Rail Bracket Upgrade

Benefits of the Upgraded rail brackets are:
- Scroll style fabric attachment
- Larger batting capacity
- Optimized bungee clamp placement

Before Installing Upgraded Rail Brackets

Remove the 3 rails attached to the fabric layers rail brackets.

Remove your old fabric layers rail brackets. Keep the knobs, and fender washers, to use with your new rail brackets.

Also remove the ratchet stops from your old fabric layers rail bracket. Keep the bolts, and ratchet stops, to use with your new rail brackets.

Remove:
Fabric layers rail brackets
(left, and right)

Keep:
Knobs
Fender Washers

Remove (from left fabric layers rail bracket, and keep):
Truss Bolts
Ratchet Stops

Rail bracket upgrade

Parts needed:
1) Left fabric layers rail bracket
1) Right fabric layers rail bracket

Step RB-1: Attach the new rail brackets to each of the frame ends as shown in Figs. RB-1, and RB-2. Secure the rail brackets using the knobs and fender washers that you saved, when you took off your old rail brackets.
Rail Installation

Rail-1: Place the fabric rails onto your frame as shown in Fig. rail-1.

Rail-2: Place a fender washer onto the exposed end of each bolt.

Rail-3: Finally, securely fasten a plastic knob onto the exposed end of the bolts in each end of all of the fabric rails, as shown in Fig. rail-3.

Note: The ratchet wheels must be placed to turn in the direction shown in Fig 13-6.

Ratchet Stops

Parts needed:

- 3) ratchet stops (Saved earlier)
- 3) 1.5” truss bolt (Saved earlier)

Step 14-1: Insert a truss bolt through each ratchet stop and screw them into the holes on the left take-up rail bracket as shown in Fig RS-1.

Note: Truss bolts should be finger tightened only!
Fabric Installation:
Using leader cloths enable you to finish your quilt completely, to the end, without having to take your quilt off the rails.

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.

1st rail (take up rail)

Fig. FI-2

Step L1: Draw a straight line all the way across each of your (conduit) 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 (conduit) 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-4

Top fabric leader

4th

3rd

2nd

1st

Take up leader

Note: This illustration shows the cloth leaders installed on each rail prior to your quilt layers being installed.
Installing fabric layers onto (conduit) 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-5).

**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 selvedges 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-5).
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 Clamps

Use the bungee clamps to apply tension to the edges of your quilt fabric.

To use your bungee clamps:

1) insert the end of the bungee cord through the hole, on the inside edge of the bungee arm.

2) after applying the bungee clamp to the edge of your quilt fabric, pull the bungee cord through the hole, in the bungee arm until the desired tension is applied to your quilt fabric

3) Now, pull the bungee cord up, and back towards the bungee clamp, forcing it into the slot in the bungee arm to secure it in place.

Bungee Arms

Parts needed:

2) Bungee arm
4) M6 X 30mm connector bolts
4) M6 cap nut

⚠️ Step BA-1: Attach the bungee arm to the fabric rail bracket, as show in fig. BA-1, using the provided M6 x 30mm connector bolts and M6 cap nuts. (Attach a bungee arm to the rail brackets at each end of your frame.)