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 a **DELUXE**

QUEEN 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 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 Clamps Straight Edge or Framing Square Household Iron for Veneer Tape and Utility Knife Stud Finder

© Create-A-Bed[®]LLC

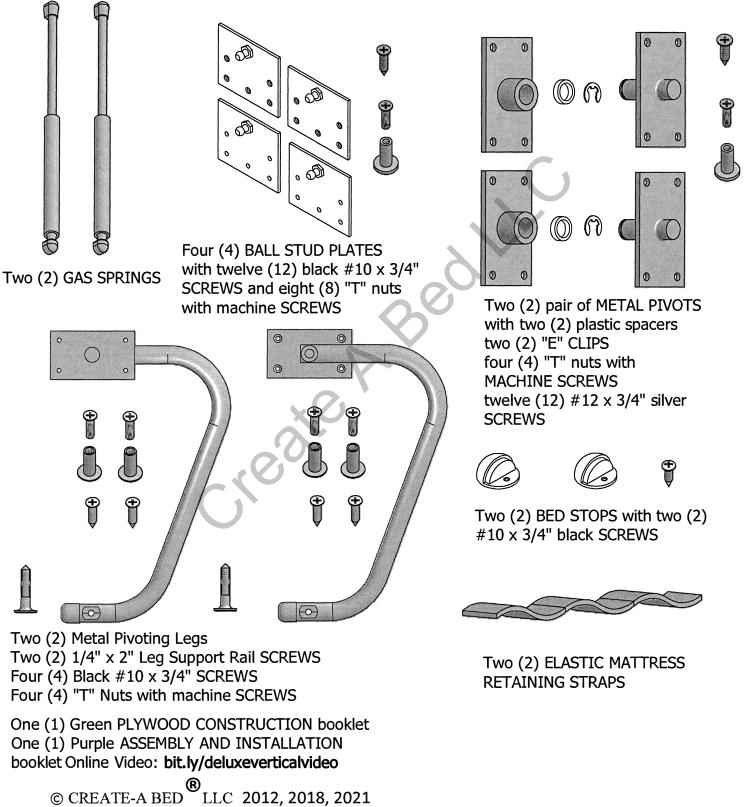
murphy bed mechanism

2012, 2018, 2021

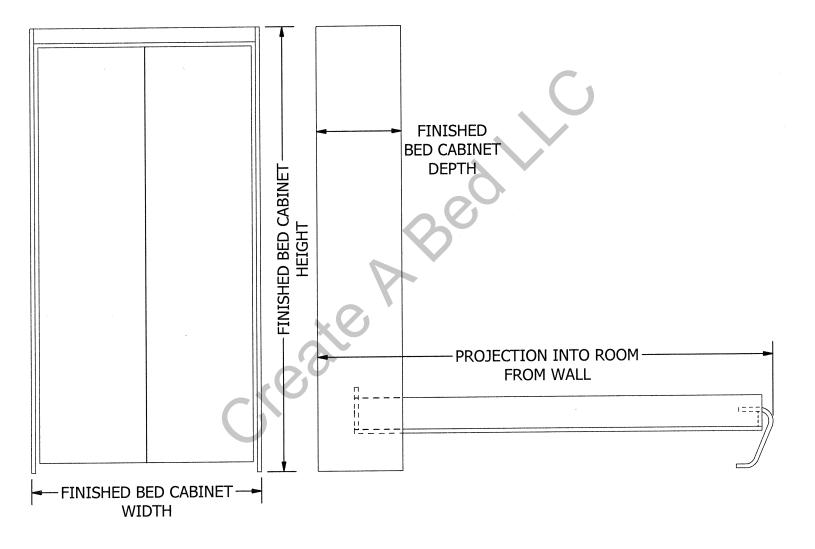
1800 Taylor Avenue Louisville, KY 40213 www.createabed.com TOLL FREE: 1-877-966-3852

PAGE 1 Create-A-Bed[®] LLC

QUEEN VERTICAL (UPRIGHT) murphy bed mechanism PLYWOOD CONSTRUCTION



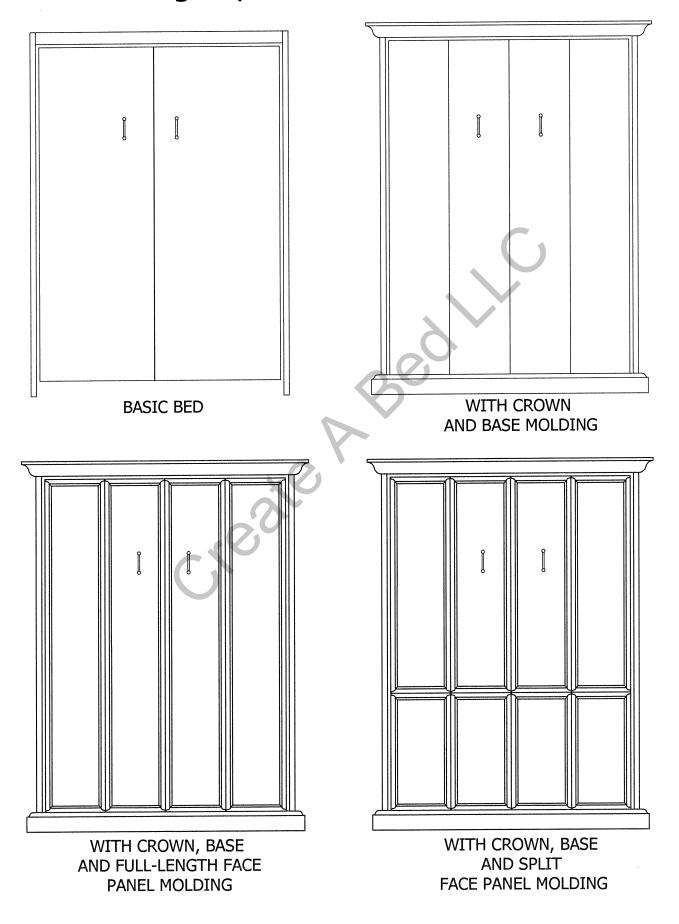
Out-to-out dimensions of VERTICAL STYLE murphy bed cabinet constructed using the *Create-A-Bed*® mechanism

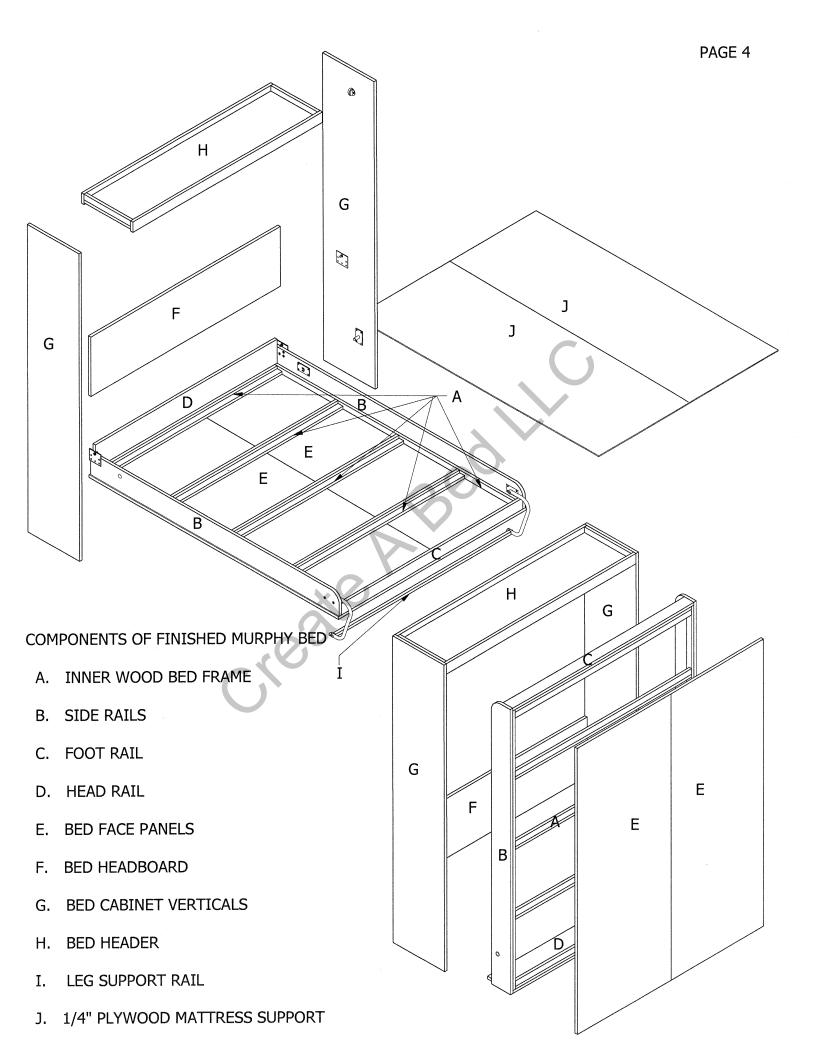


OUTSIDE-EDGE TO OUTSIDE-EDGE FINISHED VERTICAL BED CABINET DIMENSIONS

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"

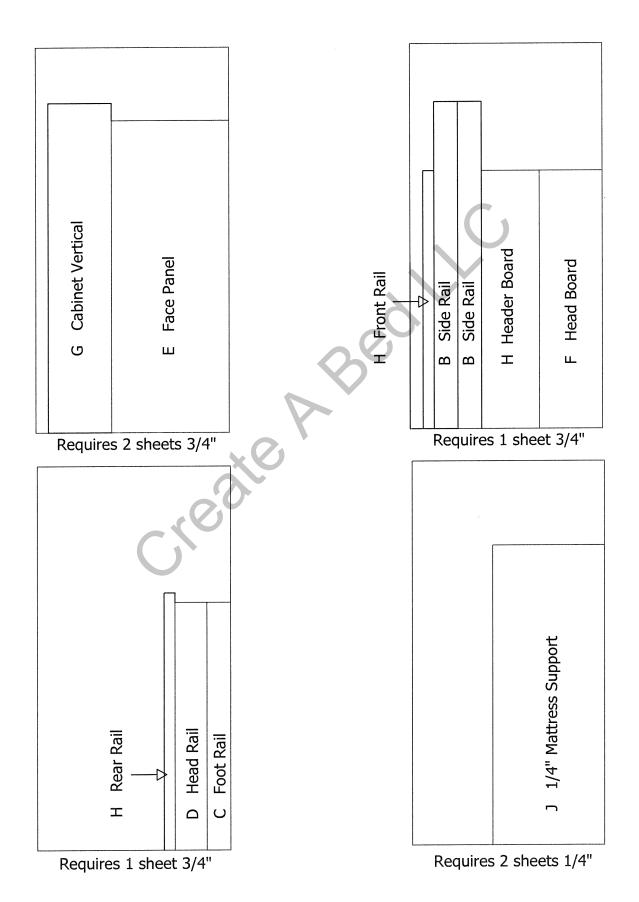
Some design options... or create your own!





QUEEN Size Vertical Plywood Cutting Guide

Requires: 4 sheets of 3/4" x 4' x 8' and 2 sheets of 1/4" x 4' x 8' NOTE: Refer to page 6 for the cutting dimensions.



QUEEN SIZE DELUXE 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 com	pleted		
A. INNER WOOD	BED FRAME:*To	be constructed of solid wood: poplar,	clear pine, maple, etc.*
FRAME STRUTS:	*SOLID WOOD*	3/4" X 1-1/2" X 60-1/2"	10 pieces
FRAME SIDES:	*SOLID WOOD*	3/4" X 1-1/2" X 80"	2 pieces

IMPORTANT: PLYWOOD <u>M</u> B. SIDE RAILS:	UST BE USED FOR THESE PIECE 3/4" X 5-7/8" X 81-1/2"	ES: 2 pieces
C. FOOT RAIL:	3/4" X 3" X 62"	1 piece
D. HEAD RAIL:	3/4" X 7-7/8" X 62"	1 piece
E. BED FACE PANEL:	3/4" X 32" X 81-3/4"	2 pieces
F. BED HEADBOARD:	3/4" X 15-7/8" X 64-3/8"	1 piece
G. BED CABINET VERTICALS:	3/4" X 15-7/8" X 87-1/8"	2 pieces
 H. BED HEADER: HEADERBOARD: FRONT RAIL: REAR RAIL: MOUNTING CLEATS:*SOLID WOOD* I. Leg Support Rail:*SOLID WOOD* J. 1/4" PLYWOOD mattress support: K. VENEER or MELAMINE TAPE: L. WOOD GLUE: 	3/4" X 14-3/8" X 64-3/8" 3/4" X 2-3/4" X 64-3/8" 3/4" X 2-3/4" X 64-3/8" 3/4" X 1-1/2" X 14-3/8" 3/4" X 3/4" X 60-1/4" 1/4" X 31" X 80" 13/16" X 80 feet One 8 ounce bottle	1 piece 1 piece 2 pieces 1 piece 2 pieces 2 pieces
		Box of 50
M. FINISH NAILS:	1-1/2" 2"	Box of 25
N. SCREWS:	#8 1-1/4" coarse thread#8 1-1/2" coarse thread#8 2" coarse thread	Box of 100 Box of 30 Box of 40

O. DESIRED CABINET HANDLES OR PULLS

2 HANDLES

P. MATTRESS

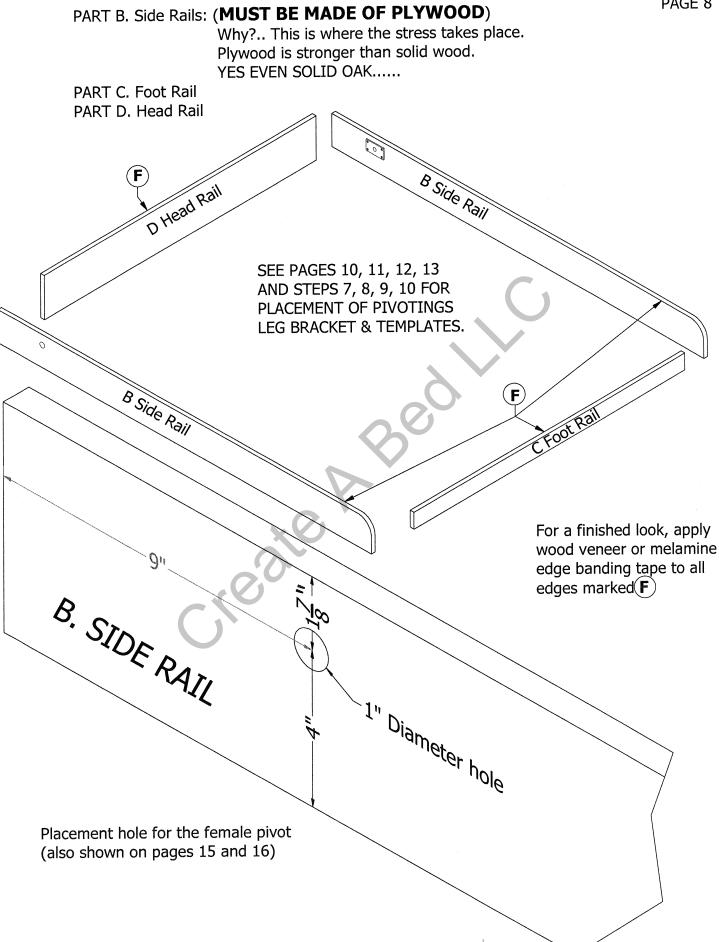
MUST weigh between 65 - 80 pounds

Your mattress dimensions must not exceed 60" x 80" Mattress thickness CANNOT exceed 12" in thickness – including pillow top.

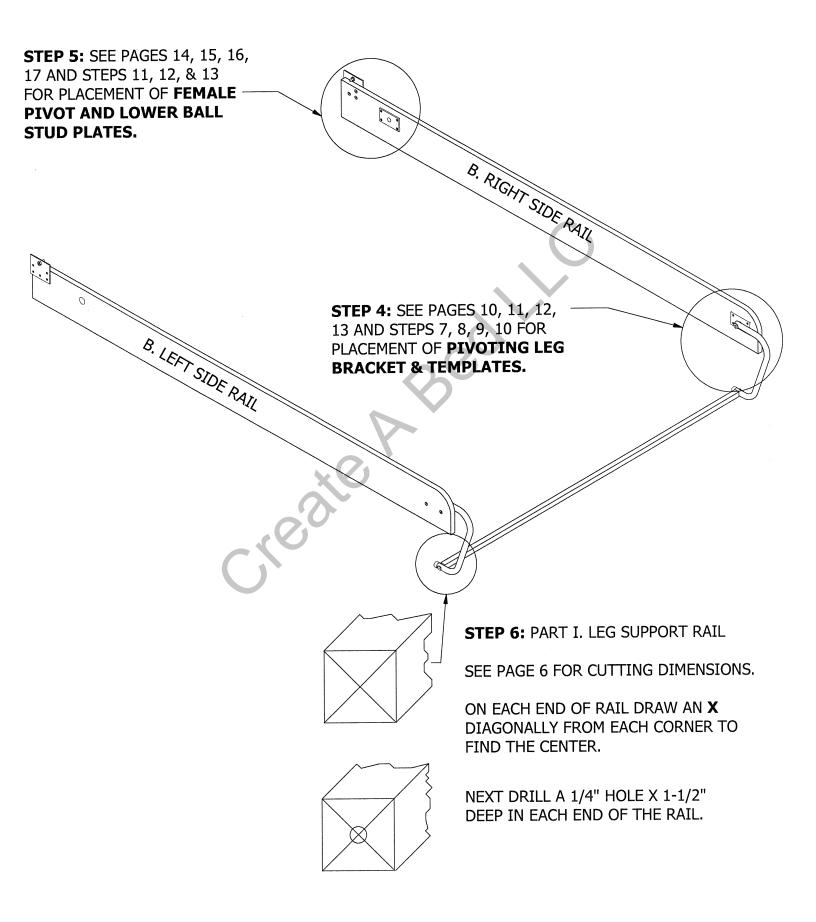
A. INNER WOOD BED FRAME

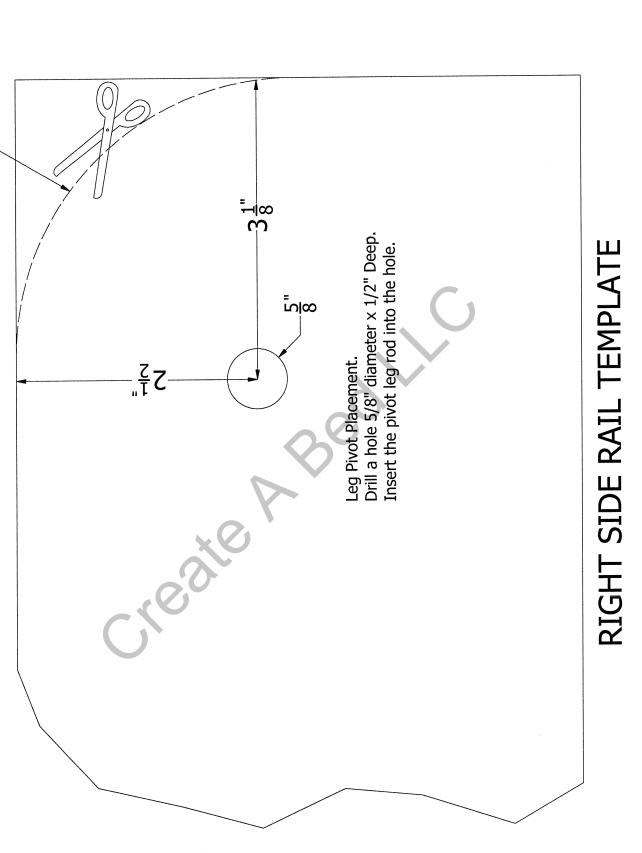
See Bill of Materials / Cut Sheet (PART A) for Twin, Full or Queen size frame struts and frame sides dimensions.

FRAME SIDES FRAME STRUTS STEP 1: Construction of five (5) frame struts. Ends are flush. 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 $#8 \times 1-1/2$ " screws. Glue SPACING FOR QUEEN-SIZE BED 20' 20 20 18 3/4 18 3/4" SPACING FOR FULL-SIZE BED 18 3/4 SPACING FOR TWIN- SIZE BED 18 3/4" 18 3/4 18 3/4" Step 2: Position of frame struts between frame sides. **STEP 3:** Mounting the frame struts between the frame sides. Using a 1/8"drill bit and countersink, drill pilot holes through the frame sides into each end of the "L" shaped frame struts. Screw #8 x 2" wood screw flush.



HARDWARE PLACEMENT FOR B. SIDE RAILS





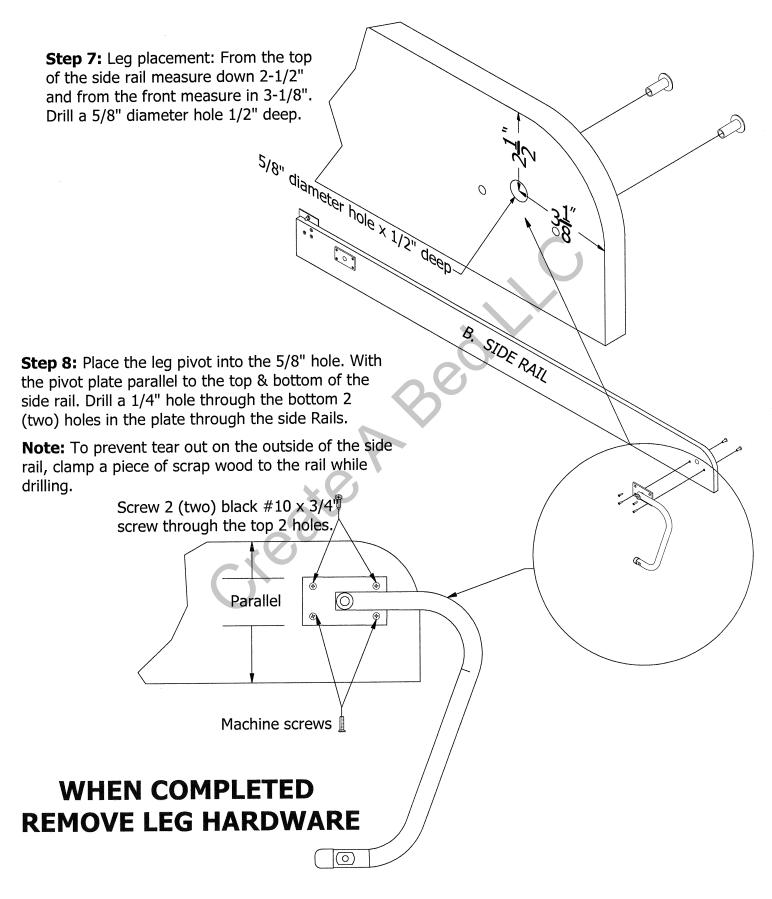
 $-2\frac{7}{8}$ Radius

PAGE 10

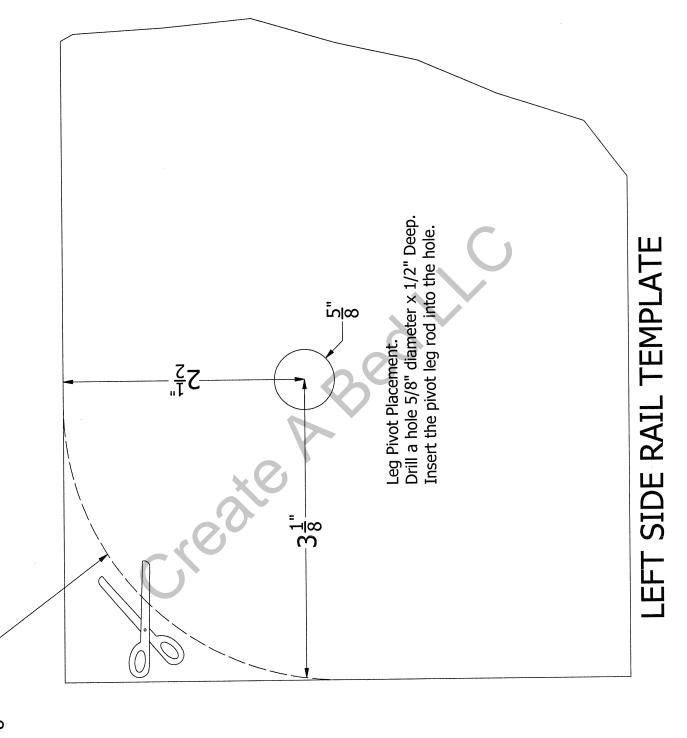
Greate

PAGE 11

B. RIGHT SIDE RAIL.



Greate



 $2\frac{7}{8}$ Radius

PAGE 12

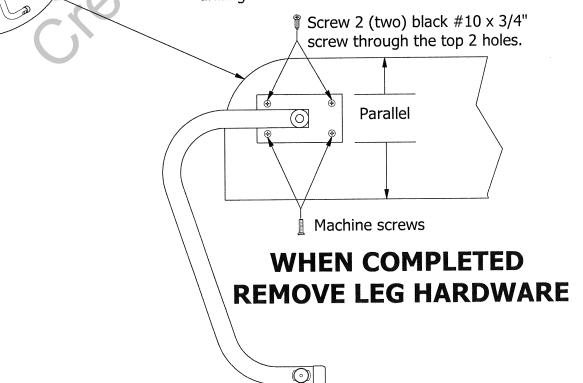
create



Step 9: Leg placement: From the top of the side rail measure down 2-1/2" and from the front measure in 3-1/8". Drill a 5/8" diameter hole 1/2" deep.

Step 10: Place the leg pivot into the 5/8" hole. With the pivot plate parallel to the top & bottom of the side rail. Drill a 1/4" hole through the bottom 2 (two) holes in the plate through the side Rails.

Note: To prevent tear out on the outside of the side rail clamp a piece of scrap wood to the rail while drilling.

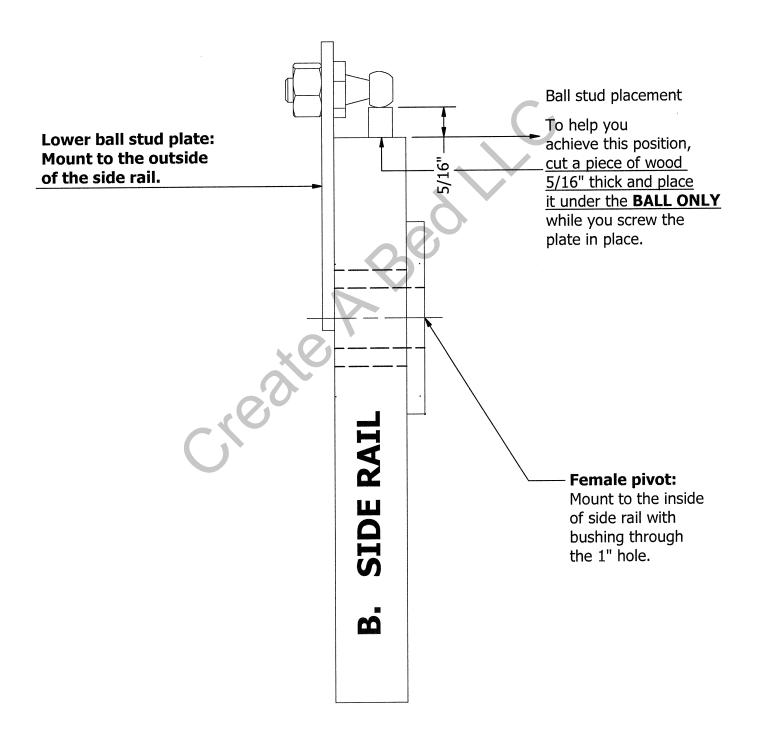


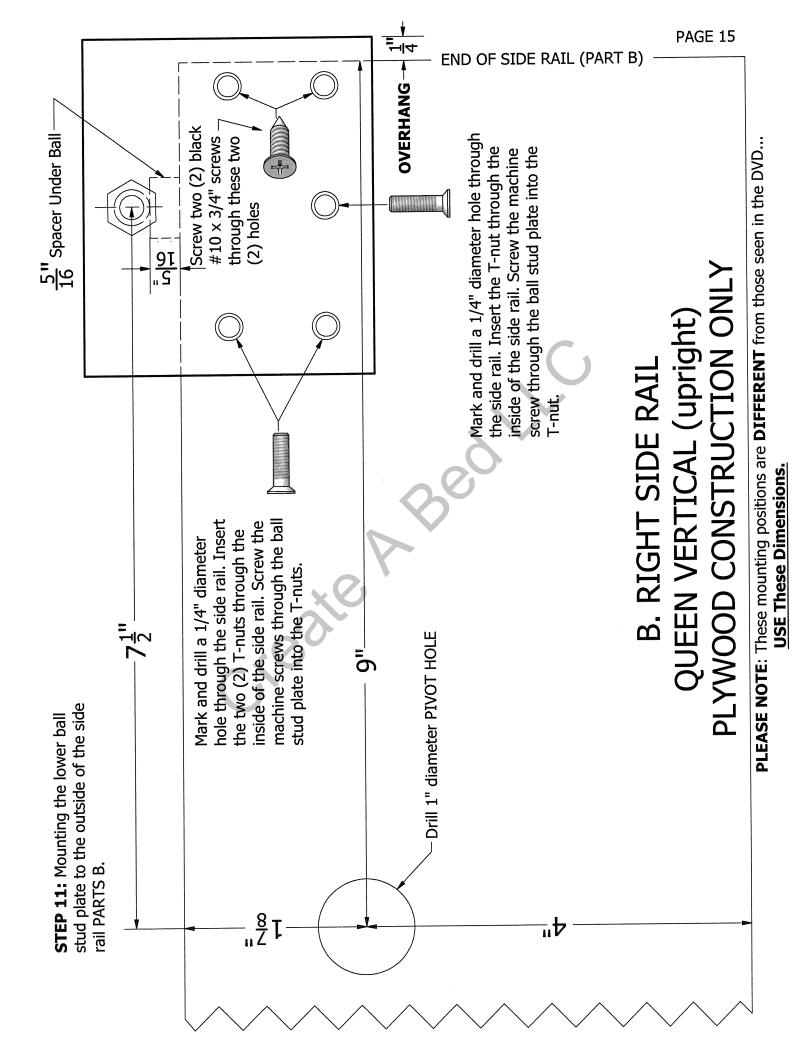
0

B. SIDE RAIL

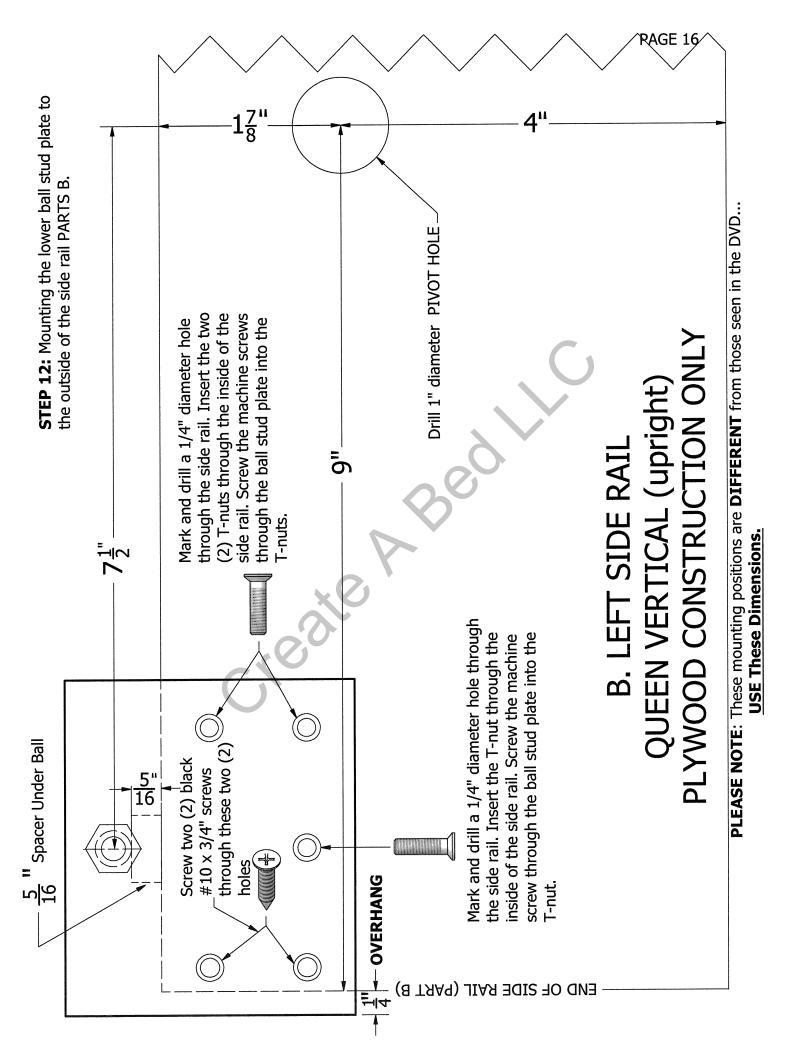
518" diameter hole × 1/2" deep-

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

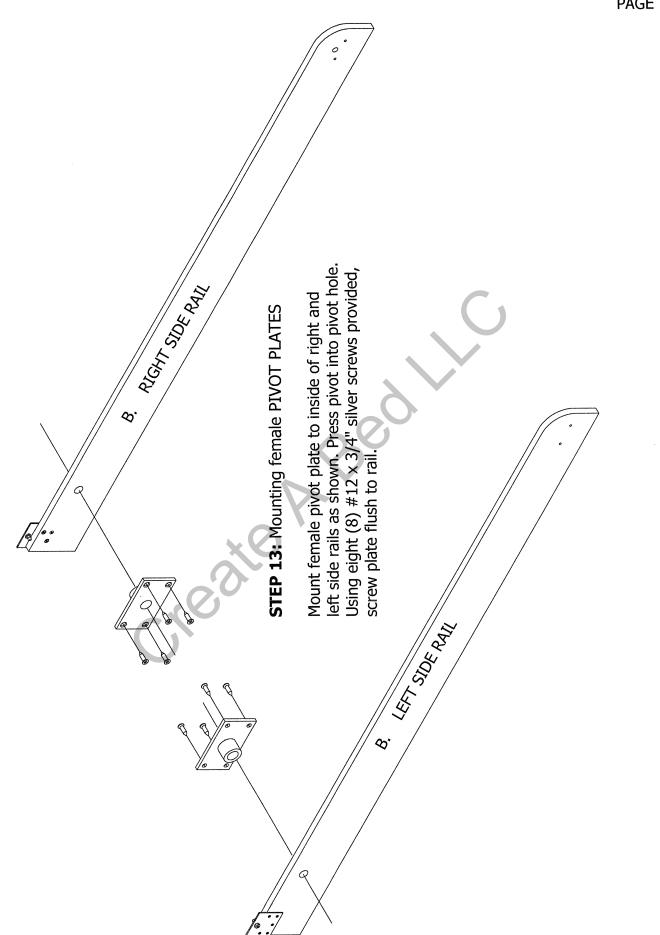




create A Bed I h



create A Bed I L



STEP 14:

Mounting the foot rail PART C and head rail D. Drill 1/8" pilot hole 1-1/4" deep through the inner wood bed frame into the foot rail. Drive $#8 \times 1-1/4"$ screws flush. Repeat on part D Head Rail.

NOTE: The Lower Ball Stud Plate WILL OVERHANG THE SIDE RAIL BY APPROXIMATELY 1/4"

D HEAD RAIL

Flush

This is the CORRECT PLACEMENT for the Lower Ball Stud Plate **Note**: Make sure the ends and bottoms of the foot rail are flush with the inner wood bed frame.

FOOTRAT

STEP 15:

В

Mounting left and right side rails to inner wood bed frame. Using an 1/8" drill bit, drill two holes between each strut (total of 8 holes per rail) 1-1/4" deep through the frame side into the

RIGHT SIDE RAIL

side rails. Drive $#8 \times 1-1/4$ " wood screws flush, snugging inner wood bed frame to the side rail.

Pivot plates are mounted to the inside of the side rails B.

Step 16: -

Mounting the side rails B to the foot rail Part C and head rail Part D.

В

Make sure sides and bottom are flush. Drill 1/8" pilot hole 2" deep through the side rails into the foot rail and head rail. Drive $#8 \times 2"$ screws flush.

LEFT SIDE RAIL

NOTE: Remove Pivot Leg Hardware.

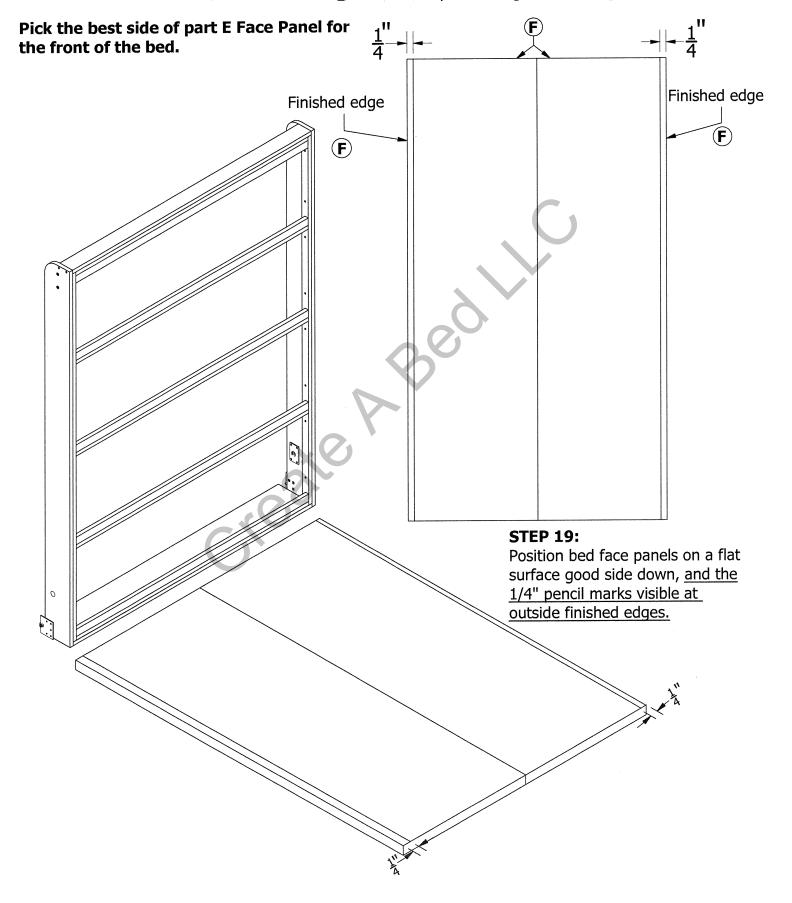
Flush

STEP 17:

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

STEP 18:

Turn face panels over. On back side, mark a 1/4" line the full length of the panel along finished long edge.



PAGE 20

STEP 20:

Lay bed face panel with good side DOWN, and place assembled bed frame on top of bed face panel. Check to make sure the 1/4" lines are visible on both sides of the assembled bed frame.

Tip:

As a guide for the application of the adhesive, mark a pencil line on the face panels PARTS E around the inner wood bed frame. After marking, remove the assembled wood bed frame and apply adhesive inside the markings.

Face panel may extend approx. 1/4" at this end.

The face panel MUST extend 1/4" past edge of frame on long sides.

STEP 21:

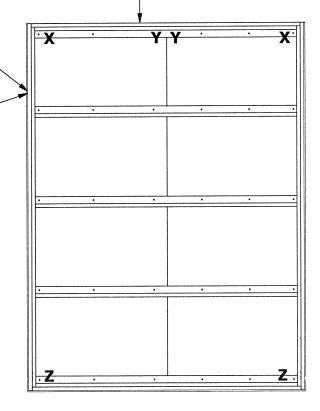
<u>Make sure face panel and foot rail are flush</u> and that <u>face panel extends 1/4" past edge of wood</u> bed frame on long sides.

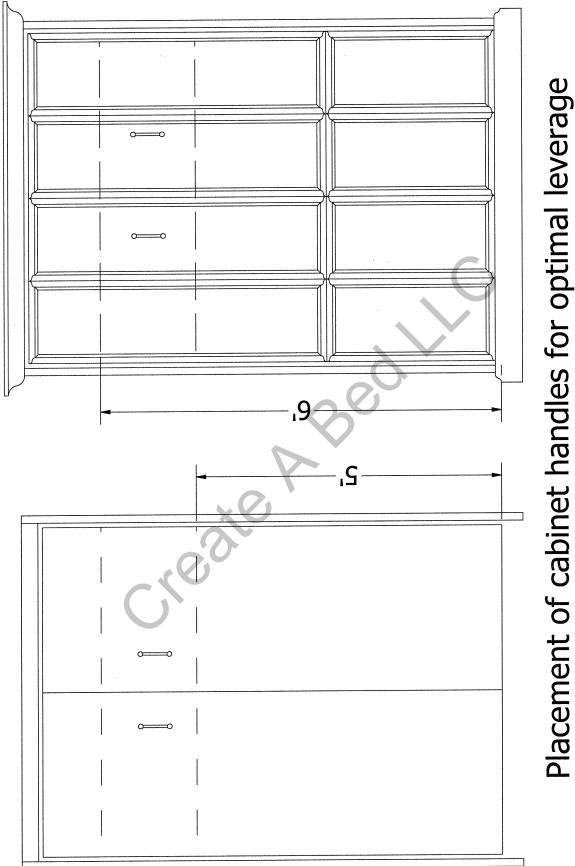
Using #8 x 1-1/4" screws, screw section marked "**X**" first. Keeping end flush, screw section marked "**Y**".

Making sure there is a 1/4" face panel overhang, screw section marked **"Z"**. If out-of-square this procedure will aid in racking into square.

Screw remaining struts to face panel 6" apart.

Face panel and foot rail MUST be flush at this end.





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

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

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.

Note: Ball stud nut fits in the hole.

STEP 23:

UPPER PISTON PLATE WITH BALL STUD: Drill a hole $5/8" \times 1/2"$ deep and insert nut into hole. Mount plate to the vertical with four (4) $\#10 \times 3/4"$ black screws and one (1) "T" Nut and machine screw.

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.

OPTION: _

FRONT FINISHED EDGE

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

30^{3"}

PART G: BED CABINET VERTICALS (RIGHT) Measurements For QUEEN 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.

Note:

Ball stud nut fits in the hole.

STEP 26:

UPPER BALL STUD PLATE: Drill a hole $5/8" \times 1/2"$ deep and insert nut into hole. Mount plate to the vertical with four (4) $\#10 \times 3/4"$ black screws and one (1) "T" Nut and machine screw.

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.

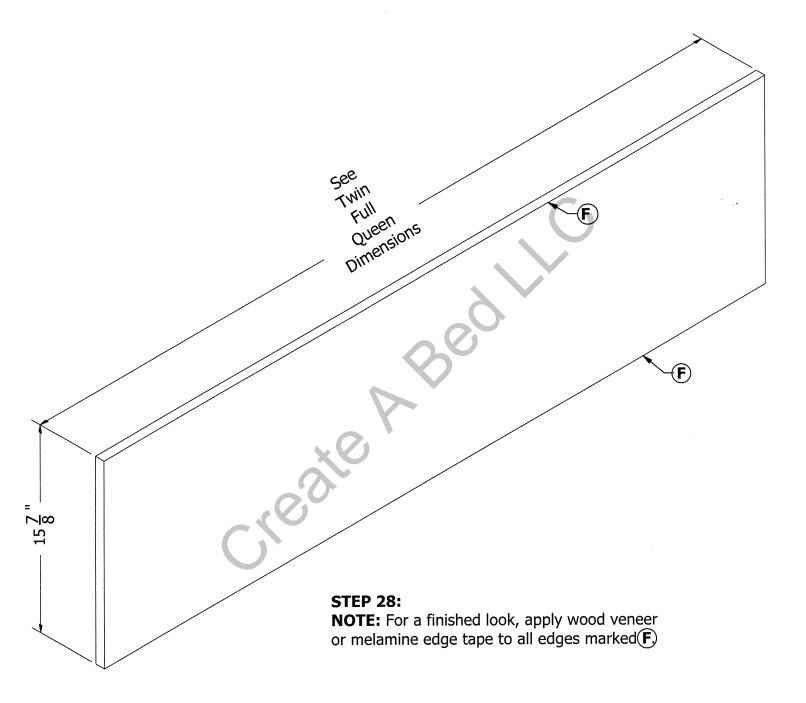
I0"

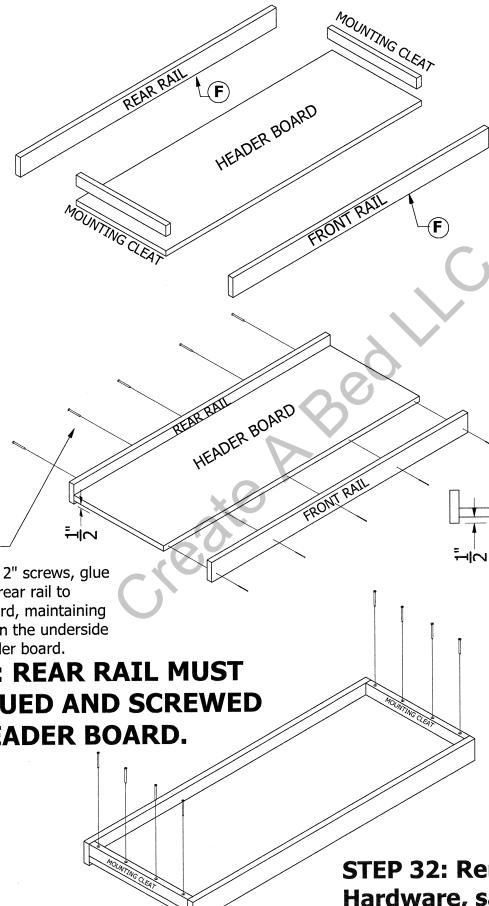
M

PAGE 23

FRONT FINISHED EDGE

PART F: BED HEADBOARD

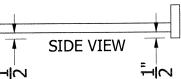




NOTE: For a finished look, apply wood veneer or melamine edge tape to all edges marked (F)

STEP 30:

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



STEP 31:

shown.

glue and screw mounting cleats to

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.

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

Using #8 x 2" screws,

header board between front and rear rails as

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

PAGE 1

ASSEMBLY INSTRUCTIONS FOR THE

VERTICAL (upright) Create-A-Bed[®]

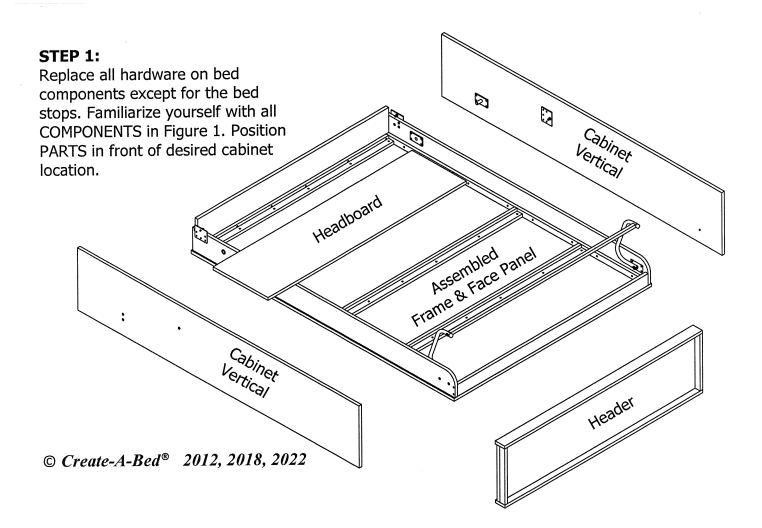
MURPHY BED

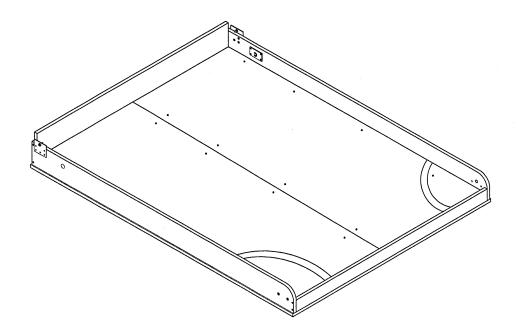
WARNING!

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 AND <u>WATCH THE ONLINE VIDEO</u> THOROUGHLY BEFORE ASSEMBLY AND DISASSEMBLY!

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

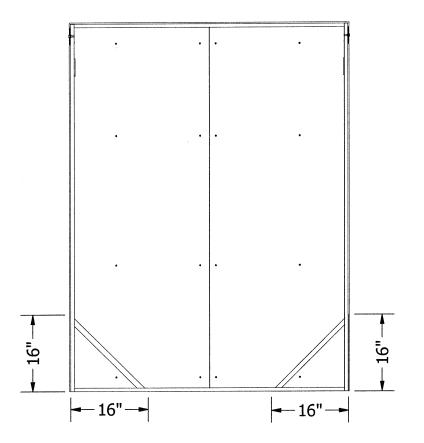
Tools needed: Power Drill, Stud Finder, Tape Measure, Phillips-head Screwdriver, Flat-Head Screwdriver, #4 Allen Wrench, Clamps and Drill bits appropriate for your mounting surface see step 16 on page 8.

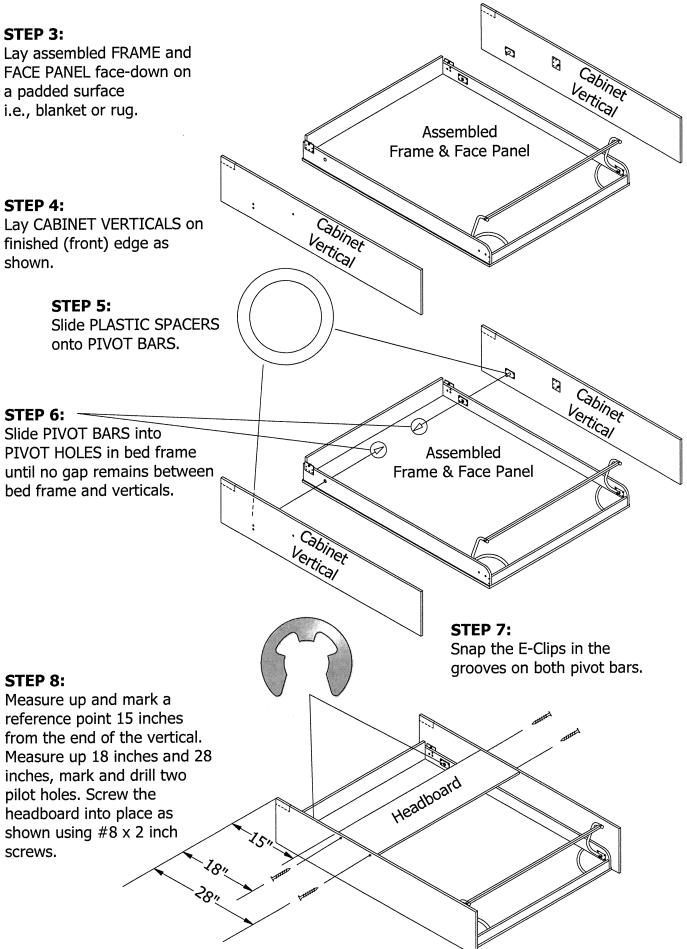




STEP 2:

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) inch from front corners of face panel as shown.

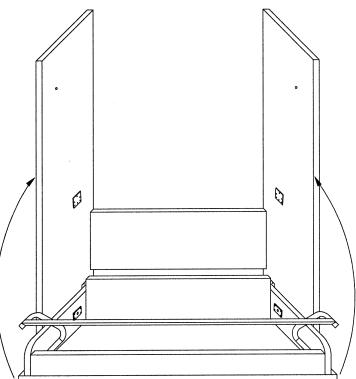




STEP 9:

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.

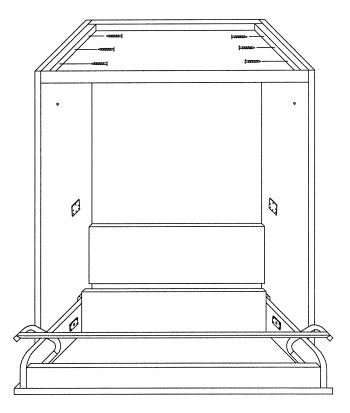
NOTE: To prevent damage to the legs be sure they are in the closed position when rotating the bed into the upright position.



STEP 10:

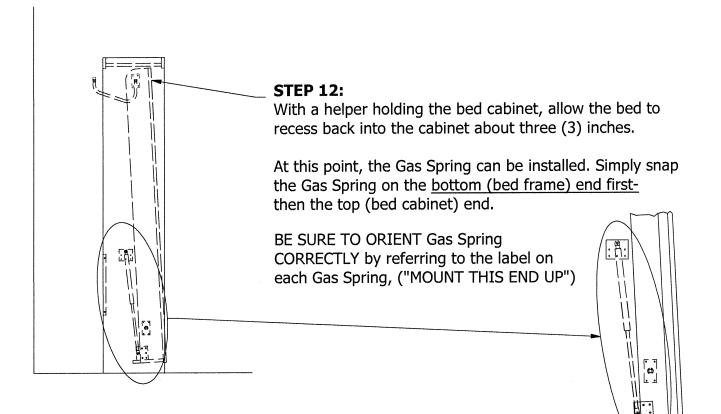
Place the header between the bed verticals, making sure the nailed rail is in front, and the screwed rail is in the rear. Be sure top front and top rear of the header is FLUSH with the top front and top rear of the bed verticals. Using $#8 \times 1-1/4$ inch screws, drill and screw through mounting cleats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

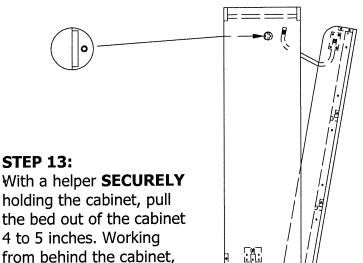
NOTE: Clamps may be very helpful to hold the bed header between the bed verticals.



STEP 11:

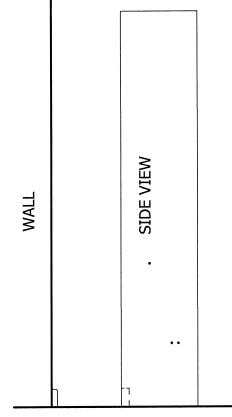
Place bed cabinet 2 to 3 feet away from the wall, allowing enough room to comfortably work behind the bed cabinet.





STEP 13:

holding the cabinet, pull the bed out of the cabinet 4 to 5 inches. Working from behind the cabinet, reattach the bed stops.



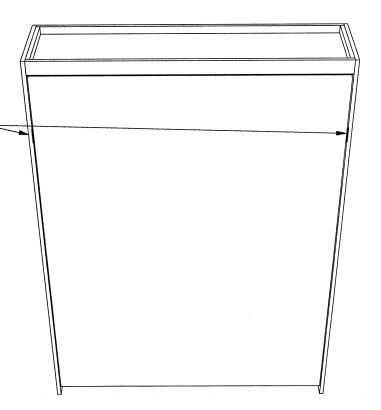
STEP 14:

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.

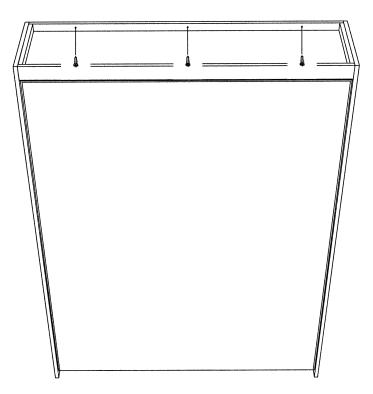
STEP 15:

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 VERY, VERY IMPORTANT!!! 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 8 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.

STEP 17:

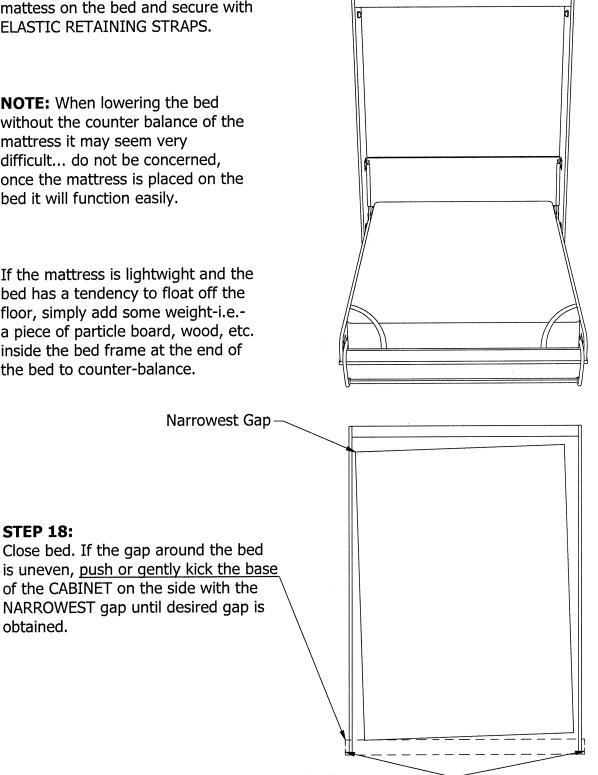
STEP 18:

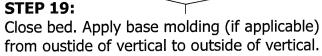
obtained.

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

NOTE: When lowering the bed without the counter balance of the mattress it may seem very difficult... do not be concerned, once the mattress is placed on the bed it will function easily.

If the mattress is lightwight and the bed has a tendency to float off the floor, simply add some weight-i.e.a piece of particle board, wood, etc. inside the bed frame at the end of the bed to counter-balance.



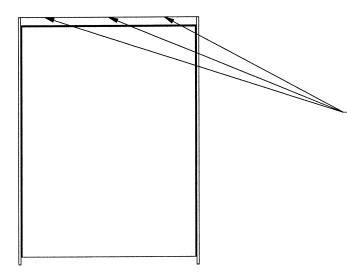


PROBLEM SOLVING

- 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 5 - 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 gas spring.
- 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.

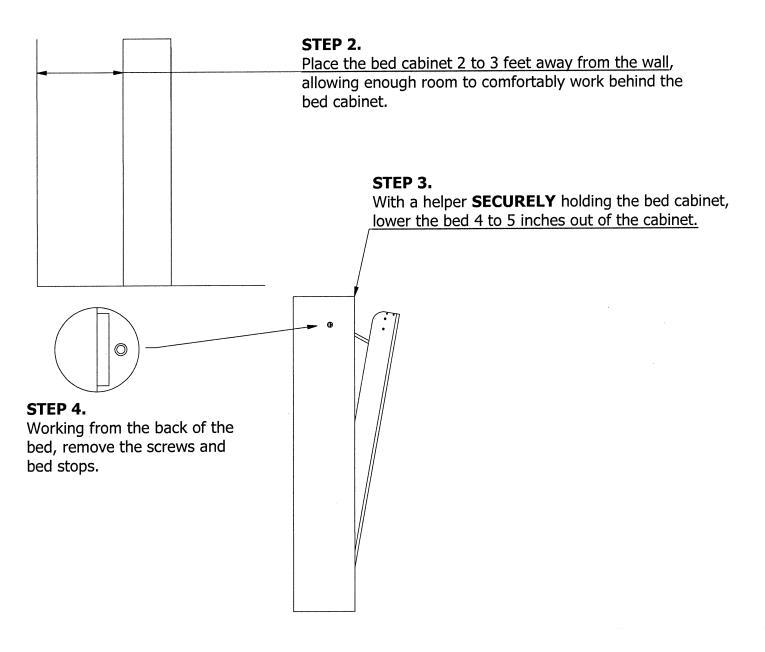
REPLACING THE COUNTER BALANCE GAS SPRING

DO NOT ATTEMPT To Compress the 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.

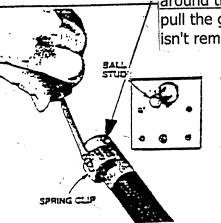
With your helper STILL HOLDING THE BED CABINET, allow the bed to pull back into the bed cabinet. It will recess about 3 inches into the bed cabinet.

STEP 6.

At this point, the gas spring 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 and using a flat blade screwdriver, gently pry up on the spring clip located around the plastic head of the gas spring. 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.**