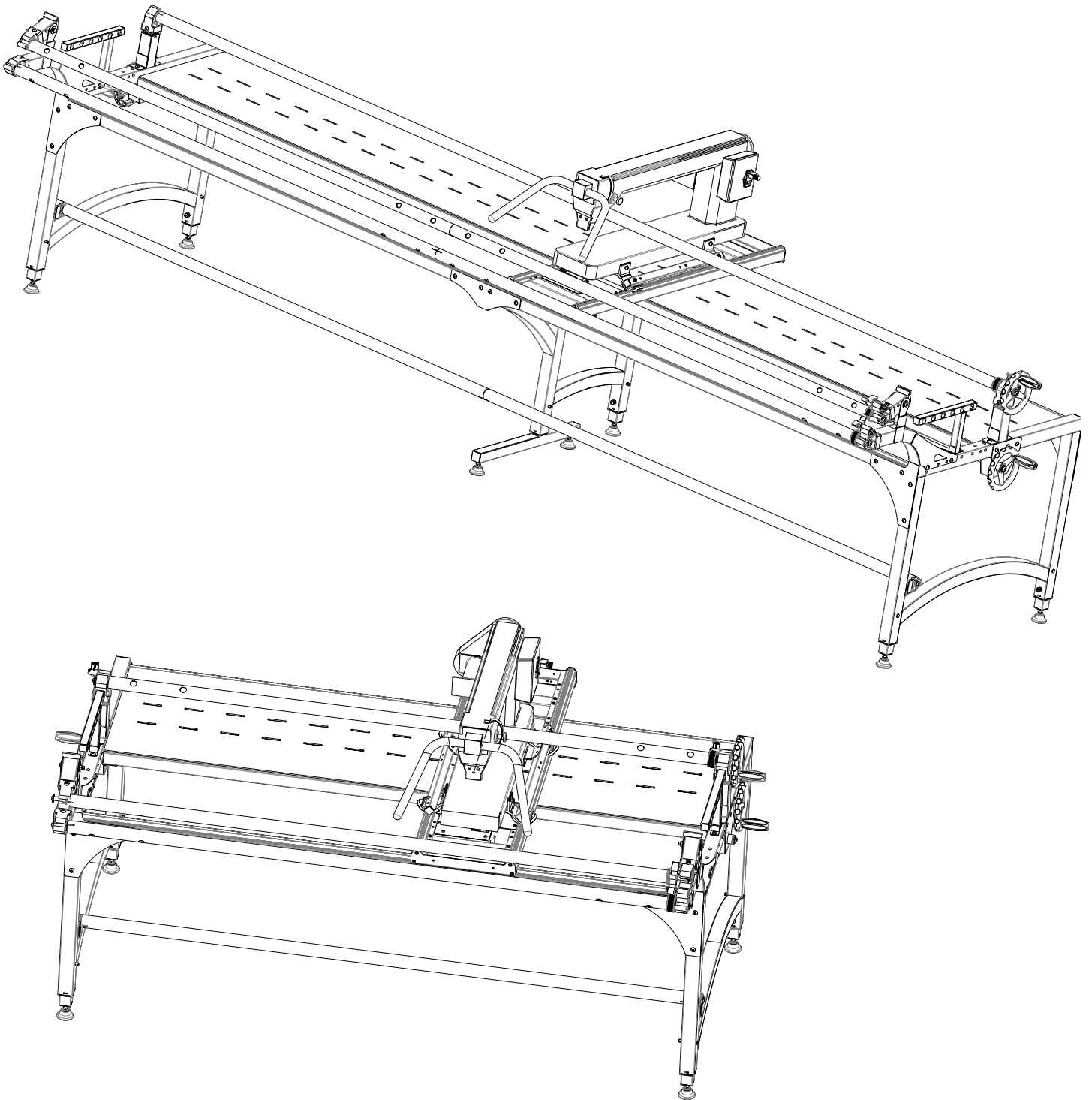


The Phoenix

Professional Quilting Frame



The Phoenix

Professional Quilting Frame

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Assembly Steps

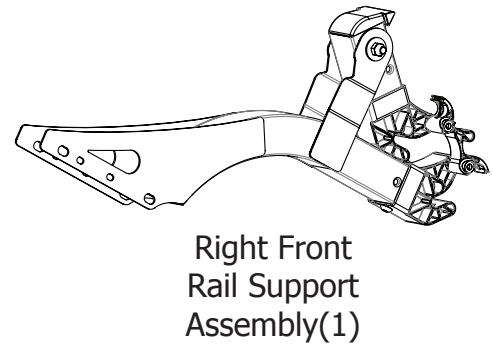
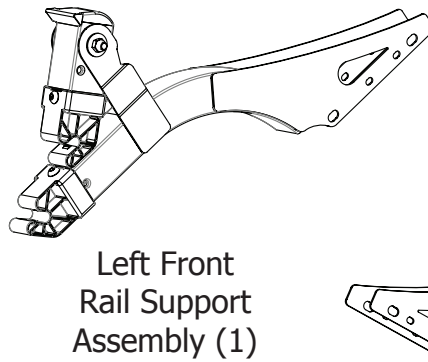
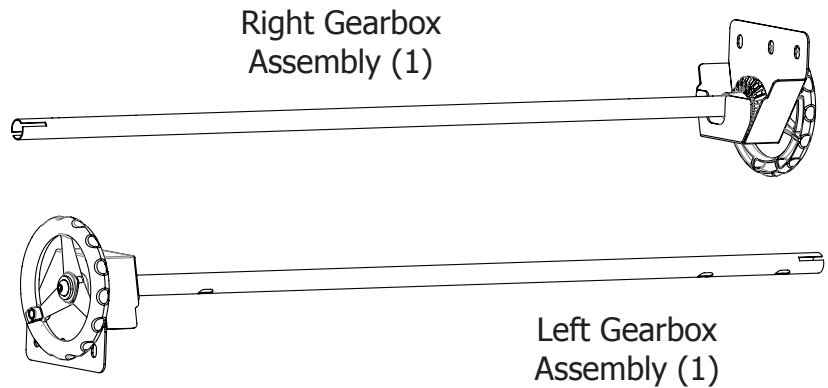
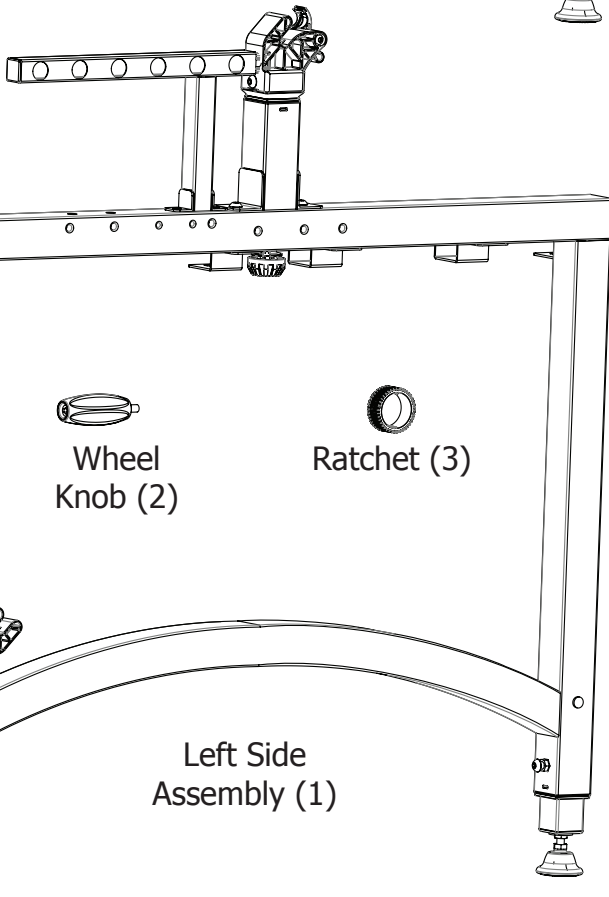
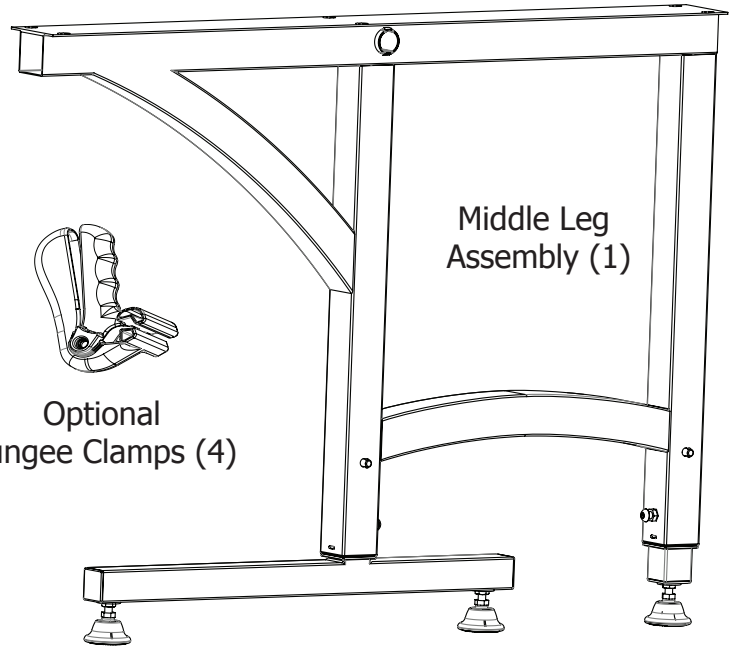
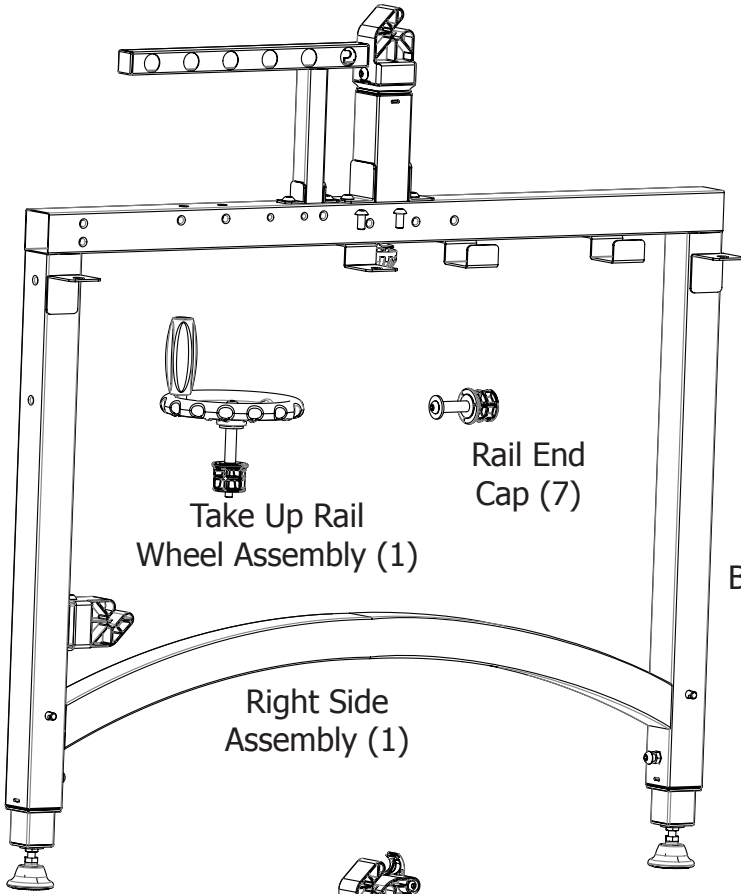
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Fabric Installation

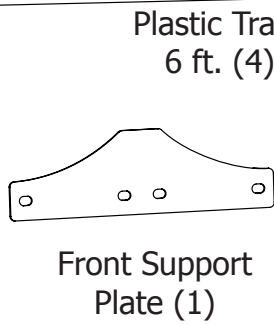
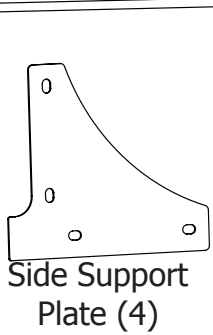
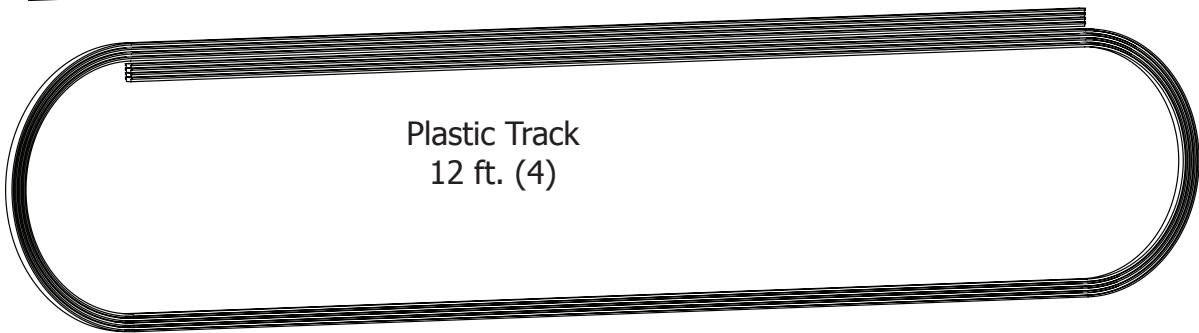
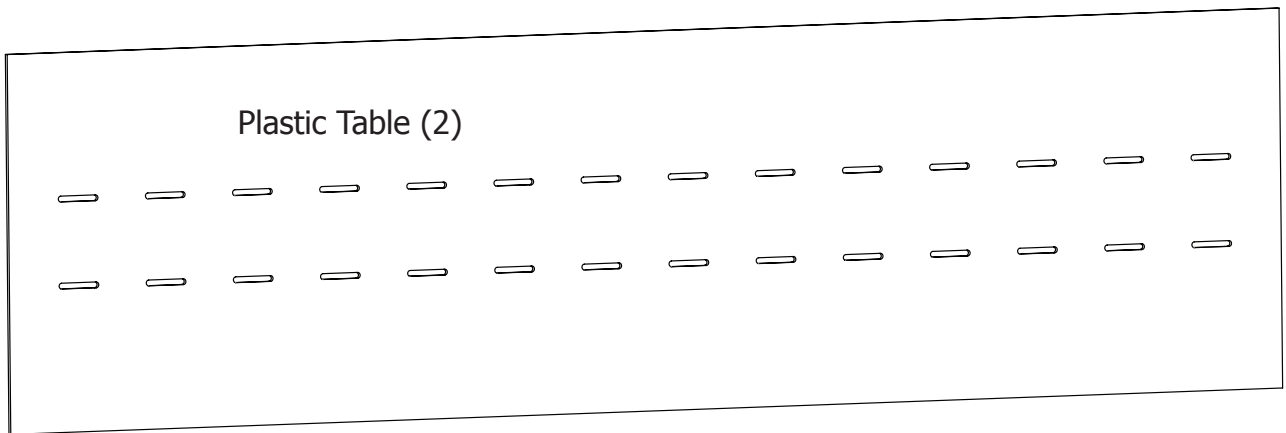
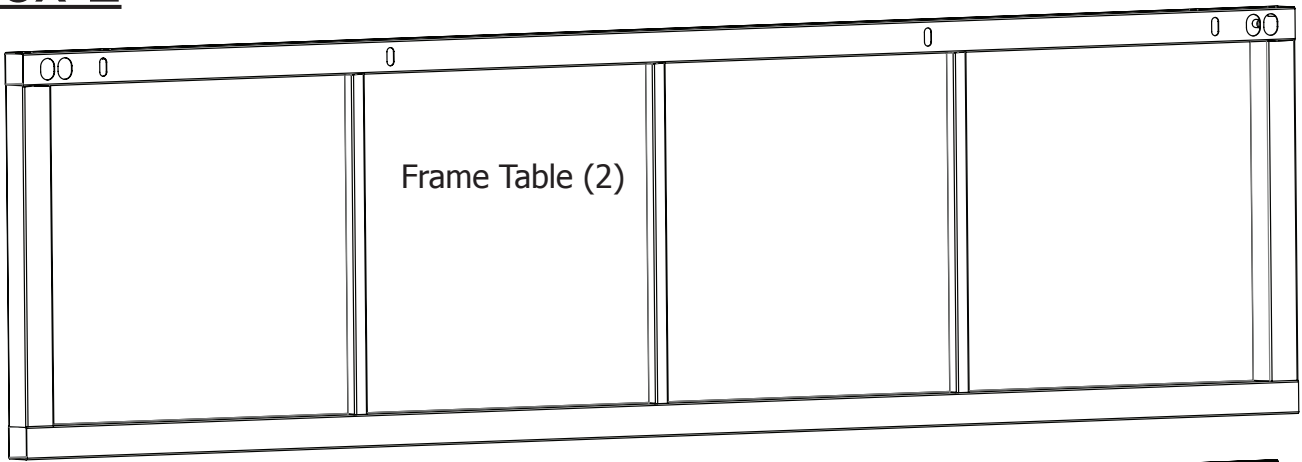
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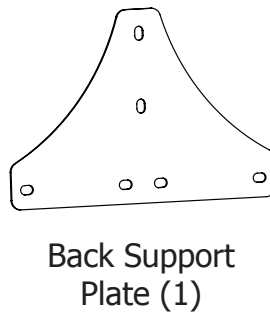
Box 1



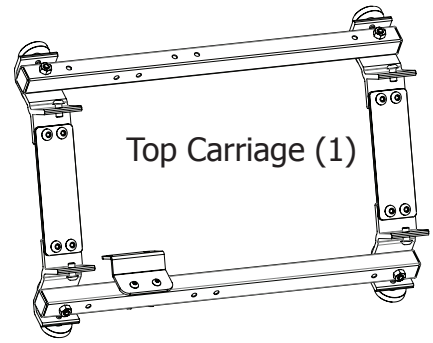
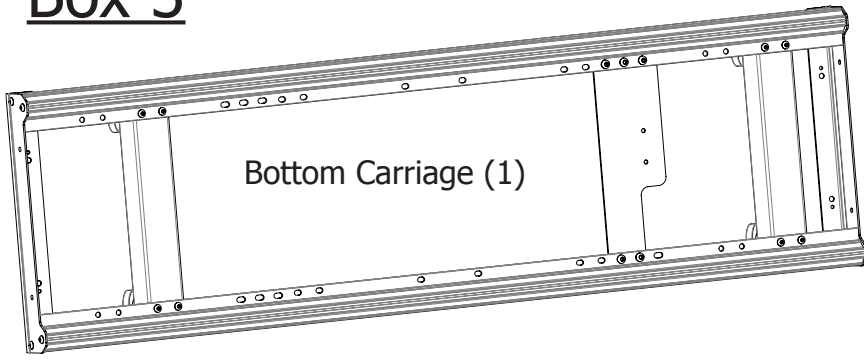
Box 2



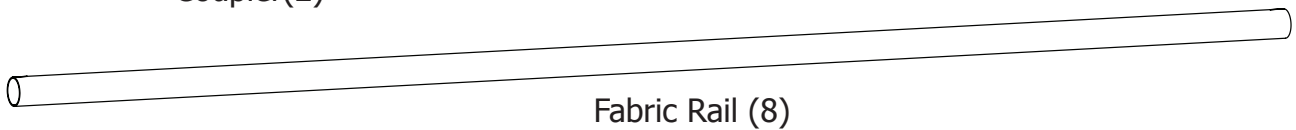
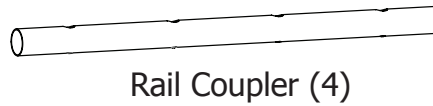
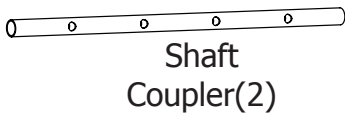
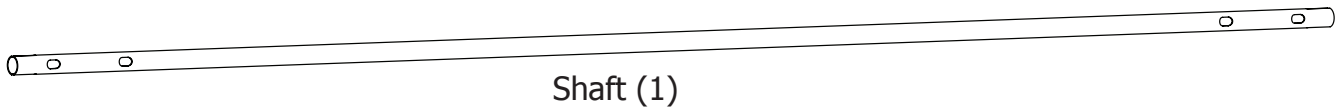
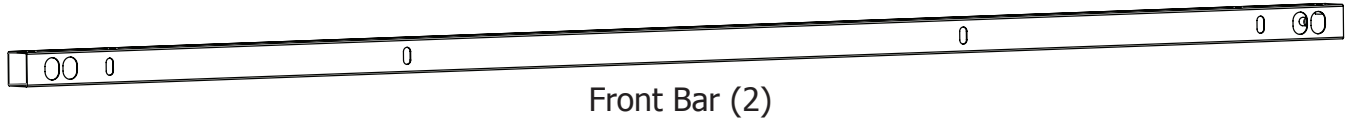
Plastic Track
6 ft. (4)



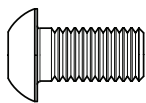
Box 3



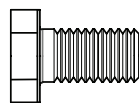
Box 4



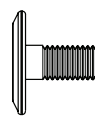
Hardware (in Box 1)



M8 X 16 mm
Socket Head Screw (46)



M8 X 12 mm
Hex Bolt (6)



M6 X 10 mm
Connector Bolt (16)



M6 X 16 mm
Set Screws (8)

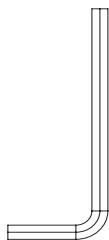
Tools



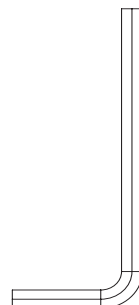
M3 Allen
Wrench (1)



M4 Allen
Wrench (1)



M5 Allen
Wrench (1)



M6 Allen
Wrench (1)



Open End Wrench (1)

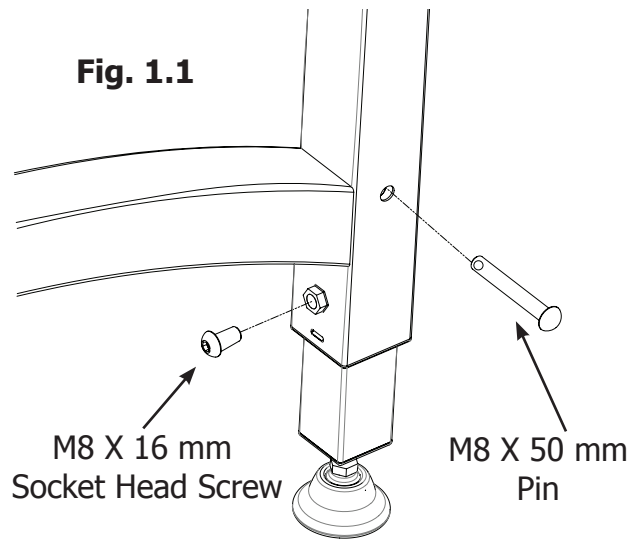
Step 1 - Height Adjustable Leg Assembly

Parts Needed:

- 1 - Right Side Assembly
- 1 - Left Side Assembly
- 1 - Middle Leg Assembly * (for King Size)

1-1: To adjust the height of the leg, remove the pre-assembled M8 X 50 mm Pins and loosen the M8 X 16 mm Socket Head Screw, as shown in Fig. 1.1. Reinsert the M8 X 50 mm Pins into the leg at desired height. Then tighten the M8 X 16 mm Socket Head Screw.

1-2: Repeat Step 1-1 for all other legs.



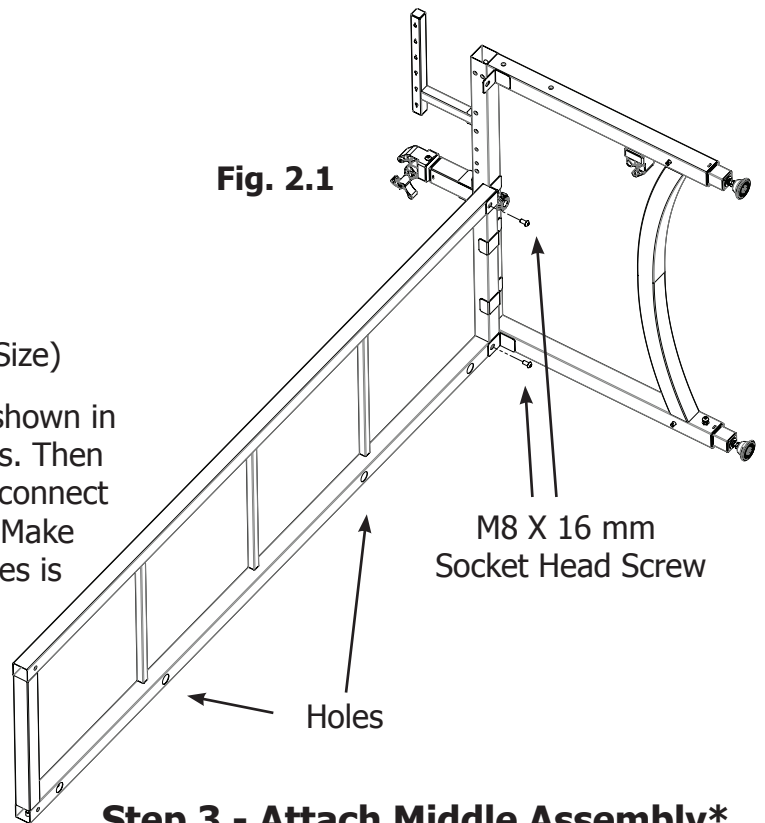
Step 2 - Table Top to Side

Parts Needed:

- 4 - M8 X 16 mm Socket Head Screw
- 1 - Right Side Assembly
- 1 - Left Side Assembly
- 2 - Frame Table* (1 Frame Top for Crib Size)

2-1: Lay Side Assemblies on their side, as shown in Fig. 2.1. Slide the Frame Table in the brackets. Then use (2) M8 X 16 mm Socket Head Screws to connect the Right Side Assembly to the Frame Table. Make sure the side of the Frame Table with the holes is touching the floor, as shown in Fig. 2.1.

2-2: Repeat Step 2-1 for the Left Side Assembly, using same Frame Table for the Crib Size and the second Frame Table for the King Size.



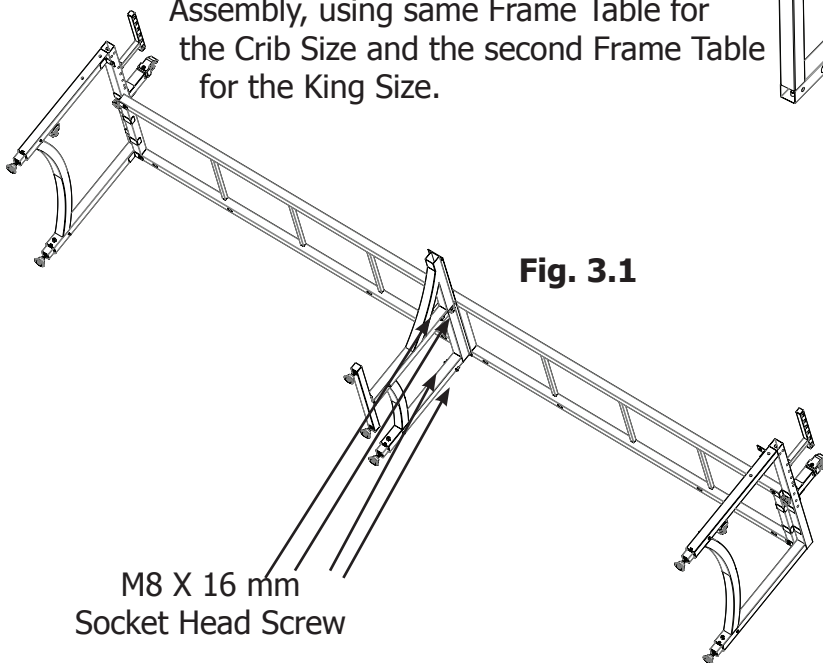
Step 3 - Attach Middle Assembly*

(For King Size only)

Parts Needed:

- 4 - M8 X 16 mm Socket Head Screw
- 1 - Right Side Assembly with Frame Table
- 1 - Left Side Assembly with Frame Table
- 1 - Middle Assembly

3-1: With your Left and Right Side Assemblies still on their sides, place the Middle Leg Assembly at the joint and attach it to the Frame Tables with (4) M8 X 16 mm Socket Head Screws, as shown in Fig. 3.1.



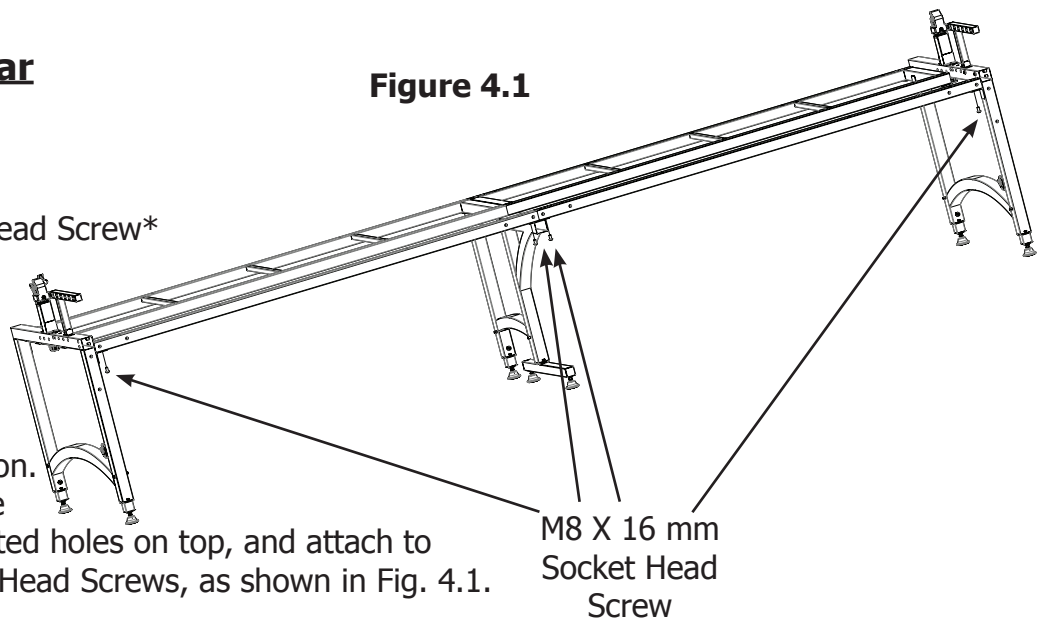
Step 4 - Connect Front Bar

Figure 4.1

Parts Needed:

- 4 - M8 X 16 mm Socket Head Screw*
- 2 - Front Bar*
- *(2 Screws and 1 Front Bar for Crib Size)

4-1: With someone's help, tilt the Table into a standing position. Now place (2) Front Bars at the front of the frame with the slotted holes on top, and attach to the frame using (4) M8 Socket Head Screws, as shown in Fig. 4.1.



Note: For Crib attach one Front Bar to both sides and not the middle.

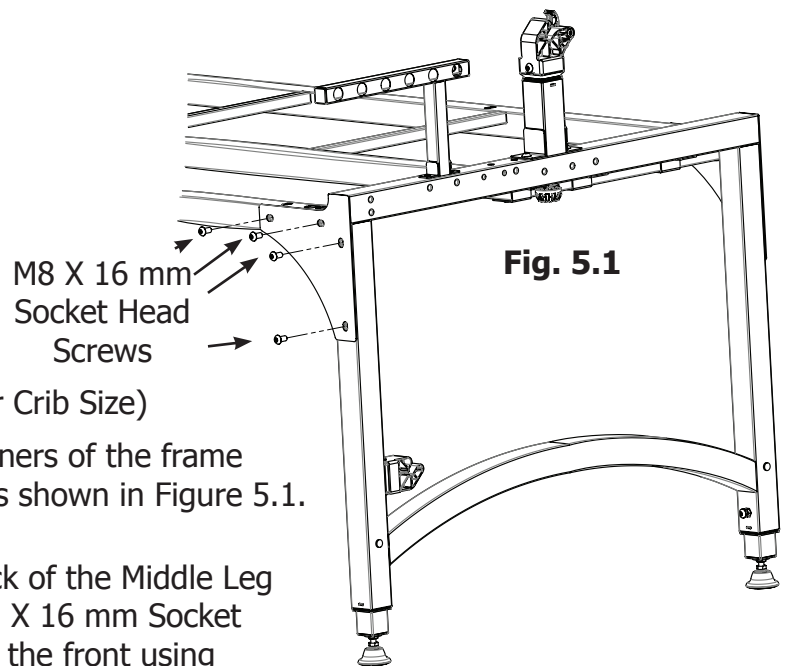
Step 5 - Attach Support Plates

Parts Needed:

- 26 - M8 X 16 mm Socket Head Screw*
- 4 - Side Support Plate
- 1 - Back Support Plate*
- 1 - Front Support Plate*
- *(no Back or Front Support Plate and only 16 Screws in Crib Size, skip Step 5-2, for Crib Size)

5-1: Attach (4) Side Support Plates to the corners of the frame using (16) M8 X 16 mm Socket Head Screws, as shown in Figure 5.1.

5-2: Attach the Back Support Plate to the back of the Middle Leg Assembly of the frame in the back using (6) M8 X 16 mm Socket Head Screws. Attach the Front Support Plate to the front using (4) M8 X 16 mm Socket Head Screws.



Step 6 - Attach Front Rail Support

Parts Needed:

- 8 - M8 X 16 mm Socket Head Screw
- 1 - Right Front Rail Support Assembly
- 1 - Left Front Rail Support Assembly

6-1: Using (4) M8 X 16 mm Socket Head Screws attach the Right Front Rail Support Assembly to the right front corner of the frame using the corresponding hole for your machine as shown in Fig. 6.1 for the 26" Machine or Fig. 6.2 for the 18" Machine.

6-2: Repeat Step 6-1 for Left Front Rail Support Assembly.

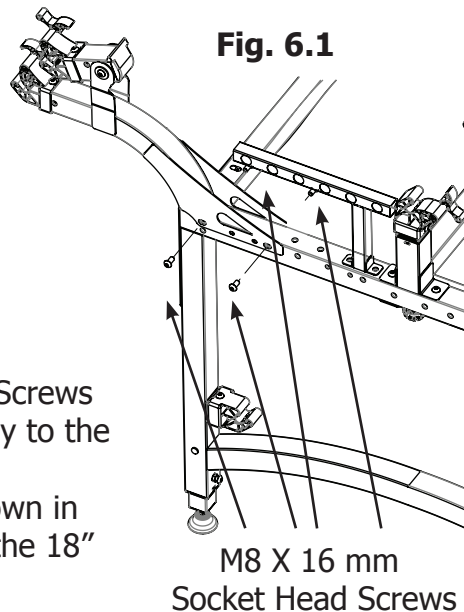


Fig. 6.1

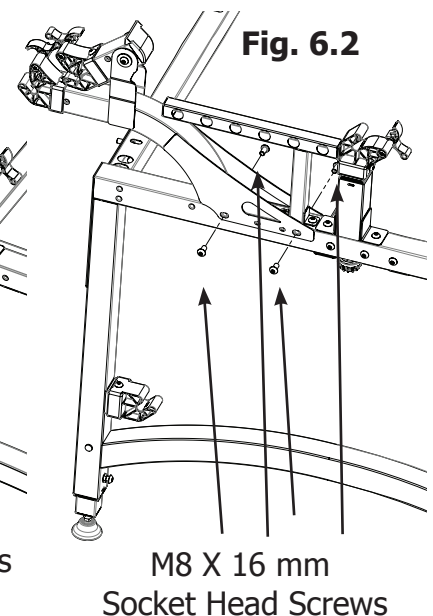


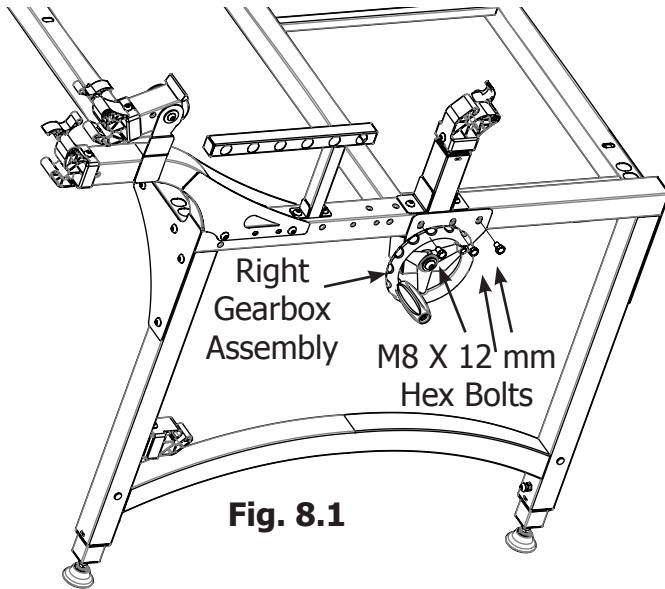
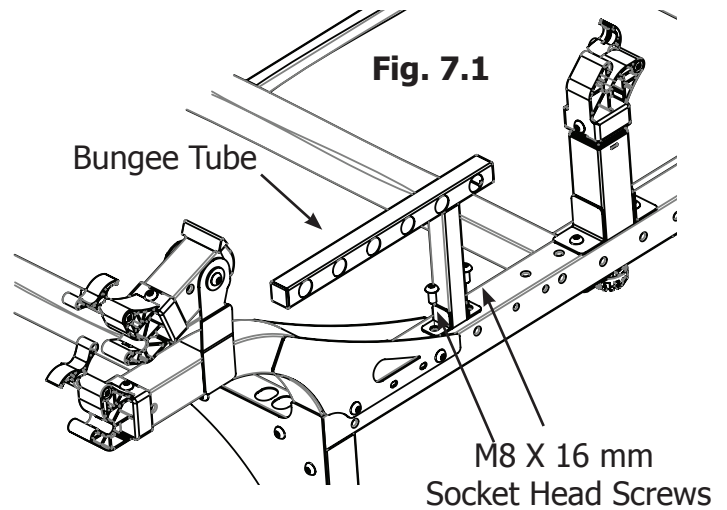
Fig. 6.2

Step 7 - Bungee Adjustment*

(only for 26" Sewing Machine)

7-1: For a 26" Machine unscrew the (4) M8 X 16 mm Socket Head Screws holding the (2) Bungee Tubes in place.

7-2: Move both Bungee Tubes closer to the front of the frame and reattach the (4) M8 X 16 mm Socket Head Screws as shown in Fig. 7.1.



Step 8 - Gearbox and Shaft Assembly

Parts Needed:

- 1 - Shaft*
- 2 - Shaft Coupler*
- 1 - Right Gearbox Assembly
- 1 - Left Gearbox Assembly
- 6 - M8 X 12 mm Hex Bolts

*(The Shaft and (1) Shaft Coupler are not used in Crib Size. Skip steps **8-2** and **8-3** for Crib Size.)

8-1: Attach the Right Gearbox Assembly to the right side of frame by tightening (3) M8 X 12 mm Hex Bolts into the Frame Side, as shown in Figure 8.1.

8-2: Place the Shaft through the plastic hole in the center of the frame, as shown in Figure 8.2.

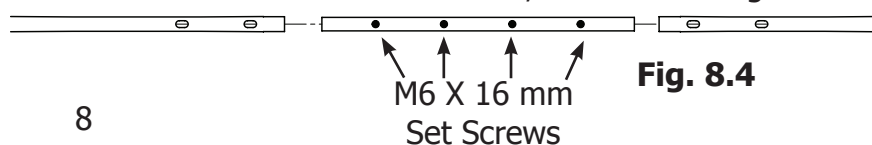
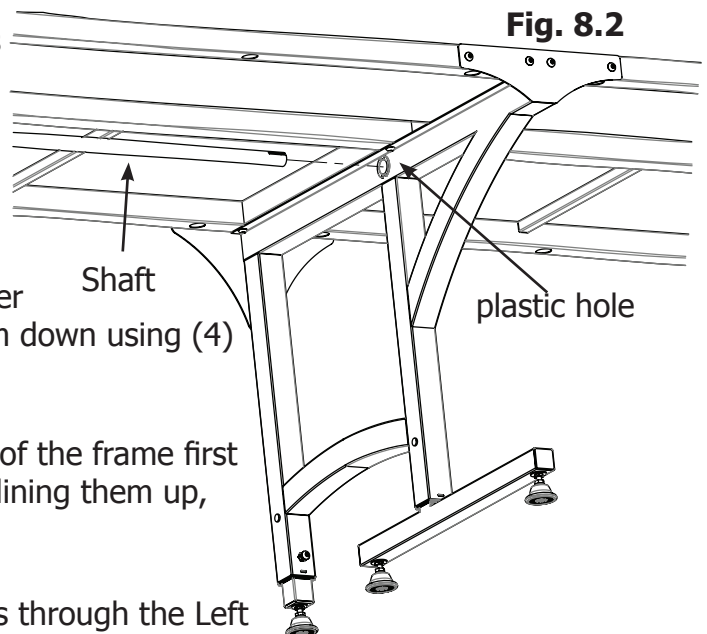
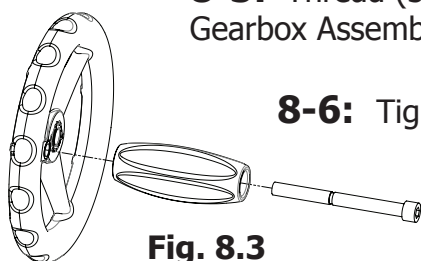
8-3: Connect the shafts together with a Shaft Coupler tightening until they are touching and then lock them down using (4) M6 X 16 Set Screws, as shown in Fig. 8.4.

8-4: Put the Left Gearbox Assembly on the left side of the frame first by placing a Shaft Coupler in between the shafts and lining them up, as shown in Fig. 8.4.

8-5: Thread (3) M8 X 12 mm Hex Bolts through the Left Gearbox Assembly and completely tighten them.

8-6: Tighten the M6 X 16 mm Set Screws in the Shaft Coupler and left shaft.

8-7: Screw Wheel Knobs onto each Gearbox Wheel, as shown in Fig. 8.3.

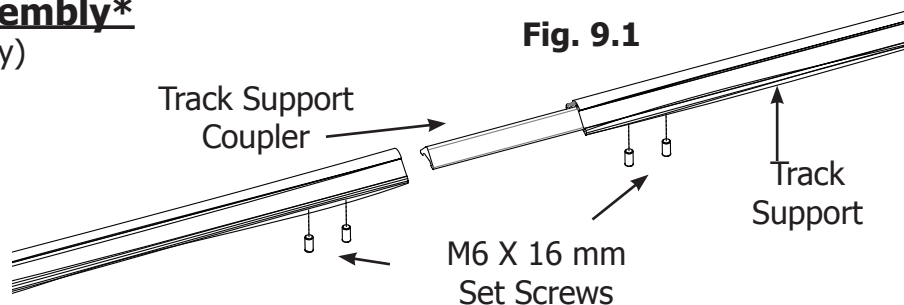


Step 9 - Track Support Assembly*

(For King Size only)

Parts Needed:

- 8 - M6 X 16 mm Set Screw
- 4 - Track Support
- 2 - Track Support Coupler



9-1: Slide half of a Track Support Coupler into a Track Support and lock the Coupler in place by using (2) M6 X 16 mm Set Screws.

9-2: Slide another Track Support over the rest of the Track Support Coupler and then lock the Coupler in place by using M6 X 16 mm Set Screws, as shown in Fig. 9.1.

9-3: Repeat Steps 1 and 2 to create another Track Support Assembly.

Step 10 - Track Insertion

Parts Needed:

- 2 - Track Support Assembly
- 4 - Plastic Track* (for King Size)
- 4 - 6 ft. Plastic Track* (for Crib Size)

10-1: Slide (2) Plastic Track into the grooves of the Track Support Assembly, as shown in Figure 10.1.

10-2: Repeat Step 10-1 for remaining Track Support Assembly.

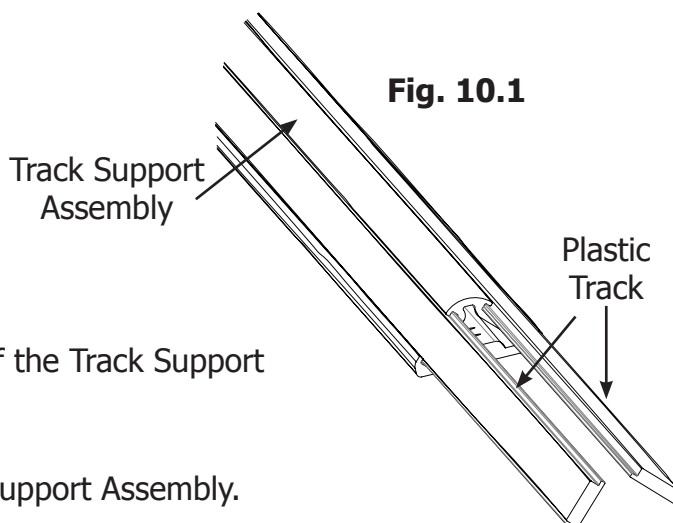
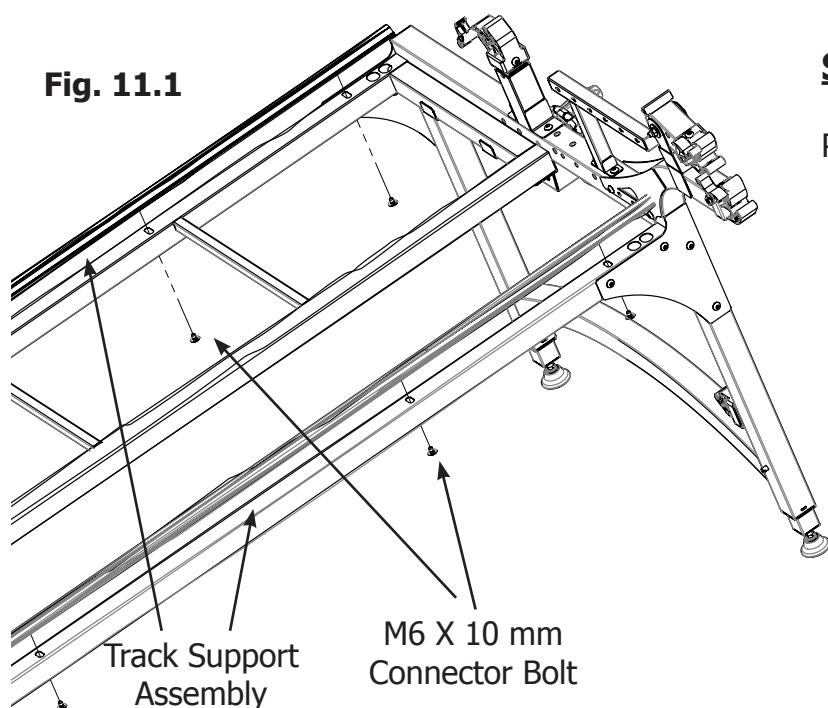


Fig. 11.1



Step 11 - Track Installation

Parts Needed:

- 2 - Track Support Assembly
- 16 - M6 X 10 mm Connector Bolt*

*(only 8 Connector Bolts for Crib Size)

11-1: Lay one of the Track Support Assemblies on the front and one on the back of your frame.

11-2: Screw M6 X 10 mm Connector Bolt into each of the holes, as shown in Figure 11.1, do not to completely tighten the bolts at this time.

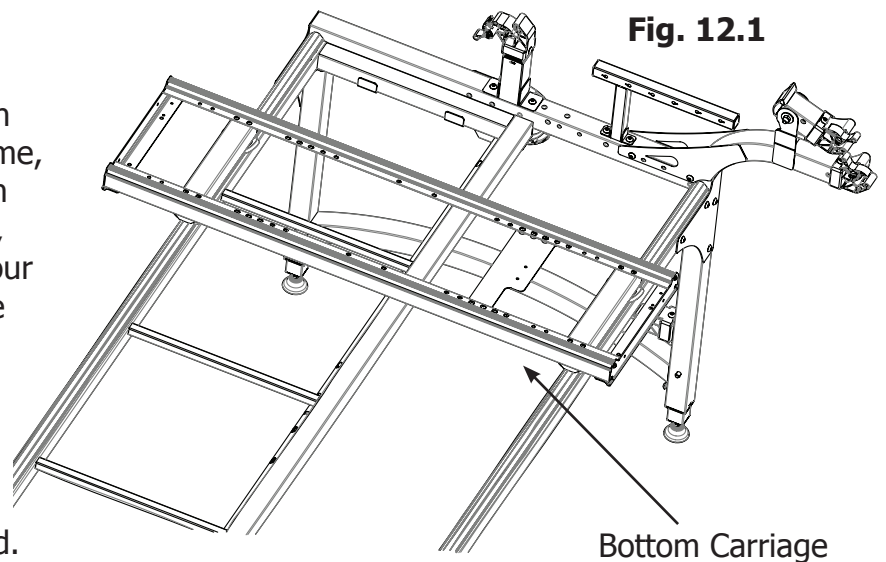
Step 12 - Track Alignment

Parts Needed:

1 - Bottom Carriage

12-1: Place the Bottom Carriage on the tracks and slide it across the frame, adjust the tracks so they line up with the wheels and the Bottom Carriage, as shown in Fig. 12.1. This allows your carriage to glide smoothly across the frame during quilting.

12-2: Once the track is lined up, tighten the M6 X 10 mm Connector Bolts under the track until they are tight and the track can not be moved. Remove the Bottom Carriage until later.

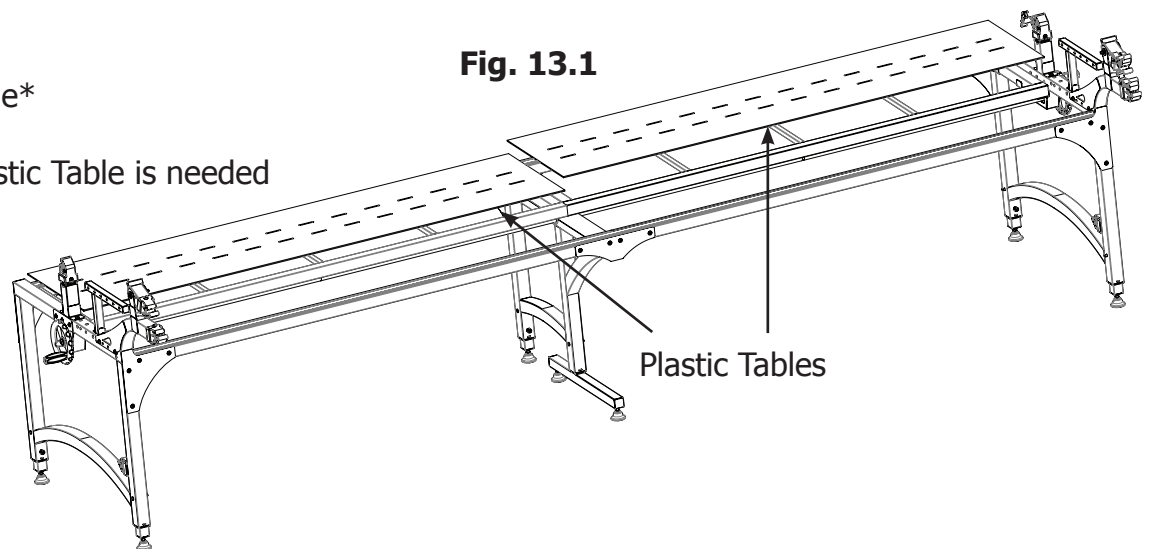


Step 13 - Plastic Table Installation

Parts Needed:

2 - Plastic Table*

*(Only (1) Plastic Table is needed for Crib Size)



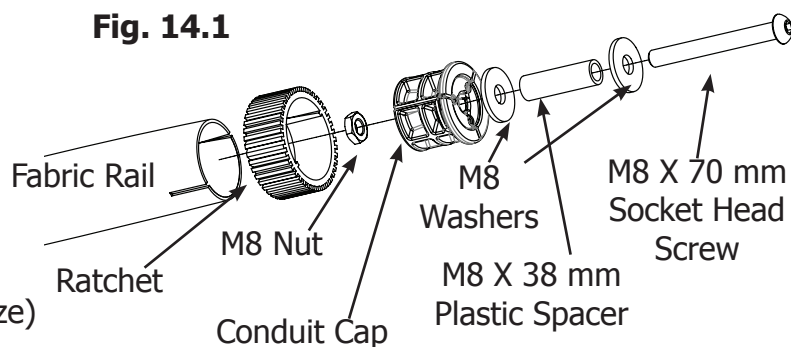
13-1: Lay the Plastic Table against the back Track Support and against one side of the frame, over the foam strips, as shown in Fig. 13.1.

13-2: Lay the other Table against the back Track Support and against the other side of the frame.

Step 14 - Rail End Cap Assembly

Parts Needed:

- 8 - Fabric Rail*
- 7 - Rail End Cap
- 3 - Ratchet
- 1 - Take Up Rail Wheel Assembly
- *(Only use (4) Fabric Rails for Crib Size)



Note: For Crib size make one Rail with only Rail End Caps on each side, two with only a Rail End Cap on one side and a Rail End Cap with a Ratchet on the other, and one Rail with a Rail End Cap on one side and the Take Up Rail Wheel Assembly with a Ratchet on the other side.

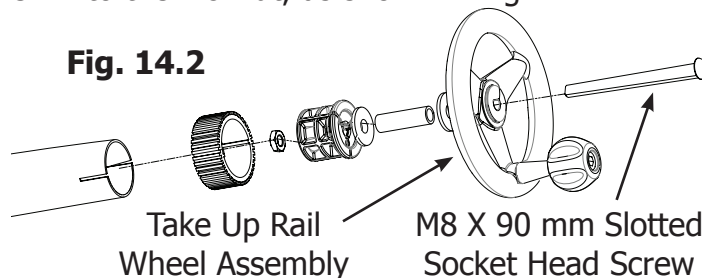
14-1: Slide (3) Ratchet on (3) Fabric Rails, matching the ridges in the Ratchet with the groves in the Fabric Rail. Rail End Caps come assembled. Steps 14-2, 14-3 and 14-5 are for changing to Crib or King after frame has been assembled and can otherwise be skipped.

14-2: If a Rail End Cap is disassembled place the M8 Nut into the back of the Conduit Cap and slide the M8 X 70 mm Socket Head Screw through a M8 Washer, M8 X 38 mm Plastic Spacer, another M8 Washer, and Conduit Cap, then lightly tighten the screw into the M8 Nut, as shown in Fig. 14.1.

14-3: Repeat Step 2 to make (7) Rail End Caps.

14-4: Slide (6) Rail End Caps into the ends of (2) Fabric Rails with Ratchets and (5) Fabric Rails without Ratchets. Tighten Socket Head Screws.

Fig. 14.2



14-5: If Take Up Rail Wheel Assembly is disassembled make Take Up Rail Wheel Assembly by using the M8 X 90 mm Slotted Socket Head Screw followed by the Wheel Assembly, M8 Washer, M8 X 38 mm Steel Spacer, another M8 Washer, and Conduit Cap with the M8 Nut placed in back, as shown in Fig. 14.2. Firmly Tighten Assembly and place it into the last Rail with the Ratchet, finish by tightening the M8 X 90 mm Slotted Socket Head Screw.

Step 15 - Rail Connection*

(For King Size only)

Parts Needed:

- 1 - Fabric Rail Assembly with Hand Wheel
- 5 - Fabric Rail Assembly without Ratchet
- 2 - Fabric Rail Assembly with Ratchet
- 4 - Rail Coupler
- 16 - M8 X 16 mm Set Screw

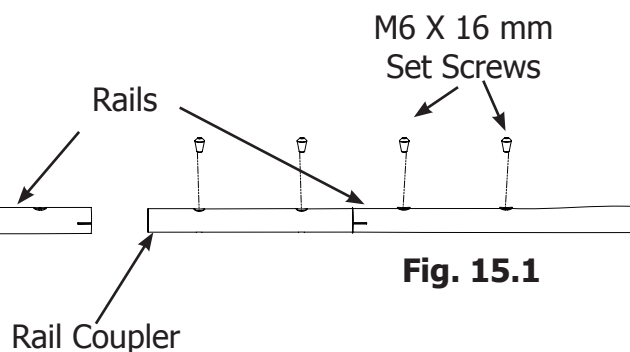


Fig. 15.1

15-1: Slide a Rail Coupler into the open end of a Fabric Rail Assembly with a Ratchet and line the holes up. Use (2) M6 X 16 mm Set Screw to tighten the Rail to the Coupler, as shown in Fig. 15.1.

15-2: Slide a Fabric Rail Assembly without a Ratchet on the other end of the coupler. Again line up the holes and tighten (2) M6 X 16 mm Set Screw into the Coupler through the Rail.

15-3: Repeat Steps 15-1 and 15-2 until you have three Fabric Rail Assemblies and then make the fourth assembly using (2) Fabric Rail Assemblies without Ratchets for the batting rail.

Step 16 - Rail Installation

Parts Needed:

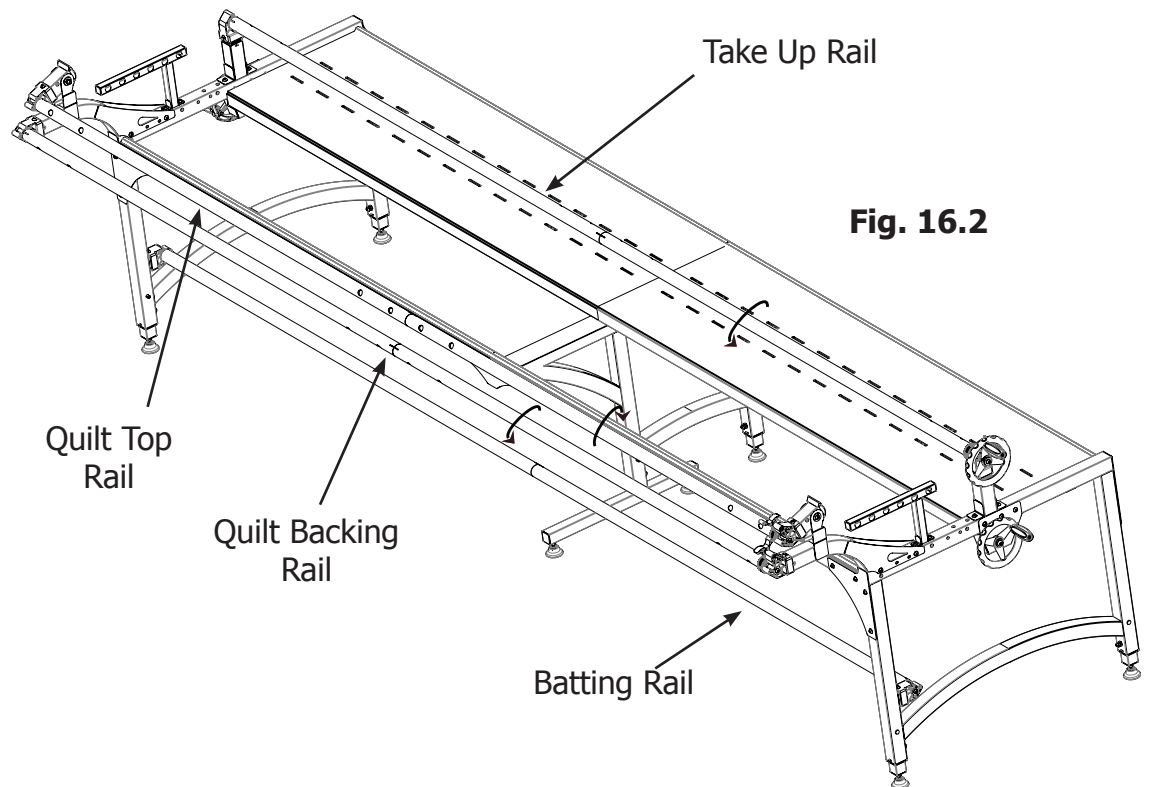
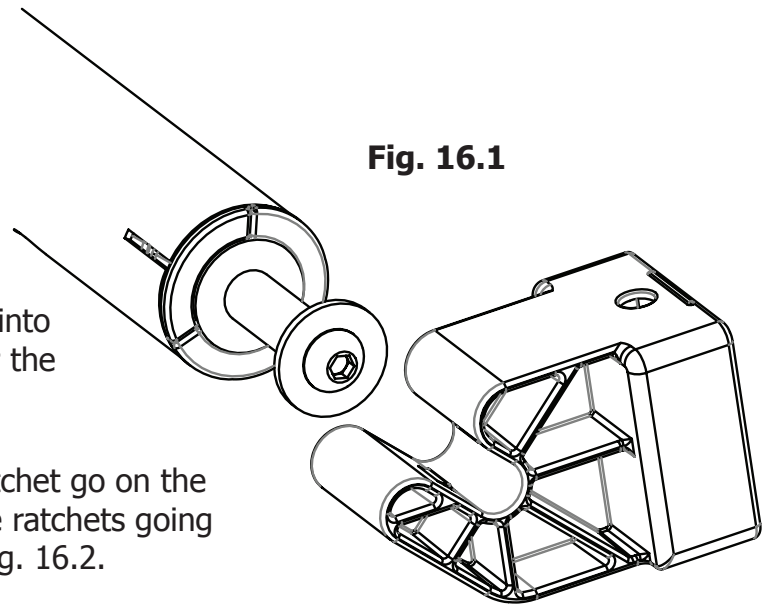
- 1 - Fabric Rail Assembly without Ratchet
- 2 - Fabric Rail Assembly with Ratchet
- 1 - Fabric Rail Assembly with Hand Wheel

16-1: Place the Fabric Rail without Ratchet into the rail holder on the bottom of the frame for the batting rail, as shown in Fig. 16.1.

16-2: The (2) Fabric Rail Assembly with Ratchet go on the rail holders on the front of the frame with the ratchets going on the right side of the frame, as shown in Fig. 16.2.

16-3: The Fabric Rail Assembly with Hand Wheel goes in the rail holders on the top back of the frame with the hand wheel on the right side of the frame.

16-3: Spin the Rails, as shown in Fig. 16.2, to make sure the ratchets are working.



Step 17 - Top Carriage Alignment

Parts Needed:

- 1 - Top Carriage
- 1 - Bottom Carriage

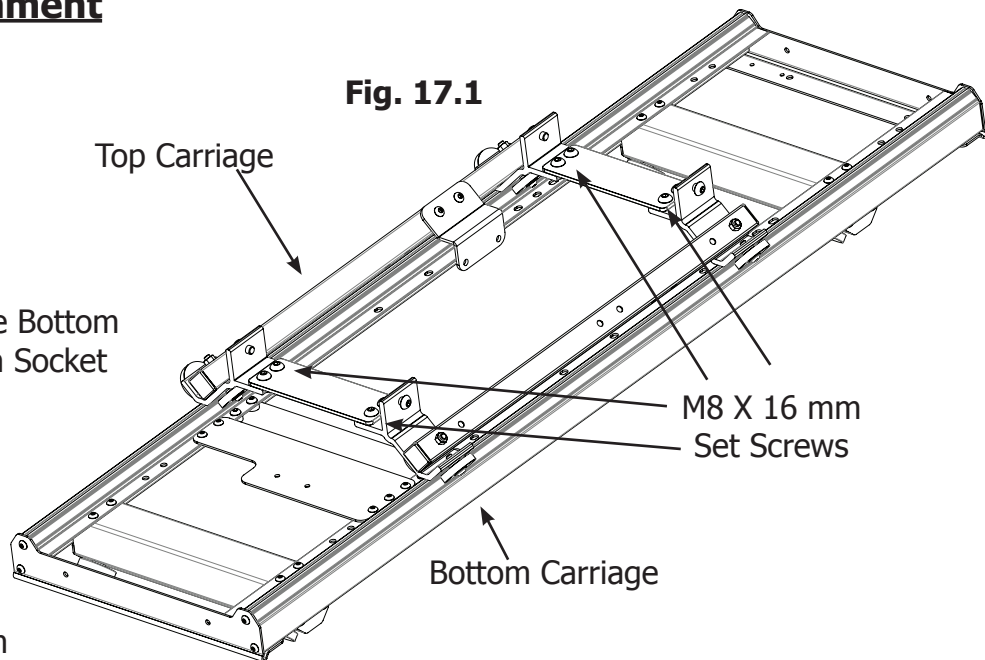
17-1: Place the Top Carriage on the Bottom Carriage and loosen the M8 X 16 mm Socket Head Screws on the Top Carriage.

17-2: Line up the wheels so all (8) wheels are touching the track as it slides, as shown in Fig. 17.1.

17-3: Retighten all (8) M8 X 16 mm Socket Head Screws.

17-4: Place both the Bottom and Top Carriages on the frame.

Fig. 17.1

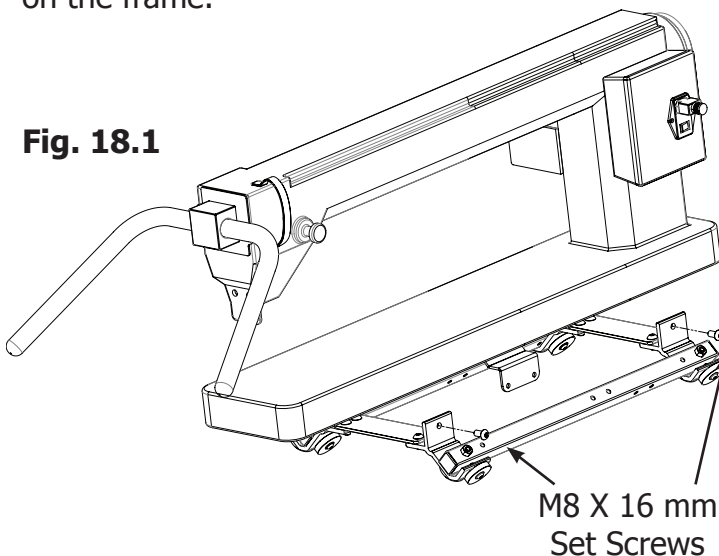


Step 18 - Machine Attachment

Parts Needed:

- 1 - Top Carriage
- 1 - Tin Lizzie Quilting Machine

Fig. 18.1



18-1: Loosen the M8 X 16 mm Socket Head Screws on the Top Carriage, as shown in Fig. 18.1, and center your machine side to side over the Top Carriage and set the machine down on the Top Carriage.

18-2: For the 26 inch machine move Top Carriage to the back of the Bottom Carriage and adjust the machine so the needle is about 1/4 inch in front of the Take Up Rail. For the 18 inch machine make sure the machine is centered so the needle can be in any point between the Rails.

18-3: Retighten the M8 X 16 mm Socket Head Screws on the Top Carriage.

Congratulations! You have completed the assembly of your Quilting Frame.

All that remains is to install your fabric and begin quilting!

We recommend you begin with practice material allowing you to experiment with machine settings and stitching techniques.

NOTE: As you cut the fabric layers, we recommend making the quilt backing about 6-8" longer and 2-4" wider than the top. This will allow for a little give in the backing, especially if using thicker batting.

Fabric Installation:

Using leader cloths enable you to finish your quilt completely, end to the end, without having to take your quilt off the frame.

Fabric Installation Overview

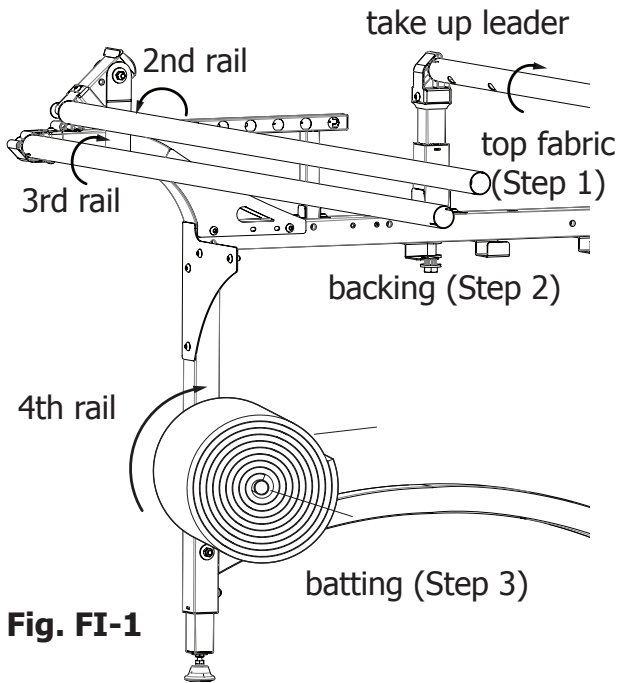


Fig. FI-1

- Step 1:** Install quilt top to 2nd rail and roll up.
- Step 2:** Install quilt backing to the 3rd rail and roll up.
- Step 3:** Install batting to the 4th rail and roll up.
- Step 4:** Attach quilt backing to take up rail.
- Step 5:** Attach batting to take up rail.
- Step 6:** Attach quilt top to take up rail.

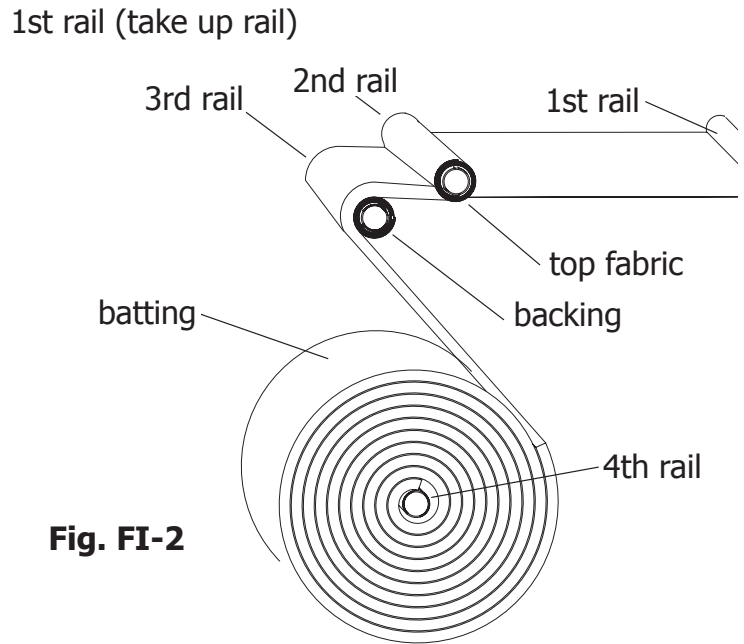


Fig. FI-2

Leader Cloth Installation Instructions Preview

Step L1: Draw a straight line all the way across each of your fabric rails with a black magic marker.

Step L2: Mark the center of each cloth leader on both edges (Length-wise). Also place a mark at the center of each of the fabric rails. Always measure to the center of the rails from the same end of the quilting frame. Draw the lines at the center of each rail so that they cross the lines previously drawn across the rails.

Step L3: Now you need to attach your leaders to their respective rails. The fabric can easily be attached to the rails by applying a piece of adhesive backed hook Velcro along the lines that you have drawn down each fabric rail.

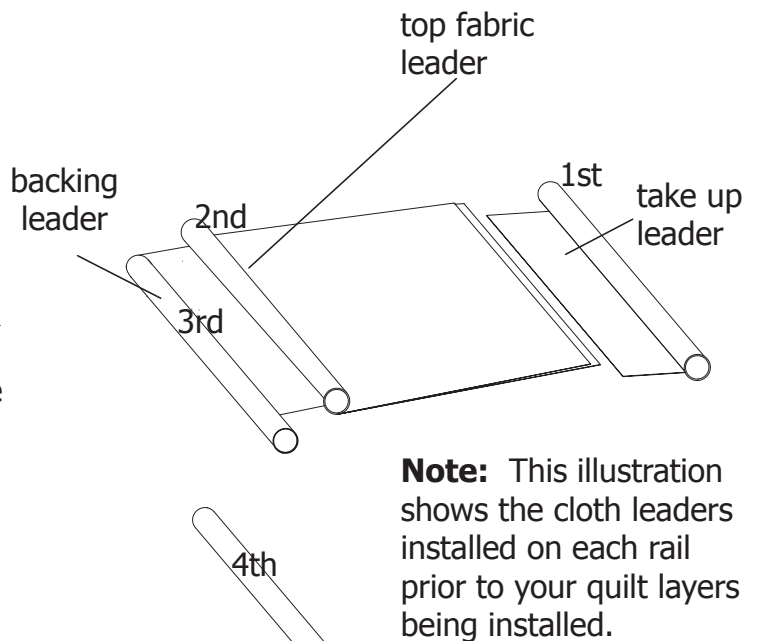


Fig. FI-3

Note: This illustration shows the cloth leaders installed on each rail prior to your quilt layers being installed.

Installing Fabric Layers Onto Rails

STEP 1: Quilt Top To 2nd Rail

Step 1-1: Determine which will be the front and back edges of your quilt.

Step 1-2: Line up the center of your fabric layer with the center of the cloth leader on the 2nd Rail. Pin the back edge of your top to the leader cloth. This is to be done with the finished side of the fabric facing up.

Step 1-3: Do not stretch or pull the fabric during this process. Let it lay as naturally as possible.

Step 1-4: Roll your leader and top onto the 2nd rail completely. Again, be sure the fabrics stay lined up. Smooth out any wrinkles as you roll by brushing the fabric from the center out, being very careful not to stretch or pull the fabric excessively.

NOTE! It is important that you roll the rail the proper direction so the fabric rolls onto the 2nd rail the right way (when fabric rolls off the rail toward the take-up rail, it should roll under and off the rail. See Fig. FI-4).

STEP 2: Quilt Backing To 3rd Rail

Step 2-1: To begin, determine which will be the front and back edges of your quilt **backing** (make sure the backing is not wider than your quilting frame).

Note: If your backing is made up of more than one piece of fabric, cut your selvages off and flatten them out to allow the backing the proper give it needs.

Step 2-2: Line up the center of your fabric layer with the center of the cloth leader on the 3rd rail. Pin the back edge of your backing to the leader cloth. This is to be done with the finished side of the fabric facing down.

Note: Do not stretch or pull the fabric during this process, let it lay as naturally as possible.

Step 2-3: Roll your leader and backing onto the 3rd rail completely. Watch to make sure the fabric stays lined up. Smooth out any wrinkles as you roll by brushing the fabric from the center out. However, be very careful not to stretch or pull the fabric excessively.

Note: It is important that you roll the rail the proper direction so the fabric rolls over and onto the 3rd rail (Fig. FI-4).

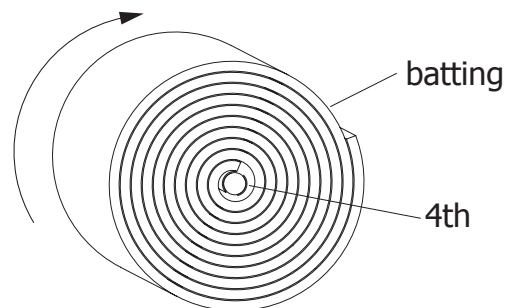
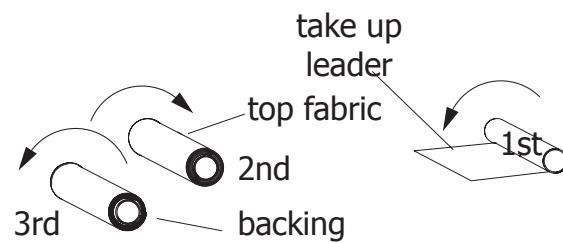


Fig. FI-4

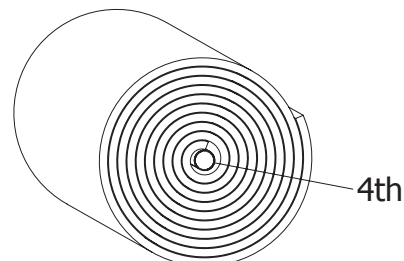
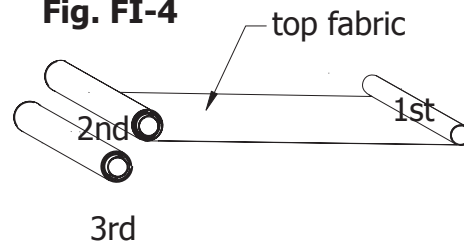


Fig. FI-5

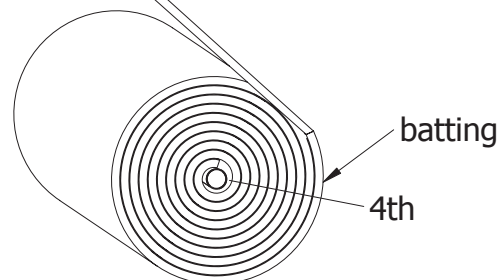
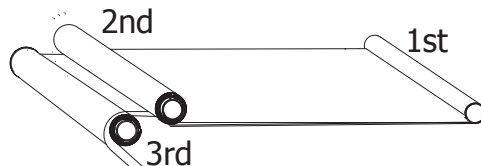


Fig. FI-6

STEP 3: Batting

Step 3-1: A light, bonded batting is recommended.

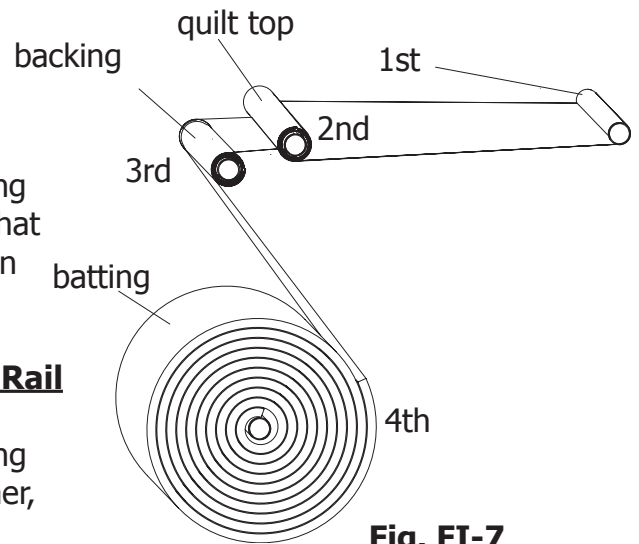
Step 3-2: Center the batting on the 4th rail. Roll the batting onto the 4th rail, being sure to roll the proper direction so that it, like the quilt top, comes off the rail from the bottom when unrolling.

STEP 4: Attaching Your Quilt Layers To The Take-Up Rail

Step 4-1: Take the edge of the quilt backing and pin it along the straight line of the take up rail leader in a smooth manner, without stretching your fabric.

Step 4-2: Next, bring your batting up in between the 3rd rail and 2nd rail and drape over the backing. Lay it along the pin line of your backing on the take up rail cloth leader.

Step 4-3: Finally, bring the quilt top up over the backing and batting and lay it over the batting along the pin line on the take up rail cloth leader. Pin your top and batting along the same line as your backing so that it is smooth.



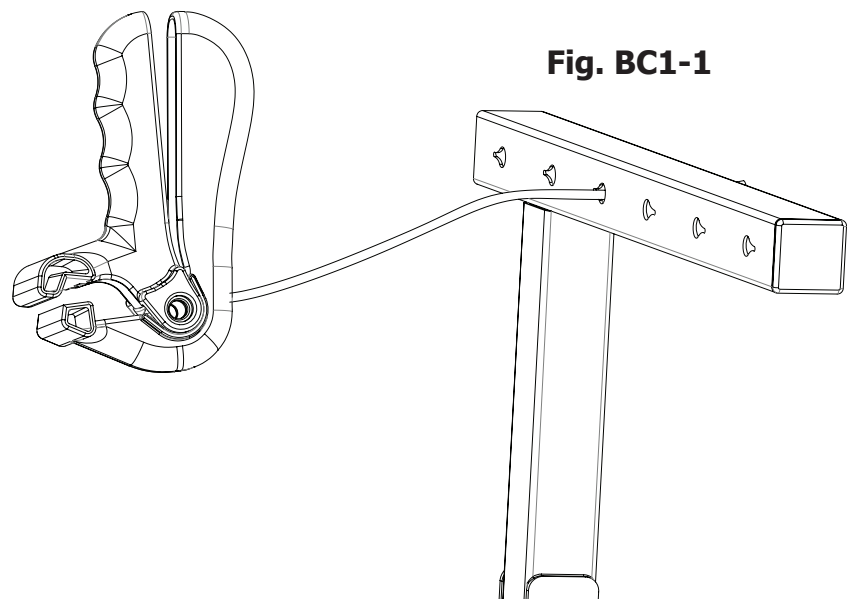
Rolling Your Fabric

When you have completed your work area and are ready to move to the next, simply release the ratchet stops on the 2nd and 3rd rails, allowing them to roll freely. Then, roll the 1st rail forward, rolling the completed work area onto that rail.

TIP! As you roll forward, the quilt will accumulate on the 1st rail. Be sure to raise the take up rail brackets slightly as needed, so that the bottom of the rolled up fabric stays about **1/8" above the throat plate of your sewing machine base**. Failing to do so will cause your carriage assembly to roll less smoothly.

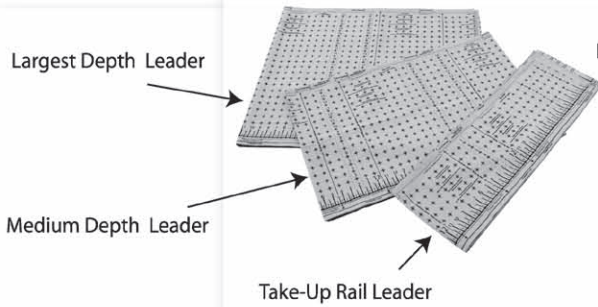
Bungee Clamp Installation

The Bungee Clamps allow you to easily add side tension to your quilt fabric. Clip your bungee Clamps to the quilt fabric, then insert the loose end of the Bungee Cord through the Bungee Tube and pull it to the side to lock it into place, as shown in Fig. BC1-1.



**Step 1:
Cut Leaders to Length**

Cut your cloth leaders to size, determined by the length of your quilting frame (length of rail minus 6"). Hem your cut edge.



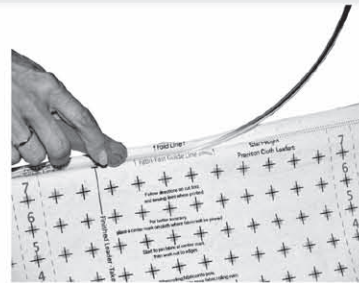
**Step 2:
Determine which leaders install to each pole**

The leader with the largest depth installs to the rail furthest away from your take-up rail; the next largest leader to the next closest rail. The most narrow leader installs to the take-up rail.

**Step 3:
Installing Leaders into your frame**

Option 1: Velcro® Method

Attach the leaders to your rails by first laying down the sticky-backed Velcro® to each rail. Lay the Velcro® side of the leaders over the Velcro® on the rail. (See Below)



Step 3 Option 2:

Fabri-Fast™ Method

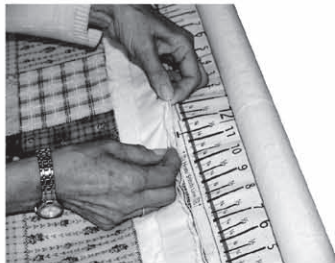
This method works on all GraceFrames™ with Fabri-Fast rails. First, locate the Fabri-Fast™ Guide Line on your printed leader cloth. Line up the guide line over the slot of your Fabri-Fast™ rail. (Other attachment methods include: Quilter's Thumb Tacks, and Double Sided Tape.)



**Step 4:
Applying your fabric to the leaders**

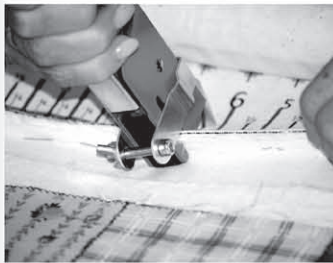
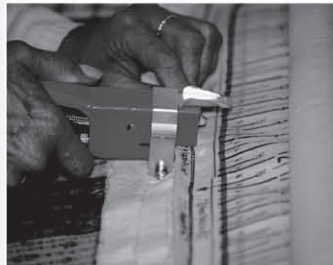
(There are two options for fabric attachment)

First, locate and mark the center of each of your quilt layers. You will attach each layer to each leader working from the center out. Line the edge of your fabric layer with the edge of your leader, as pictured. Note: Attach the quilt backing to the leader so the finished side of the fabric is face-down. Attach the quilt top with the finished side face-up.



**Step 4: Option 1
Staple Method**

Adjust the reference tool on the top of your stapler so that you staple 1/2" in from the fabric edges.



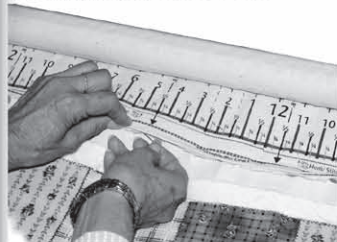
(A staple remover is also included for easy removal)



Step 4 Option 2:

Pinning Method

Line the edge of your fabric layer with the edge of your leader, as pictured. Pin the edges together working from the center out.



NOTE! DO NOT STRETCH YOUR FABRIC as you attach it to your leader cloths. This will cause your quilt layers to roll unevenly onto your frame. As you attach your fabric, let it lay as naturally as possible.