

# B-LINE QUILTING FRAME ASSEMBLY INSTRUCTIONS



While the company is no longer in business, there are many frames out there with no instructions available on how to assemble the frame. The following instructions will help you assemble the frame, maybe not exactly as the manufacturer would have advised, but enough to make the quilting frame operational.

**GENERAL:** The complete kit from the manufacturer contains the parts for a 5', 7', 10' or 12' frame depending on how the rails and roll-up bars are assembled. The following instructions and photos are for a 10' frame. With allowance for space along each edge, the 10' frame will allow for a quilt with a width of 8' (96 inches).

## STEP 1:



Assemble the four legs to the end panels. Mount the legs to the outside of the end panel as shown with two carriage bolts, washers, and threaded knobs. The legs are adjustable depending on which holes are used in the legs. The higher positions are suitable for operating the frame from a standing position, while the lower positions are suitable for operating the frame from a seated position.

In the photo, the rear of the frame is to the right.

## STEP 2:



Assemble the rails together to the desired length. There are 4 - 5' rails and 2 - 2' rails which allow for a finished length of 5', 7', 10', or 12' as desired. The rails are joined together with a block with four threaded inserts underneath the joint with 4 allen screws screwed into the block from the top of the rails. Use the longer allen screws for this assembly. Make sure that the threaded holes along the edge of the bottom of the rail line up in the assembled rail.

### STEP 3:



Attach the end blocks to the ends of the rails with two allen screws screwed into the end block from the top of the rail.

The photo shows the rail turned upside down. Note the location of the threaded insert in the bottom of the rail. This row of threaded inserts needs to be on the inside of the frame for the correct distance (approx. 19") to attach the rail panels in STEP 5.

### STEP 4:



Attach the rails to the end panels with two allen screws screwed into the end block through the end panel.

The photo shows the rails turned upside down. Note the location of the threaded insert in the bottom of the rails. These rows of threaded inserts need to be on the inside of the frame for the correct distance (approx 19") to attach the rail panels in STEP 5. Ignore the "A" and "B" attachment notations as long as the threaded inserts are to the inside of the frame.

### STEP 5:

Attach the plywood panels to the underside of the rails while the unit is still turned upside down. Use the shorter allen screws for this assembly.



Pay attention to the numbering and orientation of the panels. Beginning on the left side of the frame, install the panels from left to right beginning with Panel No. 7, No. 6, and No. 5 which will end with the joint in the rails 5' from the end panel.

**HINT: Be careful as the joint in the rails**

**is very weak at this point.** The next panel needs to have extra holes in it to mount the middle support so that the support is as close to the middle joint as possible. Finish the remainder of the panels by selecting the ones that match the mounting holes in the rails for the length of frame desired.

**HINT: The actual order of the panels does not seem to be important, only that the holes match the mounting inserts in the bottoms of the rails. It may be necessary to slightly elongate a couple of holes in the plywood or slightly trim the end of a plywood panel to allow the panels to fit the holes.**

#### **STEP 6:**



Rotate the assembly on its side and loosely attach the center support. The position of the lower leg, either to the inside or the outside, does not make any difference in the operation of the frame. Use carriage bolts in the slots for adjusting the legs. **Be careful as the joints in the rails are weak.**

**HINT: While the frame is on its side, attach floor glides to the bottoms of the end panel legs and the center support legs for ease in moving the assembled frame around after it is in its upright position.**

**STEP 7:** With the help of a second (or third) person, rotate the assembly into its upright position being careful of the weak rail joints. Adjust the center support to roughly the correct position to eliminate the stress on the rail joints. Tighten all the center support allen screws.

With the center support in position, loosen the rail connection blocks, make sure the rails are tightly together, and then retighten all the allen screws.

With the assembly in the final upright position, level the frame from left to right and from front to back by adjusting the center support and by loosening and retightening the rail attachment allen screws as needed. (There is some room for adjustment in these attachments.)



## STEP 8:



Install the aluminum bars in the slot in the top of the rail. This is the track that the bottom sled of the machine carriage rides on. Slide the aluminum bar all the way to the right, leaving any space on the left side of the frame. **HINT: The machine carriage has to be moved to the far right of the quilt frame in order to change the bobbin, and sliding the aluminum bar all the way to right prevents the machine carriage from falling off the track.** As an alternative to the aluminum bar, the kit contains a plastic track that is long enough to fit the rail without any joints or spaces at the ends.

## STEP 9:



Attach wheels to the upper and bottom sleds of the machine carriage. Place the bottom sled on the aluminum track in the rails.

Install aluminum track on the bottom sled, and then place the upper machine carriage on the track on the bottom sled.

## STEP 10:



Attach the quilt rail support bar to the end panel as shown in the photo to the inside of the quilt frame. Use carriage bolts in the slots with hand knobs to the inside of the frame which will match the length of the quilt roll-up bars.

Three quilt roll-up bars of the same length attach to this support bar. A fourth quilt roll-up bar which is longer attaches to the drop down holder. All of the roll-up bars attach with T-handle dowels through the support bars.

## STEP 11:



Install the sewing machine on the machine carriage sled. **HINT: Secure the machine to the sled with velcro or other suitable means to keep it from vibrating out of place during sewing.** Install the machine carriage strut and secure it with a small T-handle dowel.



## STEP 12:



Assemble the quilt roll-up bars which attach together with a wooden bar inside the square aluminum tube. **HINT: Using a black marker, place a line all the way around the wooden bar at its midpoint, and then make sure that the black line is showing when the bar is put together.** Three of the rails should be the same length (9'-10"), and one rail should be 9'-11 1/2" for the 10' option.



Install the quilt roll-up bars on the quilt frame. The top three bars each receive a cog wheel on the bar which serves as a way to secure the bar in place after the quilt is tensioned. The cog wheels are secured with the smaller diameter T-handle dowels.

Adjust the height of the quilt rail support bar as needed so that the roll-up bar passing through the machine does not hit the machine.

At this point the quilting frame setup is complete. There are certain enhancements that can be added to facilitate operation.

- Add a wooden strip at the back of the carriage sled to keep the back roll-up bar from hitting the machine needle bar.
- Add a wooden strip at the left side of the frame to keep the machine sled from running off the track.
- Mount a variable speed foot controller between the upper handles to start/stop the machine and control the speed with the thumbs while holding onto the upper handles. (There are other ways to control the operation of the machine)





**BOWER LIFT SYSTEM:** A further enhancement is the installation of the Bower Lift System to accurately and easily control the position of the roll-up bars in relation to the machine base.



Install the lift so that the handle clears the top of the end frame. **HINT: Be careful to ensure that the screw bottom lands securely on the bottom base plate. You may need to slightly angle the installation to make this happen.** Only loosen one side of the roll-up support bar at a time when making adjustments.

**LEADER CLOTHS:** Attach leader cloths to the roll-up bars. There are different methods for doing this attachment. We used velcro strips with sticky backs for both the rail and the fabric. The shortest leader cloth attaches to the roll-up bar going through the machine. The intermediate length leader attaches to the middle roll-up bar, and the longest length leader attaches to the roll-up bar farthest from the sewing machine.



## LOADING THE QUILT ONTO THE QUILTING FRAME:

### STEP 1 - QUILT BACK:

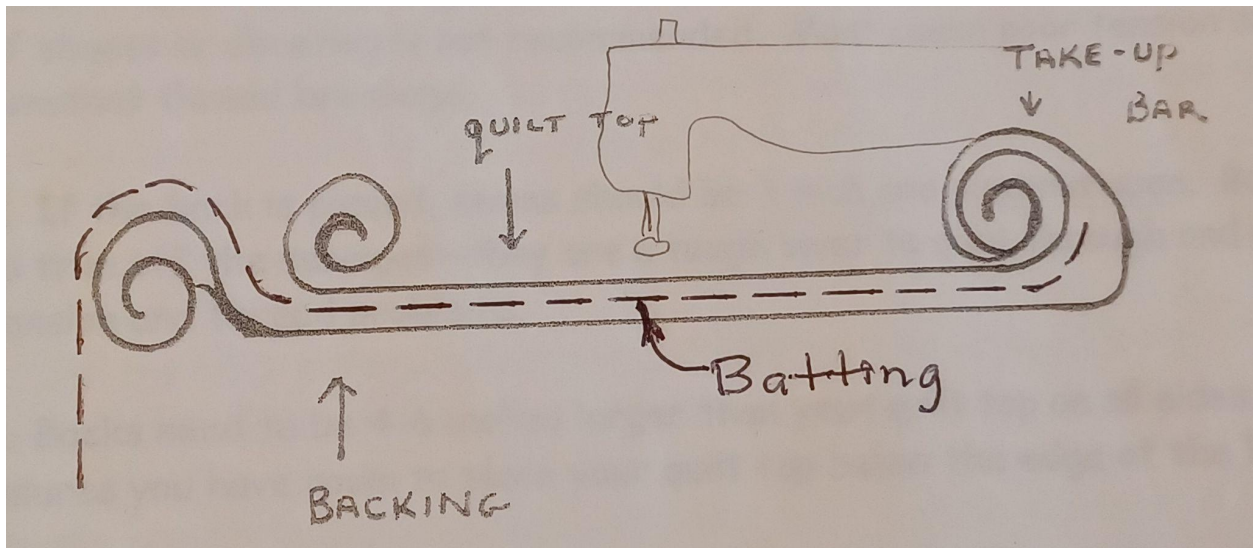
Load the quilt back into the frame with the good side facing down and attach it to the roll-up bar going through the machine. This bar will turn counterclockwise to tension the quilt. There are different methods for attaching the fabric to the leader cloth. We used the red snapper system. Attach the other end of the quilt back to the third roll-up bar as shown in the diagram below. This roll-up bar will also turn counterclockwise to tension the quilt back.

### STEP 2 - BATTING:

Thread the batting over the top of the backing roll-up bar and under the quilt top roll-up bar as shown in the following diagram. Place the batting on top of the quilt back and align it with the quilt back where it is attached to the leader cloth. Baste the batting to the quilt back with the sewing machine set for straight-line quilting. Roll up the excess batting on the drop down roll-up bar which does not need to be tensioned.

### STEP 3 - QUILT TOP:

Place the quilt top on top of the batting and quilt back and align it with the quilt back where it is attached to the leader cloth. Baste the quilt top to the quilt back with the sewing machine set for straight-line quilting. Attach the other end of the quilt top to the second roll-up bar as shown in the diagram below. This roll-up bar will turn clockwise to tension the quilt top.



**STRAIGHT LINE QUILTING:** Sewing in a straight line is accomplished by immobilizing either the upper or bottom machine carriage sleds as appropriate using channel locks. Various kinds of channel locks are described in the on-line discussions, such as clamps for the wheels or commercial products. We used slotted wooden strips and hand clamps to block the wheels.

