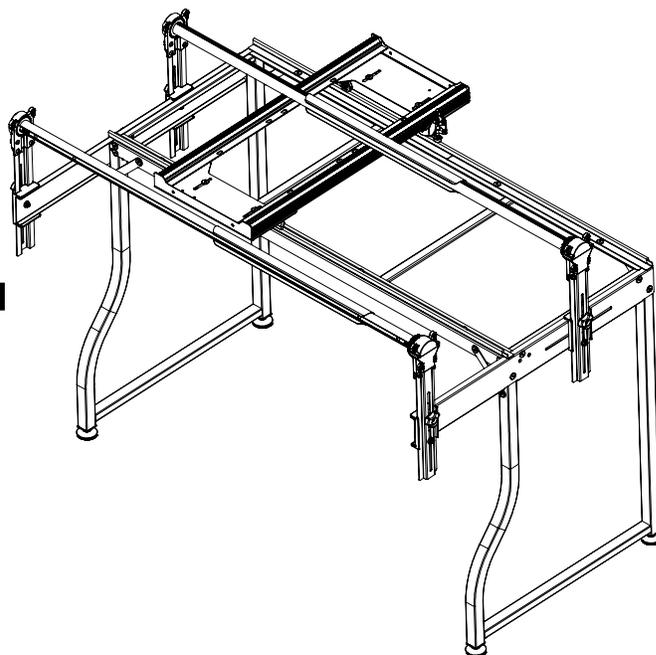


Assembly Instructions

SR2+



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Jim M. Bagley, GraceWood, Inc
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Version 4.1

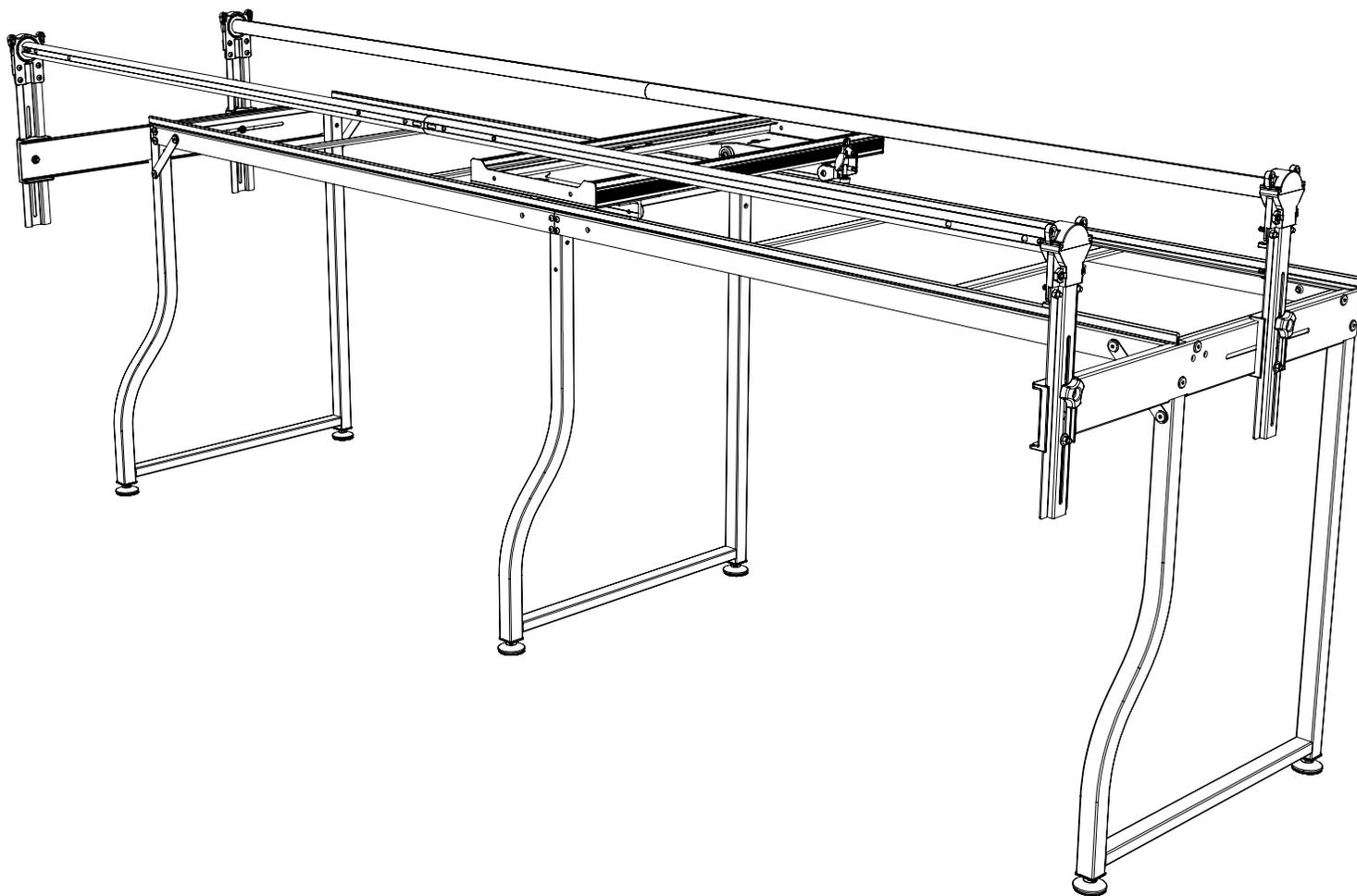


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Welcome!

This quilting frame has been designed to be simple and practical for those new to machine quilting as well as easy to assemble. We hope that you will enjoy quilting for a lifetime.

As you begin assembly of your new Start Right 2 frame, keep in mind the following:

- The assembly will be simple and step by step;
- Read through each step completely before beginning that step
- Using the parts list as a reference, take the parts out of the box and make sure that you have them all.
- Identify your hardware packets: All hardware is separated by type and each packet is labeled for ease in identification.

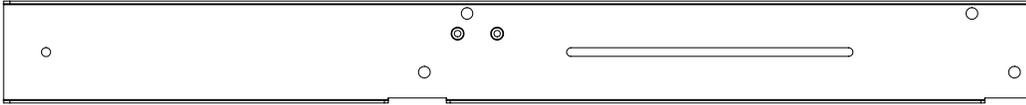
Warranty Information

for your Grace Machine Quilting Frame

The Machine Quilting Frame has a One-Year limited warranty on all parts. The Grace Company will repair or replace, at its discretion, any part with manufacturing defects. This warranty does not cover parts damaged through misuse, improper storage, improper assembly, loss, natural events, and willful destruction. Parts must be returned to the Grace Company, shipping prepaid, before they can be repaired or replaced. We will promptly return the repaired/replaced part at our expense within a year of the purchase date.

Part List

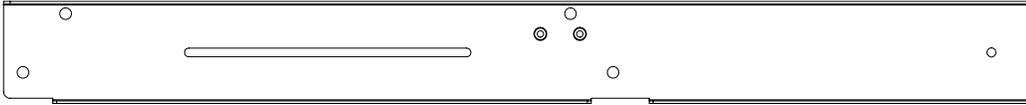
Box 1



Frame End Left (1)
[EL]



Rail (4)



Frame End Right (1)
[ER]



Rail Coupler(2)



Short Track Support(4)
[STS]



Table Angle Support(4)



Table Brace(4)

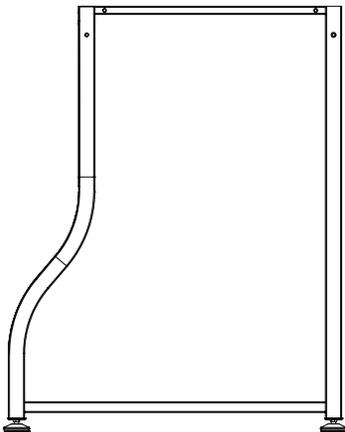


Long Track Support (2)
[LTS]



Table Support (4)
[TS]

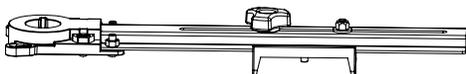
Box 2



Frame Leg
(3)



Carriage (1)

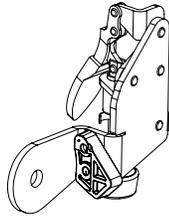


Rail Holder Bracket Left (2)
[BL]

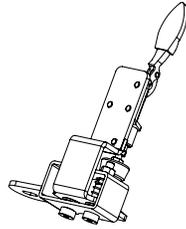


Rail Holder Bracket Right (2)
[BR]

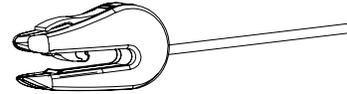
Box 2 - Continued



Sewing Machine
Channel Lock with
Spacer (1)



Carriage Channel
Lock (1)



Bungee Clamp
Assembly (4)



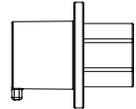
Ratchet Cap (2)



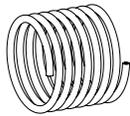
C-Clamp
(4)



FabriFast
Tool (1)



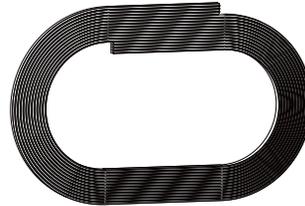
Non-Ratchet
Wheel (2)



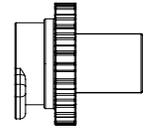
Fabrifast Tubing (2)



Short Track (2)



Long Track (2)



Ratchet
Wheel (2)

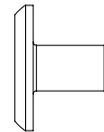
Hardware



M5 x 10mm
SBHCS(4)



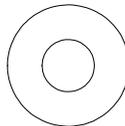
M6 x 16mm
SBHCS(8)



M6 x 10mm
Connector Bolt (40)



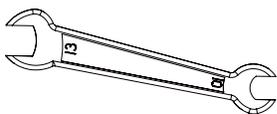
M6 Nylock
Nut (4)



M6 Flat
Washer (4)



M5 X 10
SHCS (8)



10mm/13mm Open
End Wrench (1)



3 mm Allen
Wrench(1)



4mm Allen Wrench(1)

Step 1: Leg Assembly

Parts Needed:

- Frame Leg (3)
- Table Support (4)
- Table Angle Support (4)
- M6 x 16mm SBHCS (8)
- M6 x 10mm Connector Bolt (8)

1-1: Set up the Frame Leg on the left side. Place Table Support on top of the curved tube of the leg. Line up the holes on the table support with the right row of holes on the leg. Screw a M6 x 10mm Connector Bolt into each hole, as shown in Fig. 1

1-2: Place a Table Support on top of the back side of the Frame Leg. Line up the holes the same way as the previous table support. Screw a M6 x 10mm Connector Bolt into each hole, as shown in Fig. 1

1-3: Place a Frame Leg at the end of the table supports, making sure the curved tube is facing the same direction as the left side Frame Leg. Line up the left row of holes with the table supports and screw in the M6 x 16mm SBHCS, as shown in Fig.1. Make sure the legs line up well, and the table supports are parallel.

Note: For assembling the crib size frame, please line up the screw holes on table supports with the left row of holes on the middle leg, and lock them with M6x10mm Connector Bolts, as shown in Fig. 1-1.

1-4: On the front side of the frame, place a Table Support on to the top of the middle Frame Leg, line up the holes on the table support with the other row of holes on the leg. Screw an M6 x 10mm Connector Bolt into each hole, as shown in Fig. 1.

1-5: Place a Table Support on to the top of the back side of the Middle Frame Leg. Line up the holes and screw a M6 x 10mm Connector Bolt into each hole, as shown in Fig.1.

1-6: Place the right Frame Leg at the end of the unfixed table supports, oriented the the same direction as the left and middle Frame Legs. Line up the right row of holes on the leg with the holes on the table supports, Screw a M6 x 10mm Connector Bolt into each hole, as shown in Fig.1.

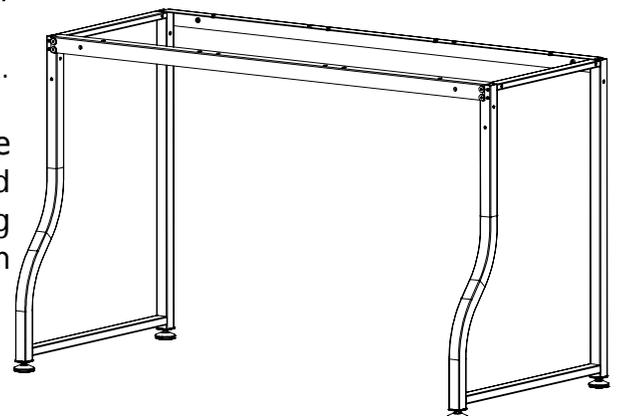
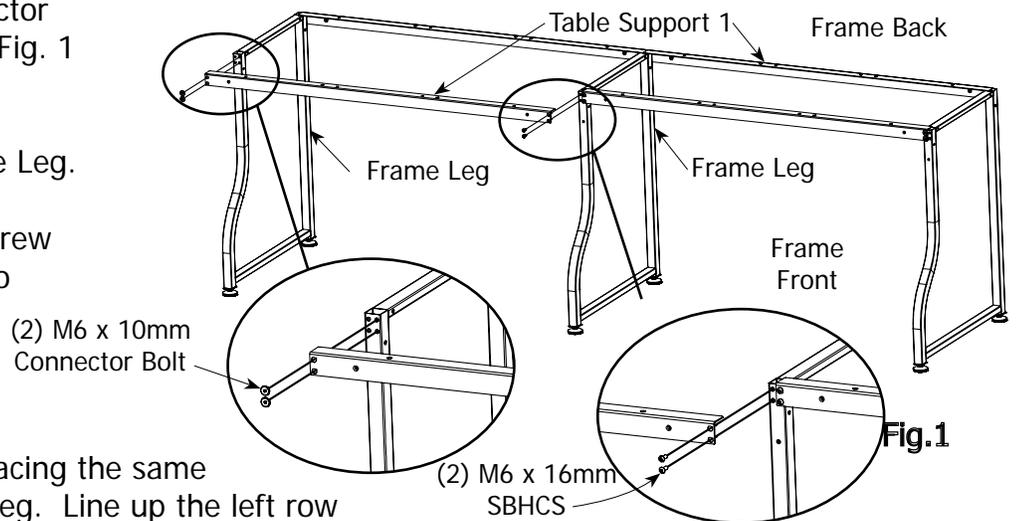
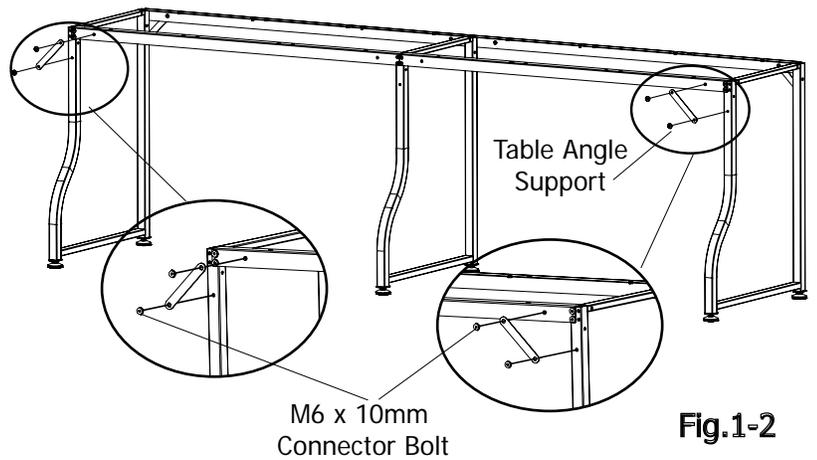
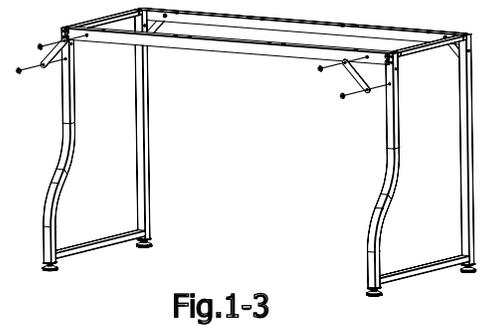


Fig.1-1

1-7: Place a Table Angle Support at a 45 degree angle on the front top corners and back top corners of the frame on the outside. Line up the holes on the angle support with one hole on the front side of the leg tube, and one hole on the table support. Screw a M6 x 10mm Connector Bolt into each hole, as shown in Fig. 1-2.



Note: Attach the Table Angle Support to the middle leg for the crib size, as shown in Fig 1-3.



Step 2: Table Brace Assembly

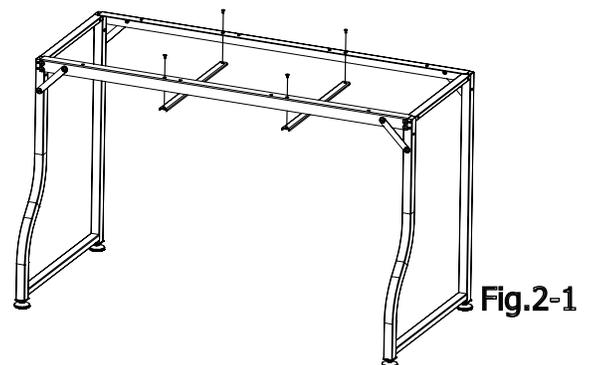
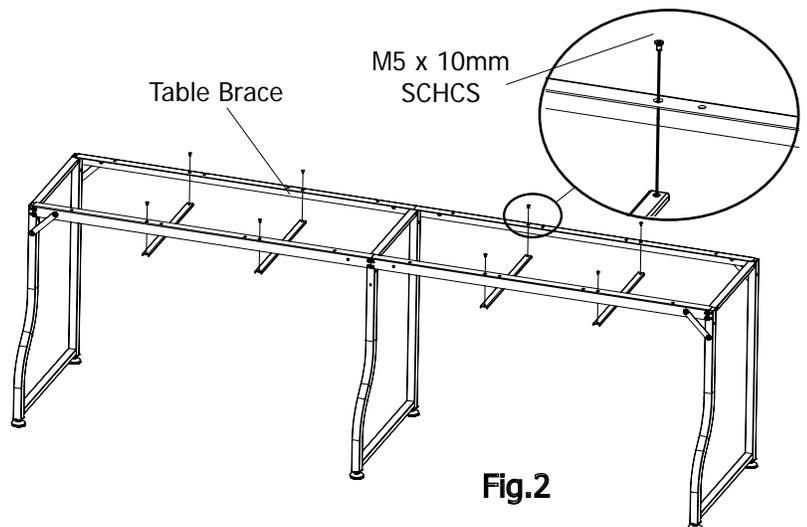
Parts Needed:

- Table Brace (4)
- M5 x 10mm SCHCS (8)

2-1: Attach each Table Brace to the Table Supports by aligning the holes on the two ends of the table brace with the flat side facing up, screwing in the (8)-M5 x 10mm SCHCS, as shown in Fig. 2.

Perform the same step with table braces for crib size, only 2 table braces will be used on a crib size frame, as shown in Fig. 2-1.

Note: Be sure the table braces are parallel to the legs.



Step 3: Frame End Left & Right Assembly

Parts Needed:

- Frame End Left (1)
- Frame End Right (1)
- M6 x 10mm Connector Bolt (8)

3-1: Put (1) Frame End Right to the right side of the Right Leg, align the 2 groups of screw holes with the screw holes on the leg and screw in (4) M6 x 10mm Connector Bolt.

3-2: Assemble the Frame End Left in the same way as Step 3 to the Left Leg, see Fig. 3-1. Assemble the two Frame Ends in the same way for the queen size frame and crib size frame.

Step 4: Tracks Assembly

Parts Needed:

- Short Track Support (4)
- Long Track Support (2)
- M6 x 10mm Connector Bolt (16)
- Long Track (2)

4-1: Lay a Short Track Support on a table support, aligning the holes in the track support with the holes on the table support. The sides without holes are on the outside of the frame, see Fig. 5. For a crib size, use only the (4) short track supports, and assemble them the same way as king size frame.

4-2: Attach the Track support to the table support by screwing (2) M6 x 10mm Connector Bolt, see Fig. 4. For the crib size frame, use the (4) Short Track Support only and assemble the same as king size frame.

Note: Leave all bolts loose at this time.

4-3: Repeat Step 4-2 with the Long Track Support and the other Short Track Support. Be sure they lie in a straight line. See Fig. 4.

4-4: Press the Long Track onto the Track Support by allowing the Track Support to be pinched tightly by the Long Track. Be sure the Track Support bottoms out on the Long Track. See Fig. 4-1.

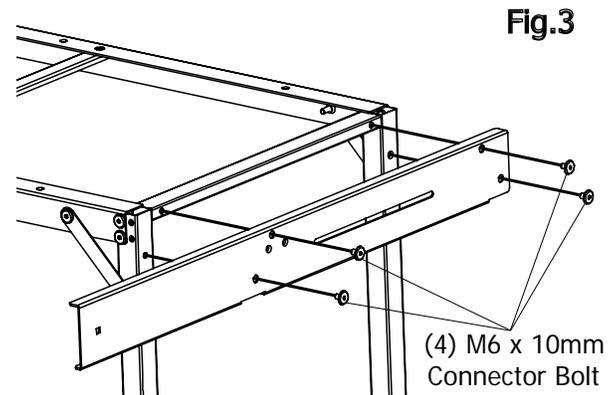


Fig.3

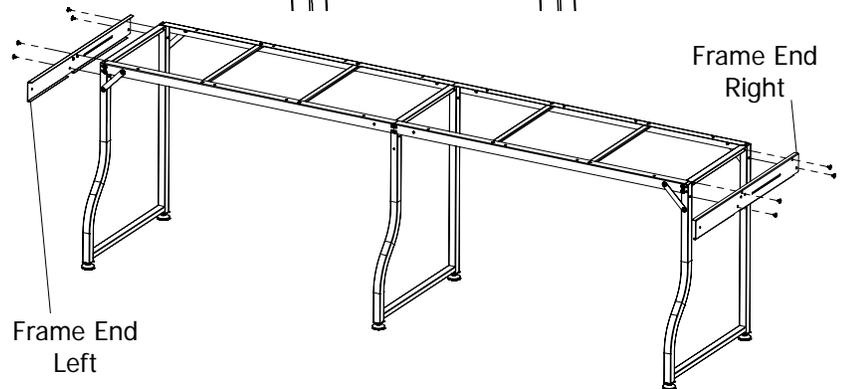


Fig.3-1

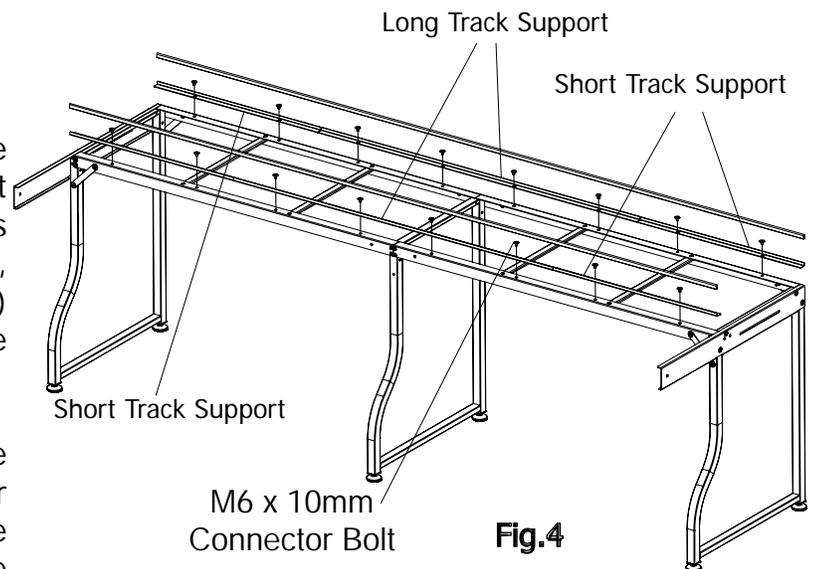
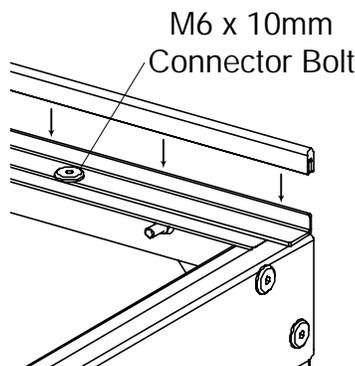
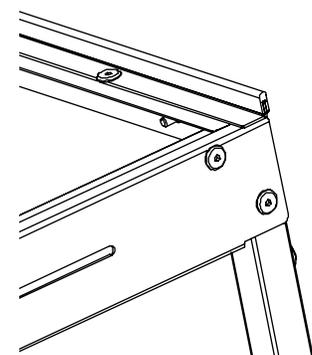


Fig.4-1

Fig.4-2



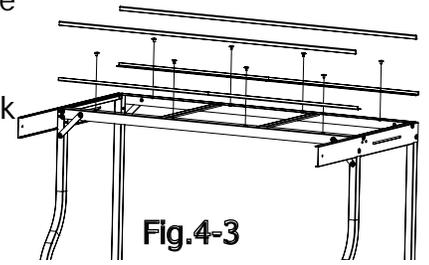
M6 x 10mm Connector Bolt



4-5: Repeat through Steps 4-1 to 4-3 to assemble the other side of the the track on crib size frame as well, see Fig. 4-3.

4-6: Tighten the track along the front of the frame, making sure the track supports are even with the front edge of the frame.

Note: Leave the rear track loose at this time.

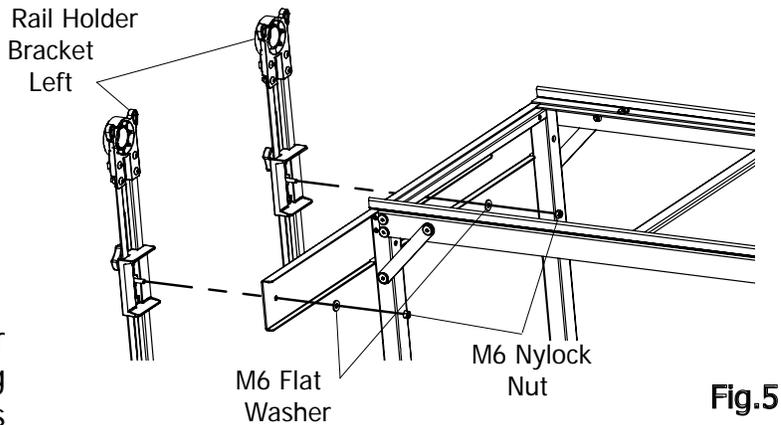


Step 5: Rail Holder Bracket Assembly

Parts Needed:

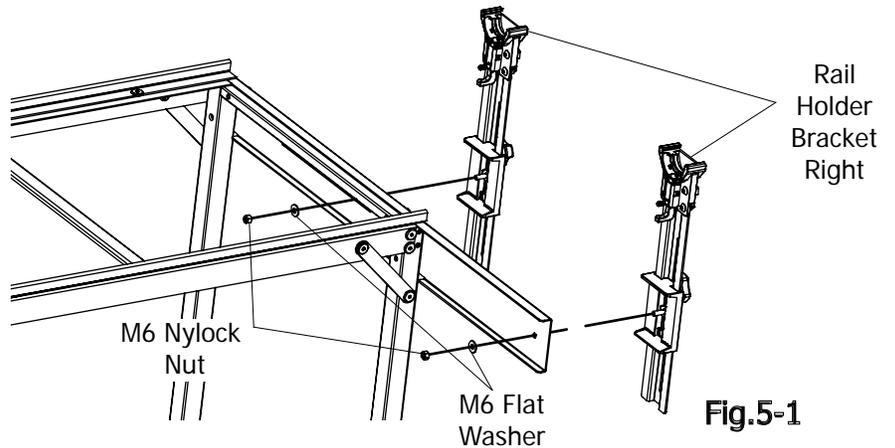
- M6 Nylock Nut (4)
- M6 Flat Washer (4)
- Rail Holder Bracket Left (2)
- Rail Holder Bracket Right(2)
- Frame End Connector (4)

Note: The Left and Right Rail Holder Brackets are attached at the two long slots in the frame ends, the heights and distances between the rail holder brackets can be adjusted as needed.



5-1: Assemble a Frame End Connector onto the Frame End Left so that the screw hole in the middle of the Frame End Connector is in line with the slot in the middle of the Frame End Left.

5-2: Place the Rail Holder Bracket Left onto the Frame End Left. Make sure that the bracket is placed in the right direction, see Fig. 5.

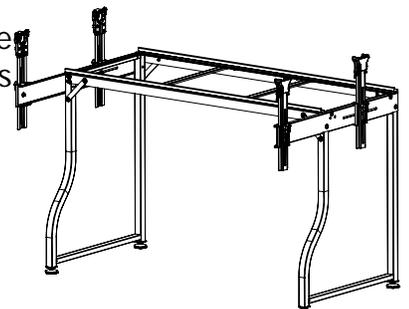


5-3: Place a M6 Flat Washer and a M6 Nylock Nut on the protruding bolt on the inside of the Frame End, see Fig. 5.

5-4: Assemble the other Rail Holder Bracket Right onto the Frame End Left the same way as first one except locating the bracket at the end of the frame end, where there is a screw hole, see Fig. 5.

5-5: Assemble the (2) Rail Holder Bracket Right on the other side of the frame by repeating the above steps once again. See Fig. 5-1. Assembly steps are the same for crib size frame, see Fig. 5-2.

Note: Be sure that all rail holder brackets are facing the correct direction as shown in the picture.

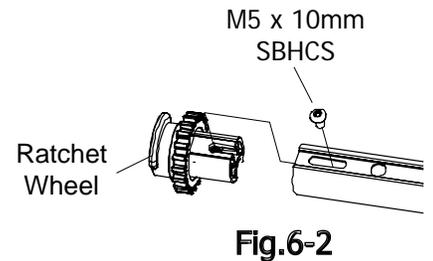
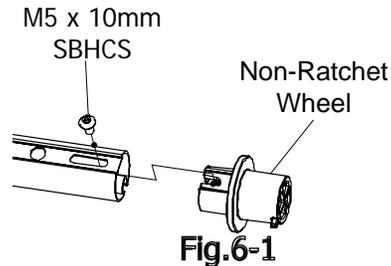
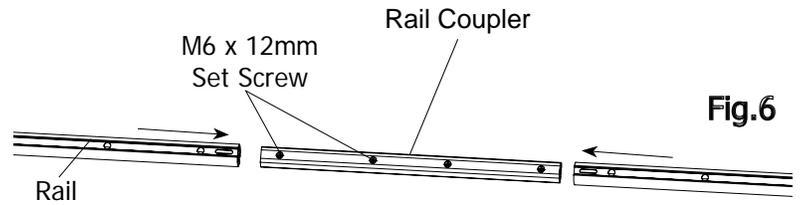


Step 6: Rails Assembly

Parts Needed:

- Rail (4)
- Rail Coupler (2)
- M5 x 10mm SBHCS (4)
- Non-Ratchet Wheel (2)
- Ratchet Wheel (2)
- Ratchet Cap (2)

6-1: Put a Rail Coupler into a Rail, aligning the two set screws on the Rail coupler with the two bigger holes on the Rail. Tighten the (2) M6 x 12mm set screws (pre-installed) into the Rail through the hole. See Fig. 6.

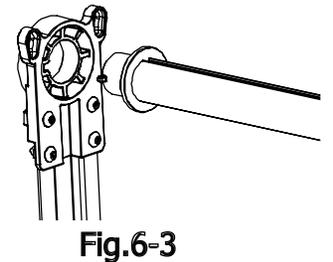


6-2: Lock the other side of the Rail Coupler to another Rail in the same way as Step 6-1.

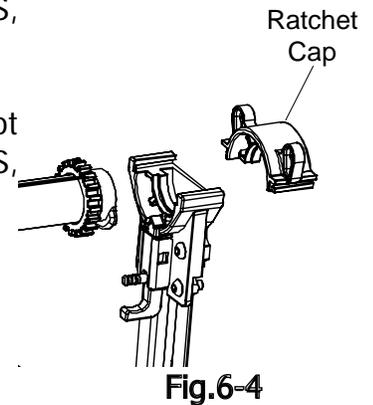
6-3: Assemble the second Rail Coupler by repeating Step 6-1 and 6-2.

6-4: For the crib size frame, Steps 6-1 to 6-3 are not needed.

6-5: Insert the Non-Ratchet Wheel into one end of the rail, making sure the slot on the rail is aligned with the Square Nut, then screw in (1) M5 x 10mm SBHCS, as shown in Fig. 6-1.



6-6: Insert the Ratchet Wheel into the other end of the rail, make sure the slot on the rail is aligned with the Square Nut, then screw in (1) M5 x 10mm SBHCS, as shown in Fig. 6-2.



6-7: Repeat Step 6-5 through Step 6-6 to assemble the other rail.

Note: Assembly steps are the same for crib size frame.

6-8: Take one assembled rail, make sure that the plastic knob sticking out on the Non-Ratchet Wheel is in line with the corresponding slot on the Rail Holder Bracket Left plastic, and then insert the Non-Ratchet Wheel into one of the Rail Holder Bracket Left plastic, roll the rail a little bit to make sure the Non-Ratchet Wheel does not come off, as shown in Fig. 6-3.

6-9: Take the other side of the rail and place the Ratchet Wheel onto the plastic on Rail Holder Bracket Right. Take a Ratchet Wheel Cap and snap it onto the Rail Holder Bracket Holder plastic to keep the Ratchet Wheel locked and in place, as shown in Fig. 6-4.

6-10: Repeat Steps 6-8 and 6-9 to assemble the other rail. .

Step 7: Placing the Carriage

Parts Needed:

- Carriage (1)
- Frame body Assembly (1)
- Carriage Channel Lock (1)

7-1: Remove the right rear M6 x 20mm SBHCS from the Carriage and install the Carriage Channel Lock as shown, see Fig.7.

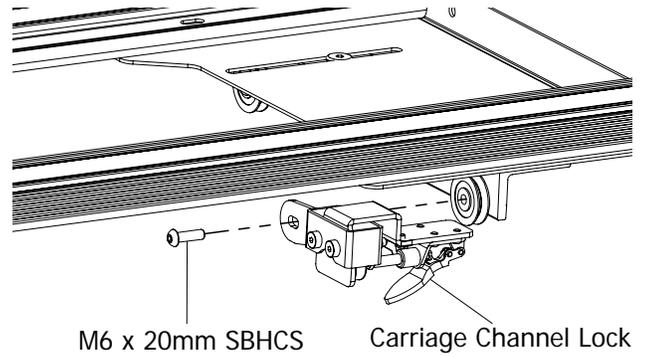


Fig.7

7-2: Place the Carriage onto the frame as shown, see Fig7-1.

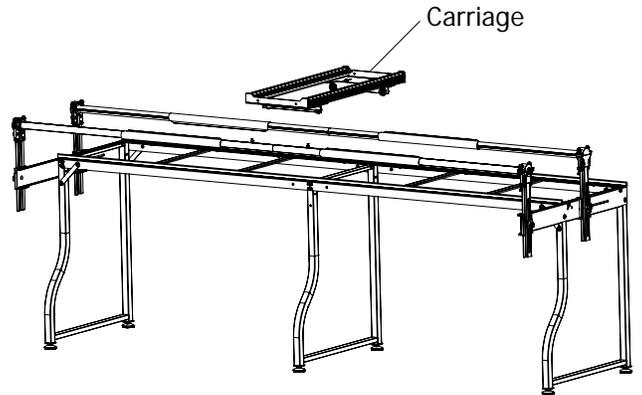


Fig.7-1

Note: It may be necessary to adjust the rear Carriage wheels. Loosen the (2) M6 Connector Bolts and adjust the Carriage to fit to the track, see Fig7-2.

7-3: Align track by slowly moving the Carriage along Plastic Track, tightening each M6 x 10mm Connector Bolts on the rear track starting at one side of the frame to the opposite side, see Fig 7-3

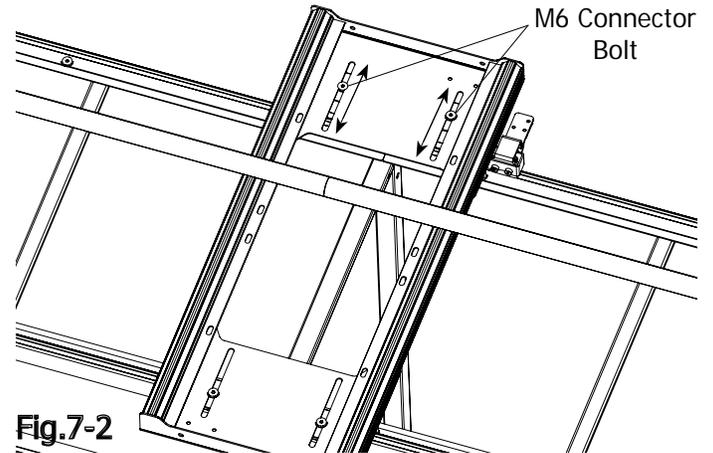


Fig.7-2

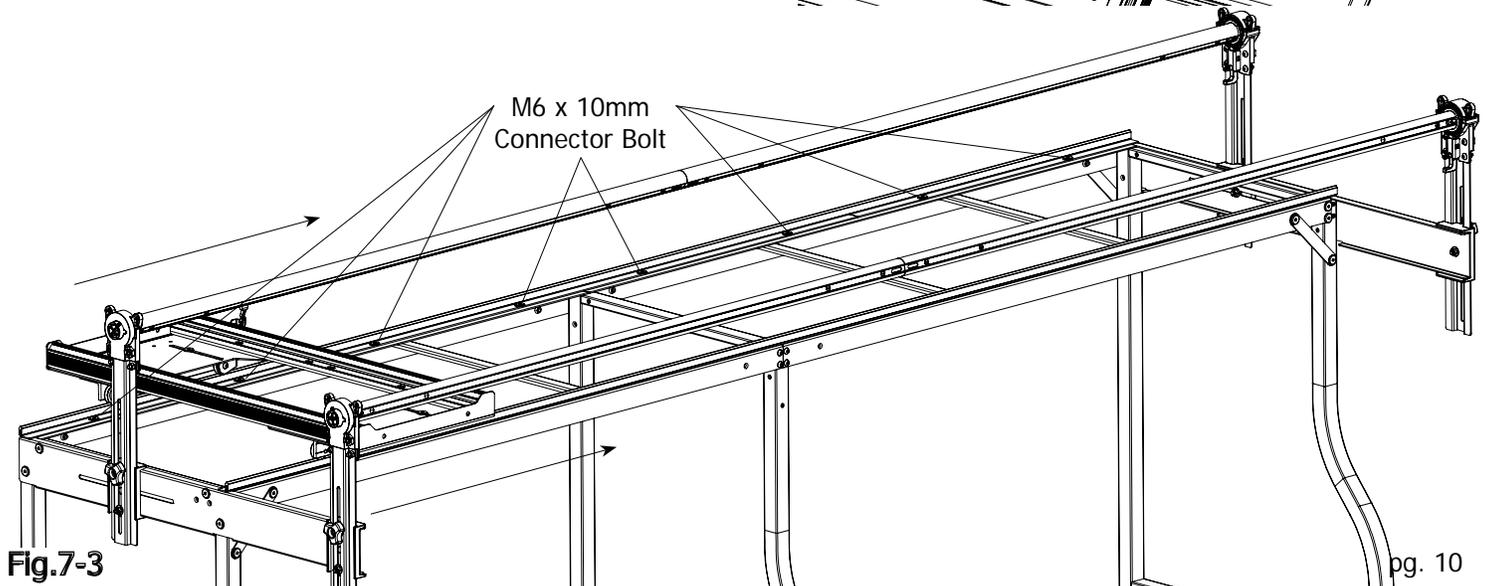


Fig.7-3

Step 8: Channel Lock Installation

Parts Needed:

- Top Plate Assembly (1) Optional Accessory
- Frame body Assembly (1)
- Sewing Machine Channel Lock with Spacer (1)
- Carriage Channel Lock (1)

8-1a: Remove the right rear M6 x 16mm SBHCS from the Sewing Machine and install the Sewing Machine Channel Lock using the M6 x 20mm SBHCS as shown, see Fig.8.

8-1b: Remove the right rear M6 x 20mm SBHCS from the Top Plate Optional Accessory and install the Top Plate Channel Lock using the M6 x 20mm SBHCS as shown, see Fig.8a

Step 9: Placing your Sewing Machine

Parts Needed:

- Cam Clamp (4)
- Assembled Carriage and Frame (1)

9-1a: Place optional Top Plate Assembly onto the frame as shown, see Fig9a.

9-1b: Place the Carriage and Sewing Machine onto the frame as shown, see Fig9b.

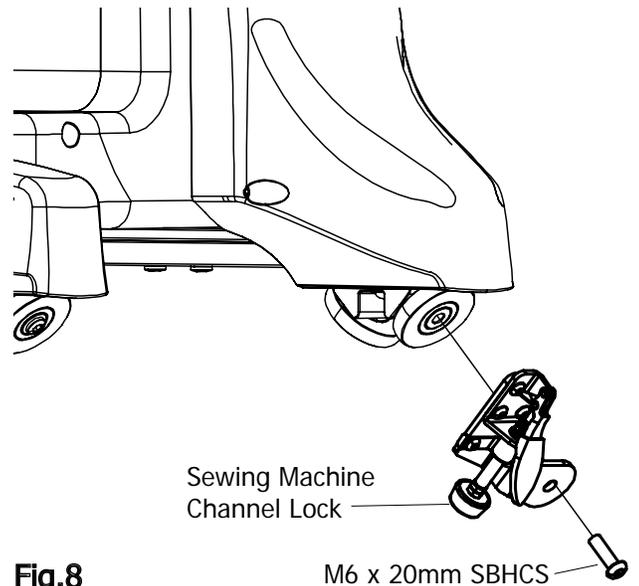


Fig.8

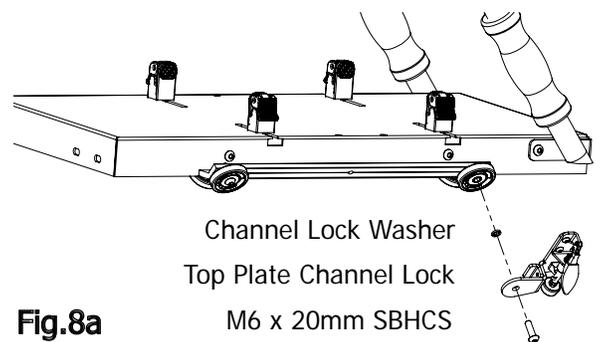


Fig.8a

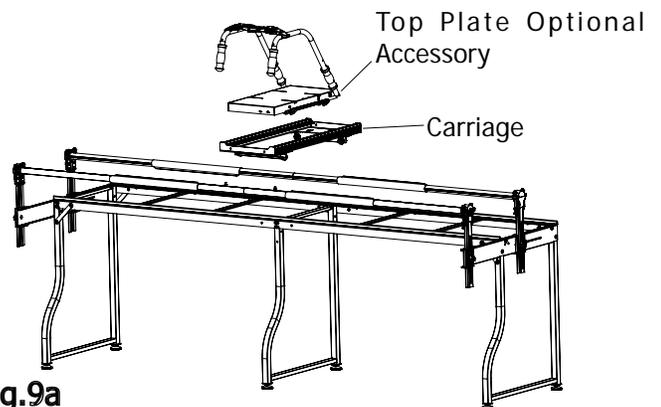


Fig.9a

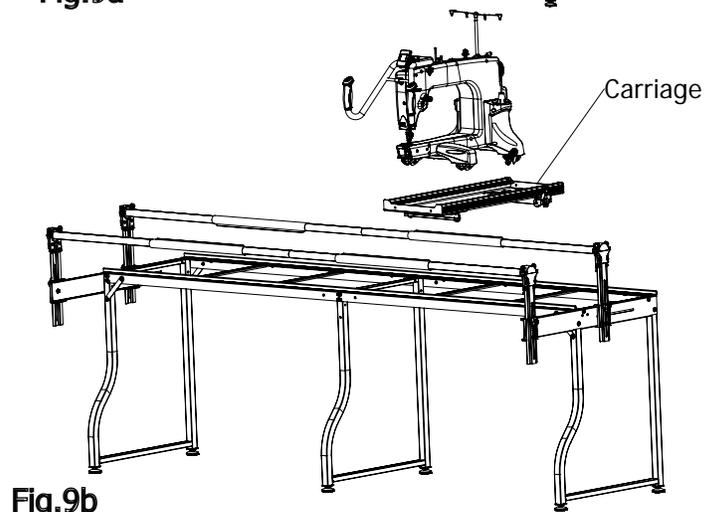


Fig.9b

Note: It may be necessary to adjust the Rail Bracket Holders up to fit the Sewing Machine. Loosen the Wing Knob on each of the Rear Rail Bracket Holders and move the Rail Bracket Holders up. See Fig 9-1

9-1: Place your sewing machine onto the Top Plate of the Carriage, and center it, from side to side and from front to back.

9-2: Pull the Sewing Machine Clamp Handle in the open position slide it into the slot on the Top Plate until it is touching the sewing machine. Push the handle down to lock the Clamp into position, as shown in Fig. 9-2 and Fig. 9-3. Repeat this with the remaining (3) clamps.

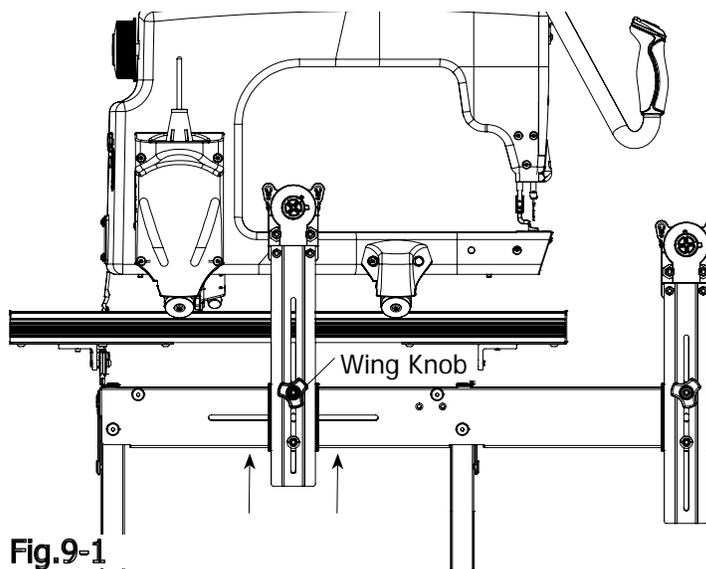


Fig.9-1

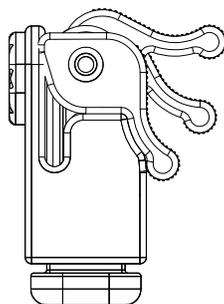


Fig.9-2

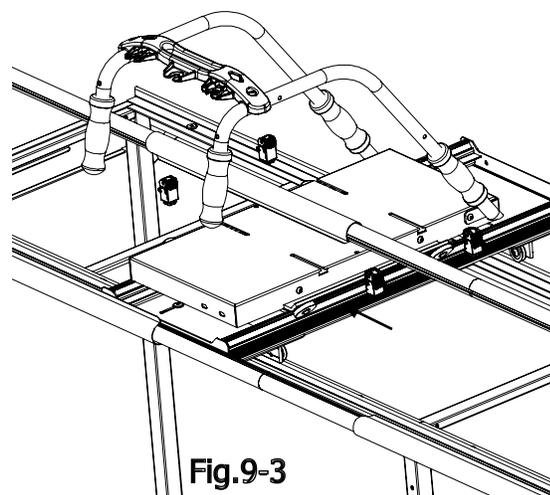


Fig.9-3

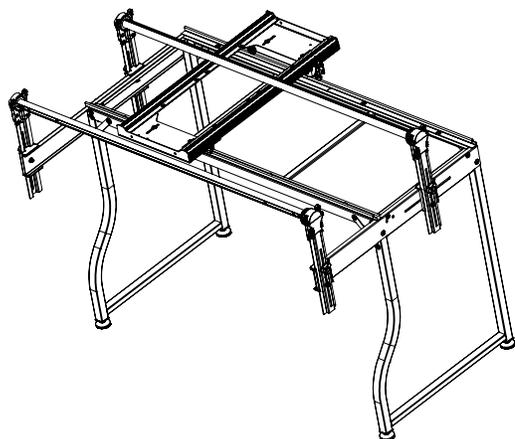


Fig.9-4

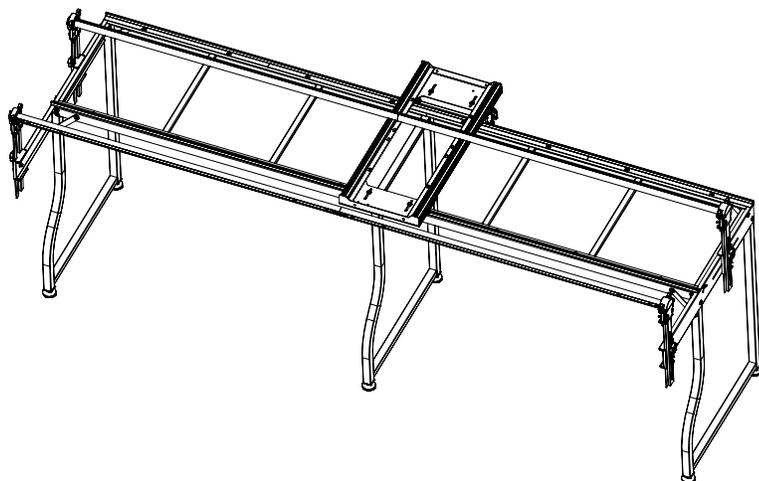


Fig.9-5

Congratulations on the completion of the assembly of your new Start Right 2 Frame!
All that remains is to install your fabric and begin quilting!

Step 10: Adjusting the Rail Holder Brackets

10-1: Position the Sewing Machine in the center of the Carriage.

10-2: Loosen the Wing Knobs on each of the Rear Rail Holder Brackets.

10-3: Adjust the Rear Rail Holder Brackets until the Take-Up Rail is centered in the throat of the Sewing Machine. Then Re-tighten the Wing Knobs, see Fig 10.

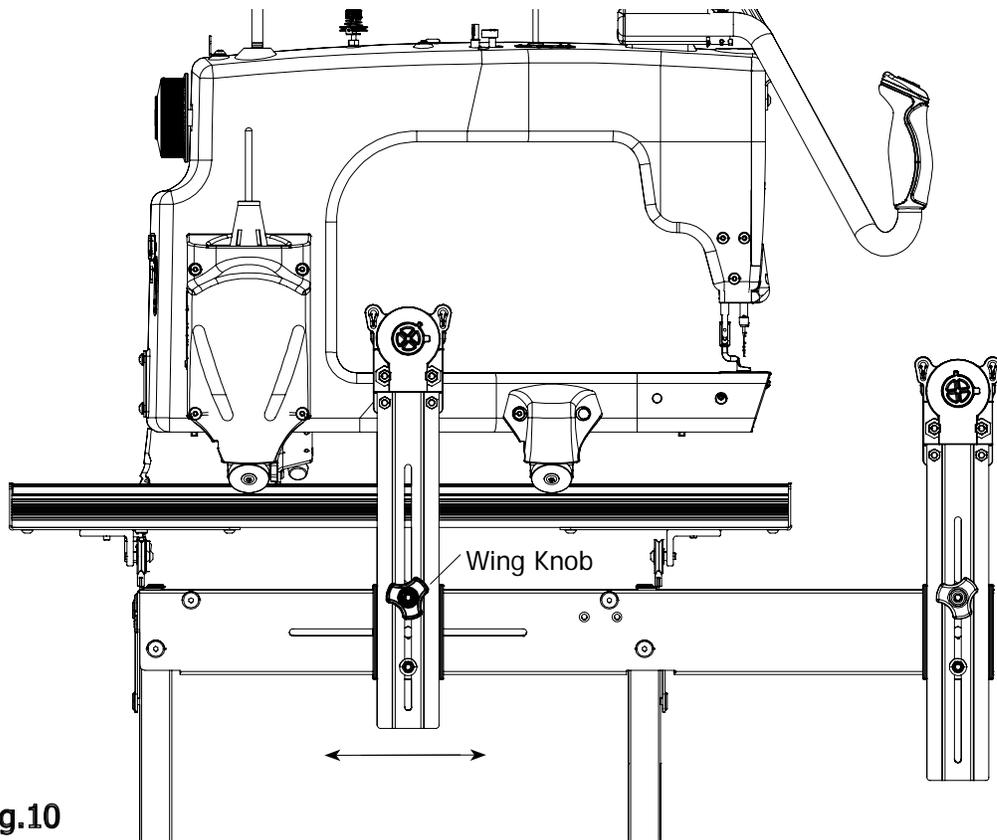


Fig.10

Quilting Frame Fabric Installation

With the Grace Company's, specially designed Fabri-Fast rails, installing your fabric is easier on this Frame than on any other frame. Each rail has a Fabri-Fast slot and accompanying tubing. These work together to make your fabric installation much easier and faster than using tape, tacks, or Velcro®.

Before you begin, please locate the plastic Fabri-Fast tool included in your shipment.

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

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

Rail Rotation: It is important that each rail rotates the correct direction to apply tension to your quilt layers correctly. Light tension is applied to your quilt fabric to remove wrinkles, and to allow the fabric to be sewn together consistently throughout the entire quilt.

The Ratchet Rail ends allow

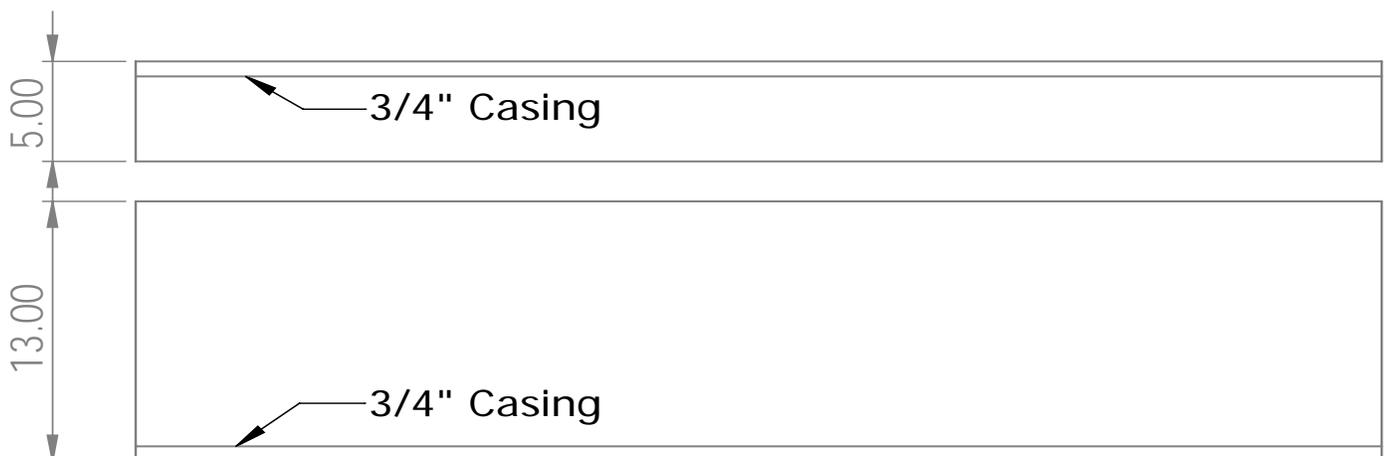
you to limit the direction that each rail rotates. The ratchet can also be set to a neutral position by pulling the knob up and twisting it.

Installing Fabric Layers onto the Rails

(Preview): Center your cloth lengthwise along the rail. Using Grace's Fabri-Fast™ System, take a piece of plastic tubing (cut to the appropriate length), and, holding your fabric to the slot (lining up the edge), press the tubing over the fabric and into the slot. Use the Fabri-Fast tool to press the rest of the tube and fabric in quickly and easily.



Methods of Installation: 1: Apply your fabric layers directly to the rails. 2: The recommended method of installation is to use Cloth Leaders. You may make and use **Cloth Leaders**, or purchase them. Using leader cloths enable you to finish your quilt completely, to the end, without having to take your quilt off the rails. See page 13 for instructions on how to make and use cloth leaders.



Making Cloth Leaders

1: First, select your cloth leader material. We recommend using a good quality muslin or similar fabric that has a good thread count. Be aware, however, that if the fabric is too thick, it may prove more difficult getting it installed into the rail slot.

2: Surge or hem your cloth leaders on all sides.

3: Make cloth leaders in the widths shown. (The recommended length is 105", this length will accommodate any width of quilt that can be made on your Quilting Frame.)

4: Make a dashed line along the length of your leader about ½" in from the edge with a pen or marker. You will use this as a guide to help you insert your leader into the slot in straight line. (OPTIONAL: For a straighter cloth leader installation, some may consider it easier to make a hem and then push the tubing into the hem before installing it into the slot. If you wish to do this, create a hem on one end of each leader by folding over the fabric one inch (1"), and, using your foot pedal as a guide, stitching the fabric together ¾" from the fold. This will leave about ¼" of fabric beyond the stitching. Leave the edges open on both ends. You may then slide your tubing into the hem, Fig. CL1-1).

5: Mark each cloth leader at the center (length-wise).

6: Mark (or baste) a straight line about ½" in from the opposite (non-hemed, or non-dashed) end of the leader. This will be the line to which you attach your fabric layer.

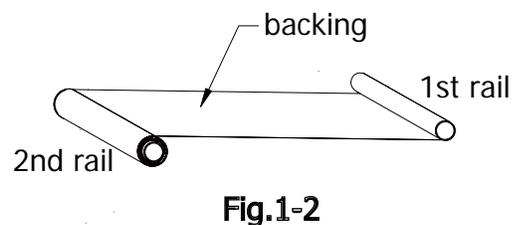
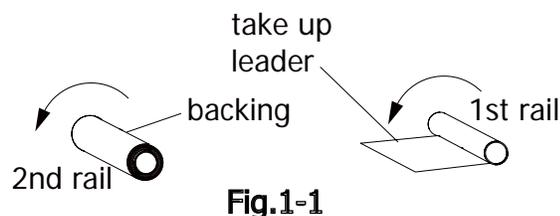
7: Center your cloth leader lengthwise along the rail. Using Grace's Fabri-Fast™ System, take a piece of plastic tubing (cut to the appropriate length), and, holding your cloth leader to the slot (lining up the dashed line), press the tubing over the leader and into the slot. Use the Fabri-Fast tool to press the rest of the tube and fabric in quickly and easily. (If you have made a hem, line up this hem w/ tubing over the slot and press it into the slot using the Fabri-Fast tool. 8: With Cloth Leaders in place, pin your Quilt Fabric to the Leaders, rather than attaching it directly to the Rails.

Installing Fabric Layers onto Rails

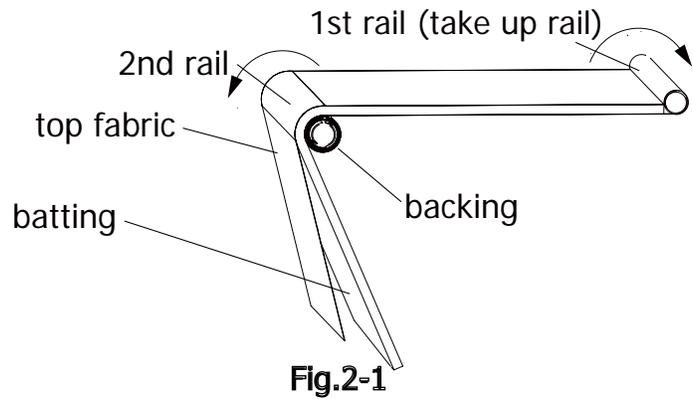
STEP 1: Quilt Backing to 2nd Rail

Step 1-1: 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 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 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 1-3: Roll your leader and backing onto the 2nd 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 2nd rail (Fig. 1-2).

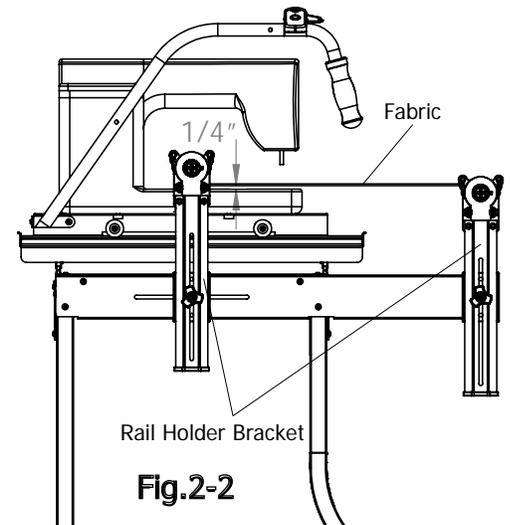


Step 2: Attaching Your Quilt Layers to The Take-Up Rail

Step 2-1: Take the top 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. Smooth and drape the excess off the front of the quilting frame. See Fig. 2-1.

Step 2-2: Next, lay your batting along the pin line of your backing on the take up rail cloth leader. Smoothly lay it over the quilt backing and drape the excess off the front of the quilting frame. See Fig. 2-1.

Step 2-3: Finally, lay the quilt top 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. Smoothly lay the rest over the batting and drape the excess off the front of the quilting frame. See Fig. 2-1.



Step 2-4: Adjust the height of your fabric off of the throat plate of your sewing machine. Do this by rolling the machine to one end of the table, and adjusting the Wing Knob to move each of the Rail Holder Brackets so that the bottom of the quilt is 1/4" above the throat of your sewing machine base and parallel to the throat plate. See Fig. 2-2.

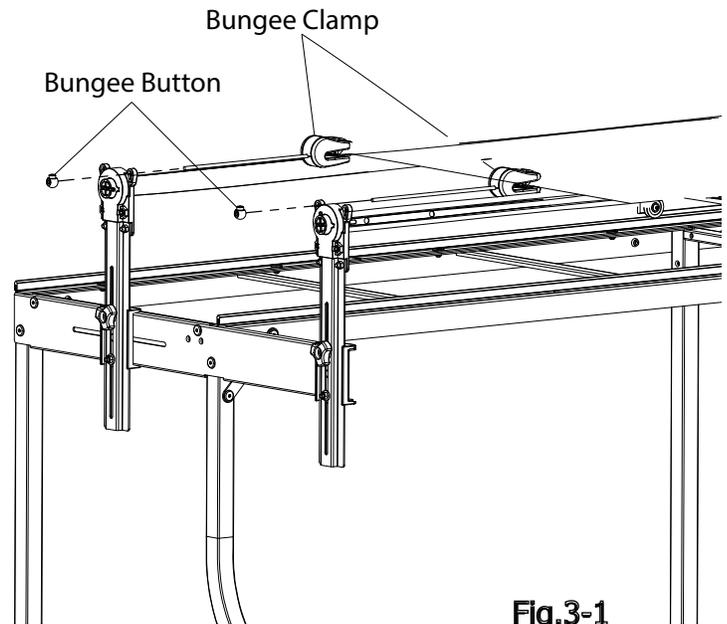
Step 2-5: Roll your sewing machine to the other end of the table and repeat Step 2-4.

Rolling fabric

- When you have completed your work area and are ready to roll to the next, simply disengage the ratchet stop on the front rail allowing it to roll freely. Then, with one or both hands, roll the Take-Up Rail forward, rolling the completed work area onto that Rail. Repeat Step 2-4 as needed.

Step 3: Attaching the Bungee Clamps

Step 3-1: Attach the Bungee Clamps to the Rail Holder Brackets by putting the cord through the holes. Attach the Bungee Clamps to the fabric and pull evenly and pull cord down to lock into place. Secure using the Bungee Buttons as shown. See Fig. 3-1.

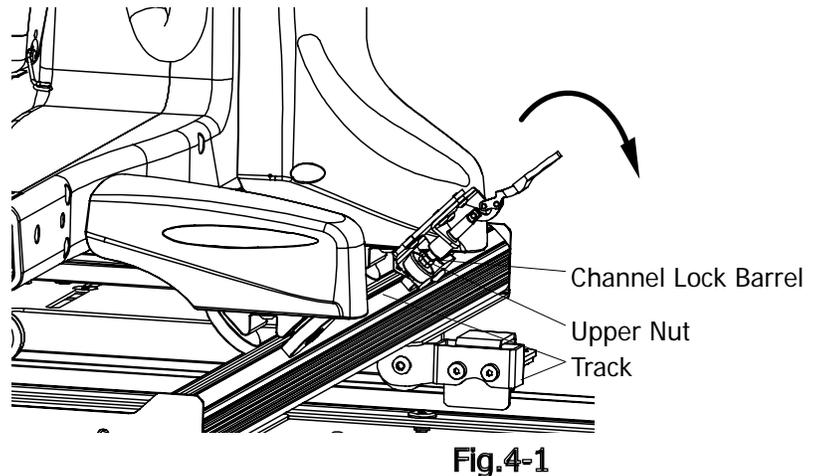


Step 4: Channel Lock Setup

Step 4-1: Rotate the Channel Lock handle down. To adjust the Channel Lock, loosen the upper nut. Twist the Rubber Foot clockwise until it is snug against the track. Turn the upper nut counter clockwise until it is snug against the channel lock barrel. See Fig 4-1.

Step 4-2: Repeat Step 4-1 for the Carriage Channel Lock.

Note: The Channel Locks will be used for straight lines. To create a straight line along the length of the frame, rotate the handle of the Sewing Machine Channel Lock down. To create a straight line along the length of the Carriage, rotate the handle of the Carriage Channel Lock down.



SR-2+ Quilting Accessories

The following accessories are available for your new SR-2 Machine Quilting Frame.

Each is designed to make your quilting projects easier and even more beautiful.

They can all be purchased through your GraceFrame dealer, or directly from The Grace Company.

www.graceframe.com

1-800-264-0644



Table-Top Inserts

Table-Top inserts add more working area to your frame. Use them for the Plastic Pattern Perfect, or as a place to put pantographs to be traced with Gracie Laser.



Sure Stitch Regulator

The GraceSure Stitch is both a stitch regulator and constant stitch speed control. As you speed up and slow down in Stitch Regulation Mode, so will your machine, keeping all of your stitches the same length. You can also use the SureStitch for a constant speed that you can adjust with the push of a button.



Start-Right Cloth Leaders

Start-Right Cloth Leaders save time during your project and help you attach fabric to your frame easily and accurately. The included three cloth leaders are printed with precise guide marks and pin lines.



Plastic Pattern Perfect

For perfect patterns every time, use the Plastic Pattern Perfect! The stylus attaches right to your carriage, and then guides your machine through the pattern templates as you move the carriage.

Note: Table-top inserts must be installed to use these templates.



Gracie Laser

Pattern tracing is easier than ever before with the Gracie Laser.

- Attaches to the front or back of your frame's carriage!
- Swivel and lock the stylus at any angle
- Battery powered, no cords to get in the way
- Comes with four different laser tips to control the size of the laser.



Plastic Pattern Perfect

Additional Templates

6 additional patterns to choose from, with more being added all the time! These additional patterns work with the stylus from the basic Plastic Pattern Perfect. They come in a set of 2 or a set of 6 for your whole frame.

Order online, or give us a call at:

www.graceframe.com

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