



ELITE ALUMINUM VERTICAL MECHANISM & BED FRAME

INSTRUCTION MANUAL



SCAN ME

Our step-by-step installation
videos can also be found here:

murphybeds.com/support

MURPHY
WALL-BEDS HARDWARE INC.

DISCLAIMER

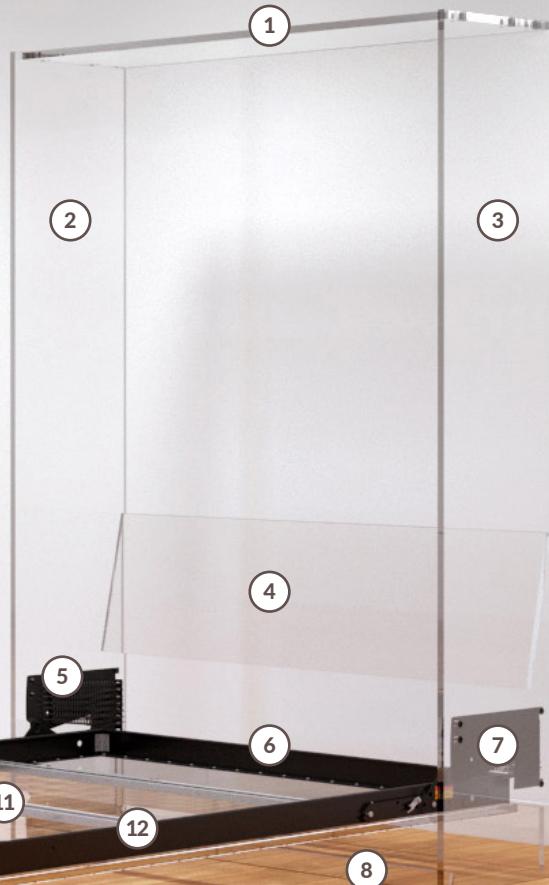
Prior to installation, read through these instructions thoroughly. All steps outlined in the Instruction Manual must be followed completely for the Murphy Wall-Bed and hardware to be covered under warranty. Deviations from these instructions can result in injury and/or damage and will render the Warranty and Hardware Guarantee null and void. Murphy Wall-Beds Hardware Inc. will not be responsible for direct, indirect, incidental or consequential damages resulting from any defect, error or failure to perform.



IMPORTANT NOTICE: The total weight of the Front Bed Panel Unit, including the face panels, bed frame, stiffeners, legs, crossbar, and mattress, must not exceed 220 lbs. This limit ensures safe and optimal performance. However, if you use up to two Super Springs per Lift Mechanism, the weight limit can be increased by about 20%, up to a maximum of 264 lbs. Please follow these guidelines carefully.

OUR QUALITY IS CLEAR

We've removed the mattress and tinted the bed cabinetry to give you a better understanding of the construction elements, parts, and quality hardware that should go into every Murphy Wall-Bed.



- 1 Top Stretcher
- 2 Left Side Panel
- 3 Right Side Panel
- 4 Headboard (Regular Legs)
- 5 Left Spring Mechanism
- 6 Head End Rail
- 7 Right Spring Mechanism

- 8 Front Kick
- 9 Front Face Panels
- 10 Left Side Rail
- 11 Notched Steel Stiffeners
- 12 Right Side Rail
- 13 Foot End Rail
- 14 Left Leg (Regular Legs)

- 15 Crossbar for Legs
- 16 Right Leg (Regular Legs)
- 17 Leg Stop
- 18 Protective Rubber Feet

NOTE:

Max. 10" Mattress for Regular Legs
Max. 12" Mattress for Extended Legs

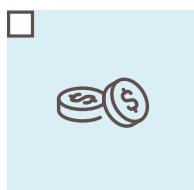
BEFORE YOU BEGIN

This instruction manual, along with our step-by-step videos, will help guide you through all the steps necessary for installing your Murphy Wall-Bed. Our installation videos can be found on the Support page of our website: MurphyBeds.com/Support.

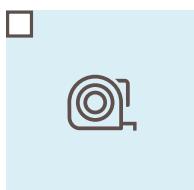
Whether you are installing one of our Murphy Build-A-Beds, or building your own cabinetry and incorporating our hardware, we suggest you read this Instruction Manual in its entirety and carefully watch all of our installation videos before you begin.

Follow the instructions carefully, in the order indicated, paying particular attention to the important notes and safety warnings. Failure to follow this manual properly may result in personal injury or damage to the Murphy Bed and hardware.

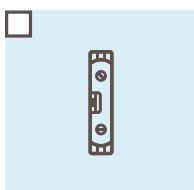
EQUIPMENT CHECKLIST



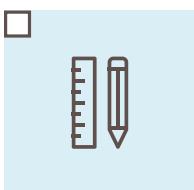
2 x Quarters



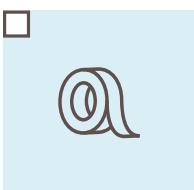
Tape Measure



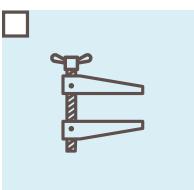
24" Level



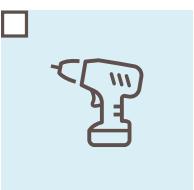
Ruler & Pencil



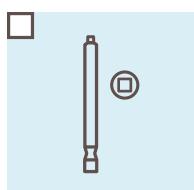
Painter's Tape



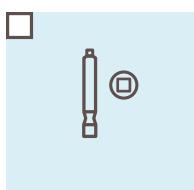
72" Bar Clamps



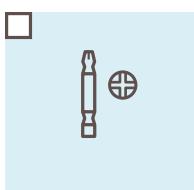
Power Drill



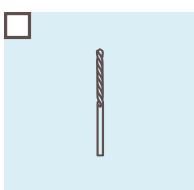
#2 Robertson
Drill Bit (6" Long)



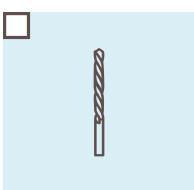
#2 Robertson
Drill Bit (3 1/2" Long)



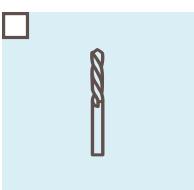
#2 Phillips
Drill Bit (3 1/2" Long)



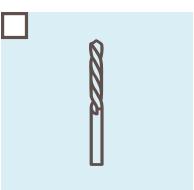
1/16" Drill Bit



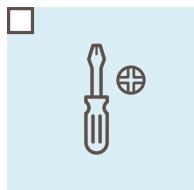
3/16" Drill Bit



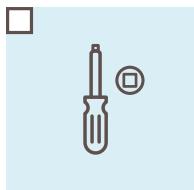
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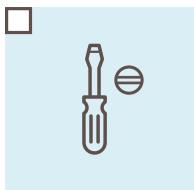
9/16" Drill Bit



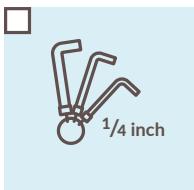
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Screwdriver



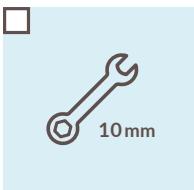
Robertson Head
Screwdriver



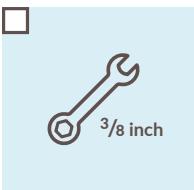
Flat Head
Screwdriver



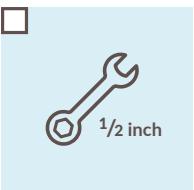
1/4" Allen Key



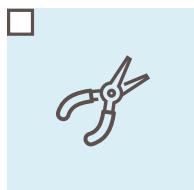
10 mm Wrench



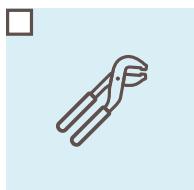
3/8" Wrench or
Socket Wrench



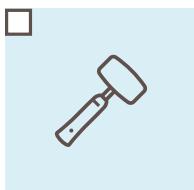
1/2" Wrench or
Socket Wrench



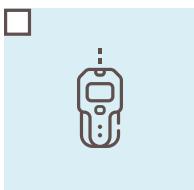
Needle-nose
Pliers



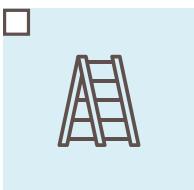
Pump Pliers



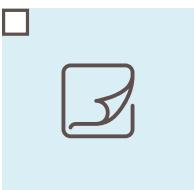
Rubber Mallet



Stud Finder



Step Ladder



Moving Blanket
or Cardboard

INSTALLATION SAFETY TIPS

Pay close attention to these following safety messages:

- 1 Prior to installation, **read the instructions thoroughly**. All steps must be followed for the Murphy Wall-Bed system to be covered under the warranty. Deviation from the instructions can result in injury, and will render the warranty null and void.
- 2 Many stages of the assembly process **require two people for safe assembly**.



TWO PEOPLE NEEDED FOR ASSEMBLY

- 3 Install all cross-member pieces of the cabinetry including the **Front Kick**. **It is crucial that the Front Kick be installed** as it supports the two side panels when lowering the bed. Refer to **Figure A**.
- 4 You must **secure the cabinet to solid structural members** and not merely to the wall finish. If you are not attaching the bed cabinetry to a wood stud wall, see your local hardware retailer for metal stud screws or concrete $1\frac{3}{4}'' \times \frac{1}{4}''$ expansion bolts and a concrete drill bit. In either case, be careful not to hit electrical wiring or plumbing behind the drywall. Refer to **Figure B**.
- 5 Attach all hardware provided in the Hardware Kits. The omission of hardware pieces when installing the Lift Mechanism and frame to the cabinetry can cause injury.
- 6 Tightly secure the mechanism bolts when attaching the Tension Arms to the Bed Frame. **All three bolts must be installed, on each of the Lift Mechanisms, for the mechanisms to function properly**. Again, omission of any of the three bolts can cause injury. Refer to **Figure C**.
- 7 Install the Mechanism Covers. Refer to **Figure D**.

Figure A



Figure B

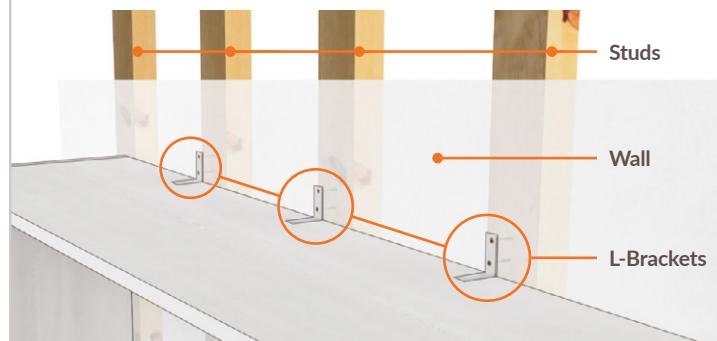


Figure C



Figure D



COMPONENTS OF THE UNASSEMBLED BED CABINET

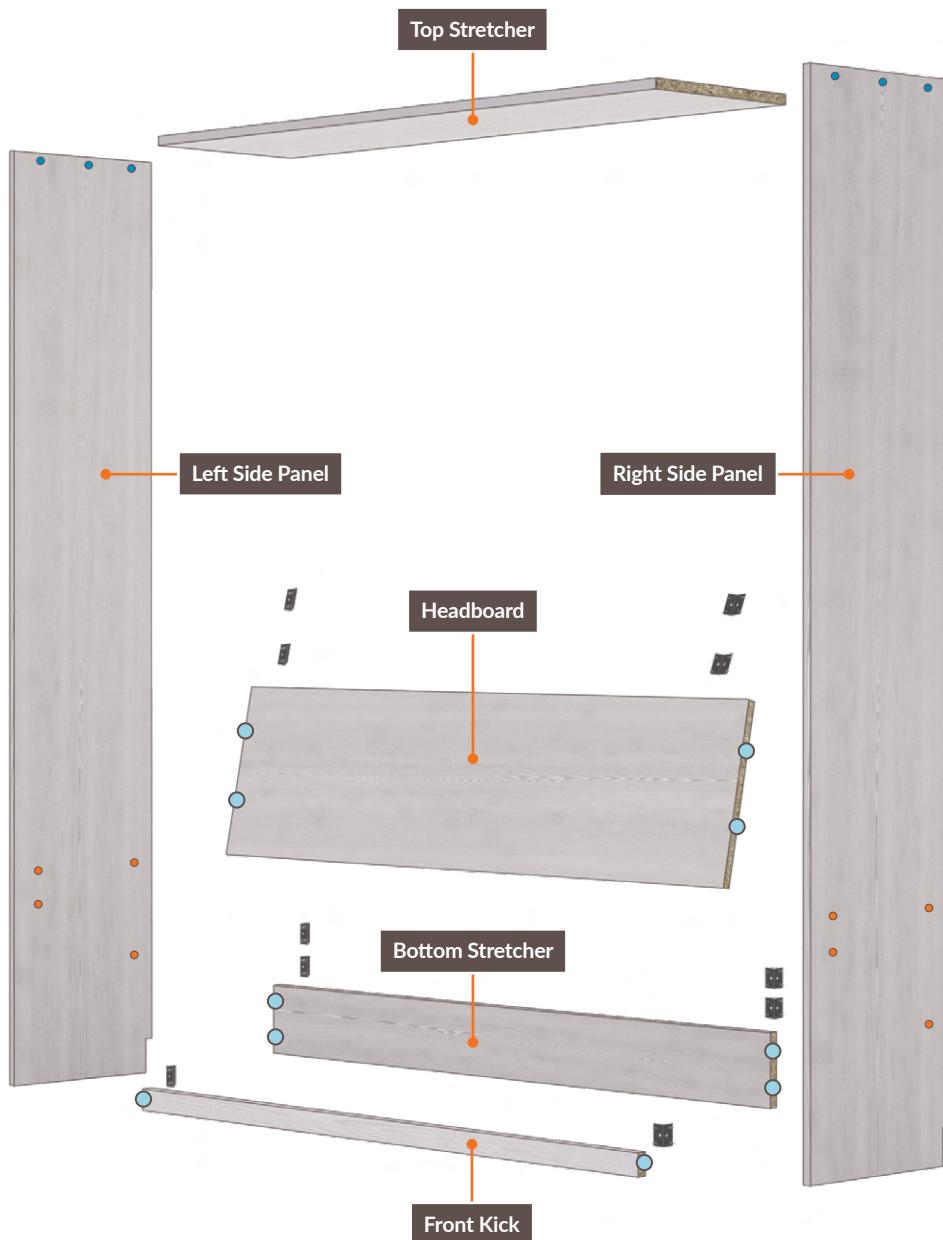
Get familiar with the parts of your Murphy Wall-Bed as shown in the following diagrams.

UNASSEMBLED BED CABINET

- Top Stretcher
- Left Side Panel
- Bottom Stretcher
- Left/Right Face Panels
- Headboard
- Right Side Panel
- Front Kick

(shown on the next page)

Figure 1: Components of the unassembled Bed Cabinet



- Holes for mounting the Top Stretcher using the provided Confirmat Screws
- Mounting of 6-Hole Assembly Brackets (on the back side of the each panel)
- Drilled holes for mounting the Spring Mechanisms (refer to Lift Mechanism Drilling Patterns for more info.)



NOTE:

- Front Kick for Regular Height Legs is 1 $\frac{1}{8}$ " high
- Front Kick for Extended Legs is 4 $\frac{1}{4}$ " high

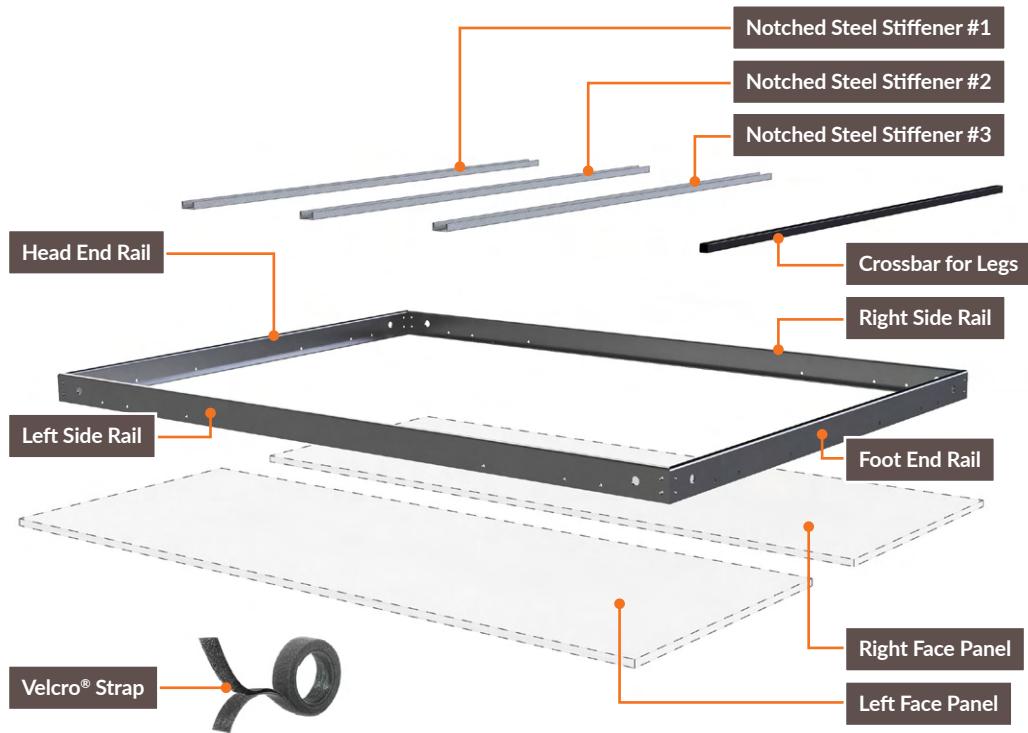
FRAME BOX

4 pcs. Bed Frame Rails

- Head End Rail
- Left Side Rail
- Right Side Rail
- Foot End Rail
- 3 pcs. Notched Steel Stiffeners
- Crossbar for Legs
- Velcro® Strap
- Bags #4 and #6 for Elite Aluminum Frame

NOTE: The dotted Left/Right Face Panels represent your finished Face Panel material.

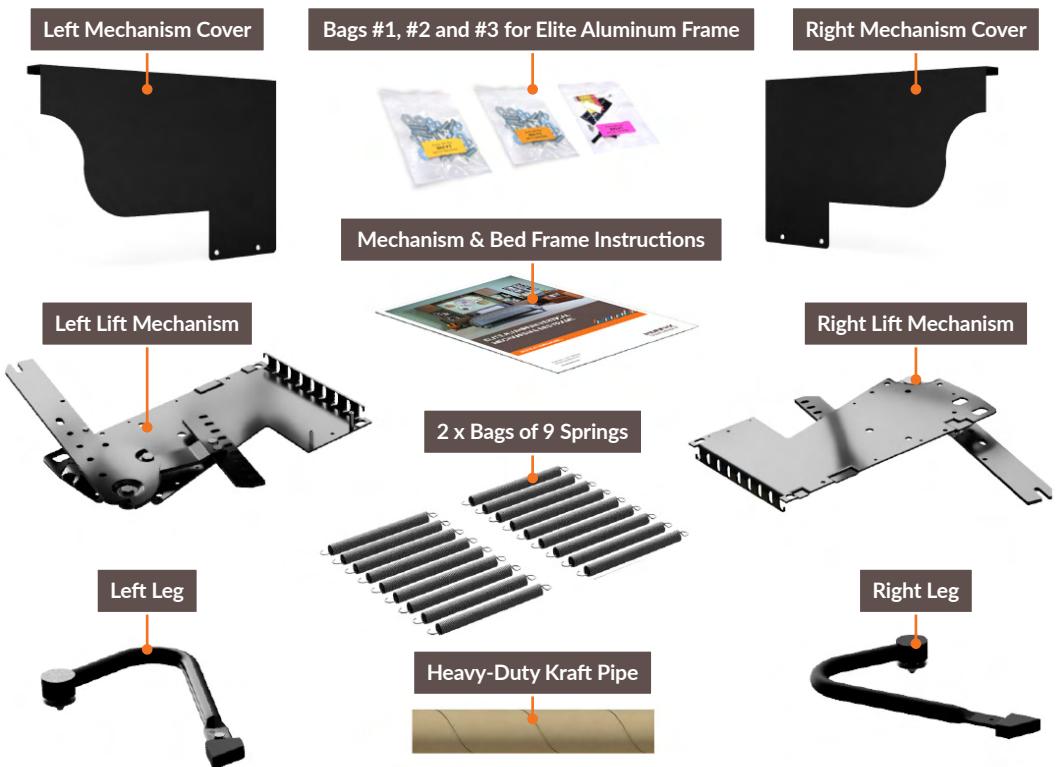
Figure 2: Components of the Frame Box



MECHANISM BOX

- Left Lift Mechanism
- Right Lift Mechanism
- Left Mechanism Cover
- Right Mechanism Cover
- Left Leg
- Right Leg
- 2x Bags of 9 Springs
- Heavy-Duty Kraft Pipe
- Bags #1, #2 and #3 for Elite Aluminum Frame
- Mechanism & Bed Frame Instructions

Figure 3: Components of the Mechanism Box



CUT LIST FOR 'REGULAR LEGS'

Make sure you are using the correct cut list for your intended leg height. Below are the measurements for our Regular Legs. Refer to the next page for specifications on our Extended Legs.

Single Twin Bed – Mattress Size: 39" wide x 75" long x 10" thick

Overall Cabinet Dimension: 44 ½" wide x 80 ½" high x 15 ¾" deep Protrusion from wall to foot of bed: 84 ½"

# OF PIECES	DESCRIPTION	WIDTH	LENGTH	MATERIAL
1	Bed Face Panel	42 5/8"	77 5/16"	¾" Plycore or Melamine
2	Left/Right Side Panels	15 7/8"	80 1/16"	¾" Plycore or Melamine
1	Headboard	14 7/8"	43"	¾" Plycore or Melamine
1	Top Stretcher	14 7/8"	43"	¾" Plycore or Melamine
1	Bottom Stretcher	6"	43"	¾" Plycore or Melamine
1	Front Kick	1 7/8"	43"	¾" Plycore or Melamine

Double/Full Bed – Mattress Size: 54" wide x 75" long x 10" thick

Overall Cabinet Dimension: 59 ½" wide x 80 ½" high x 15 ¾" deep Protrusion from wall to foot of bed: 84 ½"

# OF PIECES	DESCRIPTION	WIDTH	LENGTH	MATERIAL
2	Bed Face Panels	28 ¾"	77 5/16"	¾" Plycore or Melamine
2	Left/Right Side Panels	15 7/8"	80 1/16"	¾" Plycore or Melamine
1	Headboard	14 7/8"	58"	¾" Plycore or Melamine
1	Top Stretcher	14 7/8"	58"	¾" Plycore or Melamine
1	Bottom Stretcher	6"	58"	¾" Plycore or Melamine
1	Front Kick	1 7/8"	58"	¾" Plycore or Melamine

Queen Bed – Mattress Size: 60" wide x 80" long x 10" thick

Overall Cabinet Dimension: 65 ½" wide x 85 ½" high x 15 ¾" deep Protrusion from wall to foot of bed: 89 ½"

# OF PIECES	DESCRIPTION	WIDTH	LENGTH	MATERIAL
2	Bed Face Panels	31 ¾"	82 5/16"	¾" Plycore or Melamine
2	Left/Right Side Panels	15 7/8"	85 1/16"	¾" Plycore or Melamine
1	Headboard	14 7/8"	64"	¾" Plycore or Melamine
1	Top Stretcher	14 7/8"	64"	¾" Plycore or Melamine
1	Bottom Stretcher	6"	64"	¾" Plycore or Melamine
1	Front Kick	1 7/8"	64"	¾" Plycore or Melamine



IMPORTANT NOTICE: The total weight of the Front Bed Panel Unit, including the face panels, bed frame, stiffeners, legs, crossbar, and mattress, must not exceed 220 lbs. This limit ensures safe and optimal performance. However, if you use up to two Super Springs per Lift Mechanism, the weight limit can be increased by about 20%, up to a maximum of 264 lbs. Please follow these guidelines carefully.



IMPORTANT NOTE: Due to their excessive weight, foam, gel, latex, and Tempur-Pedic® style mattresses are not recommended. Using any mattress other than a standard spring coil mattress will void your Murphy Bed Hardware System warranty. Additionally, the mattress must weigh between 65-75 lbs (29.5-34 kg).

CUT LIST FOR 'EXTENDED LEGS'

Below are the measurements for our Extended Legs. Refer to the previous page for specifications on our Regular Legs.

IMPORTANT NOTE: If you are installing the Extended Legs, the Front Kick will be taller (4 $\frac{1}{4}$ " high), the Drill Pattern for the Spring Mechanisms will be different (2 $\frac{1}{8}$ " higher), and the Headboard will be installed parallel to the wall. Please read these instructions thoroughly and pay close attention to the adjustments needed for installation of the Extended Legs.

Single Twin Bed – Mattress Size: 39" wide x 75" long x 12" thick

Overall Cabinet Dimension: 44 $\frac{1}{2}$ " wide x 82 $\frac{1}{16}$ " high x 15 $\frac{1}{8}$ " deep Protrusion from wall to foot of bed: 84 $\frac{1}{2}$ "

# OF PIECES	DESCRIPTION	WIDTH	LENGTH	MATERIAL
1	Bed Face Panel	42 $\frac{5}{8}$ "	77 $\frac{5}{16}$ "	$\frac{3}{4}$ " Plycore or Melamine
2	Left/Right Side Panels	15 $\frac{7}{8}$ "	82 $\frac{7}{16}$ "	$\frac{3}{4}$ " Plycore or Melamine
1	Headboard	14 $\frac{7}{8}$ "	43"	$\frac{3}{4}$ " Plycore or Melamine
1	Top Stretcher	14 $\frac{7}{8}$ "	43"	$\frac{3}{4}$ " Plycore or Melamine
1	Bottom Stretcher	6"	43"	$\frac{3}{4}$ " Plycore or Melamine
1	Front Kick	4 $\frac{1}{4}$ "	43"	$\frac{3}{4}$ " Plycore or Melamine

Double/Full Bed – Mattress Size: 54" wide x 75" long x 12" thick

Overall Cabinet Dimension: 59 $\frac{1}{2}$ " wide x 82 $\frac{1}{16}$ " high x 15 $\frac{1}{8}$ " deep Protrusion from wall to foot of bed: 84 $\frac{1}{2}$ "

# OF PIECES	DESCRIPTION	WIDTH	LENGTH	MATERIAL
2	Bed Face Panels	28 $\frac{3}{4}$ "	77 $\frac{5}{16}$ "	$\frac{3}{4}$ " Plycore or Melamine
2	Left/Right Side Panels	15 $\frac{7}{8}$ "	82 $\frac{7}{16}$ "	$\frac{3}{4}$ " Plycore or Melamine
1	Headboard	14 $\frac{7}{8}$ "	58"	$\frac{3}{4}$ " Plycore or Melamine
1	Top Stretcher	14 $\frac{7}{8}$ "	58"	$\frac{3}{4}$ " Plycore or Melamine
1	Bottom Stretcher	6"	58"	$\frac{3}{4}$ " Plycore or Melamine
1	Front Kick	4 $\frac{1}{4}$ "	58"	$\frac{3}{4}$ " Plycore or Melamine

Queen Bed – Mattress Size: 60" wide x 80" long x 12" thick

Overall Cabinet Dimension: 65 $\frac{1}{2}$ " wide x 87 $\frac{1}{16}$ " high x 15 $\frac{1}{8}$ " deep Protrusion from wall to foot of bed: 89 $\frac{1}{2}$ "

# OF PIECES	DESCRIPTION	WIDTH	LENGTH	MATERIAL
2	Bed Face Panels	31 $\frac{3}{4}$ "	82 $\frac{5}{16}$ "	$\frac{3}{4}$ " Plycore or Melamine
2	Left/Right Side Panels	15 $\frac{7}{8}$ "	87 $\frac{7}{16}$ "	$\frac{3}{4}$ " Plycore or Melamine
1	Headboard	14 $\frac{7}{8}$ "	64"	$\frac{3}{4}$ " Plycore or Melamine
1	Top Stretcher	14 $\frac{7}{8}$ "	64"	$\frac{3}{4}$ " Plycore or Melamine
1	Bottom Stretcher	6"	64"	$\frac{3}{4}$ " Plycore or Melamine
1	Front Kick	4 $\frac{1}{4}$ "	64"	$\frac{3}{4}$ " Plycore or Melamine



IMPORTANT NOTICE: The total weight of the Front Bed Panel Unit, including the face panels, bed frame, stiffeners, legs, crossbar, and mattress, must not exceed 220 lbs. This limit ensures safe and optimal performance. However, if you use up to two Super Springs per Lift Mechanism, the weight limit can be increased by about 20%, up to a maximum of 264 lbs. Please follow these guidelines carefully.



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PREPARING ALL PANELS BEFORE ASSEMBLY

Before you begin, we suggest you watch our Murphy Wall-Bed installation videos. They can be found on the Support page of our website: MurphyBeds.com/Support.

- 1 Cut all bed panels according to the specifications in the Cut Lists provided on the previous pages. [Refer to Cut List for 'Regular Legs' or 'Extended Legs'](#). Ensure you select the correct Cut List corresponding to the bed legs you are installing and the size of the bed you are building.

TOOLS: Painter's Tape & Pencil

- 2 Using your painter's tape and pencil, properly identify each cut panel. These specific panel names will be referred to throughout the instructions. [Refer to Cut List for 'Regular Legs' or 'Extended Legs'](#).

- 3 Using a pre-glued, iron-on edge banding tape, adhere tape along the following panel edges that will be exposed after construction:

- Top Stretcher – front edge
- Left & Right Side Panels – front edges
- Headboard – both long edges
- Bottom Stretcher – top edge
- Front Kick – both long edges (to prevent bowing)
- Left & Right Face Panels – all four edges

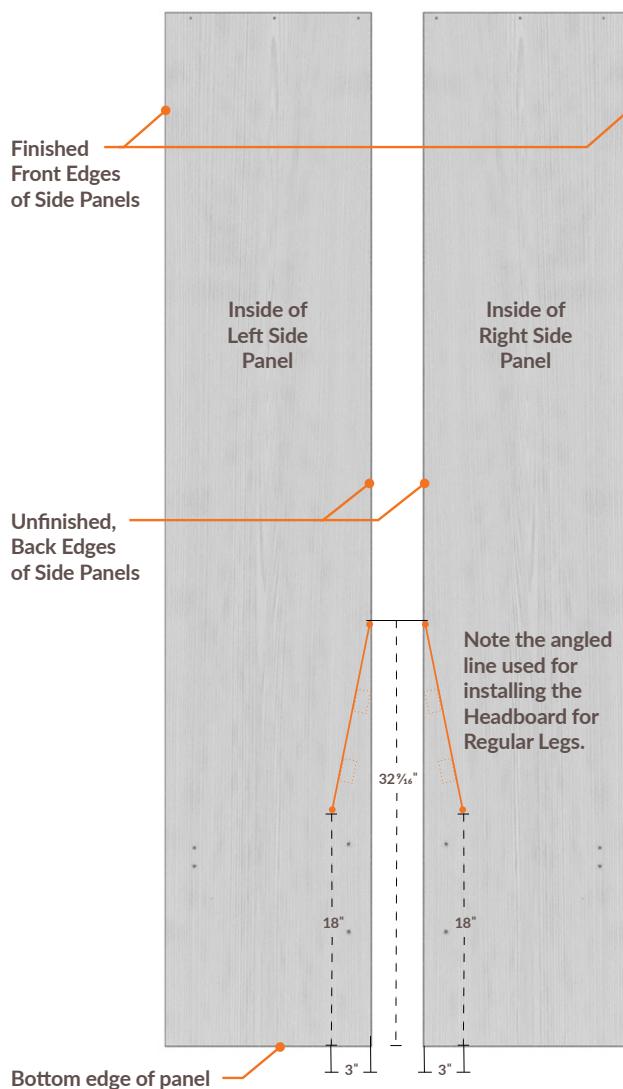
- 4 Lay out the Left & Right Side Panels next to each other on a hard, flat surface – we recommend using a moving blanket or sheets of cardboard to protect your floors and cabinetry. Have the finished (edge banding) front edges facing outwards and the exposed, back edges facing the middle. [Refer to Figure 4 or Figure 5](#).

TOOLS: Tape Measure, Ruler and Pencil

- 5 If you are installing Extended Legs, skip Step #5 and proceed to Step #6 ([Measurements for EXTENDED LEGS](#)).

Measurements for REGULAR LEGS: On the Left Side Panel, measure and mark the locations for the Headboard with a pencil. First, measure 3" from the back, unfinished edge of the panel, and then 18" up from the bottom edge. Next, from the bottom edge, measure and mark $32\frac{1}{16}$ "

Figure 4: Headboard Measurements for REGULAR LEGS



along the back edge. Drawing a line to connect these two points will indicate the proper position for the back of the Headboard. [Refer to Figure 4: Headboard Measurements for REGULAR LEGS](#).

Repeat this process on the Right Side Panel, making sure the pencil marks are along the unfinished back edge that will be against the wall, and not the finished front edge of the panel.

6 If you are installing Regular Legs, skip Step #6 entirely.

Measurements for EXTENDED LEGS: On the Left Side Panel, measure and mark the locations for the Headboard with a pencil. First, measure $20\frac{3}{8}$ " up from the bottom edge, and then 1" from the back, unfinished edge of the panel. Next, measure $35\frac{1}{4}$ " up from the bottom edge, and then 1" from the back of the panel. Drawing a vertical line to connect these two points will indicate the proper position for the back of the Headboard. The headboard should be installed parallel to the wall. Refer to **Figure 5: Headboard Measurements for EXTENDED LEGS.**

Repeat this process on the Right Side Panel.

7 On the Left Side Panel, measure and mark the location for the Front Kick with a pencil. First, measure $1\frac{1}{8}$ " from the front, finished edge of the side gable. Next, you'll mark just slightly next to that at $1\frac{1}{8}$ ". Refer to **Figure 6**.

Repeat this process on the Right Side Panel.

8 On the Left Side Panel, measure and mark the location for the Bottom Stretcher with a pencil. First, measure $\frac{3}{4}$ " up from the bottom edge, and then 1" from the back, unfinished edge of the panel. Next, measure $6\frac{3}{4}$ " up from the bottom edge, and then 1" from the back, unfinished edge of the panel. Drawing a vertical line to connect these two points will indicate the proper position for the back of the Bottom Stretcher. Refer to **Figure 6**.

Repeat this process on the Right Side Panel.

Figure 5: Headboard Measurements for EXTENDED LEGS

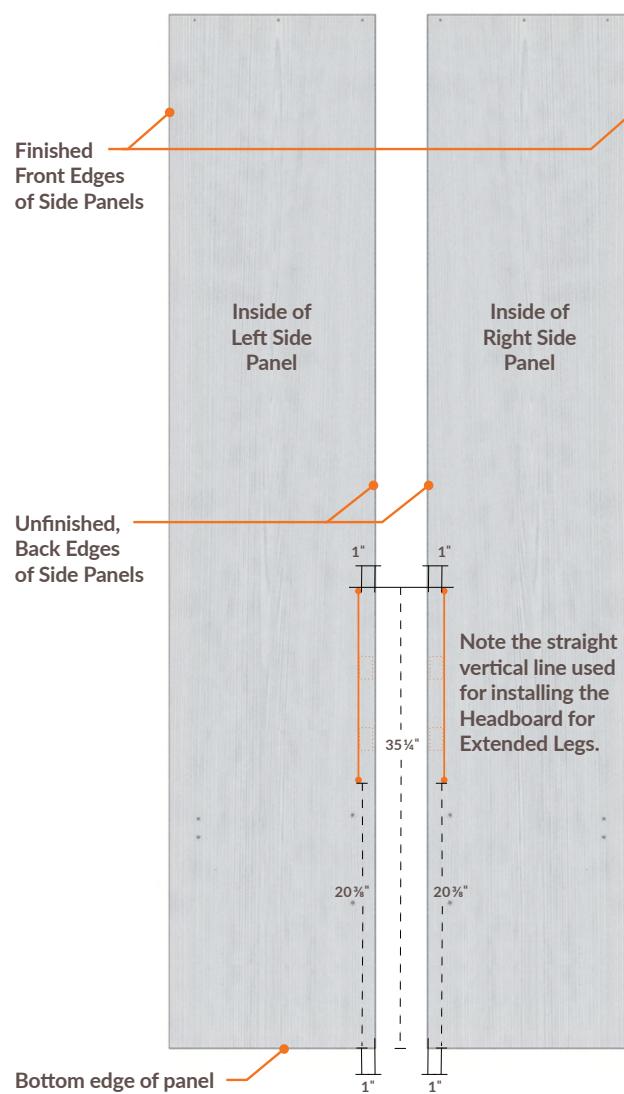
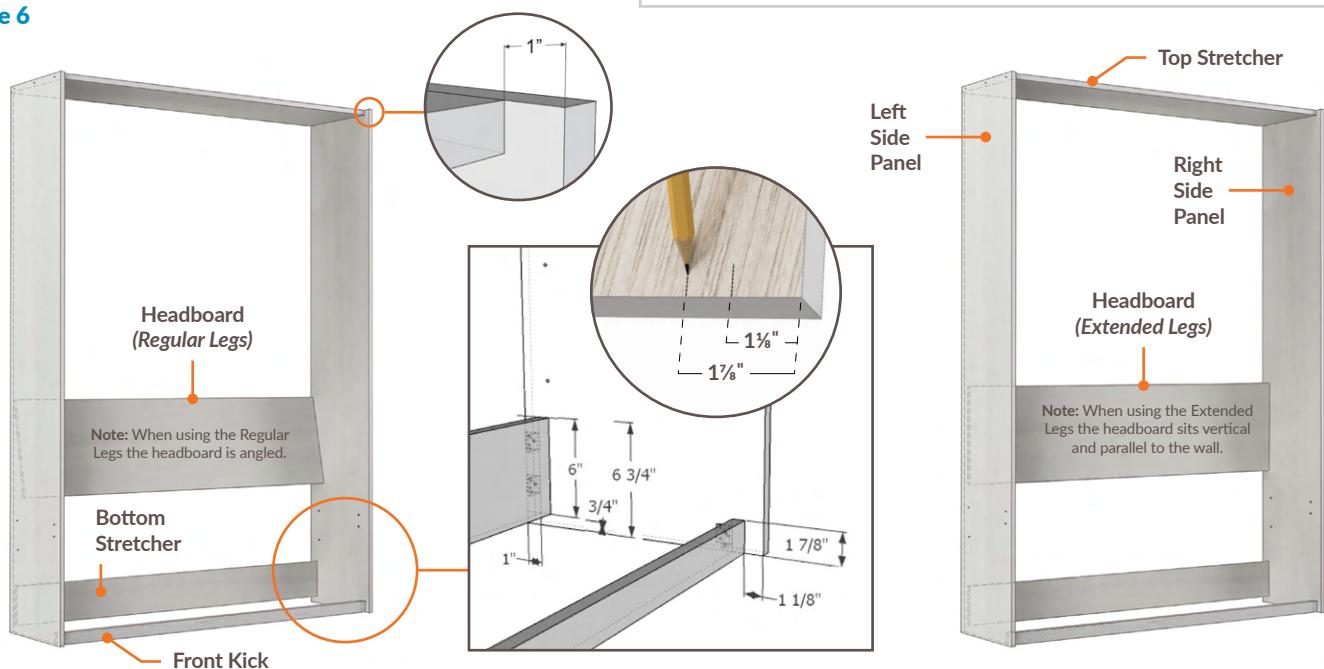


Figure 6



TOOLS: Power Drill, 1/16" and 5/16" Drill Bit

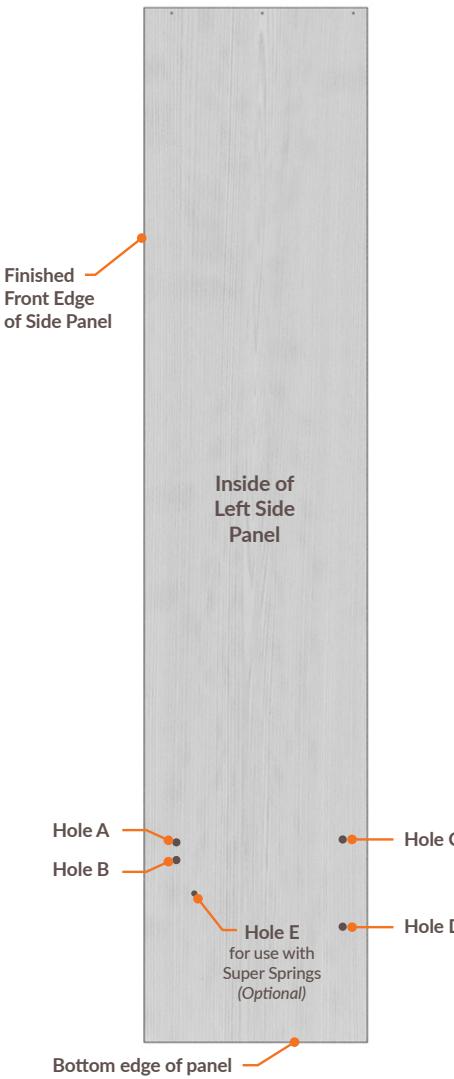
9 Accurately mark the Lift Mechanism mounting holes on the inside of the Left and Right Side Panels. Refer to Drilling Patterns for the layout of these holes – Refer to [Figure 8 \(Regular Legs\)](#) or [Figure 9 \(Extended Legs\)](#).

When drilling the Lift Mechanism mounting holes, first drill a $\frac{1}{16}$ " pilot hole, being careful to keep the drill bit perpendicular to the panel, then drill the final hole with a $\frac{5}{16}$ " drill bit. Countersink ($\frac{5}{8}$ " diameter) each hole on the outside of the panels, just deep enough for the head of the $\frac{1}{16}$ " x $1\frac{1}{4}$ " flathead slot machine screw to sit flush with the surface.

TIP

You can sand and paint the mounting screws for the Lift mechanism to match your bed cabinet finish.

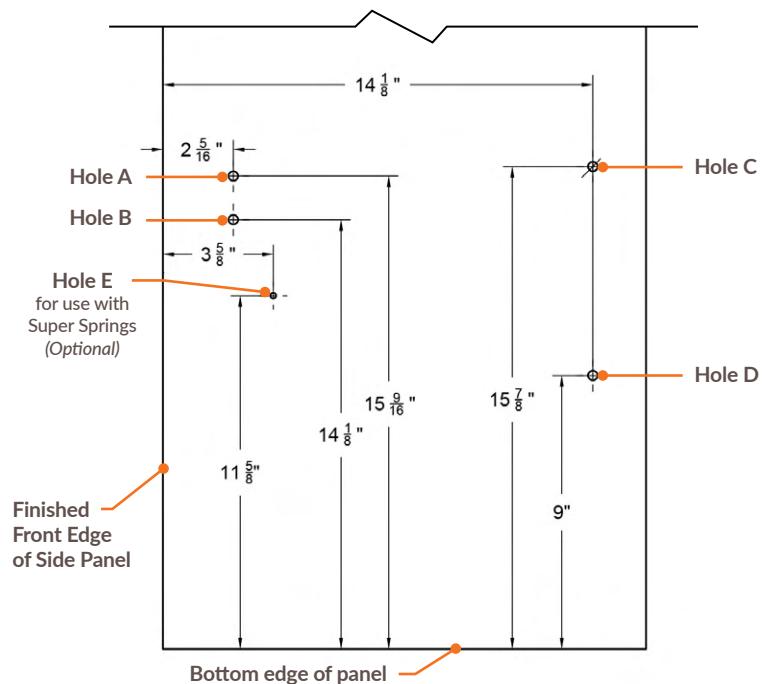
Figure 7



Make sure you are using the correct drilling pattern for laying out the Lift Mechanism mounting holes. Take all horizontal measurements from the finished front edge on your Side Panels.

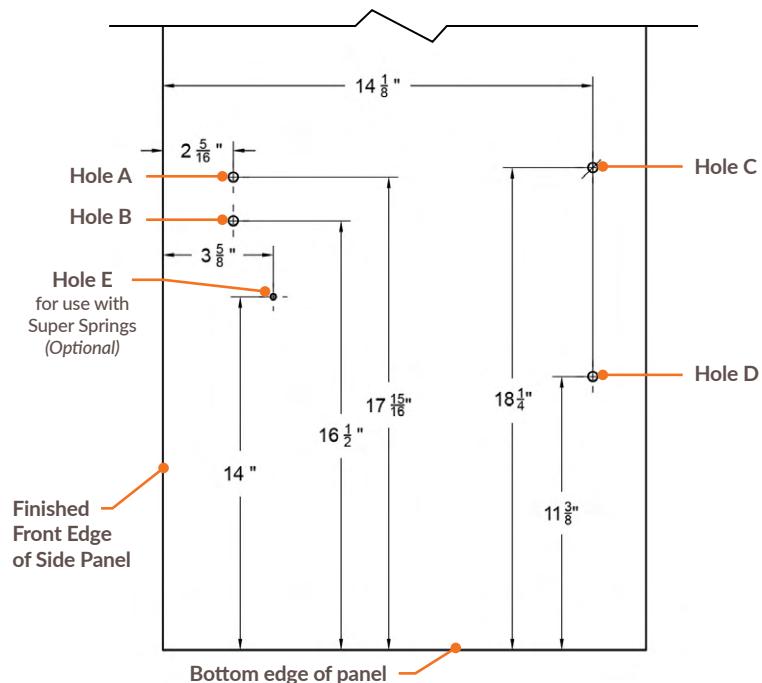
DRILL PATTERN FOR REGULAR LEGS

Figure 8: Inside of Left Side Panel



DRILL PATTERN FOR EXTENDED LEGS

Figure 9: Inside of Left Side Panel



MOUNTING THE METAL BRACKETS

Lay out the Front Kick, Bottom Stretcher and Headboard on a hard, flat surface – with your finished, front fascias facing the floor. You will be attaching the 6-hole metal brackets to the back side of these three panel.

Locate the metal brackets and screws from the Hardware Bag.

BED CABINET HARDWARE BAG #1



TOOLS: Power Drill, #2 Robertson Drill Bit

1 Locate the Front Kick, two 6-hole metal brackets, and four #8 $\frac{5}{8}$ " panhead wood screws. Using your power drill with Robertson drill bit, and making sure that each metal bracket is flush with the end of the Front Kick, screw in two screws through the corresponding holes of the metal brackets and into the ends of the Front Kick on either side. Skip the middle holes of the metal brackets. Refer to [Figure 10](#).

2 Locate the Bottom Stretcher, four 6-hole metal brackets, and eight #8 $\frac{5}{8}$ " panhead wood screws. Using your power drill with Robertson drill bit, mount two metal brackets along the left, unfinished edge – each bracket should be installed $\frac{1}{2}$ " away from the corner. Screw in two screws through the corresponding holes of the metal brackets and into the left edge of the Bottom Stretcher. Skip the middle holes of the metal brackets.

Repeat this process by installing two metal brackets along the right, unfinished edge of the Bottom Stretcher. Refer to [Figure 11](#).

IMPORTANT NOTE: If you are notching out the Left & Right Side Panels to accommodate a baseboard, attach the four metal brackets to the front side of the Bottom Stretcher.

Figure 10

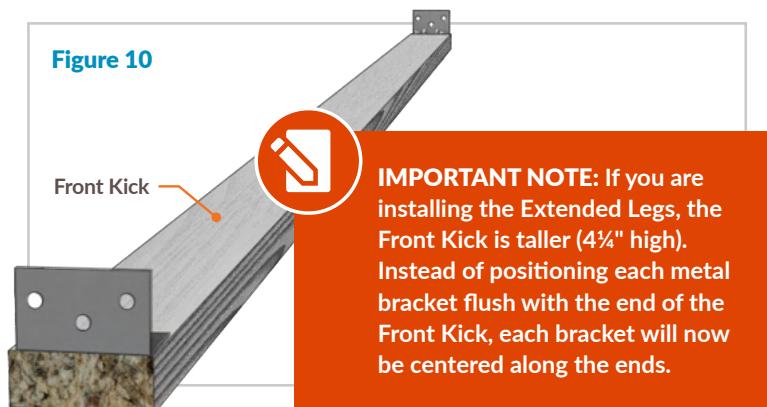
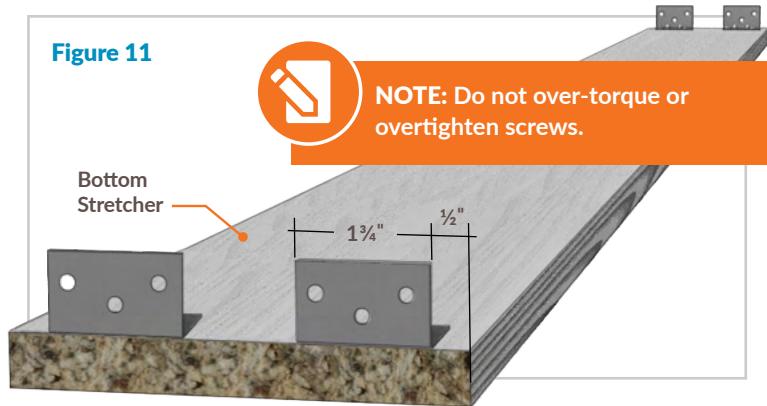


Figure 11



TOOLS: Tape Measure, Ruler and Pencil

3 On the back of the Headboard, measure and mark the locations for the 6-hole metal brackets with a pencil. Starting on the upper left corner, measure down $5\frac{1}{4}$ " from the top edge of the Headboard. Next, you'll mark just slightly below that at 7". Make sure the pencil marks are on the back of the Headboard – the side that will be against the wall.

From the bottom left corner, measure up $2\frac{1}{2}$ ". Next, you'll mark just slightly above that at $4\frac{1}{4}$ ". Refer to [Figure 12](#). Repeat these steps along the right side.

TOOLS: Power Drill, #2 Robertson Drill Bit

4 Locate four 6-hole metal brackets, and eight #8 $\frac{5}{8}$ " panhead wood screws. Using your power drill with Robertson drill bit, mount two metal brackets along the left, unfinished edge – one bracket between each of your pencil marks. Screw in two screws through the corresponding holes of the metal brackets and into the left edge of the Headboard. Skip the middle holes of the metal brackets. Refer to [Figure 12](#).

Figure 12

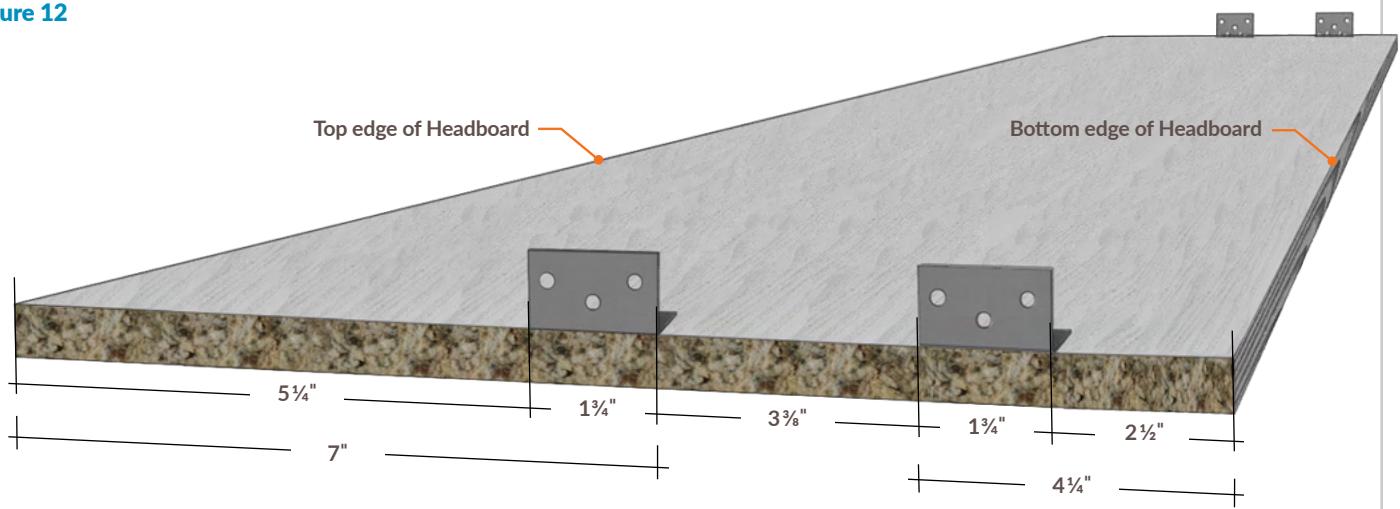
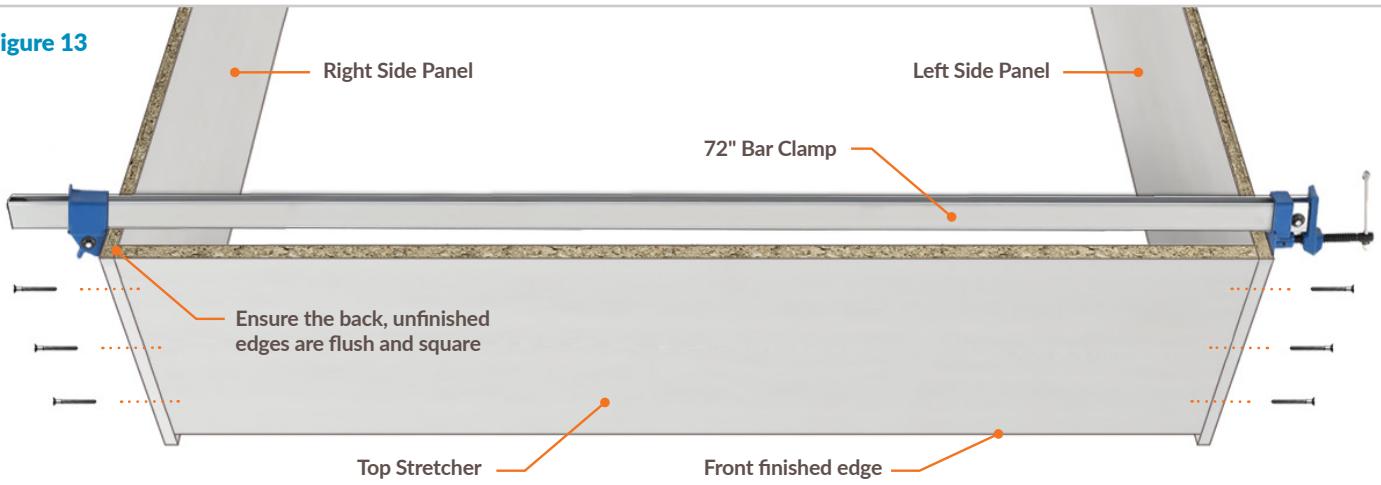


Figure 13



DRILLING FOR THE CONFIRMAT SCREWS

TOOLS: Wood Clamps, Power Drill, $\frac{3}{16}$ " Drill Bit

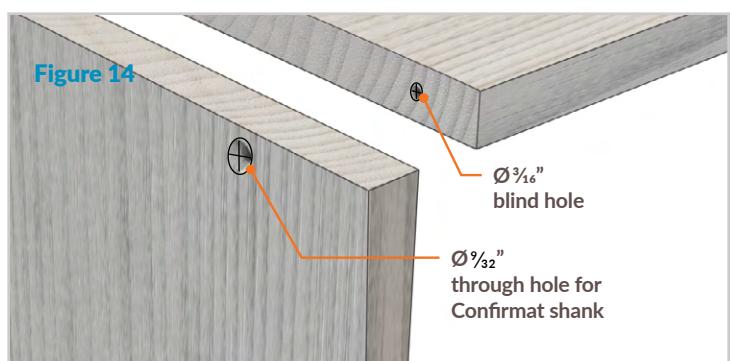
- 1 Align the back, unfinished edges of the Left & Right Side Panels with the Top Stretcher and then clamp them with 72" wood bar clamps.

Using a $\frac{3}{16}$ " (5mm) bit, drill three Confirmat Screw holes through the Side Panels and into the Top Stretcher, to a depth of 2". Keep the outer holes 1" away from the front and back edges of the Top Stretcher. Center the third hole between them. Refer to Figure 13.



TOOLS: Power Drill, $\frac{3}{32}$ " Drill Bit

- 2 Unclasp and re-drill the Left & Right Side Panel (shank) holes using a $\frac{3}{32}$ " (7mm) drill bit. Do not countersink these holes. Refer to Figure 14.



BED CABINET ASSEMBLY

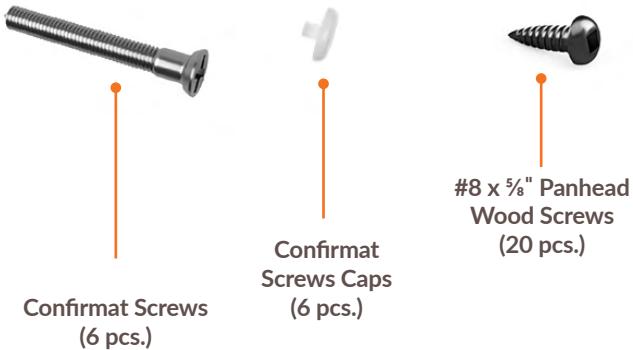
Before assembling the bed cabinet, properly sand and clean each panel. You may wish to apply your preferred paint or stain finish to each piece.



NOTE: Do not countersink Confirmat Screws or over-torque metal bracket screws.

Locate the following components from the Bed Cabinet Hardware Bag #1.

BED CABINET HARDWARE BAG #1



1 You are now ready to assemble the cabinetry panels. Ensure that the finished edges of your panels are facing downwards, and that the unfinished edge of each panel is facing upwards. Refer to [Figure 15](#).



TWO PEOPLE NEEDED FOR ASSEMBLY

2 Stand in the middle of the cabinet. Start with the Top Stretcher and Left Side Panel, and position the ends of these boards so that the Confirmat Screws can be properly aligned and installed. Using your power drill with a #2 Phillips drill bit, screw in three Confirmat Screws through the Left Side Panel and into the Top Stretcher. Do not over-torque or countersink the screws. The Confirmat screw head should be flush with the Left Side Panel. Refer to [Figure 16](#).

Repeat this step on the Right Side Panel.

3 Press-fit the six Confirmat Screw Caps. Refer to [Figure 16](#).

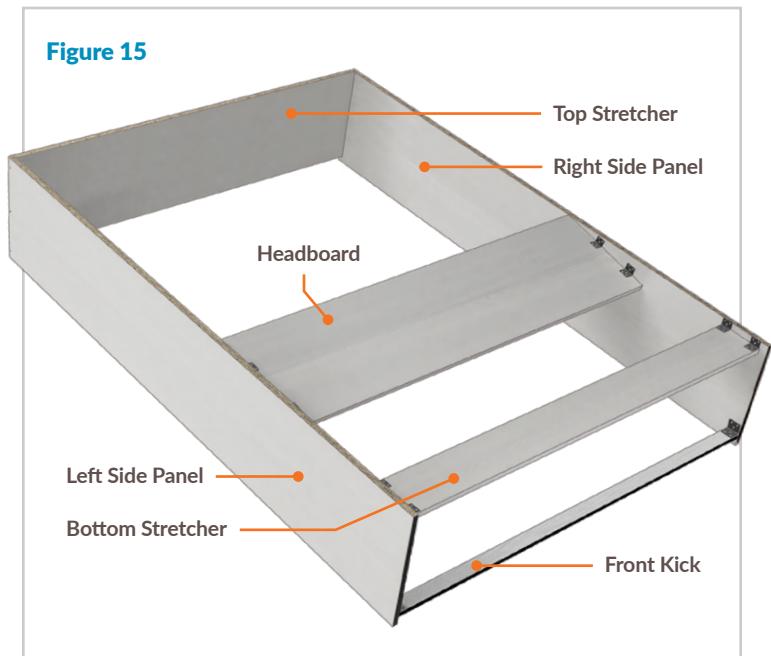


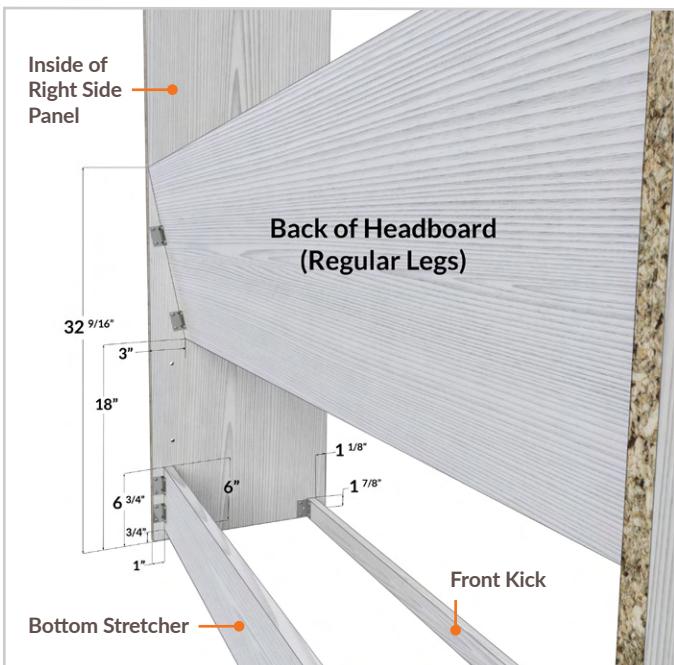
Figure 15



Figure 16

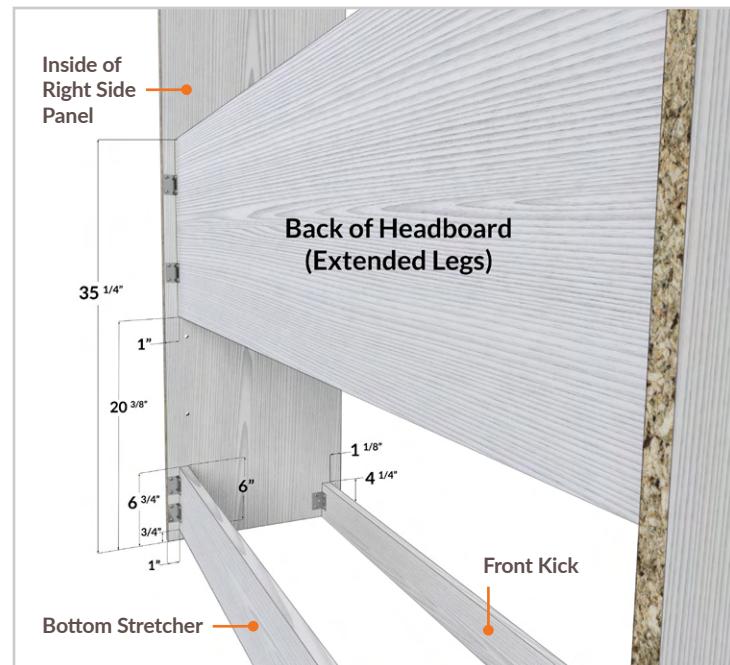
REGULAR LEGS HEADBOARD

Figure 17: Rear View



EXTENDED LEGS HEADBOARD

Figure 18: Rear View



TOOLS: Power Drill, #2 Robertson Drill Bit

4 Locate the Headboard. Position the back of the Headboard between the two marks along your pencil line. Supporting the weight of this large panel, ensure the metal brackets do not protrude beyond the back of the cabinet before affixing the metal brackets.

Using your power drill with Robertson drill bit, screw in two #8 $\frac{5}{8}$ " panhead wood screws through the corresponding holes of each metal bracket and into the Side Panel. Skip the middle holes of each metal bracket. Refer to [Figure 17 \(Regular Legs Headboard\)](#) or [Figure 18 \(Extended Legs Headboard\)](#).

5 Locate the Bottom Stretcher. Ensuring that the Bottom Stretcher is raised $\frac{3}{4}$ " from the bottom of the Left & Right Side Panels, positioning the Bottom Stretcher accurately between your pencil marks. Using your power drill with Robertson drill bit, screw in four #8 $\frac{5}{8}$ " panhead wood screws. Refer to [Figure 19](#).

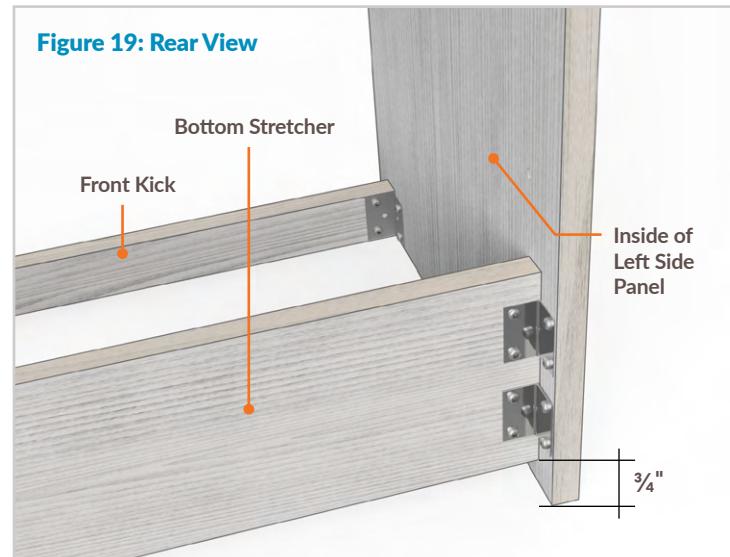


IMPORTANT NOTE: If you are notching out the Left & Right Side Panels to accommodate a baseboard, attach the four metal brackets to the front side of the Bottom Stretcher.



TWO PEOPLE NEEDED FOR ASSEMBLY

Figure 19: Rear View



6 Locate the Front Kick. Position the Front Kick panel between your two pencil marks, and using your power drill with Robertson drill bit, screw in four #8 $\frac{5}{8}$ " panhead wood screws. Refer to **Figure 20** and **Figure 21**.

Installation of the Front Kick is critical, as it plays an integral role in the stability of the bed cabinet and prevents the two side panels from bowing out when lowering the bed.

If the bed is being installed on a hard surface, like hardwood flooring, ensure the Front Kick panel is flush with the bottom of the Left and Right Side Panels. If the bed is being installed on a carpeted floor, raise the Front Kick so it sits on top of the carpet, but do not exceed $\frac{1}{4}$ " off the floor. Raising the Front Kick more than $\frac{1}{4}$ " off the floor will interfere with the bed operations.

Figure 20

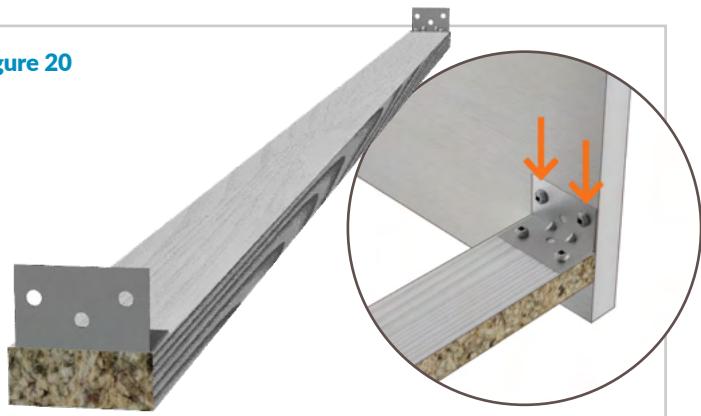
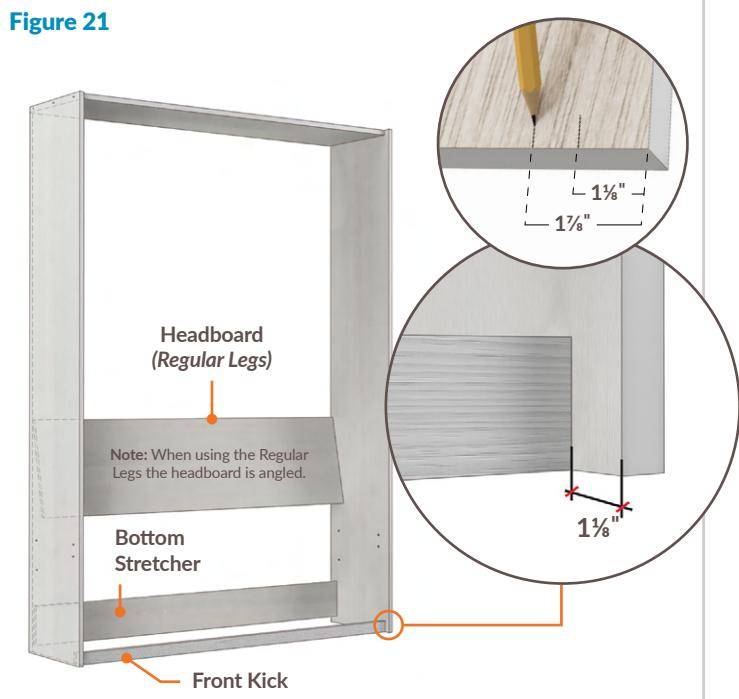


Figure 21



BASEBOARD NOTCH

Your Murphy-Bed Cabinet must be installed flush against the wall, or it will be unsafe and not function properly.

EXISTING BASEBOARD

If you have a baseboard installed on the wall, complete one of the following two options before continuing with your Murphy Bed installation. If no baseboard exists on the wall, please disregard these instructions.

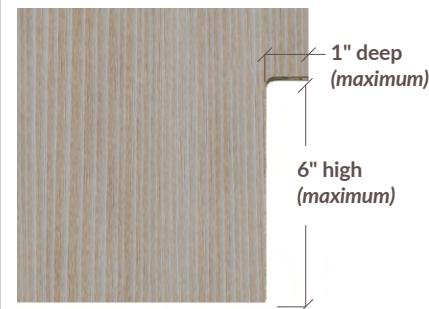
EITHER:

- A. Carefully remove the baseboard from the wall and cut out the section needed to accommodate the Murphy Wall-Bed; or
- B. Cut a notch in the Side Panels to match the height and depth of your baseboard. The notch must not exceed 6" high x 1" deep.

No Notch - Figure A



Custom Notch - Figure B



IMPORTANT NOTE:
If you are notching out the Left & Right Side Panels to accommodate a baseboard, attach the four metal brackets to the front side of the Bottom Stretcher.

SECURING THE BED CABINET TO THE WALL

For safety, two people are required to lift up the assembled bed cabinet so that you can mount it to the wall. Once you have it positioned where you want it, securely mount the cabinet to the wall studs, or other solid structural members.

Locate the Bed Cabinet Hardware Bag, which will have all the components you require.

BED CABINET HARDWARE BAG



#8 x 2" Flathead
Wood Screws
(6 pcs.)



2" x 2" L-Brackets
(3 pcs.)



#8 x 3/4" Flathead
Wood Screws
(6 pcs.)



Red Danger Label
(1 pc.)



1/4" Rounded
Bumper Buttons
(3 pcs.)



DANGER!

You must secure the cabinet to solid structural members and not merely to the wall finish. If you are not attaching the bed cabinetry to a wood stud wall, see your local hardware retailer for metal stud screws or concrete 1 1/4" x 1/4" expansion bolts and a concrete drill bit. In either case, be careful not to hit electrical wiring or plumbing behind the drywall.



TWO PEOPLE NEEDED FOR ASSEMBLY

TOOLS: Ladder, Stud Finder, Pencil

- 1 Use a step ladder to access the top of the bed cabinet. Locate three wall studs or some other solid structural member using your stud finder. Mark the middle of the stud location with a pencil. Continue to do this until you have located all three studs.

TOOLS: Power Drill, #2 Robertson Drill Bit, Measuring Tape, 24" Level

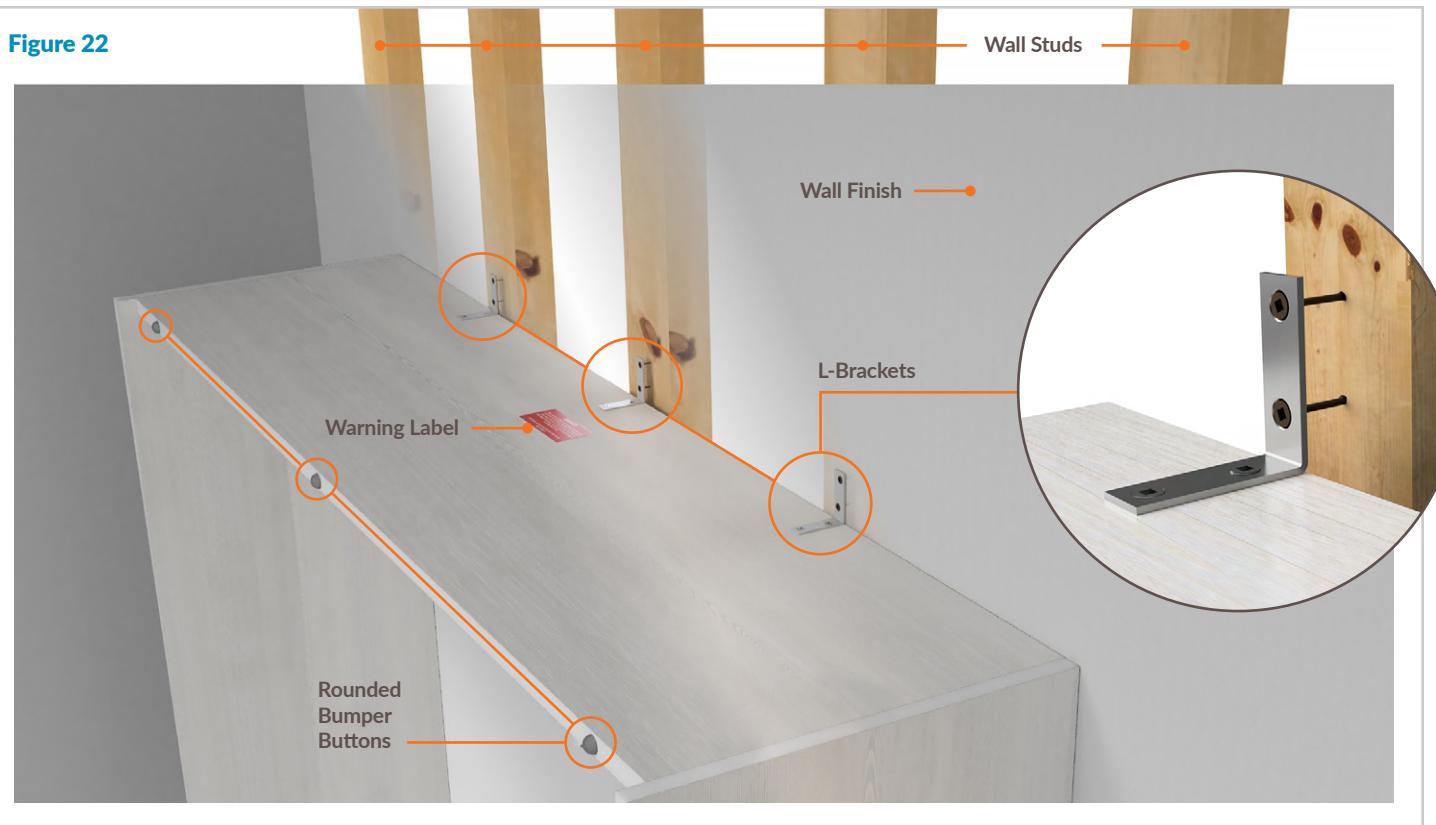
- 2 Starting with the middle bracket, and using your power drill with Robertson drill bit, screw in two #8 x 2" flathead wood screws through the 2" x 2" metal L-Bracket and into the structural member. To prevent bowing, do not place weight on the Top Stretcher when attaching the L-Brackets. Then drive two #8 x 3/4" flathead wood screws down through the middle L-Bracket and into the Top Stretcher of the bed cabinetry.



WARNING!

If you are power driving the screws that attach the bed cabinet to the wall, be extremely careful not to strip (over-torque) the holes as this can result in the bed cabinet separating from the wall – causing serious injury or death. Stripping the holes will automatically void the warranty. Murphy Wall-Beds Hardware Inc. will not accept any liability for any accidents resulting from improper assembly or installation.

Figure 22



NOTE: It is important that the bed cabinet is square. Measure diagonally from corner to corner across the face of the cabinet from both sides to confirm that the cabinet is true and square. The measurements should be the same. You should also place your 24" level on the sides and top of the cabinet to ensure that it is perfectly level.

3 For the Left and Right brackets, only drive the two #8 x 2" flathead wood screws through the L-Bracket and into the wall, and do not install the remaining #8 x 3/4" flathead wood screws into the Top Stretcher until after you have ensured that the cabinet is both level and square.

Refer to [Figure 22](#).

4 Drive the remaining #8 x 3/4" flathead wood screws through the Left and Right L-Brackets and into the Top Stretcher.

5 Attach the provided Warning Label onto the Top Stretcher.



6 Finally, place the three 1/4" rounded bumper buttons along the edge of the Top Stretcher.

INSTALLING THE SPRINGS INTO THE LIFT MECHANISM

Before you begin, we suggest you watch our Murphy Wall-Bed installation videos. They can be found on the Support page of our website: MurphyBeds.com/Support.

Based on the bed size and construction material your Murphy Bed is made from, determine the appropriate number of metal springs to install in each mechanism from the chart below. If unsure, err on the side of adding more springs as it is easier to remove a spring rather than add one later on.

Determine your required number of springs:

Table 1

Bed Size	Bed Panel Material	
	Wood Veneer/Plywood Core	Melamine/Particle Board
Single/Twin	4-5 springs per side	5-6 springs per side
Double/Full	6-7 springs per side	7-8 springs per side
Queen	8-9 springs per side	8-9 springs per side

IMPORTANT NOTE: All drilling instructions provided are based on using the enclosed "Regular Springs". Occasionally, you may require stronger springs to support a heavier mattress, face molding, additional stiffeners, etc., and the "Super Springs" are an excellent alternative to provide this support.

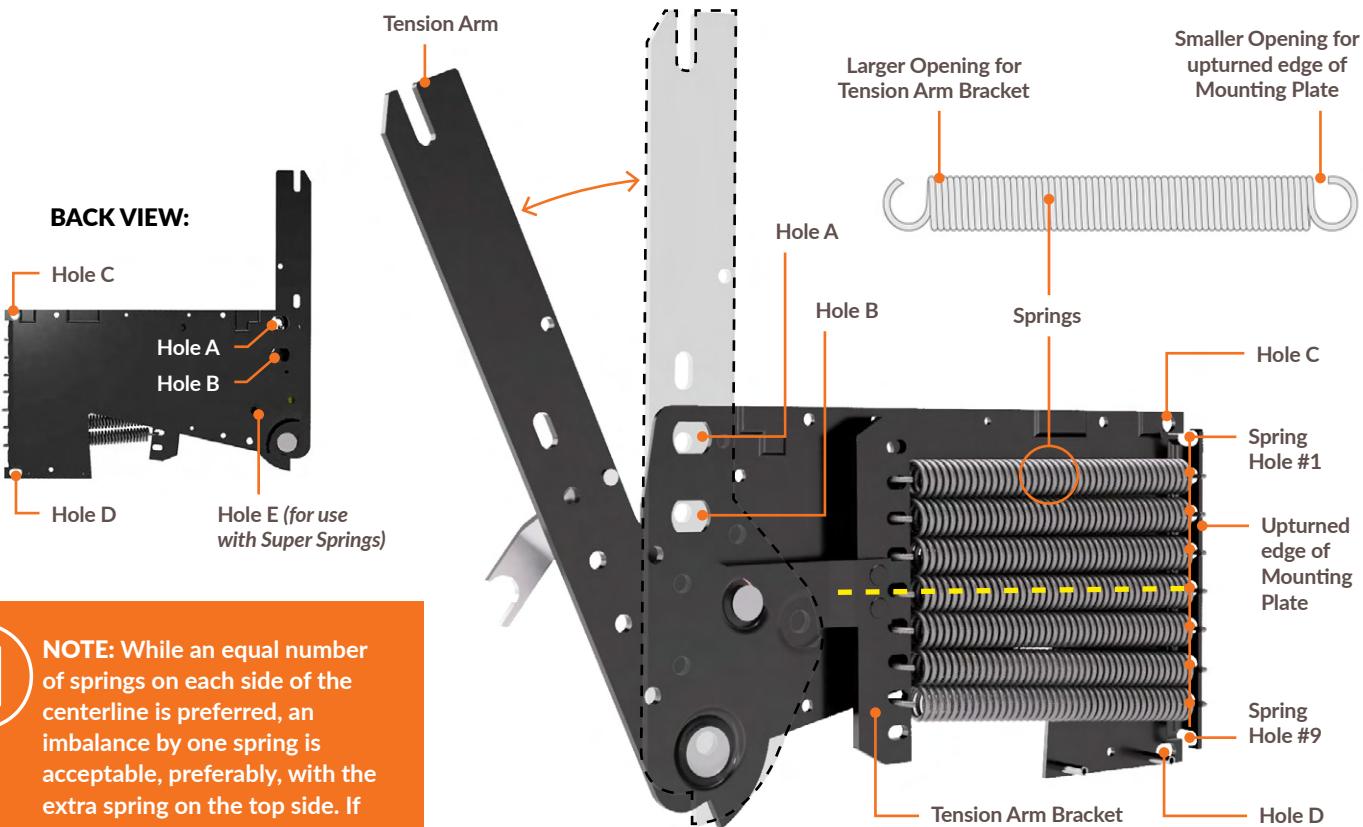
In all cases, you should use the maximum number of "Regular Springs" and substitute "Super Springs" (*up to a maximum of 2 per side*) to assist with the extra weight. Please remember to install the "Super Springs" in the middle of the spring locations.

If using "Super Springs", we recommend adding an extra bolt when attaching the Lift Mechanisms to the Side Panels. The extra bolts in Bag #2 will provide additional support for the Lift Mechanisms. Refer to **Figure 8 (Regular Legs)** or **Figure 9 (Extended Legs)** for the drilling patterns for Hole E.

Figure 23: Left Lift Mechanism

Locate the mechanism box and remove the two bags of Springs, plus the Left and Right Mechanisms.

— Centerline



TOOLS: Pump Pliers

1 Starting with the Left Lift Mechanism, adjust the Tension Arm Bracket to make sure it is properly aligned with the opposing side (*upturned edge of Mounting Plate*). Refer to **Figure 23: Left Lift Mechanism**. Determine the centerline for the springs, this will be your starting point. If installing an odd number of springs, start installing from the centerline. If you are installing an even amount of springs, leave this center spring out. Refer to **Figure 24**.

Note that the hook ends of the springs have slightly different ends. The end with the smallest opening is installed under the upturned edge of the Mounting Plate. The hook with the largest opening is installed on the Tension Arm Bracket. The hook ends should always be facing upwards when installed. Refer to **Figure 25**.

2 Hook your first spring into the Mounting Plate, lay the spring down, and slide it under the matching hole on the Tension Arm Bracket. Make sure that the Tension Arm Bracket is properly aligned with the correct hole and that all hooks are facing upwards. Refer to **Figure 26** and **27**.

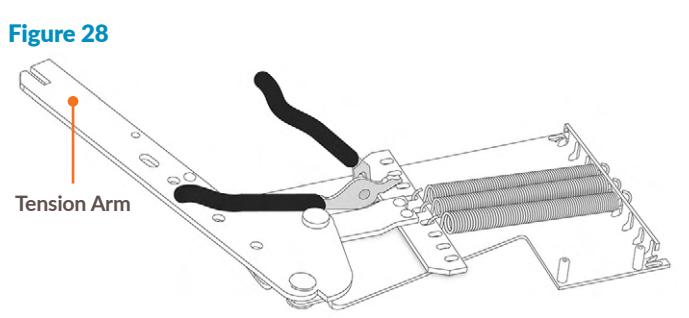
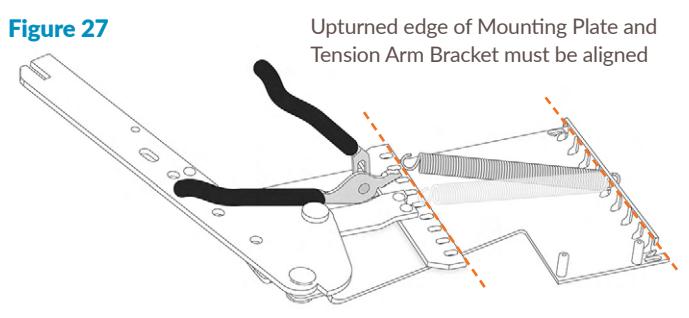
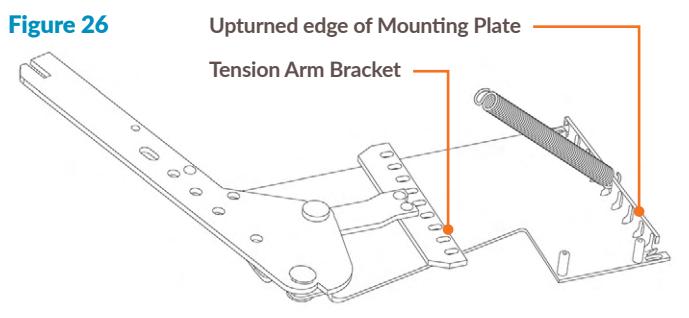
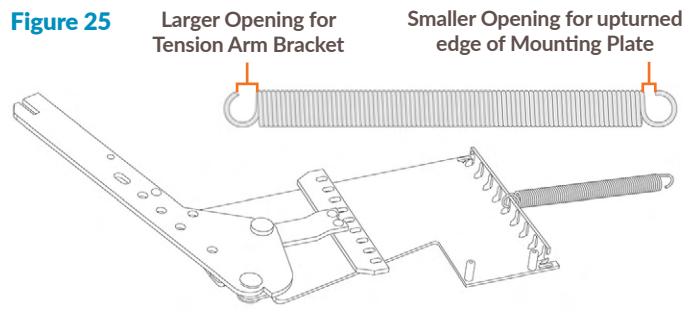
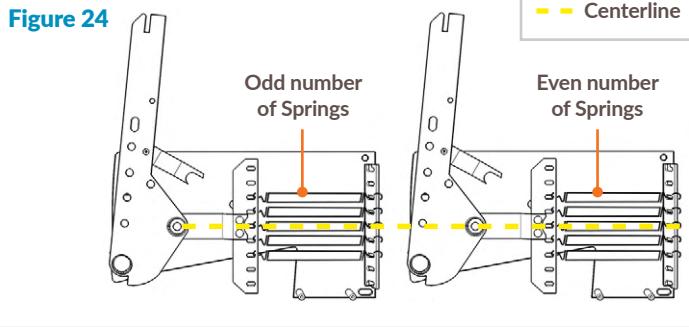
TIP

You may find it easier to slide the spring hooks under the Tension Arm Bracket if you pry the Tension Arm Bracket upwards with pump pliers, a wooden wedge, or similar device.

3 Continue this process with the other springs, working your way out from the centerline, alternating top and bottom, until you have installed the correct number of springs for your size of bed. Be sure that the holes in the Mounting Plate correspond to the holes in the Tension Arm Bracket. Refer to **Figure 28**.

4 Repeat these steps above to install the springs on the Right Lift Mechanism. Use the same number of springs and the same configuration on both Lift Mechanisms.

5 Once completed, adjust the Tension Arm on both Lift Mechanisms to make sure the springs are installed correctly. Refer to **Figure 28**.



MOUNTING THE MURPHY BED MECHANISM

When installing the Left and Right Mechanisms, you're going to need Hardware Bag #2.

HARDWARE BAG #2



3/4" Hexagon
Cam Washers
(2 pcs.)



5/16" x 1 1/4" Flathead
Slot Machine Screws
(10 pcs.)



5/16" x 7/8" (OD)
Flat Washers
(2 pcs.)



5/16" Plain
Hexagon Nuts
(10 pcs.)



IMPORTANT NOTE: Do not overtighten the $\frac{5}{16}$ " plain hexagon nut onto the $\frac{5}{16}$ " x 1 1/4" flathead slot machine screws, as this can damage the Side Panel material. The head of the $\frac{5}{16}$ " x 1 1/4" flathead slot machine screw needs to be flush with the surface of the Side Panel.

TOOLS: Flat Head Screwdriver, 1/2" Wrench

- 1 On the Left Side Panel and Left Lift Mechanism, identify the pre-drilled holes A, B, C and D. Refer to [Figure 23: Left Lift Mechanism](#) and [Figure 29](#).
- 2 Insert one of the $\frac{5}{16}$ " x 1 1/4" flathead slot machine screws into the countersunk Hole C from the outside of the Left Side Panel. Position the left-side Lift Mechanism hole over the screw. Loosely thread a $\frac{5}{16}$ " plain hexagon nut onto Hole C. Refer to [Figure 30](#).
- 3 Insert similar screws into holes A, B, and D from the outside of the Left Side Panel. At Hole B, place the $\frac{5}{16}$ " x 7/8" flat washer onto the screw and then loosely thread the hex nut. At Hole D, thread only the nut onto the screw. Refer to [Figure 30](#).
- 4 For Hole A, locate one of the $\frac{3}{4}$ " hexagon cam washers and a $\frac{5}{16}$ " plain hex nut. Place that $\frac{3}{4}$ " hexagon cam washer with the protruding part into the slot of the Mounting Plate, so that the larger part of the $\frac{3}{4}$ " hexagon cam washer is upwards.
- 5 Using a flat head screwdriver and 1/2" wrench, tighten all four nuts evenly being extra careful to ensure that the $\frac{3}{4}$ " hexagon cam washer does not rotate. Do not overtighten the screws. The screw should be flush with the surface of the Side Panel but not sunken into the Side Panel.
Repeat the steps above for the Right Mechanism and Right Side Panel.

Figure 29

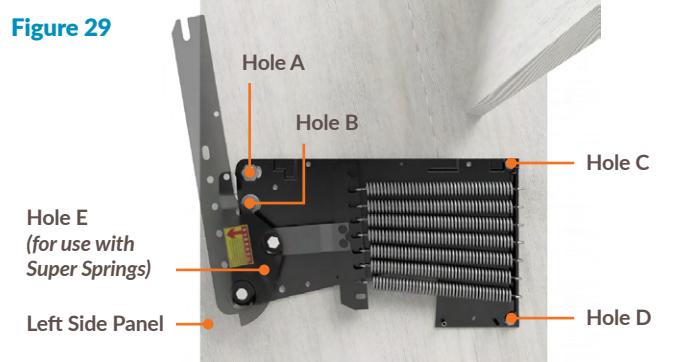
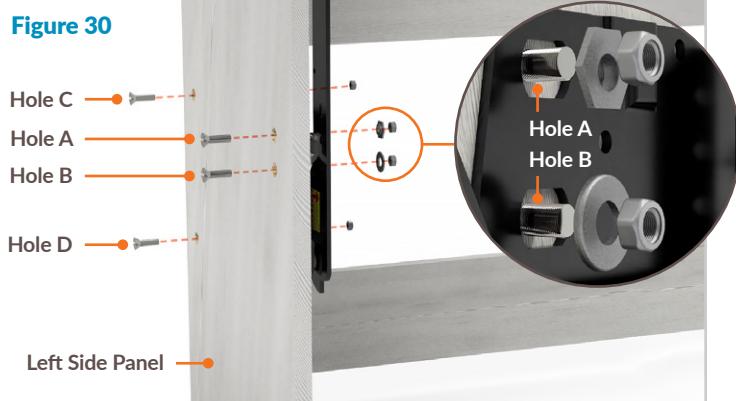


Figure 30



IMPORTANT NOTE: If you are adding crown molding, turn the hexagon cam washer 180-degrees so that the larger part is facing downwards to ensure the correct top clearance. The hexagon cam washer is used for adjustments when placing the bed panel in the surrounding cabinet.



Pointing downwards

ASSEMBLING THE ELITE ALUMINUM BED FRAME

Before you begin, we suggest you watch our Murphy Wall-Bed installation videos. They can be found on the Support page of our website: MurphyBeds.com/Support.

To start, locate the Hardware Bag #4 and #6.

HARDWARE BAG #4 AND #6

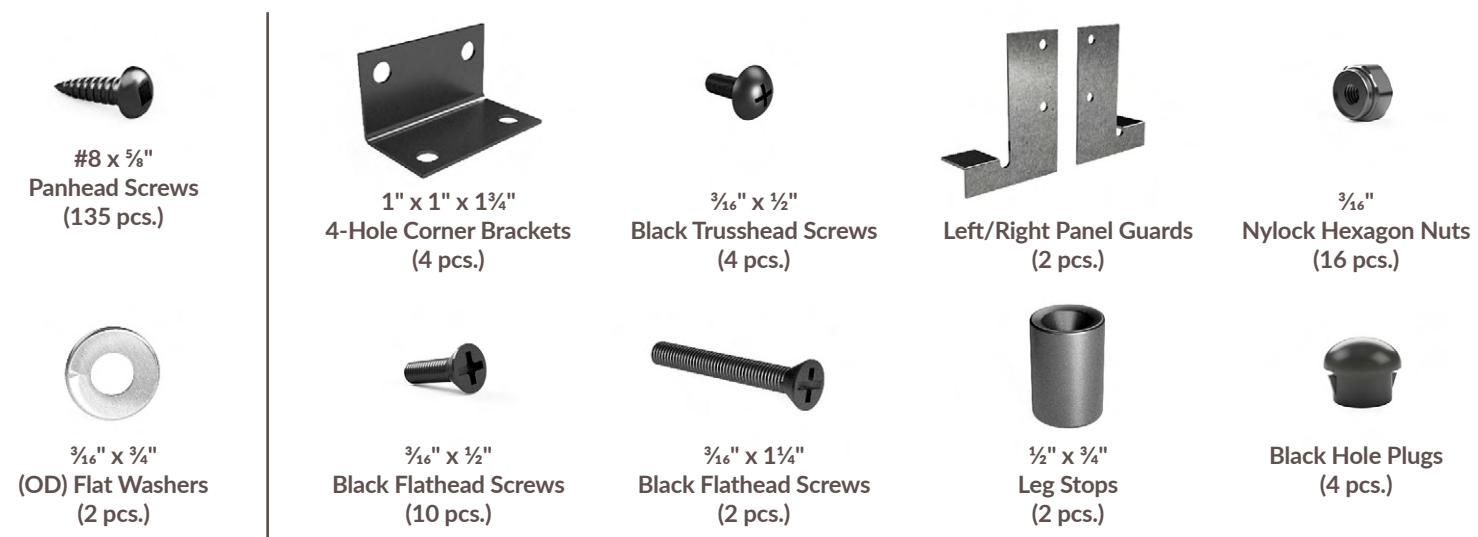
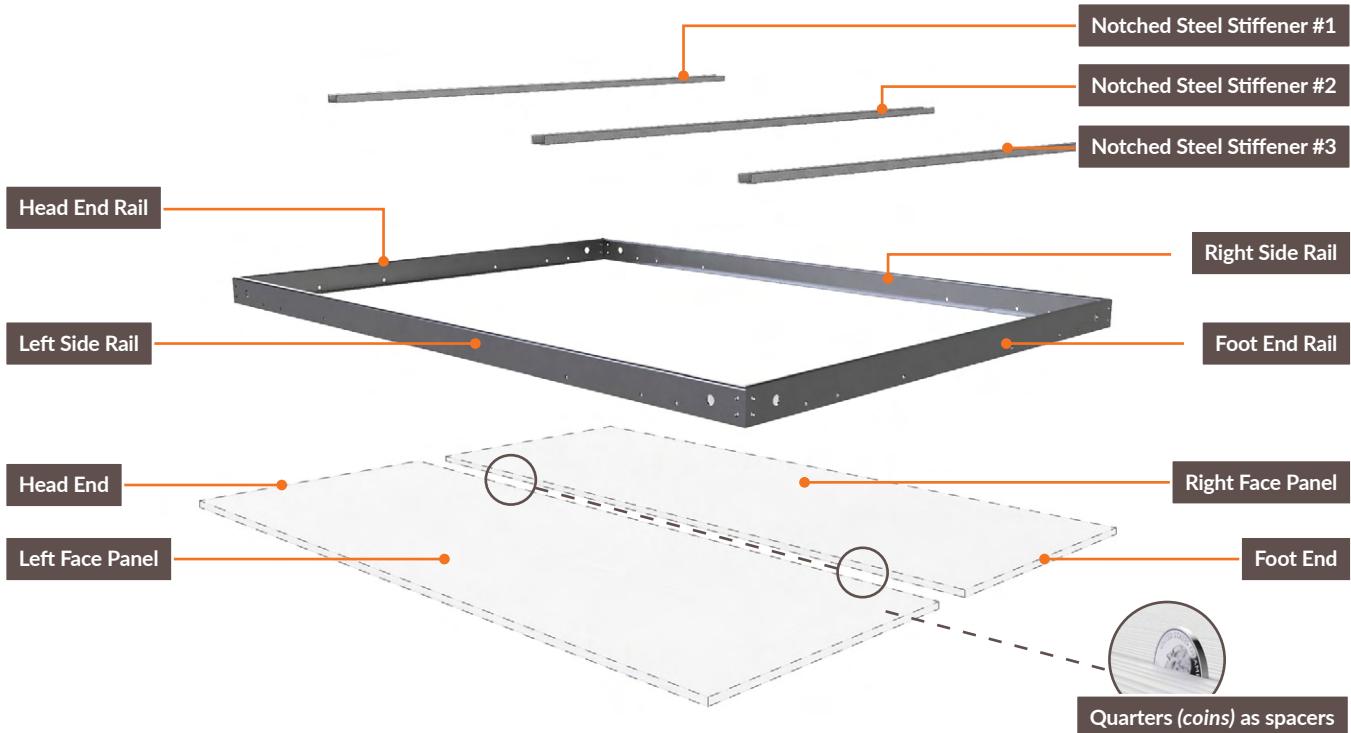


Figure 31: Components of the unassembled Murphy Bed Frame



1 We recommend that you lay the Left and Right Face Panels down on a flat surface with either a carpet, cardboard or blanket underneath to protect the face.

2 Identify the Head End (*located at the bottom of the wall cabinet when the unit is closed*) and orientate the Head End closest to the wall cabinet to facilitate future lifting of the bed frame onto the Lift Mechanisms. Refer to [Figure 31](#).

TOOLS: 2 x Quarters (Coins)

3 Using your quarters (coins) as spacers between the Left and Right Face Panels, place one quarter at the top (Head End) and one quarter at the bottom (Foot End). Refer to [Figure 31](#). At the Foot and Head Ends, ensure the Face Panels are lined up flush and pushed snugly together, but that you are still able to move the quarters up and down.

TIP

You can also use painter's tape to temporarily secure the two Face Panels and coins together without obstructing the areas where the Bed Frame Rails will be affixed.

TOOL: Tape Measure

4 Measure the Face Panels diagonally from corner to corner to ensure the panels are square.

5 With the protective paper backing still on the adhesive tape, arrange the aluminum Bed Frame Rails on top of the Face Panels. The Head End Rail, which will be the end closest to the wall cabinet, has to be flush with the end of the Face Panels. This is also a good time to remove any tape that may lay underneath the aluminum frames.



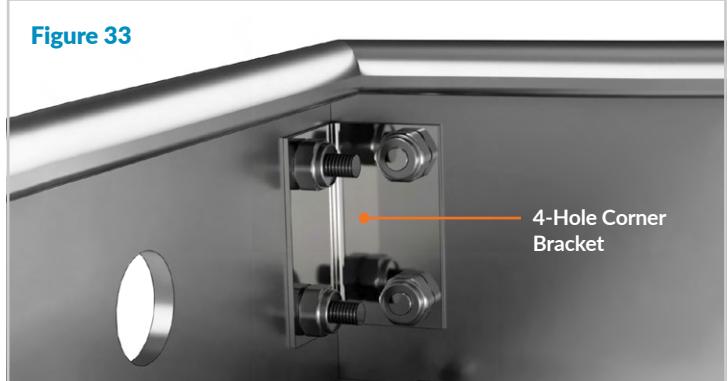
IMPORTANT NOTE: The Bed Frame should remain flush with the Head End of the Face Panels while you establish equal spacing on the Left and Right Bed Frame Rails. Refer to [Figure 36](#).

6 From Bag #6, get the two Panel Guards and four $\frac{3}{16}$ " x $\frac{1}{2}$ " black trusshead screws. Position the Panel Guards against the outer ends of the Head End Rail so that the bent tabs sit on the inner surface at the corner of the Left and Right Face Panels. To hold each Panel Guard loosely in

Figure 32



Figure 33

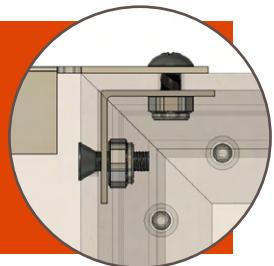


place, insert two $\frac{3}{16}$ " x $\frac{1}{2}$ " black trusshead screws through the two holes of the Panel Guard and then through the corner holes in the Head Frame Rail. Refer to [Figure 32](#).

The Panel Guards are intended to provide some protection for the Face Panels if the bed is lowered without the bed legs in their proper position.



IMPORTANT NOTE: Ensure that all trusshead and flathead screws are positioned properly on the outside of the Bed Frame and their respective nuts are on the inside as shown alongside.



7 Fit a 1" x 1" x $1\frac{3}{4}$ " 4-hole corner bracket inside the Left and Right corners of the Bed Frame at the Head End of the cabinet. Secure these corner brackets using the provided $\frac{3}{16}$ " x $\frac{1}{2}$ " black flathead screws and $\frac{3}{16}$ " Nylock hexagon nuts, and then hand tighten the nuts. Refer to [Figure 33](#).

Figure 34

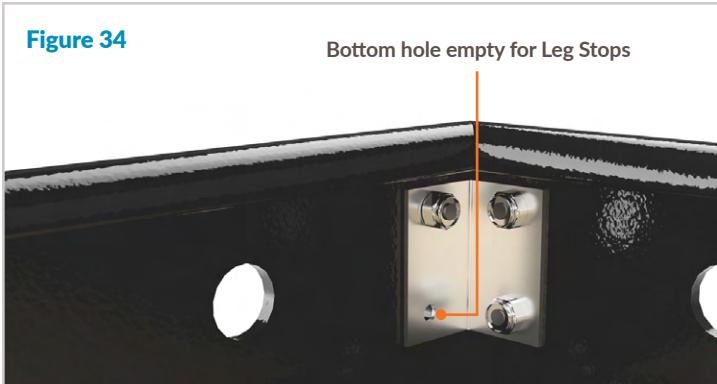
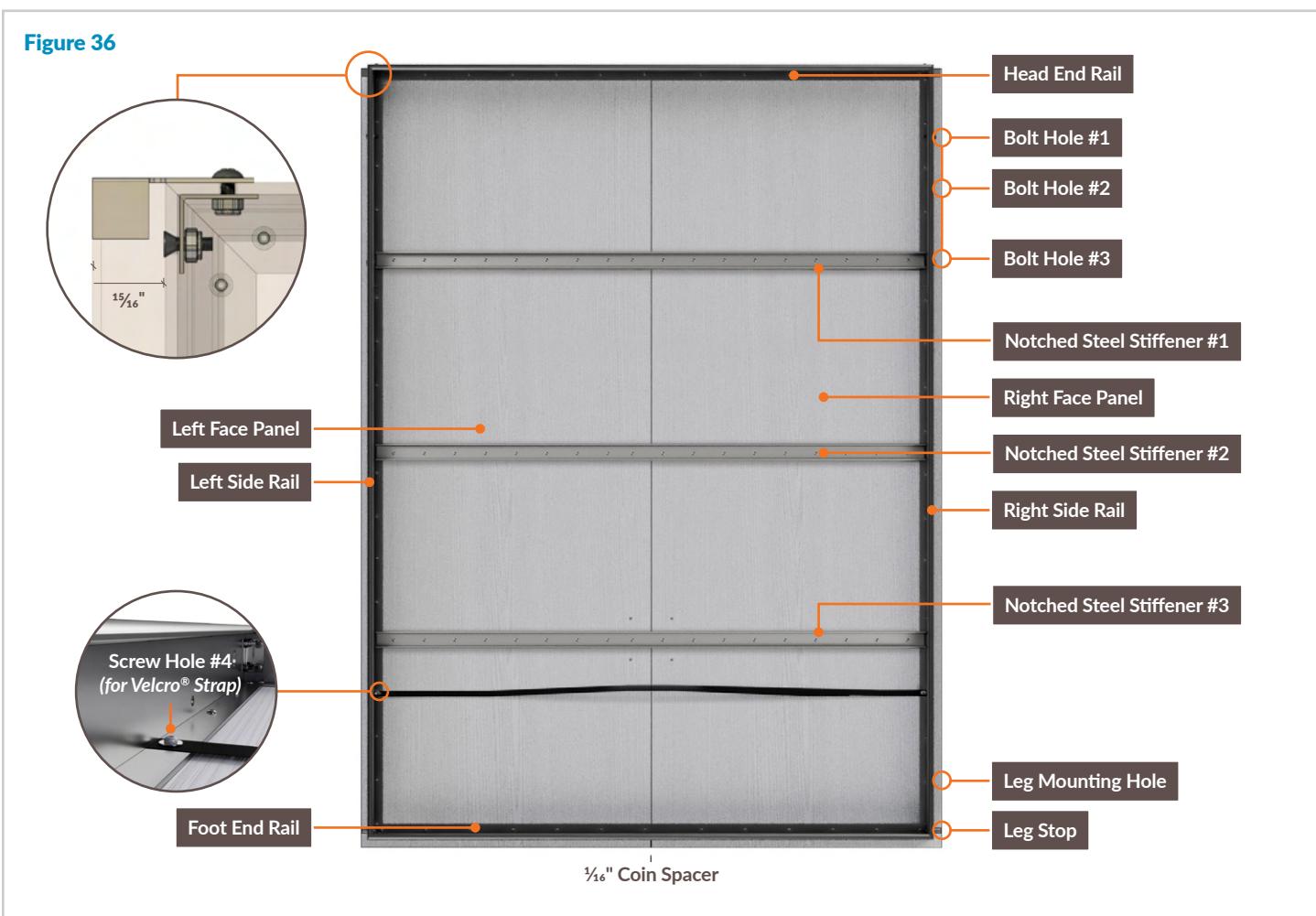


Figure 35



Figure 36



8 At the Foot End of the Bed Frame, connect the Left and Right Side Rails and Foot End Rail using a 1" x 1" x 1 3/4" 4-hole corner bracket and three 3/16" x 1/2" black flathead screws. Leave the bottom hole open for the Leg Stops on the Left and Right Side Rails. Refer to [Figure 34](#).

9 Locate the Leg Stops and insert a long 3/16" x 1 1/4" black flathead screw into each one. Then insert one of these into the bottom hole of the Foot End 4-hole corner bracket on the Left Side Rail. Hand tighten the Leg Stop to the Left Side Rail using a 3/16" Nylock hexagon nut. Refer to [Figure 35](#).

10 Repeat the previous step on the Right Side Rail to install the other Leg Stop. Refer to [Figure 34](#) and [Figure 35](#).

TOOLS: Phillips Screwdriver, $\frac{3}{16}$ " Wrench

11 Using a Phillips screwdriver and a $\frac{3}{16}$ " wrench, or a socket wrench, tighten all of the $\frac{3}{16}$ " Nylock hexagon nuts on all four corners of the Bed Frame.

TOOLS: Tape Measure, Pencil

12 Ensure that the Bed Frame Rails run parallel to the side of the Bed Face Panels. It's important that the bed frame is positioned equally on both sides – it should be approximately $1\frac{5}{16}$ " from the edges of the Bed Face Panels, depending on the coin spacers used. Confirm this $1\frac{5}{16}$ " measurement on either side. At the Foot End and Head End, re-measure to ensure nothing has shifted and is equal on the left and right sides. Make sure the Bed Face Panels are still tight together, aligned with one another at both ends, and snug against the two coin spacers. Refer to [Figure 36](#).

13 With a pencil, lightly trace the outside and inside position of the Bed Frame Rails onto the surface of the Face Panels. These pencil lines will help you accurately position the Bed Frame Rails during installation.

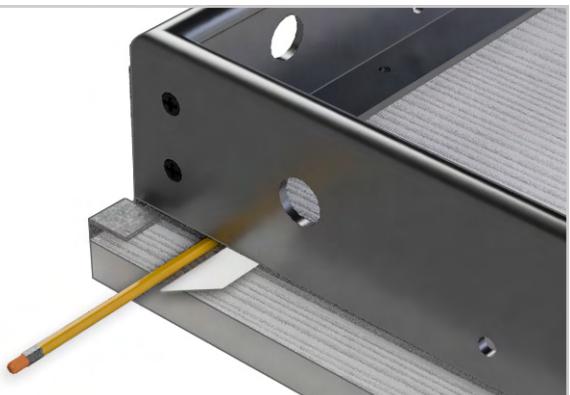
TOOLS: Screwdriver, Power Drill, #2 Robertson Drill Bit (6" Long)

14 Starting at the Head End Frame Rail, lift up the left-hand corner of the frame, peel back about 6"-8" of the protective paper backing from the double-sided tape, and fold over the ends so that you can pull on these paper backings later in the installation process. **Do not remove all the paper backing.** While you are verifying your measurements, use a screwdriver (or pencil) to prop up the left corner, keeping the exposed adhesive tape away from the Face Panels. Refer to [Figure 37](#).

15 After ensuring that the Head End Frame Rail is flush with the Head End of the Face Panels and aligned evenly with your pencil lines, remove the screwdriver (or pencil), then press down firmly on the left-hand corner of the frame to adhere the tape. Refer to [Figure 37](#).

16 Use your power drill and Robertson drill bit to drive a single, #8 x $\frac{5}{8}$ " panhead screw through the left corner of the Head End Frame Rail and into the Left Face Panel. Drive one more $\frac{5}{8}$ " panhead screw into the end of the Left Side Rail – this will tack the left corner in place.

Figure 37



17 Repeat these steps to secure the right-hand corner of the Head End Frame Rail: peel back about 6"- 8" of the protective paper backing, fold over the paper ends, verify your positioning with your pencil lines on the Face Panels, and press down firmly on the right-hand corner of the frame to adhere the tape.

18 Using your power drill and Robertson drill bit, drive one #8 x $\frac{5}{8}$ " panhead screw through the right corner of the Head End Frame Rail and into the Right Face Panel. Drive another $\frac{5}{8}$ " panhead screw into the end of the Right Side Rail – tacking the right corner in place. It is extremely important that you do not over-torque the power drill as this could cause the screws or holes to strip.

19 Next, reposition yourself to the Foot End of the bed. Repeat the steps above to secure both corners of the Foot End Rail, aligning the frame with your pencil lines. Be sure to fold over the ends of the protective paper so that you can pull on these "tabs" at a later stage. Install two screws into each corner at the Foot End of the bed. Refer to [Figure 37](#).



WARNING!

When power driving the $\frac{5}{8}$ " panhead screws that attach to the Bed Frame and Stiffeners, be careful not to over-torque or overtighten the screws as this could cause the screws to strip the hole. We recommend that you power drive screws part way and then hand tighten. Stripping the holes could cause the screws to pull out of the Face Panels and will automatically void the warranty. Murphy Wall-Beds Hardware Inc. will not accept any liability or warranty claims for any accidents or damages resulting from improper assembly and/or installation.

Figure 38



20 With all four corners of the bed frame secured, remove the remainder of the protective backing from the double-sided tape. Being careful not to bend or flex the bed frame. Gently lift the Head End Rail and Foot End Rail while pulling on the protective paper tabs. Once removed, push down firmly on the frame rails to secure the adhesive tape.

21 Continue with the Left and Right Side Rails, gently lifting the side rails just enough to allow the removal of the protective paper. Push down firmly on the side rails to secure the adhesive tape.

TOOL: Tape Measure

22 Position the three Notched Steel Stiffeners, spacing them equally, and divide the Bed Face Panels into four even sections. For extra strength and support, the three Notched Steel Stiffeners are fabricated to overlap the Left and Right Side Rails. Secure the Notched Steel Stiffeners in place using two #8 x $\frac{5}{8}$ " panhead screws. Refer to [Figure 38](#).

23 Double-check your measurements and ensure the Bed Frame Rails are still aligned and running parallel to the Bed Face Panels. Measure diagonally, corner to corner, to ensure the Bed Frame is still square and true.

24 Screw in all of the remaining #8 x $\frac{5}{8}$ " panhead screws into the Bed Frame Rails and into the Notched Steel Stiffeners. When driving screws into the Left and Right Side Rail, skip the fourth hole from the Foot End of the bed - leaving this hole open for attaching the Velcro® Straps. Refer to [Figure 39](#).

Figure 39



TOOLS: Power Drill, #2 Robertson Drill Bit (6" Long)

25 When installing the Velcro® Straps, pull apart the two velcro pieces. Attach one of the velcro halves to the fourth screw hole from the Foot End of the Left Side Rail using the $\frac{3}{16}$ " x $\frac{3}{4}$ " washer and #8 x $\frac{5}{8}$ " panhead

screw. Hold onto the Velcro® Strap securely as it will twist when installing the screw. **Refer to Figure 39.**

Now, repeat the previous step on the Right Side Rail, making sure that the Velcro® hooks and loops face each other.

Once both pieces are installed, the Velcro® Straps are designed to overlap and secure the mattress.

26 Install the six $\frac{5}{16}$ " black hole plugs in the three unused $\frac{5}{16}$ " holes at the foot end of the Left and Right Side Rails. To prevent accidental displacement of the plugs, push them in tightly and anchor them with a dab of silicone around the plug-ends on the inside of the Side Rails.

27 Remove the coin spacers.

INSTALLING BOLT #1 and #3 ONTO THE FRAME

Before you begin, we suggest you watch our Murphy Wall-Bed installation videos. They can be found on the Support page of our website: MurphyBeds.com/Support.

To start, locate Hardware Bag #6.

HARDWARE BAG #6



$\frac{5}{16}$ " x $\frac{3}{4}$ "
Hexhead
Machine Bolts
(4 pcs.)



$\frac{5}{16}$ " x $\frac{3}{4}$ "
Allen Head
Cap Bolts
(2 pcs.)



$\frac{5}{16}$ "
Nylock
Hexagon Nuts
(6 pcs.)



TWO PEOPLE NEEDED FOR ASSEMBLY

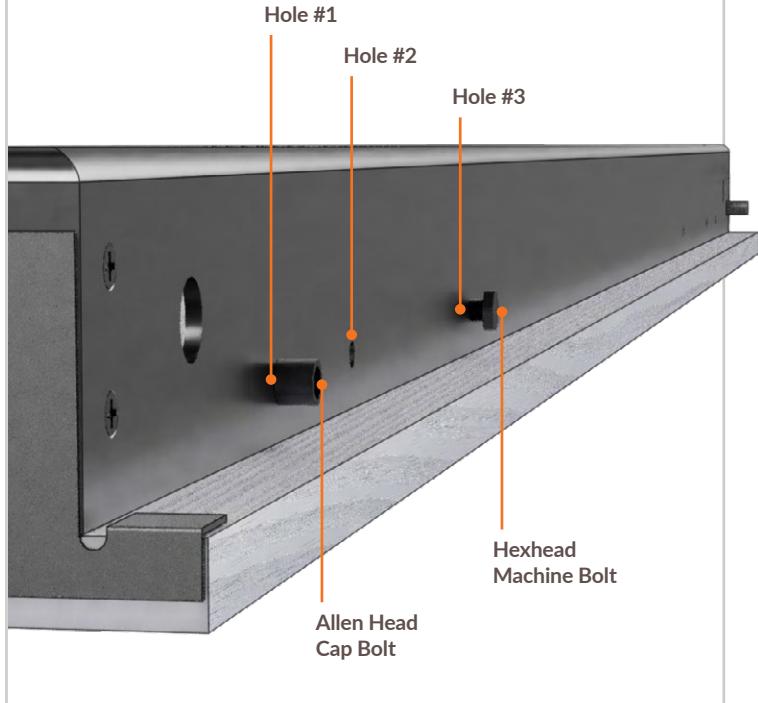


NOTE: The assembled Bed Panel Unit connects to the Bed Cabinet via the Lift Mechanism Tension Arms. You will need someone to help you set the Tension Arms and lift the Bed Panel Unit into place. Refer to **ARMING THE MURPHY BED LIFT MECHANISM** for these instructions.

TOOLS: $\frac{1}{4}$ " Allen Key, $\frac{1}{2}$ " Wrench or Socket Wrench

- 1 At the Head End of the Bed Frame, insert the two $\frac{5}{16}$ " x $\frac{3}{4}$ " Allen Head cap bolts into Hole #1 from the outside of the Left and Right Side Rails. Attach one $\frac{5}{16}$ " Nylock hexagon nut on each Allen Head cap bolt. Using a $\frac{1}{4}$ " Allen key and $\frac{1}{2}$ " wrench or socket wrench, securely tighten the Nylock hexagon nut and Allen Head cap bolt. Refer to [Figure 40](#).
- 2 Insert two $\frac{5}{16}$ " x $\frac{3}{4}$ " Hexhead machine bolts into Hole #3 from the outside of the Left and Right Side Rails. Connect a $\frac{5}{16}$ " Nylock hexagon nut on each bolt end. Hand tighten the hexagon nut only until it is flush with the end of the Hexhead machine bolt. Then, from the inside of the Bed Frame, push the #3 bolt outwards so that the bolt is hanging loose on the outside of the Left and Right Side Rails. Refer to [Figure 40](#).
- 3 Be sure to save the remaining two $\frac{5}{16}$ " x $\frac{3}{4}$ " Hexhead machine bolts and $\frac{5}{16}$ " Nylock hexagon nuts from Hardware Bag #6 as they will be used later for mounting the Front Bed Panel Unit. Refer to [Figure 51](#).

Figure 40



INSTALLING THE LEGS AND CROSSBAR

To start, locate Hardware Bag #3.

HARDWARE BAG #3



$\frac{1}{4}'' \times \frac{3}{4}''$
Hexhead
Machine Bolts
(2 pcs.)



$\frac{1}{4}'' \times \frac{1}{2}''$ (OD)
Star Washers
(2 pcs.)



Loctite
Threadlocker
Capsule
(1 pc.)

ATTENTION
LEGS MUST BE PULLED DOWN BEFORE BED IS LOWERED

Attention
Sticker
(1 pc.)



$\frac{3}{8}''$ Flat Bumper
Buttons
(2 pcs.)

1 To install the legs on the Bed Frame, locate the Left Leg from the supplied Mechanism Box. Remove the $\frac{5}{16}''$ Nylock hexagon nut, then the $\frac{5}{16}'' \times 1\frac{1}{2}''$ (OD) black flat washer from the Left Leg assembly – leaving only the black nylon washer in place. Refer to [Figure 41](#).



TWO PEOPLE NEEDED FOR ASSEMBLY

TOOL: $\frac{1}{2}''$ Wrench or Socket Wrench

2 Insert the Left Leg-screw through the Left Side Rail at the Foot End of the frame. Replace the $\frac{5}{16}'' \times 1\frac{1}{2}''$ (OD) black flat washer. Using the $\frac{5}{16}''$ Nylock hexagon nut, securely tighten these components with a $\frac{1}{2}''$ wrench. Refer to [Figure 41](#).

3 Once tightened, repeat the steps above with the Right Leg assembly on the opposite side of the Bed Frame. Make sure not to overtighten the bolts and that both legs can easily move up and down.

4 Pivot both legs upwards and position the Crossbar between the two legs, aligning the Crossbar with the leg holes. Place a $\frac{1}{4}'' \times \frac{1}{2}''$ (OD) star washer on one of the $\frac{1}{4}'' \times \frac{3}{4}''$ hexhead machine screws. Break open and apply the Loctite Threadlocker capsule onto the threads of the $\frac{1}{4}'' \times \frac{3}{4}''$ hexhead machine screw. Refer to [Figure 42](#).

Figure 41

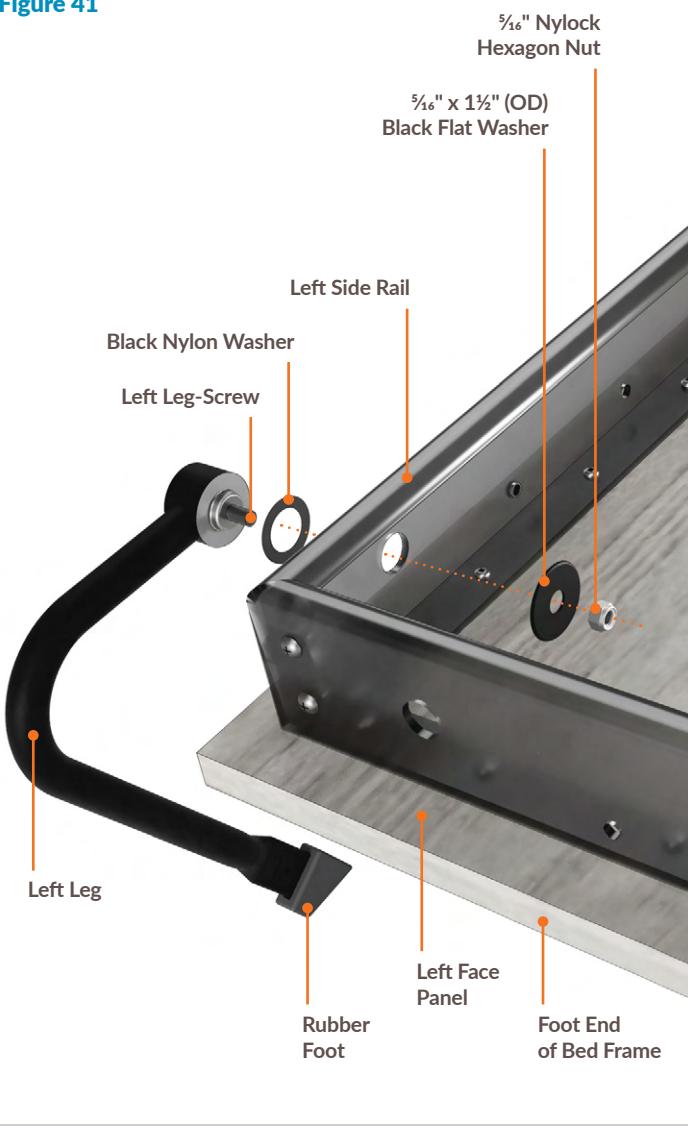
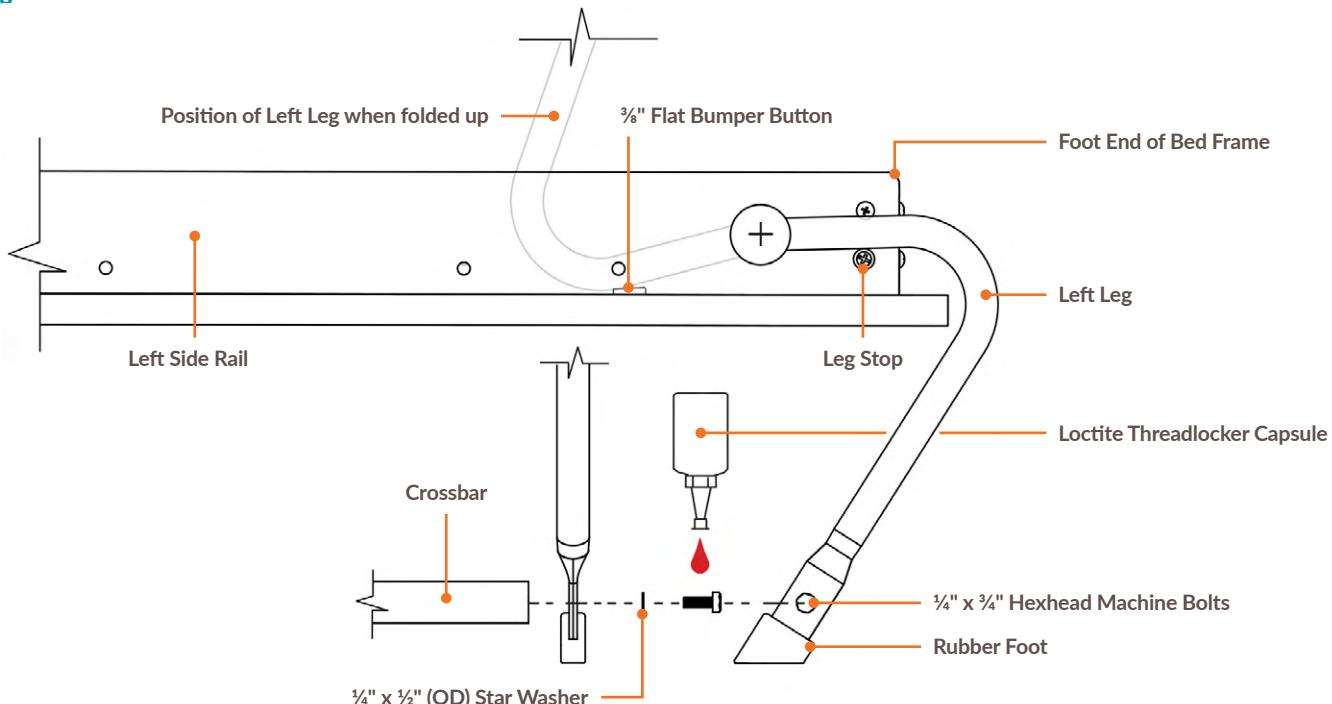


Figure 42



5 Thread the $\frac{1}{4}$ " x $\frac{3}{4}$ " hexhead machine screw (with the star washer and Loctite) through the Left Leg hole and hand tighten it into the Crossbar as shown on **Figure 42**.

TOOL: 10mm Wrench

6 Using a 10mm wrench, tighten the $\frac{1}{4}$ " x $\frac{3}{4}$ " hexhead machine screw. Be careful not to overtighten the screw as this may strip the nut.

Repeat this process with the Right Leg.

7 Next, attach the two $\frac{3}{8}$ " flat bumper buttons to the surface of the Left and Right Face Panels where the legs, when folded up, will contact the bed panel. Refer to **Figure 42**.

8 Lastly, attach the Attention Sticker to the Foot End Rail.



IMPORTANT NOTE: To avoid damaging the front edge of the Top Stretcher, be sure to fold up the legs before closing the bed.

ARMING THE MURPHY BED LIFT MECHANISM

When arming the Murphy Bed Lift Mechanism, there will be a significant amount of tension in the Tension Arm. For safety reasons, we recommend that two people handle this procedure, with one person pulling and holding the Tension Arm (covered by the Heavy-Duty Kraft Tube) with both hands while the other person sets the Arm Lock.



TWO PEOPLE NEEDED FOR ASSEMBLY

- 1 Remove the warning labels that are attached to both Lift Mechanism Tension Arms by cutting the plastic straps off Bolt Hole #2. Refer to [Figure 43](#).
- 2 Before attempting to lock the Left Tension Arm, position yourself properly. Sitting on the floor facing the bed cabinet, brace one foot against the wall and the other on the front edge of the Left Side Panel. Refer to [Figure 44](#).
- 3 Using the Heavy-Duty Kraft Tube, position it over the Tension Arm of the Left Lift Mechanism, holding the tube at the top with both hands for leverage. Refer to [Figure 45](#).
- 4 Pull the Tension Arm straight back. Be careful not to pull to the side as this could bend the Tension Arm. Your assistant will use a screwdriver or pencil to guide the Arm Lock up and onto the nut in Hole "A", ensuring the Arm Lock is secured onto that nut and will not slip off. Refer to [Figure 46](#).



DANGER!

There will be a lot of tension in the Tension Arm. We recommend that two people handle this procedure. One person pulls on the Tension Arm with both hands while the other person sets the Arm Lock. When setting the lock, avoid reaching behind the Tension Arm. Keep your fingers safe by using a screwdriver or pencil to set the Arm Lock.

- 5 Repeat the steps above to arm the Right Lift Mechanism.

Figure 43



Figure 44

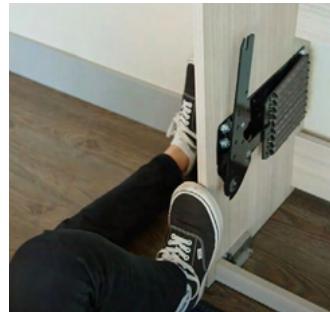


Figure 45

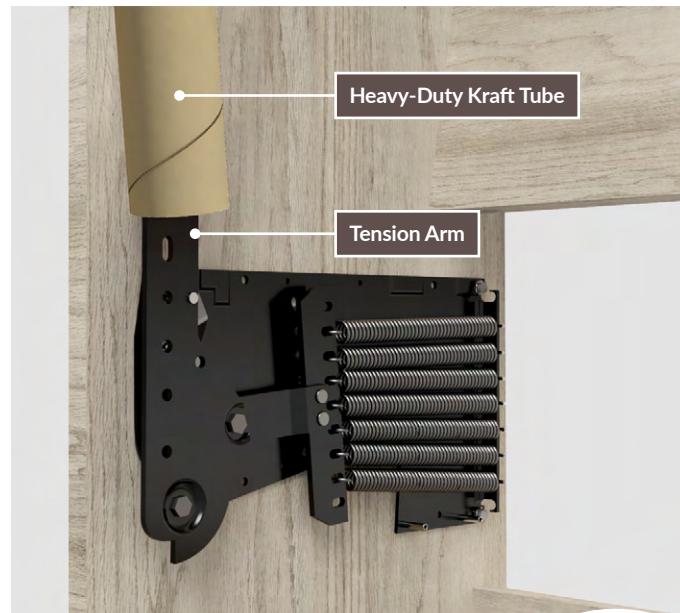
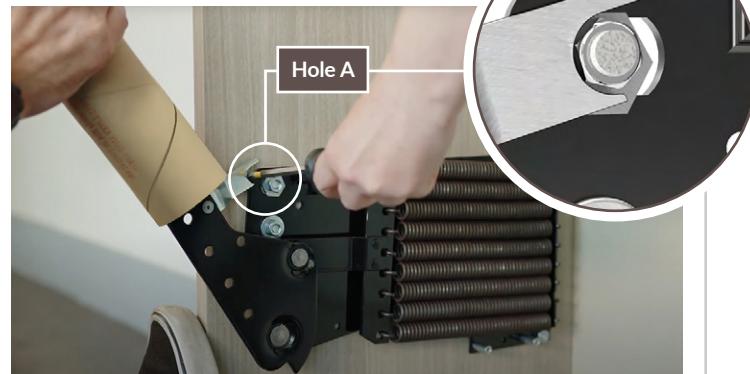


Figure 46



MOUNTING THE FRONT BED PANEL UNIT

Before you begin, we suggest you watch our Murphy Wall-Bed installation videos. They can be found on the Support page of our website: MurphyBeds.com/Support.

To start, locate the components from Hardware Bag #6.

HARDWARE BAG #6



$\frac{5}{16}$ " x $\frac{3}{4}$ "
Hexhead Machine Bolts
(2 pcs.)



$\frac{5}{16}$ "
Nylock Hexagon Nuts
(2 pcs.)



IMPORTANT NOTE: Two people, capable of holding and maneuvering approx. 100 lbs, are required to mount the Front Panel Unit to the Lift Mechanisms. It is extremely important that the bolt in Hole #2 is used when attaching the Lift Mechanisms to the side rails of the Front Panel Unit.

TOOLS: $\frac{1}{2}$ " Wrench, $\frac{1}{2}$ " Socket Wrench

1 Place a $\frac{5}{16}$ " nylock nut and a $\frac{5}{16}$ " x $\frac{3}{4}$ " hexhead machine bolt on the floor beside the base of each Side Panel. Then, locate a $\frac{1}{2}$ " wrench (or an adjustable wrench) and a $\frac{1}{2}$ " socket wrench and ensure they are close at hand.

2 From the Foot End of the bed frame and with the aid of your assistant, lift up the assembled Front Bed Panel Unit and let it rest vertically on its Head End. Refer to **Figure 47**.



CAUTION!

Do not bump the Tension Arms as this may cause the Arm Locks to slip off the hexhead nuts.

3 With the Front Bed Panel Unit upright, bring it close to the assembled cabinet. Align it in between, and just in front of, the Tension Arms. Refer to **Figure 48**.

Figure 47

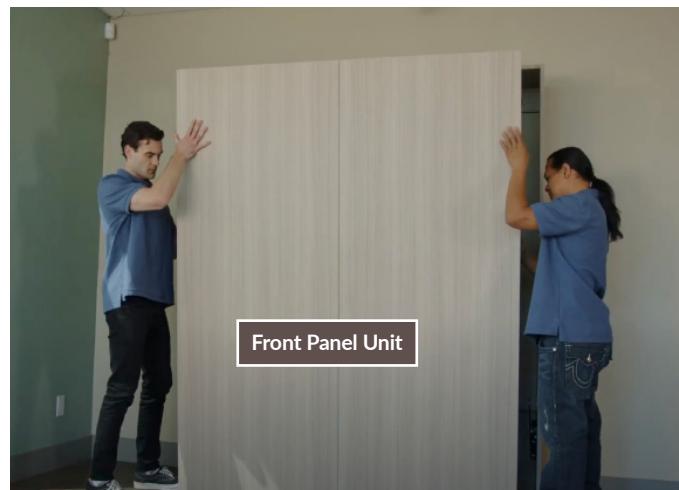
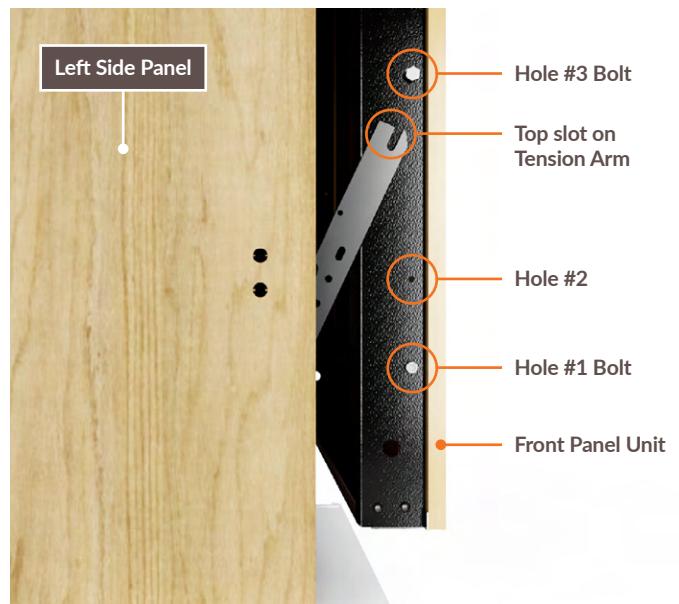


Figure 48



4 Lift the Front Bed Panel Unit vertically to a height where the bolts in Hole #3 are a couple of inches above the top slots of the Tension Arms. Refer to **Figure 48**.

Figure 49

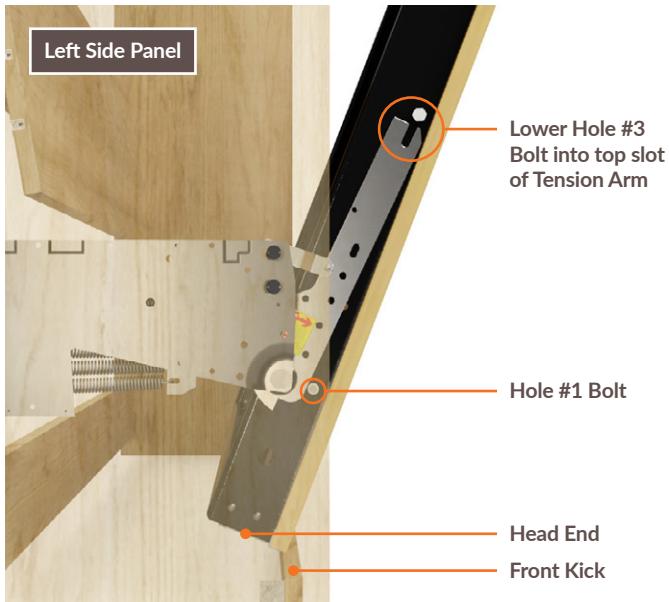
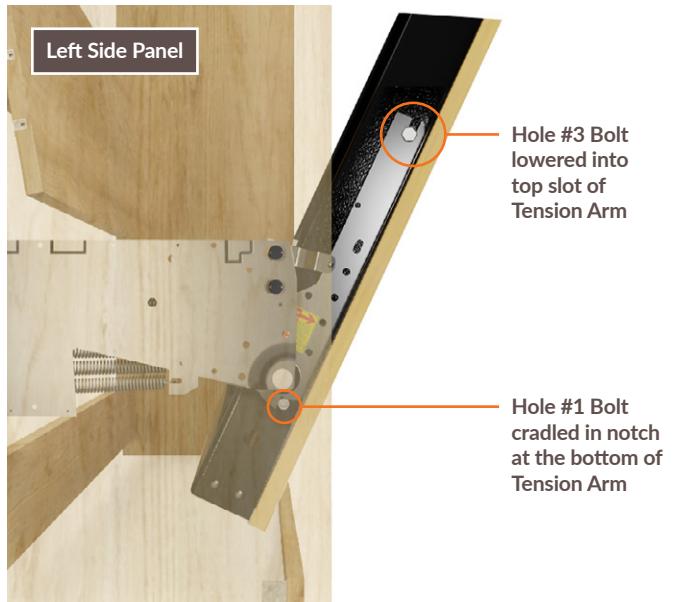


Figure 50



5 Approaching the cabinet on a slight angle so the Head End of the Front Bed Panel Unit clears the Front Kick, gently lower the Front Bed Panel Unit so that the bolts in Hole #3 slide into the top slots of the Tension Arms. Refer to [Figure 49](#) and [Figure 50](#).

6 Be sure that both Allen Head Cap bolts (Hole #1) are fully cradled in the notch at the bottom of both Tension Arms. Refer to [Figure 50](#).

Once both sides are properly situated, slowly open the Front Bed Panel Unit by tilting it down to approx. 45 degrees or until you hear the click from the Arm Locks disengaging from both Lift Mechanisms. Refer to [Figure 51](#).

INSTALLING BOLT #2: SECURING THE LIFT MECHANISM TO THE BED FRAME

7 With your assistant holding the bed open, at roughly 45 degrees, install and hand tighten the $\frac{5}{16}$ " x $\frac{3}{4}$ " hexhead machine bolt and $\frac{5}{16}$ " Nylock nut in Hole #2, indicated by the yellow sticker with the red arrow located on the Tension Arm. Refer to [Figure 51](#).

Repeat this step on the opposite side to secure the Tension Arm on the Right Side Panel.



DANGER!

As soon as the Front Bed Panel Unit is connected to the Tension Arm, carefully lower the Front Bed Panel Unit halfway and install the supplied $\frac{5}{16}$ " x $\frac{3}{4}$ " hexhead machine bolt into Hole #2. Attach the Nylock hexagon nut and tighten it immediately. Next, tighten the bolt and nut in Hole #3. Failure to secure the supplied bolt and nut as instructed can result in serious personal injury.

Figure 51

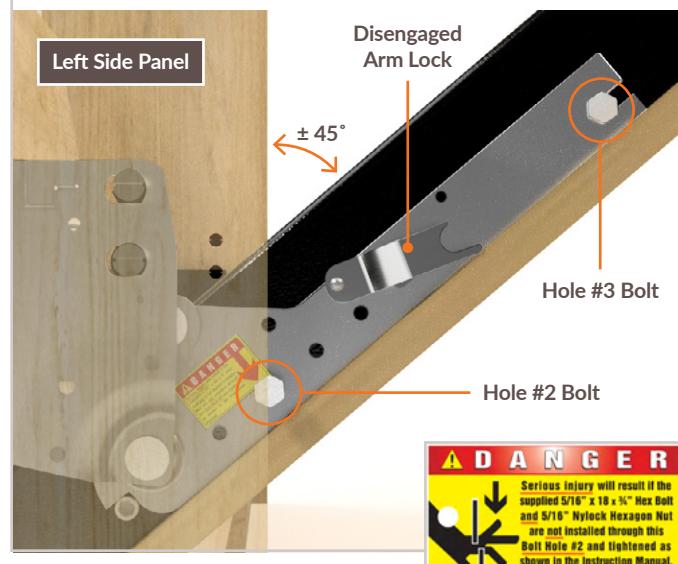
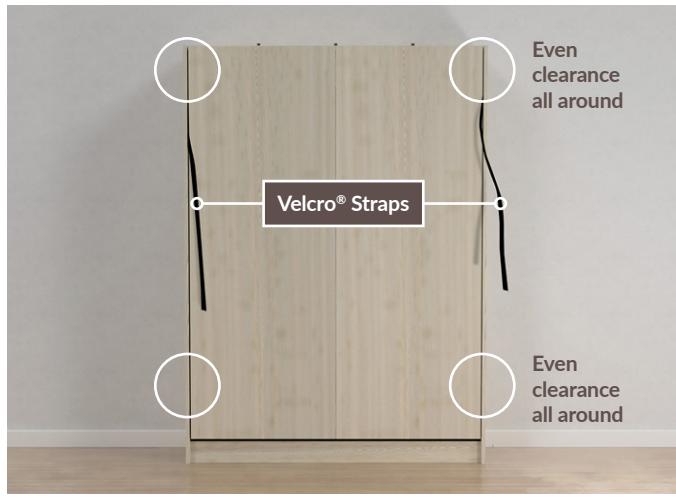


Figure 52



Figure 53



TOOLS: $\frac{1}{2}$ " Wrench, $\frac{1}{2}$ " Socket Wrench

8 Continue to hold the Front Bed Panel Unit at 45 degrees and securely tighten Bolt #3 with the Nylock nut on either side with a $\frac{1}{2}$ " wrench (or an adjustable wrench) and a $\frac{1}{2}$ " socket wrench. Refer to [Figure 51](#).

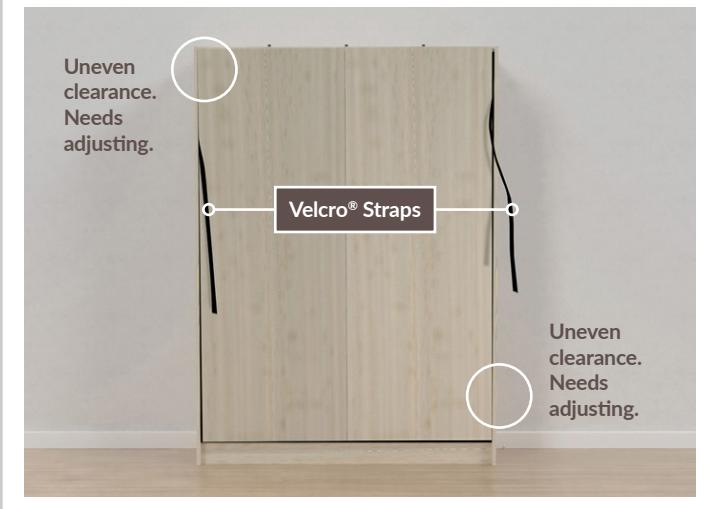
9 On both Tension Arms, tighten the bolts in Hole #2 with the Nylock nuts using a $\frac{1}{2}$ " wrench (or an adjustable wrench) and a $\frac{1}{2}$ " socket wrench. Refer to [Figure 51](#).

10 With your assistant still holding the Front Bed Panel Unit open, pull the Velcro® Strap apart and let the two ends hang off the sides of the bed. Gently let the Front Bed Panel Unit close while holding the Velcro® Straps. Refer to [Figure 52](#).

11 If done correctly, you should have even clearance between the side edges of the Front Bed Panel Unit and the insides of the Left and Right Side Panels (side gables). Refer to [Figure 53](#).

If the Bed Cabinet is not perfectly square and the Front Bed Panel Unit binds, try nudging the Bed Cabinet at the base. Refer to [Figure 54](#).

Figure 54



INSTALLING CUSTOM HANDLES ON THE FRONT BED PANEL UNIT

Before you begin, we suggest you watch our Murphy Wall-Bed installation videos. They can be found on the Support page of our website: MurphyBeds.com/Support.



TWO PEOPLE NEEDED FOR ASSEMBLY

- 1 To install your personal choice of handles to the face of the Front Bed Panel Unit, you must first lower the bed to the ground. Have one person sit on the bed to keep it down.

TOOLS: Tape Measure, Ruler and Pencil

- 2 From the interior of the cabinet, and with the mattress removed, measure and mark the location for each of your handle screws. Refer to [Figure 55](#).



IMPORTANT NOTE: To minimize the pull required to open the bed, the lowest part of your custom handles should not exceed 36" from the top edge (foot end) of the Face Panels.

TOOLS: Power Drill, $\frac{3}{16}$ " Drill Bit

- 3 We recommend that you drill pilot holes for your handles on the Face Panels using your power drill with a $\frac{3}{16}$ " drill bit. Carefully drill through the Face Panels on low torque. Refer to [Figure 55](#).

- 4 From the interior of the cabinet, insert the screws for your custom handles into the newly drilled holes.

TOOL: Screwdriver

- 5 With your assistant lifting and holding the Front Bed Panel Unit at approx. 45 degrees (bed half-open), you can now simultaneously access the interior and exterior of the bed cabinet. Facing the front of the cabinet Face Panels, line up the handles with the screws, then tighten the screws with a screwdriver. Refer to [Figure 56](#).

Figure 55



Figure 56



INSTALLING THE MECHANISM COVERS & MATTRESS ON THE MURPHY BED

To start, locate Hardware Bag #3.

HARDWARE BAG #3



4mm x 1/4" Flathead Slot Machine Screws
(4 pcs.)



IMPORTANT NOTE: Murphy Bed Hardware Systems are designed for a standard spring coil mattress. Due to their excessive weight, foam, gel, latex, and Tempur-Pedic® style mattresses are not recommended. Using any mattress other than a standard spring coil mattress will void your Murphy Bed Hardware System warranty. Additionally, the mattress must weigh between 65-75 lbs (29.5-34 kg).



TWO PEOPLE NEEDED FOR ASSEMBLY

PLACE THE MATTRESS

- 1 Have your mattress on hand. Open the bed, fold down the legs, and lower it to the floor. Hold the bed in the fully open position by placing your foot on the crossbar.
- 2 Gently slide your mattress onto the bed. Be sure it lies completely within the Bed Frame Rails. Remove your foot from the crossbar; the added weight of the mattress should now hold the bed down. Secure the mattress with the Velcro® Strap. Refer to [Figure 59](#).

CHECK FOR BALANCE

- 3 Carefully raise your Murphy Bed until it's almost closed (about 70 degrees off the floor). If the weight is balanced properly, the bed should "float" in this position. Refer to [Figure 60](#). If this is the case, lower the bed once more, undo the Velcro® Strap, and continue to **STEP 4** below. If the bed does not "float" it may not be properly balanced and further adjustments are required. Refer to the [TROUBLESHOOTING BALANCE ISSUES](#).

Figure 59



Figure 60

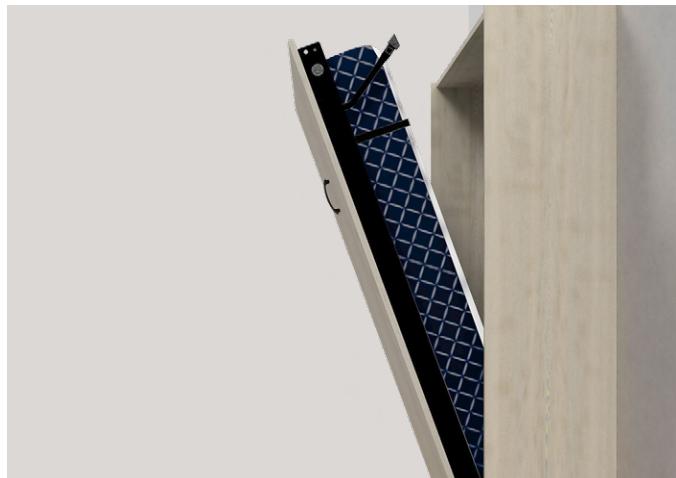


Figure 59

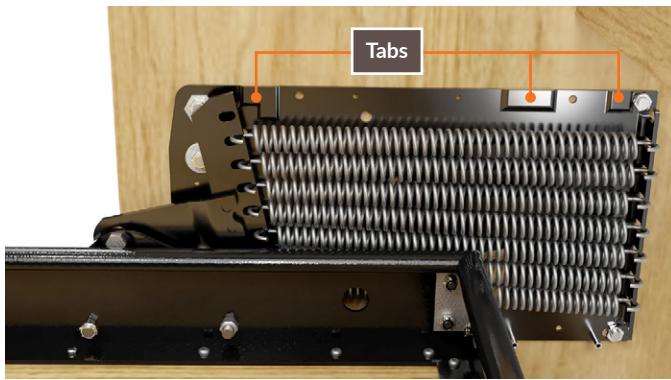
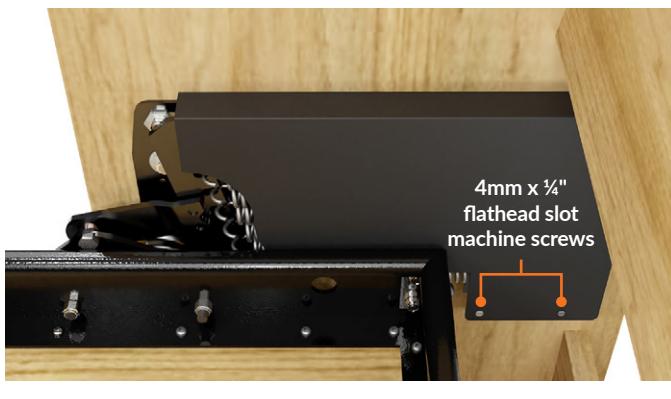


Figure 60



INSTALL THE MECHANISM COVERS

1 Slide the mattress off the Foot End of the bed slightly to install the Left and Right Mechanism Covers. These covers will protect against the expanding and contracting springs.

TOOL: Flat Head Screwdriver

2 To install the Left Mechanism Cover, hook the black plastic tabs into the indented slots on the back plate of the Left Lift Mechanism. Ensure the tabs align properly. Using a flat head screwdriver, secure the Mechanism Cover with two 4mm x 1/4" flathead slot machine screws. Refer to [Figure 59](#) and [Figure 60](#).

Now repeat the steps above to install the Right Mechanism Cover on the opposite side.

TIP

If you are having trouble fitting the Mechanism Cover tabs into the indented slots, try shaving some of the plastic off the tabs so they fit easier.

KEEP THE BED OPEN FOR 24 HOURS

3 Reposition the mattress within the Bed Frame Rails and secure it with the Velcro® Strap.

4 Before using the bed, place additional weight on the mattress and allow the bed to remain down for at least 24 hours. This will give the springs time to relax and adjust to their new placement.



SAFETY WARNING!

For your safety, the Mechanism Covers must be properly installed as outlined in **STEPS 4 and 5** above. Failure to do so could result in serious injury and will void your warranty.

TROUBLESHOOTING BALANCE ISSUES

Start by ensuring that you have installed the correct number of springs as indicated in [Table 1](#).

If the bed snaps shut:

- Remove one or more springs from each Lift Mechanism by using a bolt cutter to cut the spring hook. Test the bed after each removal. Keep the same amount of springs on each side of the centerline to ensure the bed stays balanced.
- Alternatively, you may need to remove one or more springs from each Lift Mechanism by following the [INSTRUCTIONS FOR DISASSEMBLING YOUR MURPHY WALL-BED](#).

If the bed closes slowly:

- Remove one or more springs from each Lift Mechanism by using a bolt cutter to cut the spring hook. Test the bed after each removal. Keep the same amount of springs on each side of the centerline to ensure the bed stays balanced.
- Alternatively, you may need to remove one or more springs from each Lift Mechanism by following the [INSTRUCTIONS FOR DISASSEMBLING YOUR MURPHY WALL-BED](#).
- Alternatively, only a few additional pounds may be needed to properly balance your Murphy Wall-Bed. You may choose to install one or two strips of 1/4" Medium Density Fiberboard (MDF) under the mattress at the Foot End. MDF is very dense and can be easily screwed into the bottom of the Bed Face Panels. Be sure to use appropriate wood screws that are not too long so as not to damage the Face Panels when installing any MDF strips.

INSTRUCTIONS FOR DISASSEMBLING YOUR MURPHY WALL-BED

Follow the disassembly instructions carefully, in the order indicated, paying particular attention to the important notes and safety warnings. Failure to follow these disassembly instructions properly may result in personal injury or damage to the Murphy Bed and hardware.



SAFETY WARNING!

The bed cabinet must remain secured to the wall for **STEPS 1 to 12** below of the Disassembly Instructions. Serious injury will result if the bed cabinet is not secured to the wall. Please be aware that the wall-mounting L-Brackets at the top of the cabinet are under strong tension, do not loosen or remove these while the Front Bed Panel Unit is attached to the Bed Cabinet.



TWO PEOPLE NEEDED FOR ASSEMBLY

REMOVING THE MATTRESS

1 Open the bed, fold down the legs, and lower it to the floor. While holding the bed in the fully open position by placing your foot on the crossbar, undo the Velcro® Strap and have your assistant gently slide the mattress off the bed frame.

SECURING THE ARM LOCKS ON THE LIFT MECHANISMS

TOOL: Screwdriver or Pencil

2 Next, holding the Front Handles, partially close the Front Bed Panel Unit to roughly 45 degrees or until your assistant is comfortably able to secure the Arm Lock on the Left Lift Mechanism. Your assistant will use a screwdriver or pencil to guide the Arm Lock up and onto the hexhead nut in Hole "A", ensuring the Arm Lock is secured onto that nut and will not slip off.



DANGER!

When setting the lock, avoid reaching behind the Tension Arms. Keep your fingers safe by using a screwdriver or pencil to set the Arm Locks.

3

While you are still holding the Front Bed Panel Unit securely, have your assistant repeat the step above to engage the Arm Lock on the Right Lift Mechanism.

UNINSTALLING BOLT #2 and LOOSEN BOLT #3

TOOLS: $\frac{1}{2}$ " Wrench, $\frac{1}{2}$ " Socket Wrench

4

With both Arm Locks secure, for safety, continue to hold the Front Bed Panel Unit partially open at roughly 45 degrees while your assistant completes the following on the Left Tension Arm:

a Loosen the Nylock nut and hexhead machine bolt located in Hole #3 using a $\frac{1}{2}$ " wrench (or adjustable wrench) and a $\frac{1}{2}$ " socket wrench. **Do not remove Bolt #3 completely.** As Bolt #3 is holding the weight of the Front Bed Panel, you only want to loosen it.

b Using a $\frac{1}{2}$ " wrench (or adjustable wrench) and a $\frac{1}{2}$ " socket wrench, remove the Nylock nut and hexhead machine bolt located in Hole #2.

c Leave the nut and bolt in Hole #1 as-is. Hole #1 does not require any adjustments.

5

Now repeat the steps above on the Right Tension Arm.



IMPORTANT NOTE: Two people, capable of holding and maneuvering approx. 100 lbs, are required to remove the Front Bed Panel Unit off of the Lift Mechanisms.

REMOVING THE FRONT PANEL UNIT

6 With you and your assistant positioned at either side of the Front Bed Panel Unit, carefully tilt and lift the Front Bed Panel Unit upwards to a height where the bolts in Hole #3 are free and clear of the top slots of the Tension Arms. Refer to [Figure 61](#). As the Front Bed Panel Unit is very heavy, do not put your feet under it to support.

Figure 61

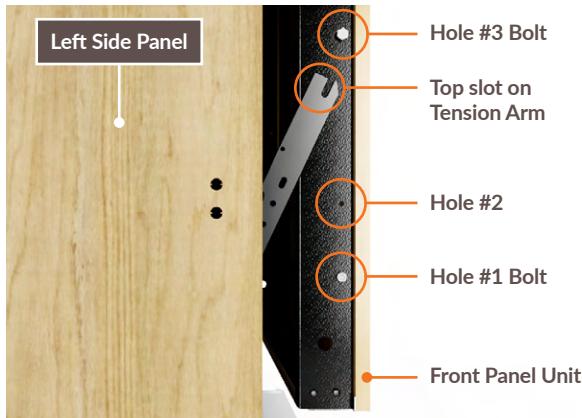


Figure 62

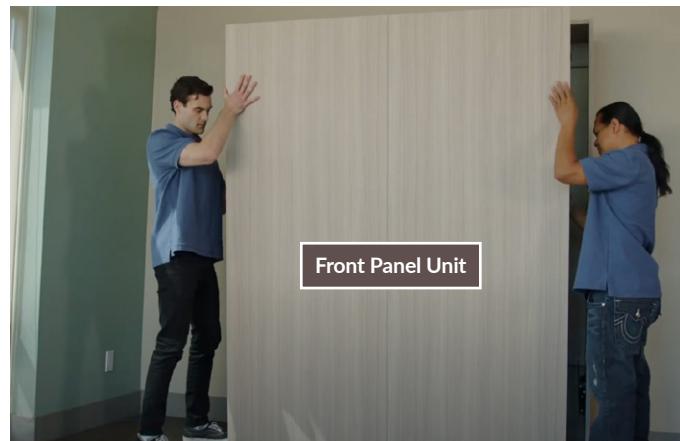


Figure 63

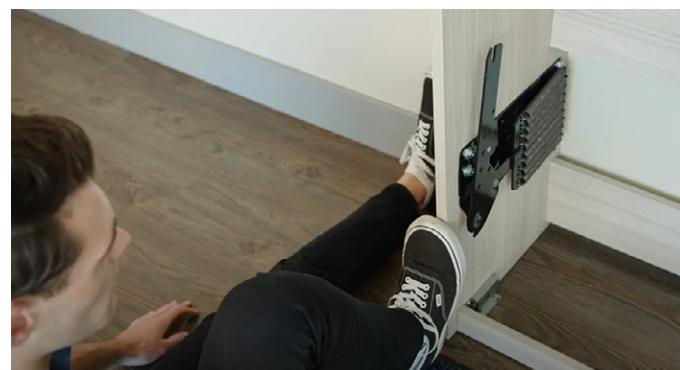
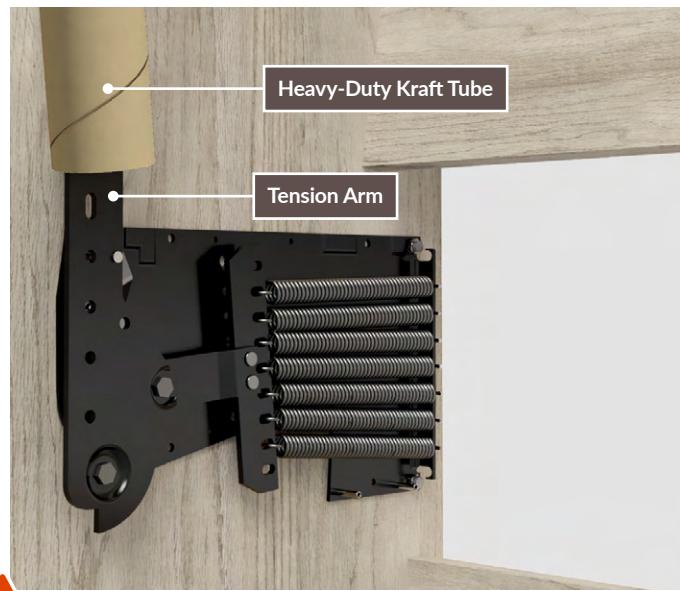


Figure 64



DANGER!

There will be a lot of tension in the Tension Arm. We recommend that two people handle this procedure. Do not bump the Tension Arm as this may cause the Arm Locks to slip off the hexhead nuts.

7 Gently lower the Front Bed Panel Unit to the floor. We recommend using a moving blanket or sheets of cardboard to protect your floors and cabinetry. Refer to [Figure 62](#).



IMPORTANT NOTE: The Bed Frame must remain attached to the Left/Right Face Panels and be moved as a solid unit. Detaching the Bed Frame from the Left/Right Face Panels and then reattaching it will strip the holes in the Face Panels, leading to the Bed Frame not being properly secured.

DISARMING THE MURPHY BED LIFT MECHANISMS

8 Before attempting to disarm the Tension Arms on the Lift Mechanisms, position yourself properly. Sitting on the floor facing the bed cabinet, brace one foot against the wall and the other on the front edge of the Left Side Panel. Refer to [Figure 63](#).

9 Using the Heavy-Duty Kraft Tube, position it over the Tension Arm of the Left Lift Mechanism, holding the tube at the top with both hands for leverage. Refer to [Figure 64](#).

10 Pull the Tension Arm straight back towards you to release the Arm Lock. Beware of the strong spring tension on the Tension Arm, so avoid reaching behind the Tension Arm and keep your fingers safe.

Refer to [Figure 65](#) and [Figure 66](#).

11 Slowly ease the Tension Arm back until the springs are relaxed. Remove the Heavy-Duty Kraft Pipe.

Refer to [Figure 67](#).

12 Repeat the steps above to disarm the Right Lift Mechanism.

DETACHING THE BED CABINET FROM THE WALL

TOOLS: Ladder, Power Drill, #2 Robertson Drill Bit

13 Use a ladder to access the top of the bed cabinet. Using your power drill with Robertson drill bit, unscrew the six #8 x 2" flathead wood screws which secure the metal L-Brackets to the wall. To prevent bowing and possible damage to the Murphy Wall-Bed, do not place weight on the Top Stretcher while detaching the L-Brackets. Refer to [Figure 68](#).

14 Remove the #8 x ¾" flathead wood screws which secure the three metal L-Brackets to the Top Stretcher.

15 Lay the Bed Cabinet down on the floor – we recommend using moving blankets or sheets of cardboard to protect the Bed Cabinet and your floors.



NOTE: For ease of reassembly, we recommend leaving the Lift Mechanism on the Left and Right Side Panels.

Figure 65



Figure 66

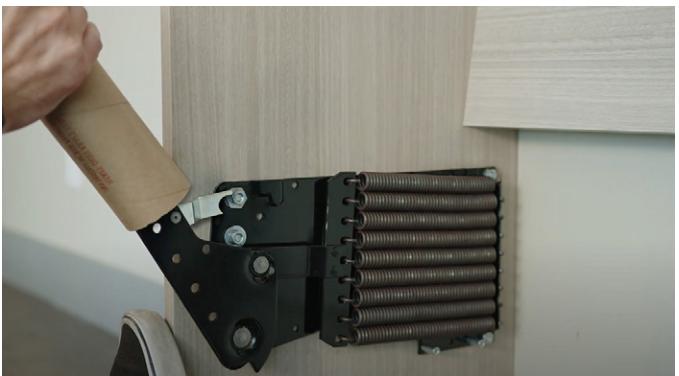


Figure 67



Figure 68



WARRANTY

The experienced and skilled professionals of Murphy Wall-Beds Hardware Inc. have been manufacturing hardware to exacting standards since 1975.

Murphy Wall-Beds Hardware Inc. stands behind its products and provides a full replacement warranty on hardware found to be defective because of issues relating to workmanship during manufacturing. The length of the warranty varies and is based upon the Murphy Wall-Beds Hardware Inc. product purchased. **The warranty lengths are as follows:**

- Elite Aluminum: Lifetime Warranty;
- Supreme Steel: 25-Year Warranty;
- Build-A-Bed Cabinetry: 5-Year Warranty.

The warranty is applicable for both residential and commercial applications.

The company warranty does not cover damage deemed to be caused by abuse, misuse and/or improper operation of the hardware system and/or cabinetry. If the deemed abuse, misuse and/or improper operation of the hardware system and/or cabinetry is in the form of a dynamic weight, load and/or stress being applied this is not covered under the company warranty.

OUR RETURN POLICY

Wall-Bed Hardware Orders: Returns will only be accepted if the goods are received by Murphy Wall-Beds Hardware Inc. within 30 days of the date of purchase. Refunds will be processed once the goods have been received, shipping/customs fees have been calculated and received, and all paperwork has been completed. Murphy Wall-Beds Hardware Inc. will send to the Purchaser a company cheque by regular mail for money owed on the return.

All return sales will be subject to a \$95.00 deduction for outbound shipping and a 25% restocking fee. A further deduction of fees may apply when customs and/or duty charges are applied by the return freight carrier. All returns will be examined carefully upon arrival to the company warehouse and additional charges may be added for damaged goods.

DAMAGED or MISSING PARTS:

In the event of a missing or broken piece, simply call Murphy Wall-Beds Hardware's customer service line at 1-800-667-6336 within 14 days of your purchase date.

It is our commitment to you to mail replacement parts, free of charge, within 10 business days of this notification. Replacement parts will not be provided free of charge after the 14-day grace period.

More information can be found on the Policies page of our website: MurphyBeds.com/Policies

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