measure, Phillips-Head Screwdriver, Flat-Head Screwdriver, #4 Allen Wrench, 7/16" Socket, 1/2" Wrench, Clamps and Drill bits appropriate for your mounting surface (see step 16 on page 10).





#### STEP 2:

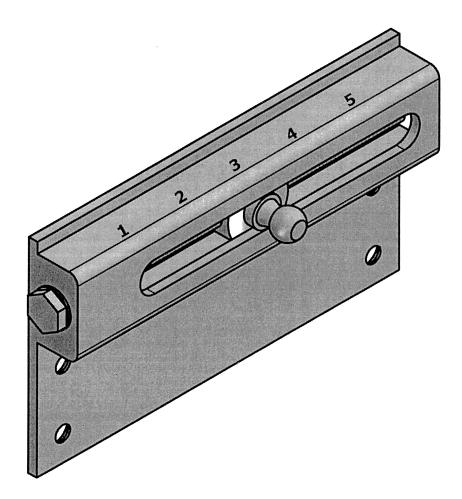
Lay 1/4 inch plywood mattress support (PART J) on inner bed frame and attach with screws. **DO NOT GLUE.** Screw ends of both mattress retaining straps thru 1/4 inch plywood (PART J) into inner wood bed frame, 16 (sixteen) inches from front corners of face panel as shown.



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.

### VERTICAL (upright) PLYWOOD

Queen	SET ON #5
Full	SET ON #4
Twin	SET ON #3

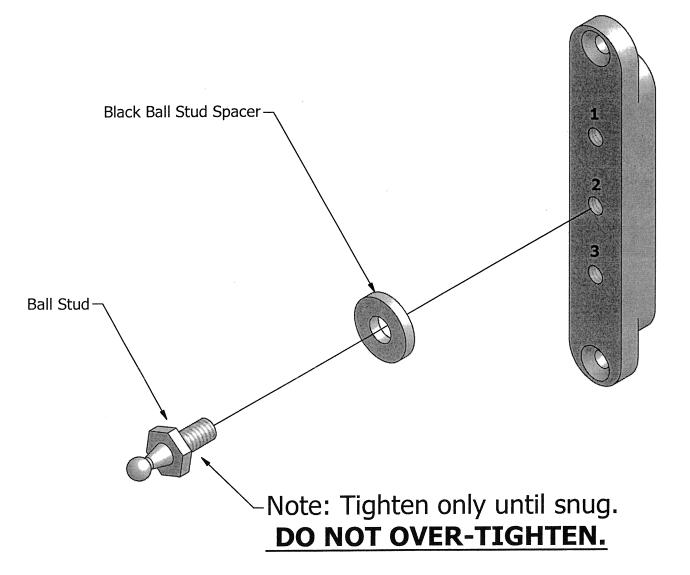


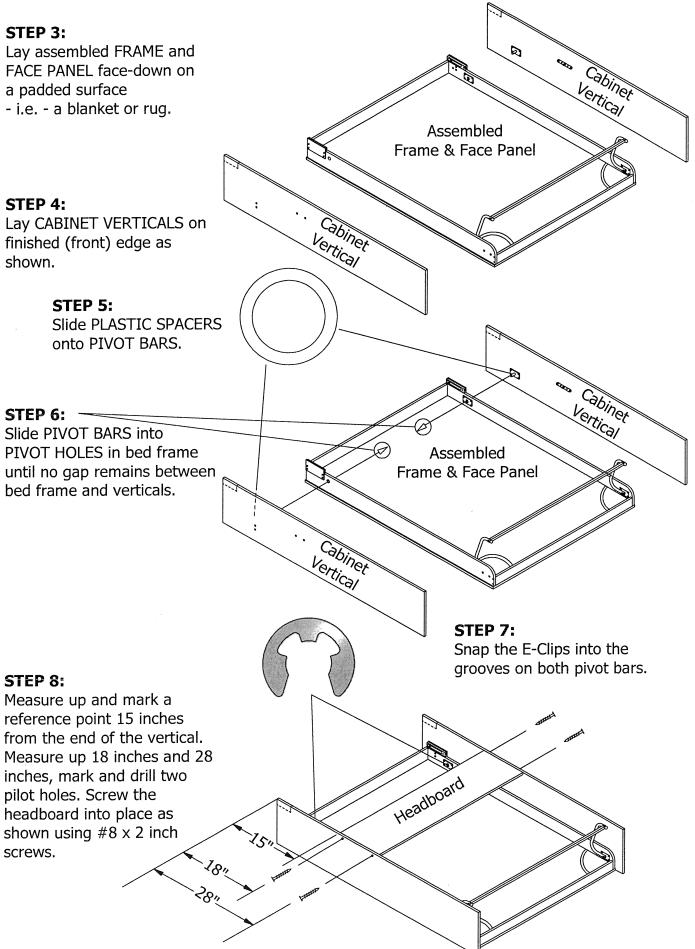
### Settings for Adjustable Upper Ball Stud Plate Using 3/4" Material

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

### VERTICAL (upright) **PLYWOOD**

Queen	USE #3
Full	USE #2
Twin	USE #1

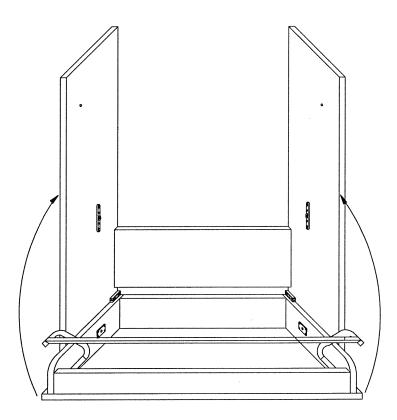




#### **STEP 9:**

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

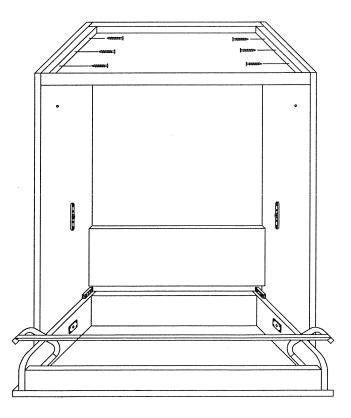
**NOTE:** To prevent damage to the legs, be sure they are in the closed position when rotating the bed into the upright position.



#### **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 are FLUSH with the top front and top rear of the bed verticals. Using  $#8 \times 1-1/4$  inch screws, drill and screw through mounting cleats into the bed verticals, four (4) on each side.

**NOTE:** Clamps will be very helpful to hold the bed header between the bed verticals.



# STEP 11: Place bed cabinet 2 to 3 feet away from the wall, allowing enough room to comfortably work behind the bed cabinet.

#### **STEP 12:**

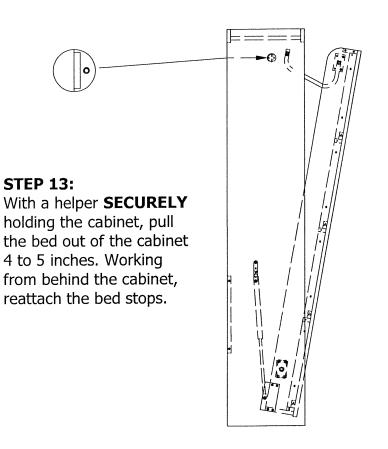
With a helper holding the bed cabinet, allow the bed to recess back into the cabinet about three (3) inches or more.

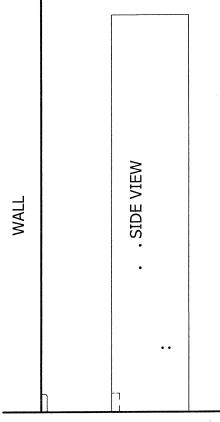
At this point, the Gas Spring can be installed. Simply snap the Gas Spring on the bottom (bed frame) end first,

. 31

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then the top (bed cabinet) end. BE SURE TO ORIENT BOTH Gas Springs CORRECTLY by referring to the label on each Gas Spring, ("MOUNT THIS END UP")





#### **STEP 14:**

**FLOOR** 

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:**

**STEP 13:** 

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, 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 of 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** construction, 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.

# **NOTE:** See STEP 18 PAGE 11 for instructions on how to adjust your bed to balance correctly.

#### STEP 17:

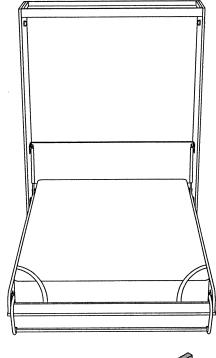
Holding the BED FACE PANEL in the down position, place the matters on the bed and secure with ELASTIC RETAINING STRAPS.

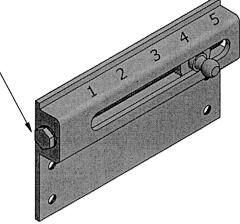
**STEP 18:** When lowering the BED FACE PANEL with the mattress, it may seem very difficult. If the bed has too much lifting power, i.e. - wants to close - you can easily decrease the bed's lifting power by using a socket wrench or driver.

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.

If your BED FACE PANEL hangs out of the CABINET when the bed is closed, turn the Hex Head to the right to move the ball stud to a smaller number as described above, making sure that you adjust BOTH SIDES equally.

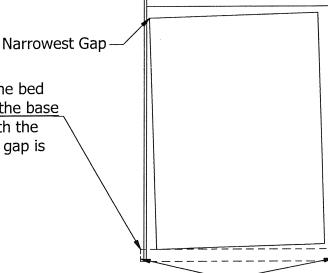
**REMEMBER**: **SMALL** adjustments make **BIG**, **BIG** differences in your bed's lifting power.







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.





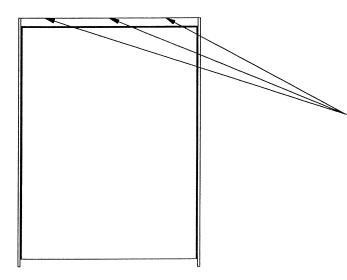
Close bed. Apply base molding (if applicable) from oustide of vertical to outside of vertical.

## 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 gas spring contains a significant amount 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: When lowering the **BED FACE PANEL with the <u>MATTRESS</u>**, it may seem very difficult. If the bed has too much lifting power i.e. wants to close you can easily decrease the 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.
- 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: If your BED FACE PANEL hangs out of the CABINET when the bed is closed, turn the Hex Head to the right to move the ball stud to a smaller number. Small Adjustments make BIG, BIG, differences in your bed's lifting power. Be sure to adjust BOTH SIDES equally.

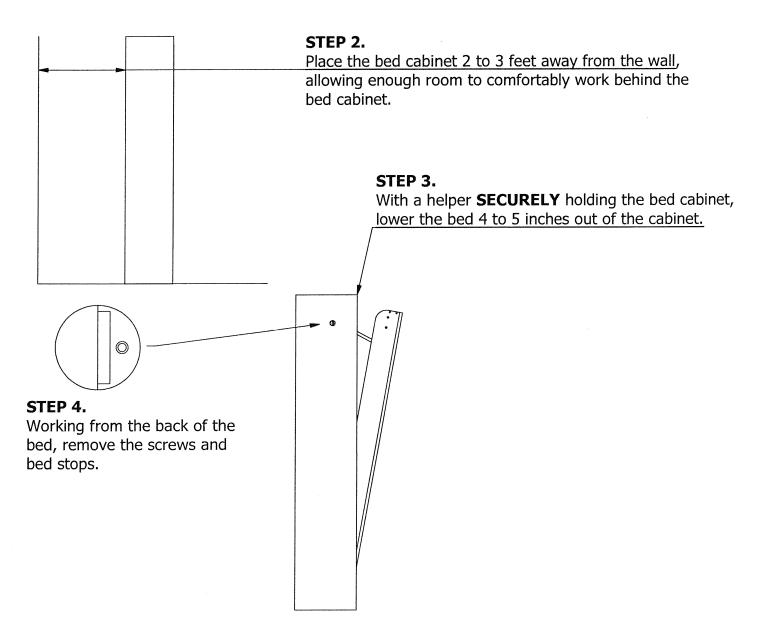
### REPLACING THE COUNTER BALANCE GAS SPRING

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



#### STEP 1.

Remove the mattress and with the bed in the upright closed position, <u>remove the</u> <u>anchor screws from the top of the bed</u> <u>cabinet</u>. **Do not** remove the anchor screws with the bed in the open position.



#### 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.

#### STEP 6.

At this point, the gas springs can be removed and replaced **ONE AT A TIME**.



#### STEP 7.

With the tension off of the gas spring - i.e. - with the gas spring fully extended use a <u>flat blade screwdriver to gently pry</u> <u>up on the spring clip located around the</u> <u>plastic head of the gas spring</u>. Now just pull the gas spring off. **REMEMBER:** the spring clip isn't removed, just opened.

#### **STEP 8.**

At this point, the new gas spring can be installed. Simply <u>snap the new gas spring on the lower ball</u> <u>stud</u> 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.

