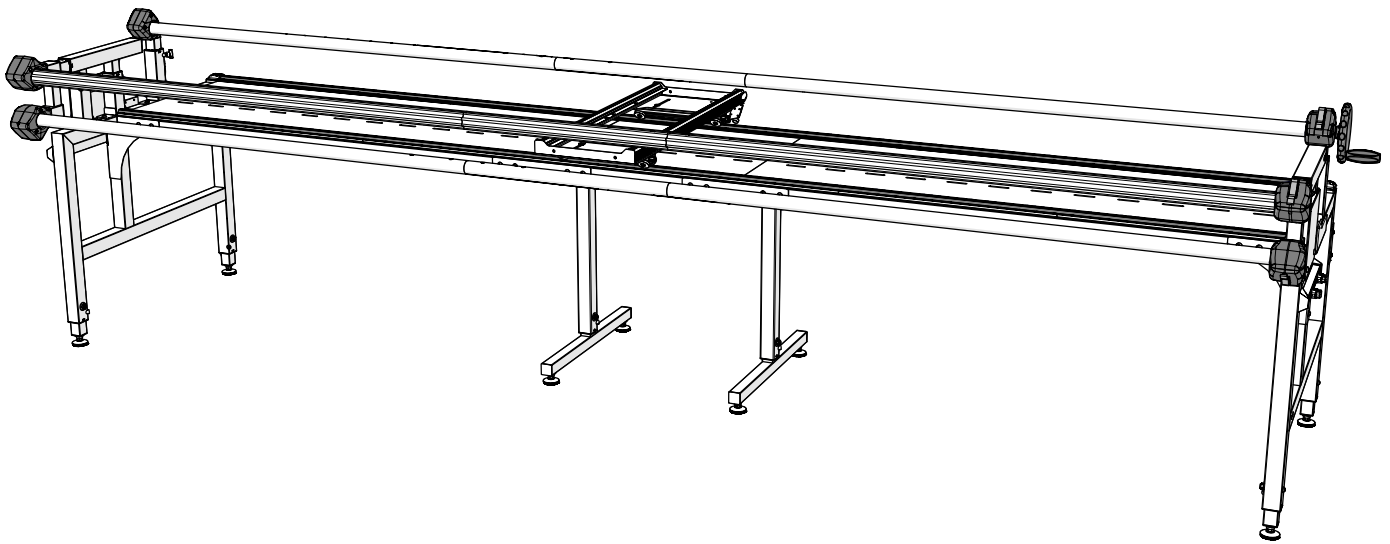


Quilter's Evolution

ELITE - FRAME



12 Foot Frame Assembly & Use

Grace
COMPANY

My Frame Details

Use this page to record information about your frame. This will be helpful if you ever need to call a Grace Company support technician.

Frame Type: Quilter's Evolution Elite 12-Foot

Date of Purchase: _____

What Machine are You Using? _____

Select Which Frame Accessories You Have Purchased:

Start-Right Cloth Leaders

Speed Control

QuiltMotion

Gracie Laser

Pattern Perfect

Sure Stitch

G-Series Top Plate

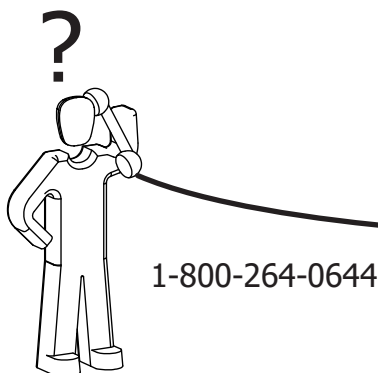
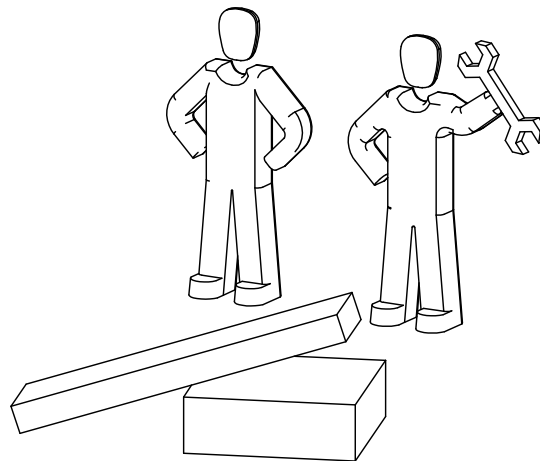
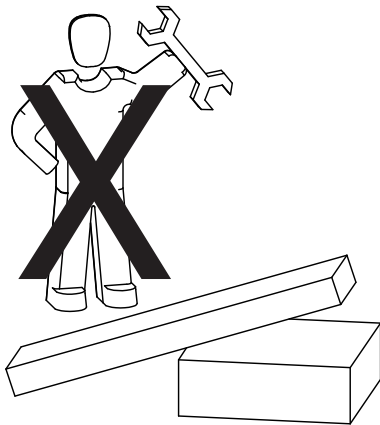
Sure Stitch Elite

Power Strip Accessory

Luminess Light Bar

Warranty Information

The Quilter's Evolution Elite-Frame has a one-year limited warranty on all parts. The Grace Company will repair or replace, at its discretion, any part with problems due to our manufacturing or defects in materials. This warranty does not cover parts damaged through misuse, improper storage, improper assembly, loss, natural events, and willful destruction. Parts must be returned to Grace Company, shipping prepaid, before we can repair or replace them. We will promptly return the repaired/replaced part at our expense if done within a year of the purchase date.



Grace
COMPANY

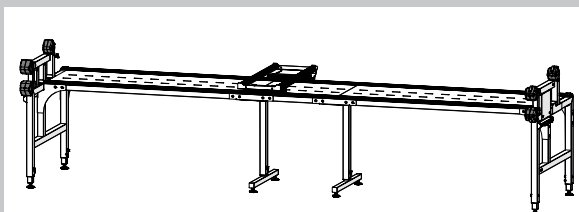
Welcome to Your Quilter's Evolution Elite

We are pleased to introduce you to the newest part of your quilting setup. This frame has been especially designed to help quilters like you have the tools available to create quality projects.

This manual is broken into four sections (or parts). Notifications at the end of each section will direct you to switch to your machine manual or QuiltMotion manual for instructions on assembling those products. This creates a streamlined process of building a complete quilting setup in the most efficient way. Use the following flowchart to guide you in navigating multiple manuals. If you are not using one of the products in the flowchart, just move to the next item in the chart.

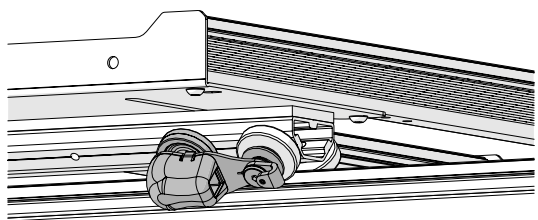
Thank you again for choosing us to help your quilting projects. We look forward to working with you.

- The Grace Company



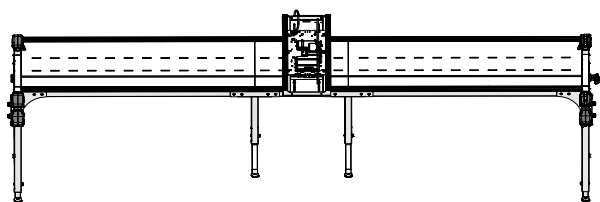
Start Here: Frame Manual: Part One

- Assemble the frame's legs, table, and sides.
- Install the channel lock onto the bottom carriage.
- Align your tracks.



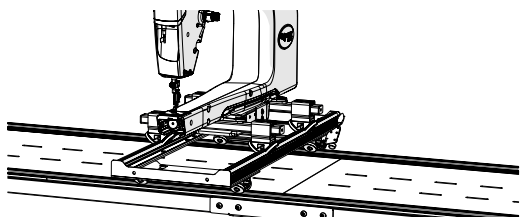
Quilting Machine Manual: Part One

- Install the lower encoder onto the bottom carriage.



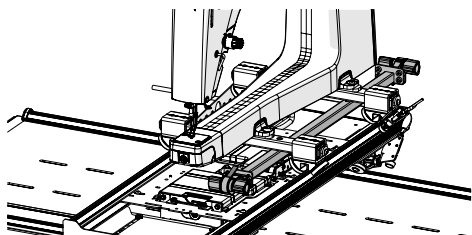
QuiltMotion Manual: Part One

- Install the motor plate and power strip onto the bottom carriage.
- Install the long belt across the frame.



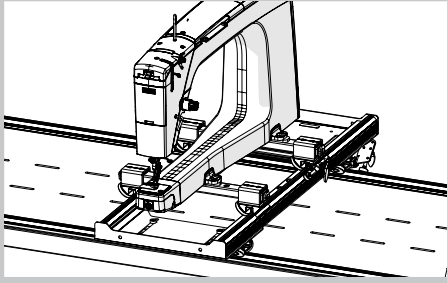
Quilting Machine Manual: Part Two

- Install your machine's wheels.
- Align your wheels.



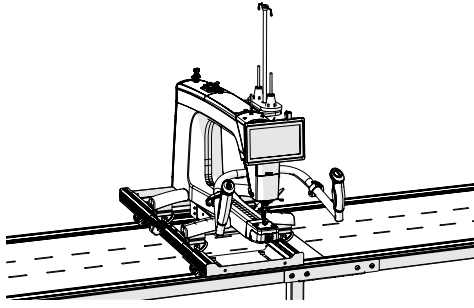
QuiltMotion Manual: Part Two

- Install the short belt.
- Tension the short belt.



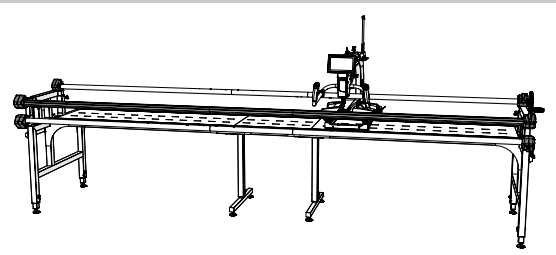
Frame Manual: Part Two

- Install the channel lock on the machine or top plate.



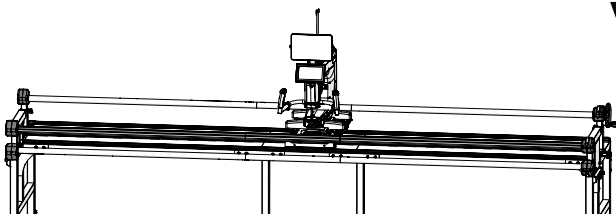
Quilting Machine Manual: Part Three

- Install the wheel covers, display, handles, thread mast.
- Install the upper encoder.



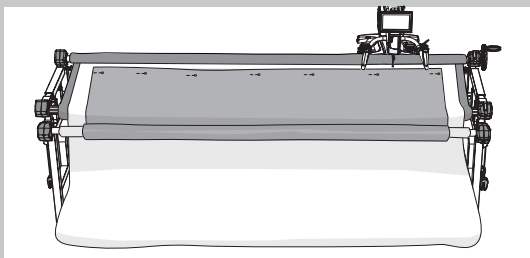
Frame Manual: Part Three

- Install the rails and fabric bungees.
- Position and adjust the rails.
- Level the frame.



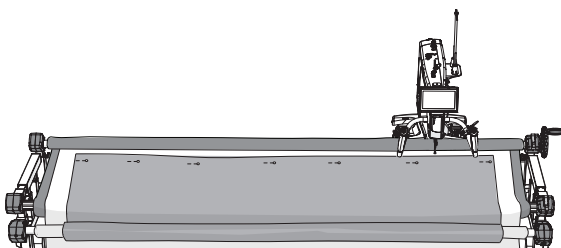
QuiltMotion Manual: Part Three

- Install the tablet bracket.
- Plug in QuiltMotion.



Frame Manual: Part Four

- Install the cloth leaders.
- Attach the fabric.



Quilting Machine Manual: Part Four

- Use the quilting modes and settings in the display.
- Maintain the machine and perform repairs.

Contents

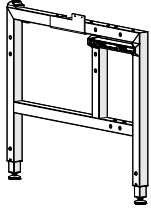
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Included Parts and Tools

Your kit comes with boxes 1, 2, 4, 6, and 7.
This frame setup does not use boxes 3 or 5.

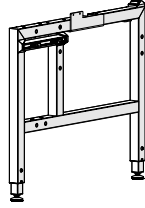
Box 1

Left Side Leg Assembly



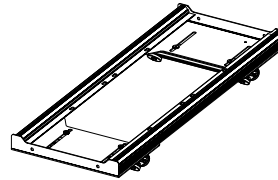
QEF-09-16529

Right Side Leg Assembly



QEF-09-16563

Bottom Carriage Assembly



CNT-09-13523

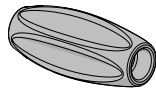
BOX 1: INNER HARDWARE BOX

Large Hand Wheel



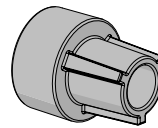
PLA-05-11550

Large Hand Wheel Knob



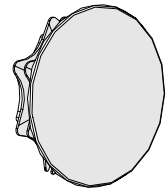
PLA-05-11551

Hand Wheel Collar



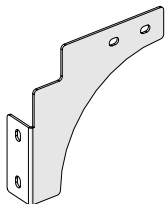
PLA-05-11552

Quilt-Backing Rail Press-In Cap



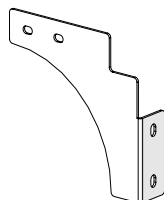
QEF-05-16498

Corner Brace A (x2)



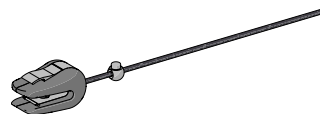
QEF-04-15543

Corner Brace B (x2)



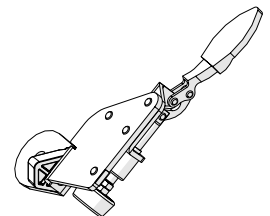
QEF-04-15544

Bungee Clamps (4 pack)



ACC-01-10261

Dual-Wheel Channel Lock (x2)

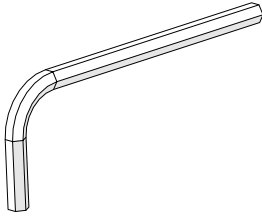


ACC-09-13057

Included Parts and Tools (continued)

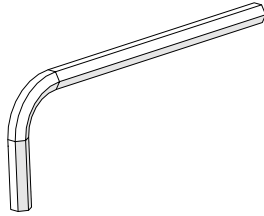
BOX 1: INNER HARDWARE BOX (continued)

**Allen Wrench
6 mm**



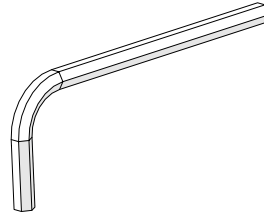
HDW-03-10742

**Allen Wrench
5 mm**



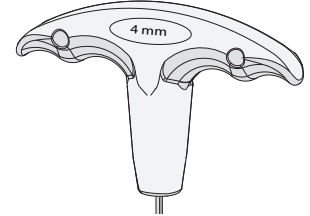
HDW-03-10741

**Allen Wrench
2.5 mm**



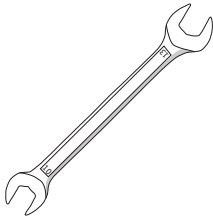
HDW-03-10165

**T-handle Allen
Wrench 4 mm**



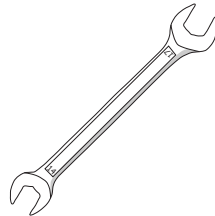
HDW-03-13114

**Open End Wrench
10 mm and 13 mm**



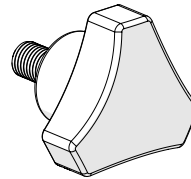
HDW-03-10743

**Open End Wrench
14 mm and 17 mm**



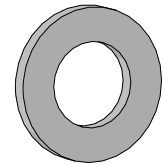
HDW-03-12347

**3-Wing Knob
M8 x 16 mm (x2)**



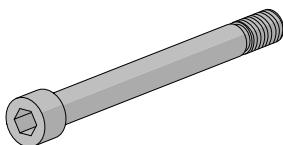
C11-03-14895

**Hand Wheel
Washer**



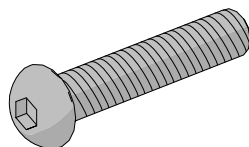
HDW-03-13035

**Hand Wheel Handle
Bolt M8 x 85 mm**



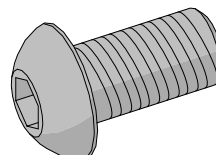
HDW-03-11195

**SBHCS
M10 x 55 mm**



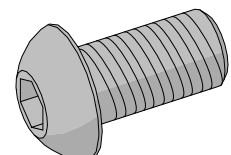
HDW-03-11605

**SBHCS
M8 x 20 mm (x4)**



HDW-03-14970

**SBHCS
M8 x 16 mm (x32)**

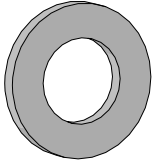


HDW-03-10951

Included Parts and Tools (continued)

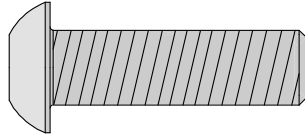
BOX 1: INNER HARDWARE BOX (continued)

M8
Washer (x4)



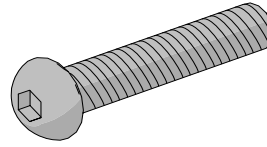
HDW-03-10733

SBHCS
M6 x 20 mm (x2)



HDW-03-10088

SBHCS
M8 x 55 mm (x4)

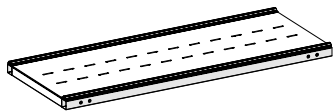


HDW-03-10726

Included Parts and Tools (continued)

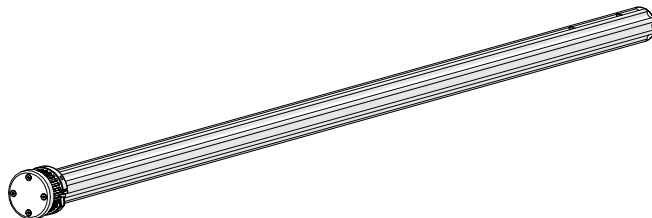
Box 2

**5 ft Table with
Tracks Assembly**



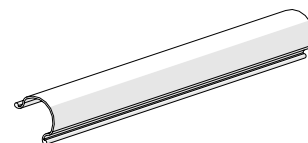
QEF-09-16576

**5 ft Star Rail
Assembly**



ACC-09-16567

**Front Rail
Clamp (x2)**



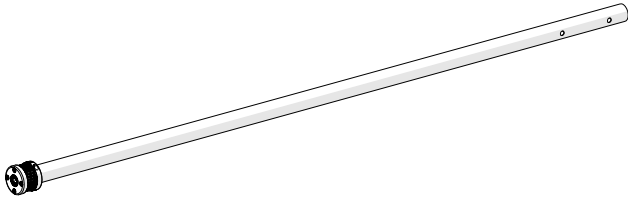
QEF-05-16505

Included Parts and Tools (continued)

Box 4

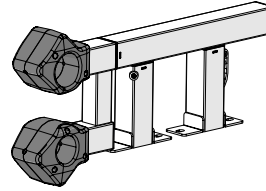
BOX 4: INNER BOX 1

**5 ft Round Rail
Assembly (x2)**



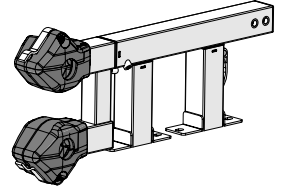
QEF-09-17068

**Square Side Rail
Assembly - Left**



QEF-09-17058

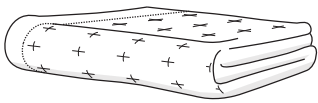
**Square Side Rail
Assembly - Right**



QEF-09-17044

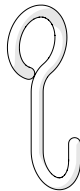
BOX 4: INNER BOX 1: HARDWARE BOX

**Start Right Cloth
Leader Set**



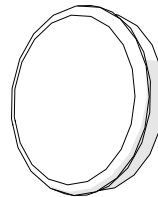
ACC-01-10750

**Frame Reference
Card Hook**



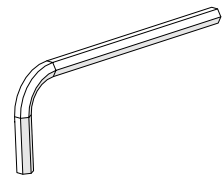
HDW-03-16369

**38 mm
Tube Cap (x2)**



BER-05-14868

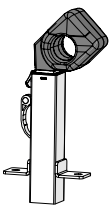
**Allen Wrench
3 mm**



HDW-03-10166

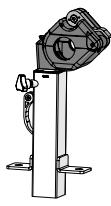
BOX 4: INNER BOX 2

**Take-Up Rail
Tower Left**



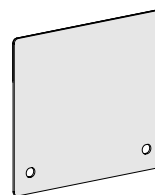
QEF-09-17030

**Take-Up Rail
Tower Right**



QEF-09-17034

Logo Plate (x2)

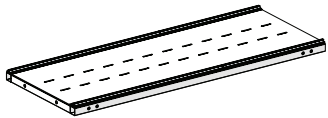


ACC-09-16565

Included Parts and Tools (continued)

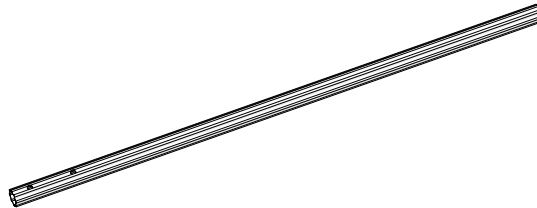
Box 6

**5 ft Table Assembly
- 5 ft Extension**



QEF-09-17087

Star Rail - 5 ft



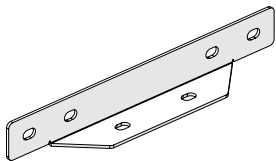
QEF-04-15537

Middle Leg



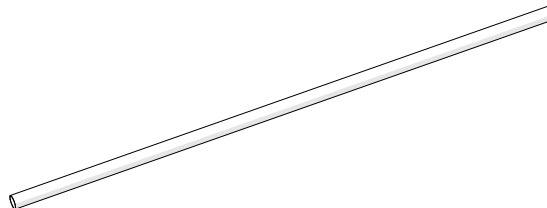
QEF-09-17102

**Middle Table
Brace (x2)**



QEF-04-15545

**Round Rail -
5 ft (x2)**



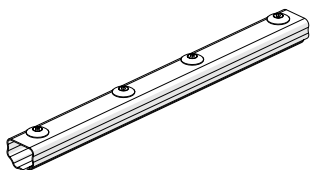
CNT-04-1105

**10 ft
Plastic Track**



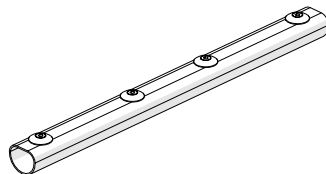
PLA-05-10560

Star Rail Coupler



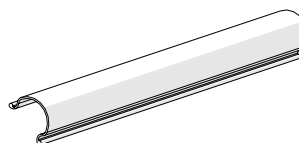
QEF-09-17096

**Rail Coupler
Assembly (x2)**



CNT-09-11865

**Front Rail
Clamp (x2)**

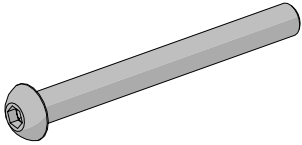


QEF-05-16505

Included Parts and Tools (continued)

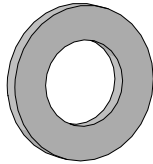
BOX 6: INNER HARDWARE BOX

**SBHCS
M10 x 100 mm (x2)**



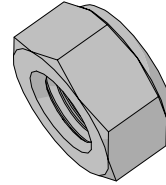
HDW-03-14602

Washer M10 (x2)



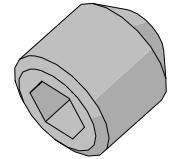
HDW-03-10952

Nylock Nut M10 (x2)



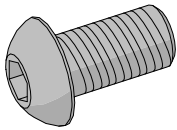
HDW-03-16817

**Socket CSS
M6 x 6 mm (x16)**



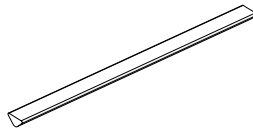
HDW-03-16818

**SBHCS
M8 x 16 mm (x16)**



HDW-03-10951

**Track Support
Connector (x4)**



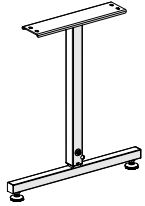
CNT-04-11041

The instruction manual for the 10 foot frame assembly is not needed for this setup and can be discarded.

Included Parts and Tools (continued)

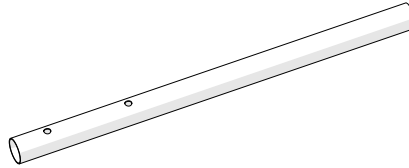
Box 7

Middle Leg



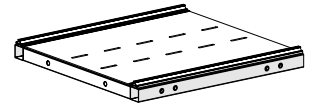
QEF-09-17102

2 ft Rail (x2)



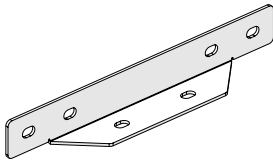
MET-04-11397

2 ft Table Assembly



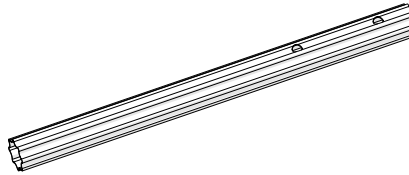
QEF-09-17151

Middle Table Brace (x2)



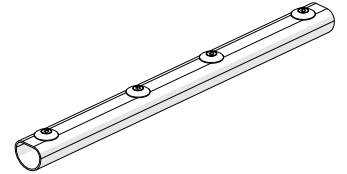
QEF-04-15545

Star Rail - 2 ft



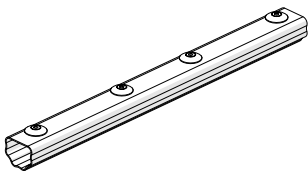
QEF-04-15538

Rail Coupler Assembly (x2)



CNT-09-11865

Star Rail Coupler



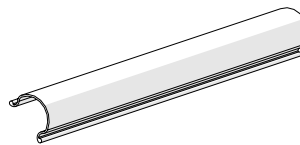
QEF-09-17096

12 ft Plastic Track



PLA-05-10561

Front Rail Clamp

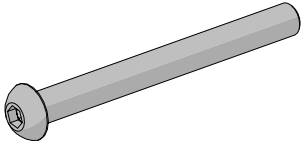


QEF-05-16505

Included Parts and Tools (continued)

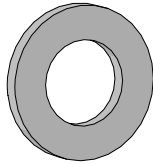
BOX 7: INNER HARDWARE BOX

SBHCS
M10 x 100 mm (x2)



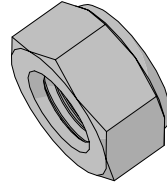
HDW-03-14602

Washer M10 (x2)



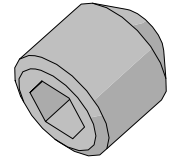
HDW-03-10952

Nylock Nut M10 (x2)



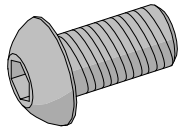
HDW-03-16817

Socket CSS
M6 x 6 mm (x8)



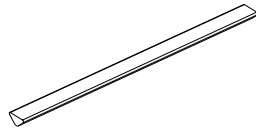
HDW-03-16818

SBHCS
M8 x 16 mm (x16)



HDW-03-10951

Track Support
Connector (x2)



CNT-04-11041

Animated Instructions

To provide the best possible customer experience, we also offer animated video instructions for setting up this product. To view the animated instructions, visit our website at:

<https://l.ead.me/QEelitestart>

You can also use your smartphone to scan this QR code:



Part One

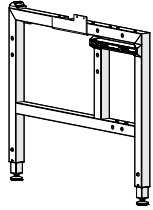
Complete Part One of these instructions before assembling your quilting machine or any accessories.

At the end of each part, you will be instructed to switch to specific sections of your machine manual, QuiltMotion manual, or other accessory manuals, if you are preparing to assemble them at this time. If you have not made those purchases, simply skip those steps.

Task 1 - Setting the Frame Height

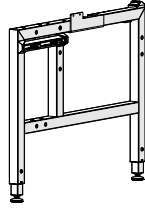
Parts & Tools Needed:

Left Side Leg Assembly



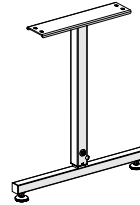
(Box 1)

Right Side Leg Assembly



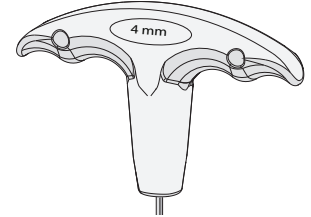
(Box 1)

Middle Leg (x2)



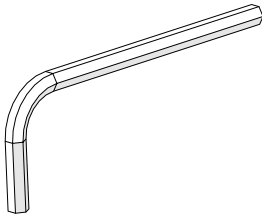
(Box 6 and Box 7)

T-handle Allen Wrench 4 mm



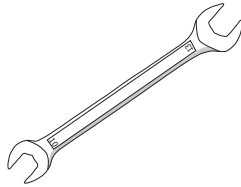
(Box 1: Hardware Box)

Allen Wrench 5 mm



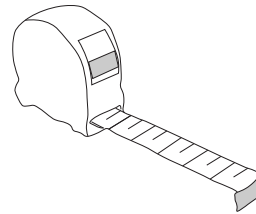
(Box 1: Hardware Box)

Open-End Wrench 10 mm and 13 mm



(Box 1: Hardware Box)

Tape Measure

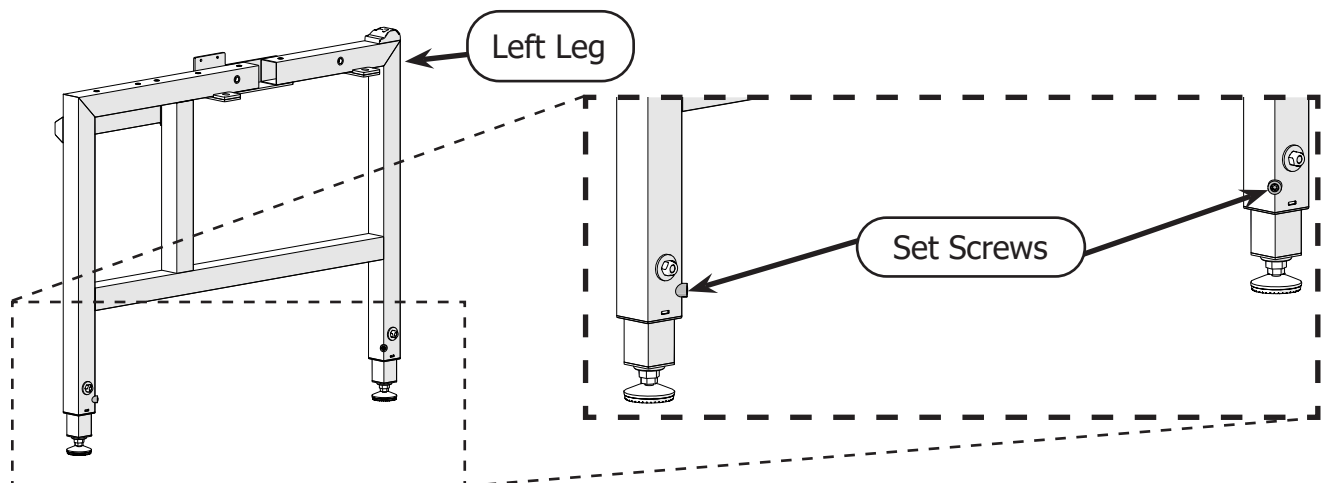


(not included)

Instructions

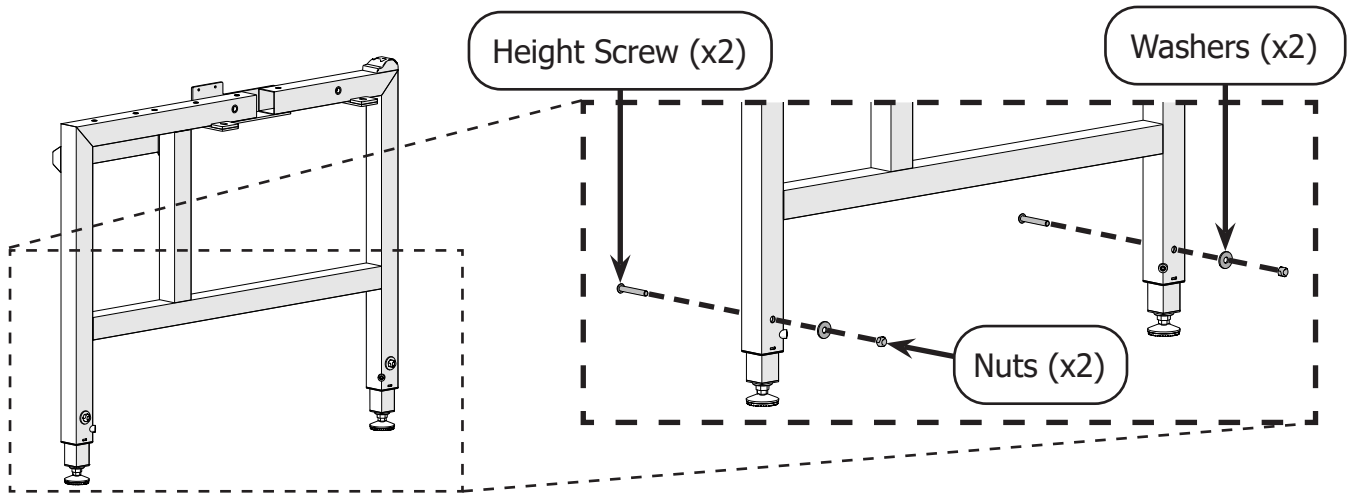
The frame height is important for comfortable prolonged use. Ideally, the handlebars on your machine or top plate will be around elbow height once your setup is fully assembled. Take the following steps to set your frame height:

- 1 Loosen the two **set screws** at the base of the **left leg** with the 4 mm T-handle Allen wrench.

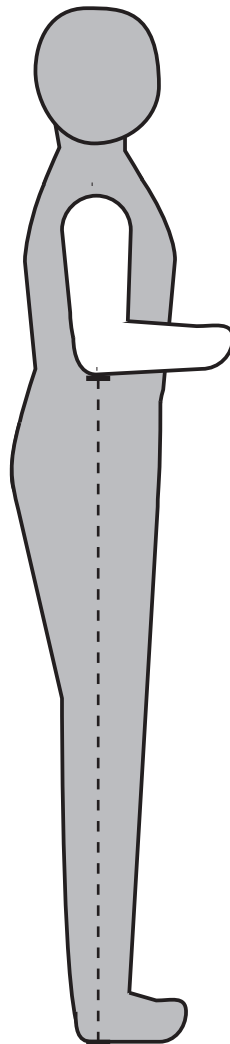


Task 1 - Setting the Frame Height (continued)

- 2 Use the 13 mm open-end wrench to hold the **nut** and use the 5 mm Allen wrench to unscrew the **height screw**. Remove both sets of **height screws, washers, and nuts** from the leg.

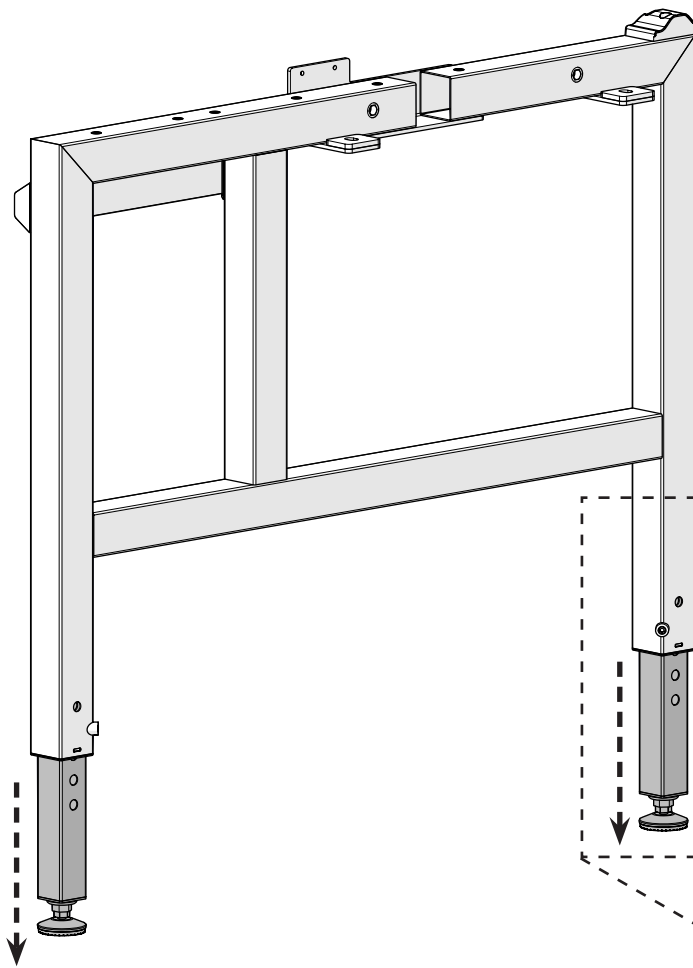


- 3 While standing straight, hold your arm at a 90 degree angle. Use a tape measure to measure the distance in inches from your elbow to the floor.

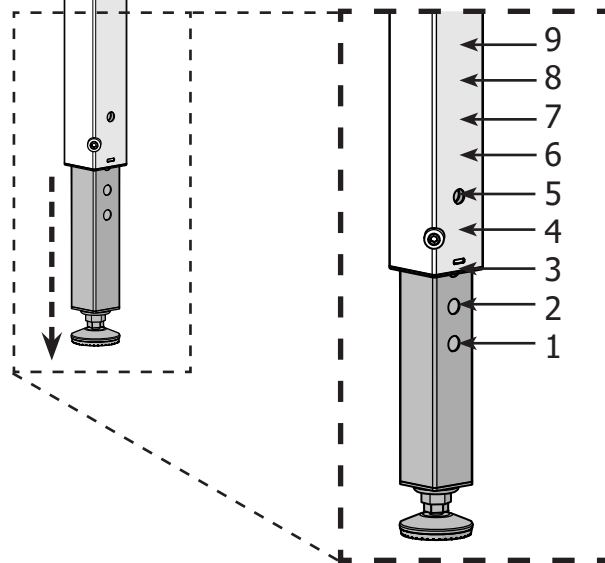


Task 1 - Setting the Frame Height (continued)

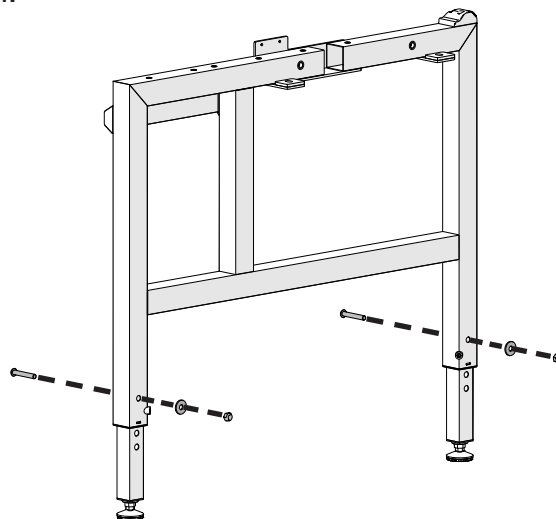
- 4 Find the hole number closest to your elbow height in the chart. Then pull out the bottom part of each leg to align its two screw holes with the hole you've chosen in the bottom part of the leg. Set all legs to the same hole.



Hole Number	Elbow to Floor
1	40 Inches
2	41 Inches
3	42 Inches
4	43 Inches
5	44 Inches
6	45 Inches
7	46 Inches
8	47 Inches
9	48 Inches

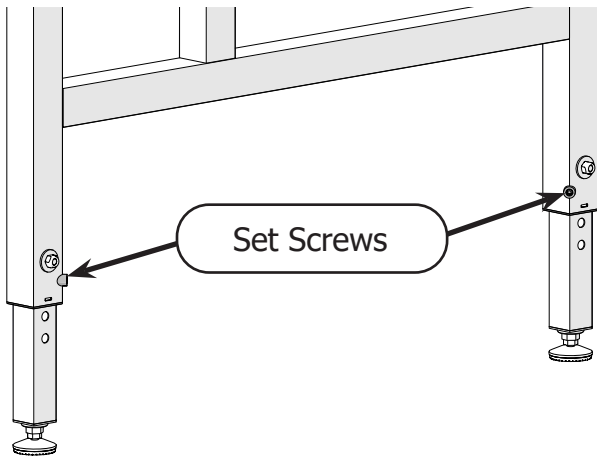


- 5 Secure in place with the screws, washers, and nuts. Tighten with the 5 mm Allen wrench and 13 mm open-end wrench.

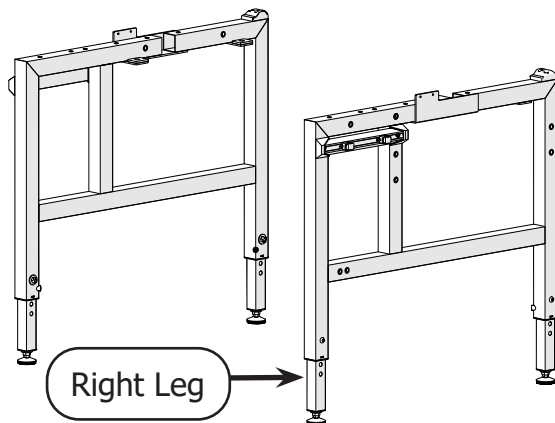


Task 1 - Setting the Frame Height (continued)

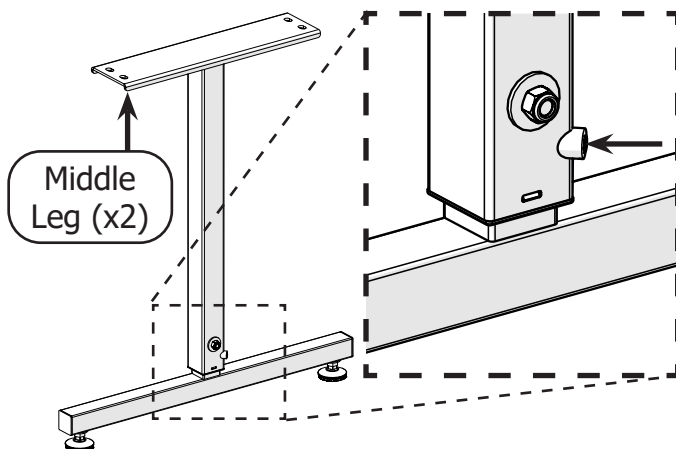
- 6 Tighten the two **set screws** with the 4 mm T-handle Allen wrench.



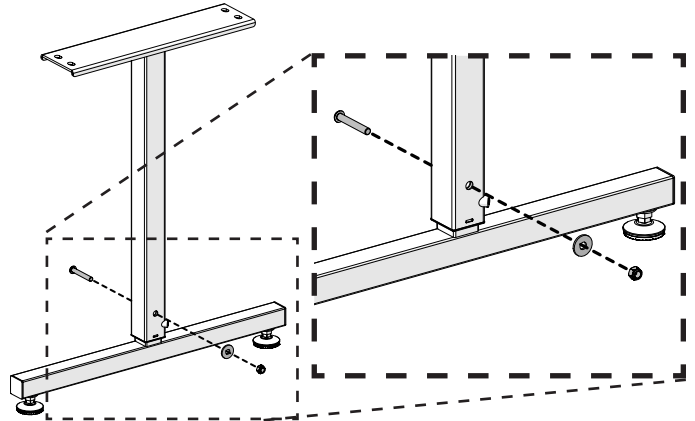
- 7 Repeat steps 1-2 and steps 4-5 for the **right leg**, making sure to set it to the same height as the left leg.



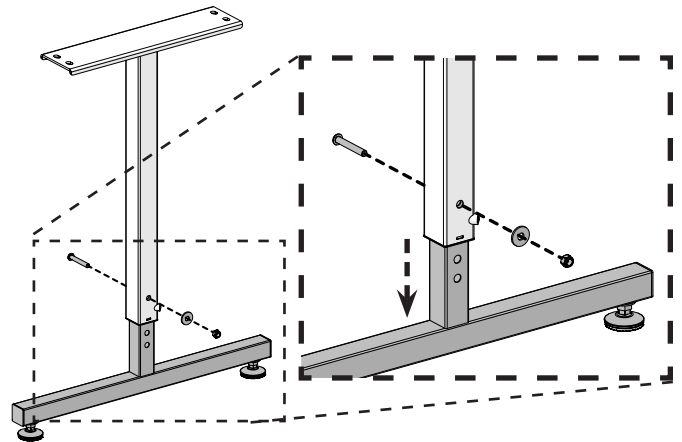
- 8 **On both middle legs:** Loosen the set screw with the 4 mm Allen wrench.



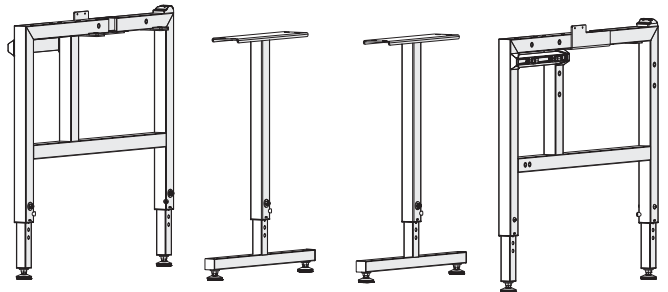
- 9 **On both middle legs:** Remove the height screw, washer, and nut from the middle leg with the 5 mm Allen wrench and the 13 mm open-end wrench.



- 10 **On both middle legs:** Set the height to the same hole as the other legs, and reinstall the height screw, washer, and nut.



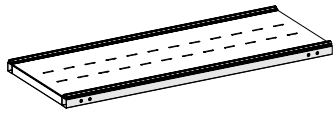
- 11 **Result:** All four legs are set to the same height.



Task 2 - Assembling the Tracks

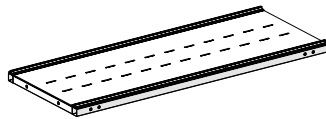
Parts & Tools Needed:

5 ft Table with Tracks Assembly



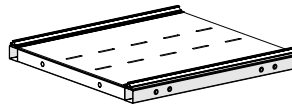
(Box 2)

5 ft Table Assembly - 5 ft Extension



(Box 6)

2 ft Table Assembly



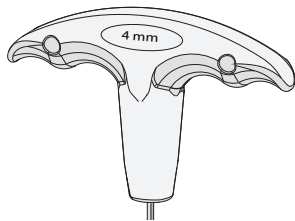
(Box 7)

12 ft Plastic Track

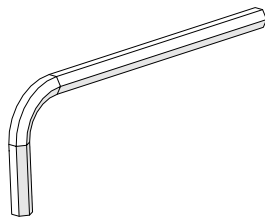


(Box 7)

T-handle Allen Wrench 4 mm

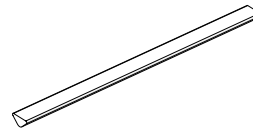


Allen Wrench 3 mm



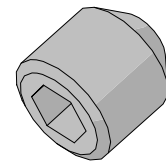
(Box 4: Hardware Box)

Track Support Connector (x6)



(Box 6 and Box 7)

Socket CSS M6 x 6 mm (x24)



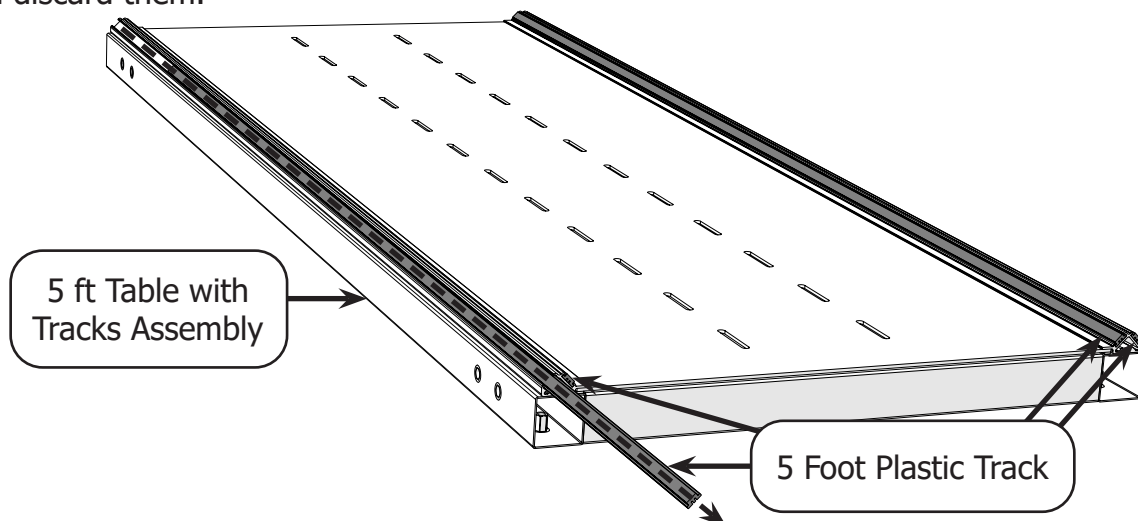
(Box 6 and Box 7)

Instructions

Your frame's metal tracks were preinstalled to protect them during shipping. However, for the optimal performance from your frame, it is necessary to partially disassemble and reassemble these parts.

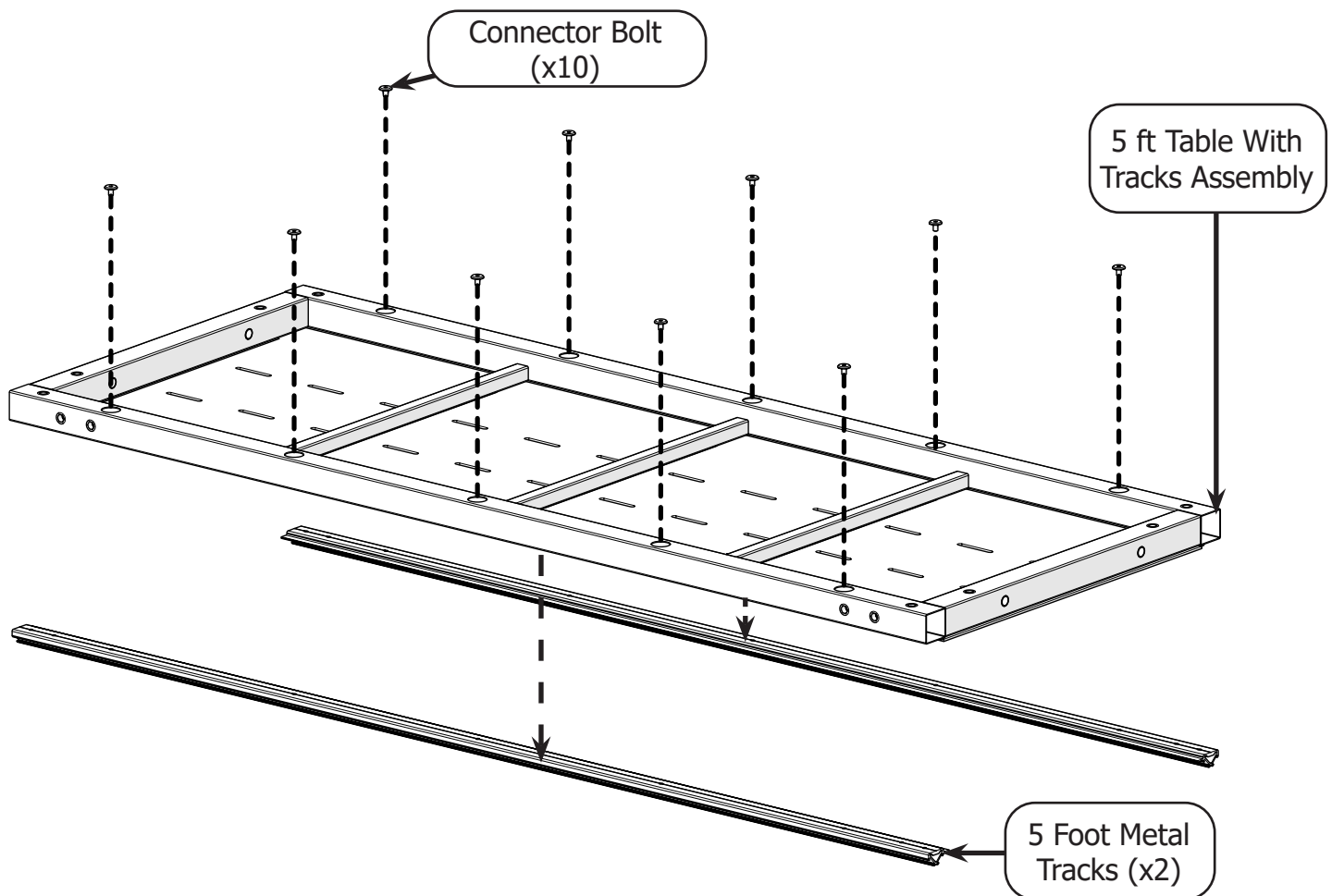
Take the following steps to install the table onto the legs, and to assemble your frame's tracks:

- 1 Slide the four **5 foot plastic tracks** from the **5 ft table with tracks assembly** (found in box 2) and discard them.

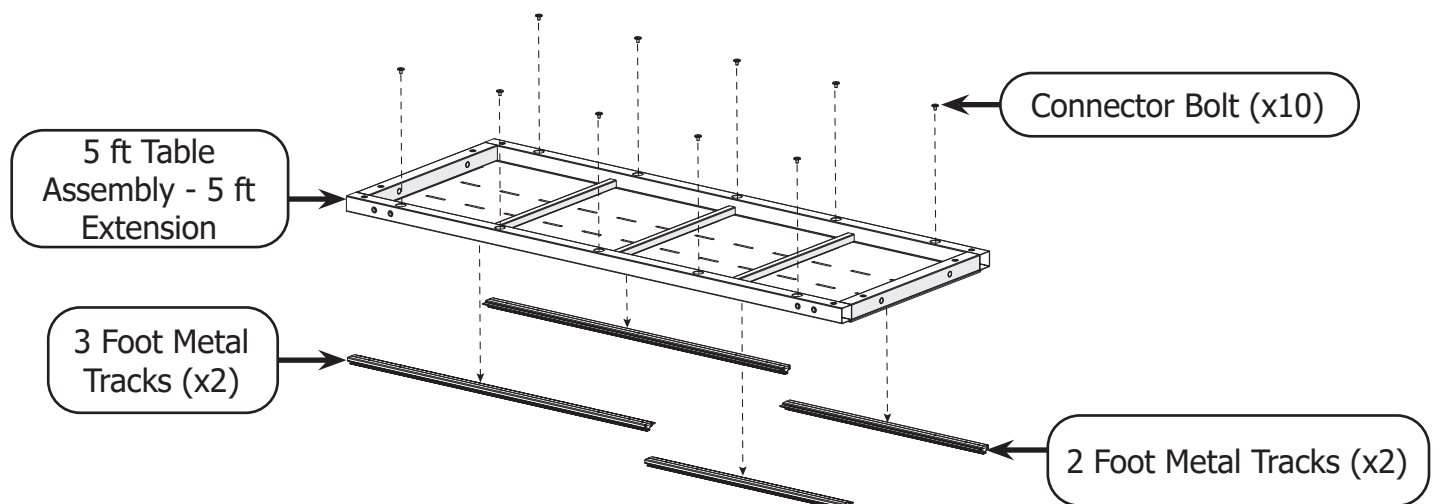


Task 2 - Assembling the Tracks (continued)

- 2 Flip over the **5 ft table with tracks assembly**. Use the 4 mm Allen wrench to remove the ten **connector bolts**, separating the **5 ft metal tracks** from the table.

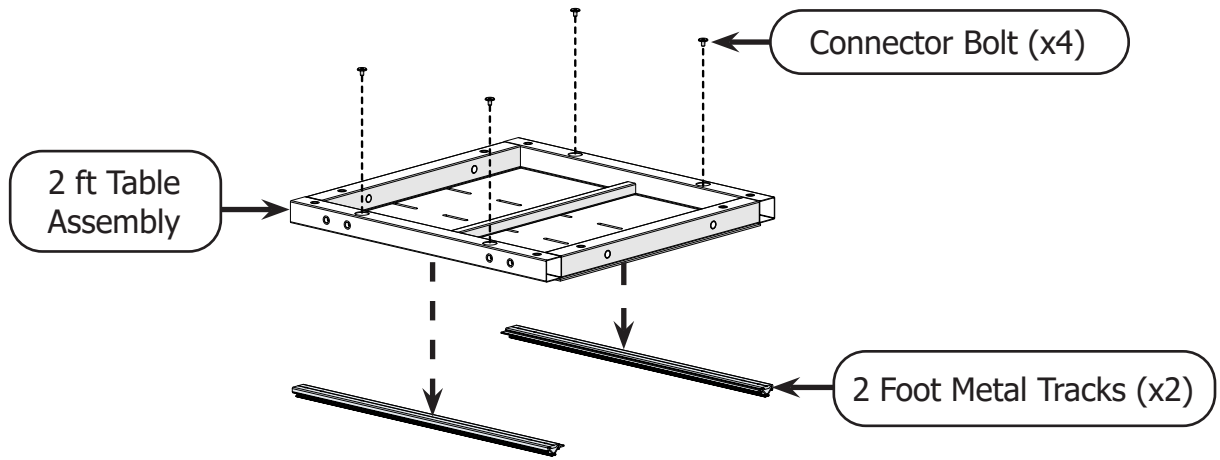


- 3 Unscrew the ten **connector bolts** in the **5 ft table assembly - 5 ft extension** with the 4 mm Allen wrench to uninstall the **3 foot metal tracks** and **2 foot metal tracks**.

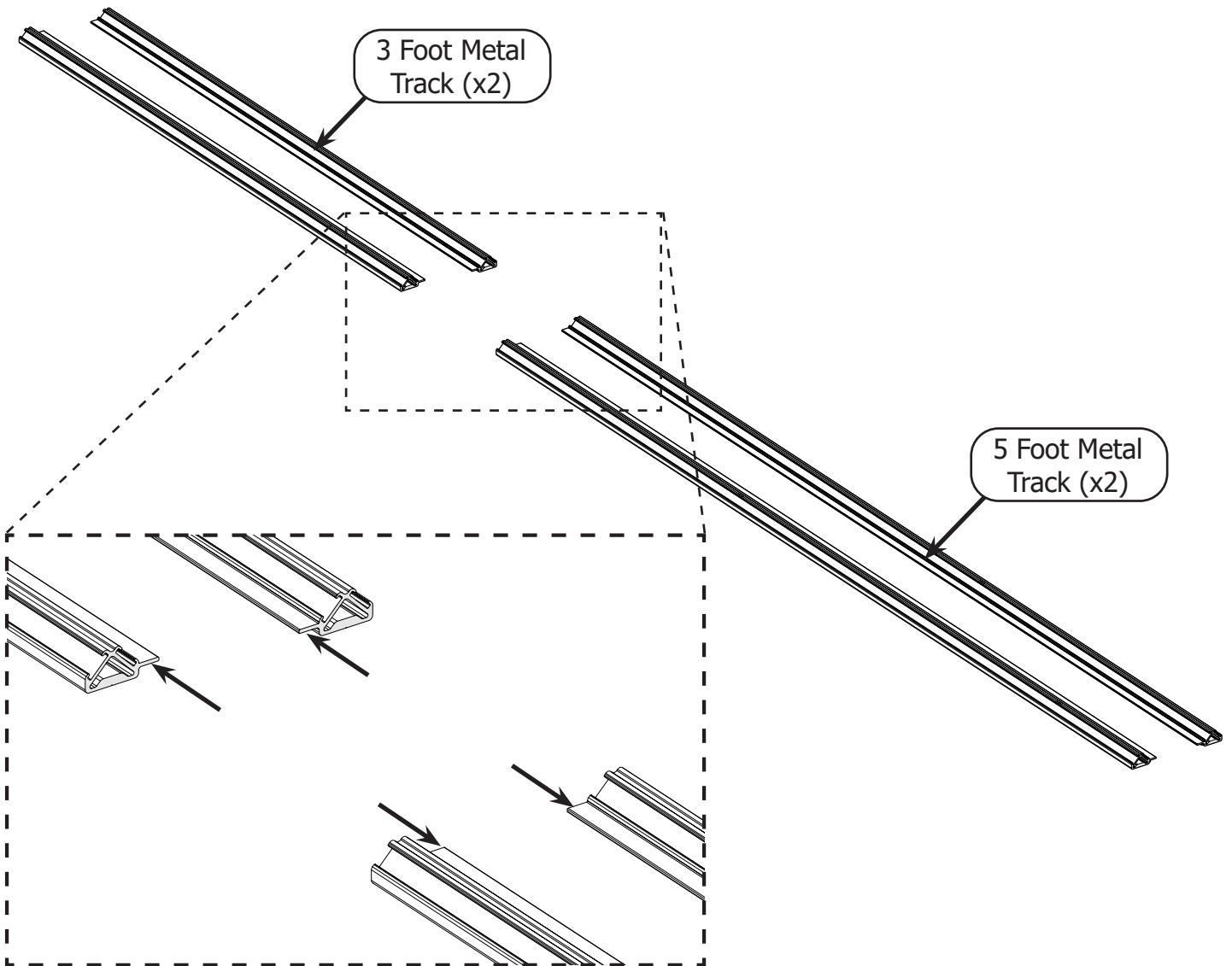


Task 2 - Assembling the Tracks (continued)

- 4 Unscrew the four **connector bolts** in the **2 ft table assembly** with the 4 mm Allen wrench to uninstall the **2 foot metal tracks**.

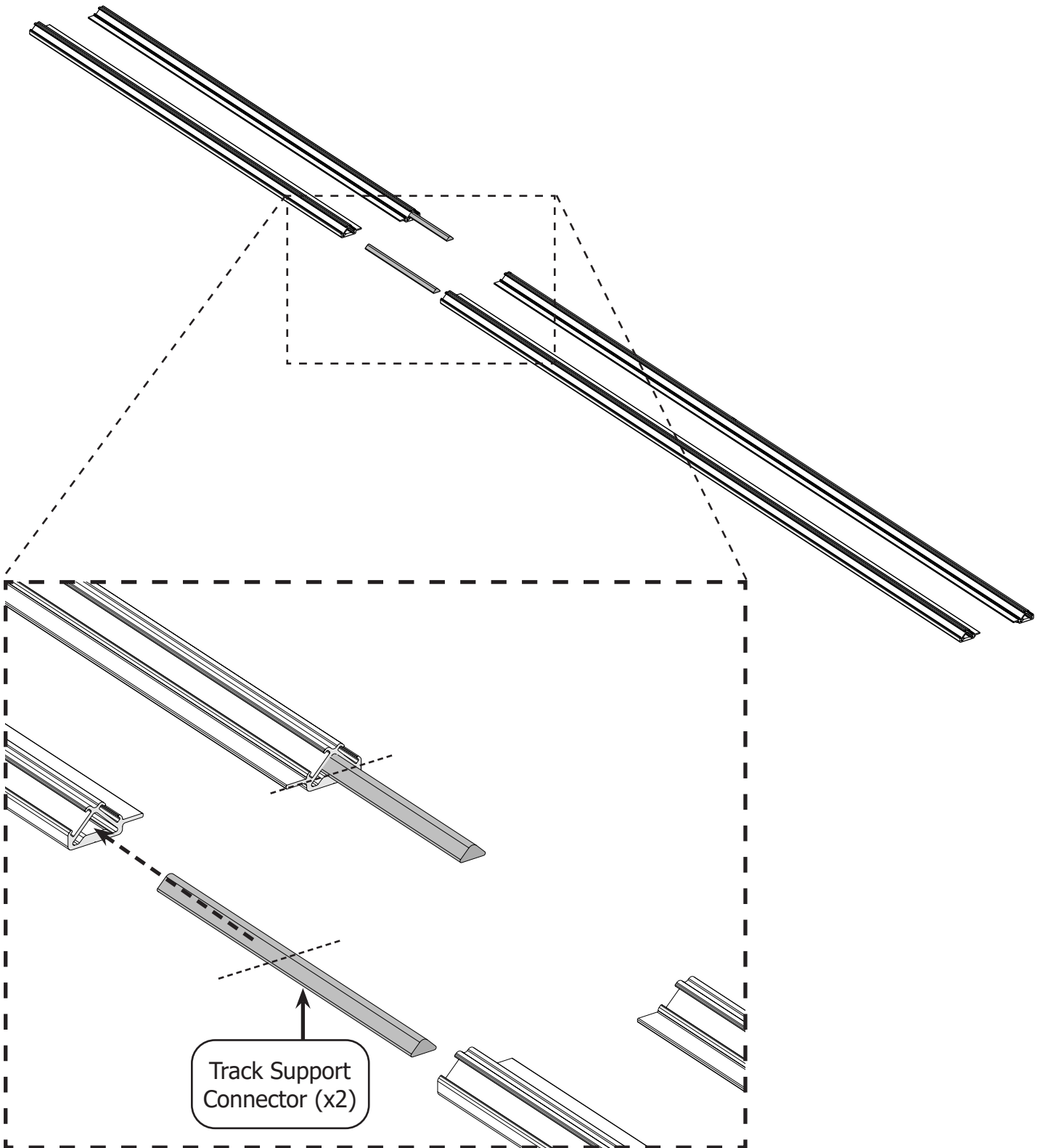


- 5 Align the **3 foot metal tracks** to the left of the **5 foot metal tracks**. Note the orientation of the metal extrusions.



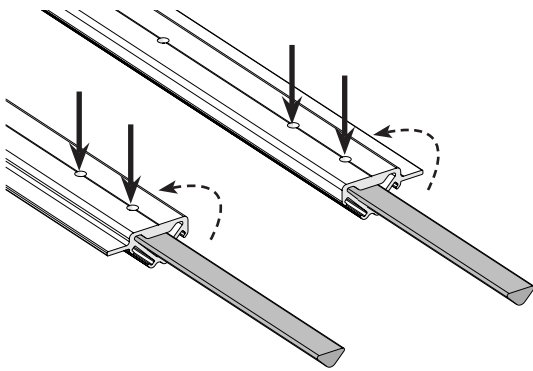
Task 2 - Assembling the Tracks (continued)

- 6 Place a **track support connector** halfway into each of the 3 foot metal tracks.

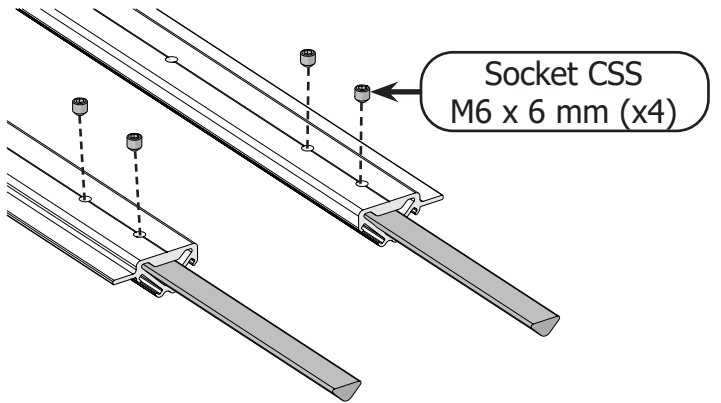


Task 2 - Assembling the Tracks (continued)

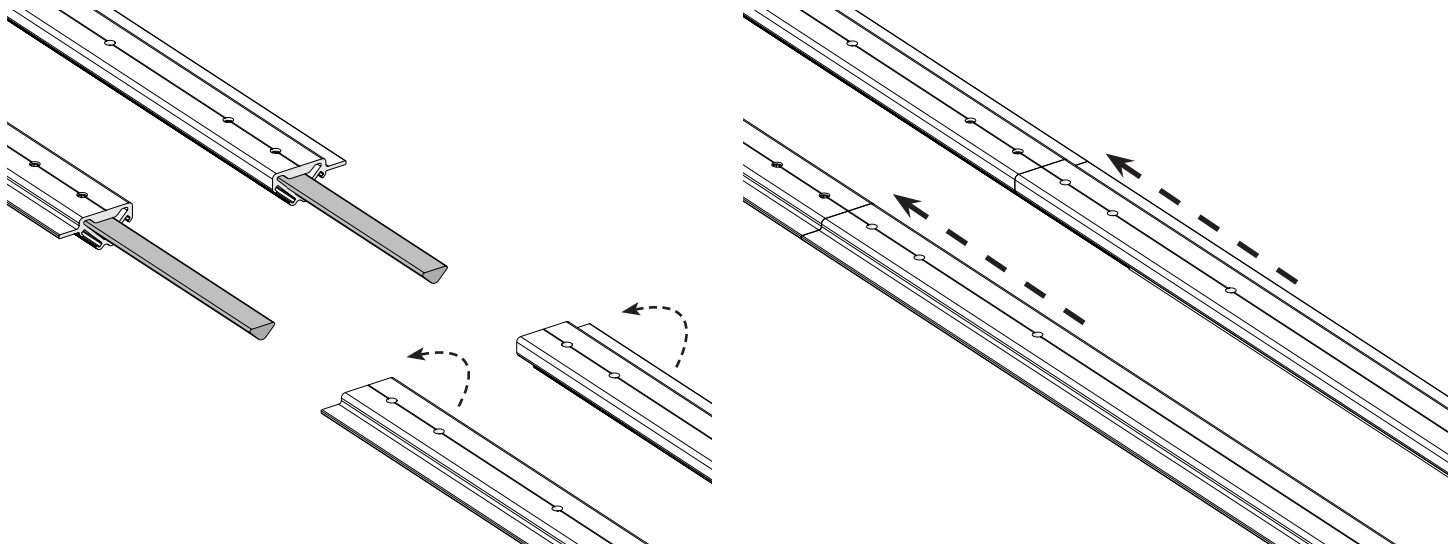
7 Carefully flip the 3 foot metal tracks to expose the screw holes at the bottom.



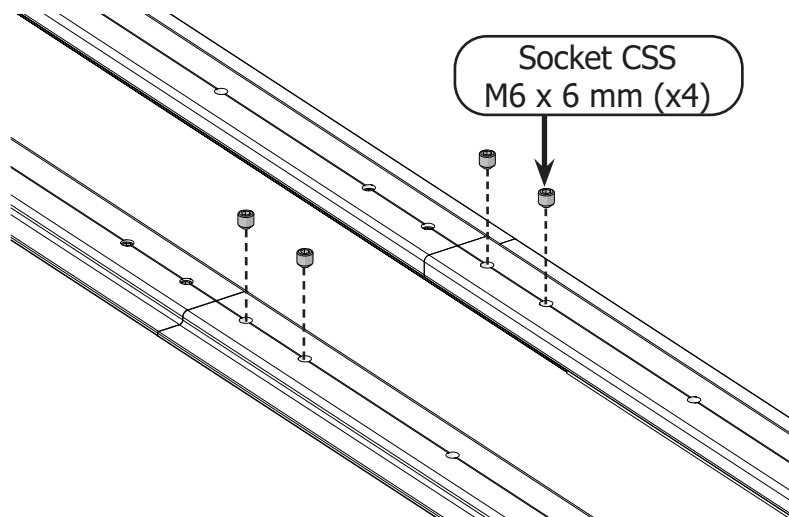
8 Use the 3 mm Allen wrench to install two **M6 x 6 mm Socket CSS** into each of the 3 foot metal tracks.



9 Flip the 5 foot metal tracks over and then slide them onto the track support connectors.

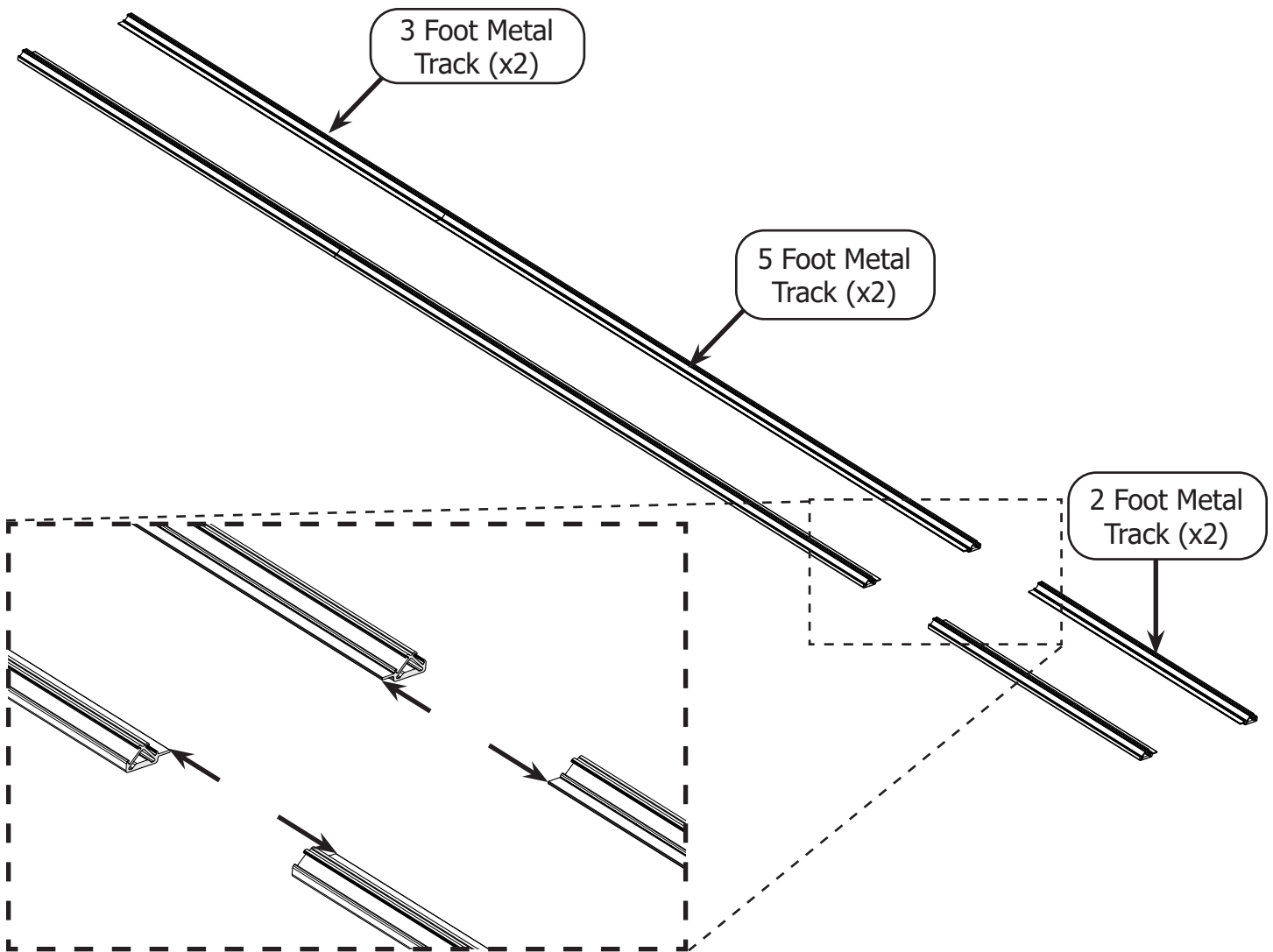


10 Use the 3 mm Allen wrench to install two **M6 x 6 mm Socket CSS** into each of the 5 foot metal tracks.

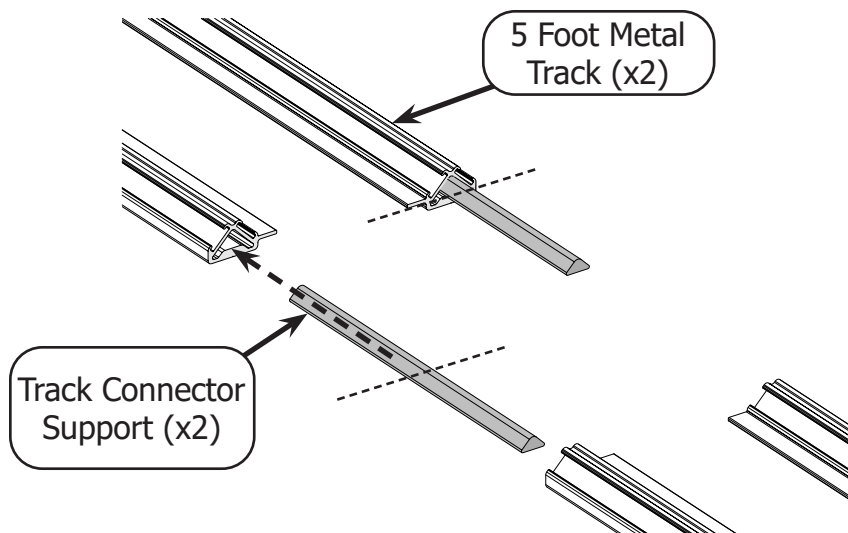


Task 2 - Assembling the Tracks (continued)

- 11 Align the 2 foot metal tracks to the right of the long metal tracks. Note the orientation of the metal extrusions.

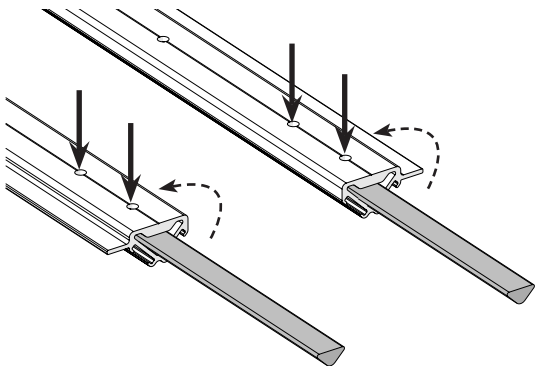


- 12 Place a **track support connector** halfway into the end of the **5 foot metal tracks**.

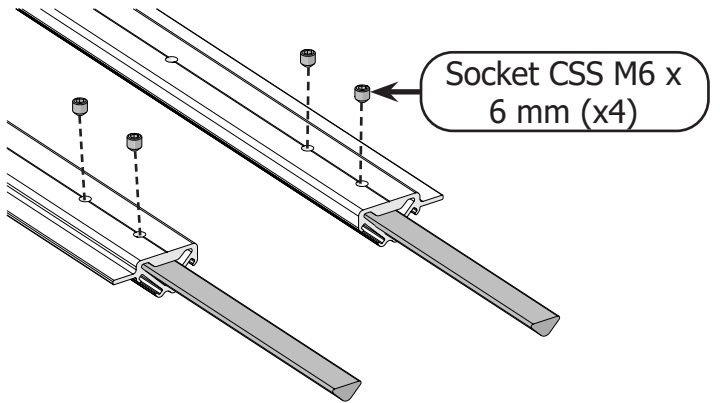


Task 2 - Assembling the Tracks (continued)

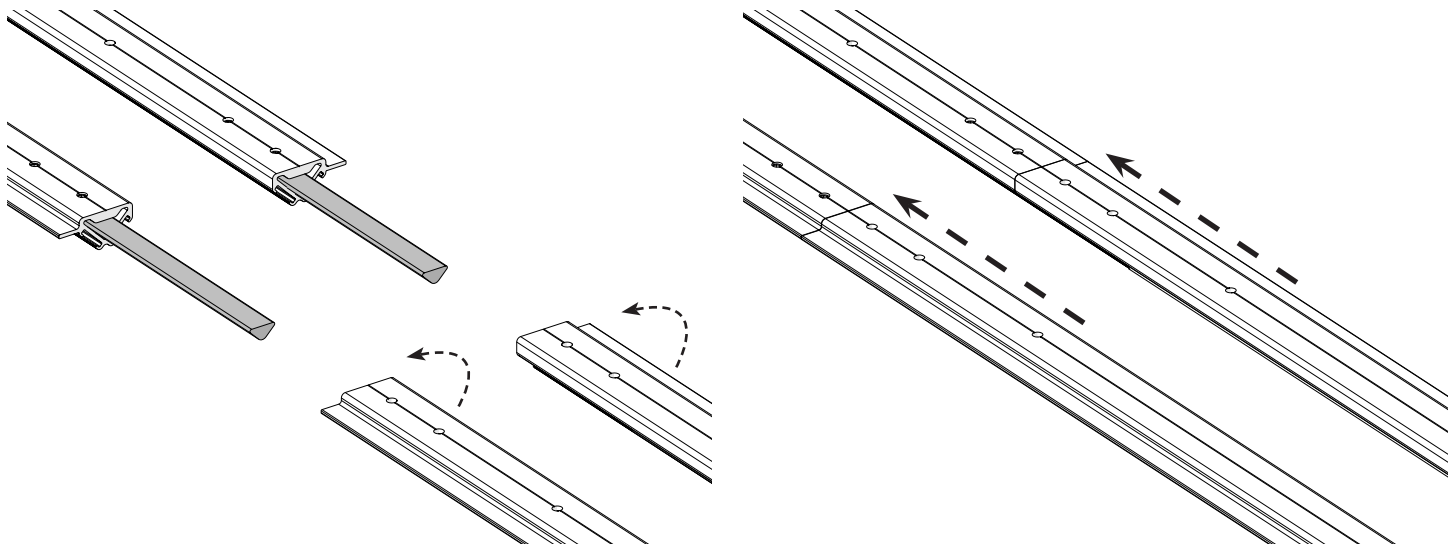
13 Carefully flip the long metal tracks to expose the screw holes at the bottom.



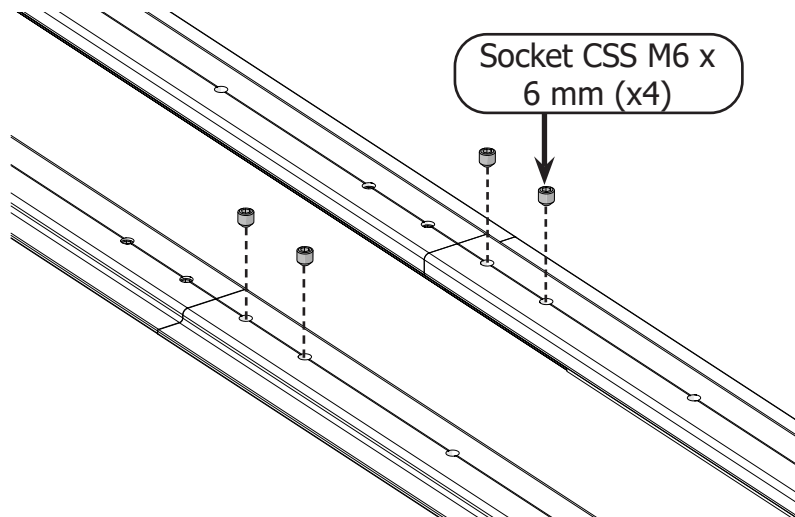
14 Use the 3 mm Allen wrench to install two **M6 x 6 mm Socket CSS** into each of the 5 foot metal tracks.



15 Flip the 2 foot metal tracks over and then slide them onto the track support connectors.

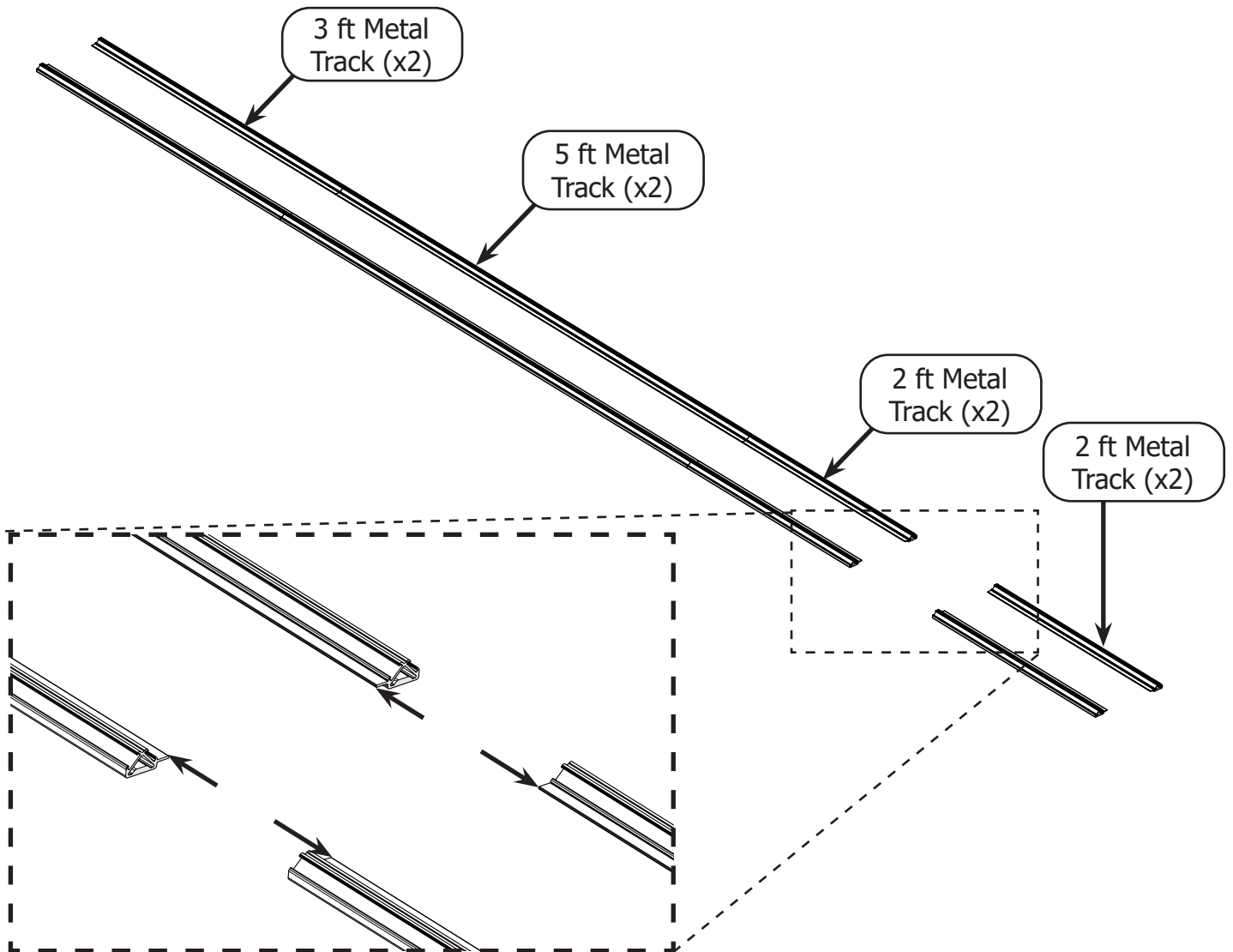


16 Use the 3 mm Allen wrench to install two **M6 x 6 mm Socket CSS** into each of the 2 foot metal tracks.

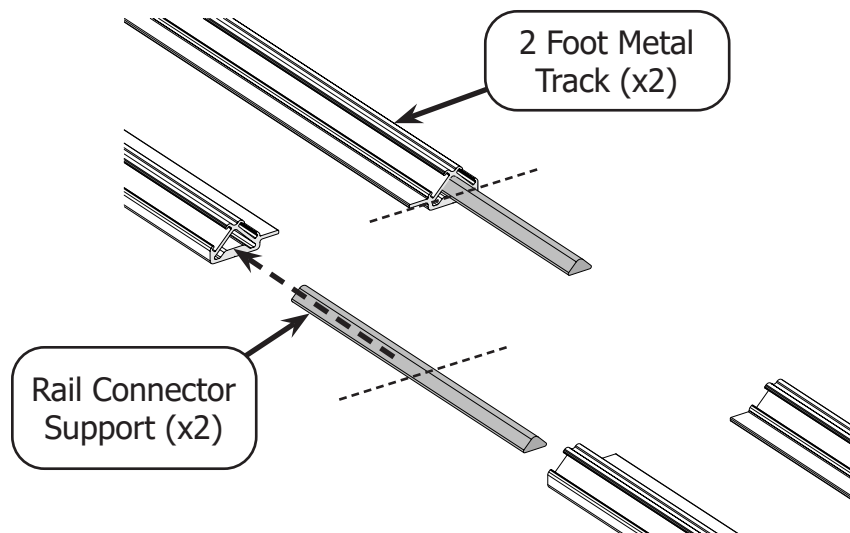


Task 2 - Assembling the Tracks (continued)

- 17 Align the 2 foot metal tracks to the right of the long metal tracks. Note the orientation of the metal extrusions.

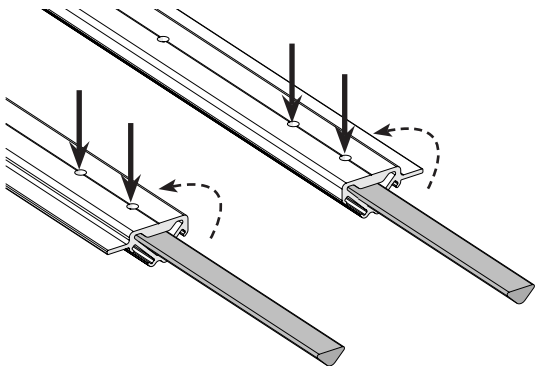


- 18 Place a **support connector** halfway into the end of the **2 foot metal tracks**.

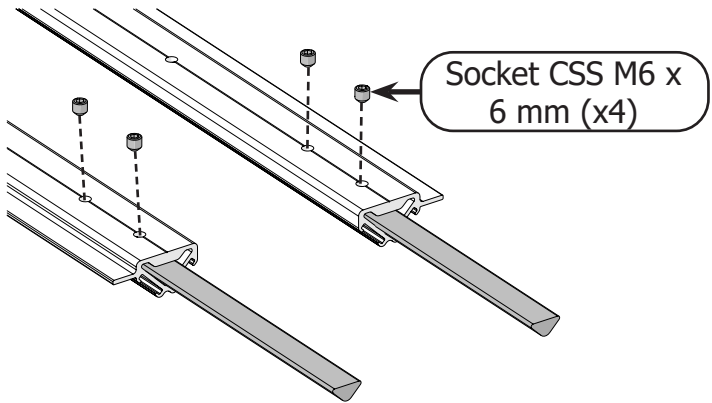


Task 2 - Assembling the Tracks (continued)

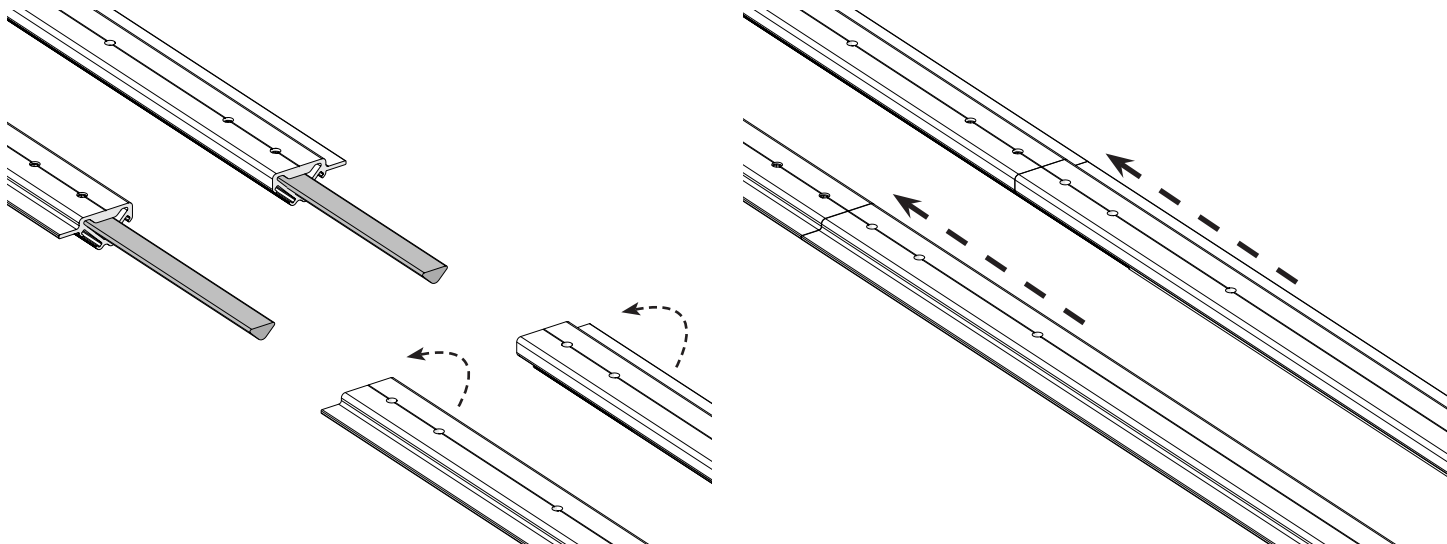
19 Carefully flip the long metal tracks to expose the screw holes at the bottom.



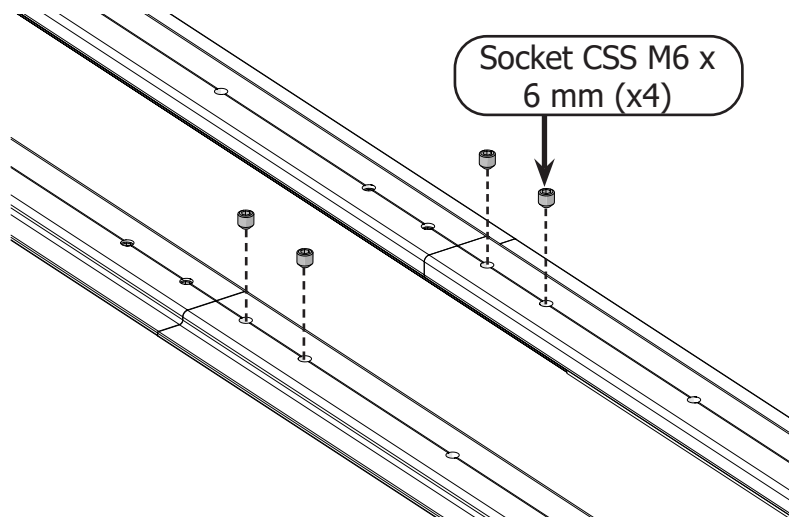
20 Use the 3 mm Allen wrench to install two **M6 x 6 mm Socket CSS** into the long tracks.



21 Flip the 2 foot tracks over and then slide them onto the track support connectors.

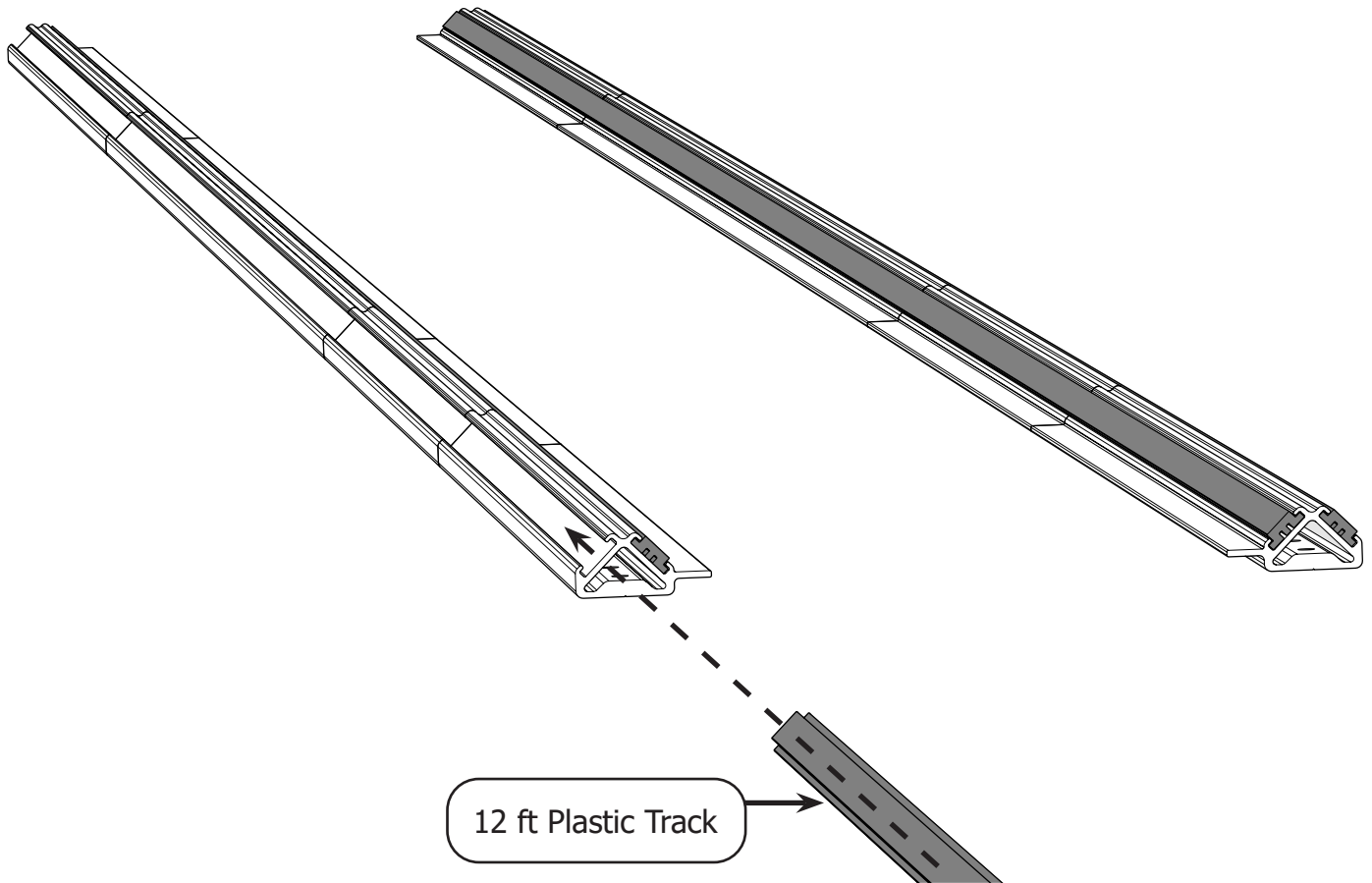


22 Use the 3 mm Allen wrench to install two **M6 x 6 mm Socket CSS** into each of the 2 foot metal tracks.

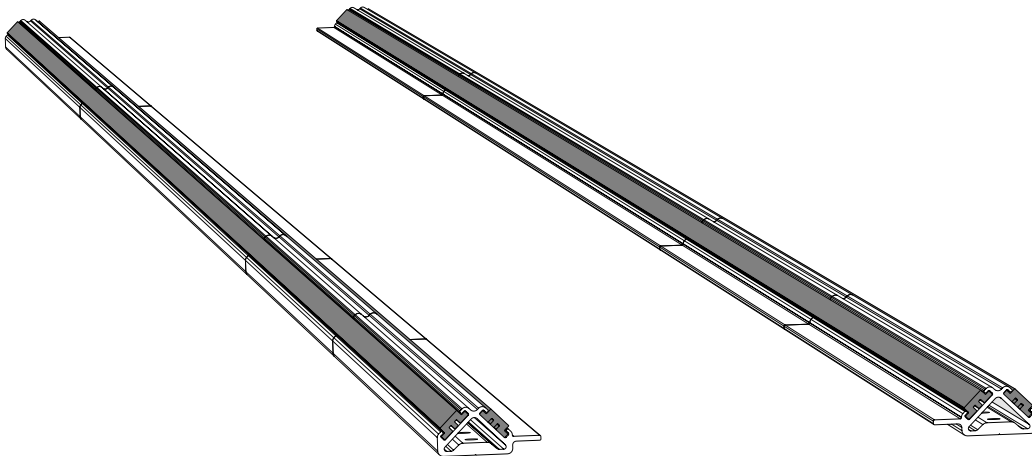


Task 2 - Assembling the Tracks (continued)

- 23 Flip the assembled tracks over again and slide two **12 ft plastic tracks** into each metal track assembly.



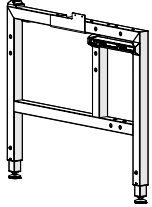
- 24 **Result:** The 12 foot tracks are fully assembled.



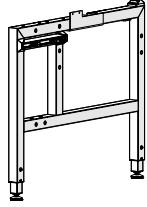
Task 3 - Installing the Table

Parts & Tools Needed:

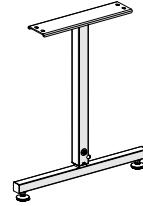
Left Side Leg Assembly



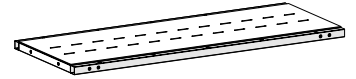
Right Side Leg Assembly



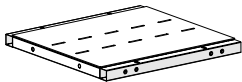
Middle Leg (x2)



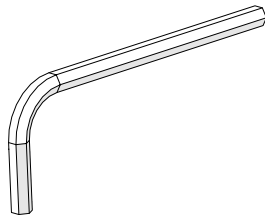
5ft Table Assembly (tracks removed) (x2)



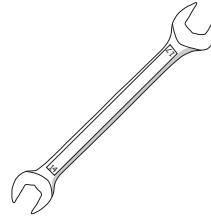
2 ft Table Assembly (tracks removed)



Allen Wrench 5 mm

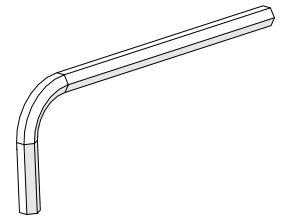


Open-End Wrench 14 mm and 17 mm



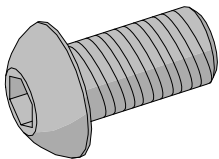
(Box 1: Hardware Box)

Allen Wrench 6 mm



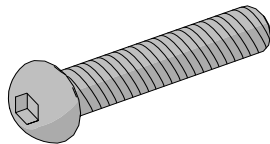
(Box 1: Hardware Box)

SBHCS M8 x 20 mm (x4)



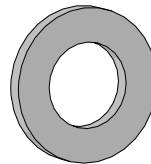
(Box 1: Hardware Box)

SBHCS M8 x 55 mm (x4)



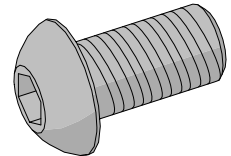
(Box 1: Hardware Box)

Washer M8 (x4)



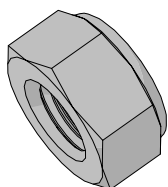
(Box 1: Hardware Box)

SBHCS M8 x 16 mm (x8)



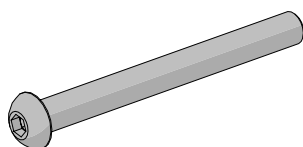
(Box 1: Hardware Box)

Nylock Nut M10 (x4)



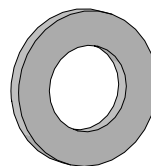
(Box 6 and Box 7)

SBHCS M10 x 100 mm (x4)



(Box 6 and Box 7)

Washer M10 (x4)



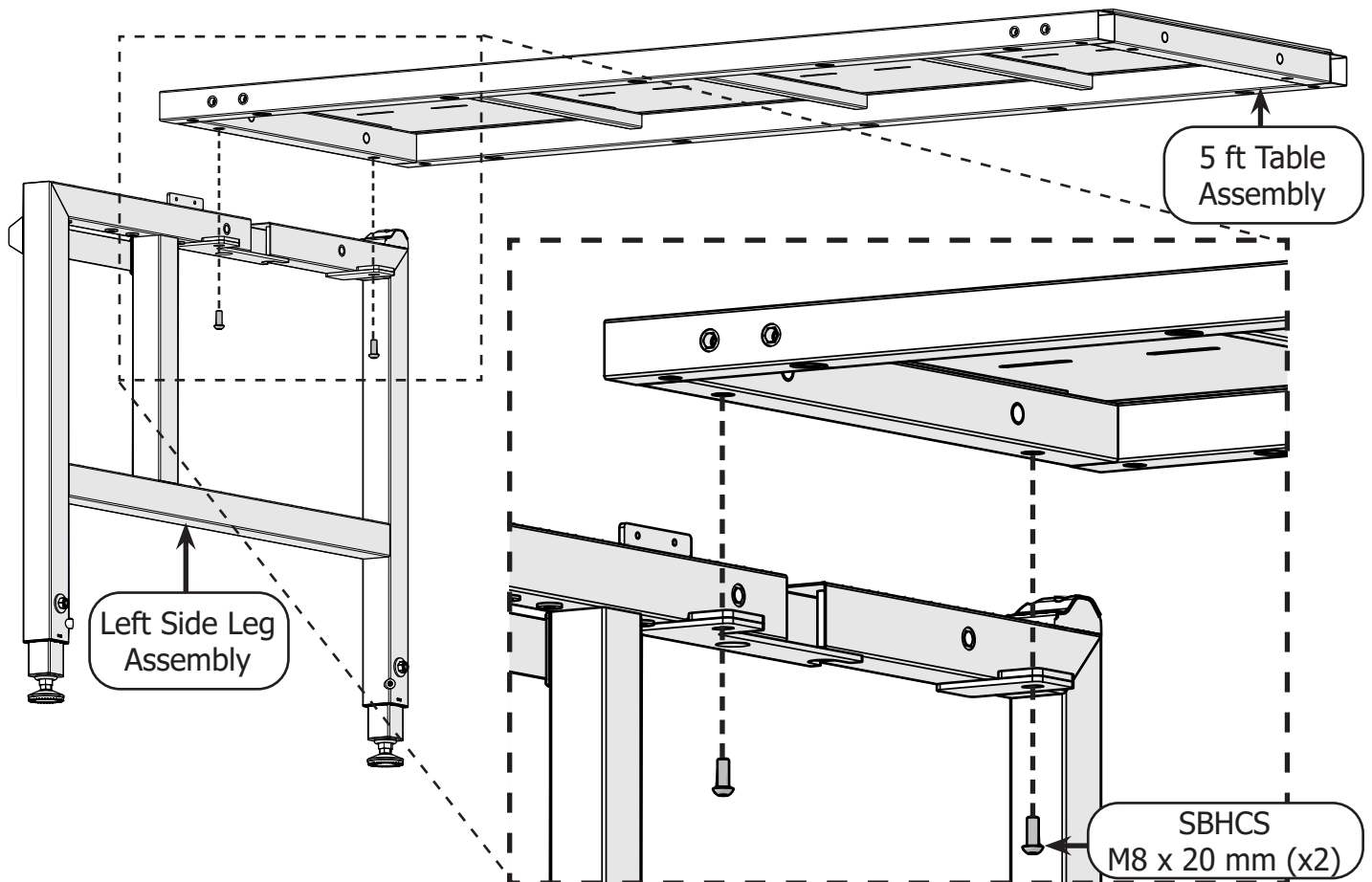
(Box 6 and Box 7)

Task 3 - Installing the Table (continued)

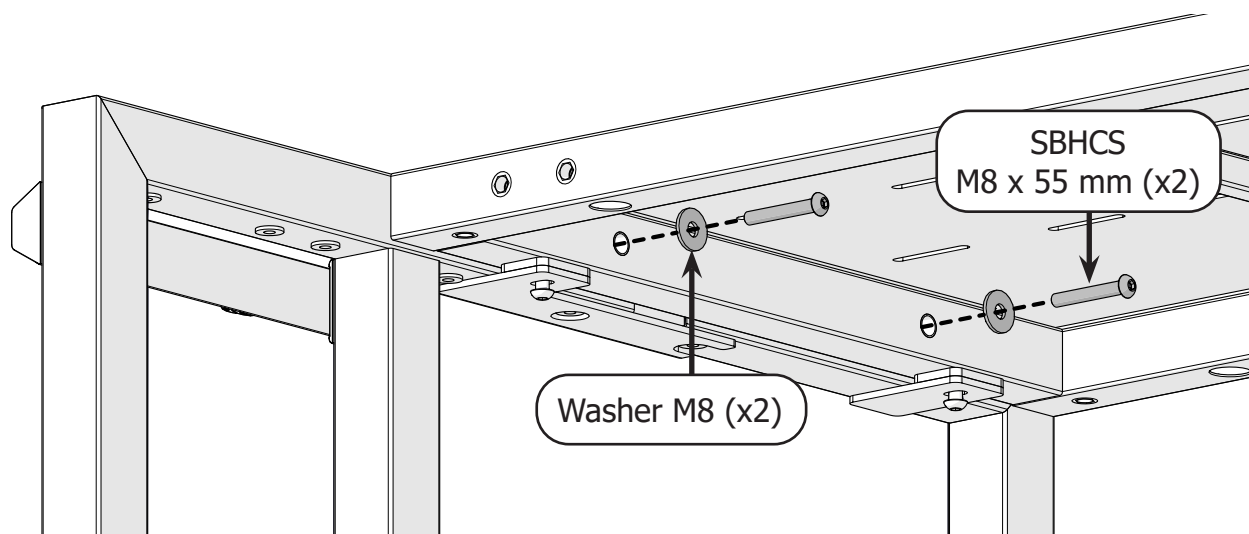
Instructions

With help from a friend, take the following steps to assemble the frame table:

- 1 Use the 5 mm Allen wrench and two **M8 x 20 mm SBHCS** to loosely connect one side of a **5 ft table assembly** to the **left side leg assembly**. Do not tighten.

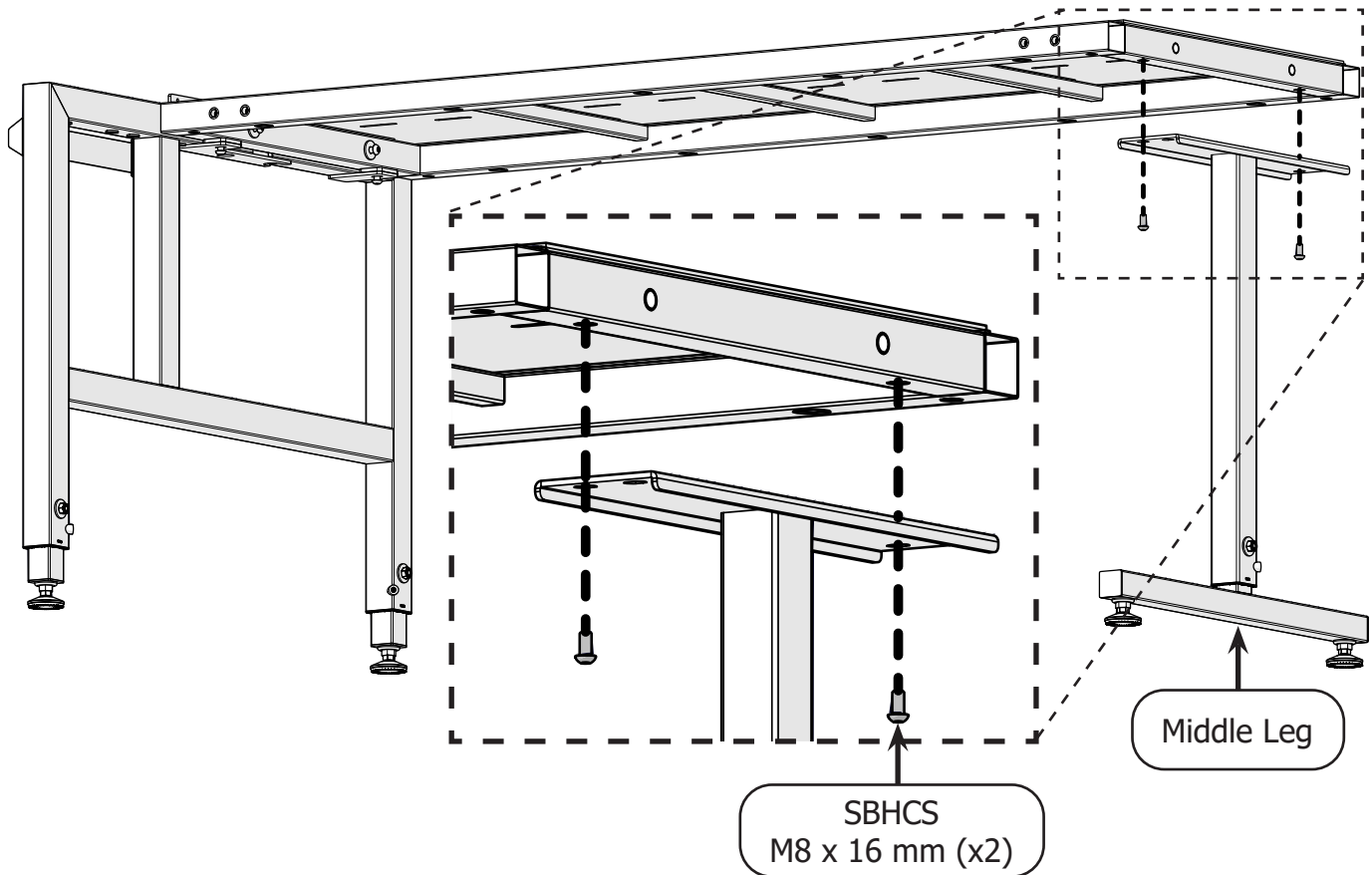


- 2 Loosely install two **M8 x 55 mm SBHCS** and two **M8 washers** with the 5 mm Allen wrench.

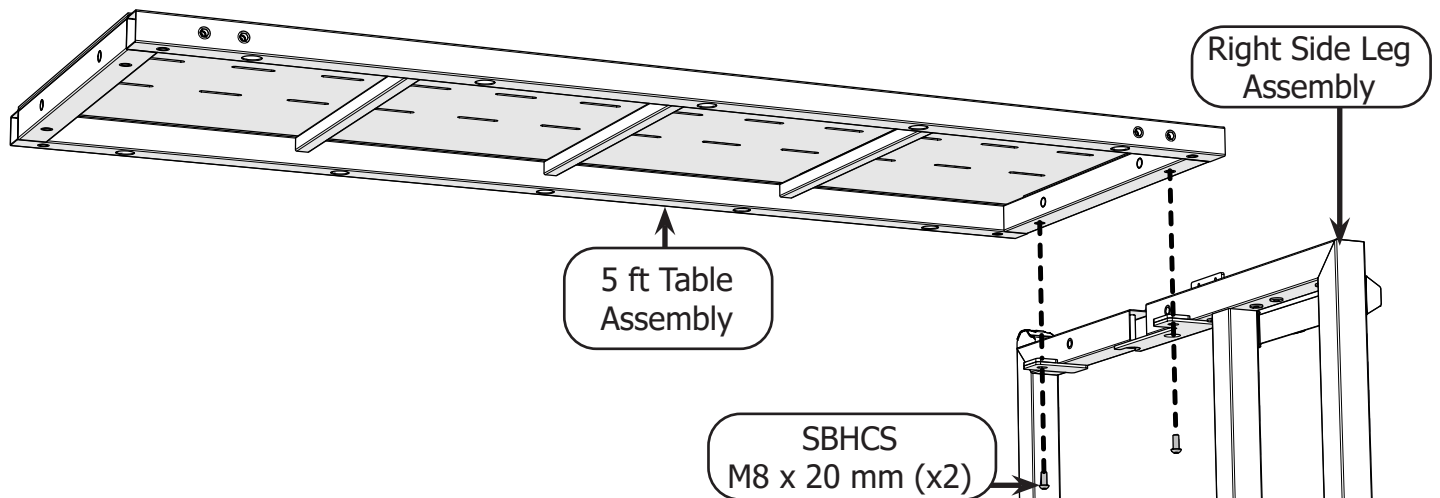


Task 3 - Installing the Table (continued)

- 3 Loosely attach a **middle leg** to the other end of the 5 ft table with two **M8 x 16 mm SBHCS** and the 5 mm Allen wrench.

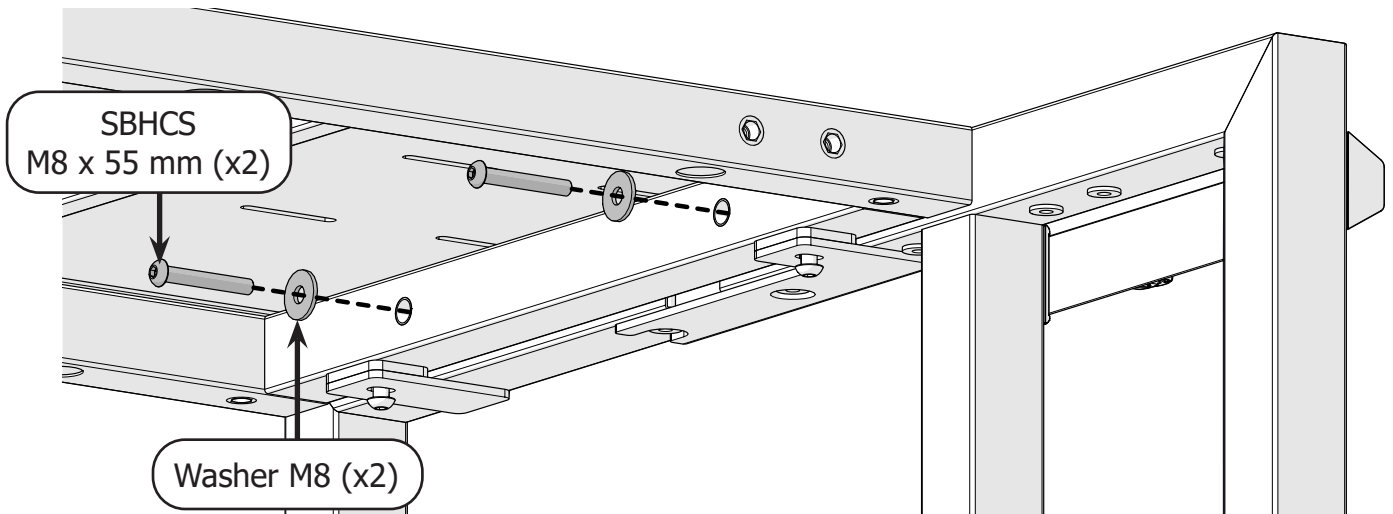


- 4 Use the 5 mm Allen wrench and two **M8 x 20 mm SBHCS** to loosely connect the second **5 ft table assembly** to the **right side leg assembly**.

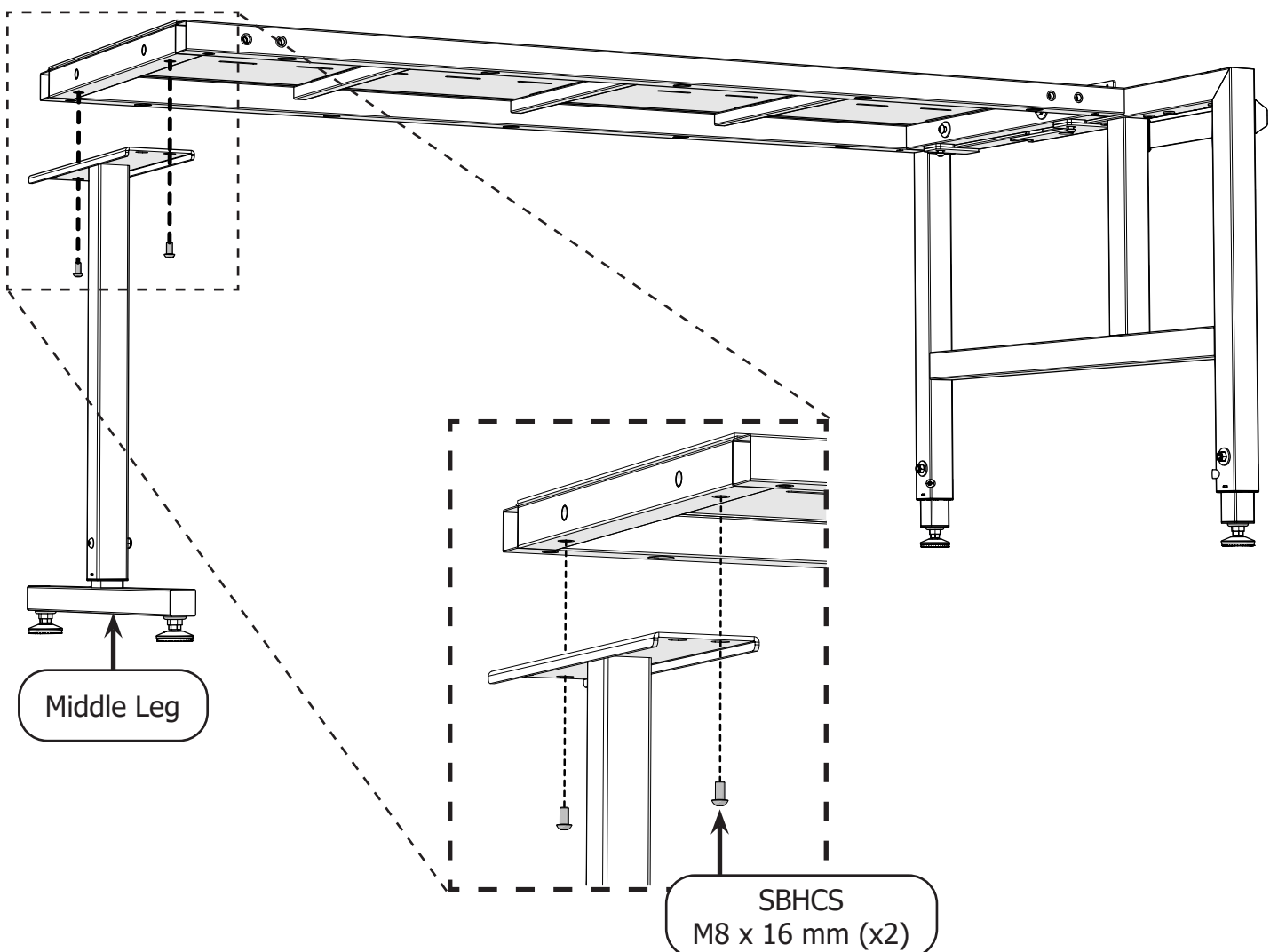


Task 3 - Installing the Table (continued)

- 5 Loosely install two **M8 x 55 mm SBHCS** and two **M8 washers** with the 5 mm Allen wrench.

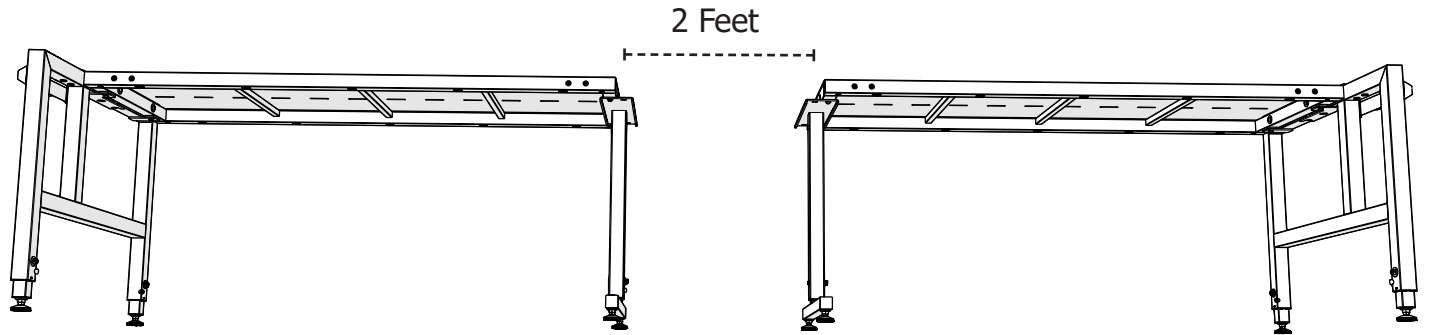


- 6 Loosely attach a **middle leg** to the other end of the 5 ft table with two **M8 x 16 mm SBHCS** and the 5 mm Allen wrench.

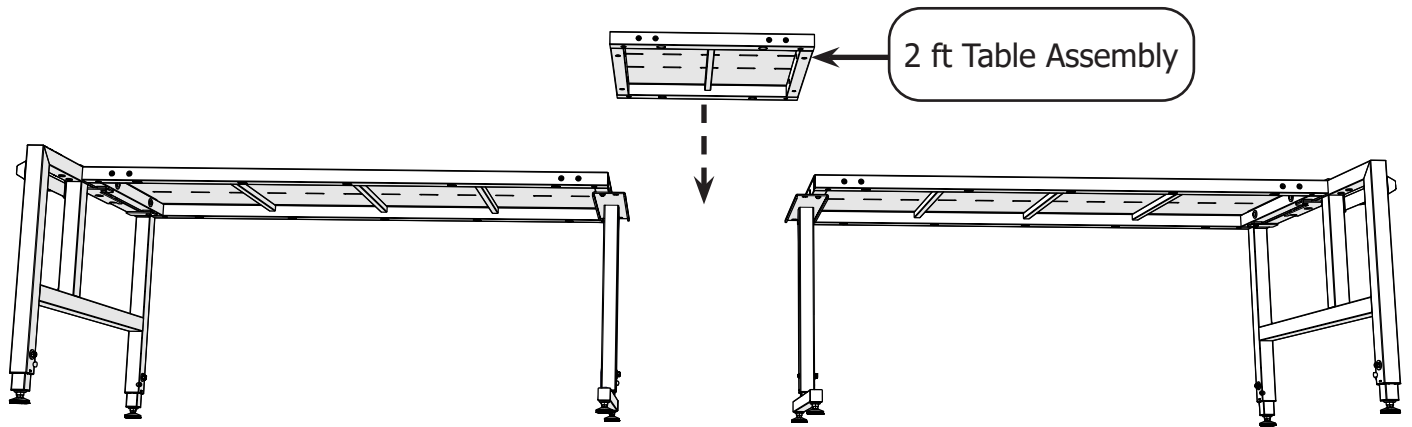


Task 3 - Installing the Table (continued)

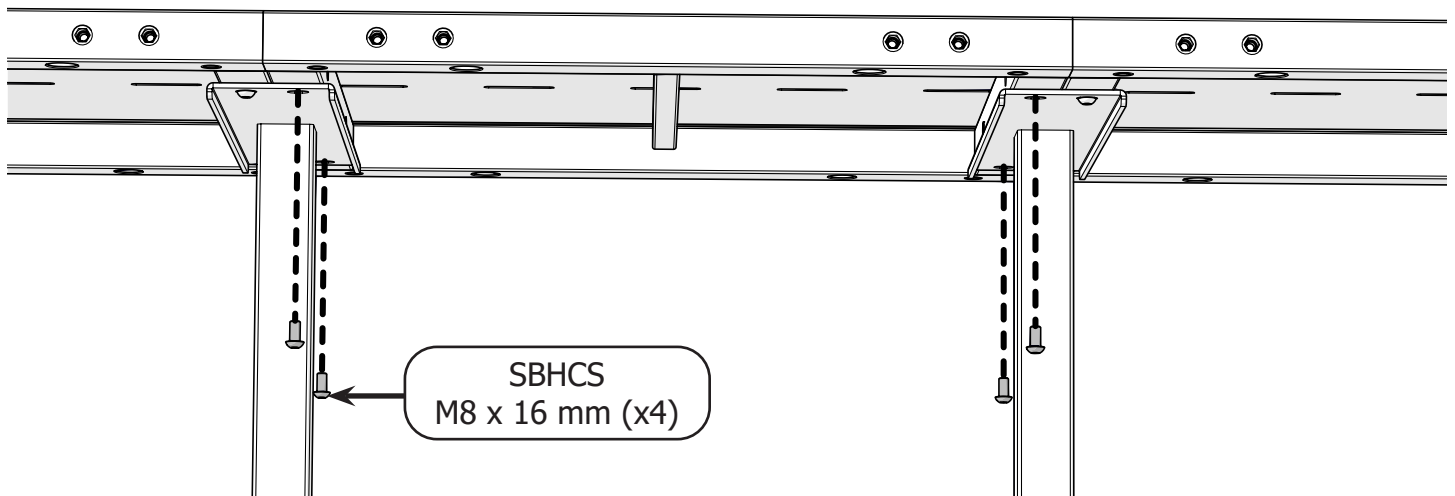
- 7 Line up the two assembled tables so there is about **2 feet** of space between the middle legs.



- 8 Place the **2 foot table assembly** onto the middle legs, between the two 5 ft table assemblies.

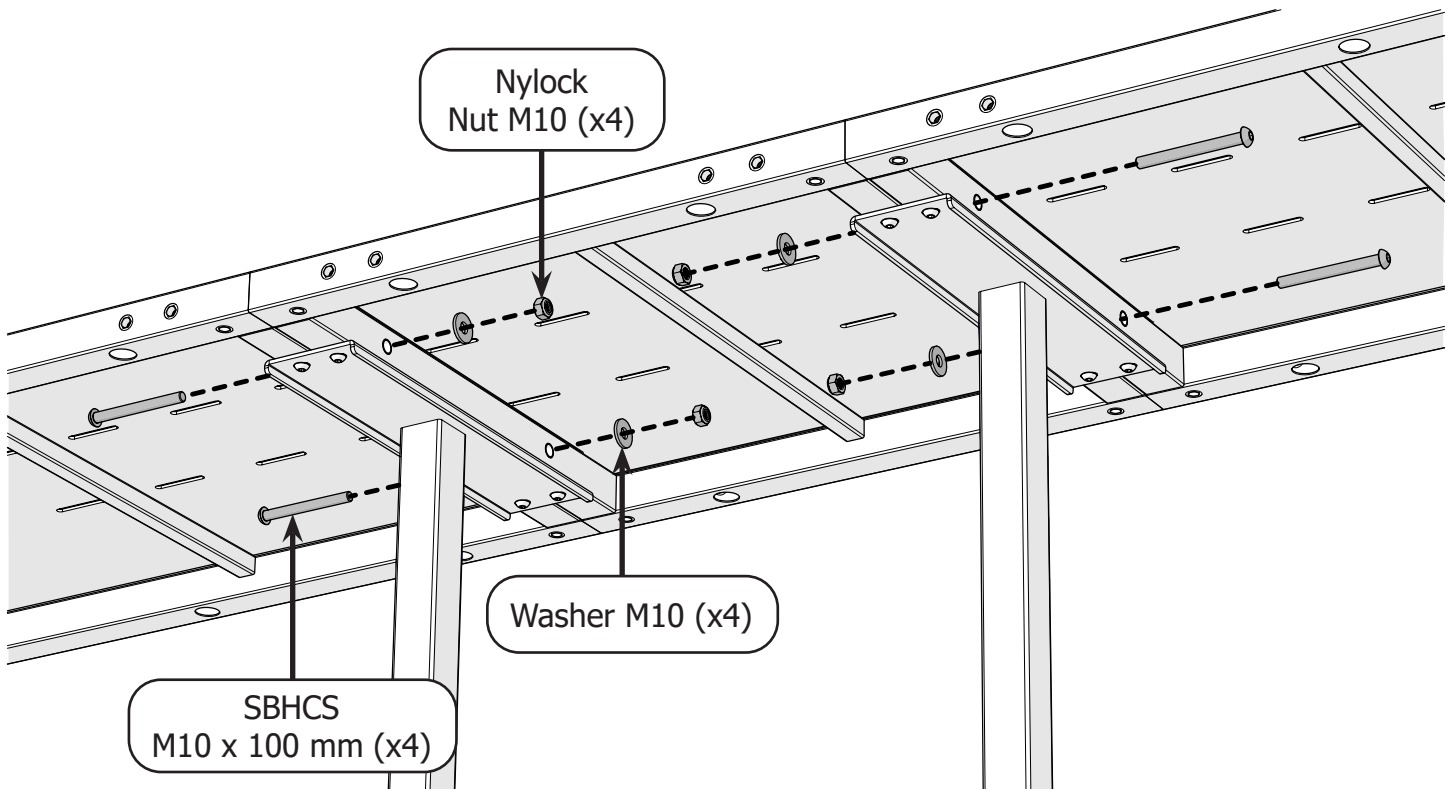


- 9 With four **M8 x 16 mm SBHCS** and the 5 mm Allen wrench, secure the 2 foot table assembly to the middle legs.

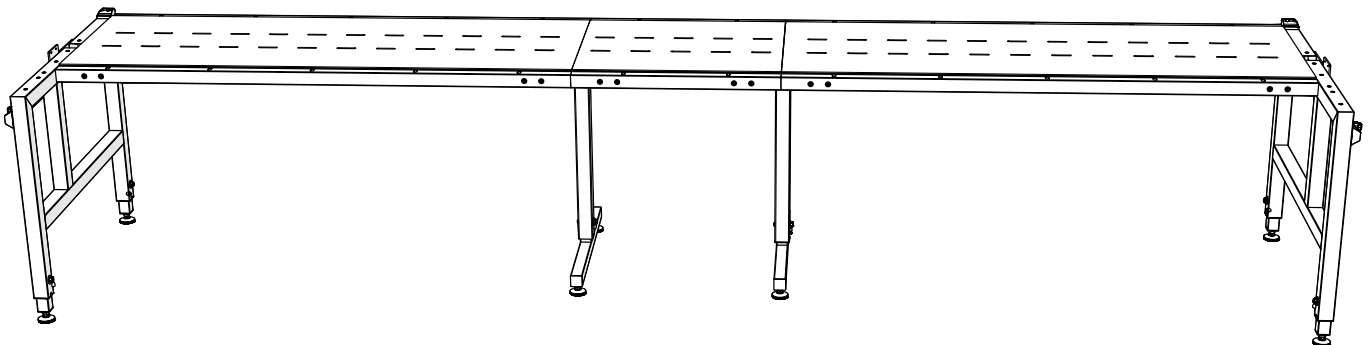


Task 3 - Installing the Table (continued)

- 9 Attach the 5 ft table assemblies to the 2 foot table assembly with four **M10 x 100 mm SBHCS**, four **M10 washers**, and four **M10 nylock nuts**. Loosely tighten these with the 6 mm Allen wrench and 17 mm open-end wrench.



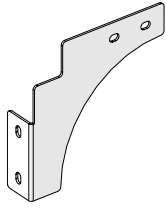
- 10 **Result:** The table sections have been loosely installed onto the frame legs. All the screws installed in this task should be loose, and will be tightened at the end of the next task.



Task 4 - Attaching the Braces

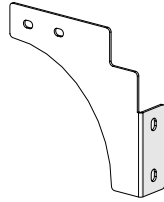
Parts & Tools Needed:

Corner Brace A (x2)



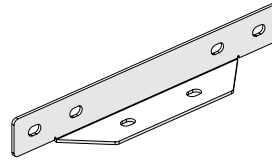
(Box 1)

Corner Brace B (x2)



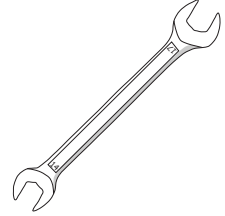
(Box 1)

Middle
Table Brace (x4)

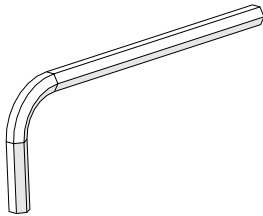


(Box 6 and Box 7)

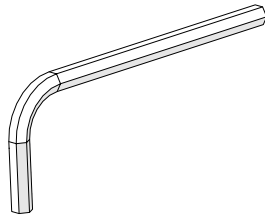
Open-End Wrench
14 mm and 17 mm



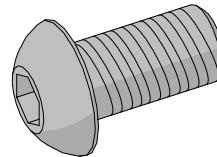
Allen Wrench
6 mm



Allen Wrench
5 mm



SBHCS
M8 x 16 mm (x40)



(Box 1 and Box 7)

Frame Reference
Card Hook

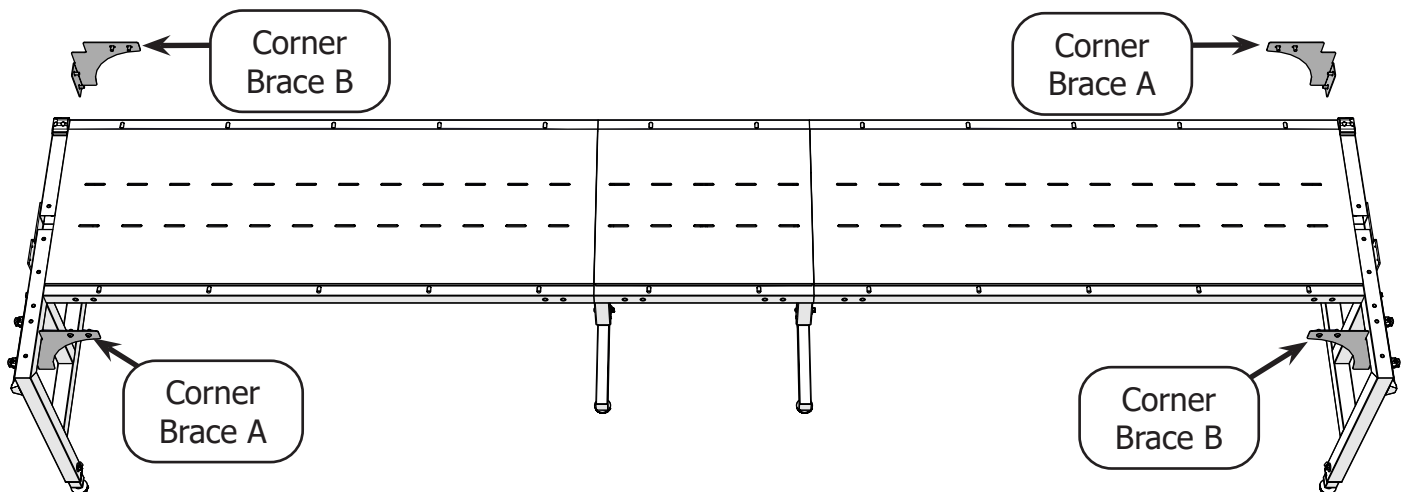


(Box 4: Inner Box)

Instructions

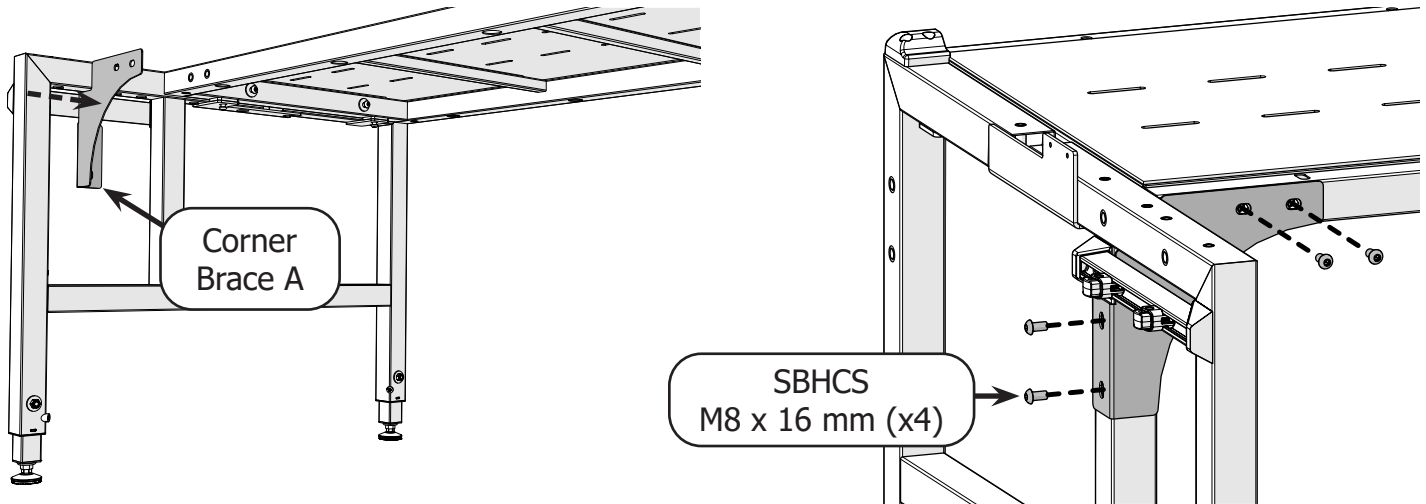
The braces help support the table and make the frame sturdier. Take the following steps to attach the braces to the frame:

- 1 The **corner braces A** and **B** are attached at the corners of the frame.

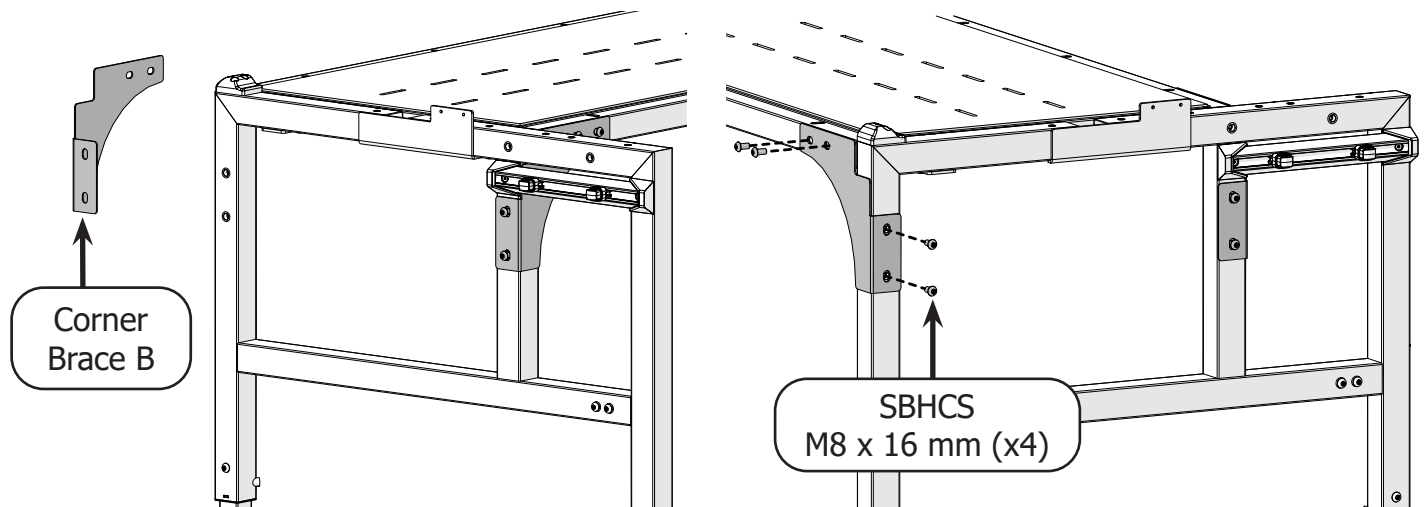


Task 4 - Attaching the Braces (continued)

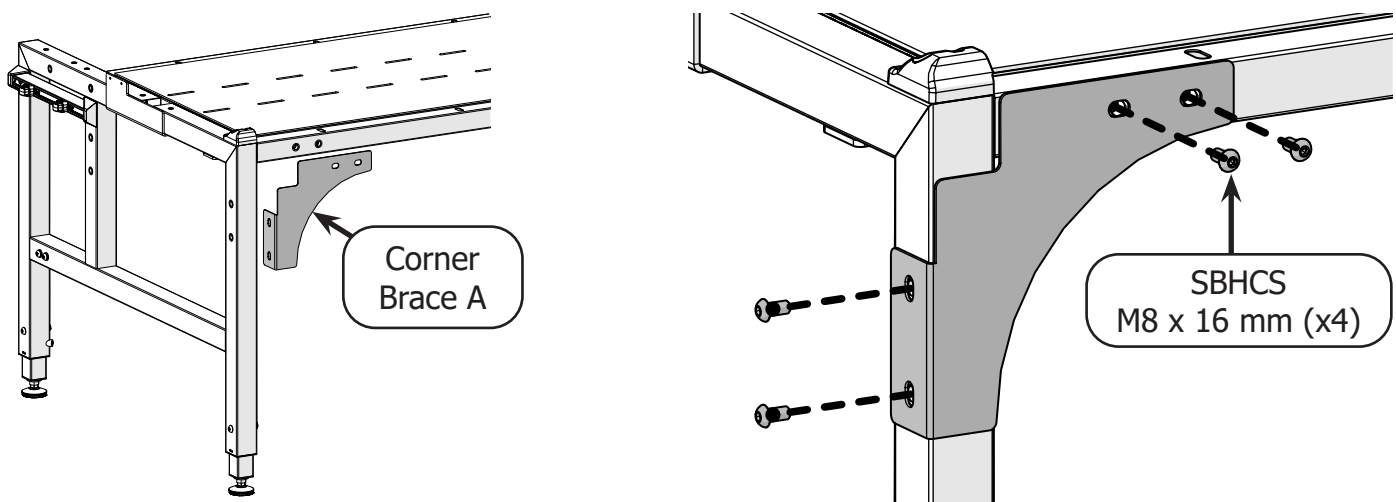
Loosely attach a **corner brace A** to the front left corner of the frame using four **M8 x 16 mm SBHCS** and the 5 mm Allen wrench.



2 Loosely attach a **corner brace B** to the back left corner of the frame using four **M8 x 16 mm SBHCS** and the 5 mm Allen wrench.

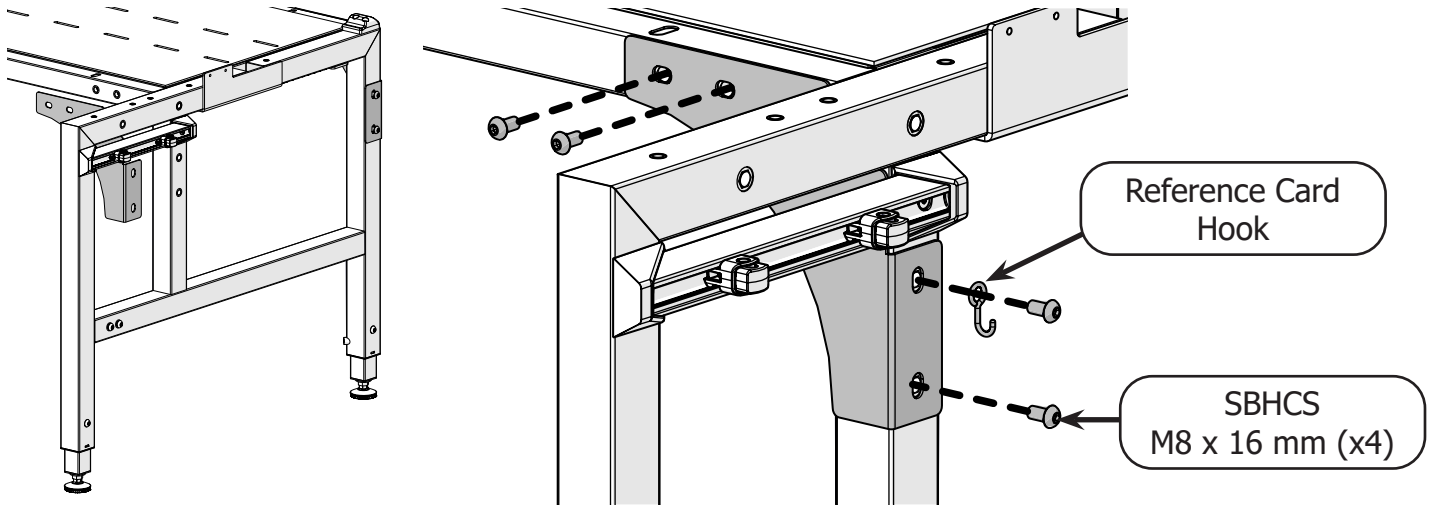


3 Loosely attach a **corner brace A** to the back right corner of the frame using four **M8 x 16 mm SBHCS** and the 5 mm Allen wrench.

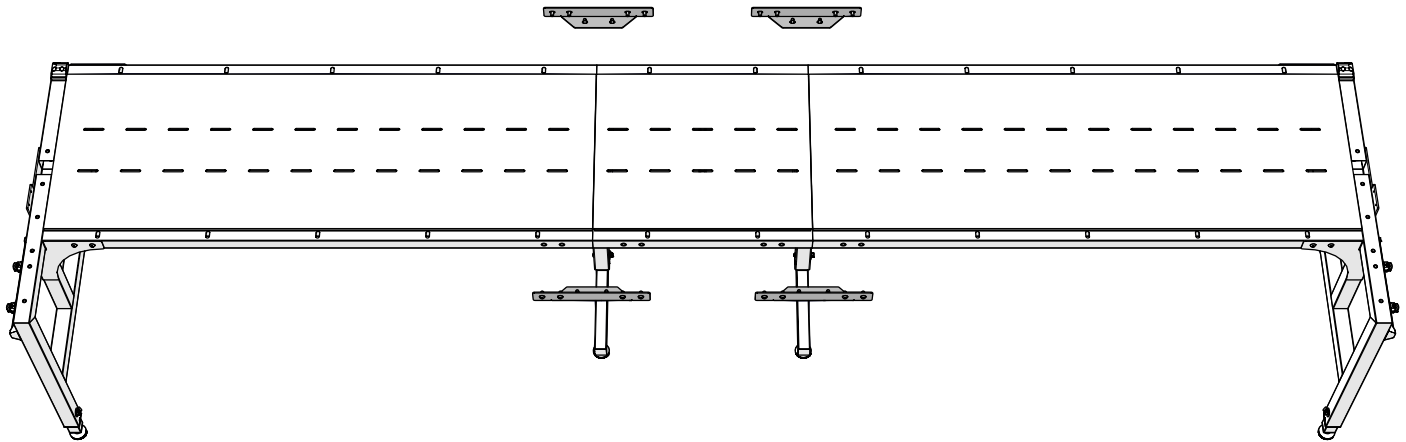


Task 4 - Attaching the Braces (continued)

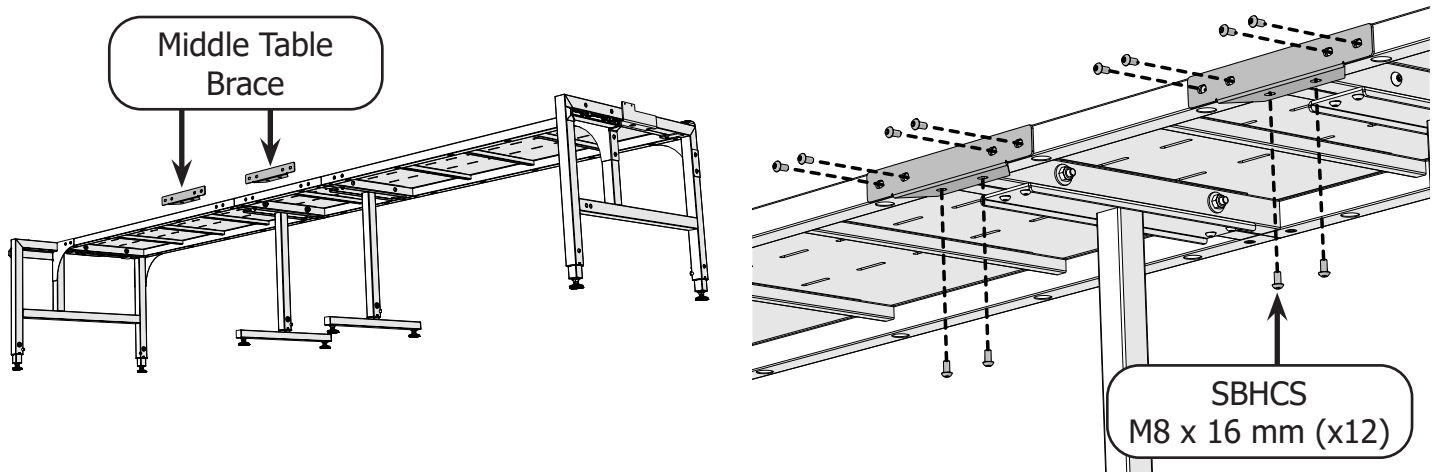
- 4 Loosely attach a **corner brace B** and the **reference card hook** to the front right corner of the frame using four **M8 x 16 mm SBHCS** and the 5 mm Allen wrench.



- 5 The middle braces are attached at the front and back of the two middle legs.

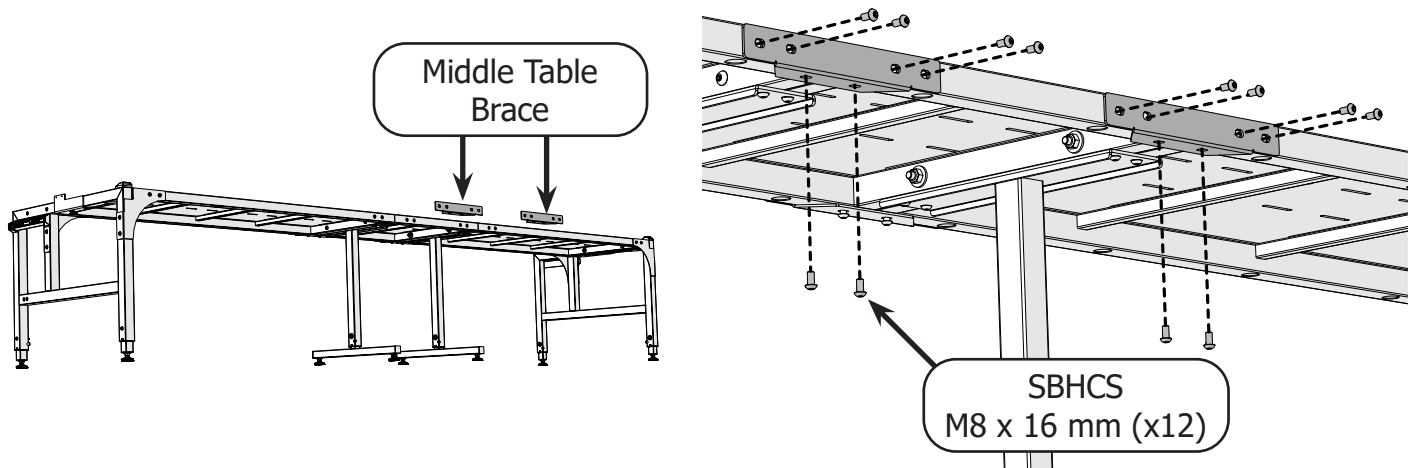


Attach two middle table braces loosely to the front of the table, where the 5 ft and 2 ft table assemblies meet. Use twelve **M8 x 16 mm SBHCS** and the 5 mm Allen wrench. Do not tighten.

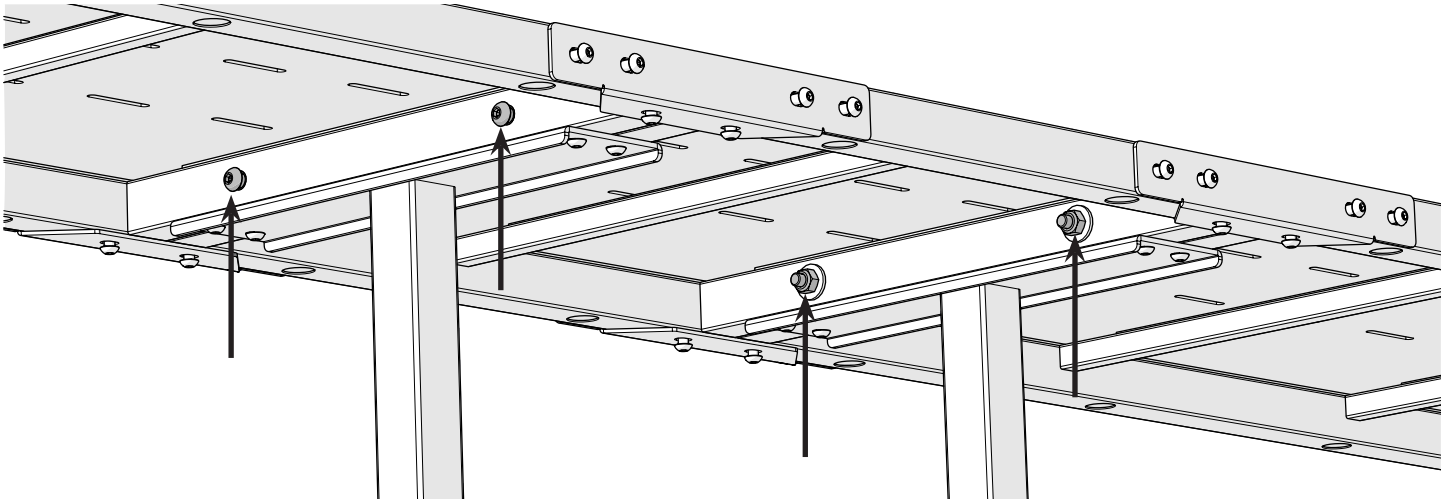


Task 4 - Attaching the Braces (continued)

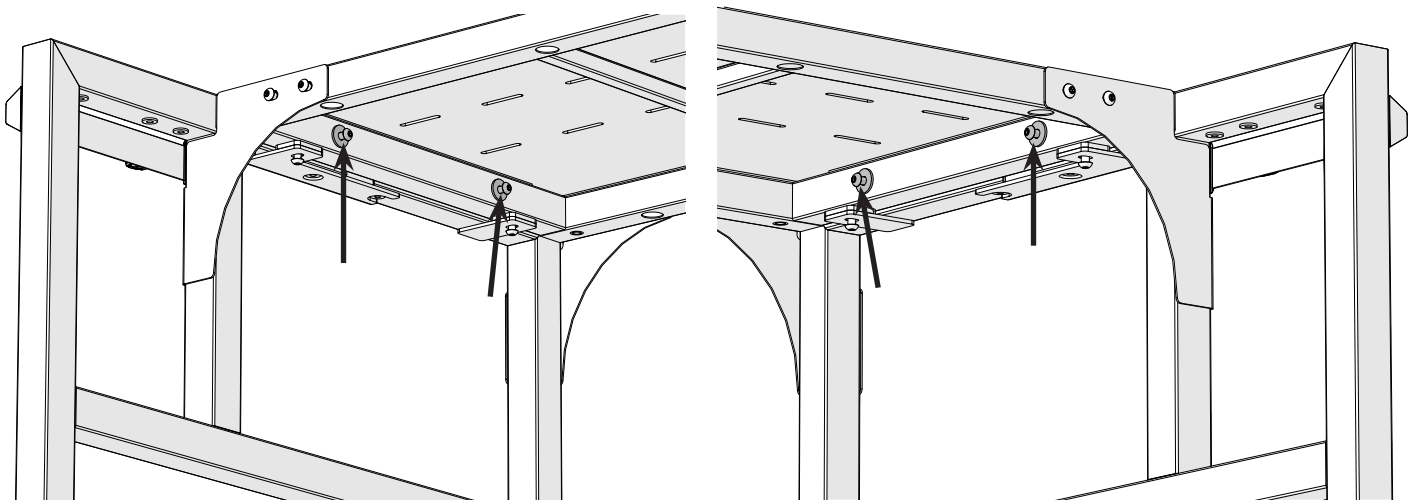
- 6 Attach two middle table braces loosely to the back of the frame, where the 5 ft and 2 ft table assemblies meet. Use twelve **M8 x 16 mm SBHCS** and the 5 mm Allen wrench. Do not tighten.



- 7 With the 17 mm open-end wrench and the 6 mm Allen wrench, tighten the four M10 x 100 mm SBHCS and four M10 nylock nuts left loose in task 3. These are just above the middle legs.

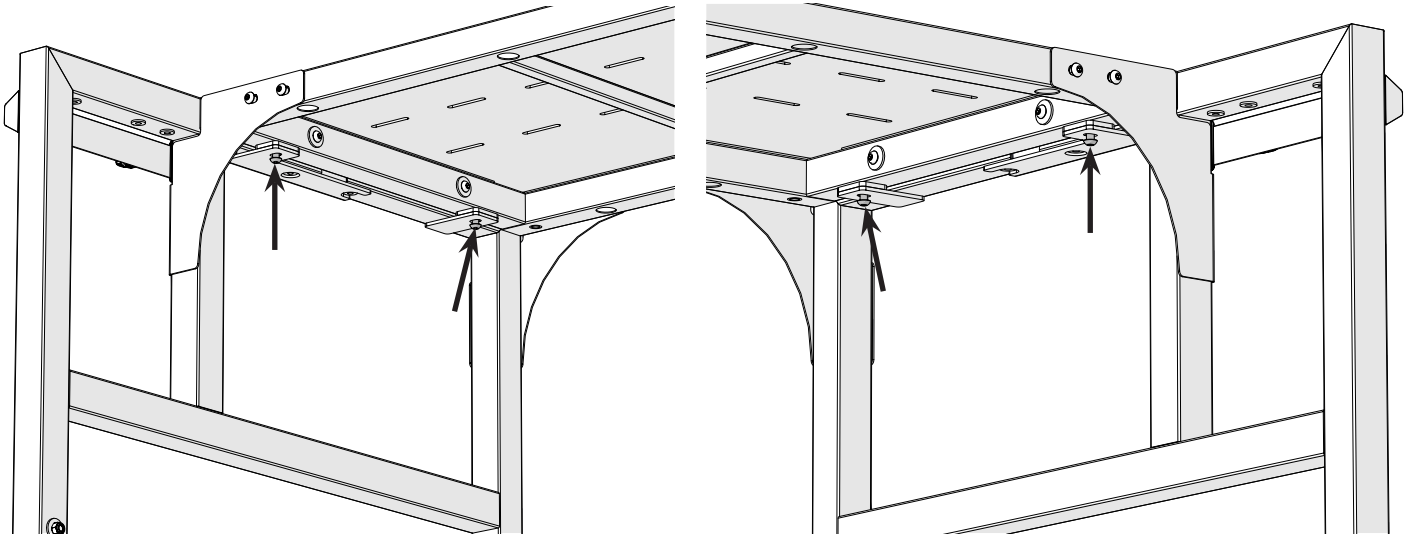


- 8 With the 5 mm Allen wrench, tighten the four **M8 x 55 mm SBHCS** screws you left loose in task 3.

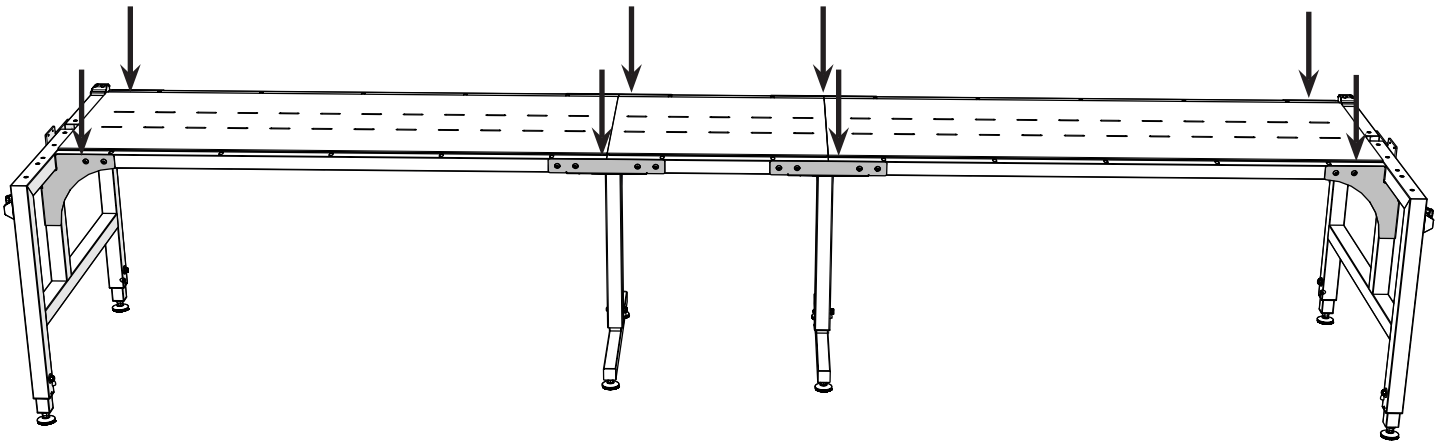


Task 4 - Attaching the Braces (continued)

- 9 Tighten the four M8 x 20 mm SBHCS you left loose in task 3 with the 5 mm Allen wrench.



- 10 Use the 5 mm Allen wrench to tighten all forty M8 x 16 mm SBHCS used to attach the braces.

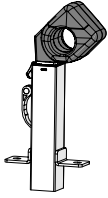


- 11 **Result:** The frame is sturdy and aligned.

Task 5 - Installing the Take-Up Rail Towers

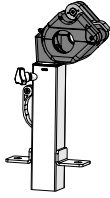
Parts & Tools Needed:

Take-Up Rail
Tower Left



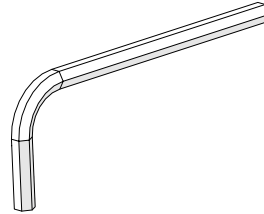
(Box 4: Inner Box)

Take-Up Rail
Tower Right

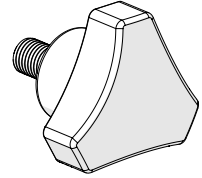


(Box 4: Inner Box)

Allen Wrench
5 mm

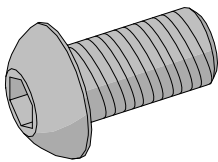


3-Wing Knob
M8 x 16 mm (x2)



(Box 1: Hardware Box)

SBHCS
M8 x 16 mm (x4)

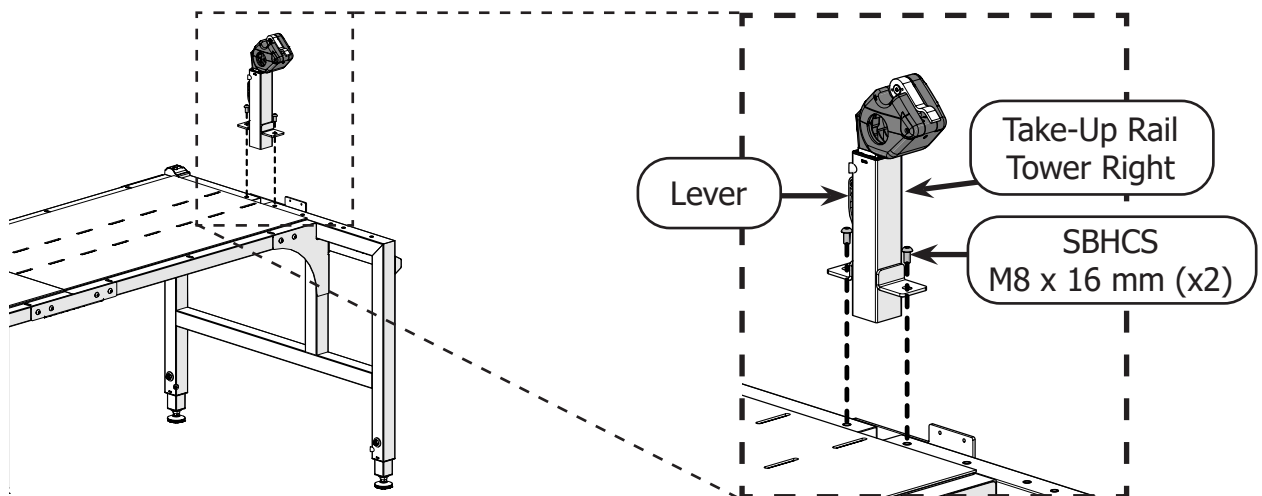


(Box 6: Hardware Box)

Instructions

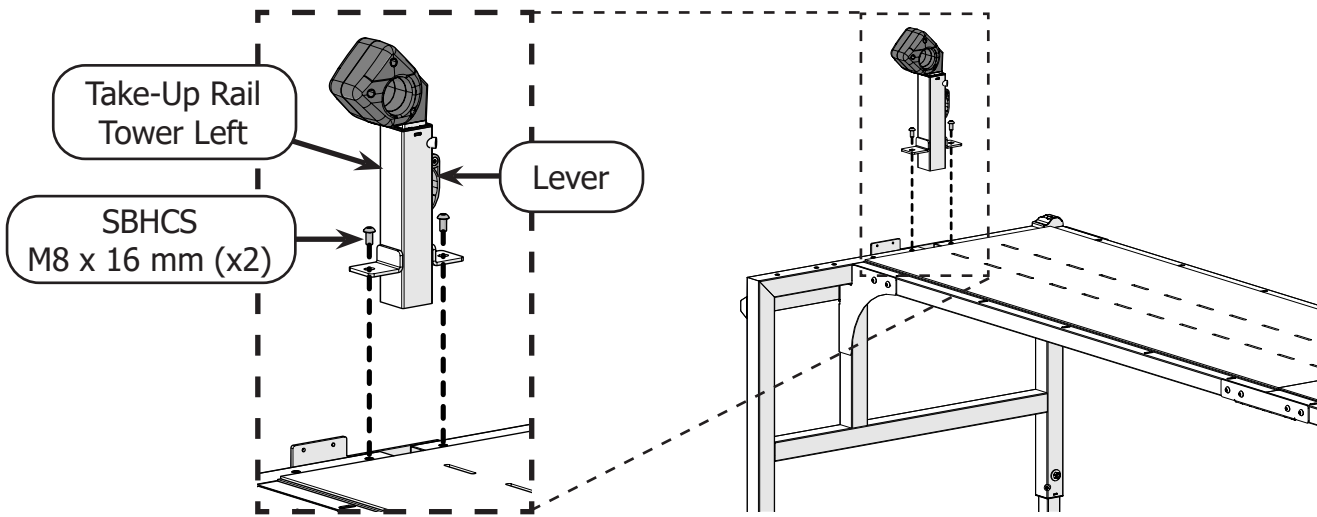
The take-up rail towers hold and position the take-up rail. Take the following steps to install the take-up rail towers:

- 1 Place the **take-up rail tower right** into the slot in the right side of the frame, with the **lever** toward the back. Secure with two **M8 x 16 mm SBHCS** and the 5 mm Allen wrench.

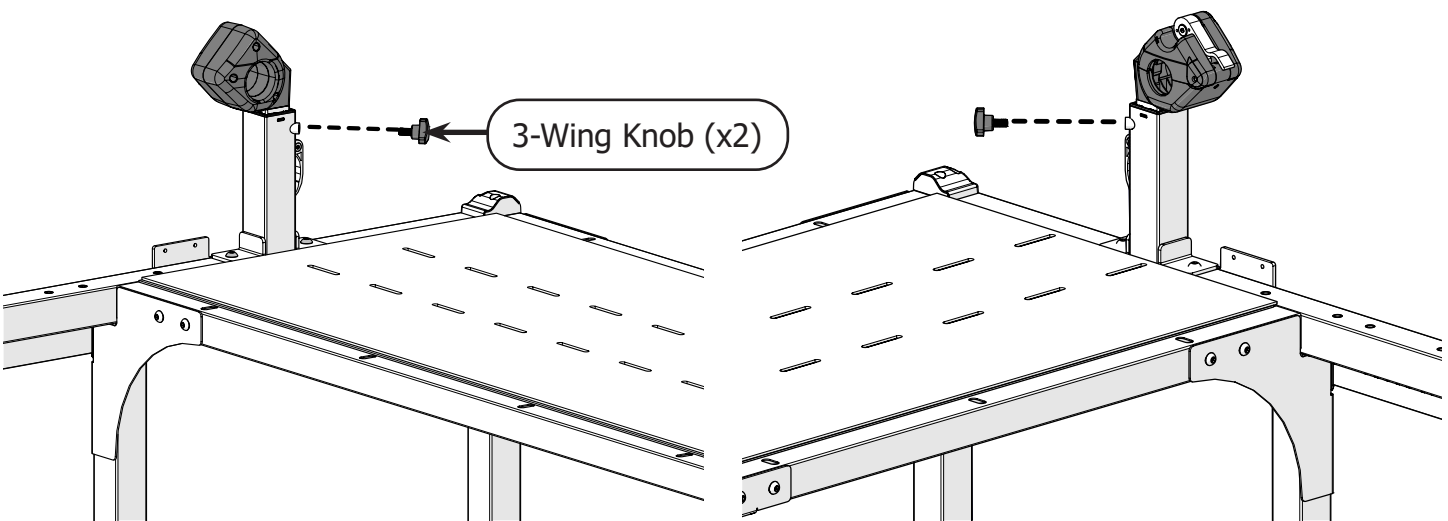


Task 5 - Installing the Take-Up Rail Towers (continued)

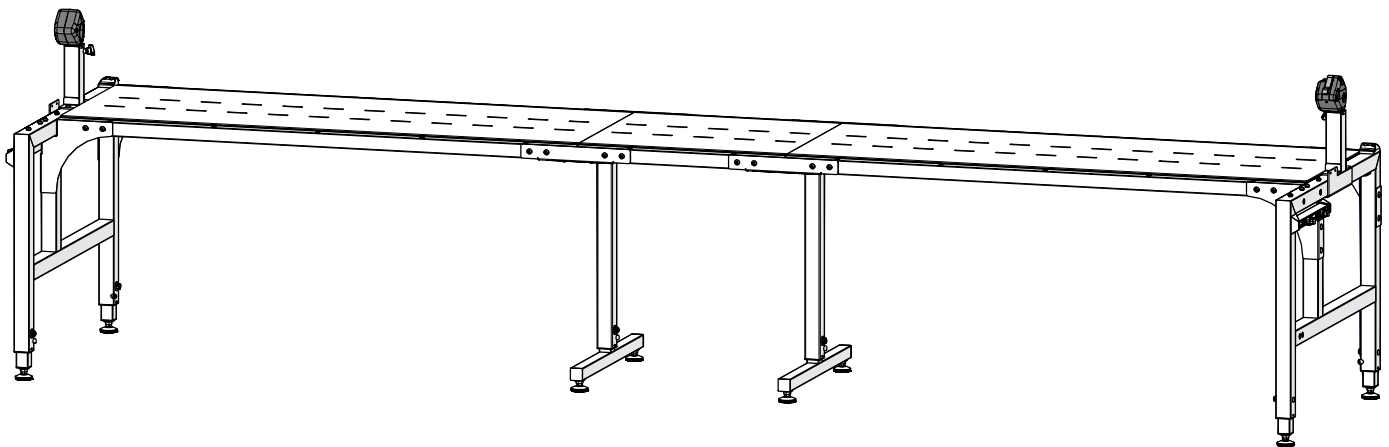
- 2 Place the **take-up rail tower left** into the slot in the left side of the frame, with the **lever** toward the back. Secure with two **M8 x 16 mm SBHCS** and the 5 mm Allen wrench.



- 3 Screw a **3-wing knob** into each of the take-up rail towers.



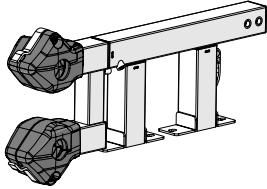
- 4 **Result:** The take-up rail towers are installed.



Task 6 - Installing the Side Rail Assemblies

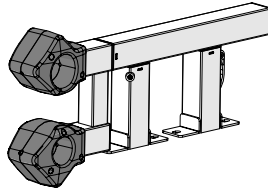
Parts & Tools Needed:

Square Side Rail
Assembly - Right



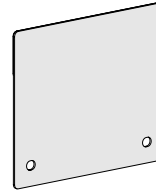
(Box 4: Inner Box)

Square Side Rail
Assembly - Left



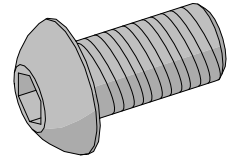
(Box 4: Inner Box)

Logo Plate (x2)



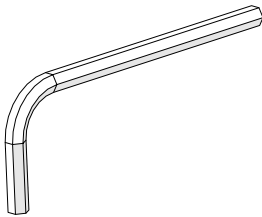
(Box 4: Inner Box)

SBHCS
M8 x 16 mm (x12)



(Box 6: Hardware Box)

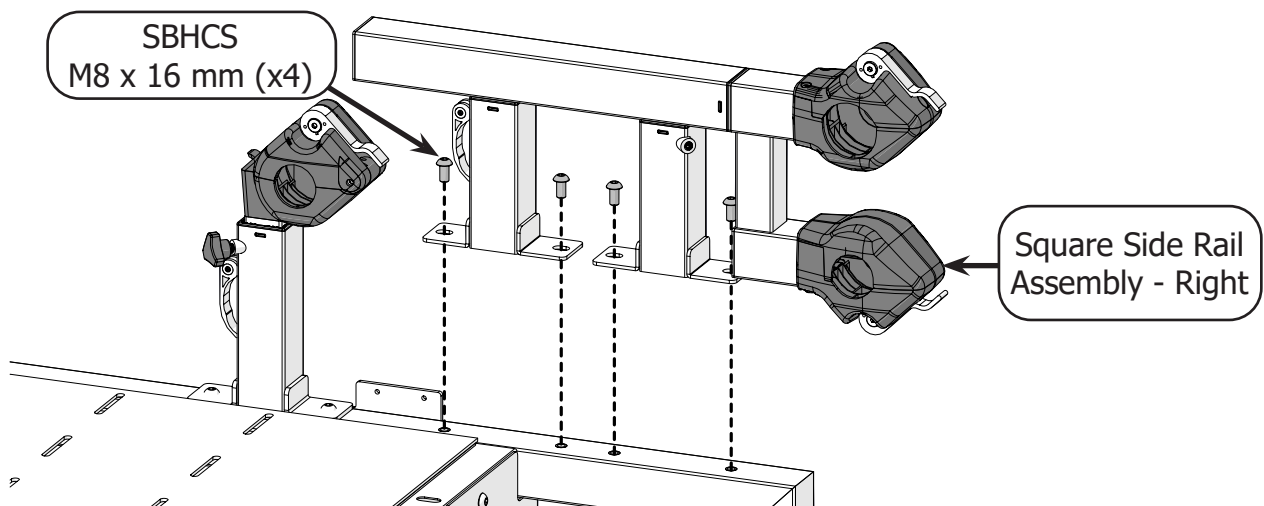
Allen Wrench
5 mm



Instructions

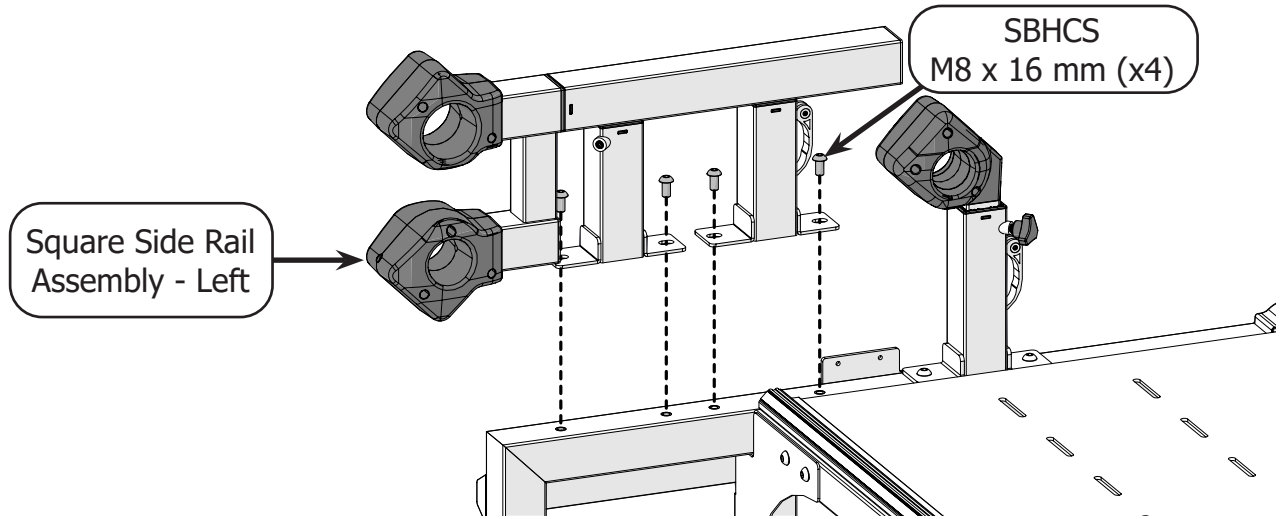
The side rails provide support for the sides of your fabric and also hold the front rail. Take the following steps to install the side rails.

- 1 Attach the **square side rail assembly - right** onto the right side of the frame with four **M8 x 16 mm SBHCS** and the 5 mm Allen wrench.

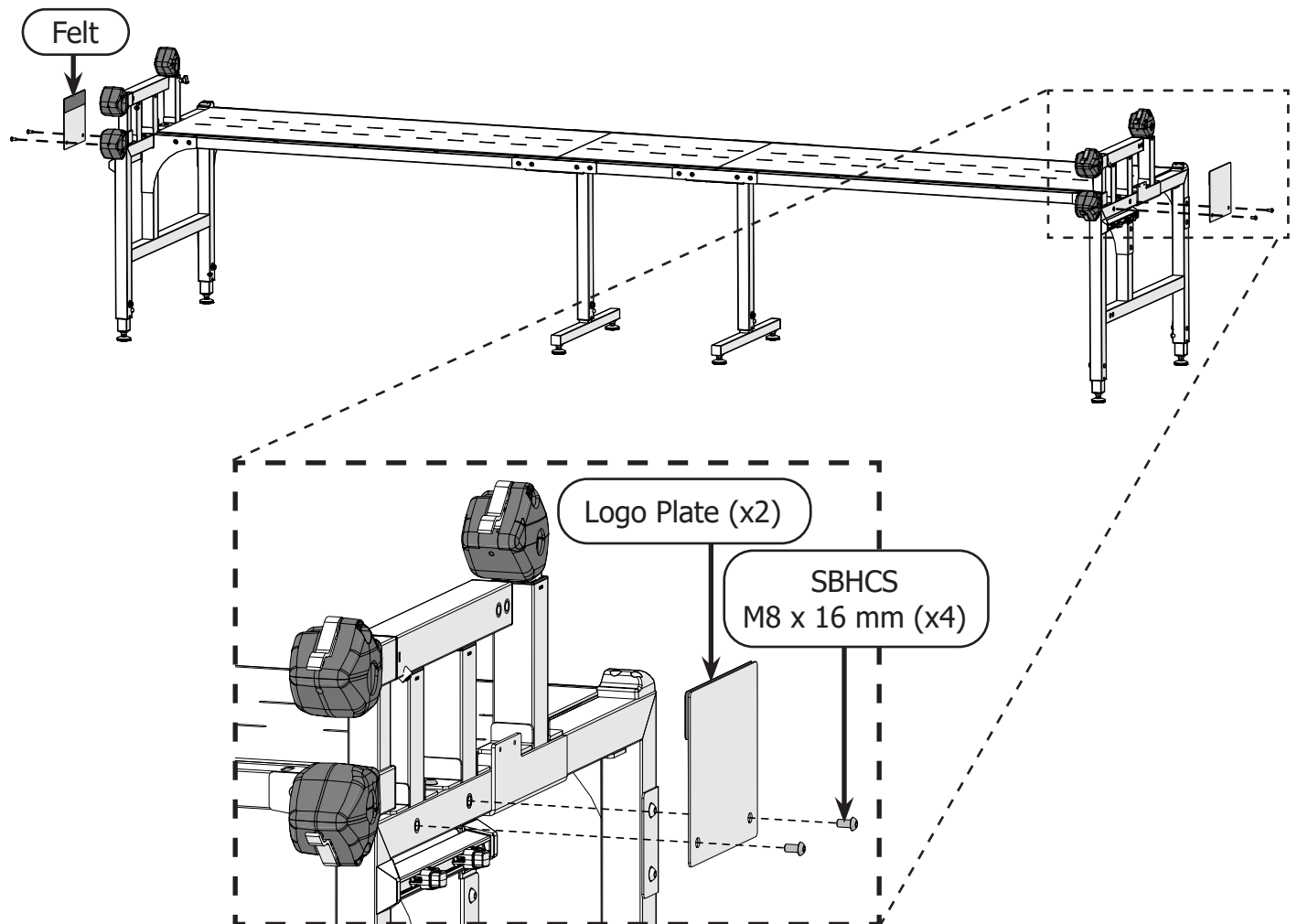


Task 6 - Installing the Side Rail Assemblies (continued)

- 2 Attach the **square side rail assembly - left** on to the left side of the frame with four **M8 x 16 mm SBHCS** and the 5 mm Allen wrench. **M8**

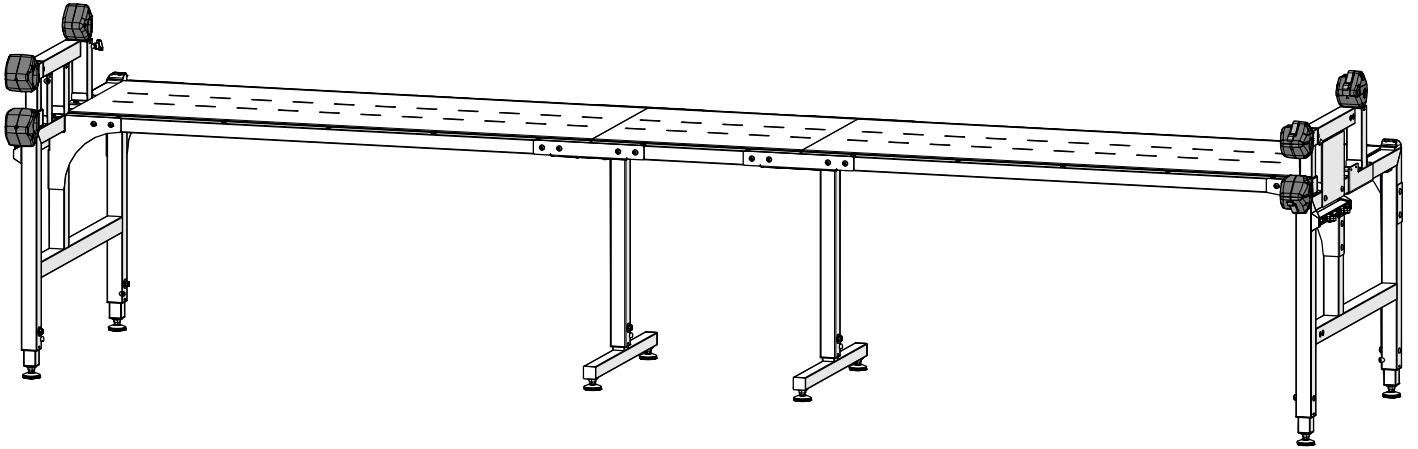


- 3 Use two **M8 x 16 mm SBHCS** and the 5 mm Allen wrench to attach the **logo plates** to the frame. Install the plates with the **felt** facing toward the square side rail assemblies.



Task 6 - Installing the Side Rail Assemblies (continued)

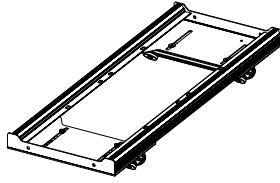
- 4 **Result:** The side rail assemblies and logo plates are installed.



Task 7 - Attaching the Tracks

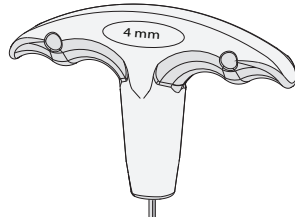
Parts & Tools Needed:

Bottom Carriage

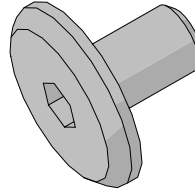


(Box 1)

T-handle Allen Wrench 4 mm

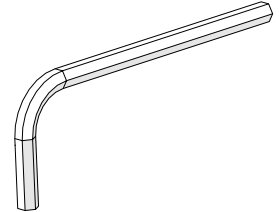


Connector Bolt
M6 x 10 mm (x24)

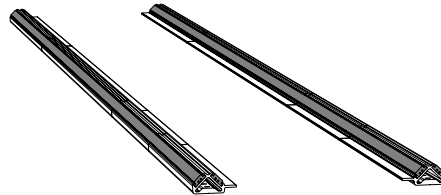


(Removed in Task 2)

Allen Wrench
3 mm



12 ft Track Assemblies (x2)

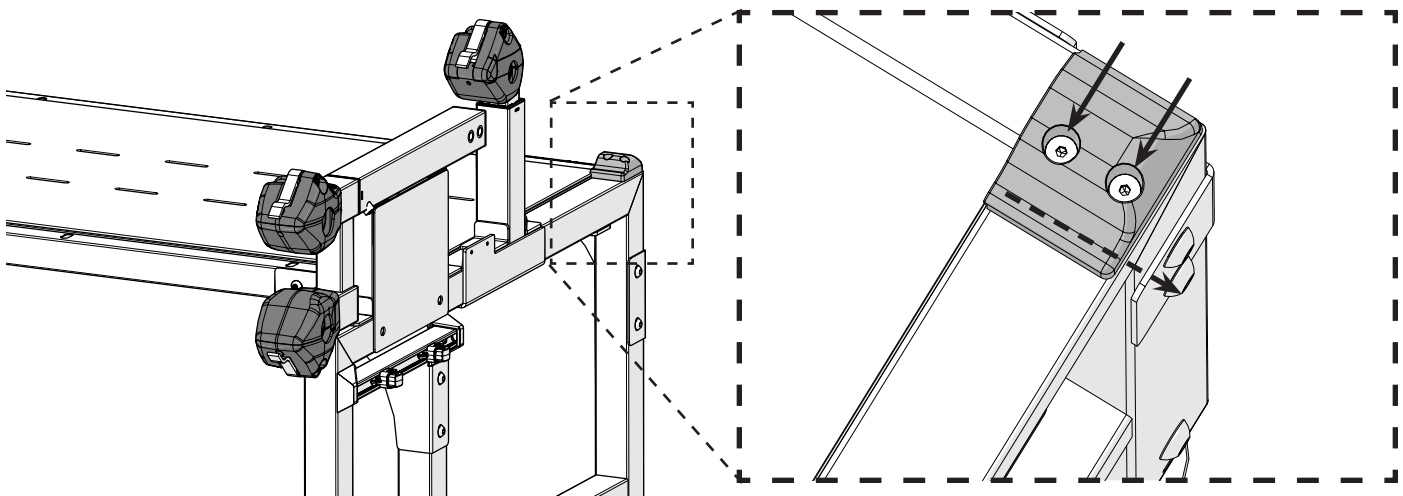


(Assembled in Task 2)

Instructions

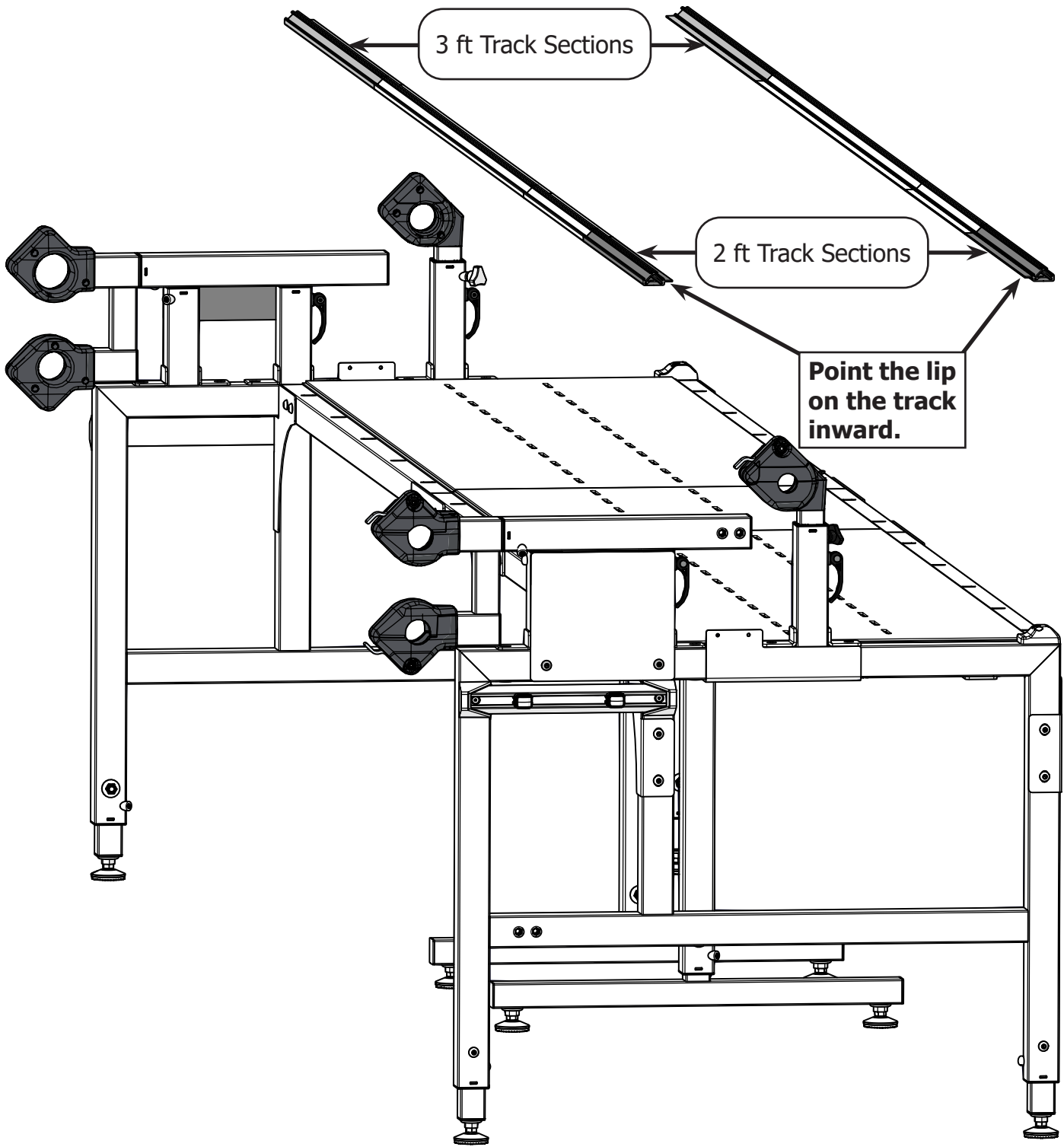
Attaching and properly aligning the tracks will ensure your bottom carriage can ride smoothly across the length of the frame. Take the following steps to install and align the tracks on your frame.

- 1 With the 3 mm Allen wrench, loosen the two screws on the right track end cap and shift the end cap slightly to the right.



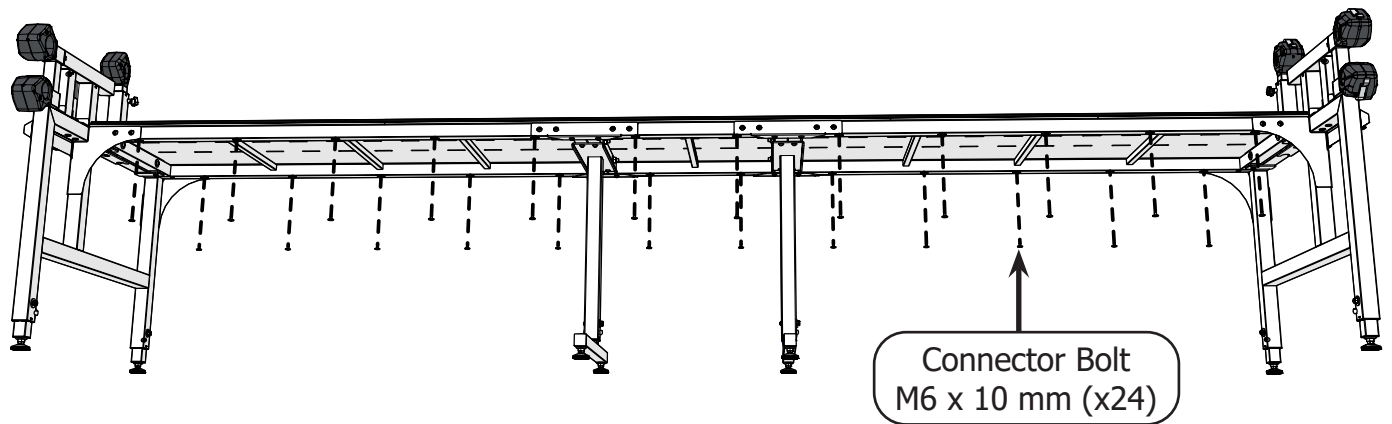
Task 7 - Attaching the Tracks (continued)

- 2 Place the 12 ft track assemblies along the frame so the **3 ft section of the tracks** are on the left of the frame and the **2 ft track sections** are on the right.

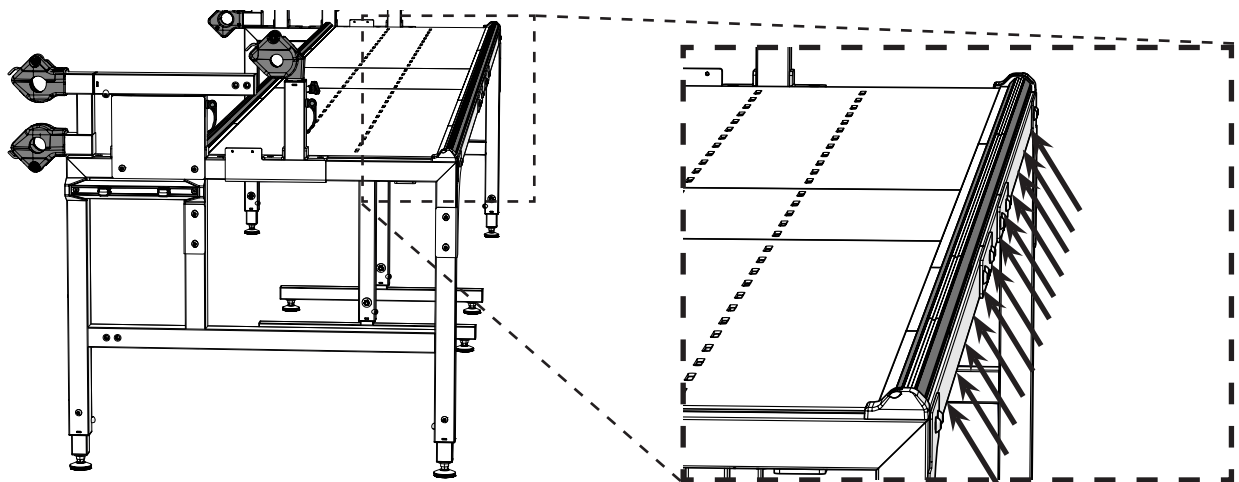


Task 7 - Attaching the Tracks (continued)

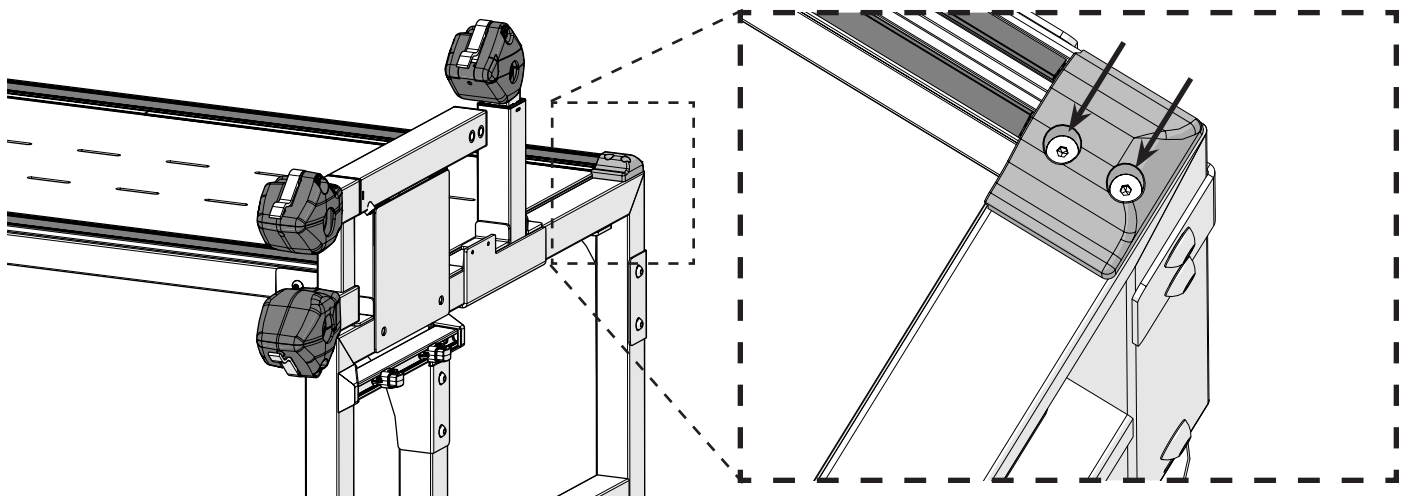
- 3 Use twenty-four **M6 x 10 mm connector bolts** and the 4 mm T-handle Allen wrench to loosely attach the tracks to the frame. Do not tighten.



- 4 Align the back tracks so they are flush with the back of the frame and then fully tighten the 12 connector bolts in the back. The 12 connector bolts on the front track should remain loose.

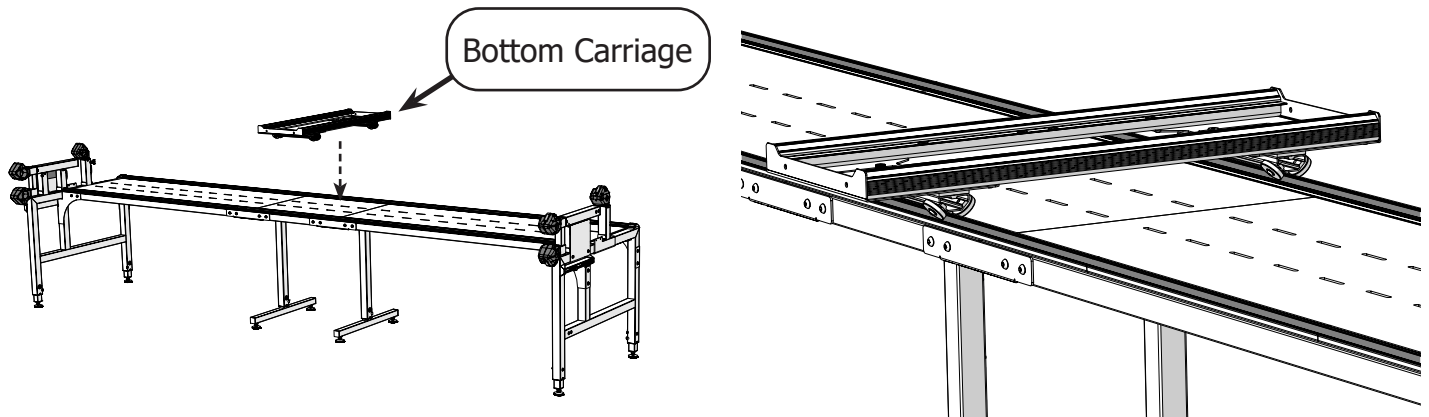


- 5 Tighten the two end cap screws that you loosened earlier with the 3 mm Allen wrench so the track cap can no longer shift around.



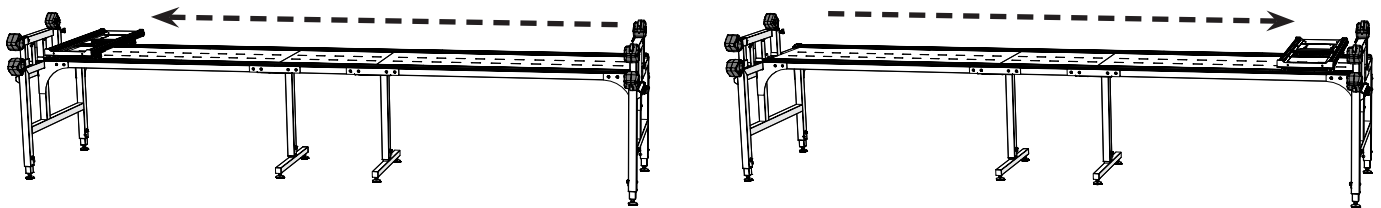
Task 7 - Attaching the Tracks (continued)

- 6 Place the **bottom carriage** onto the frame, so that all eight bottom carriage wheels rest on the frame tracks.

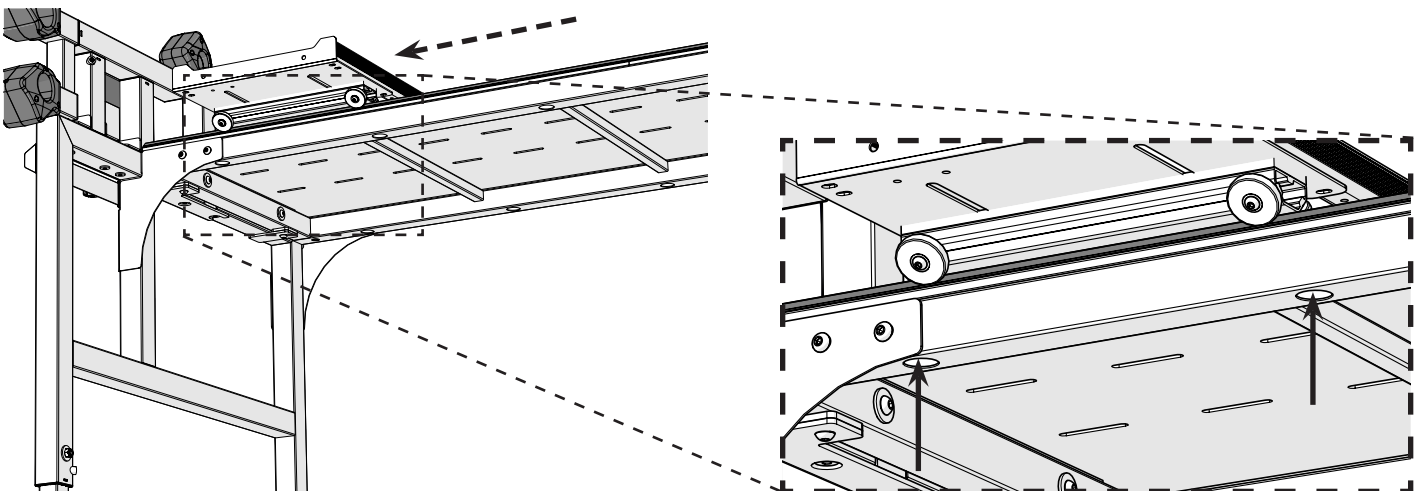


Note: The bottom carriage has stickers labeling the front side and the back side.

- 7 Press down firmly on the bottom carriage and slowly slide it back and forth across the frame. The movement of the carriage will push the loose front track into alignment with the back track.

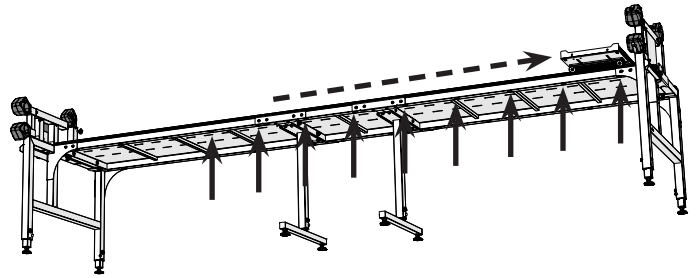
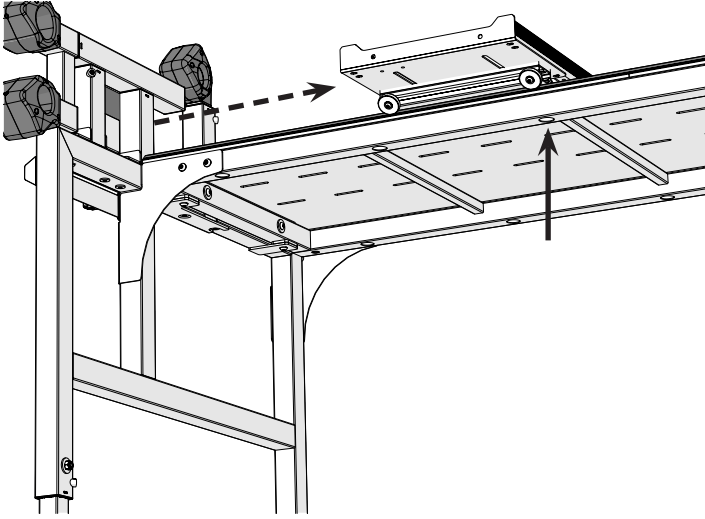


- 8 Move the bottom carriage back across the frame to the left side. Then tighten the two front connector bolts under the carriage.



Task 7 - Attaching the Tracks (continued)

- 9 Move the carriage to the right and stop to tighten each front connector bolt as you pass over it.



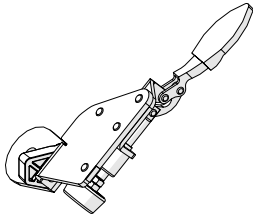
- 10 **Result:** The tracks are installed, aligned, and secured.

Task 8 - Installing the Carriage Channel Lock

For instructions on using the channel locks, see page 107.

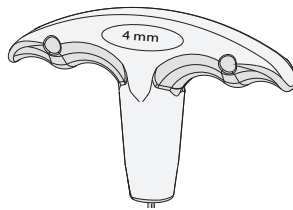
Parts & Tools Needed:

Dual-Wheel Channel Lock

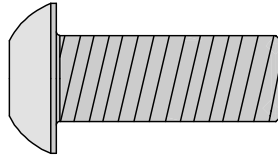


(Box 1: Hardware Box)

T-handle Allen Wrench 4 mm



SBHCS
M6 x 20 mm

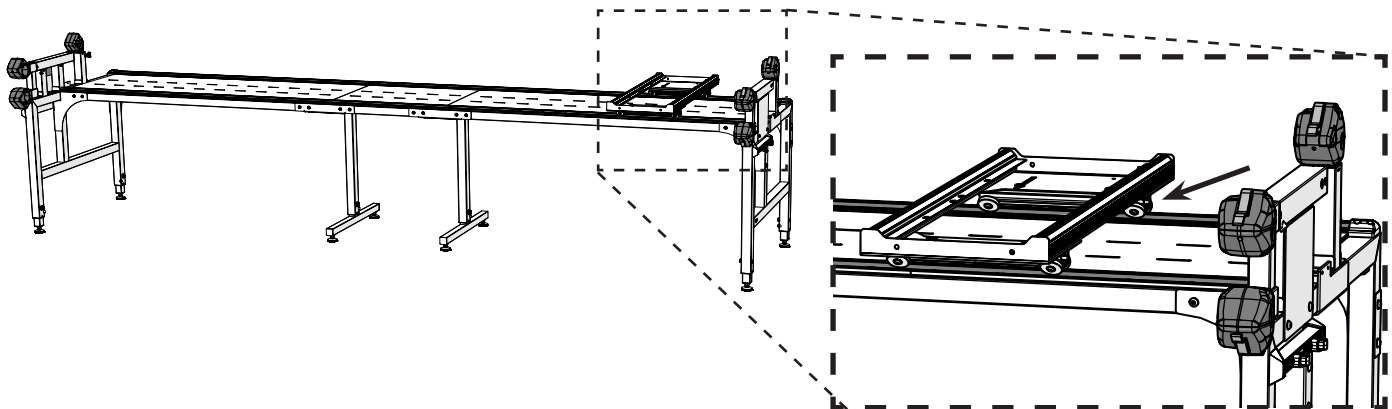


(Box 1: Hardware Box)

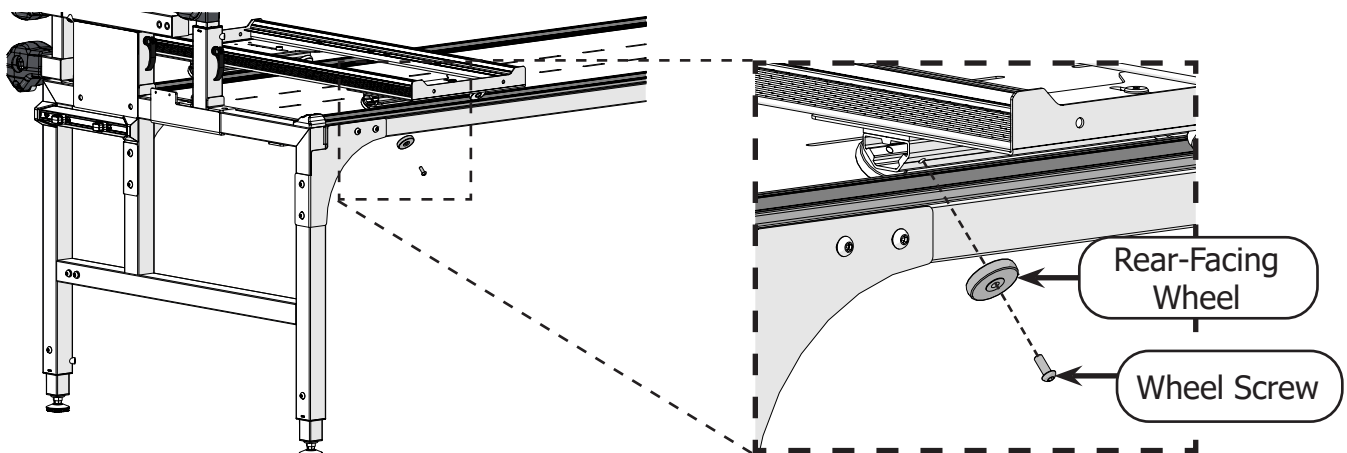
Instructions

The carriage channel lock holds the bottom carriage in place on the frame, which helps with stitching in straight lines. Take the following steps to install the carriage channel lock:

- 1 Locate the back right wheels of the bottom carriage.

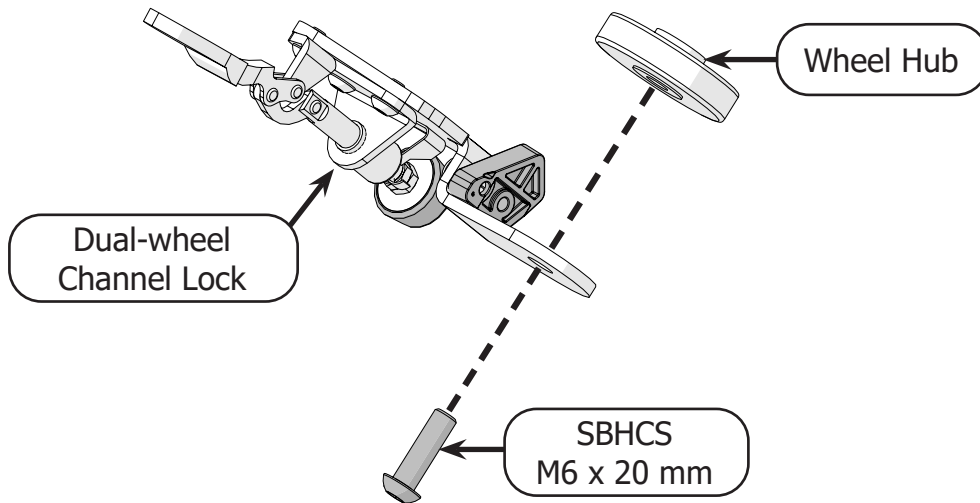


- 2 Use the 4 mm Allen wrench to remove the **wheel screw** and the **rear-facing wheel**. This wheel screw will not be needed again and can be stored with the packaging materials.

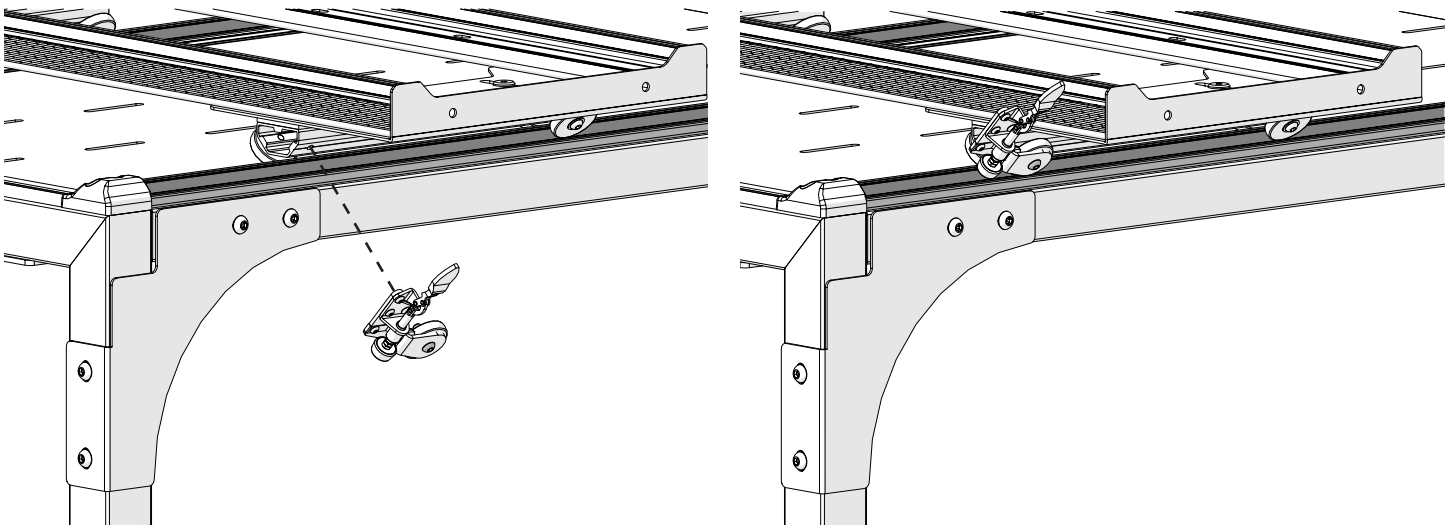


Task 8 - Installing the Carriage Channel Lock (continued)

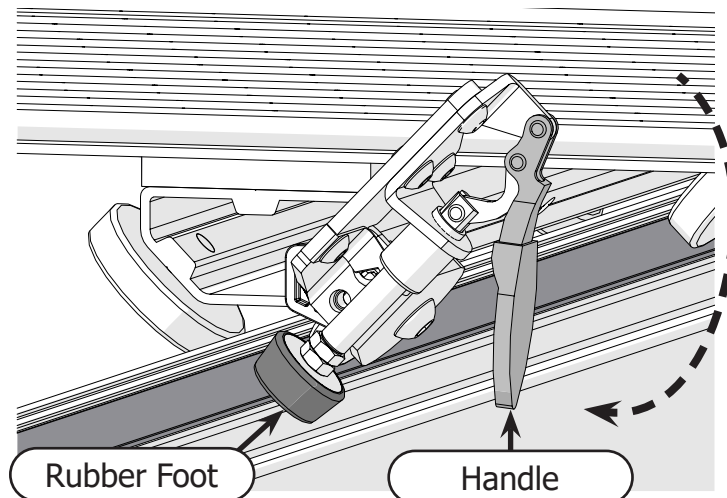
- 3 Place the **dual-wheel channel lock** onto the **M6 x 20 mm SBHCS** followed by the wheel. Place the wheel with the **wheel hub** facing away from the channel lock.



- 4 Screw the channel lock and wheel onto the bottom carriage using the 4 mm Allen wrench.

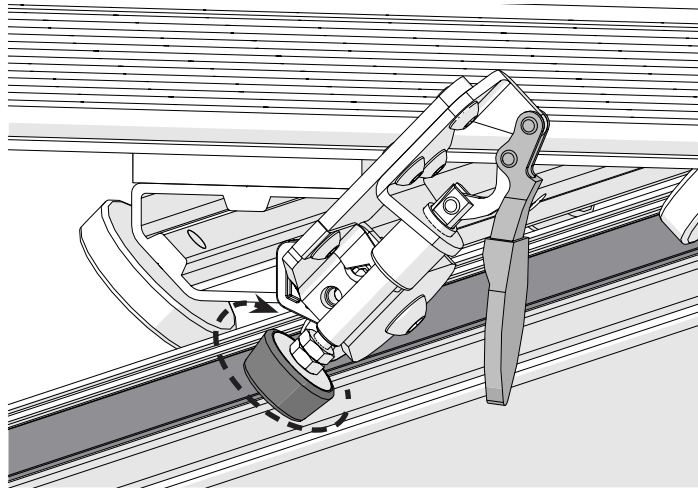


- 5 Test the channel lock by closing the **handle**. The **rubber foot** should press firmly against the frame track and prevent the bottom carriage from sliding across the frame.



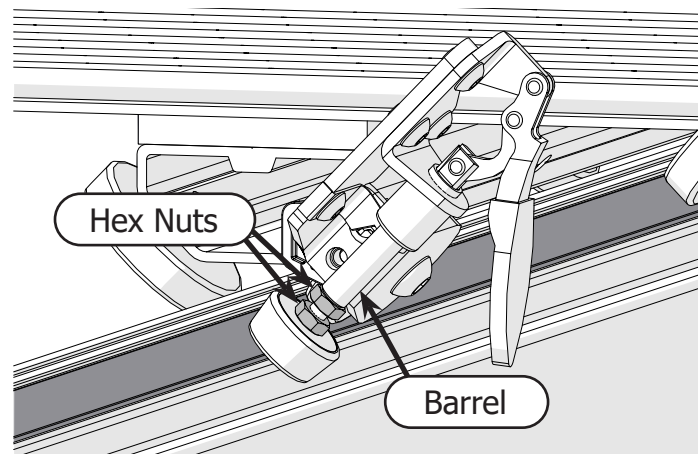
Task 8 - Installing the Carriage Channel Lock (continued)

- 6 If the rubber foot doesn't fully reach the track or its grip on the track seems loose, twist the rubber foot clockwise to extend it.

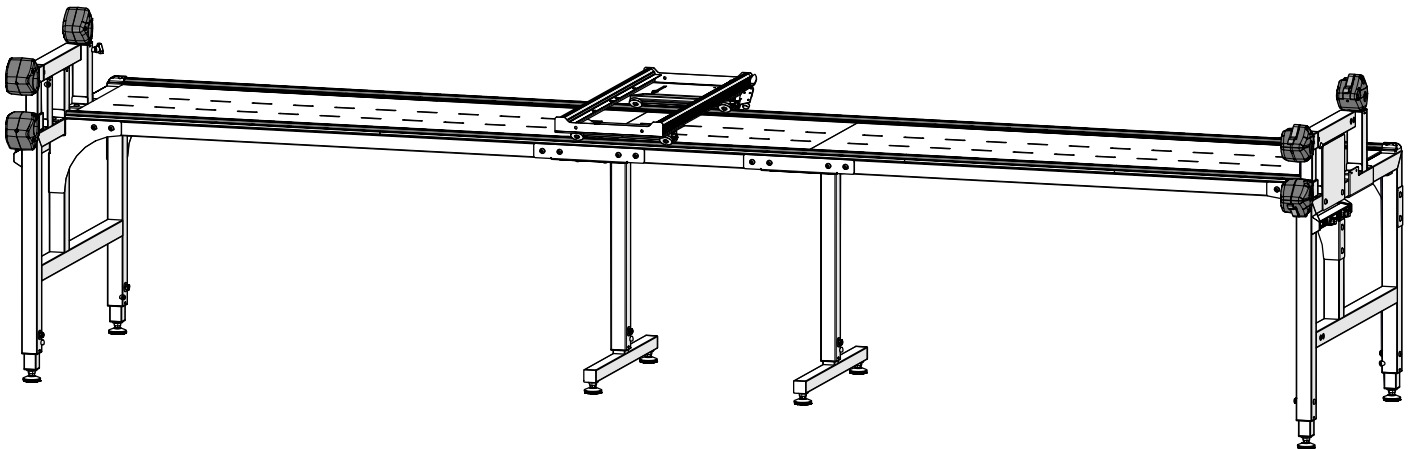


Note: If twisted too far, the handle will start to open and eventually the foot will fall out. Reverse the direction you're twisting until the handle is pointing down but the foot still reaches the track.

- 7 **Optional:** Prevent the channel lock from loosening over time by using needle nose pliers or a wrench to tighten the bottom 4 mm **hex nut** against the rubber foot. Tighten the other hex nut against the channel lock **barrel**.



- 8 **Result:** The channel lock is installed on the bottom carriage and functions properly.



Congratulations! You have completed Part One of the assembly instructions for your frame. Before continuing to Part Two of these instructions, complete any of the following that apply to you:

- **Wheeled quilting machine users:** Complete Part One of your instruction manual and follow the instructions provided at the end of Part One to determine what manual to go to next.
Note: If your machine manual is not broken into parts, complete the following in order:
 1. Install the lower encoder on the machine according to your machine's instruction manual.
 2. Complete Part One of your QuiltMotion manual if you will be setting up the QuiltMotion automation accessory today. Otherwise, skip this step.
 3. Complete the steps to install and adjust your machine wheels according to your machine's instruction manual.
 4. Then complete Part Two of your QuiltMotion manual, if applicable.
- **Top plate and wheel-less sewing/quilting machine users:** assemble the top plate now according to your top plate instruction manual. If you'll be using QuiltMotion, complete Part One and Two of your QuiltMotion manual after assembling your top plate.

Part Two

Before completing the tasks in Part Two, please ensure you've completed the applicable items listed below.

Progress Checkpoint

Have you:

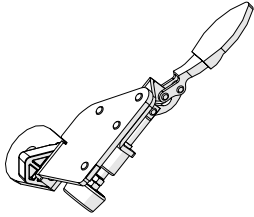
- Installed the lower encoder onto the bottom carriage (machine manual Part One) OR assembled your top plate?
(Note: If you've assembled your top plate, skip ahead to Part Three on page 45.)
- Completed Part One of QuiltMotion (optional accessory)?
- Aligned your machine wheels (machine manual part two)?
- Completed Part Two of QuiltMotion (optional accessory)?

Task 9 - Installing the Machine Channel Lock

If using a top plate, see top plate instructions for installing the channel lock.

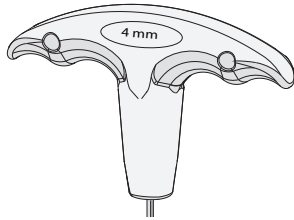
Parts & Tools Needed:

Dual-Wheel Channel Lock

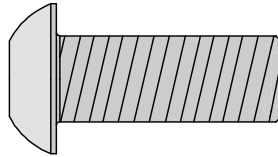


(Box 1: Hardware Box)

T-handle Allen Wrench 4 mm



SBHCS M6 x 20 mm



(Box 1: Hardware Box)

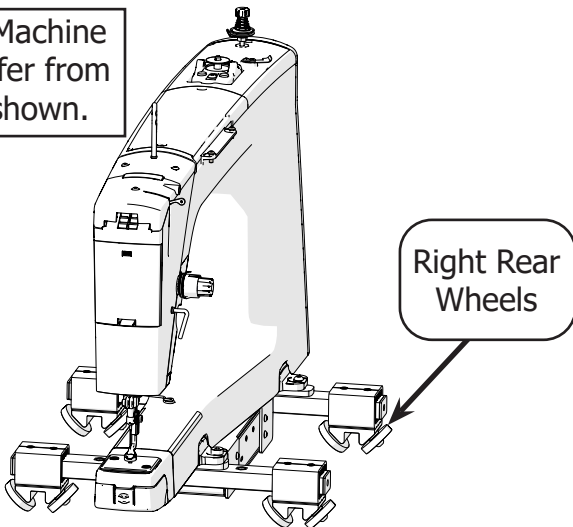
For instructions on using the channel locks, see page 107.

Instructions

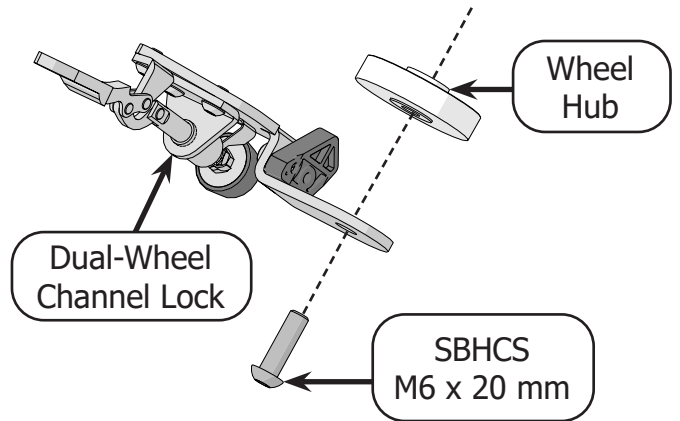
Channel locks restrict the movement of the machine or bottom carriage along one axis, so that it is easy to create a straight line. This channel lock is installed on the machine and stops the movement of the machine along the front-to-back axis to assist with making horizontal lines.

- 1 Locate the machine's **right rear wheels**.

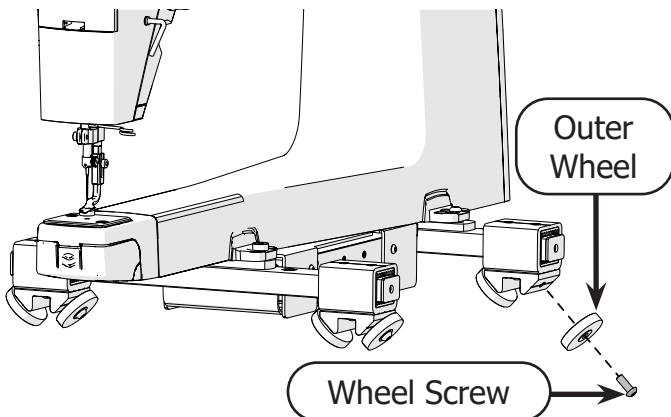
Note: Machine may differ from model shown.



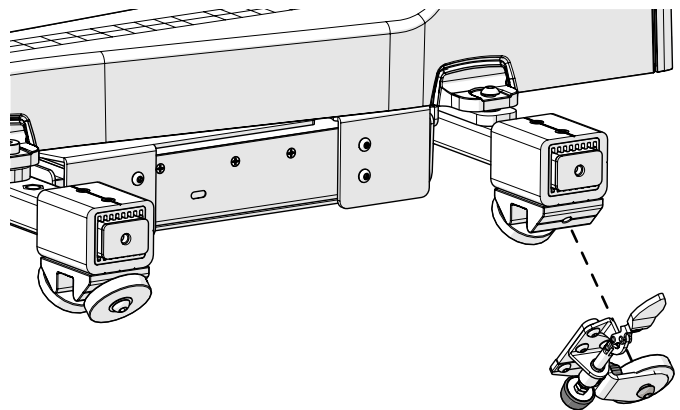
- 3 Place the **dual-wheel channel lock** onto the **M6 x 20 mm SBHCS**. Follow it with the wheel, with the **wheel hub** facing away from the channel lock.



- 2 Use the 4 mm Allen wrench to remove the **outer wheel** and **wheel screw**. The wheel screw will not be needed again and can be stored with the packaging materials.

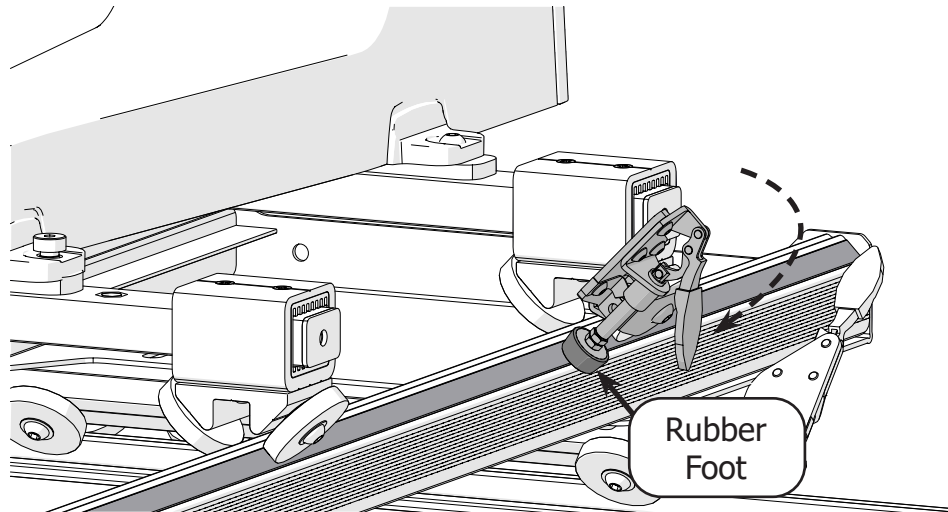


- 4 Screw the channel lock and wheel onto the machine so the channel lock body is toward the front of the machine. Use the 4 mm Allen wrench to attach it.

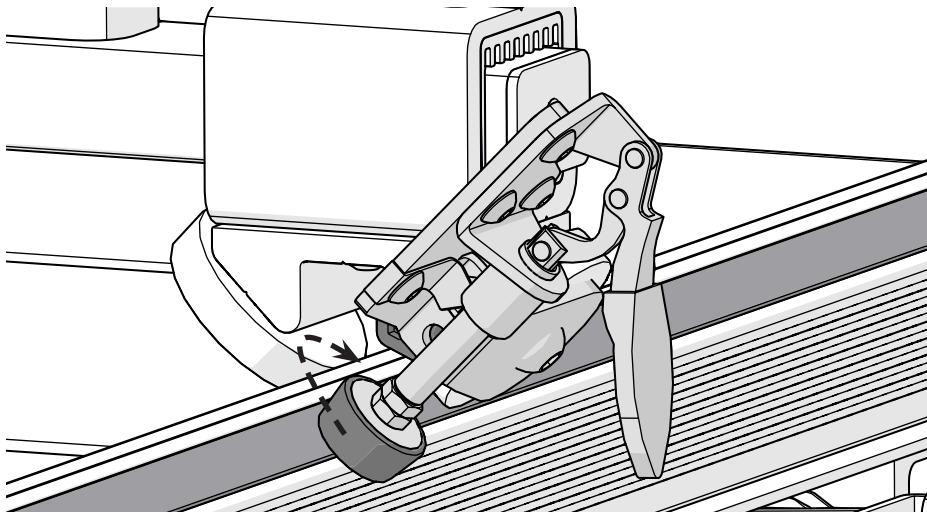


Task 9 - Installing the Machine Channel Lock (continued)

- 5 Close the channel lock handle and test it out. The **rubber foot** should press firmly against the bottom carriage tracks and prevent the machine from moving front to back on the carriage.

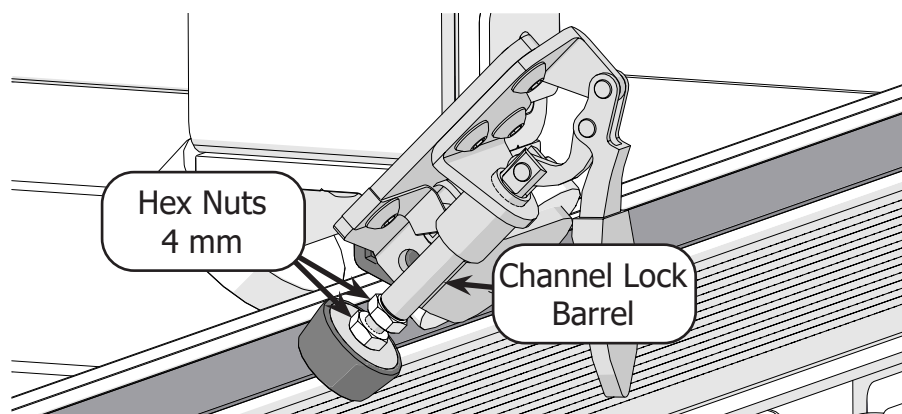


- 6 If the channel lock doesn't fully reach the track, or its grip on the track seems loose, twist the rubber foot clockwise to extend it.



Note: If twisted too far, the handle will start to open, and eventually the foot will fall out. Reverse the direction you're twisting until the handle is pointing down, but the foot still reaches the track.

- 7 **Optional step:** Prevent the channel lock from loosening over time by using needle nose pliers or a wrench to tighten the bottom **4 mm hex nut** against the rubber foot. Tighten the other hex nut against the **channel lock barrel**.



- 8 **Result:** The channel lock is installed on the machine and functions properly.

Congratulations! You have completed Part Two of the assembly instructions for your frame. Before continuing to Part Three of these instructions, complete any of the following that apply to you:

- **Wheeled quilting machine users:** Complete Part Three of your instruction manual.
Note: If your machine manual is not broken into parts, complete the following in order:
 1. Install the machine wheel covers (applicable machines only).
 2. Install the handlebars (applicable machines only).
 3. Install the display (applicable machines only).
 4. Install the thread stand (applicable machines only).
 5. Install the upper encoder onto the machine.
 6. Plug in the machine.
 7. Wind a bobbin and thread the machine.

Part Three

Before completing the tasks in Part Three, complete Part Three of your machine manual.

Progress Checkpoint

Wheeled quilting machine users:

Have you:

- Completed Part Three of your machine instruction manual:
 - Installed wheel covers (applicable machines only)?
 - Installed handlebars (applicable machines only)?
 - Installed display (applicable machines only)?
 - Installed thread mast (applicable machines only)?
 - Installed upper encoder (applicable machines only)?

Top plate users:

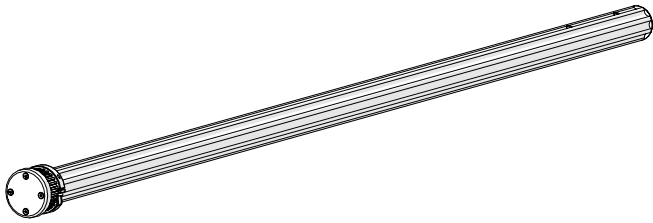
Have you:

- Assembled your top plate?
- Installed the channel lock on the top plate?
- Installed and secured your sewing machine on the top plate?

Task 10 - Assembling the 12 Foot Rails

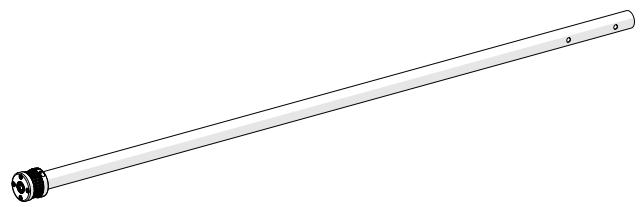
Parts & Tools Needed:

5 ft Star Rail Assembly



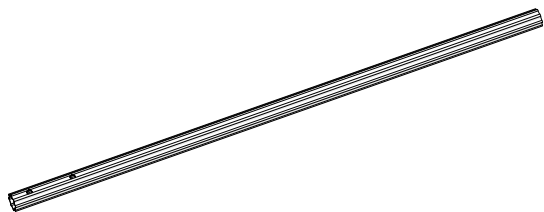
(Box 2)

5 ft Round Rail Assembly (x2)



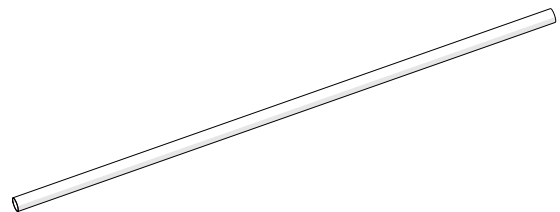
(Box 4)

Star Rail - 5 ft



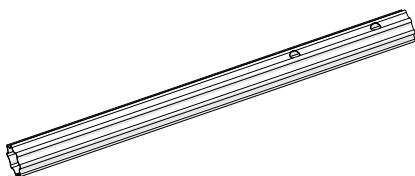
(Box 6)

Round Rail - 5 ft (x2)



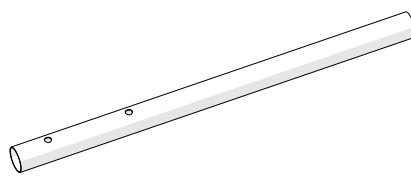
(Box 6)

Star Rail - 2 ft



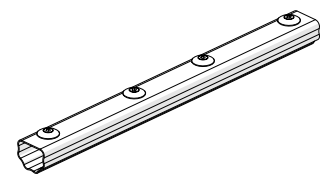
(Box 7)

2 ft Rail (x2)



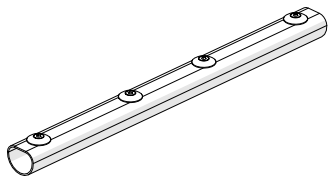
(Box 7)

Star Rail Coupler (x2)



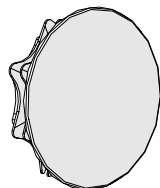
(Box 6 and Box 7)

Rail Coupler Assembly (x4)



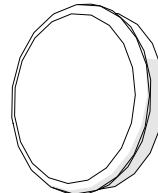
(Box 6 and Box 7)

Quilt-Backing Rail Press-In Cap



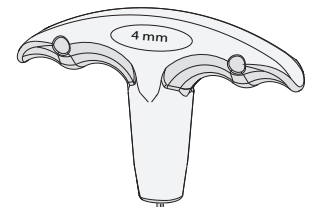
(Box 1: Hardware Box)

38 mm Tube Cap (x2)



(Box 4)

T-handle Allen Wrench 4 mm

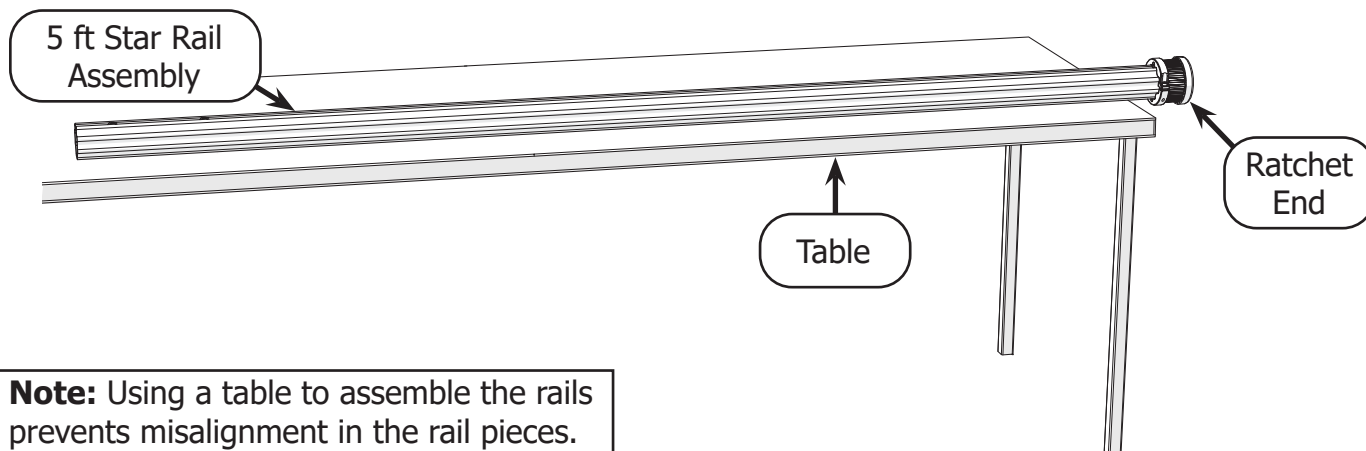


Instructions

The rails secure your quilt to the frame. Take the following steps to assemble the frame's rails:

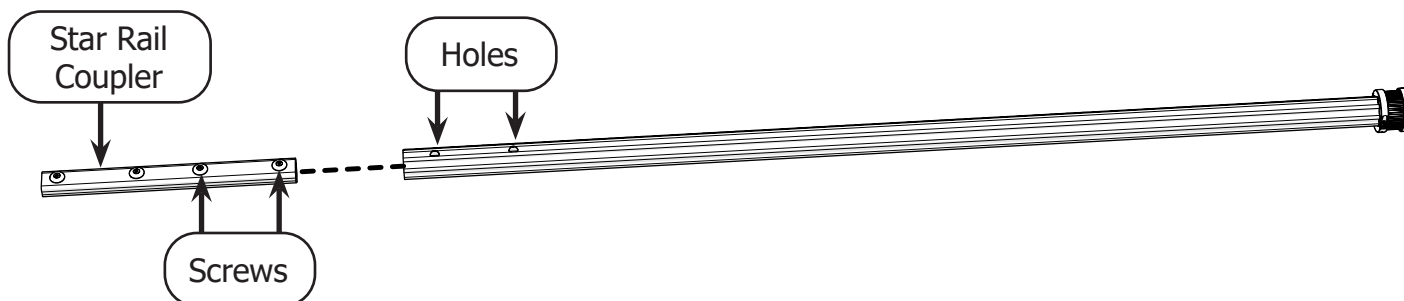
Task 10 - Assembling the 12 Foot Rails (continued)

- 1 Place the **5 ft star rail assembly** onto a long **table**, with the **ratchet end** hanging off the edge of the table so the rail is flat against the table's surface. Work on a raised flat surface as much as possible for these steps.



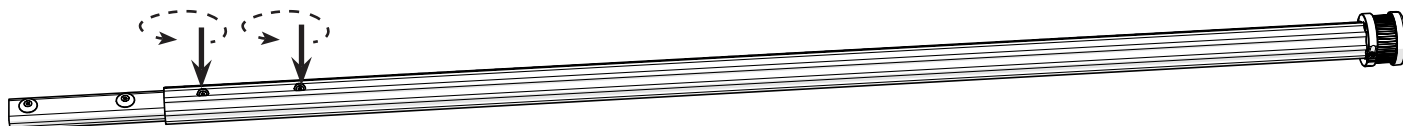
Note: Using a table to assemble the rails prevents misalignment in the rail pieces.

- 2 Slide a **star rail coupler** halfway into the open-end of the 5 ft star rail assembly so the first two **screws** in the coupler line up with the two **holes** in the rail.



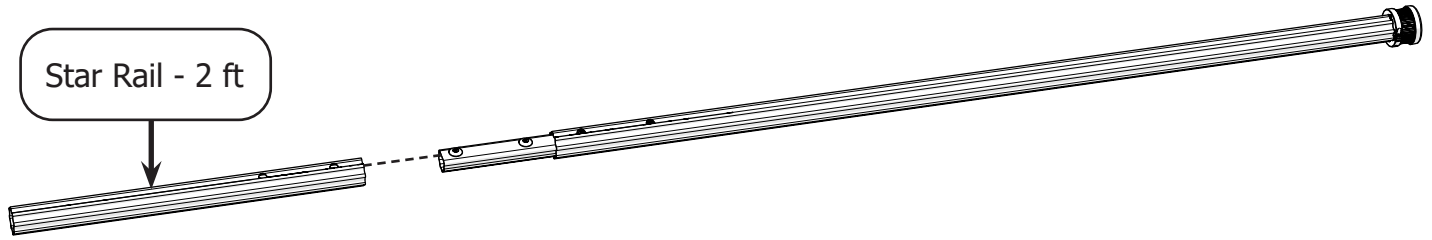
- 3 Use the 4 mm T-handle Allen wrench to turn the two screws counterclockwise until they press firmly against the rail and the coupler can no longer slide around.

Coupler screws are turned **counterclockwise**.

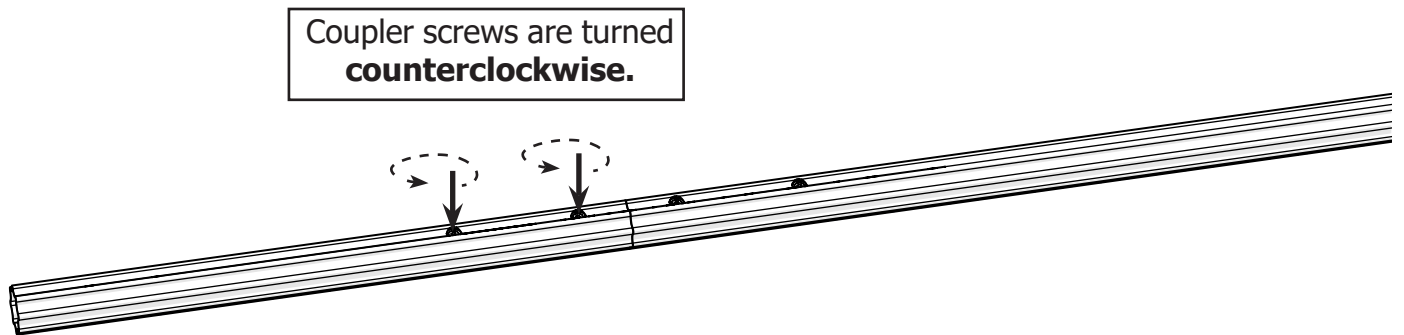


Task 10 - Assembling the 12 Foot Rails (continued)

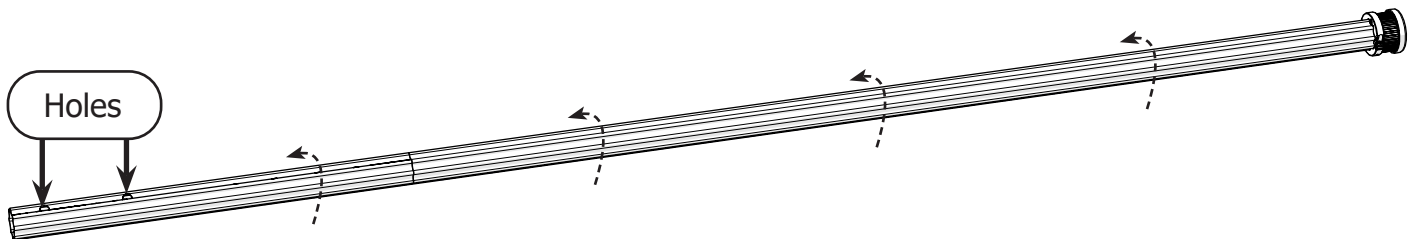
- 4 Slide the **star rail - 2 ft** onto the rail coupler so the screw holes align with the coupler screws.



- 5 Rotate the two screws counterclockwise with the 4 mm T-handle Allen wrench until they press firmly against the rail and the entire rail is secure.

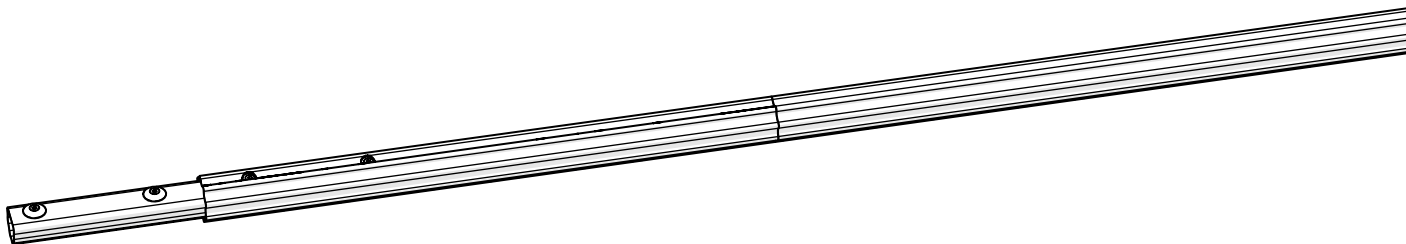


- 6 Rotate the rail so the two screw holes at the end point up.



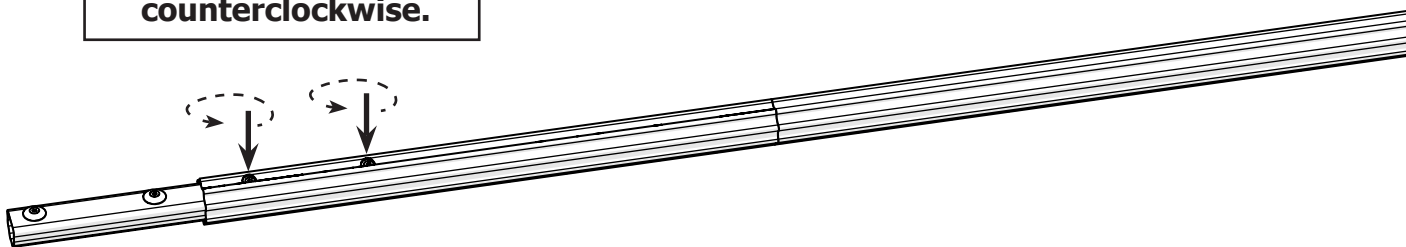
Task 10 - Assembling the 12 Foot Rails (continued)

- 7 Slide the other **star rail coupler** halfway into the open end of the rail so the first two **screws** in the coupler line up with the two **holes** in the rail.

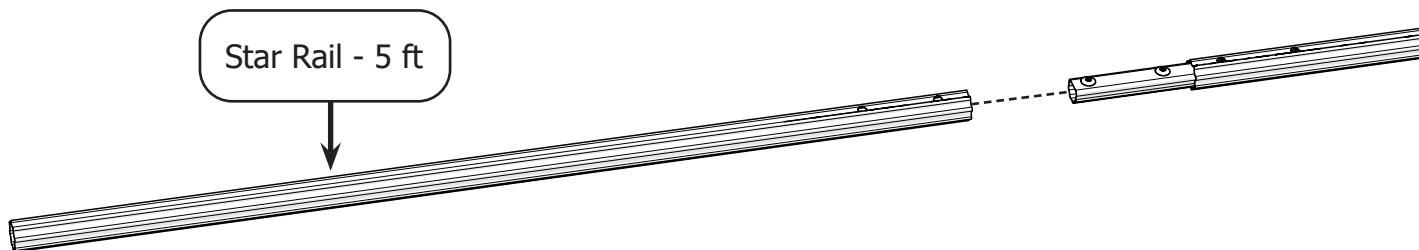


Turn the screws counterclockwise with the 4 mm T-handle Allen wrench until they press snugly against the rail.

Coupler screws are turned
counterclockwise.



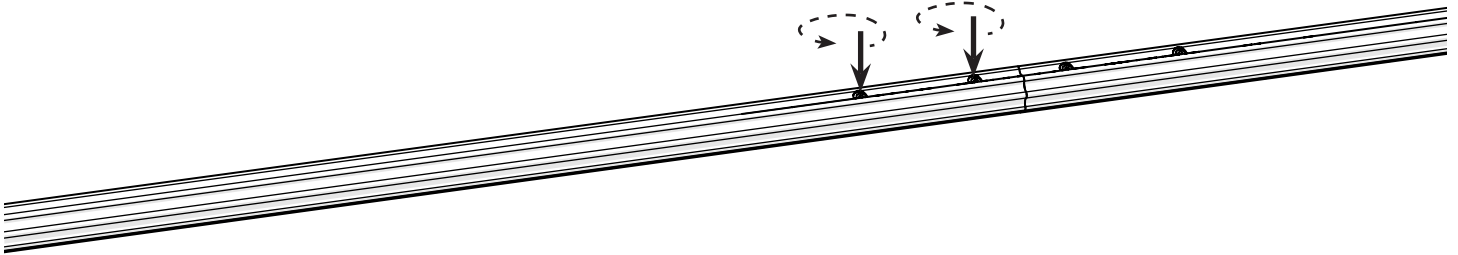
- 8 Slide the **star rail - 5 ft** onto the rail coupler so the screw holes align with the coupler screws.



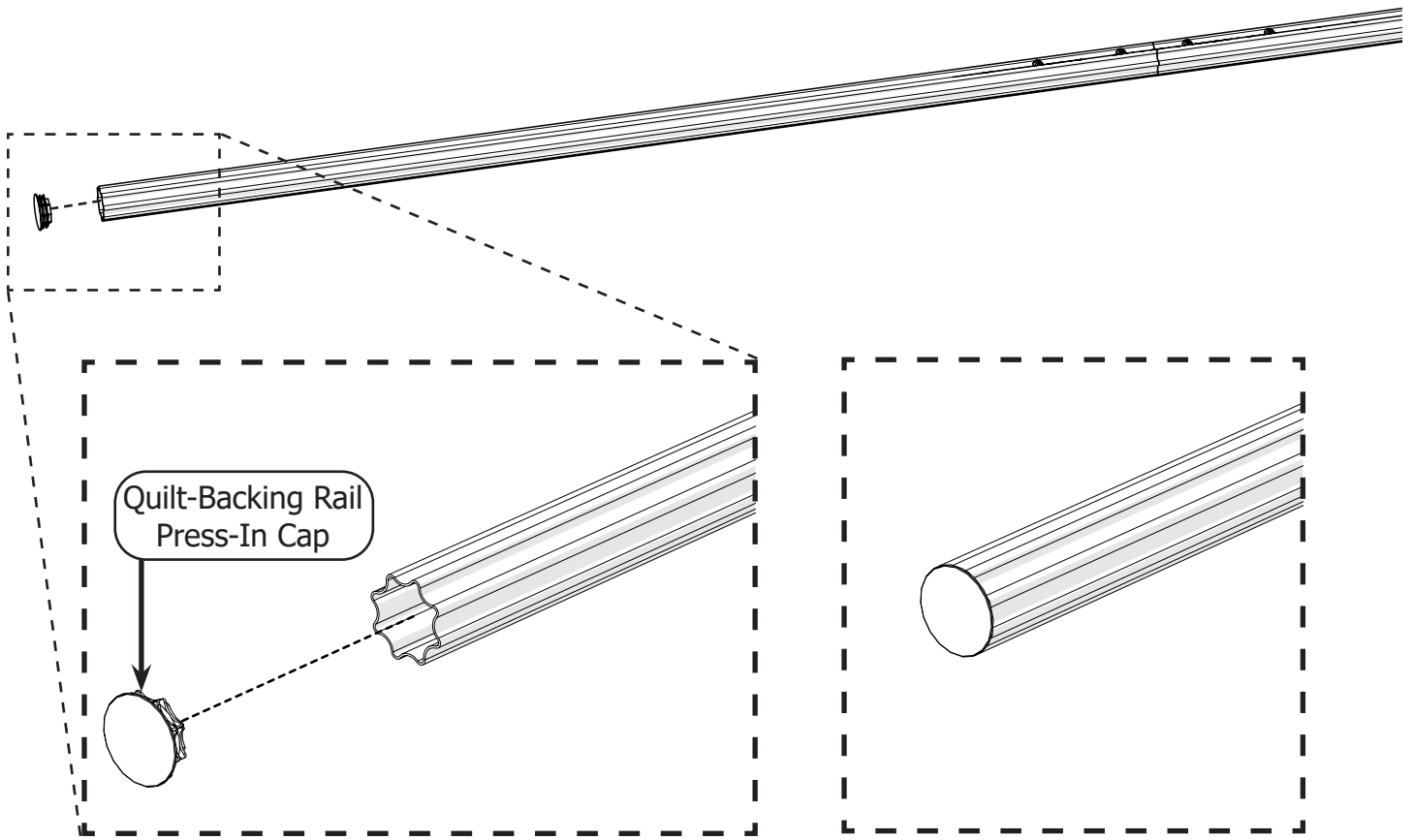
Task 10 - Assembling the 12 Foot Rails (continued)

- 9 Use the 4 mm T-handle Allen wrench to tighten the last rail section in place by turning the coupler screws counterclockwise until they are tight against the rail.

Coupler screws are turned **counterclockwise**.

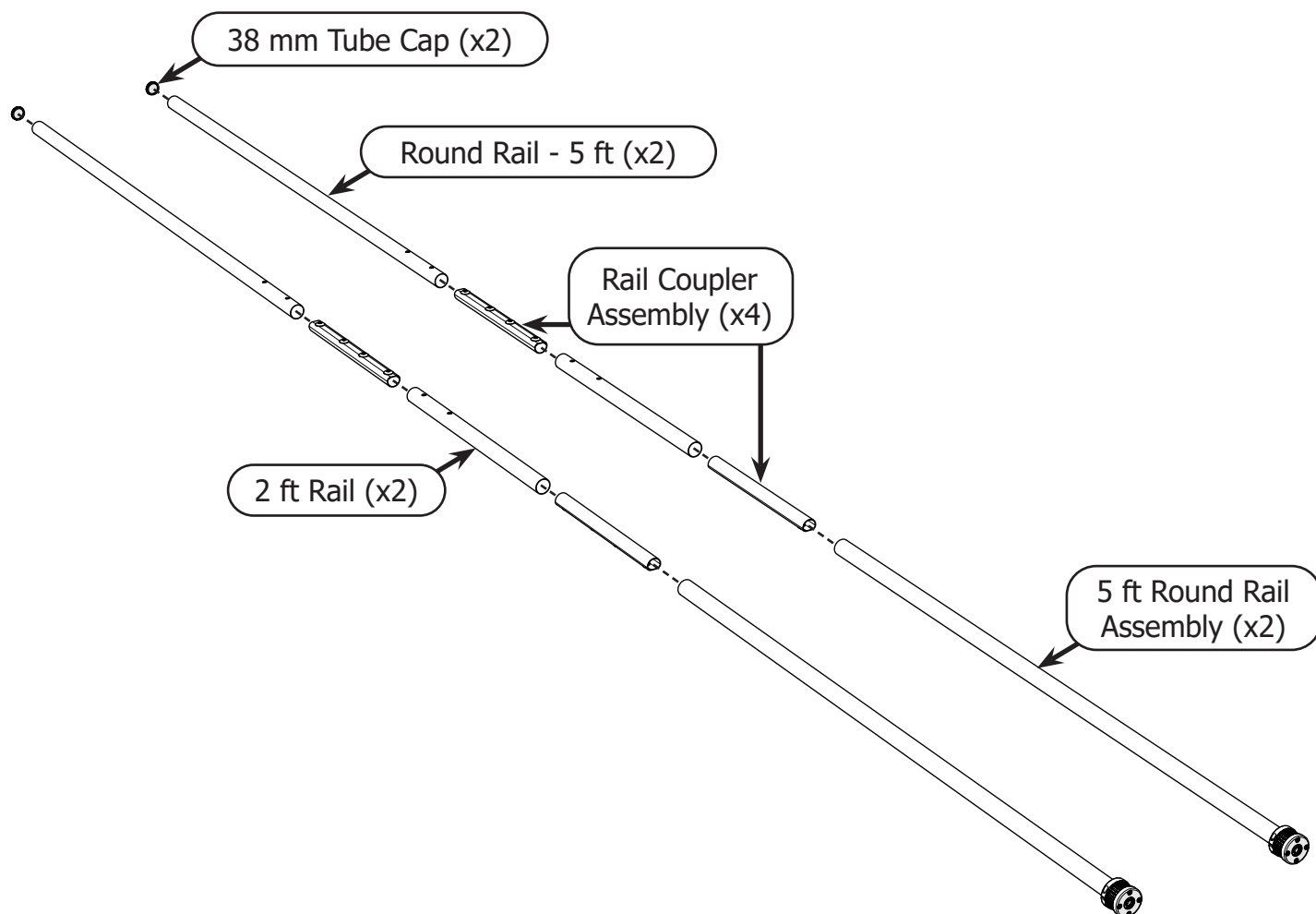


- 10 Press the **quilt-backing rail press-in cap** into the open-end of the rail.

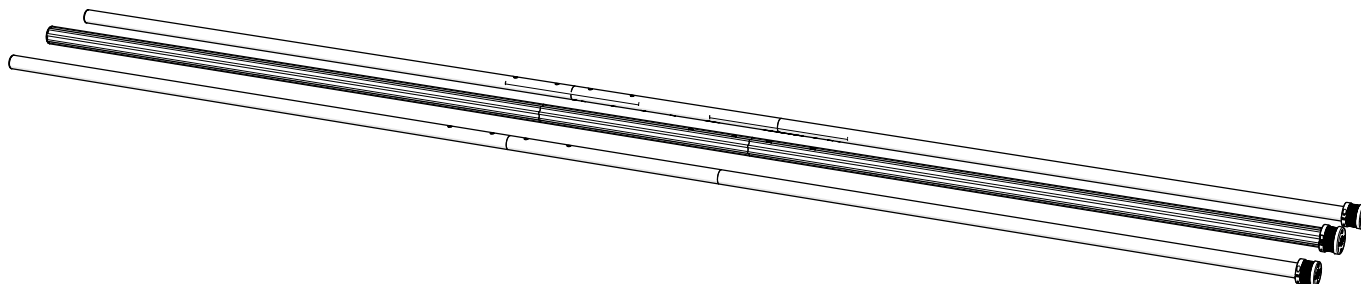


Task 10 - Assembling the 12 Foot Rails (continued)

- 11 Repeat steps 1-10 using the **5 ft round rail assemblies**, **rail coupler assemblies**, **2 ft rails**, **5 ft round rails**, and **38 mm tube caps** to make two 12 foot round rails.



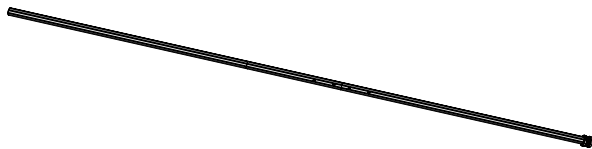
- 12 **Result:** Two 12 foot round rails and one 12 foot star rail have been assembled.



Task 11 - Installing the Front Rails

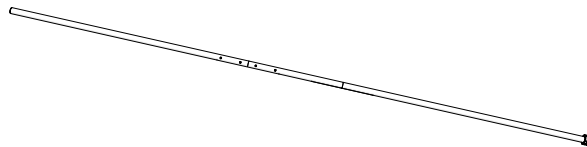
Parts & Tools Needed:

12 Foot Star Rail
Assembly



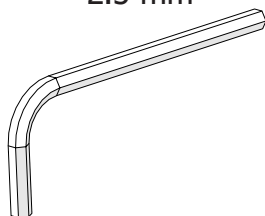
(Assembled in Task 10)

12 Foot Round
Rail Assembly



(Assembled in Task 10)

Allen Wrench
2.5 mm

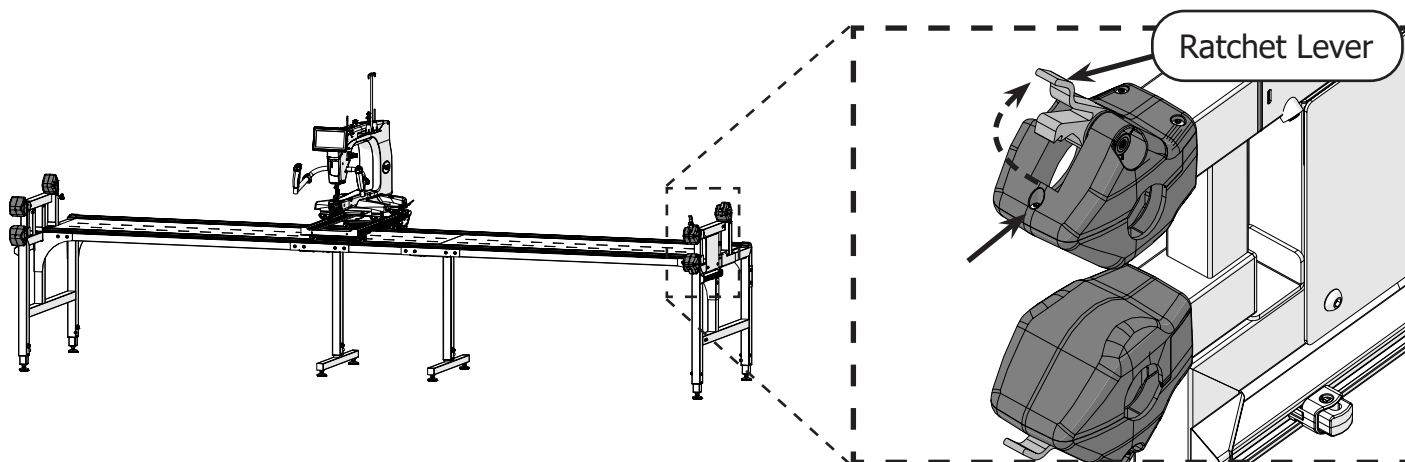


(Box 1: Hardware Box)

Instructions

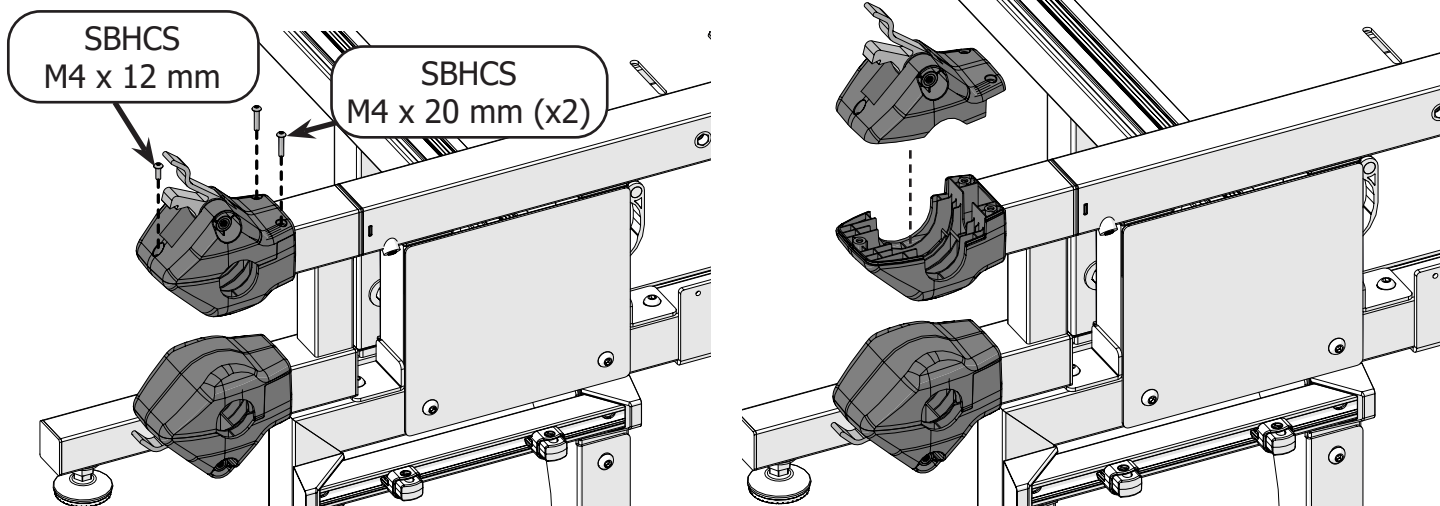
Take the following steps to install the frame's rails. Steps for positioning the rails are covered later.

- 1 The top front rail on the frame is called the "quilt-backing rail" because the quilt's backing is attached to it and rolled up on it. To install the quilt-backing rail, lift the **ratchet lever** to gain access to the screw underneath.

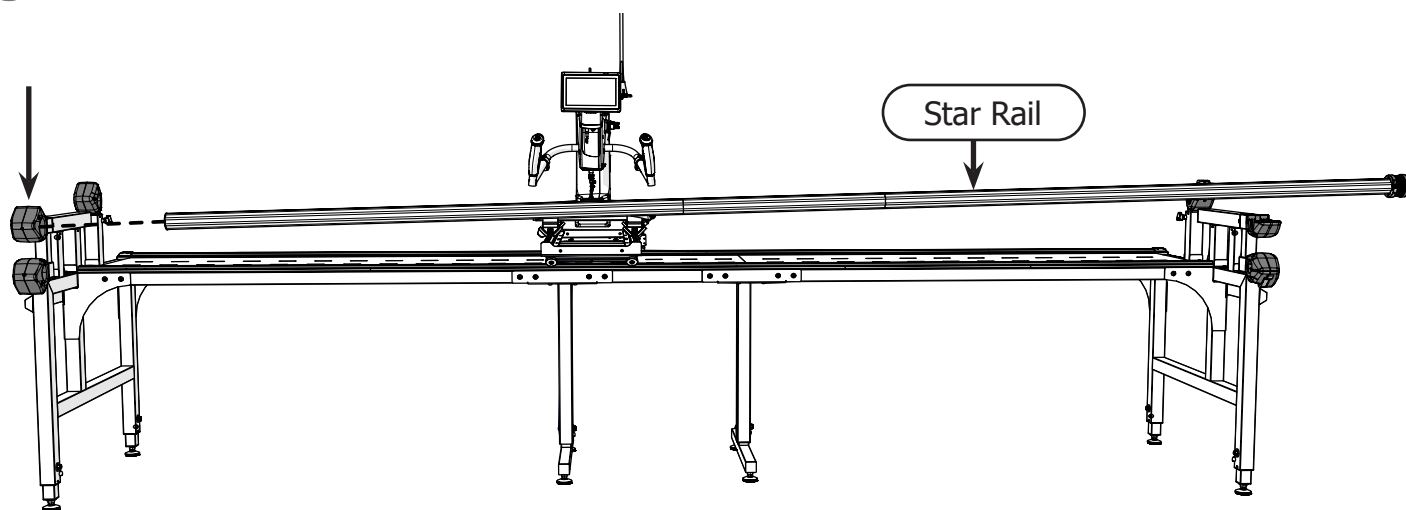


Task 11 - Installing the Front Rails (continued)

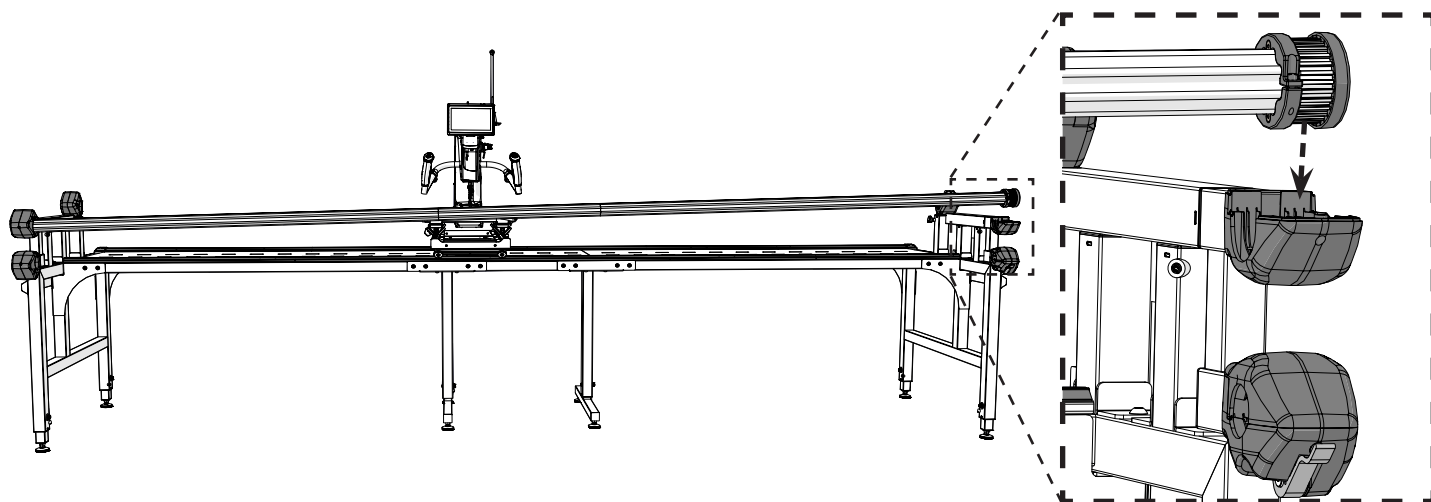
- 2 Use the 2.5 mm Allen wrench to remove the two **M4 x 20 mm SBHCS** and the **M4 x 12 mm SBHCS** on the top of the rail holder. Then lift the top away.



- 3 Slide the side of the **star rail** with the press-in cap into the top left rail holder.

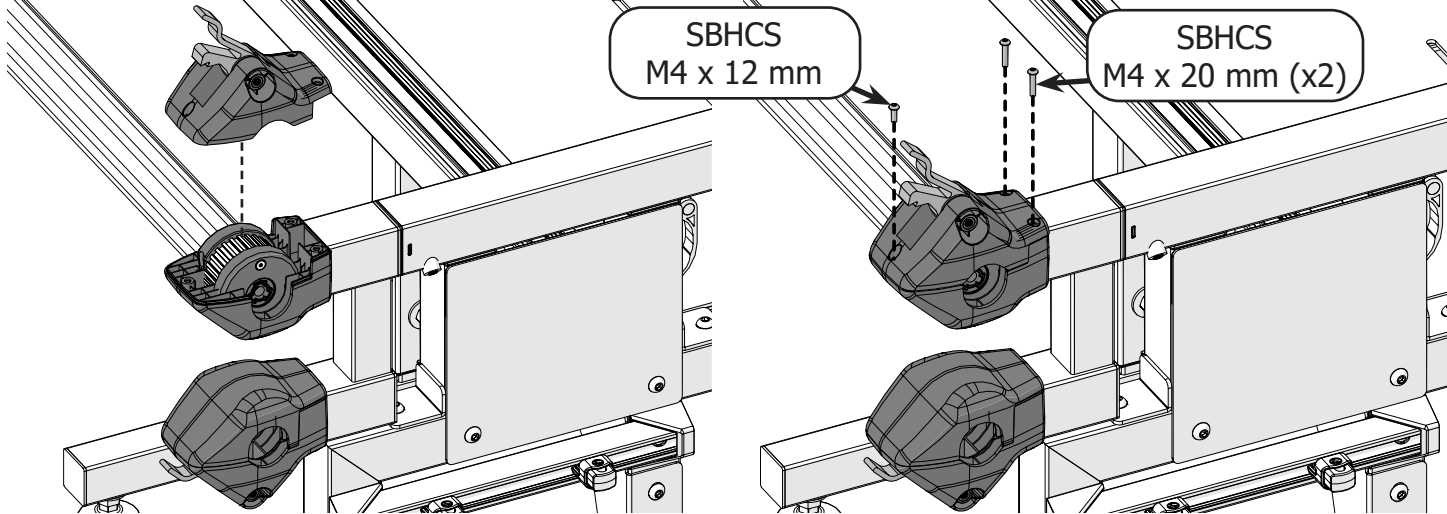


- 4 Place the other end of the rail into the open rail holder.

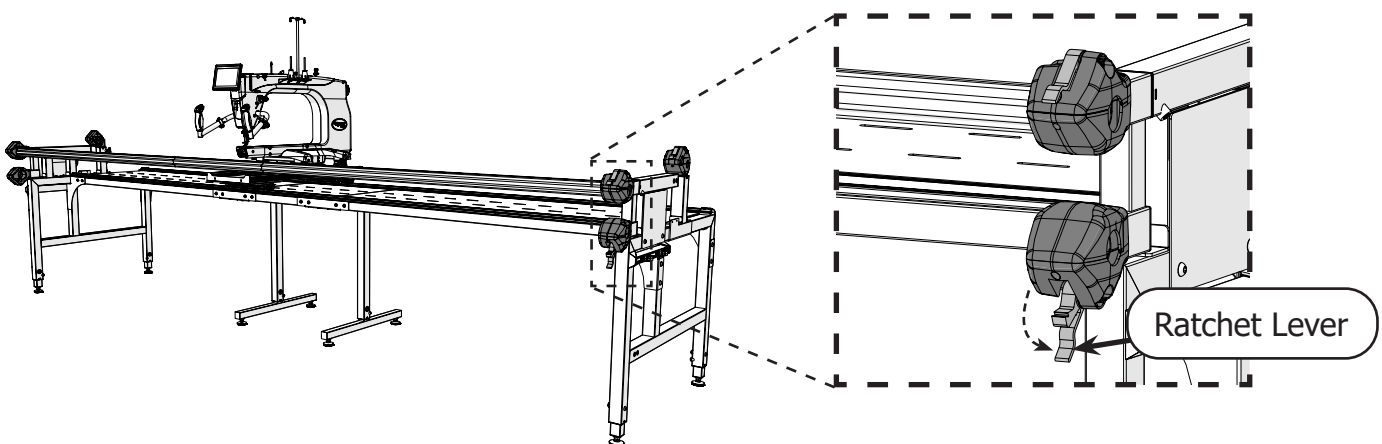


Task 11 - Installing the Front Rails (continued)

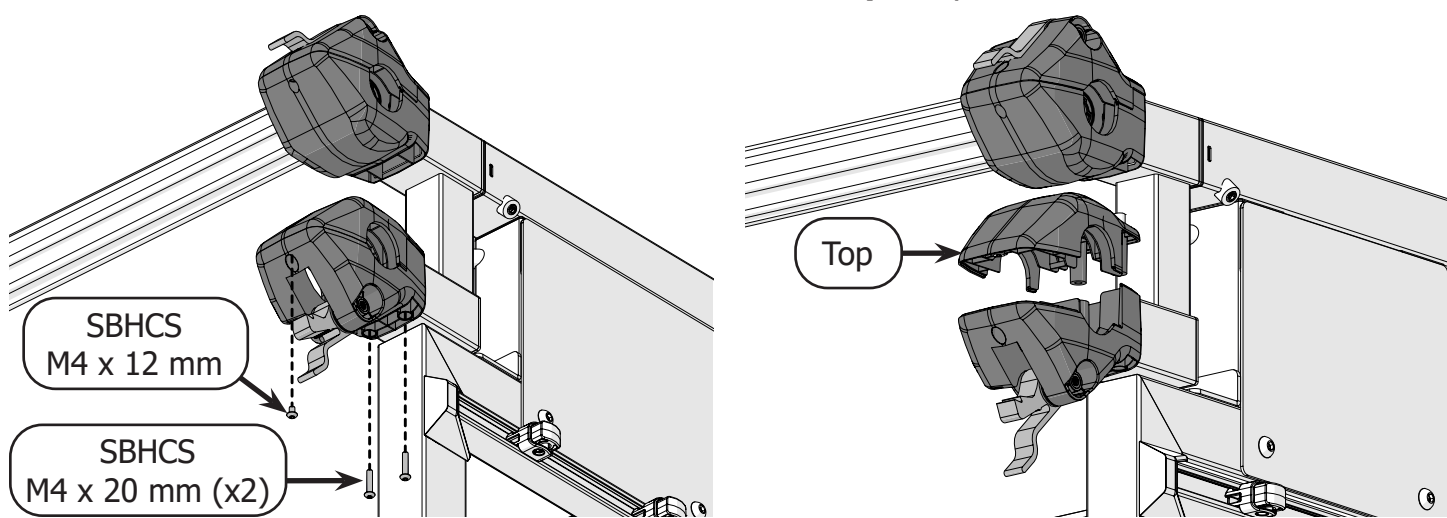
- 5 Replace the cover of the rail holder and screw it back into place with the 2.5 mm Allen wrench. Use the two **M4 x 20 mm SBHCS** and the **M4 x 12 mm SBHCS** removed earlier.



- 6 The front rail that is on the bottom is called the “quilt-top rail” because the quilt top is attached to it and rolled around it. To install the quilt-top rail, open the **ratchet lever** on the rail holder to access the screw underneath it.

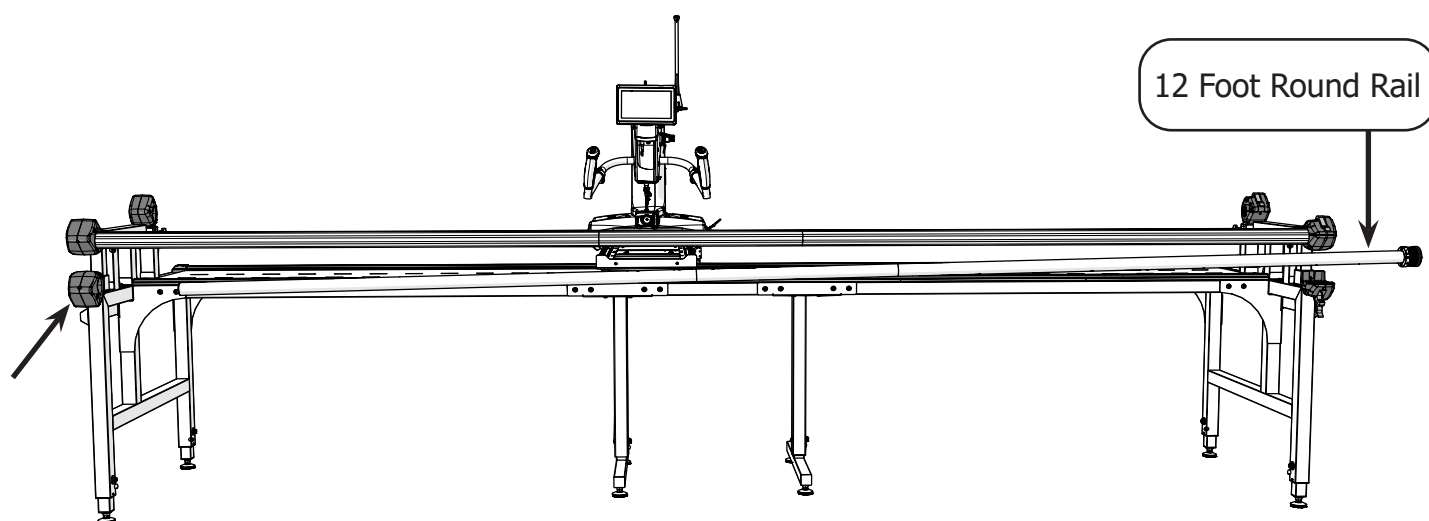


- 7 Use the 2.5 mm Allen wrench to remove the two **M4 x 20 mm SBHCS** and the **M4 x 12 mm SBHCS** on the bottom of the rail holder. Then lift the **top** away.

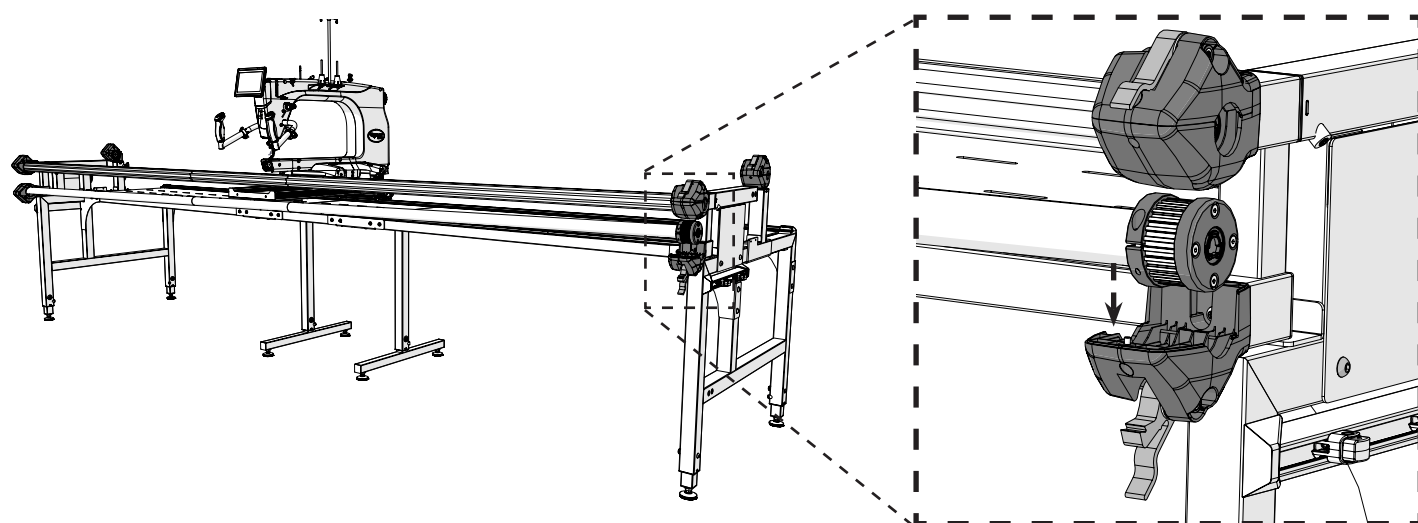


Task 11 - Installing the Front Rails (continued)

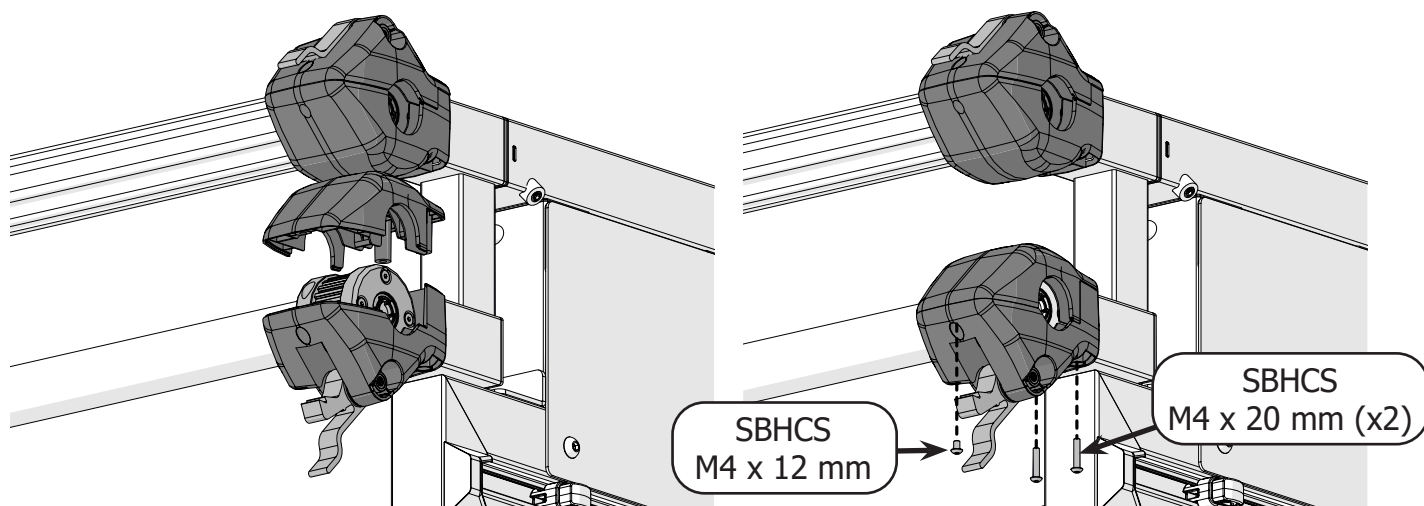
- 8 Slide the side of the **12 foot round rail** with the press-in cap into the bottom left rail holder.



- 9 Place the other end of the rail into the open rail holder.

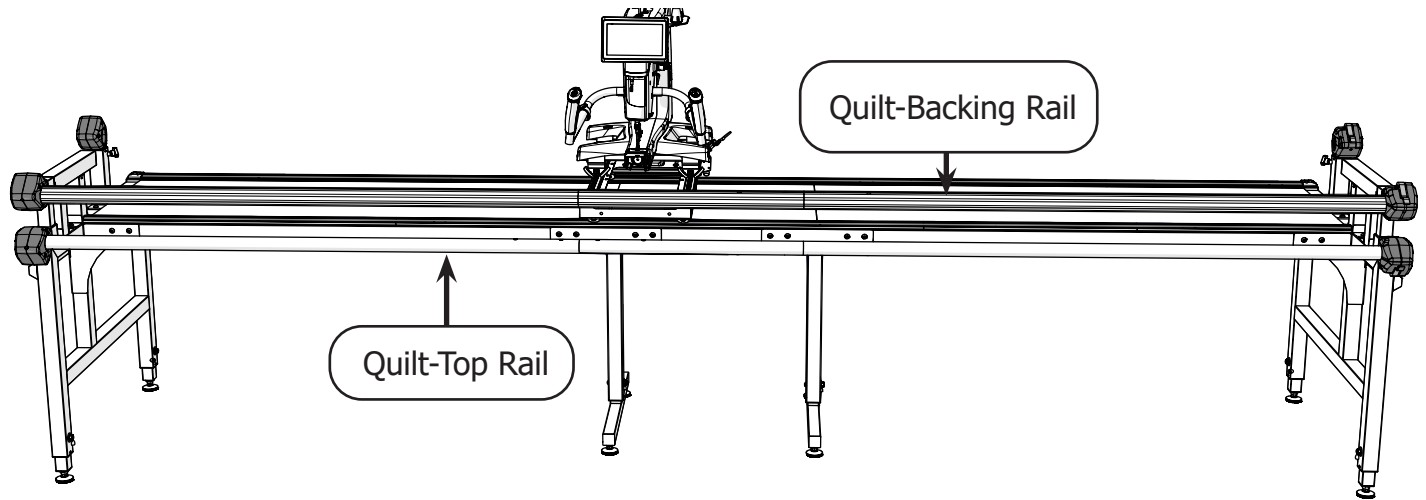


- 10 Place the top back onto the open rail holder. Attach it in place using the two **M4 x 20 mm SBHCS** and the **M4 x 12 mm SBHCS** on the bottom of the rail holder.



Task 11 - Installing the Front Rails (continued)

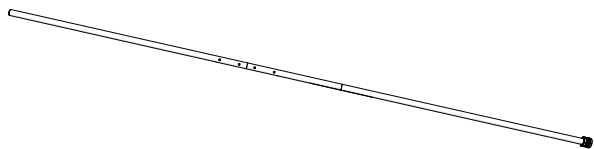
- 11 **Result:** The **quilt-backing rail** and **quilt-top rail** have been installed. Note that the steps for adjusting these rails to the proper height and distance is covered later in this manual.



Task 12 - Installing the Take-up Rail

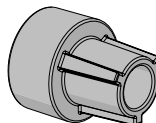
Parts & Tools Needed:

12 ft Round Rail
Assembly



(Assembled in Task 10)

Hand Wheel Collar



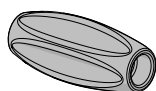
(Box 1: Hardware Box)

Hand Wheel



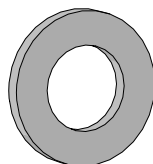
(Box 1: Hardware Box)

Hand Wheel
Knob



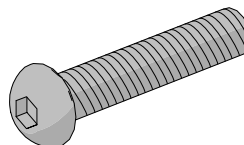
(Box 1: Hardware Box)

Hand Wheel
Washer



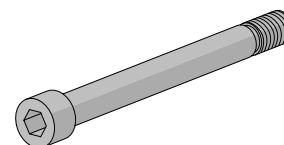
(Box 1: Hardware Box)

SBHCS
M10 x 55 mm



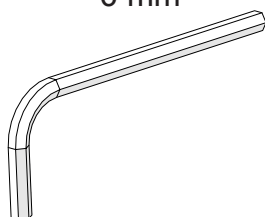
(Box 1: Hardware Box)

Shoulder Bolt
M8



(Box 1: Hardware Box)

Allen Wrench
6 mm



(Box 1: Hardware Box)

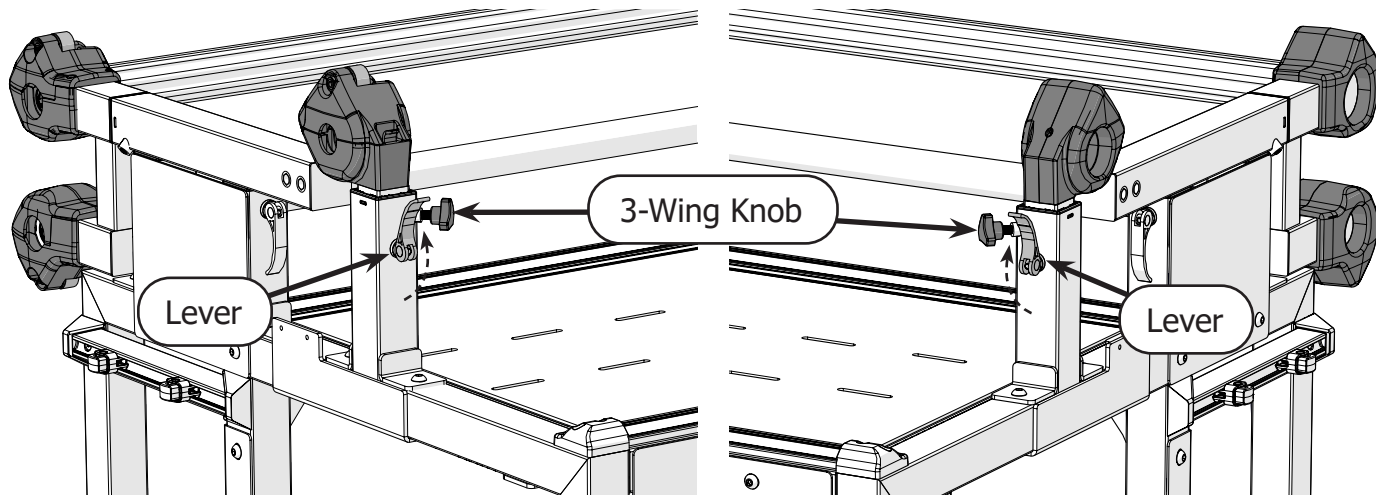
Instructions

The take-up rail is the key to fabric management with a rolling-style frame. All the layers of the quilt are attached to it and rolled around it. As you work your way down your quilt, this rail “takes up” the finished quilt.

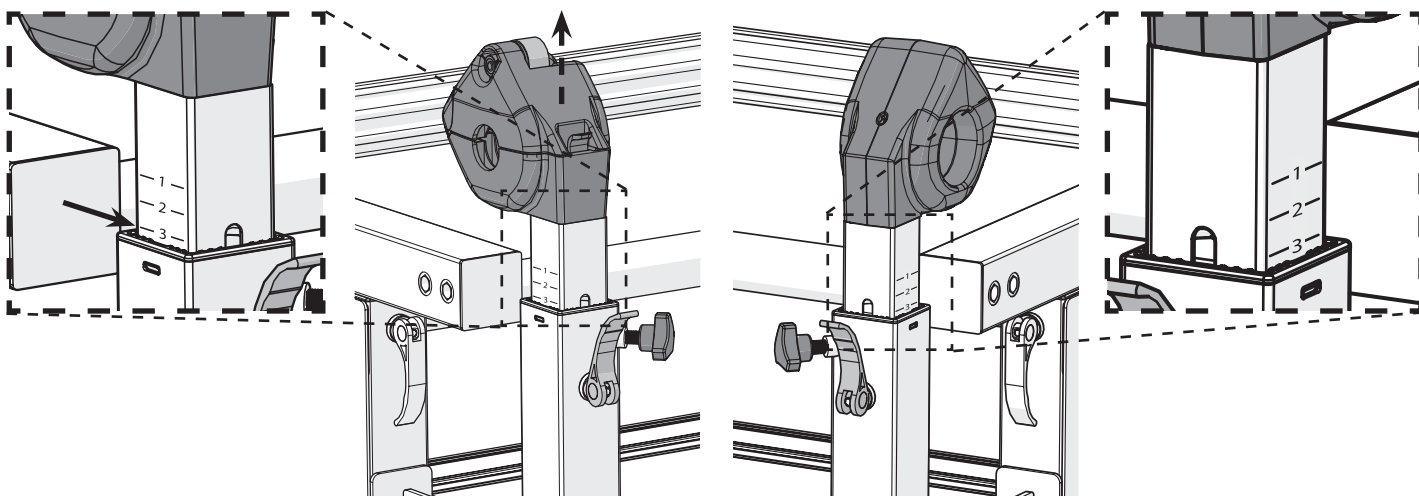
Take the following steps to install the frame’s take-up rail:

Task 12 - Installing the Take-up Rail (continued)

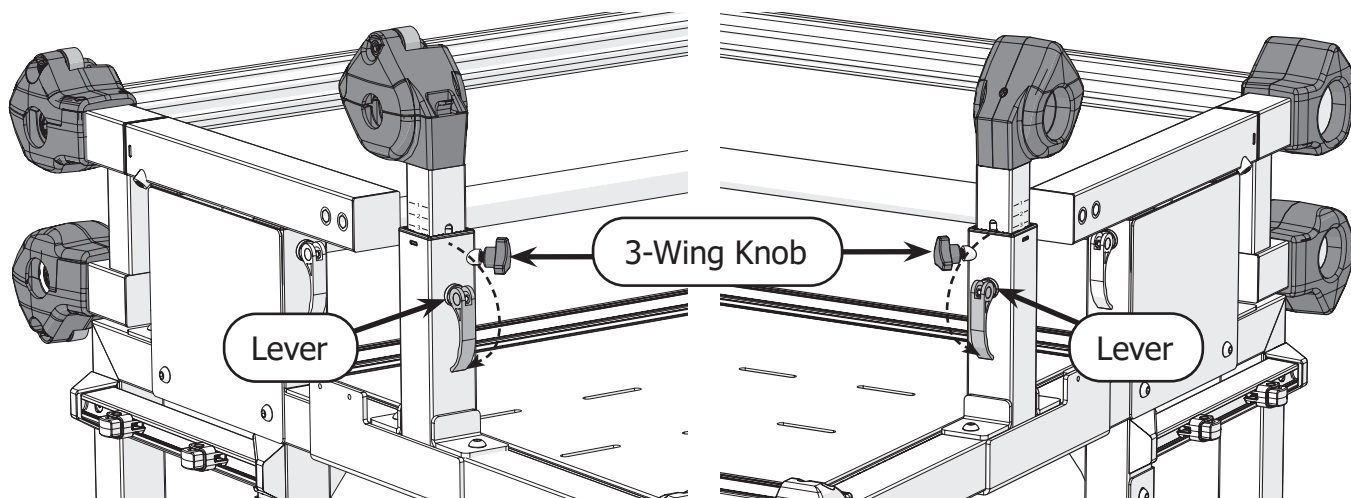
- 1 **On both take-up rail holders:** Open the **lever**, and then loosen the **3-wing knob** enough that the rail holder can move freely up and down.



- 2 **On both take-up rail holders:** Raise the take-up rail holder until the printed 3 is visible.

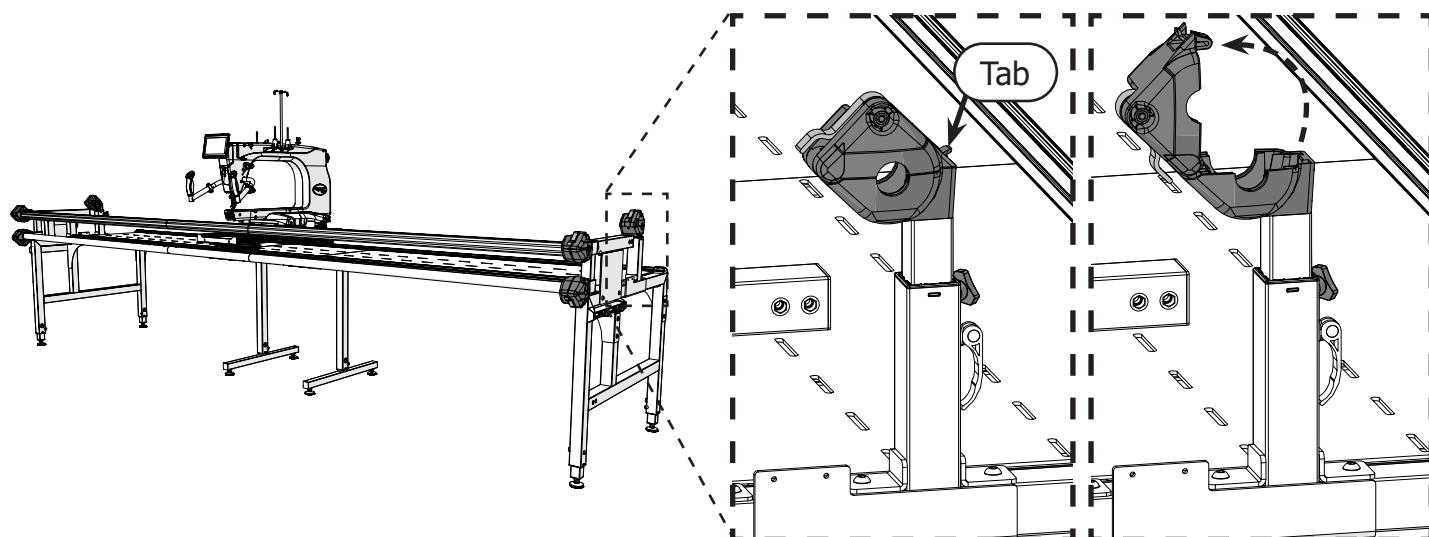


- 3 **On both take-up rail holders:** Close the **lever** to keep the holder at that height and then tighten the **3-wing knob**.

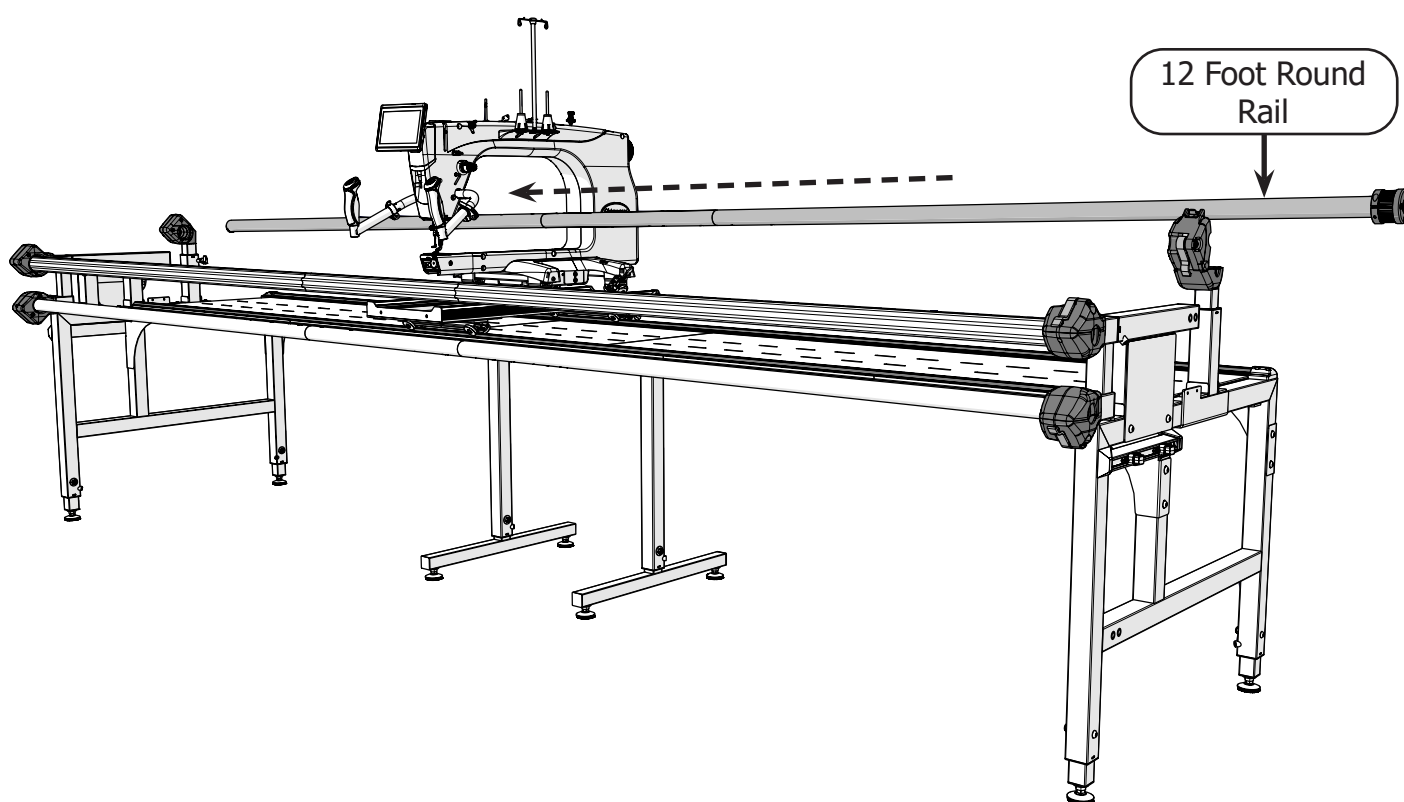


Task 12 - Installing the Take-up Rail (continued)

- 4 Press in the **tab** on the right take-up rail holder to open it.

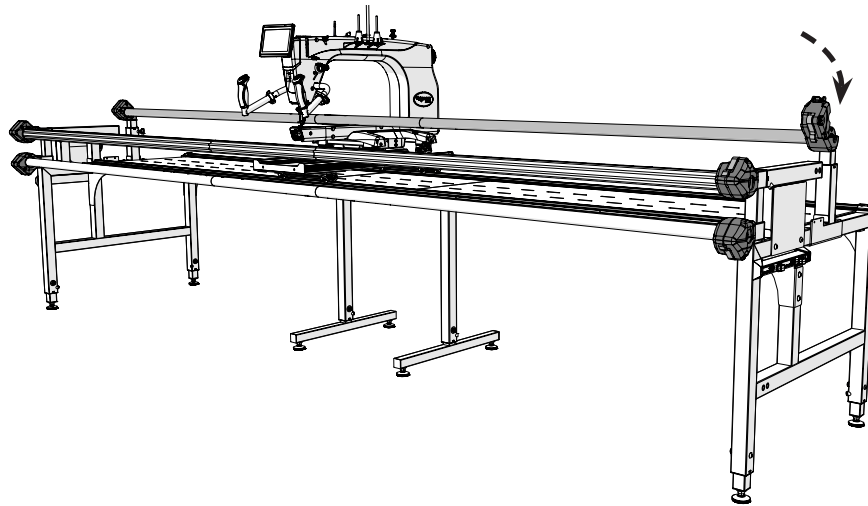


- 5 Insert the end of the **12 foot round rail** with the press-in cap through the throat of the machine, toward the left take-up rail holder.

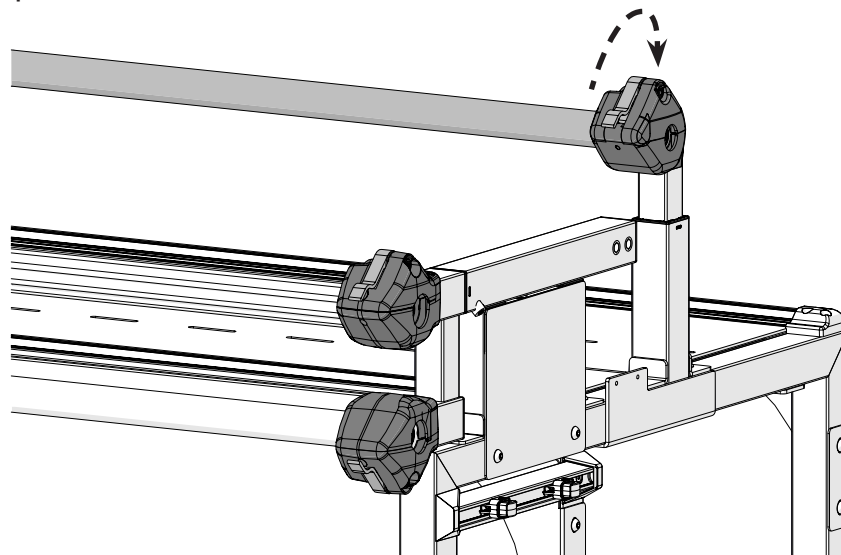


Task 12 - Installing the Take-up Rail (continued)

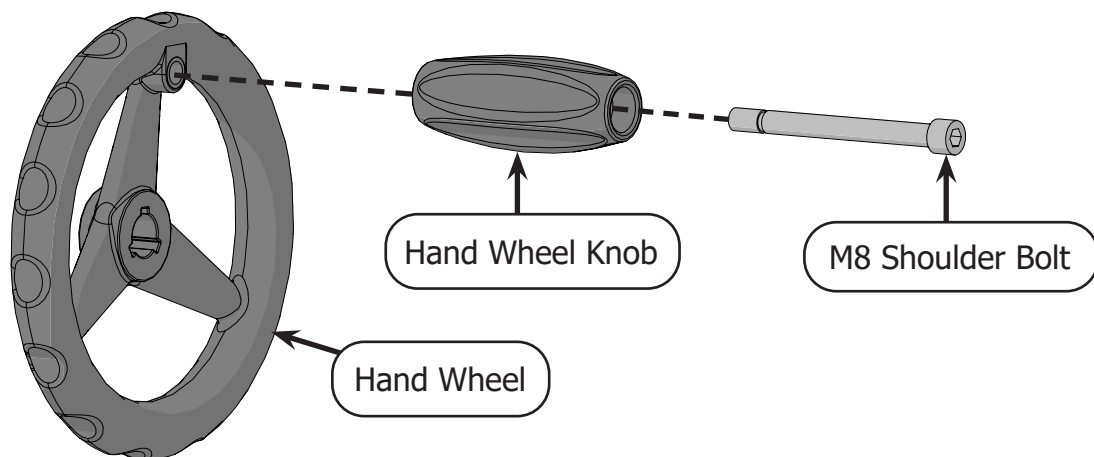
- 6 Place the other end of the rail into the open take-up rail holder.



- 7 Close the take-up rail holder.

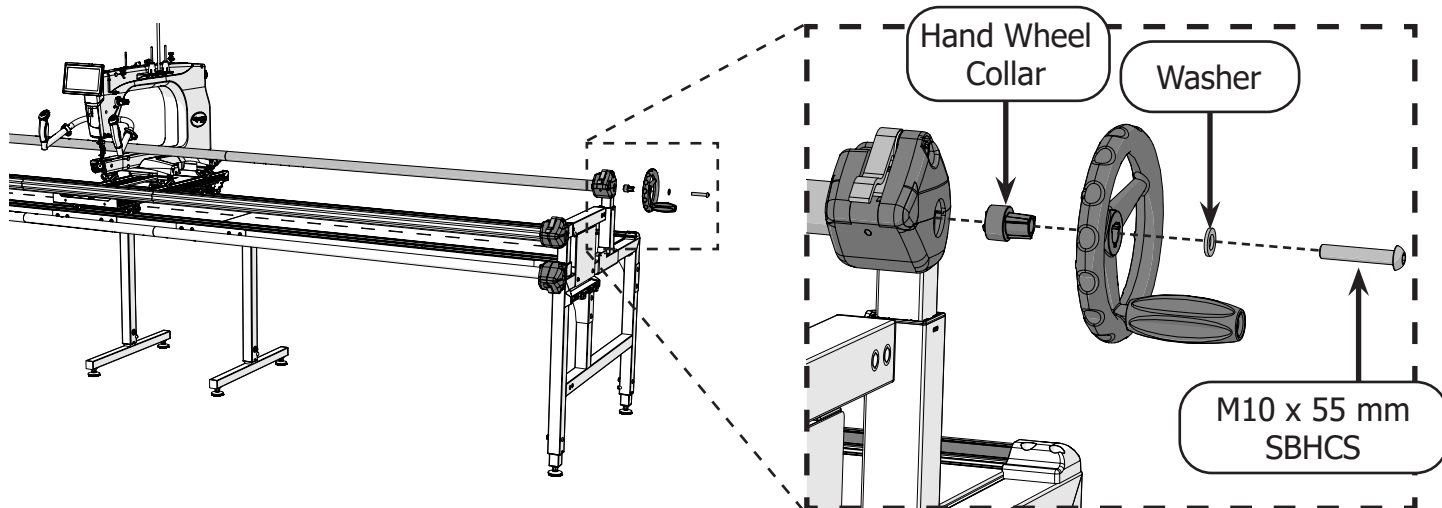


- 8 Use the 6 mm Allen wrench and the **M8 shoulder bolt** to attach the **hand wheel knob** to the **hand wheel**.

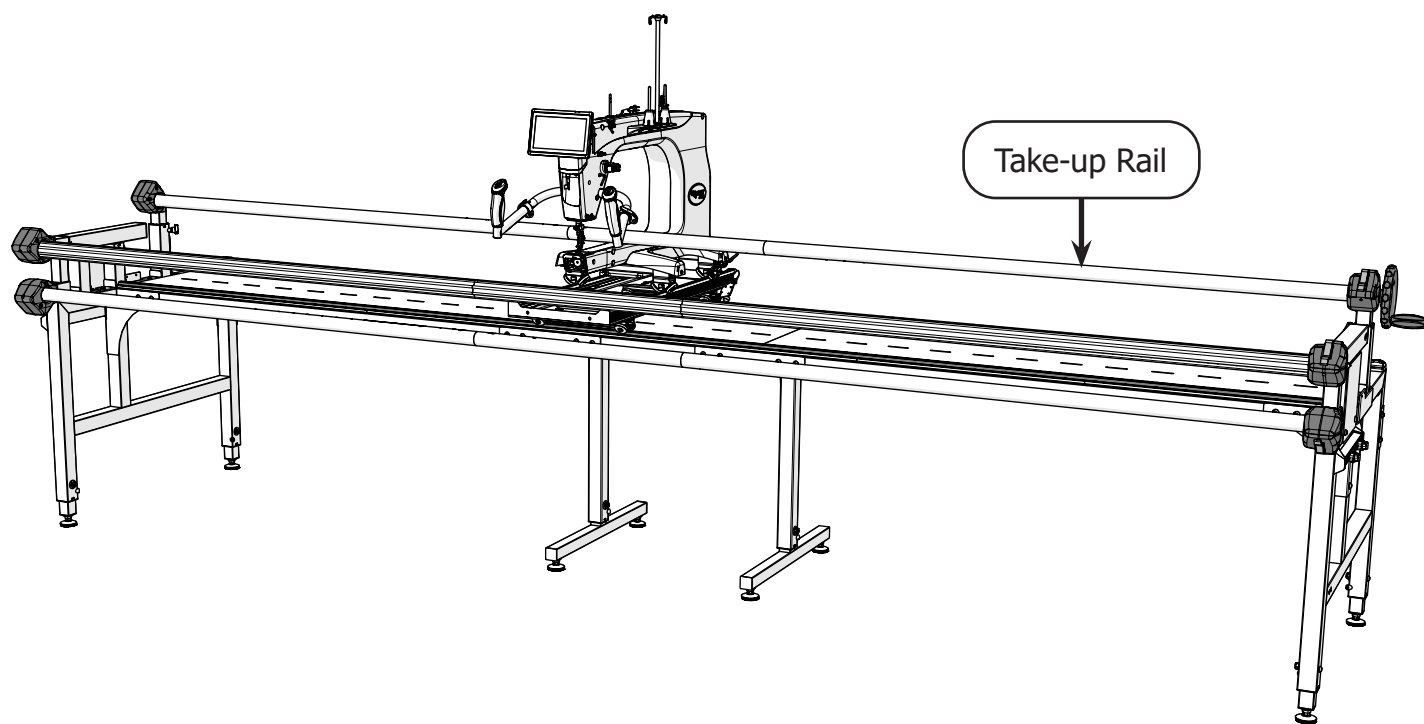


Task 12 - Installing the Take-up Rail (continued)

- 9 Attach the hand wheel to the end of the take-up rail with the **hand wheel collar**, **washer**, and **M10 x 55 mm SBHCS**. Tighten with the 6 mm Allen wrench.



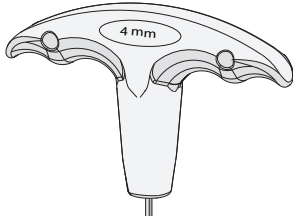
- 10 **Result:** The **take-up rail** has been installed with the hand wheel. Note that the rails still need to be positioned before the frame is ready for quilting.



Task 13 - Positioning the Rails

Parts & Tools Needed:

T-handle Allen
Wrench 4 mm



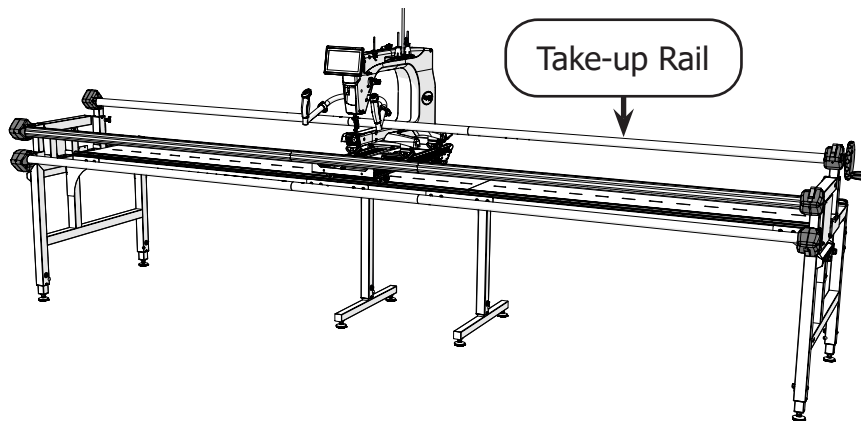
Do not skip these steps!

The rails must be positioned to correctly hold your fabric as you quilt.

Improperly adjusted rails create thread and fabric tension issues.

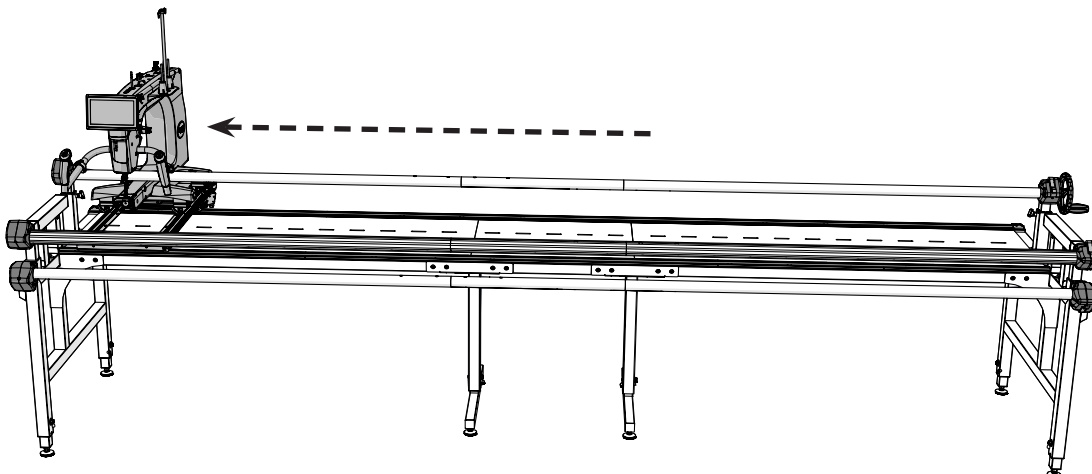
Take-up Rail Position Instructions

The **take-up rail** must be adjusted to the proper position about one-quarter inch above the bed of the machine before quilting. It will require additional adjusting during quilting as the rail takes up fabric.



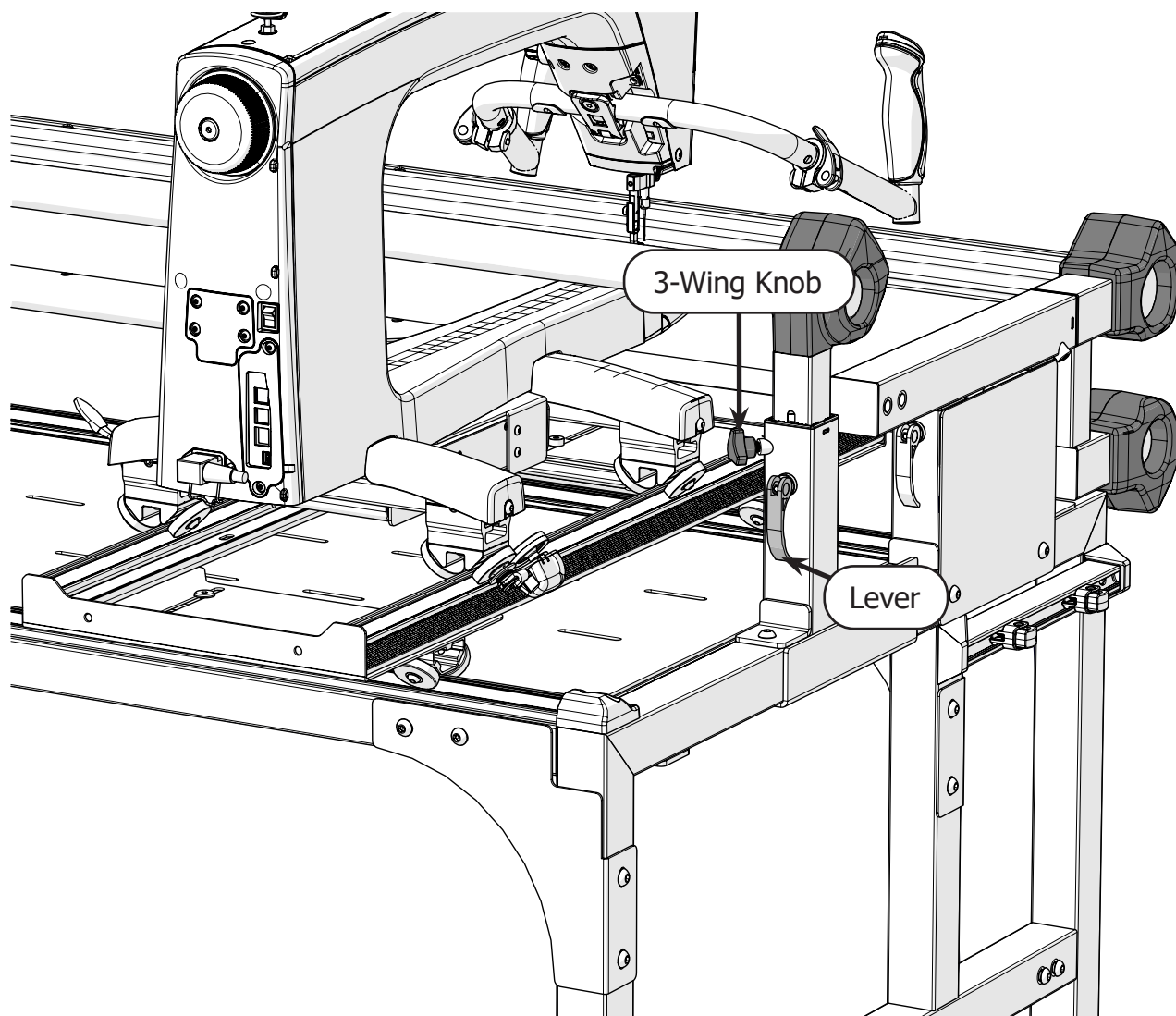
Take the following steps to set the take-up rail height:

- 1 Slide the machine to the left side of the frame.

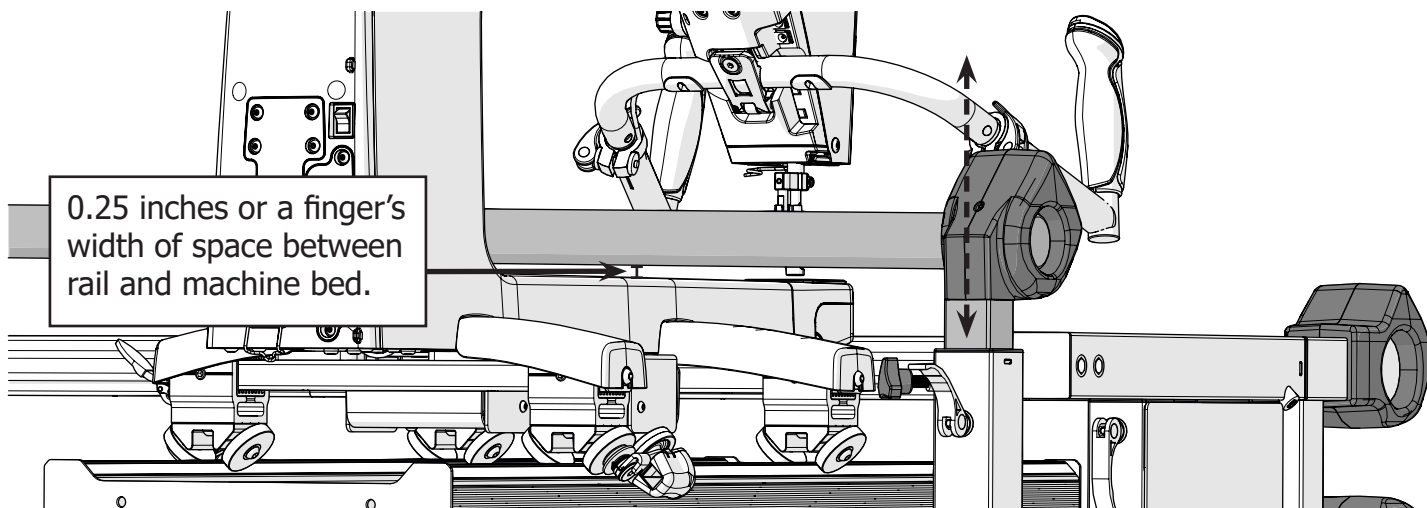


Task 13 - Positioning the Rails (continued)

- 2 Loosen the **3-wing knob** on the left take-up rail holder and open the **lever**. **CAUTION:** Hold the rail up when opening the lever so the rail doesn't drop against your machine bed.

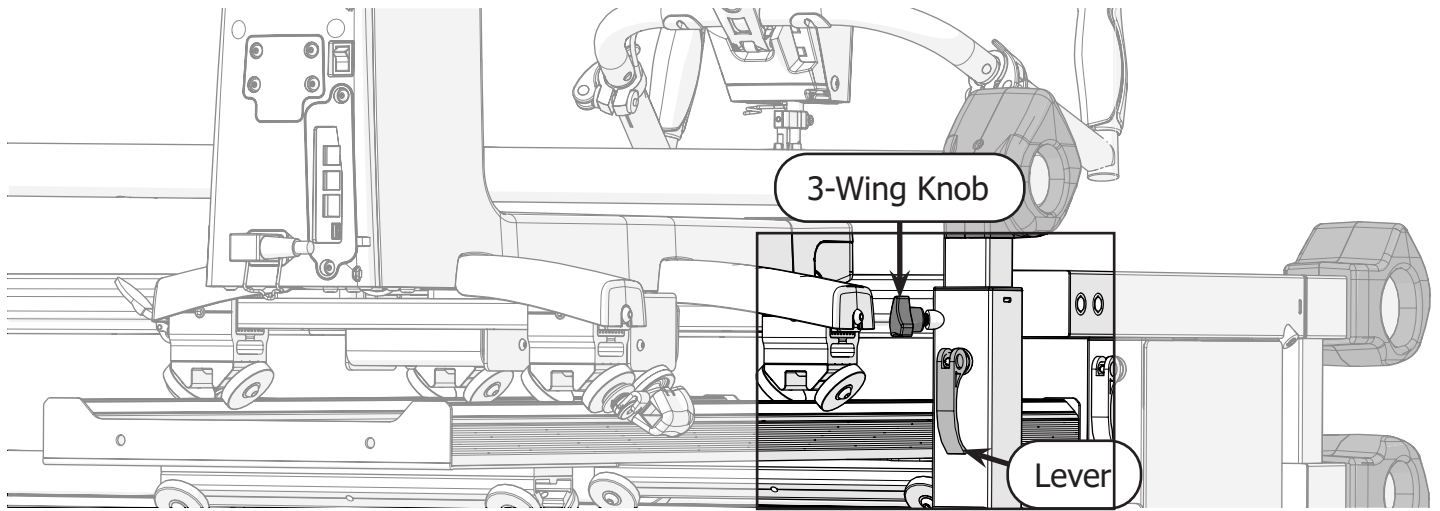


- 3 Slowly lower the take-up rail holder until the take-up rail is a finger's width of distance from the machine bed. This is about one-quarter inches.

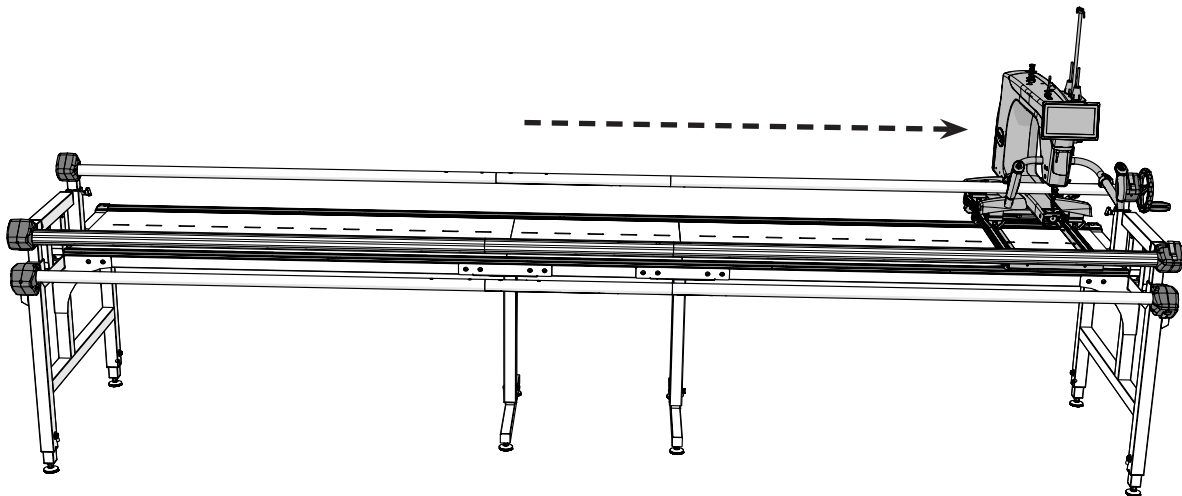


Task 13 - Positioning the Rails (continued)

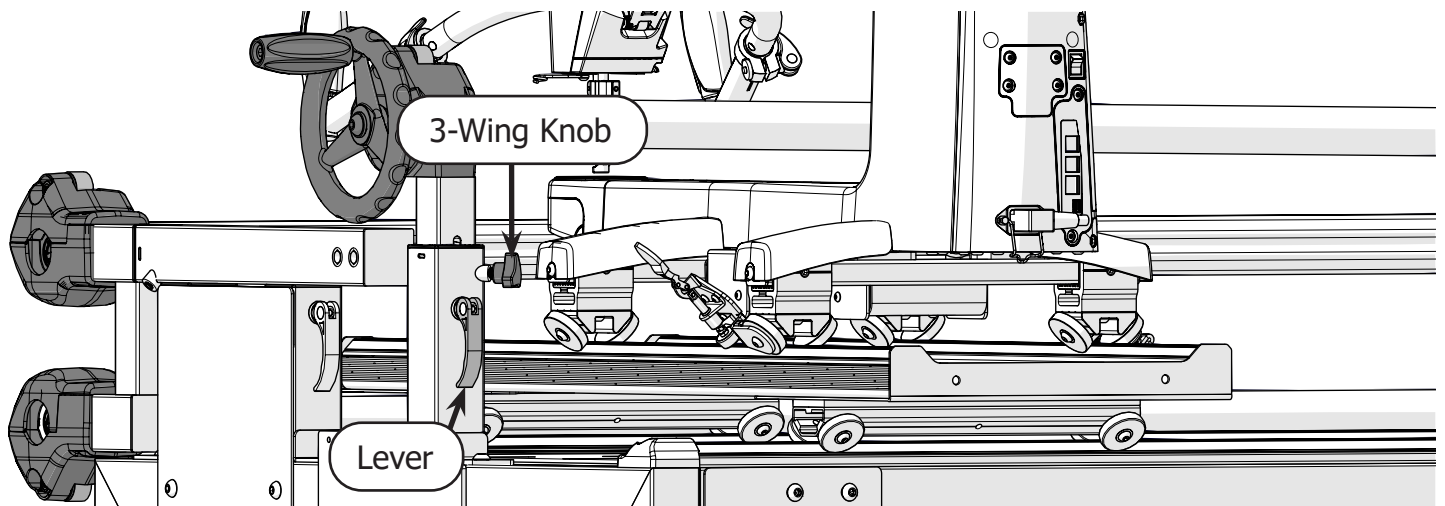
- 4 After setting the take-up rail holder height, close the **lever** and tighten down the **3-wing knob**.



- 5 Roll your machine over to the right side of the frame.

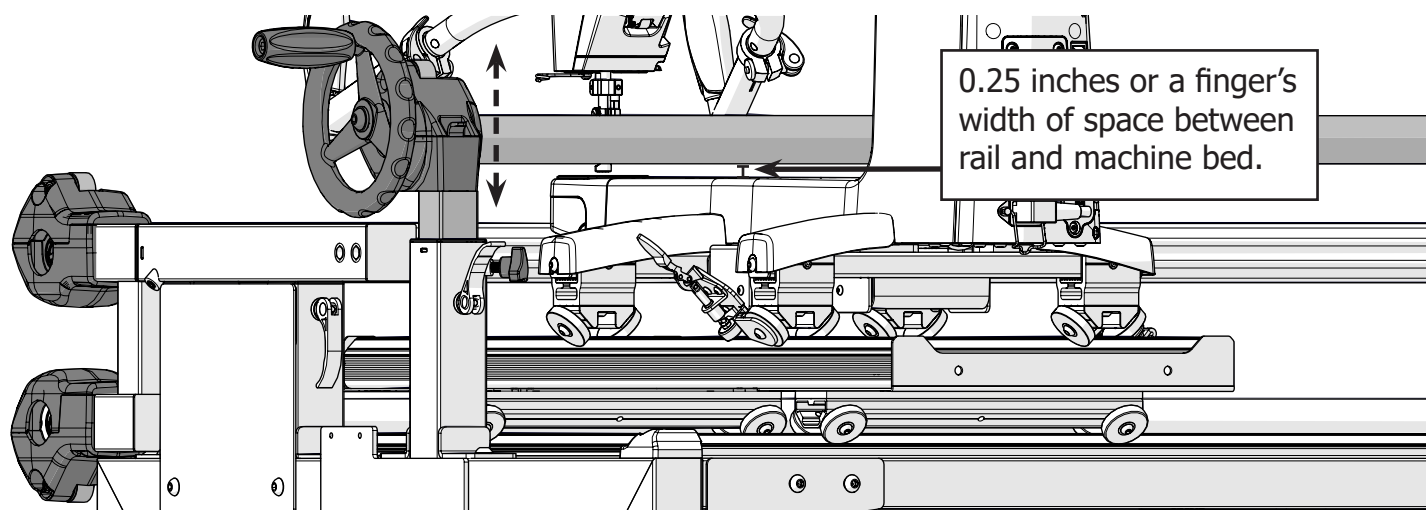


- 6 Loosen the **3-wing knob** on the right take-up rail holder and open the **lever**. **CAUTION:** Hold the rail up when opening the lever so the rail doesn't drop against your machine bed.

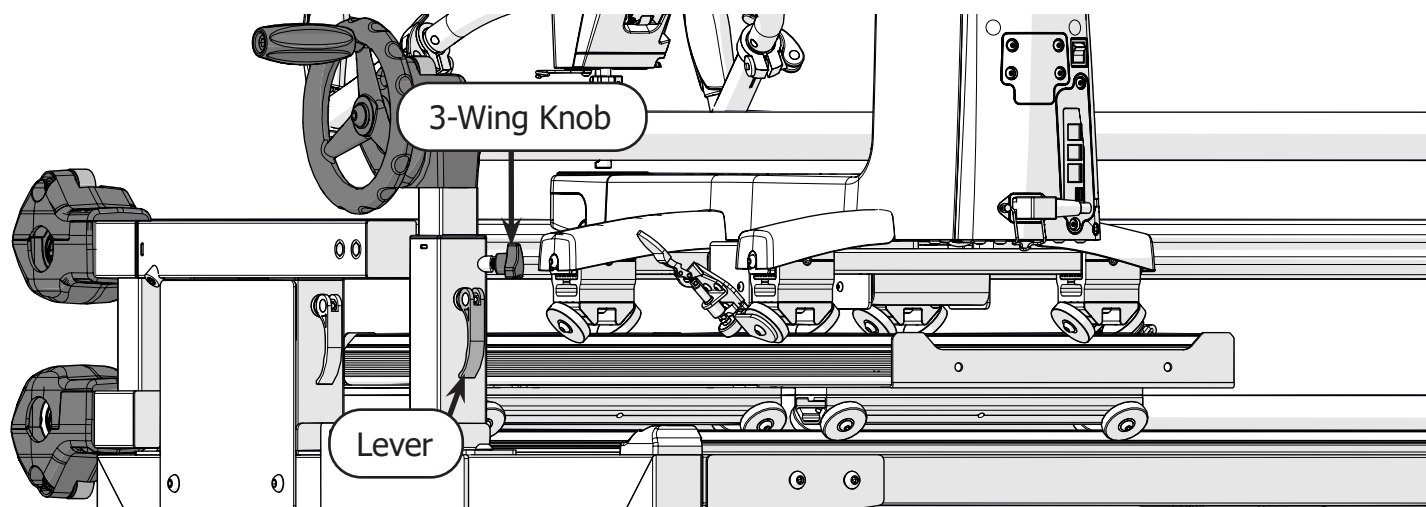


Task 13 - Positioning the Rails (continued)

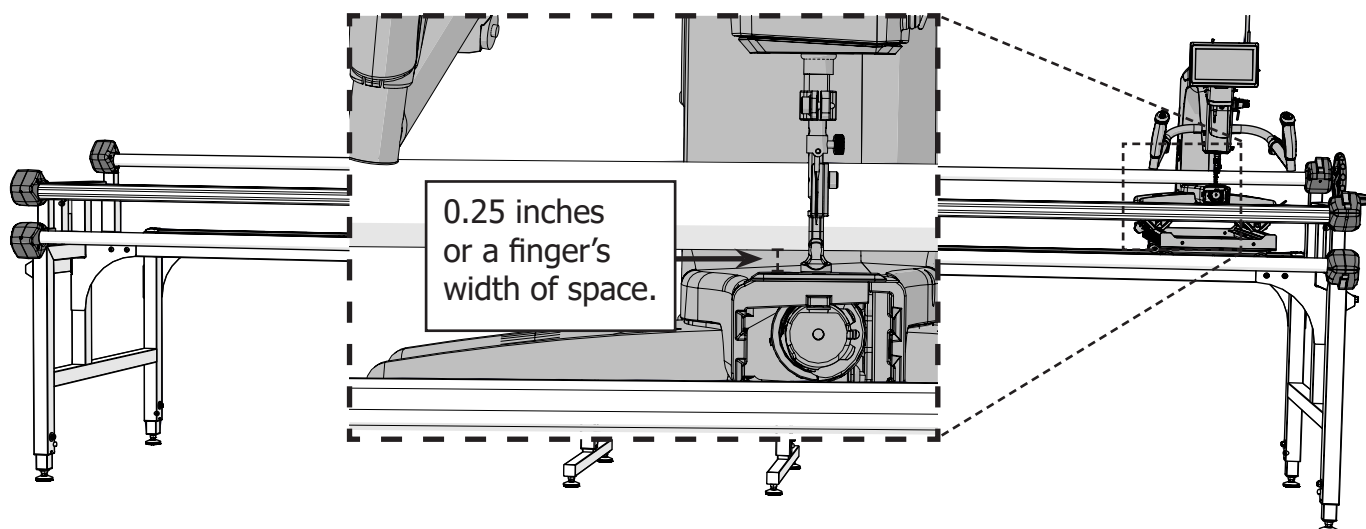
- 7 Slowly lower the take-up rail holder until the take-up rail is a finger's width of distance from the machine bed. This is about one-quarter inches.



- 8 After setting the take-up rail holder height, close the **lever** and tighten down the **3-wing knob**.

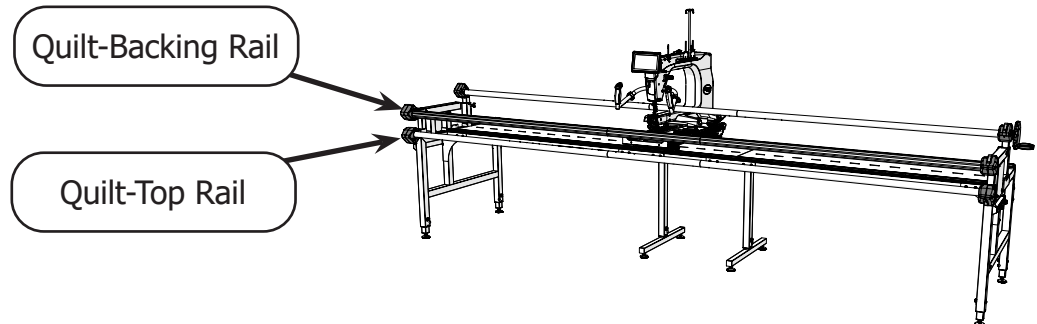


- 9 **Result:** the take-up rail is about a quarter-inch above the machine bed.



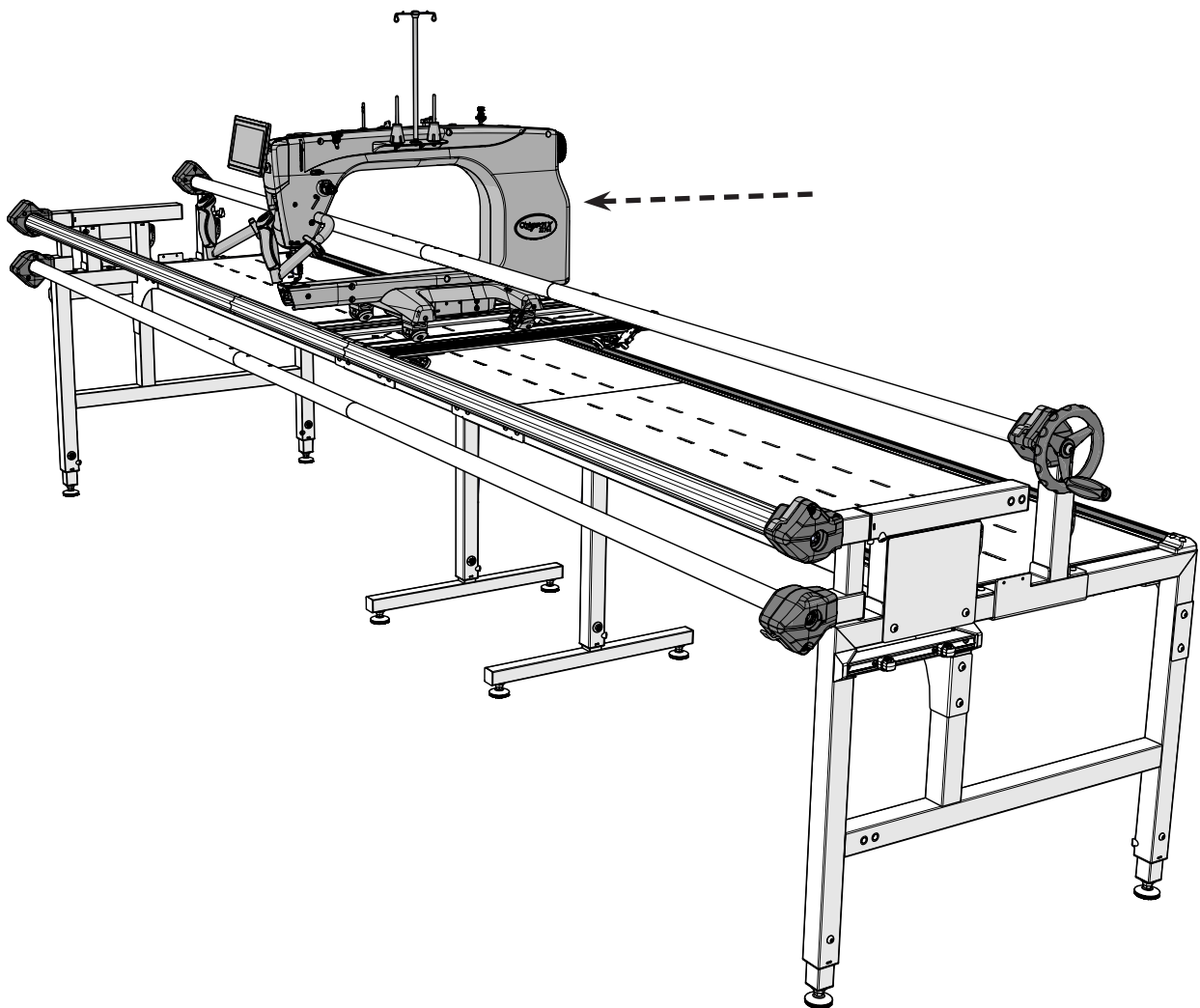
Quilt-Backing and Quilt-Top Rail Position Instructions

The front rails are adjusted according to the dimensions of your machine. Therefore, these rails will need to be adjusted whenever the machine is changed out or when accessories such as the ruler base alter the stroke of the machine.



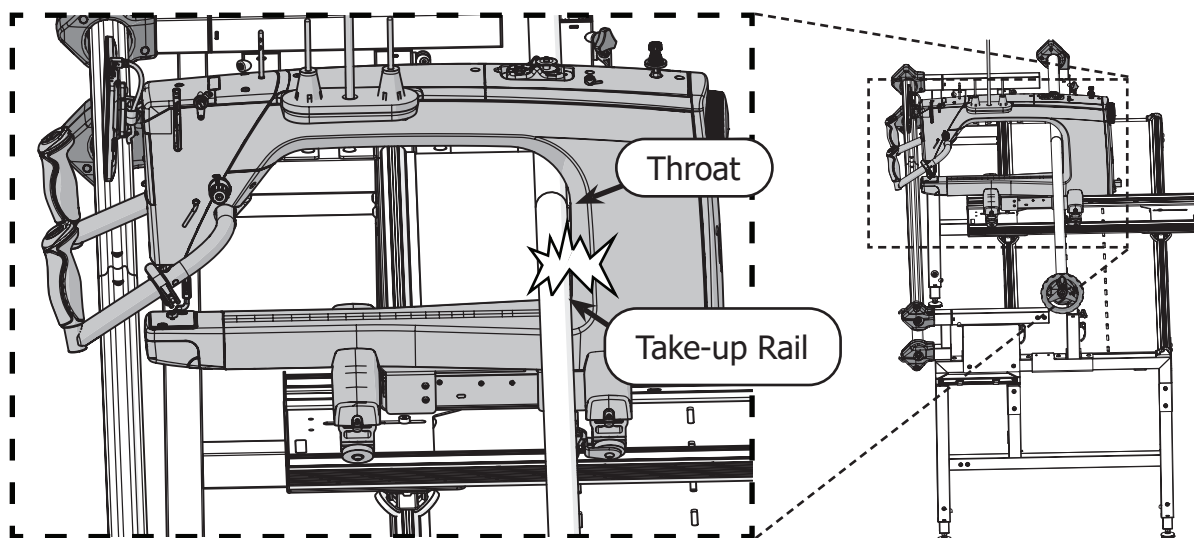
Take the following steps to adjust the front rails:

- 1 Test your machine's mobility on the frame by slowly moving the machine to the front. At some point your machine will collide with the frame.

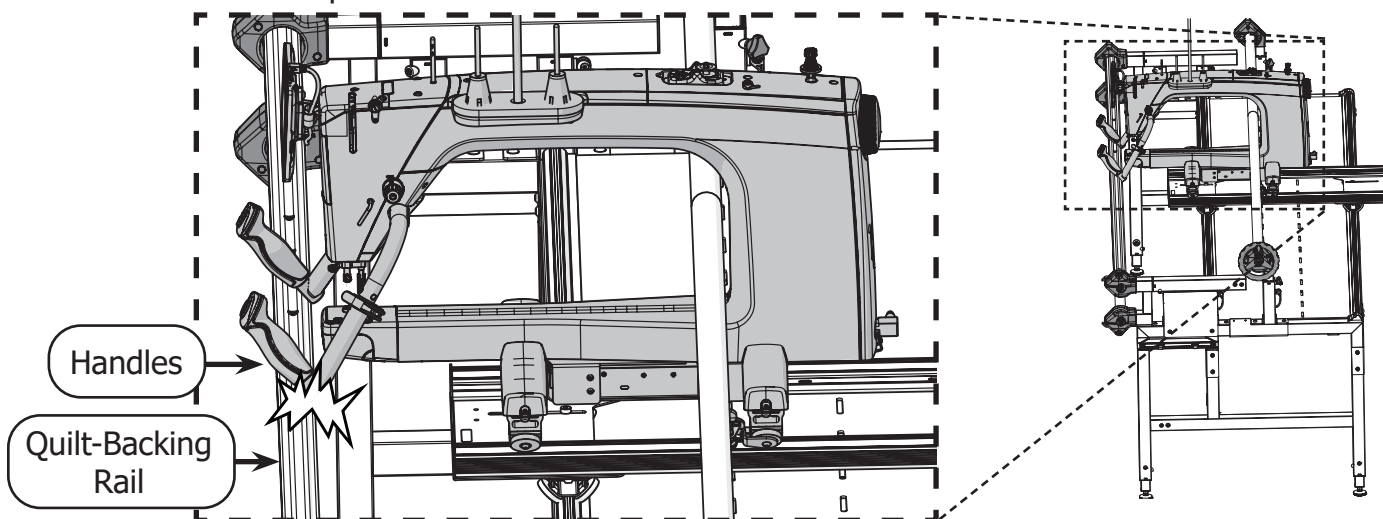


Task 13 - Positioning the Rails (continued)

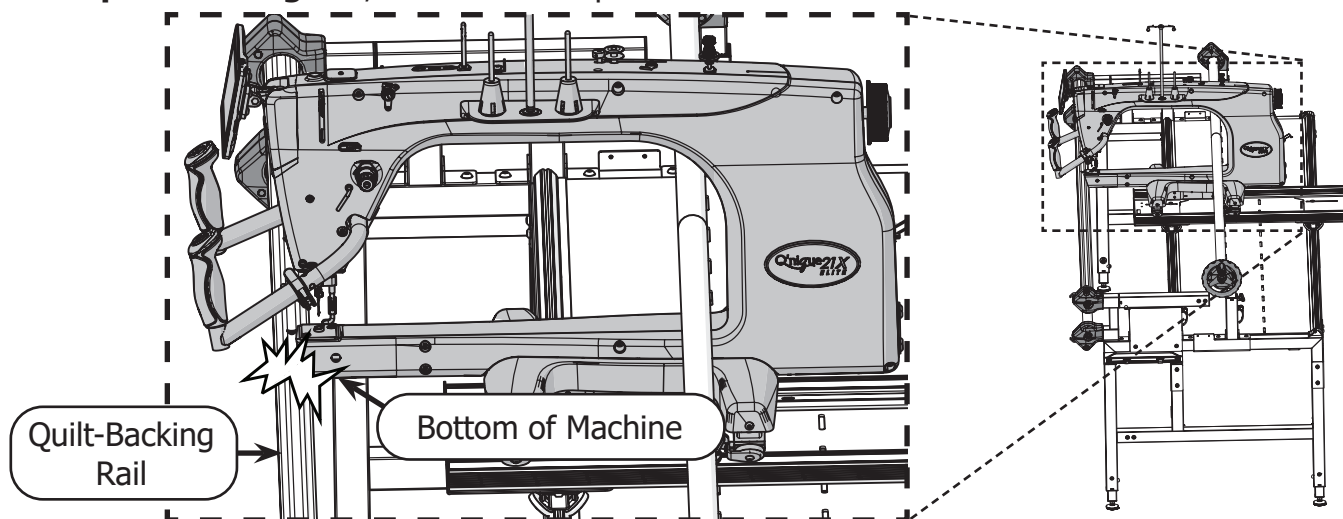
- If the **throat** of the machine hits the **take-up rail** first, skip to step 5 on page 70.



- If the machine **handles** hit the **quilt-backing rail**, raise your handlebars so they no longer hit and then repeat this test.

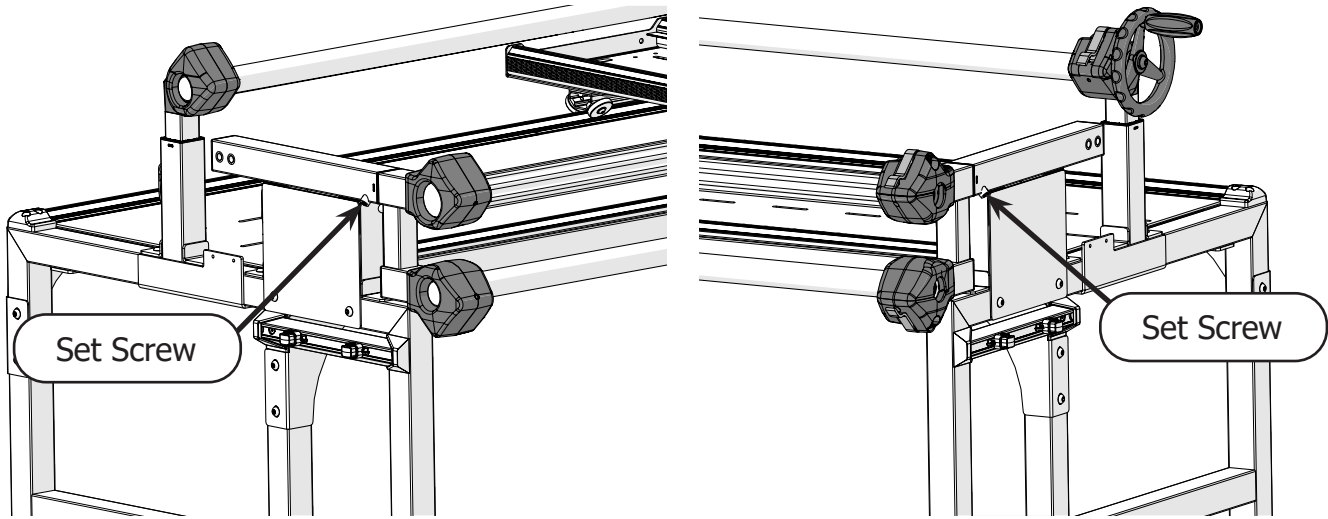


- If the **bottom of the machine** (or the accessory base plate if one is installed) hits the **quilt-backing rail**, continue to step 2.

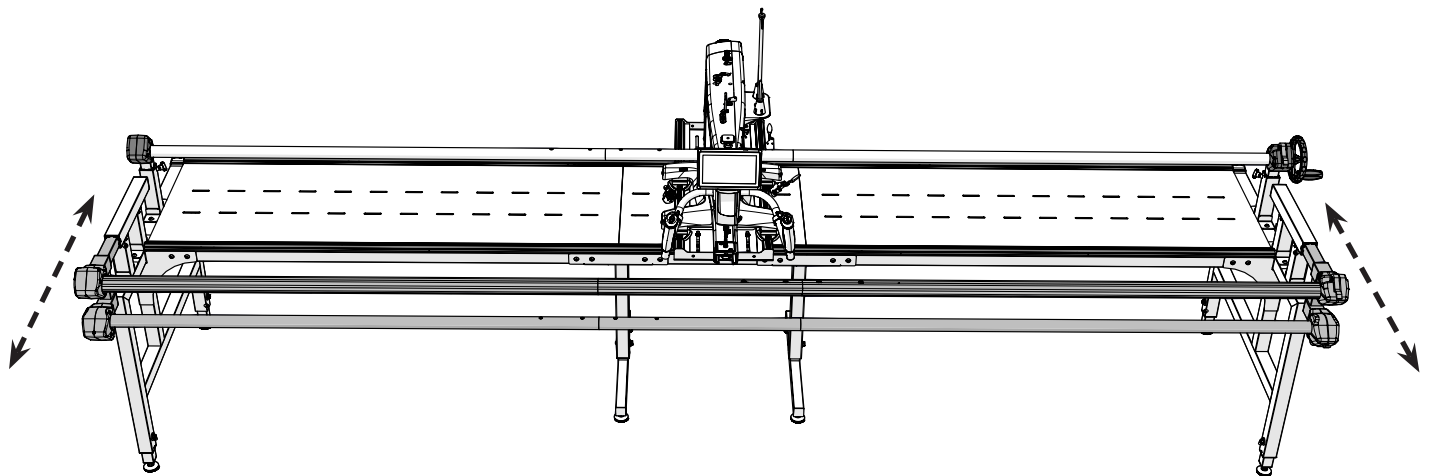


Task 13 - Positioning the Rails (continued)

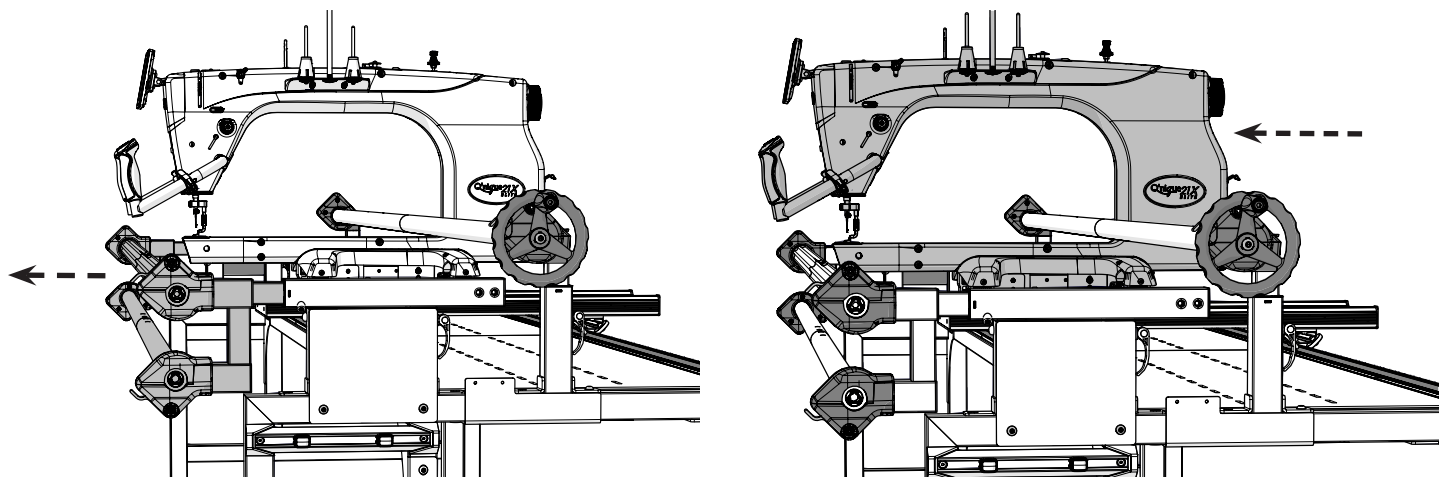
- 2 Loosen the **set screws** on the outside of the side rail assemblies using the 4 mm T-handle Allen wrench.



The front rails can now be pulled forward to accommodate the stroke length of your machine.

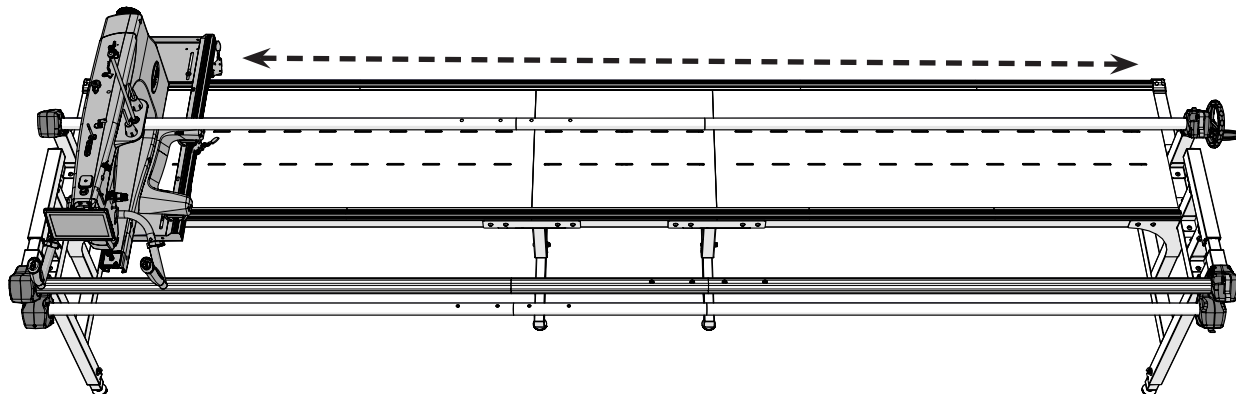


- 3 Pull the front rails out a few inches. Then pull the machine forward to test if it still hits the front rail. Repeat until the machine no longer collides with the front rail.



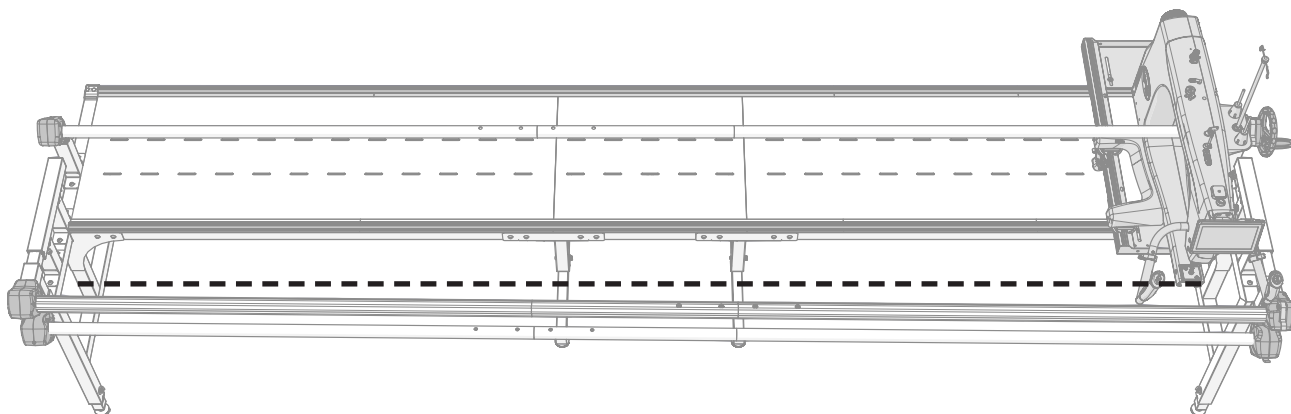
Task 13 - Positioning the Rails (continued)

- 4 Check that the front rail is square with the frame:
- Slide the machine all the way to the left, as far forward as it will go.

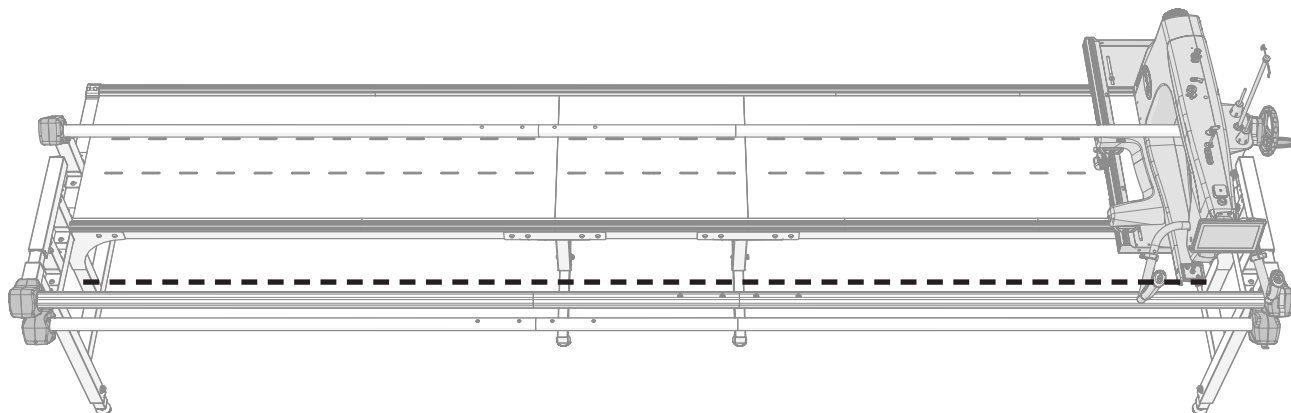


Tip: Close the channel lock on the machine so your machine stays in the frontmost position on the bottom carriage.

- Slowly move the machine to the other side. Watch the distance between the machine and the top front rail. It should stay about the same all the way across. Adjust either side of the front rails to correct if necessary.



Rail slants forward on one side.

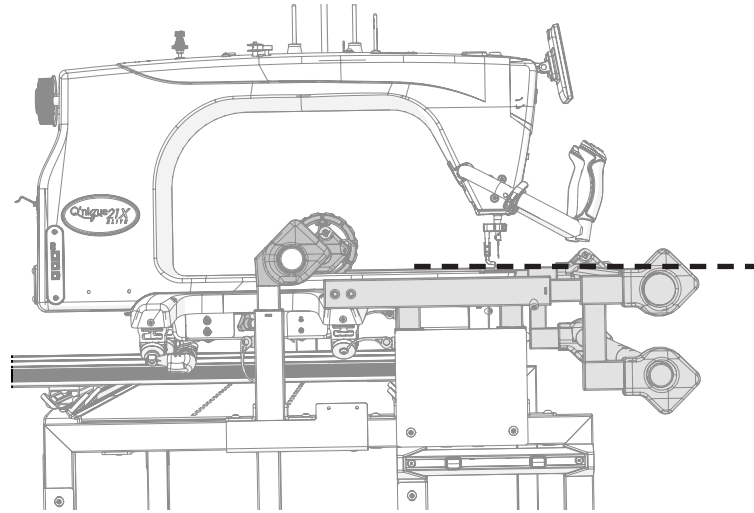


Rail is parallel with frame.

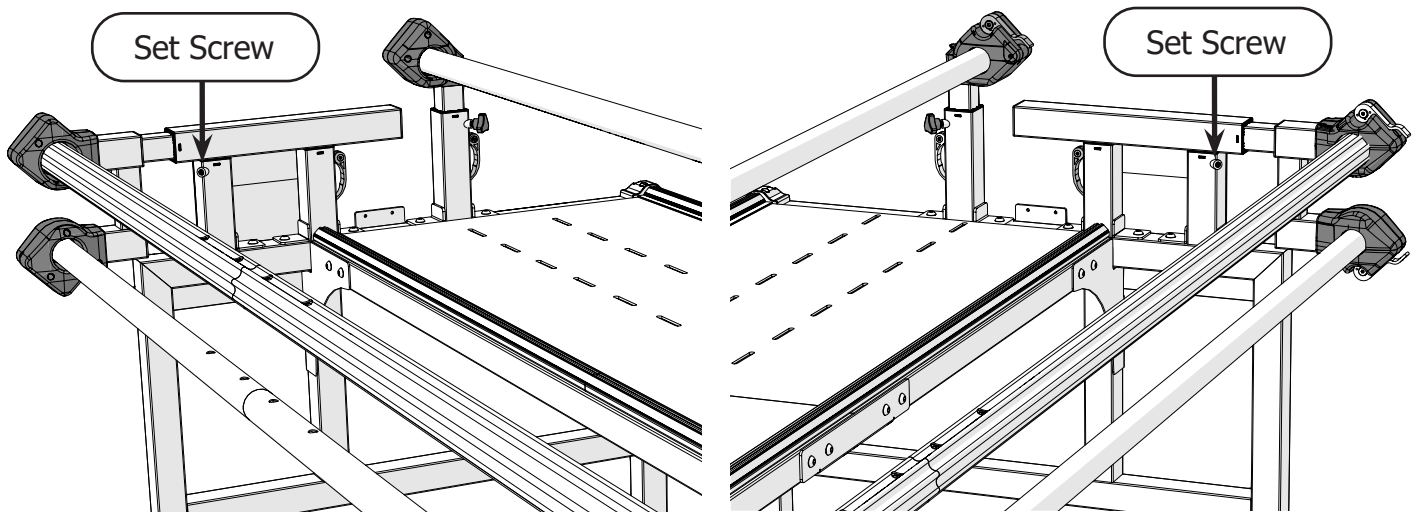


Task 13 - Positioning the Rails (continued)

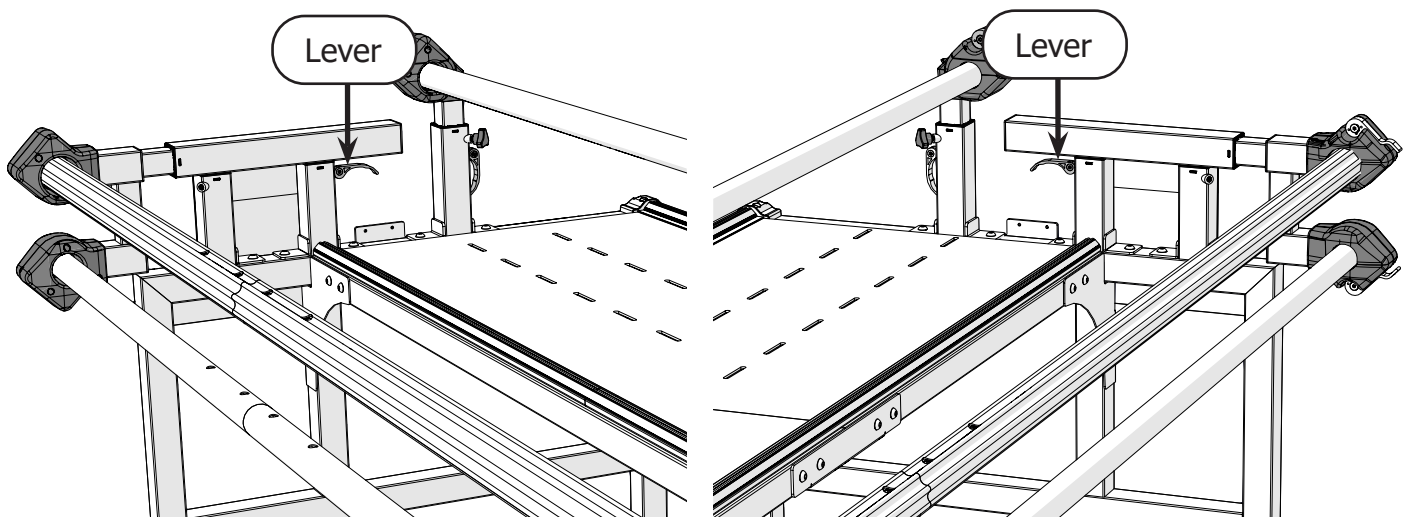
- 5 The height of the quilt-backing rail is critical for proper fabric tension and thread tension. The top of the rail should be level with the machine bed, as shown below.



To adjust the height of the front rails, loosen the **set screw** on the inside of each of the rail arms with the 4 mm T-handle Allen wrench.

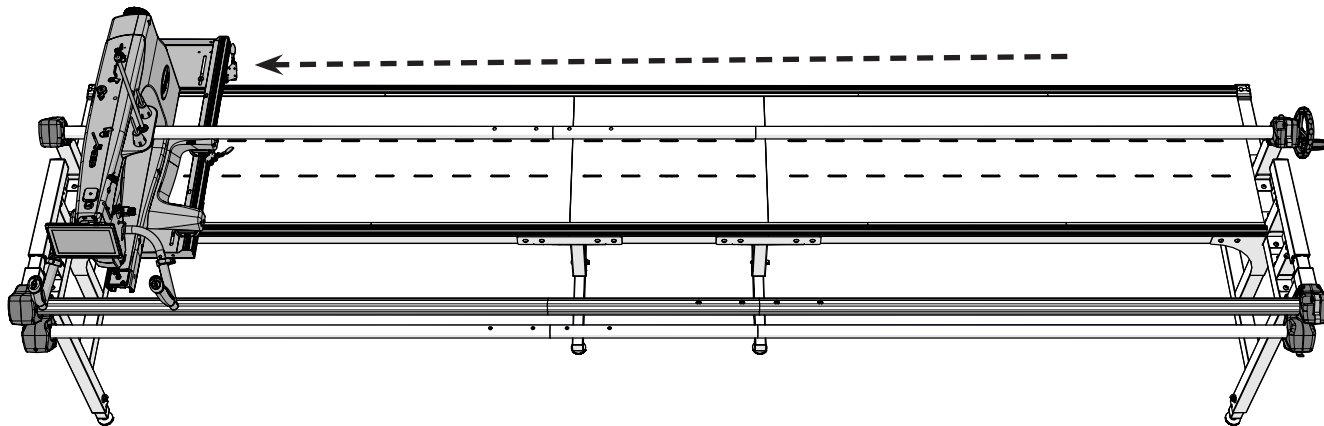


Then open the **levers** at the back of the rail arms.

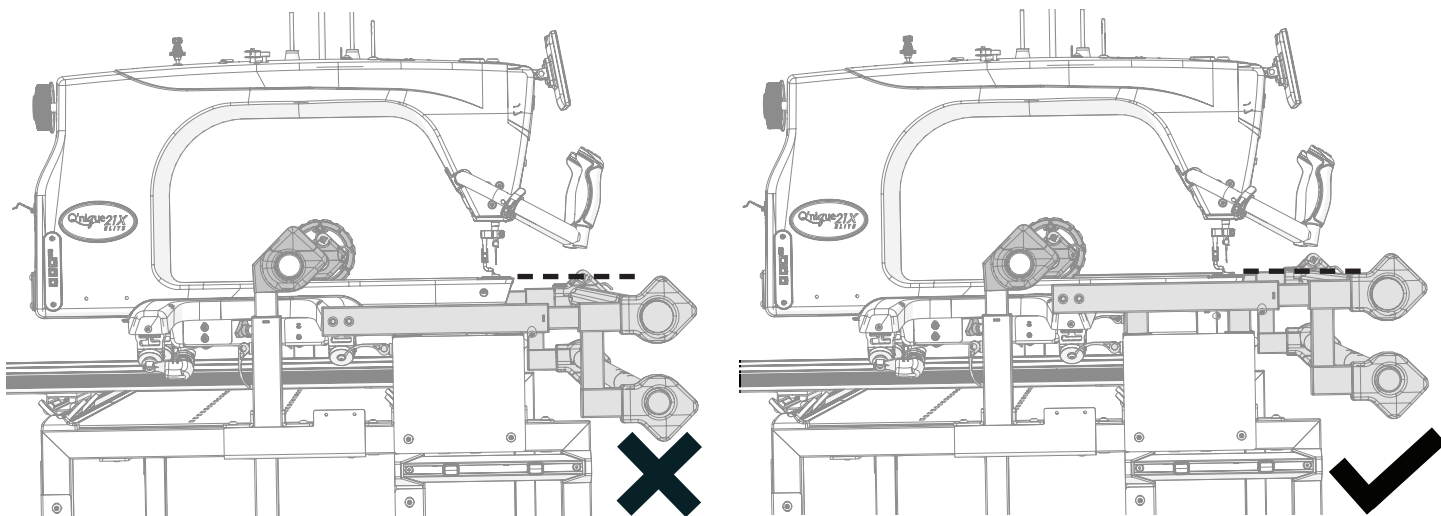


Task 13 - Positioning the Rails (continued)

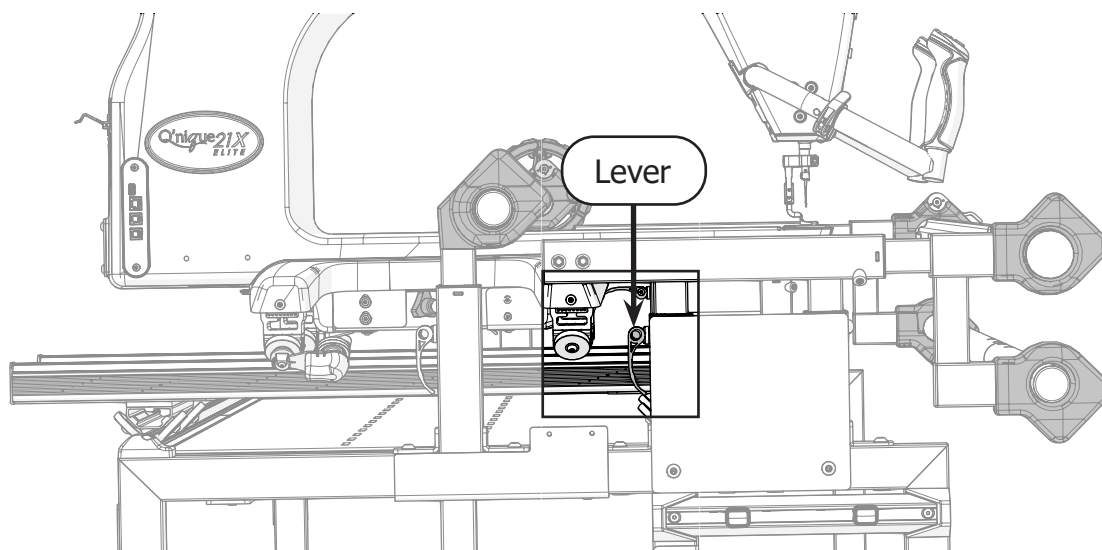
- 6 Slide the machine all the way to the left.



- 7 Raise the rail height so that the top of the quilt-backing rail is level with the machine bed.

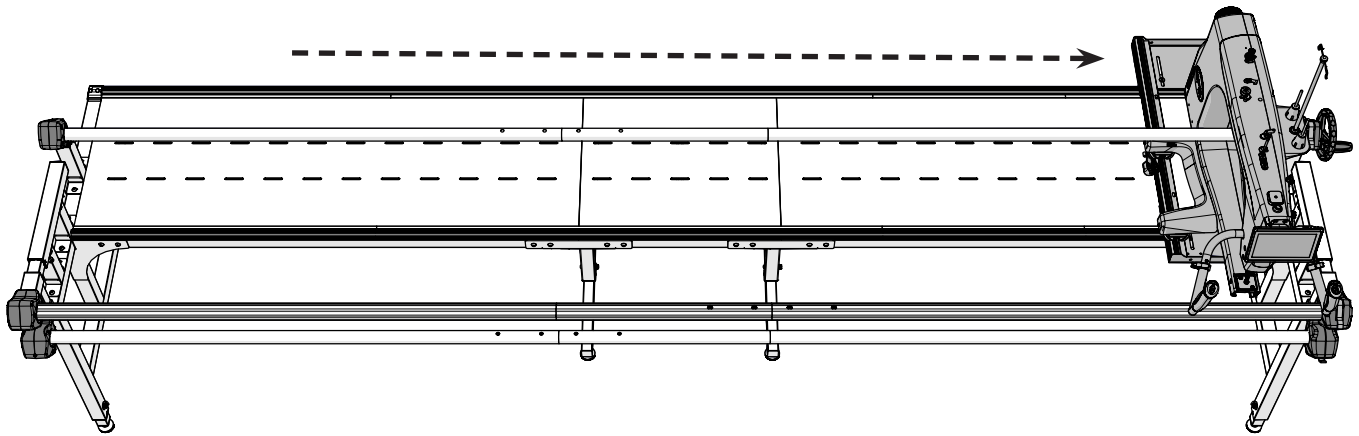


- 8 Close the **lever** once the height is set.

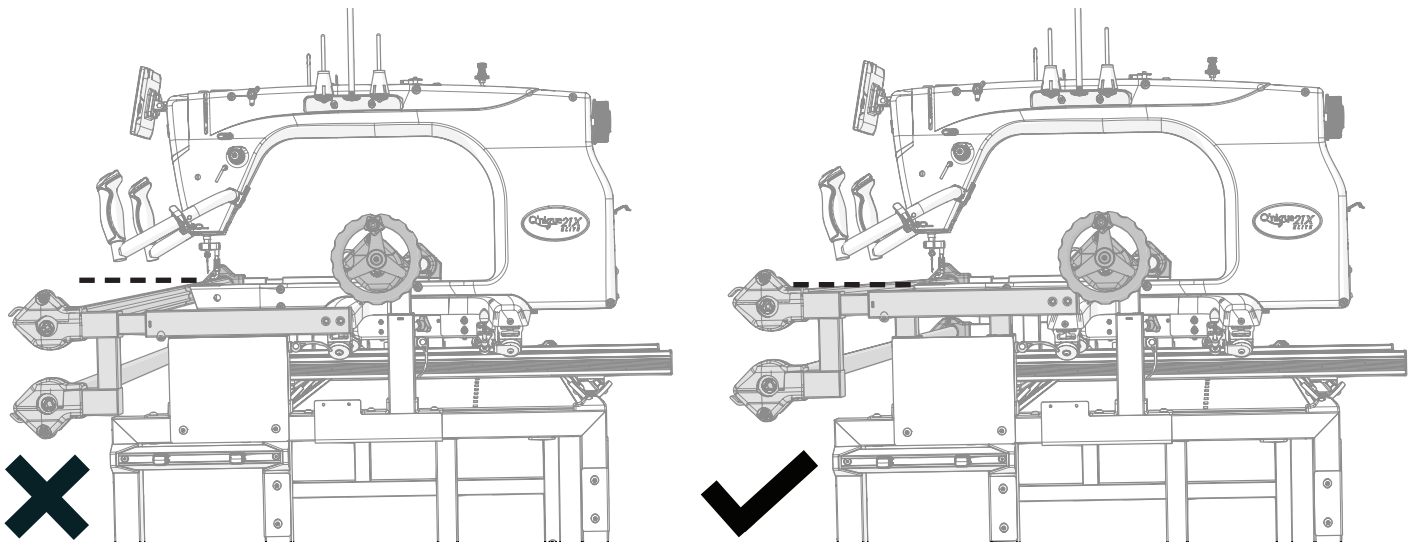


Task 13 - Positioning the Rails (continued)

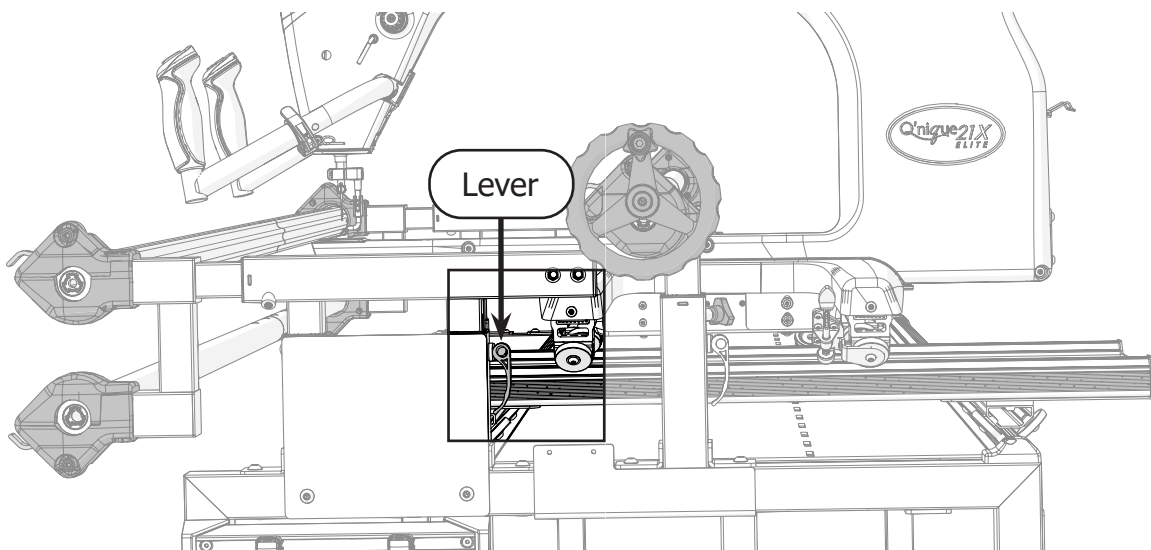
- 9 Slide the machine over to the right as far as it will go.



- 10 Raise the rail height so that the top of the quilt-backing rail is level with the machine bed.

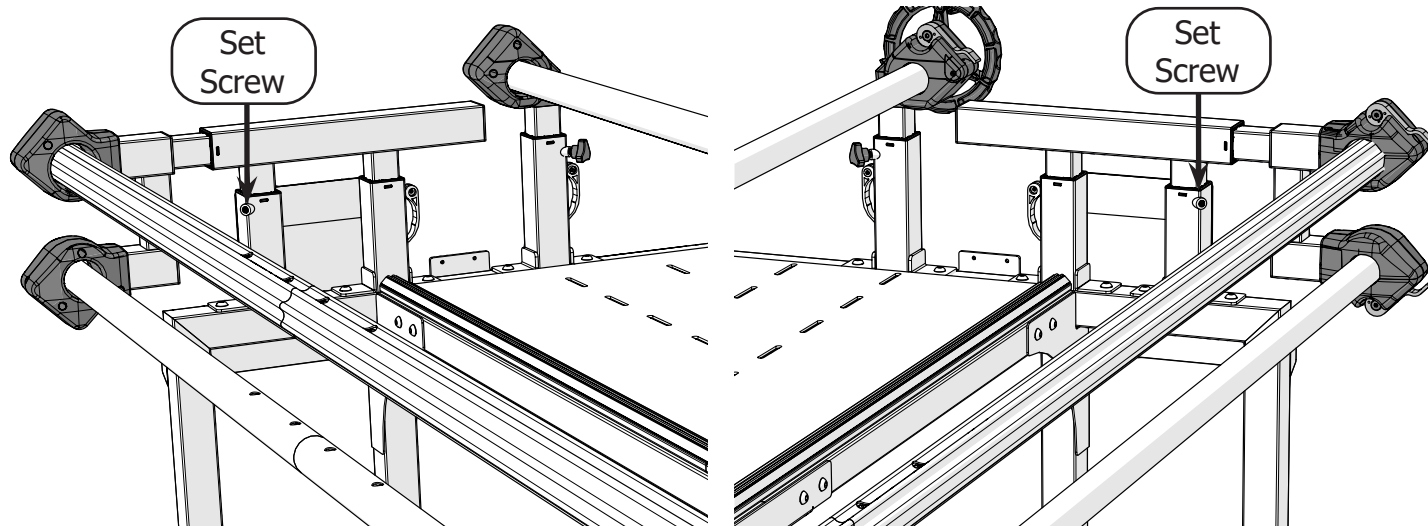


- 11 Close the lever once the height is set.

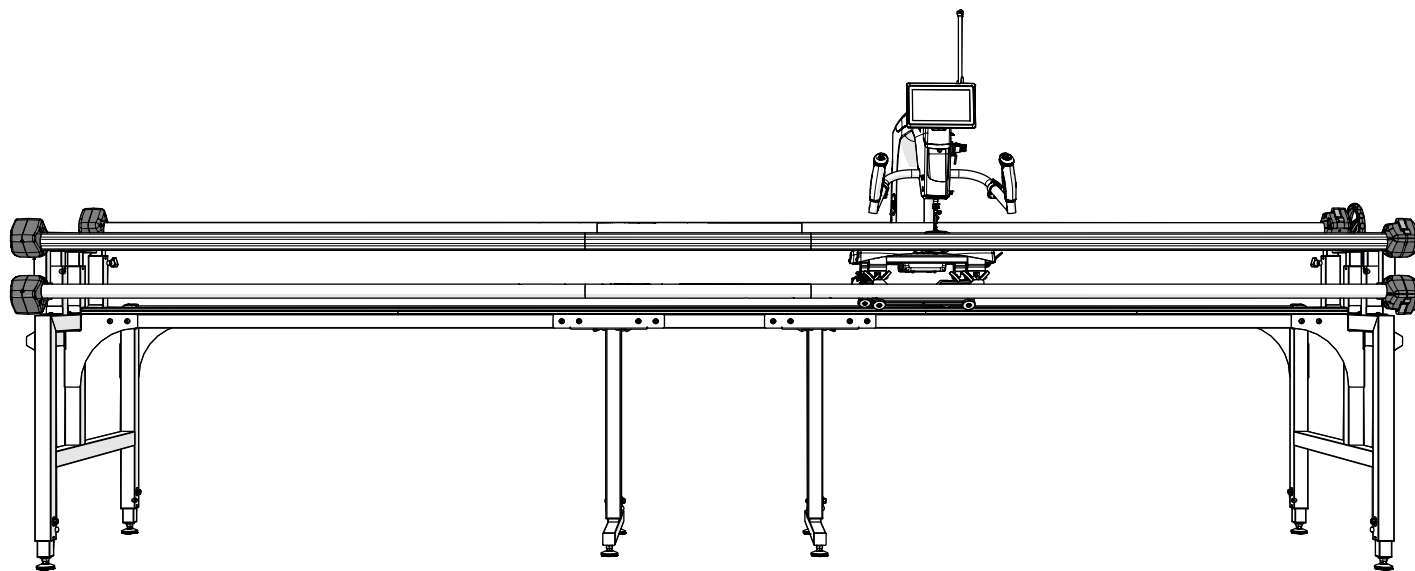


Task 13 - Positioning the Rails (continued)

- 12 Tighten each of the **set screws** with the 4 mm T-handle Allen wrench.



- 13 **Result:** The machine has full stroke of the frame without colliding with the front rails, and the quilt-backing rail height is level with the bed of the machine for optimal quilt and thread tension.



Task 14 - Installing the Bungee Clamps

Parts & Tools Needed:

Bungee Clamps
(4 pack)

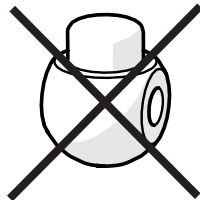


(Box 1: Hardware Box)

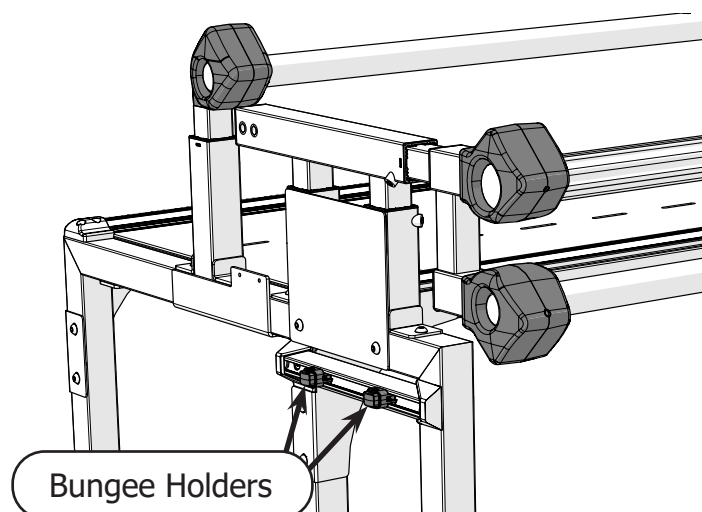
Instructions

The bungee clamps hold the sides of your quilt smooth and taut while you're quilting. Take the following steps to install the bungee clamps.

- 1 The bungee stops that come with the bungees will not be needed. They can be stored with your packaging materials or discarded.

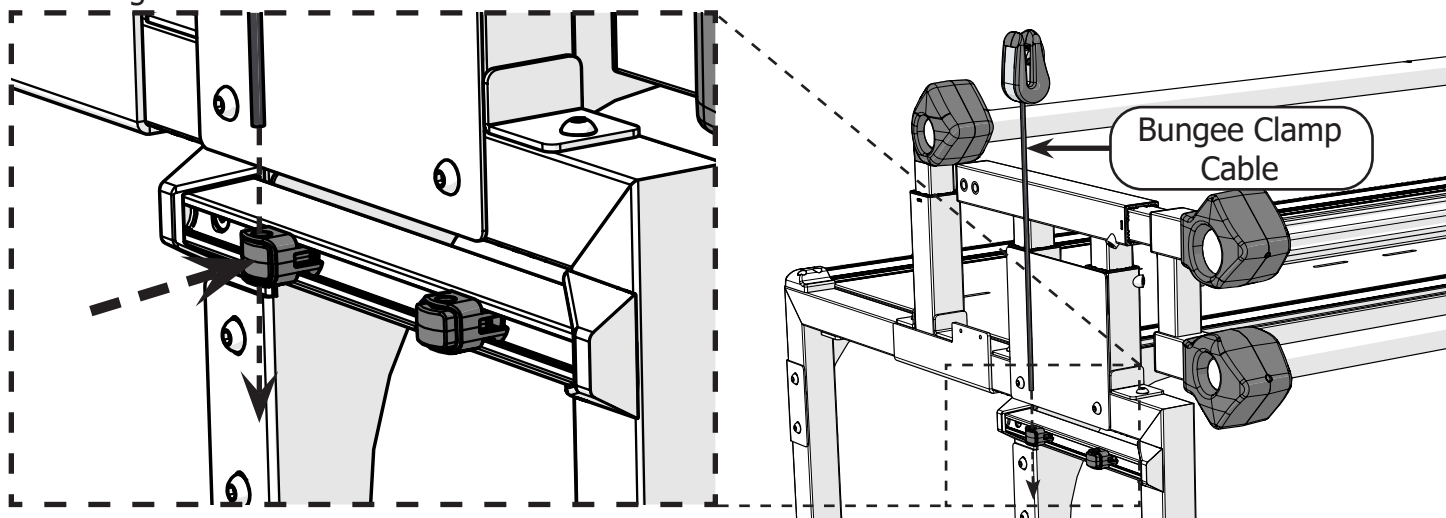


- 2 Locate the **bungee holders** on the side of the frame.

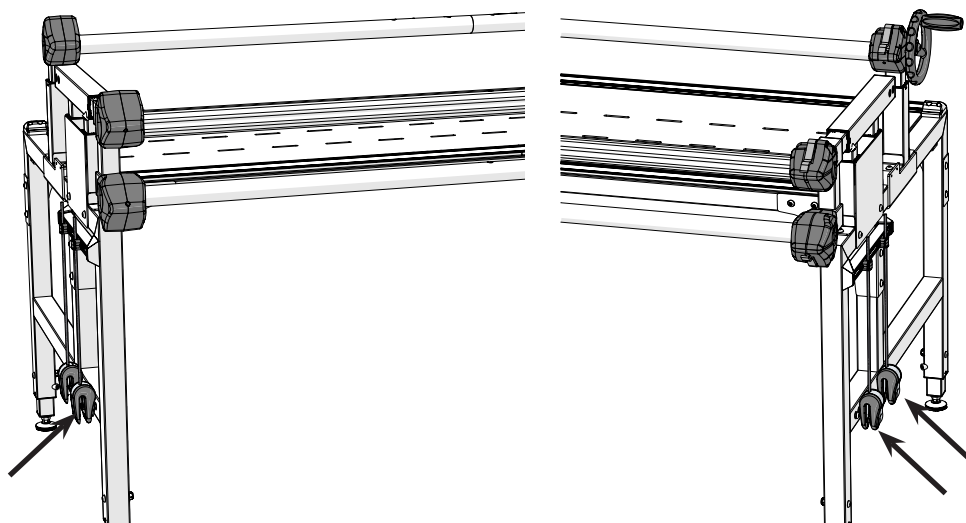


Task 14 - Installing the Bungee Clamps (continued)

- 3 Press in one of the bungee holders to hold it open. Slide the **bungee clamp cable** into the bungee holder.



- 4 Repeat steps 1-3 with the other three bungee clamps in the other three bungee holders.



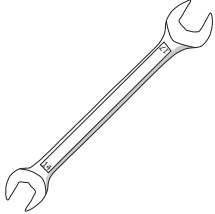
- 5 **Result:** The bungee cables have been installed and can be used to stabilize and smooth out the edges of the quilt.

Task 15 - Leveling the Frame

Tip: For the best quilting experience in the future, test and re-level your frame every six months and any time the frame is moved.

Parts & Tools Needed:

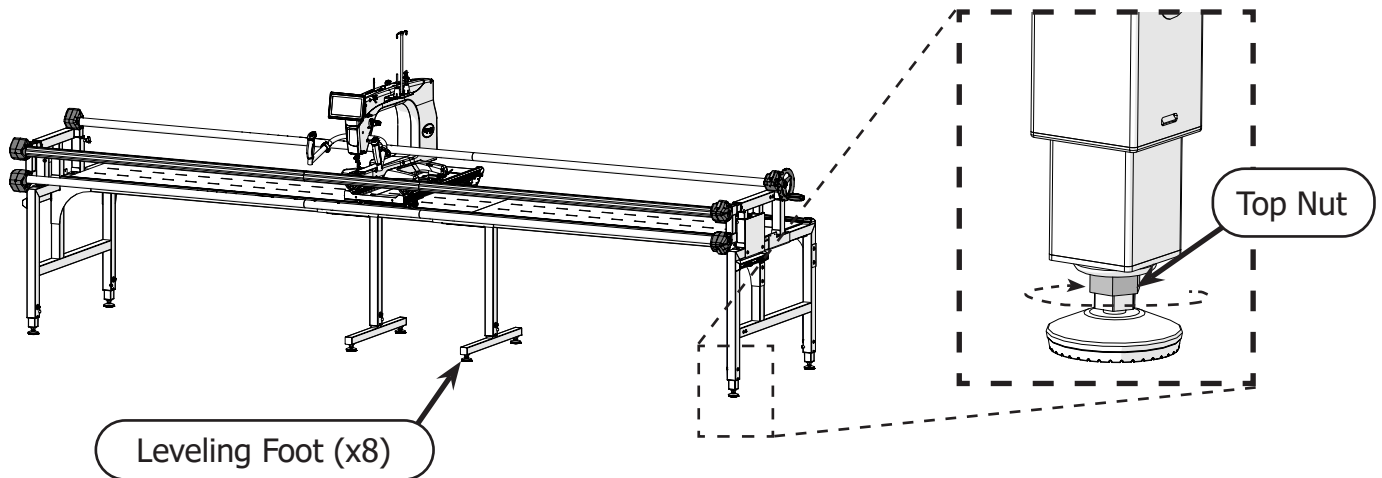
Open-End Wrench
14 mm and 17 mm



Instructions

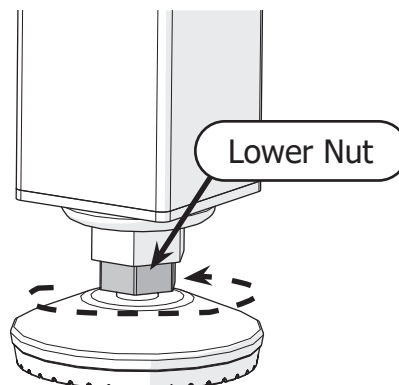
Not all floors are even, and you don't want your machine running away from you while you're quilting! Take the following steps to level your frame:

- 1 Begin by lowering the six **leveling feet** of the frame: Loosen the **top nut** over the leveling foot with the 17 mm open-end wrench until it presses up against the smaller nut underneath.



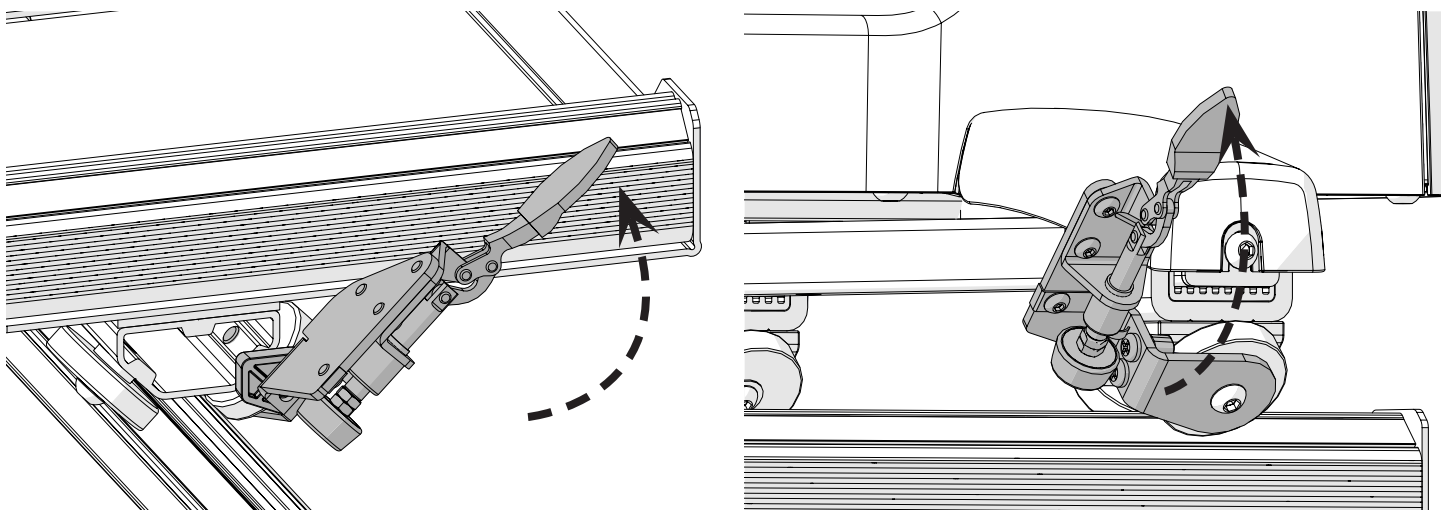
Then switch to the 14 mm end of the wrench and tighten the **lower nut** as far as it will go. Both nuts will butt up against the leg.

Note: Leveling feet on newly purchased frames may already be set to the lowest position.



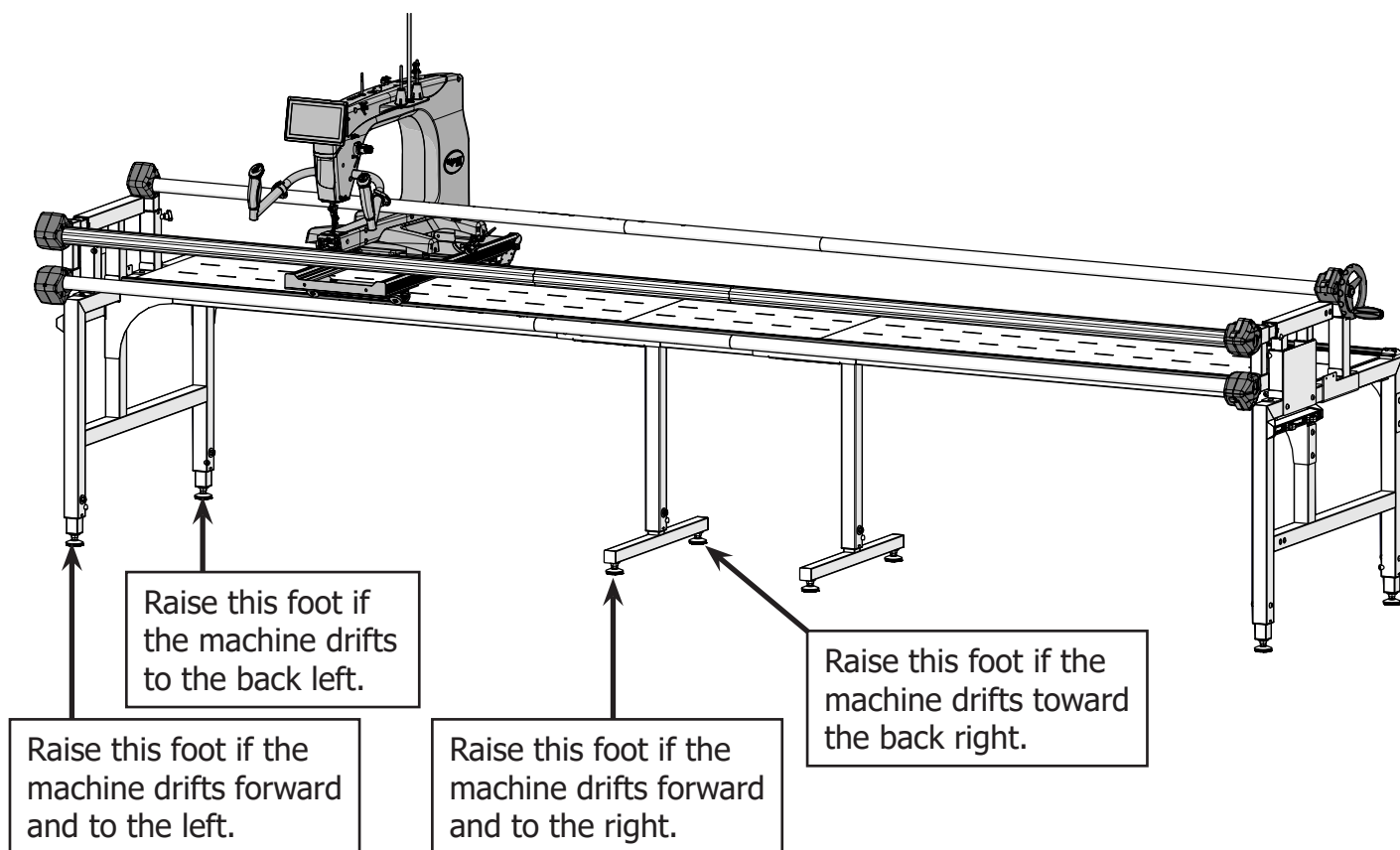
Task 15 - Leveling the Frame (continued)

- 2 After adjusting the leveling feet, make sure both channel locks are open so the bottom carriage and machine (or top plate) can move freely.



- 3 Test how level the frame is: bring the machine to the left side of the frame, toward the center, and gently release it. If the machine drifts toward any of the feet, that foot is too low and needs to be raised:

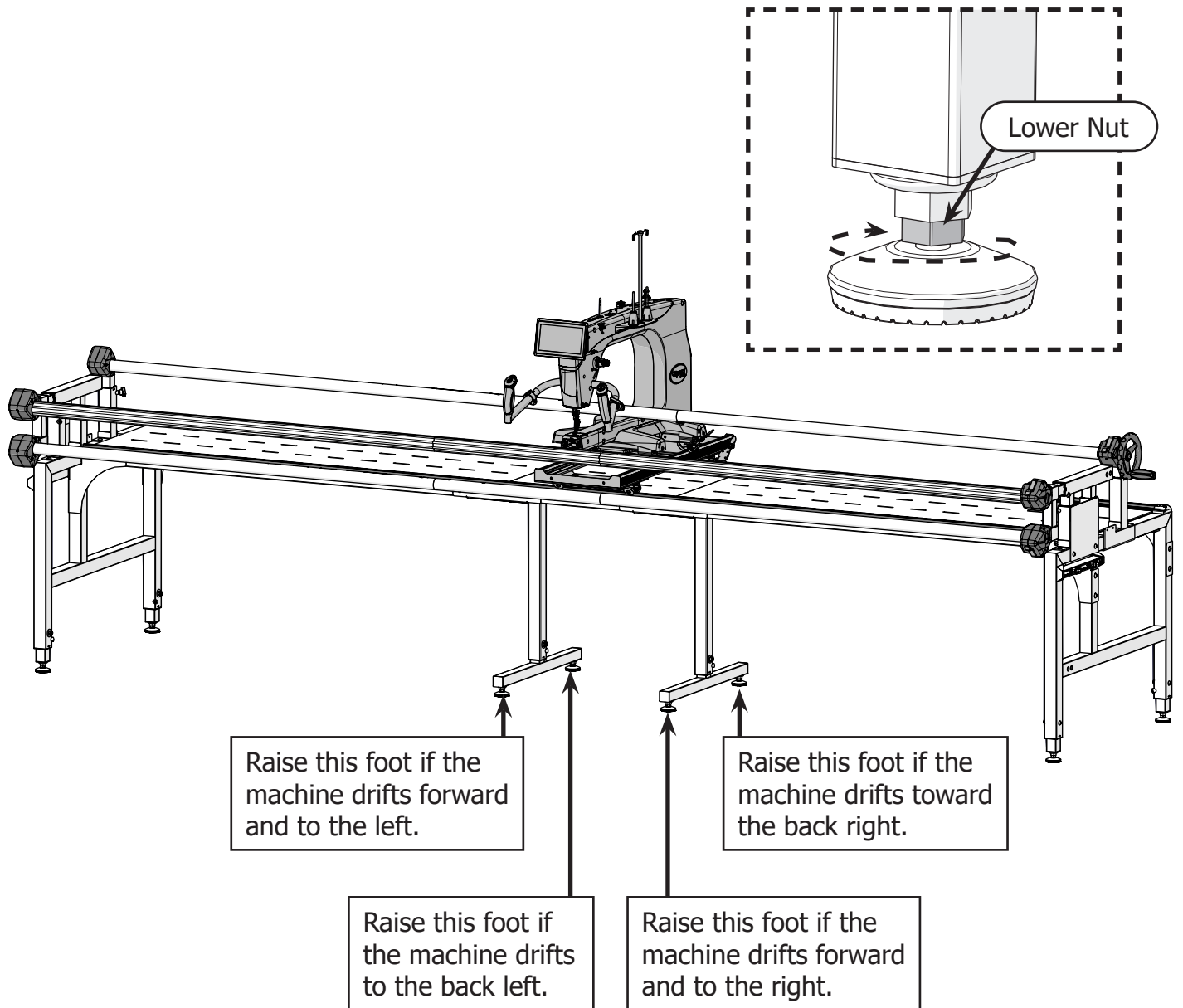
- Raise a foot by turning the bottom nut clockwise in slow increments. Re-test frequently while making adjustments.



Note: Due to the weight of the machine, some slight movement is normal. The goal is to prevent the machine from rolling across the frame.

Task 15 - Leveling the Frame (continued)

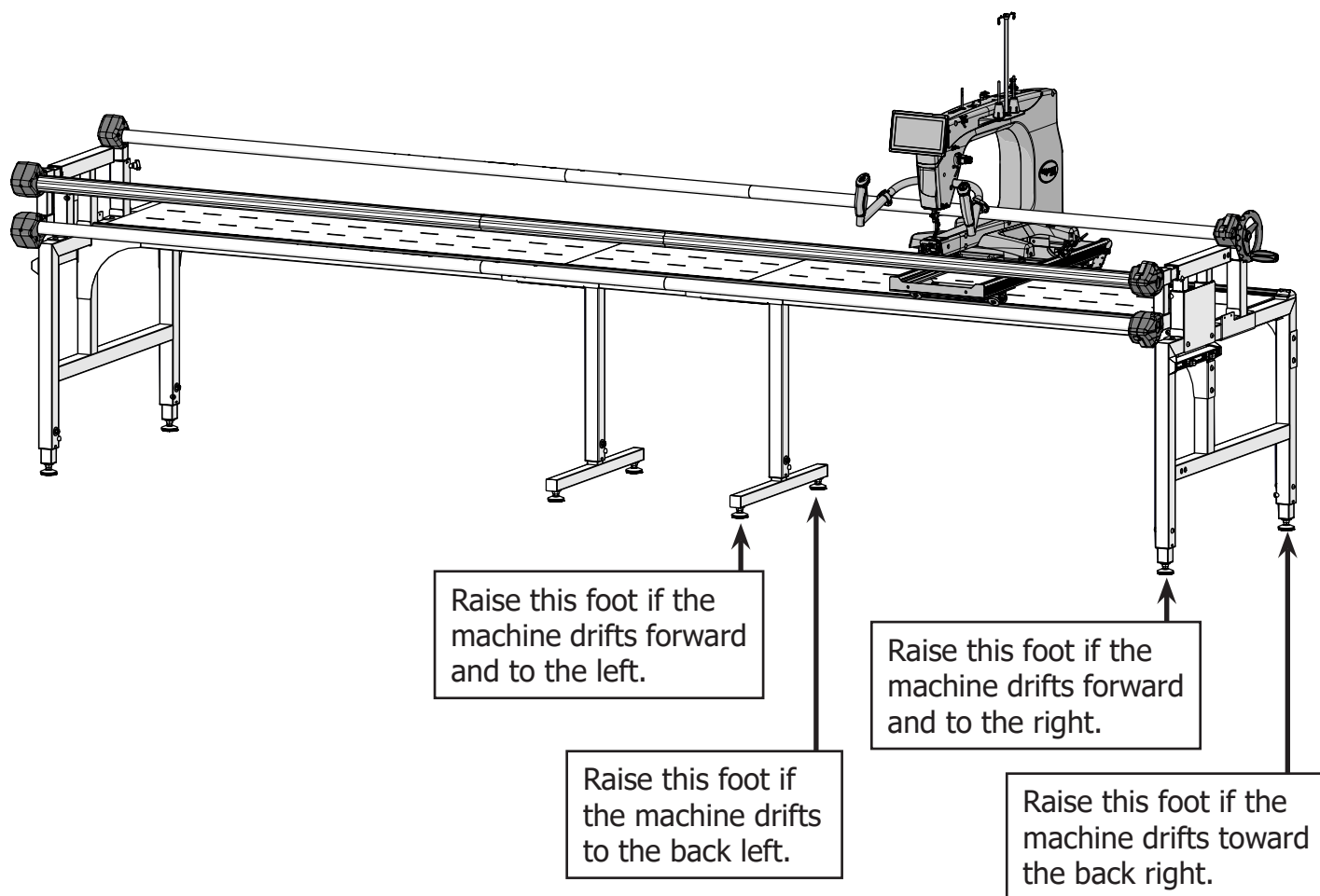
- 4 Once the machine no longer drifts toward any of the feet on the left side of the frame, move the machine to the middle of the frame and repeat the test. Remember to turn the lower nut in small increments and re-test frequently.
- Raise a foot by turning the bottom nut clockwise in slow increments with the 14 mm wrench. Re-test frequently while making adjustments.



- If you adjust the feet on the left middle legs, repeat step 3 and re-test the left side.

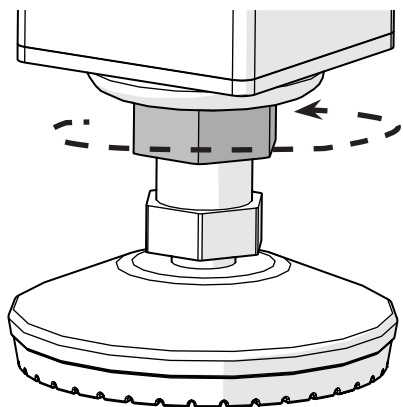
Task 15 - Leveling the Frame (continued)

- 5 Once the machine no longer drifts toward any of the feet on the middle of the frame, move the machine to the right side of the frame and repeat the test. Remember to turn the lower nut in small increments and re-test frequently.



- If you adjust the feet on the left middle legs, repeat step 4 and re-test the middle of the table.

- 6 When you are satisfied with the leveling of the frame, tighten the top nut against each of the six legs. This locks the leveling feet height in place.



- 7 **Result:** The frame is level and the machine will not roll away while quilting.

Congratulations! You have completed Part Three of the assembly instructions for your frame. Before continuing to Part Four of these instructions, complete any of the following that apply to you:

- [QuiltMotion Part Three](#)

Part Four

Progress Checkpoint

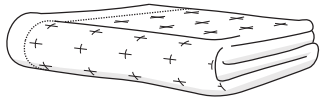
Have you:

- Completed Part Three of QuiltMotion (optional)?

Task 16 - Installing the Cloth Leader Velcro

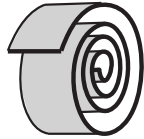
Parts & Tools Needed:

Start Right Cloth
Leader Set



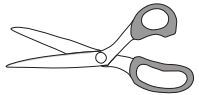
(Box 4: Inner Box)

Velcro Tape (x3)



(Found in Start Right
Cloth Leader Set)

Note: These instructions are illustrated using the 8 foot version of the Evolution Elite frame. These instructions still apply to the 12 foot Evolution Elite frame.



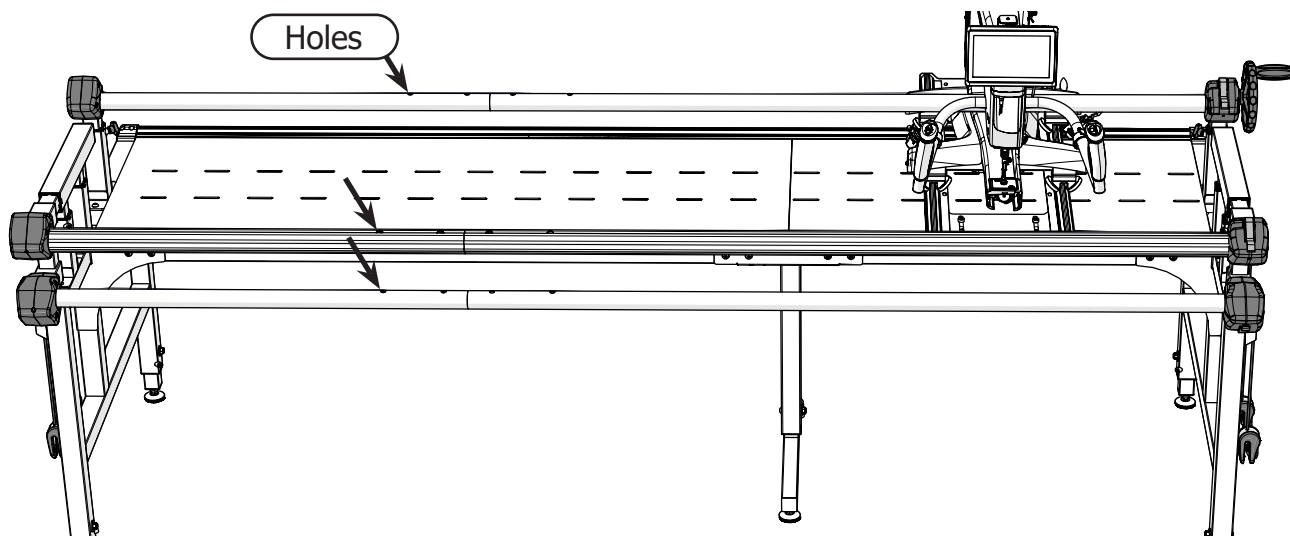
Scissors
(not included)

Instructions

The cloth leaders help hold and position your quilt onto the frame. The cloth leader Velcro allows the cloth leaders to be quickly attached to the frame and removed as needed.

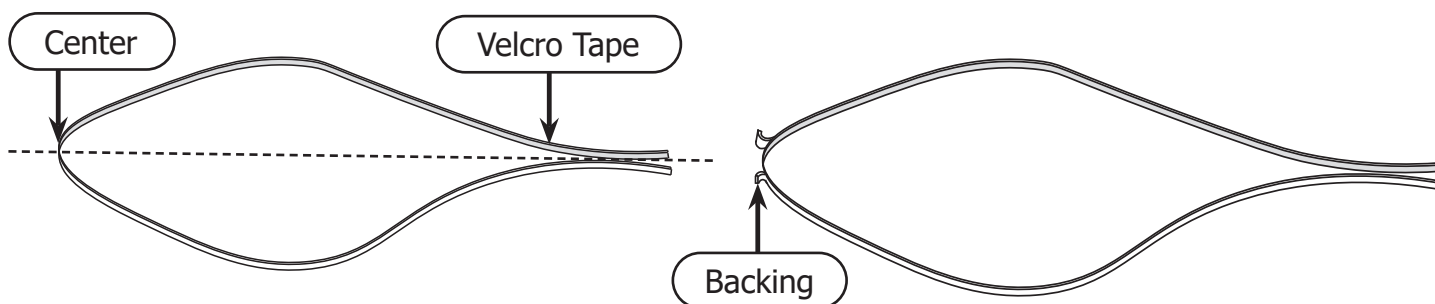
Take the following steps to install the cloth leader Velcro:

- 1 Turn all three of the frame's rails so that four **holes** point upward.

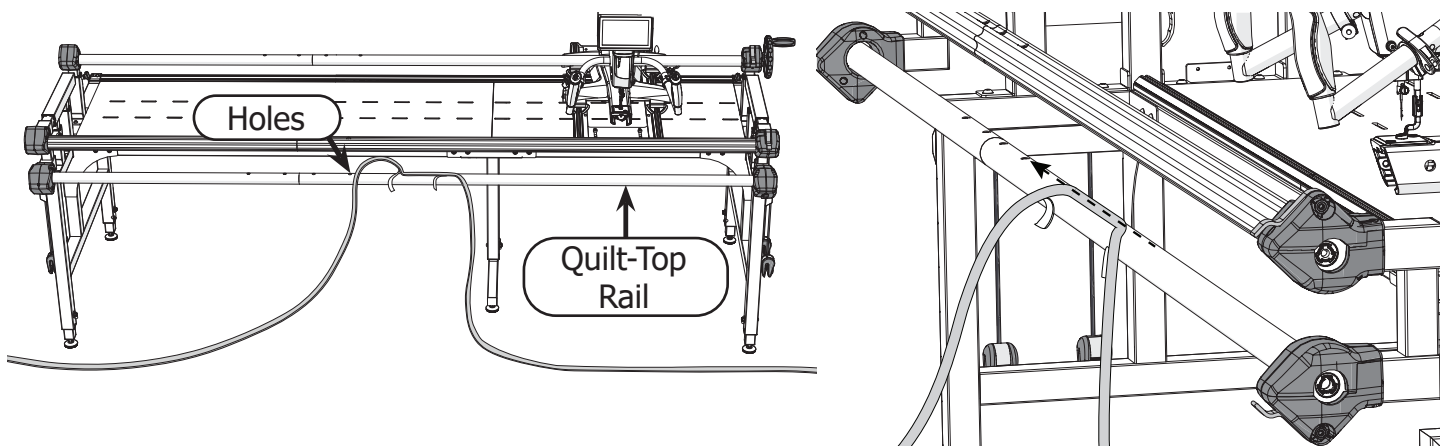


Task 16 - Installing the Cloth Leader Velcro (continued)

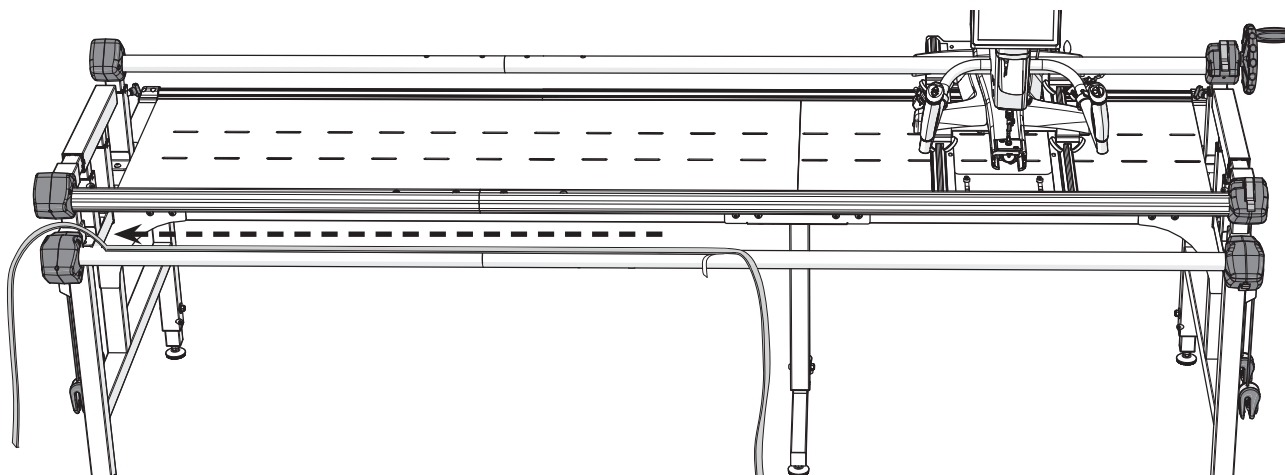
- 2 Unroll one of the **Velcro tape** rolls and fold it in half to find the **center**. Peel back an inch or two of **backing** from the center to expose the adhesive side of the tape.



- 3 Stick the center of the Velcro tape a few inches toward the center from the rail **holes** of the **quilt-top rail**. Try to align the Velcro with the **holes**.

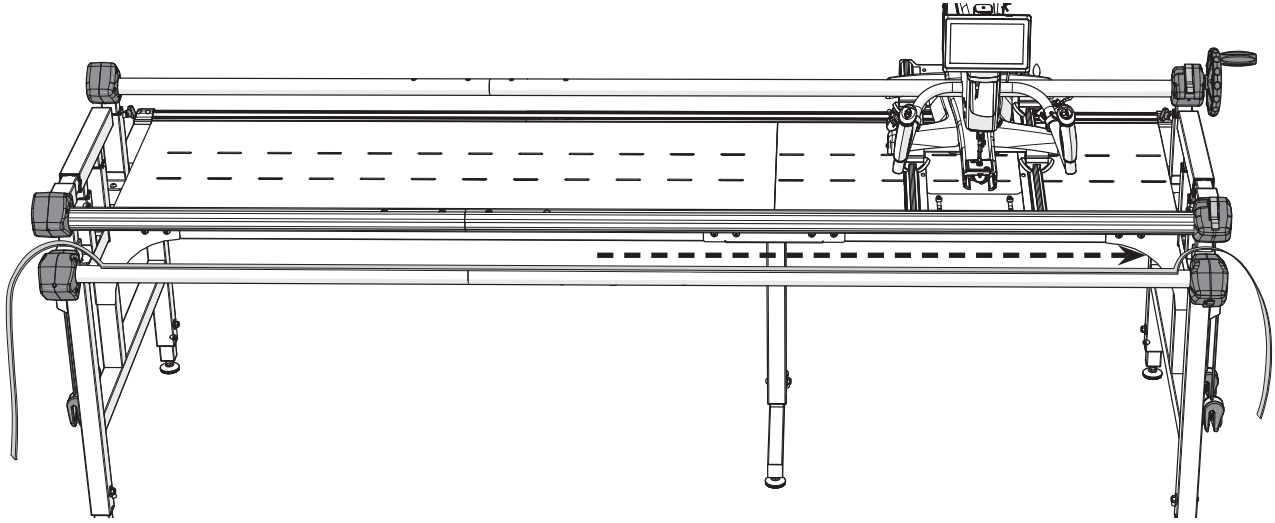


- 4 Work your way to one side of the frame, sticking the Velcro tape down to the rail. Take your time, placing the tape as straight as possible. Only peel off a little of the backing at a time as you go along to keep the tape from sticking where it shouldn't.

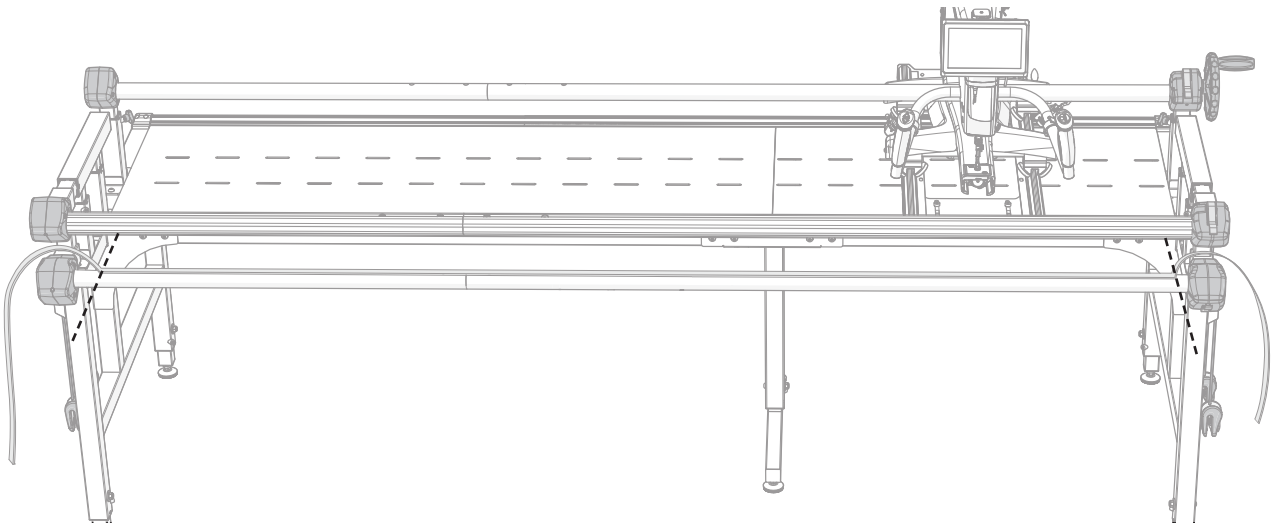


Task 16 - Leveling the Frame (continued)

- 5 Go back to the center and work your way to the other side of the frame.

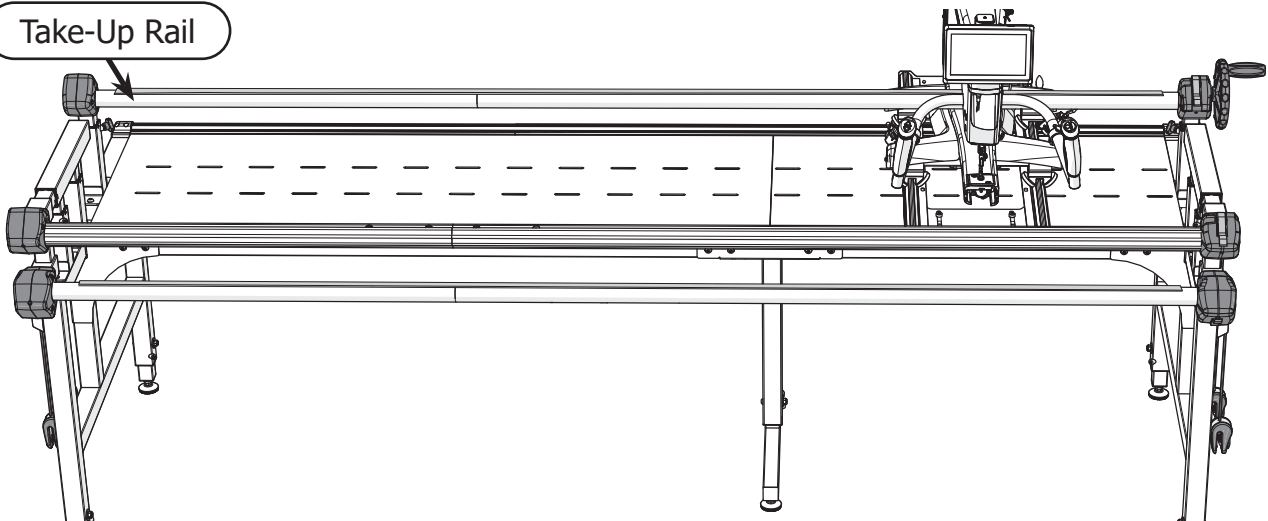


- 6 If there is excess Velcro on either side, trim it away and discard it.



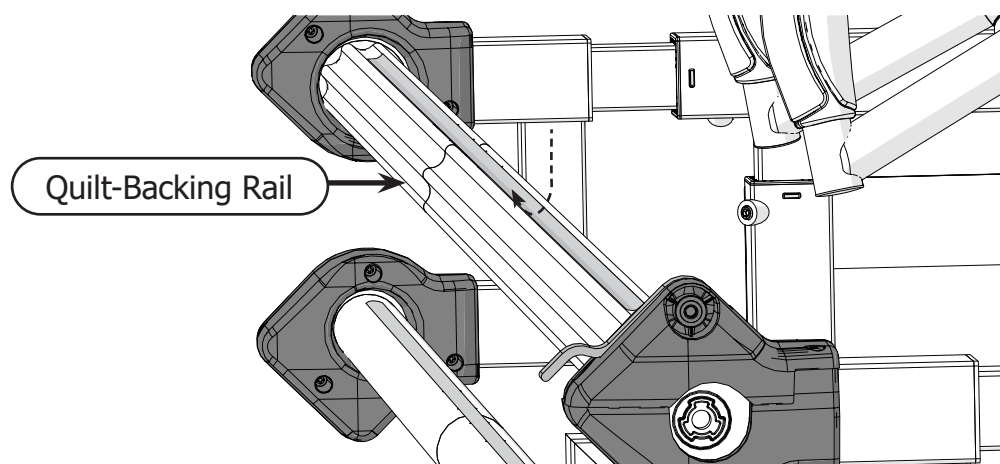
- 7 Repeat steps 2-6 to install the Velcro tape onto the take-up rail.

Take-Up Rail

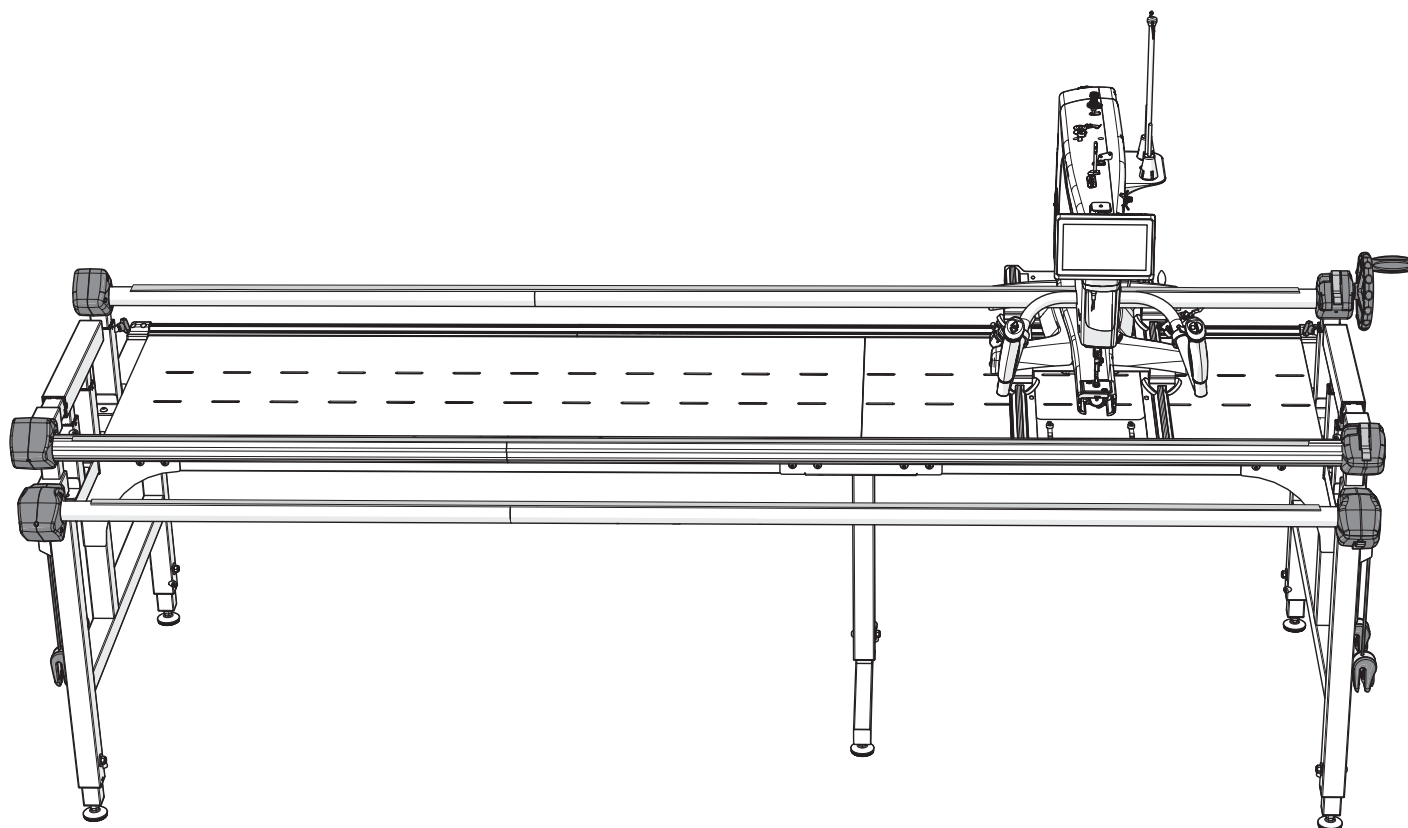


Task 16 - Installing the Cloth Leader Velcro (continued)

- 8 Repeat steps 2-6 again to install the Velcro tape onto the **quilt-backing rail**. However, this time place the Velcro tape into the rail's groove. Use the edges of the groove to help keep the Velcro aligned as you go.



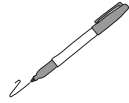
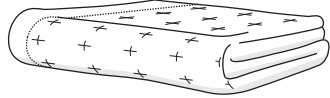
- 9 **Result:** The cloth leader Velcro is installed onto the rails. The cloth leaders can now be installed.



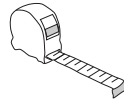
Task 17 - Installing the Cloth Leaders

Parts & Tools Needed:

Start Right Cloth Leader Set



Fabric Marking Pencil or Chalk (not included)



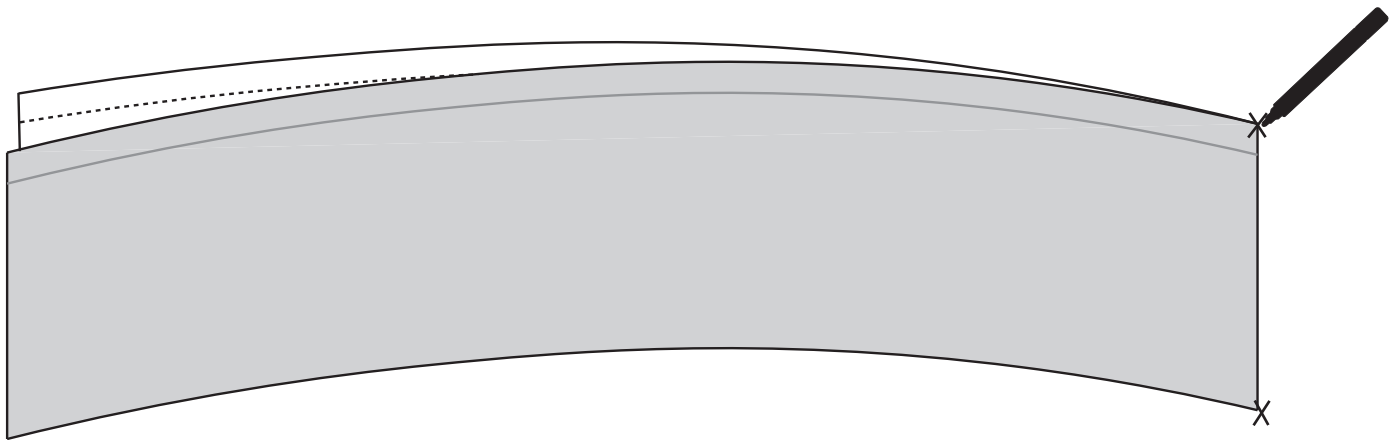
Measuring Tape or Ruler (not included)

Note: These instructions are illustrated using the 8 foot version of the Evolution Elite frame. These instructions still apply to the 10 foot Evolution Elite frame.

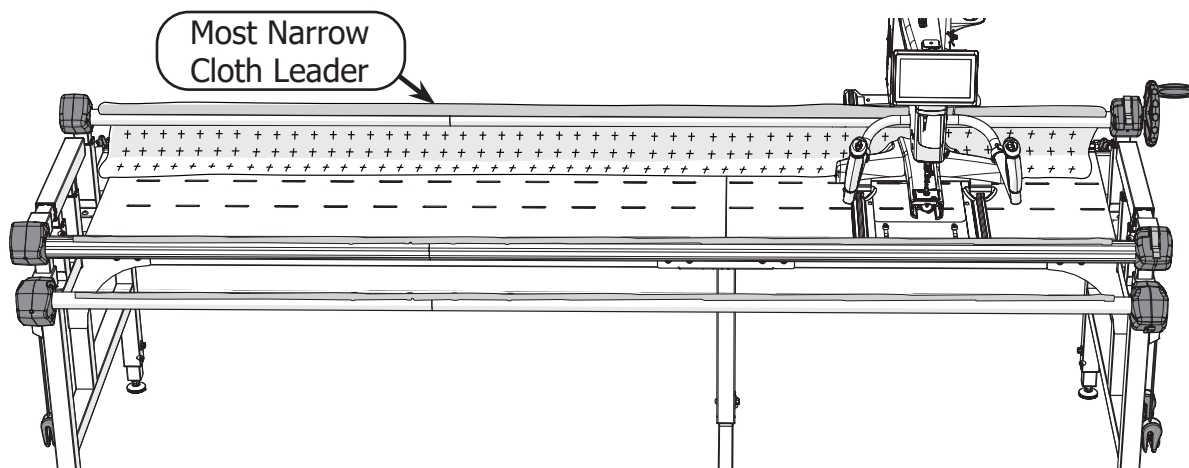
Instructions

The cloth leaders help hold and position your quilt onto the frame. Take the following steps to install the cloth leaders:

- 1 Fold each cloth in half width-wise and mark the center on the front and back, top and bottom.

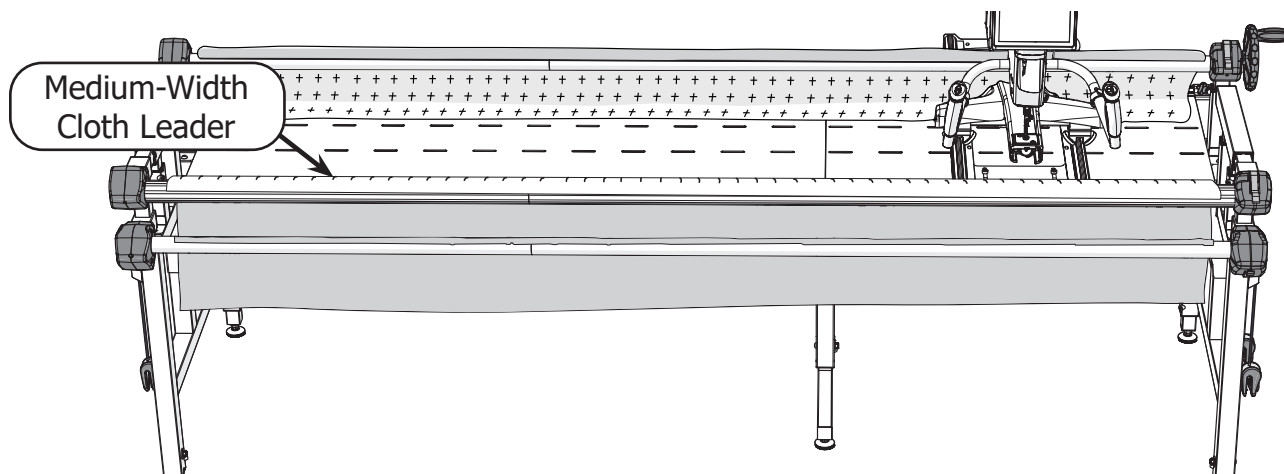


- 2 Attach the Velcro on the **most narrow cloth leader** to the Velcro on the take-up rail so the cloth drapes around the back of the rail. When attaching, start at the center of the rail and work your way outward one side at a time.

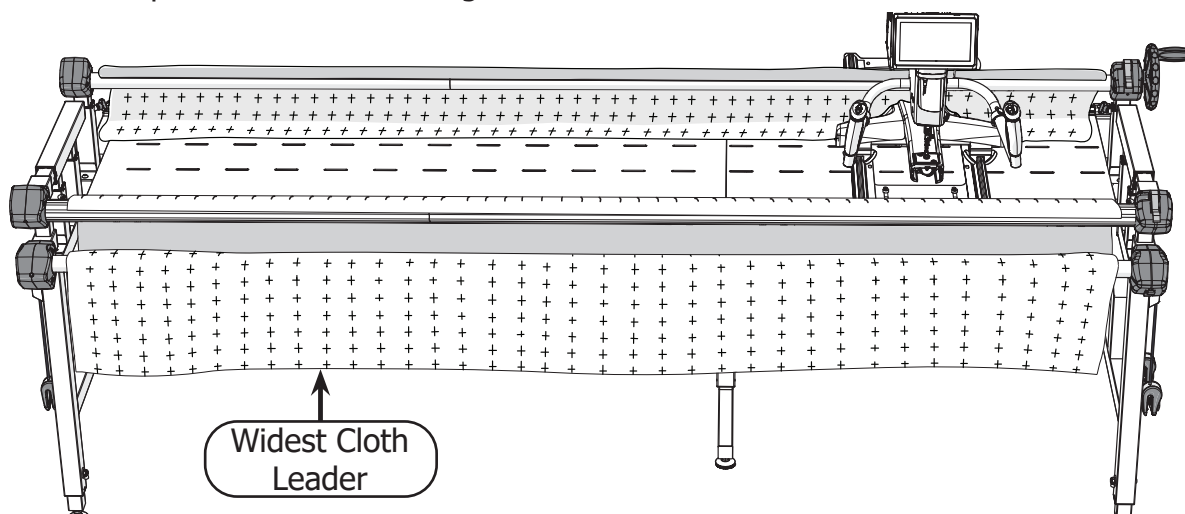


Task 17 - Installing the Cloth Leaders (continued)

- 3 Attach the **medium-width cloth leader** to the quilt-backing rail so the cloth drapes around the back of the rail. When attaching, start at the center of the rail and work your way outward one side at a time.



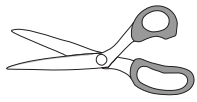
- 4 The **widest cloth leader** is attached to the quilt-top rail. However, this time drape the cloth leader so the patterned side is facing toward the front.



- 5 **Result:** The cloth leaders are installed and fabric can now be loaded onto the frame for quilting.

Building Your Quilt Sandwich

Parts & Tools Needed:



Scissors or
Rotary Cutter
(not included)



Quilt Backing
Fabric
(not included)



Batting
(not included)



Quilt Top
(not included)

Instructions

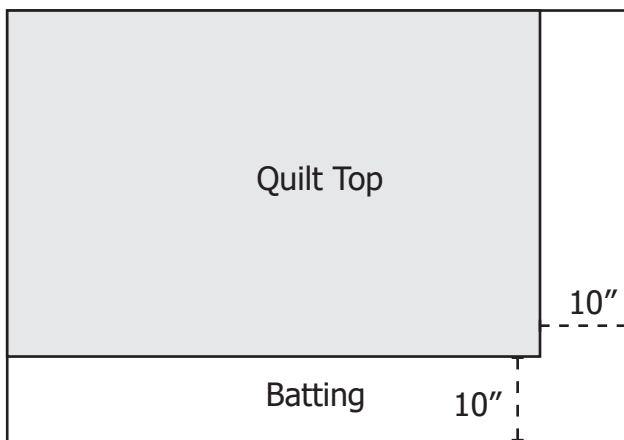
Your quilt top and quilt backing, with a layer of batting between them, make up the quilt sandwich.

When quilting, you will likely wish to be able to sew all the way to the edges of your quilt top. But when a quilt is placed on the frame, there is an area around the edges of the frame that the machine's needle can't reach. Any part of your quilt top that falls into that space will not be quiltable until it is moved out of that space.

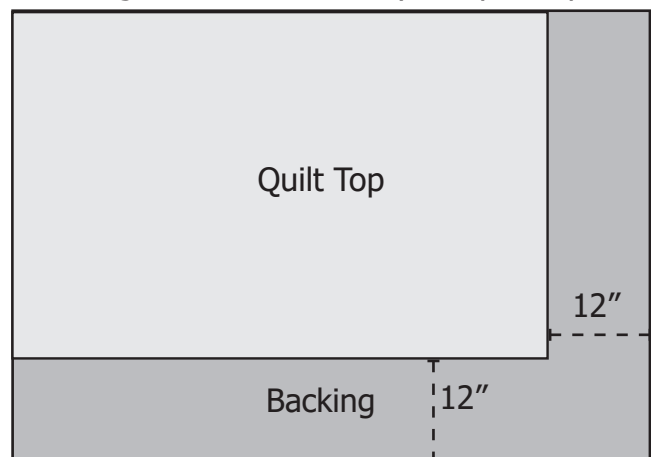
The quilt backing helps ensure that the quilt top can fall into the quiltable space. Cutting the backing larger than the top allows the backing to be placed onto the frame rails, while the quilt top remains in the area the machine's needle can reach.

Take the following steps to cut your backing and batting to the optimal size for quilting on your frame:

- 1 Cut out a piece of batting that is 10 inches longer and wider than your quilt top.



- 2 Cut your backing fabric to be 12 inches longer and wider than your quilt top.



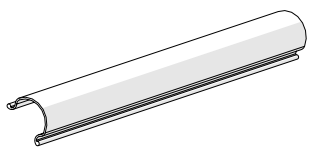
- 3 **Result:** Your backing and batting have been cut to ideal size for use on the frame.

Attaching Your Quilt to the Frame

Note: These instructions are illustrated using the 8 foot version of the Evolution Elite frame. These instructions still apply to the 12 foot Evolution Elite frame.

Parts & Tools Needed:

Front Rail Clamp (x5)
(floating method only)



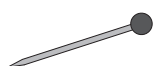
(Box 2, Box 6, Box 7)



Quilt Top
(not included)



Quilt Backing
(not included)



Pins
(not included)

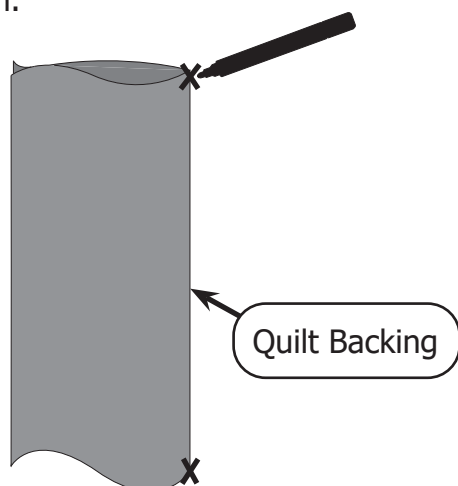


Fabric Marking
Pencil or Chalk
(not included)



Batting
(not included)

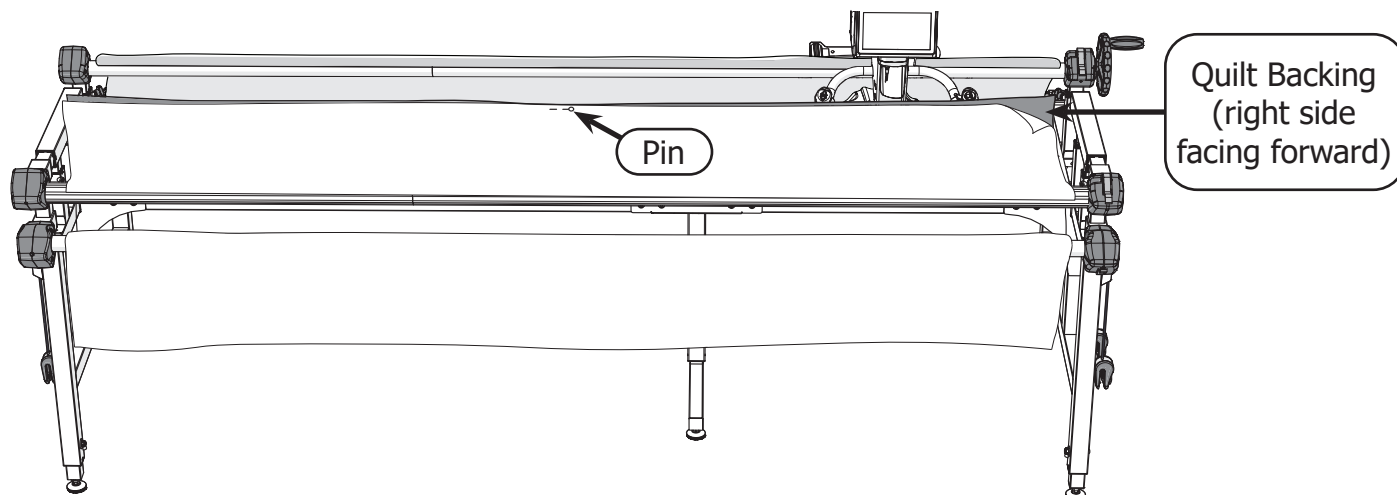
- 1 Fold your **quilt backing** in half to find the center. Mark the centerpoints on the top and bottom.



Right Side/Wrong Side: Some fabrics have a front side that has a print or other qualities that the back side does not have, or may look washed out on the back. The front of the fabric is called the "right side." The side that looks washed out or doesn't have the print/texture is called the "wrong side."

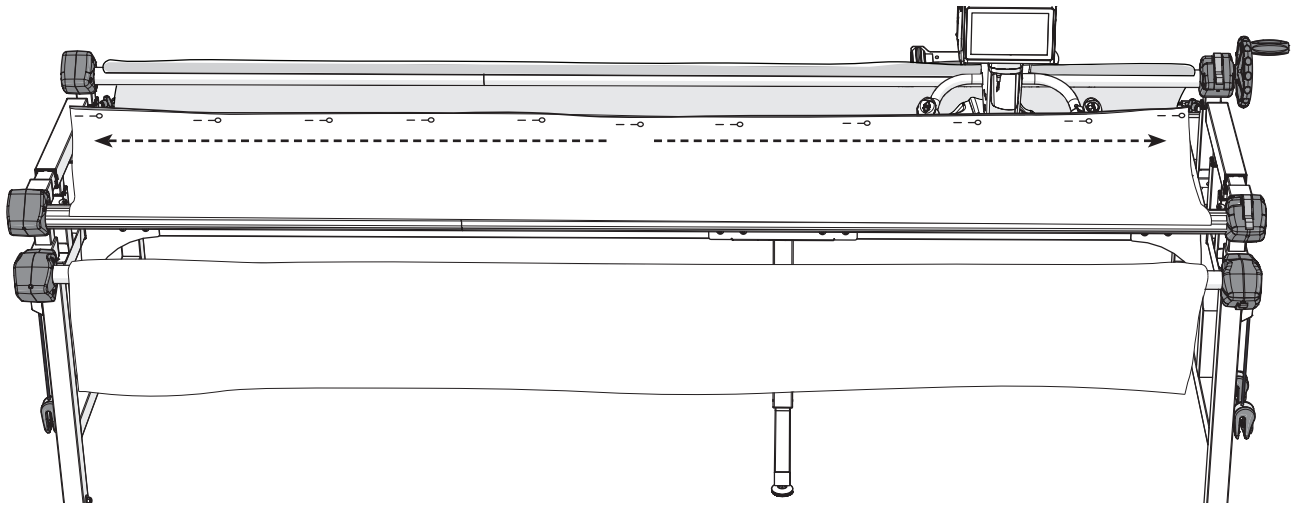
The "right side" of your quilt top will be the side you want to show on the outside of the quilt. This is usually the side without seams.

- 2 **Pin** the bottom centerpoint of your quilt to the bottom centerpoint of the quilt backing rail cloth leader. Pin so the **right side of your backing** faces the wrong side of the cloth leader.

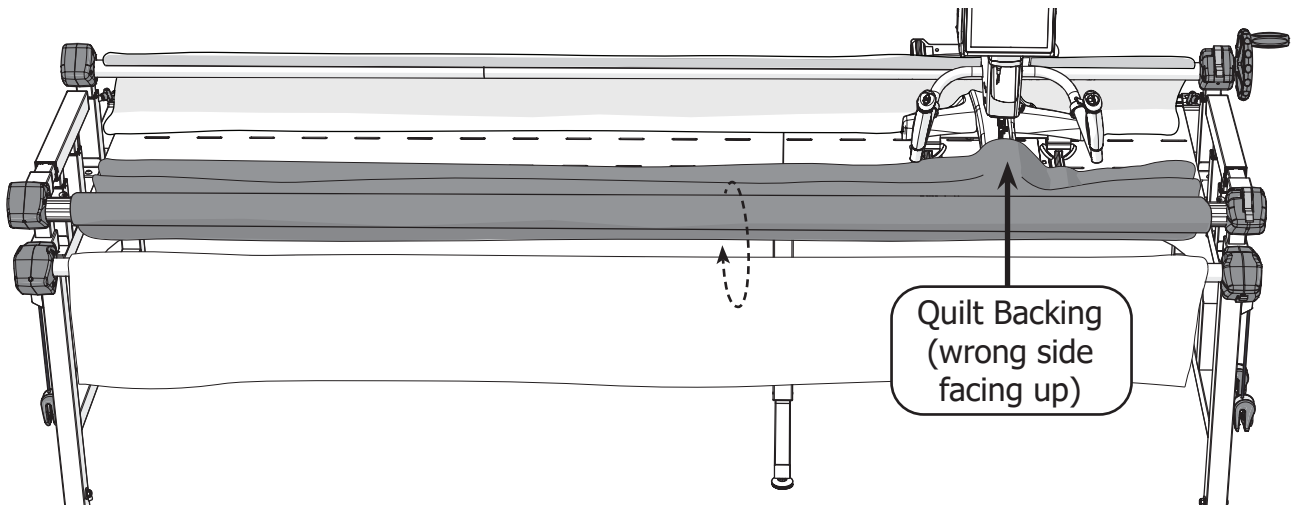


Attaching Your Quilt to the Frame (continued)

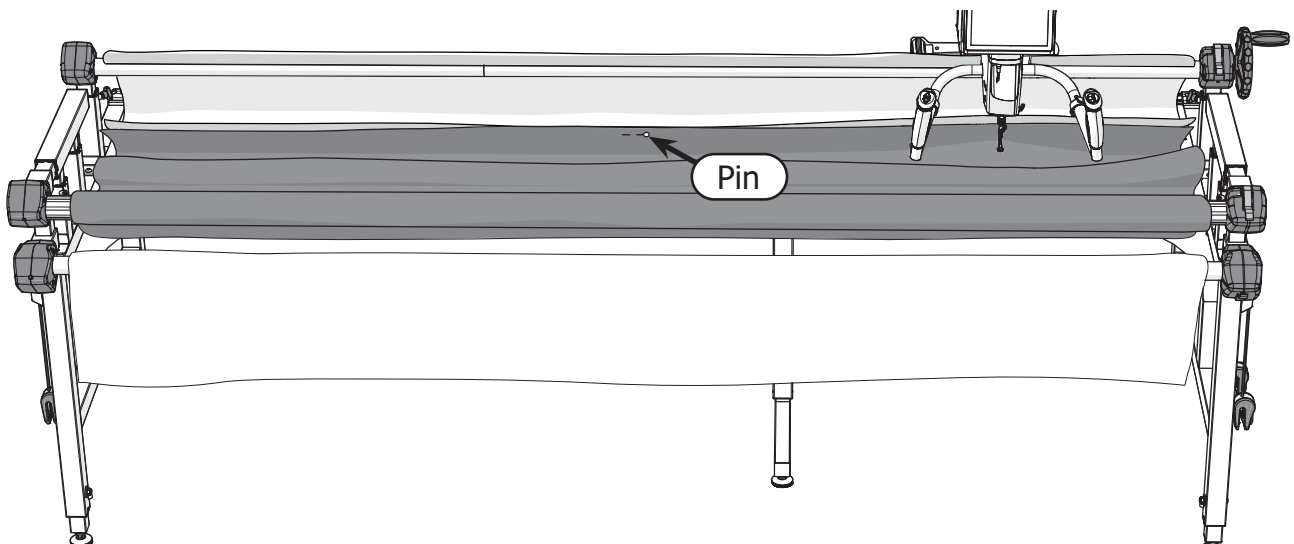
- 3 Pin the edges together from the center out.



- 4 Roll the backing rail until the leader cloth is no longer visible. If attached correctly, the **wrong side** of the **quilt backing** should be facing up.

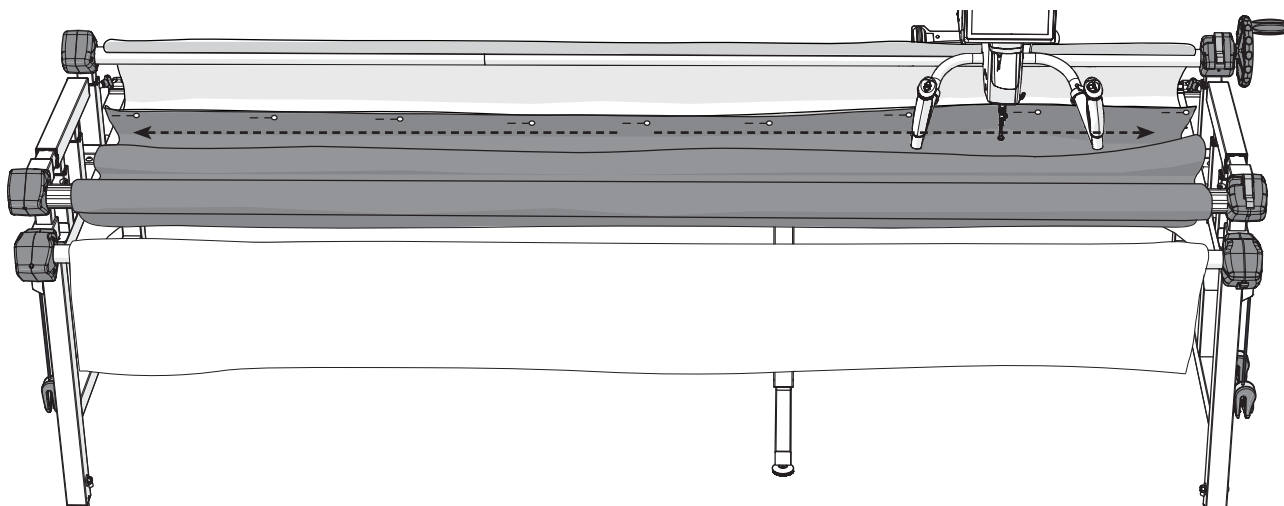


- 5 Pin the top centerpoint of your backing to the centerpoint on the take-up rail cloth leader.

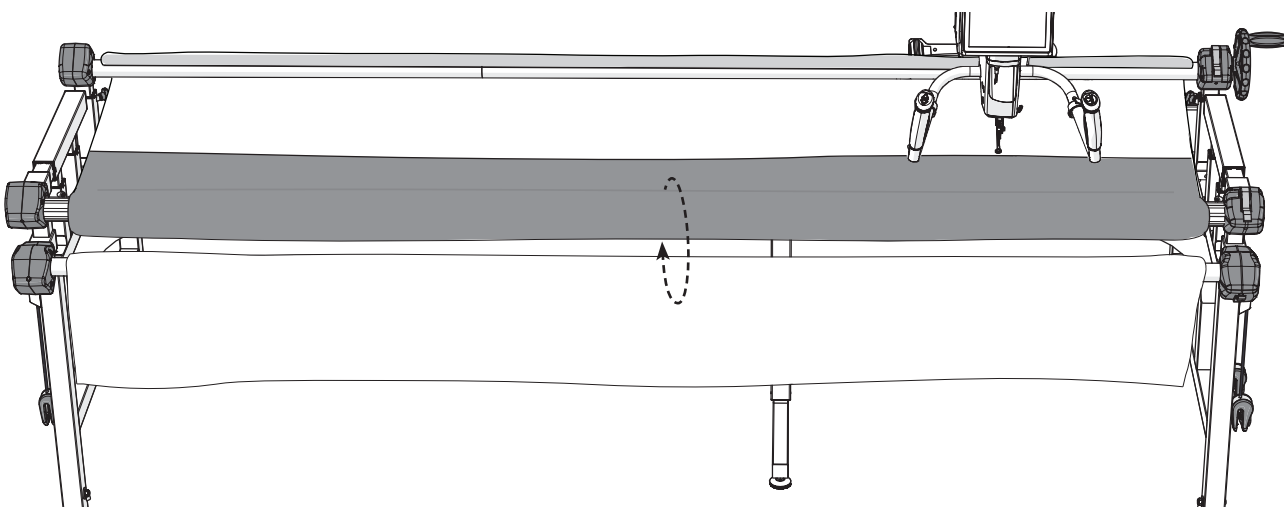


Attaching Your Quilt to the Frame (continued)

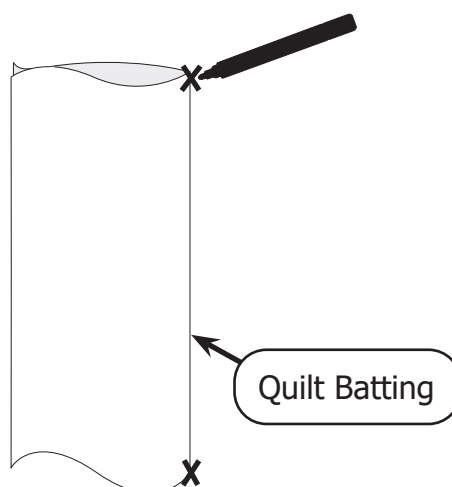
- 6 Work from the center out and pin the edges together. You will need to tuck the backing under the machine foot.



- 7 Roll the quilt-backing rail until the quilt backing is smooth and free of creases.

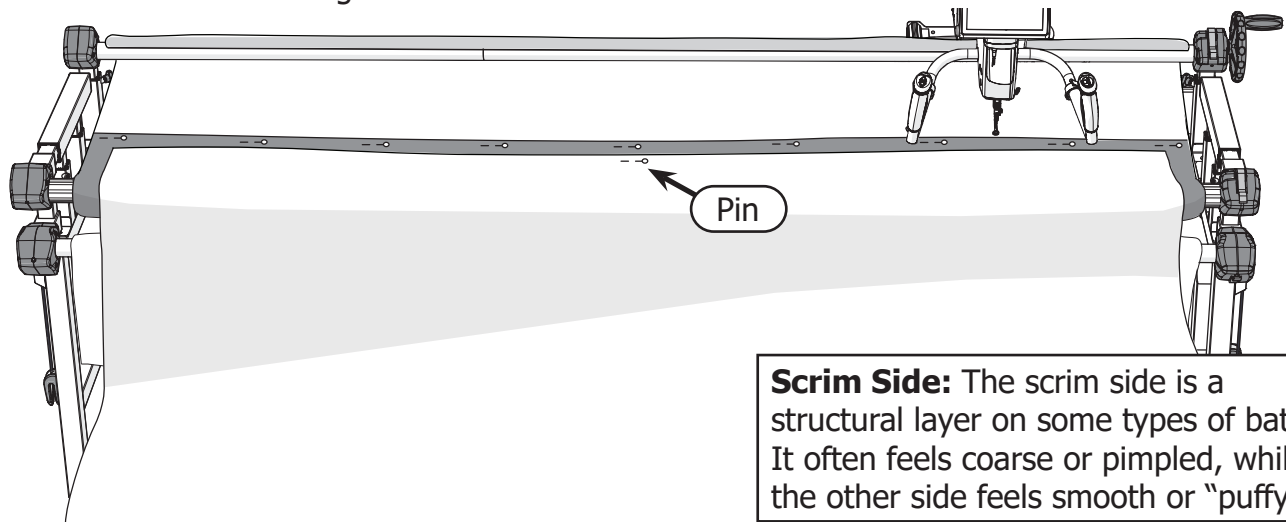


- 8 Fold your **quilt batting** in half to find the center. Mark the centerpoints on the top and bottom.

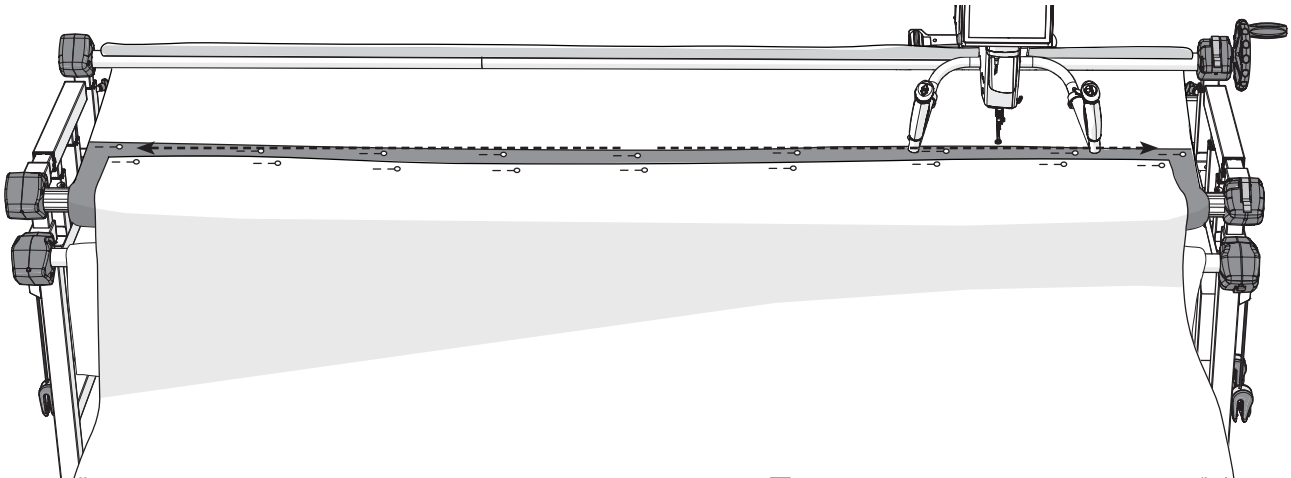


Attaching Your Quilt to the Frame (continued)

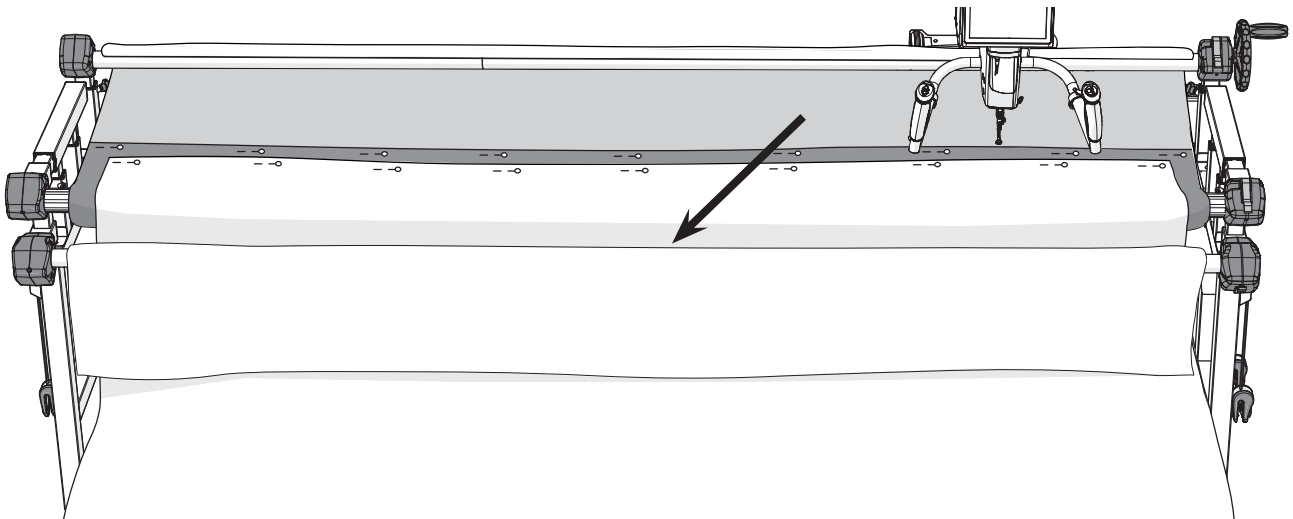
- 9 **Pin** the top centerpoint of your batting about an inch below the top centerpoint of the backing, with the scrim side facing down.



- 10 Working from the center out, pin down the top edge of the batting the rest of the way. Keep the layers as square as you can while you pin.

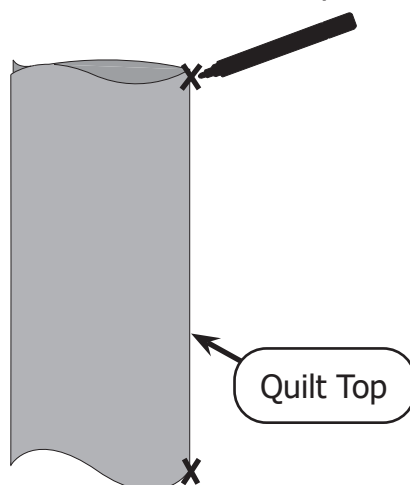


- 11 Tuck the batting between the quilt-backing and quilt-top rails.

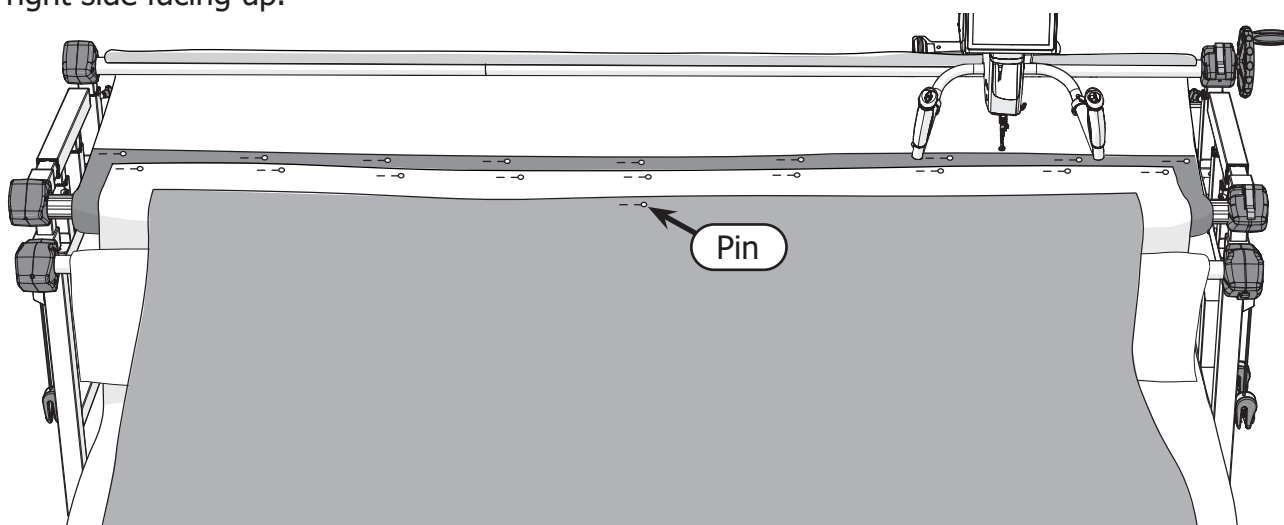


Attaching Your Quilt to the Frame (continued)

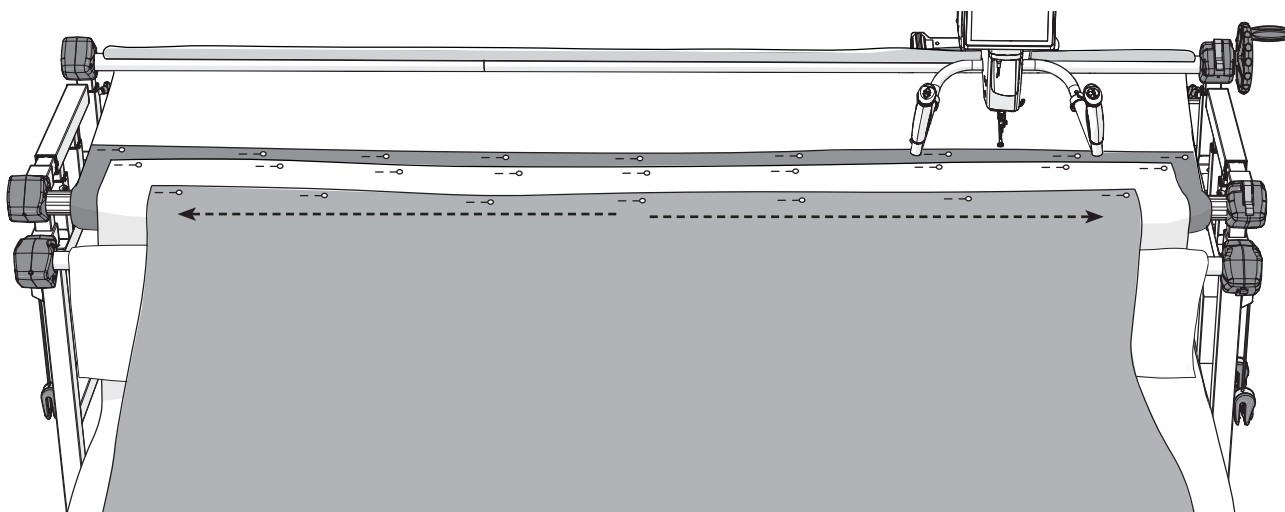
- 12 Fold your **quilt top** in half to find the center. Mark the centerpoints on the top and bottom.



- 13 **Pin** the top centerpoint of your quilt top about an inch below the centerpoint on the batting, right side facing up.

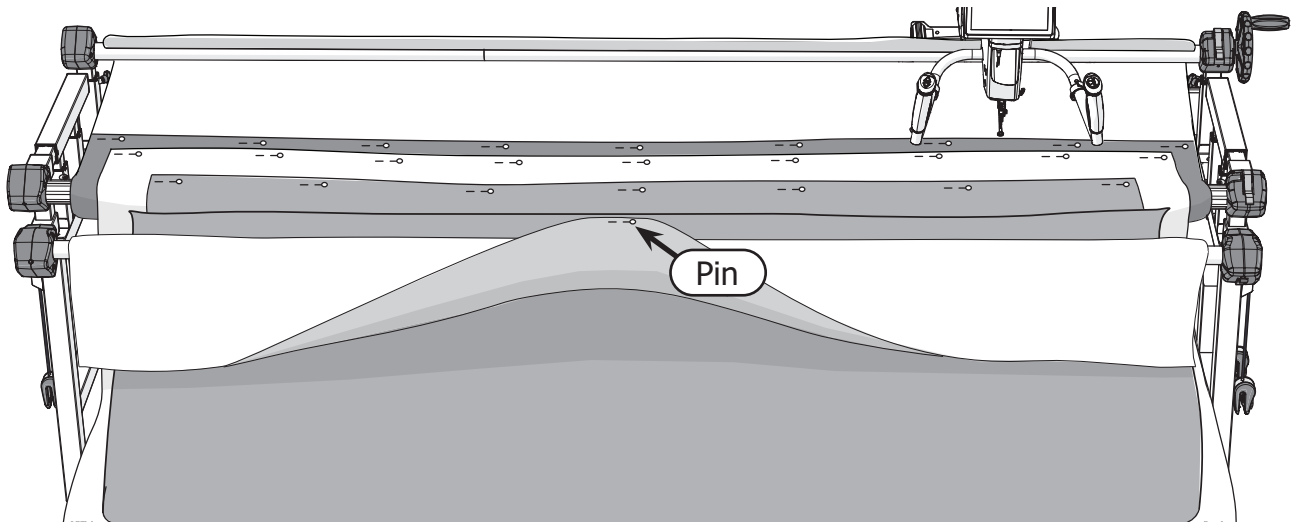


- 14 Pin down the top edge of your quilt top, working from the centerpoint outward. Keep the layers as square as you can while you pin.

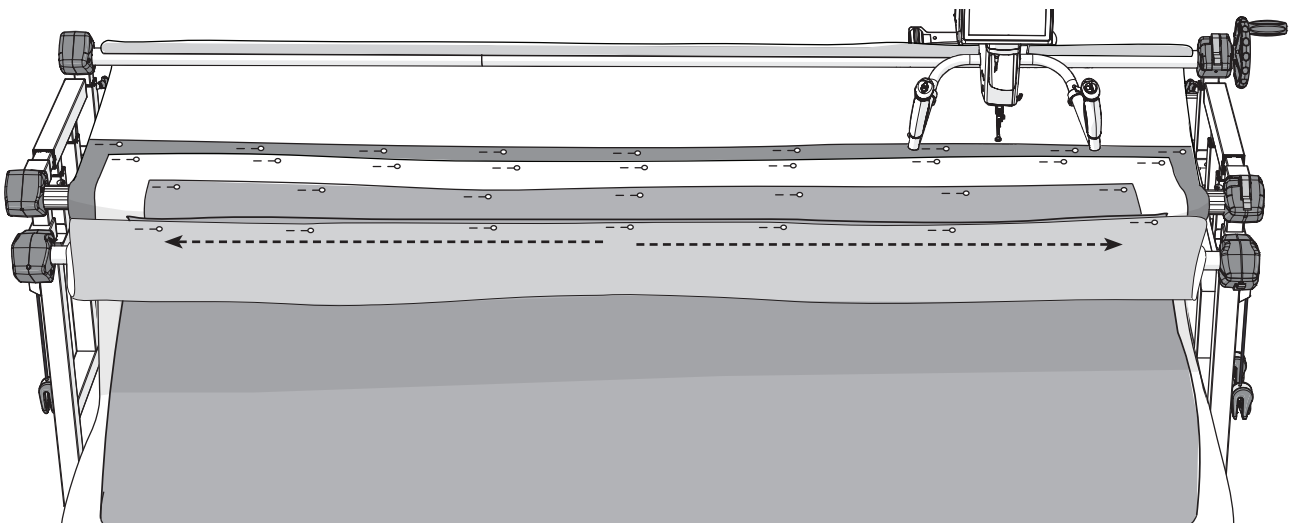


Attaching Your Quilt to the Frame (continued)

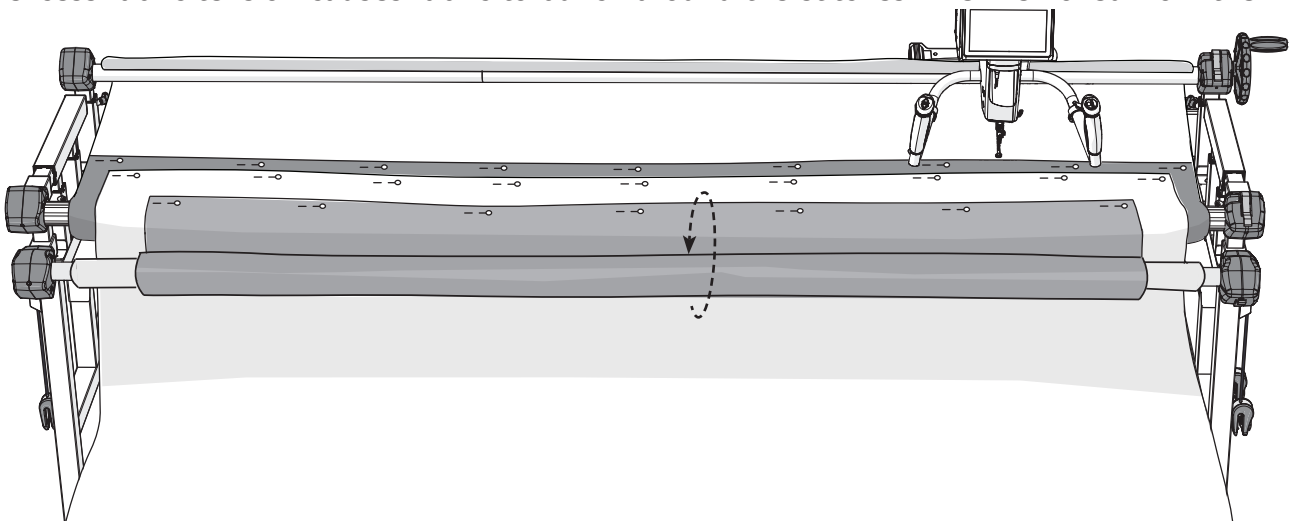
- 15 **Pin** the centerpoint on the bottom of the quilt top to the centerpoint at the bottom of the final cloth leader.



- 16 Pin down the bottom edge of your quilt top to the cloth leader the rest of the way.

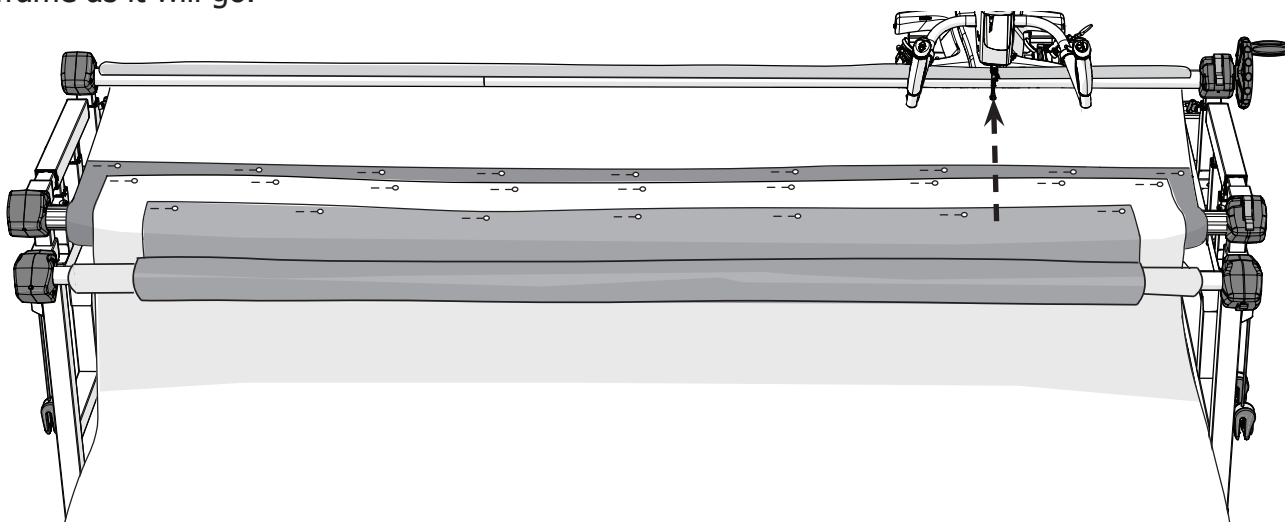


- 17 Roll the quilt-top rail until the quilt top is smooth and free of creases. Do not pull too tight: excess fabric tension causes fabric to bunch around the stitches when removed from the frame.

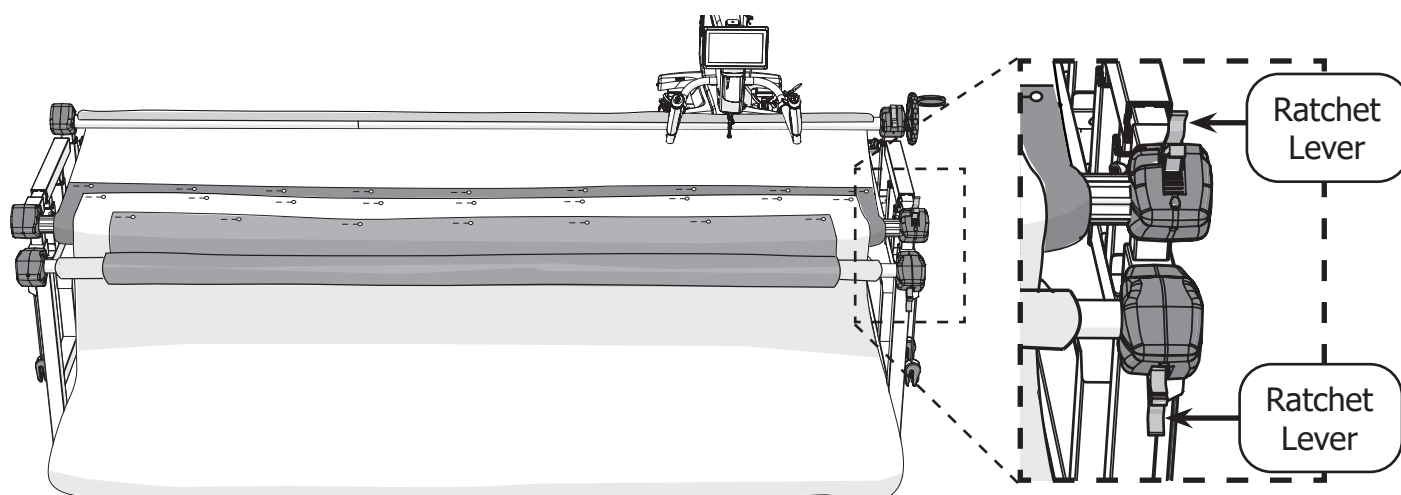


Attaching Your Quilt to the Frame (continued)

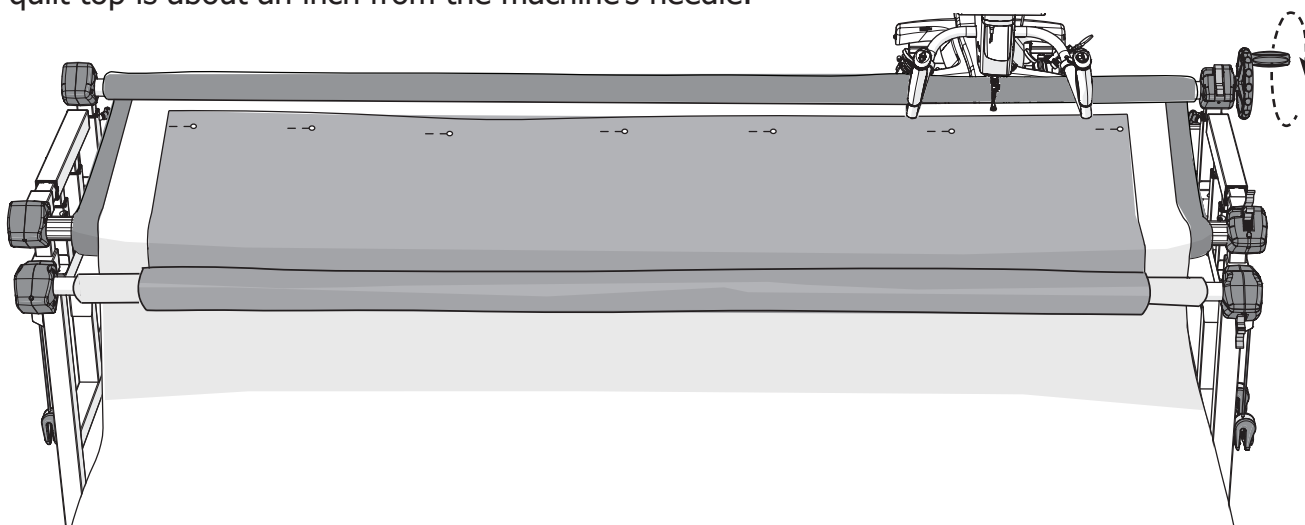
- 18 To position the quilt top to the ideal spot for stitching, move the machine as far back on the frame as it will go.



- 19 Release the **ratchet levers** on both front rails.

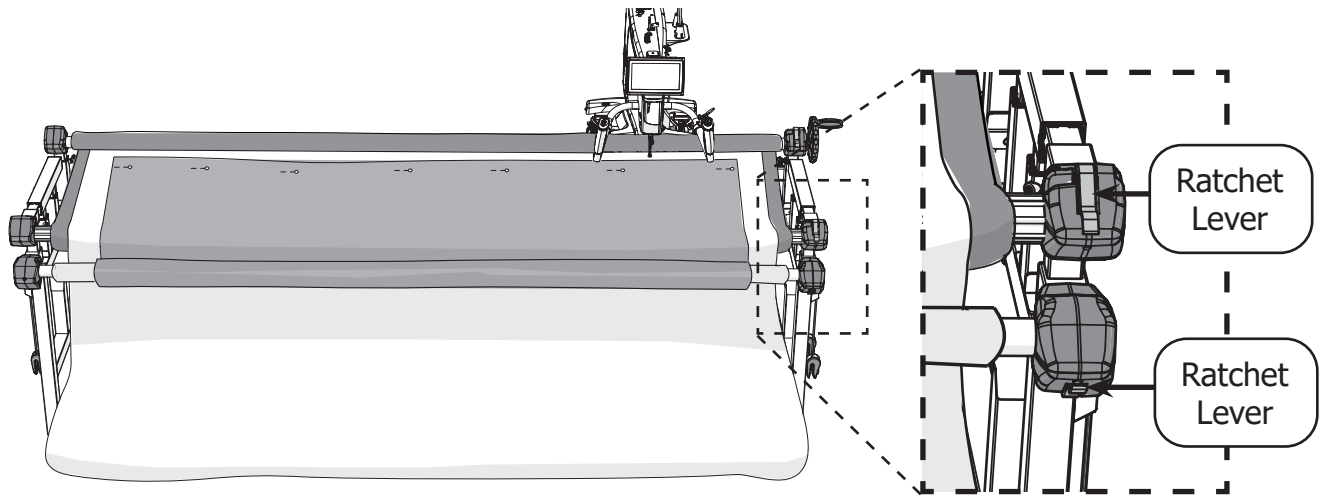


- 20 Then roll the hand wheel forward until the quilt starts to scroll up the frame. Stop when the quilt top is about an inch from the machine's needle.

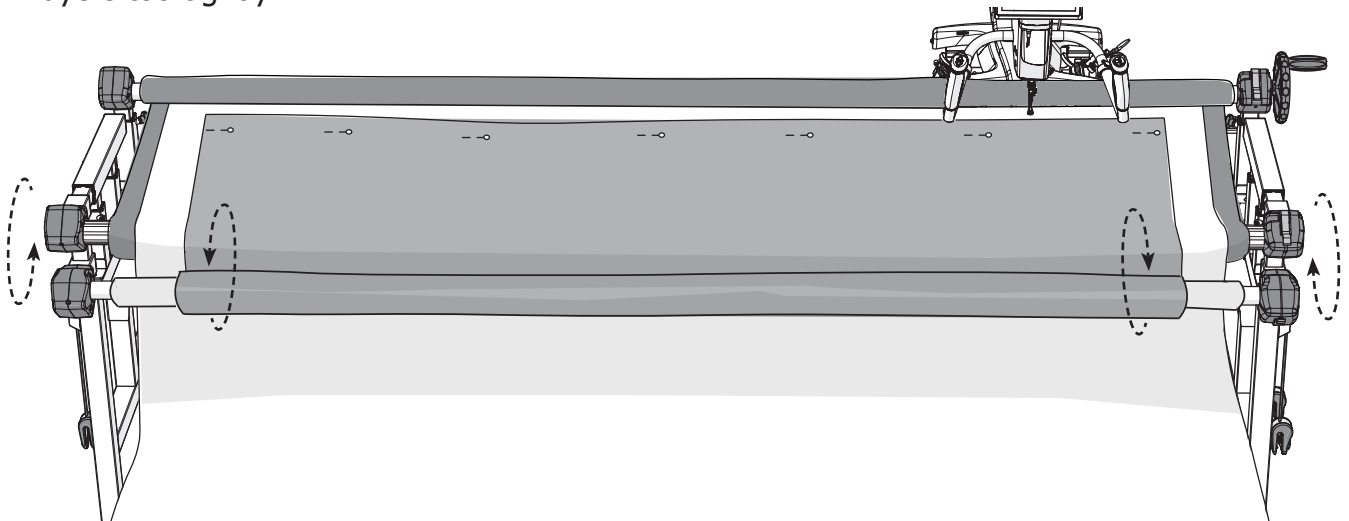


Attaching Your Quilt to the Frame (continued)

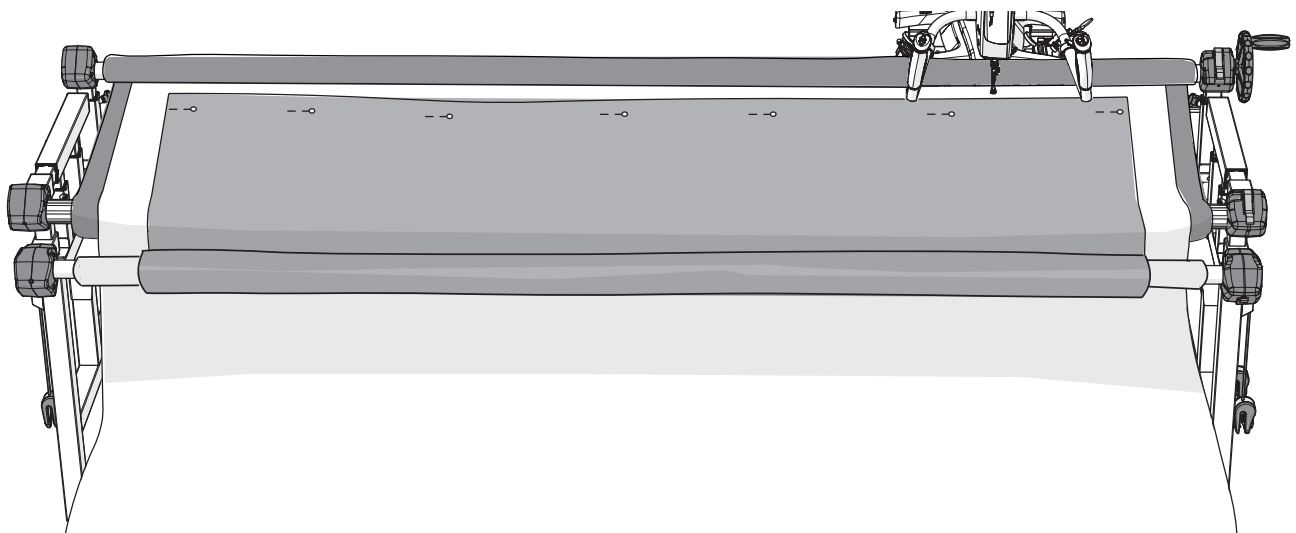
21 Close the **ratchet levers** on the front rails.



22 If needed, roll the front rails to eliminate any sagging in the quilt. Take care not to tension the layers too tightly.



23 **Result:** The fabric has been installed onto your frame and is ready for quilting.

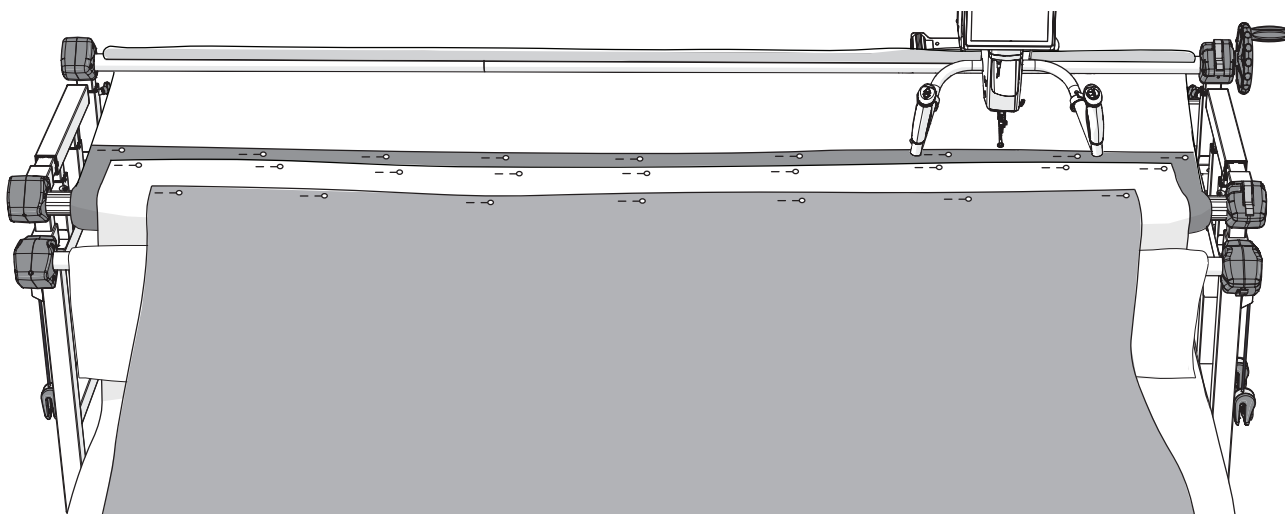


Floating Method Instructions

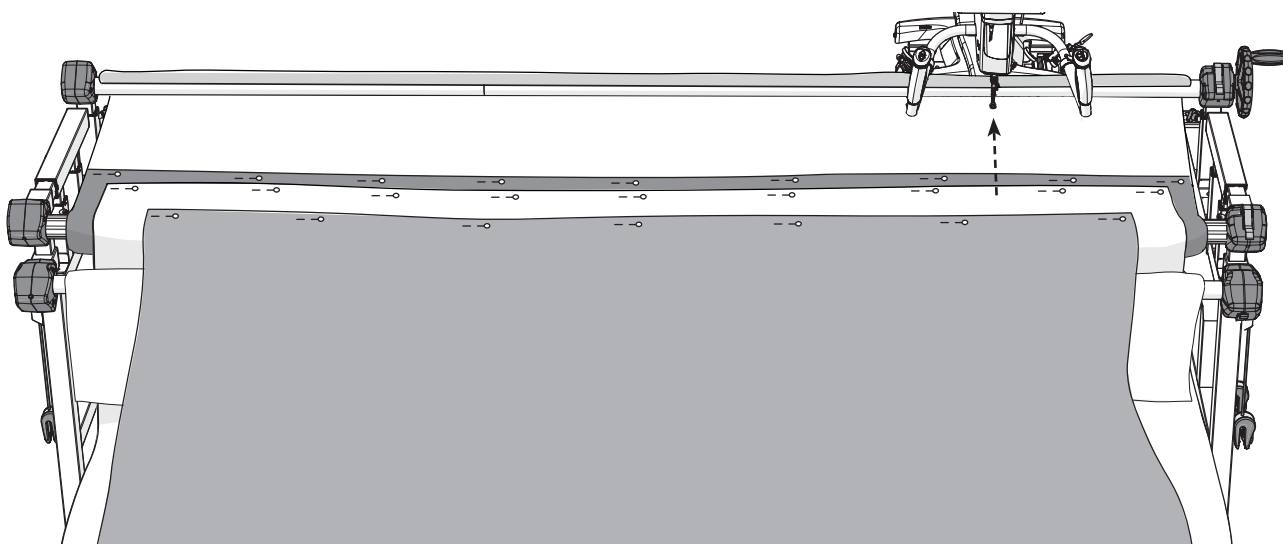
“Floating” the fabric is when one or more layers of the quilt are not attached to a rail. This method is less precise, but it is sometimes done to save time.

Take the following steps to float your fabric:

- 1 Complete steps 1-14 of the standard method for attaching fabric.

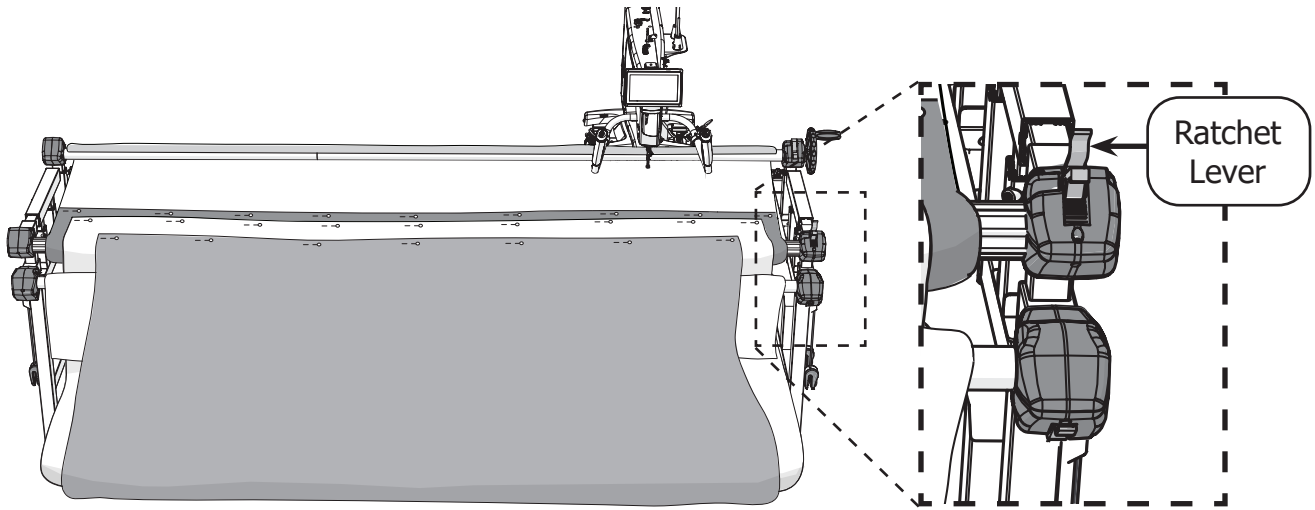


- 2 Move your machine as far back on the frame as it will go.

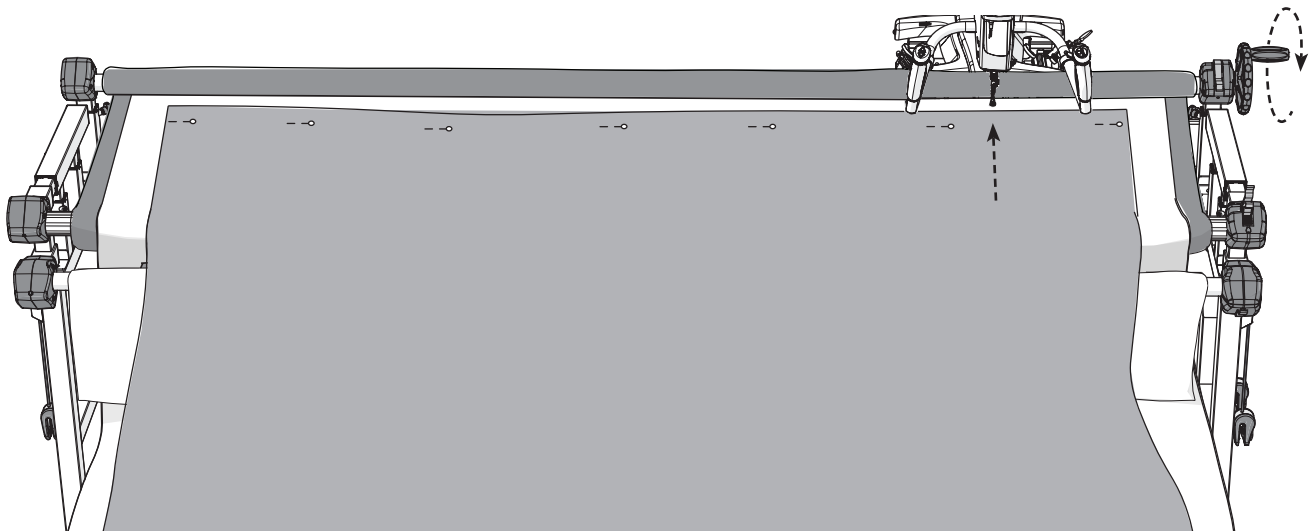


Attaching Your Quilt to the Frame (continued)

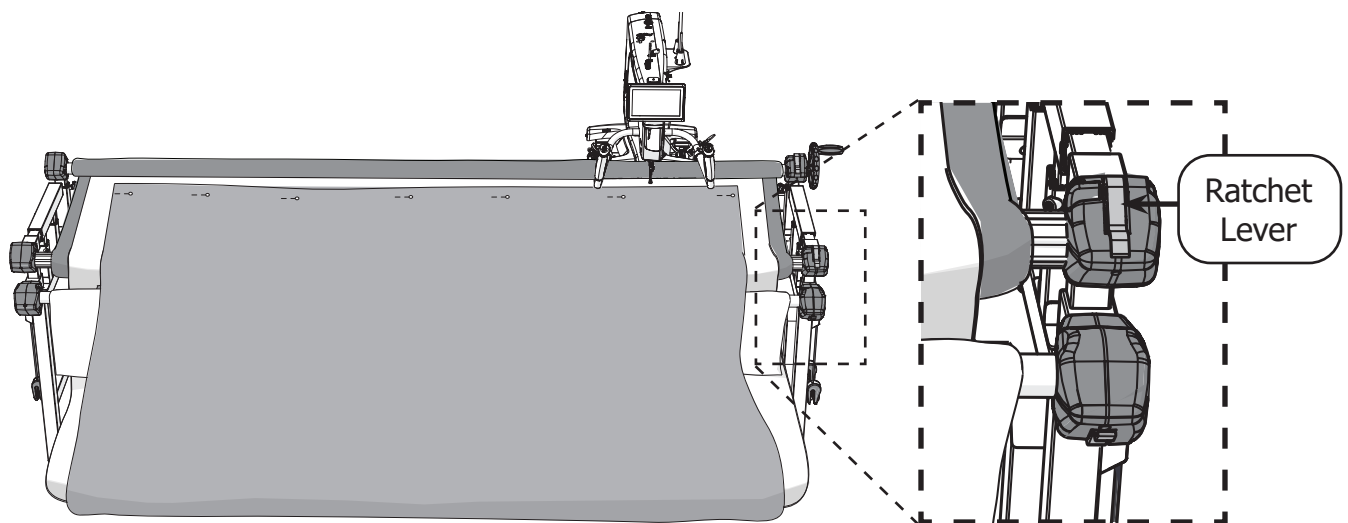
- 3 Open the **ratchet lever** on the quilt-backing rail.



- 4 Roll the hand wheel until the quilt top is about a quarter inch from the machine's needle.

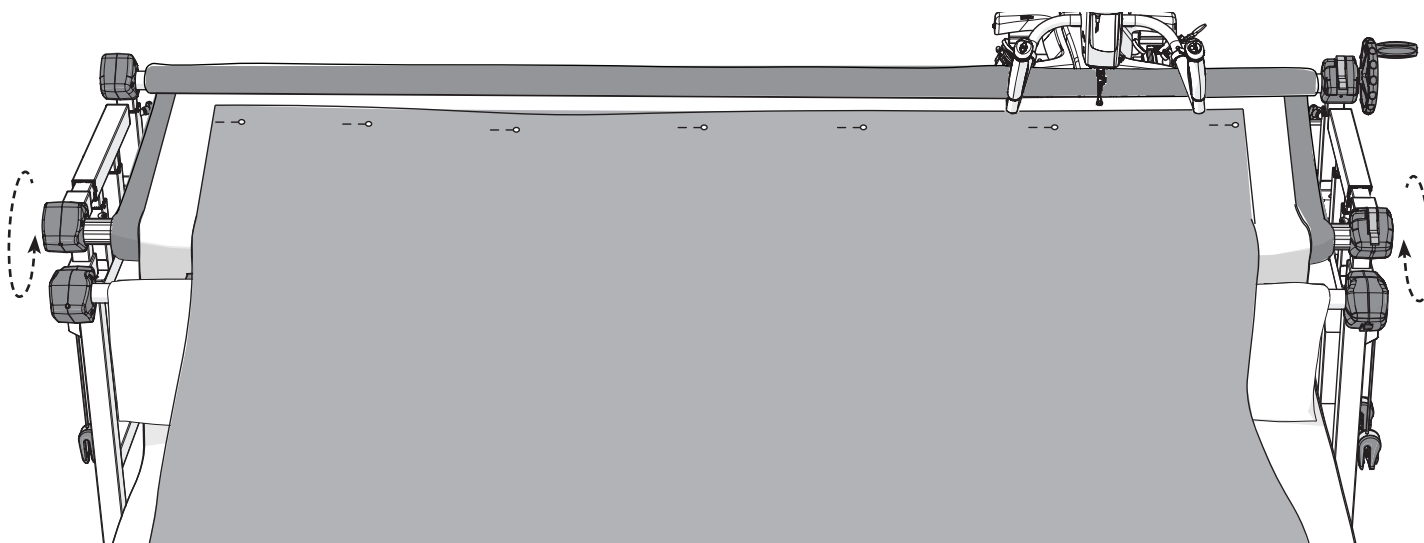


- 5 Close the **ratchet lever**.

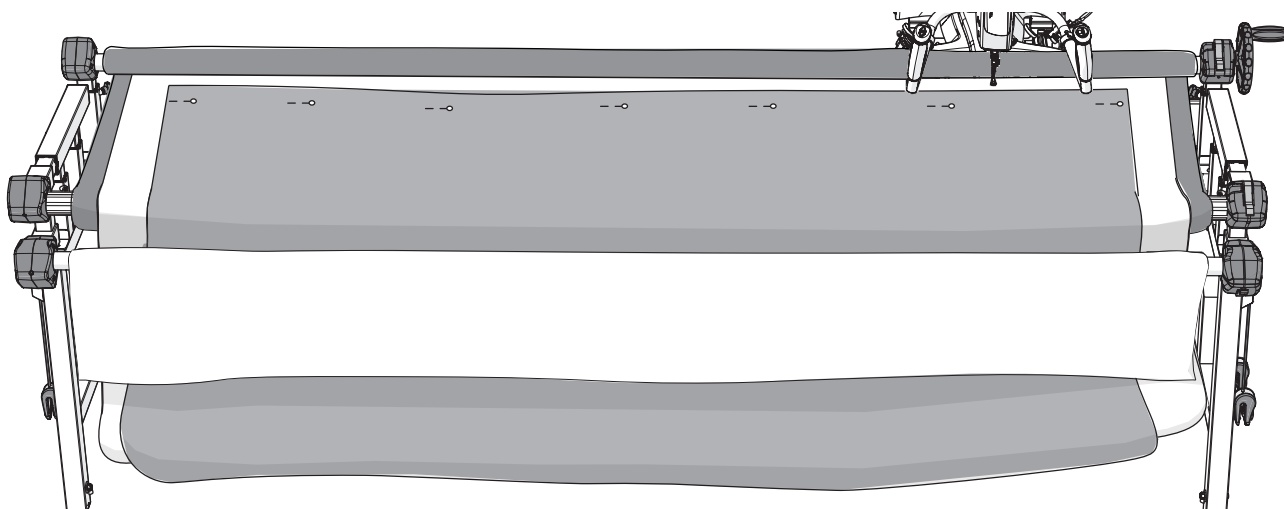


Attaching Your Quilt to the Frame (continued)

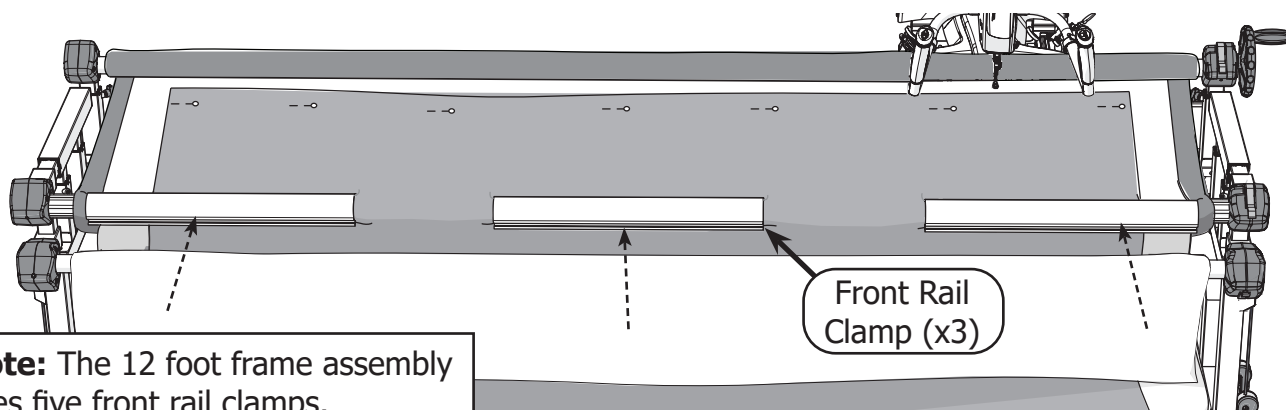
- 6 If needed, roll the quilt-backing rail to smooth out any slack in the quilt backing.



- 7 Smooth out any wrinkles and tuck the ends of the floating fabric layers under the frame, out of the way.



- 8 Press the **front rail clamps** onto the quilt-backing rail, over the fabric layers. This will help pin the layers together and keep even fabric tension.



Note: The 12 foot frame assembly uses five front rail clamps.

- 9 **Result:** The fabric is attached to the frame and ready for quilting.

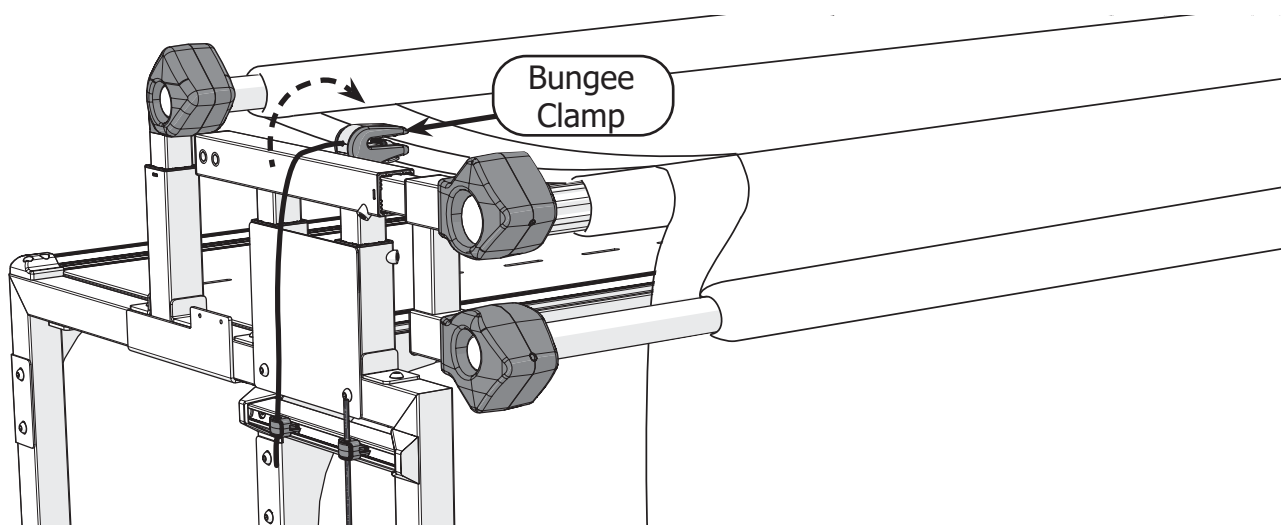
Using the Bungee Clamps

Instructions

Sometimes the sides of the quilt will sag a little when on the frame. The bungees secure the sides of your quilt and help tension the fabric there for proper quilting.

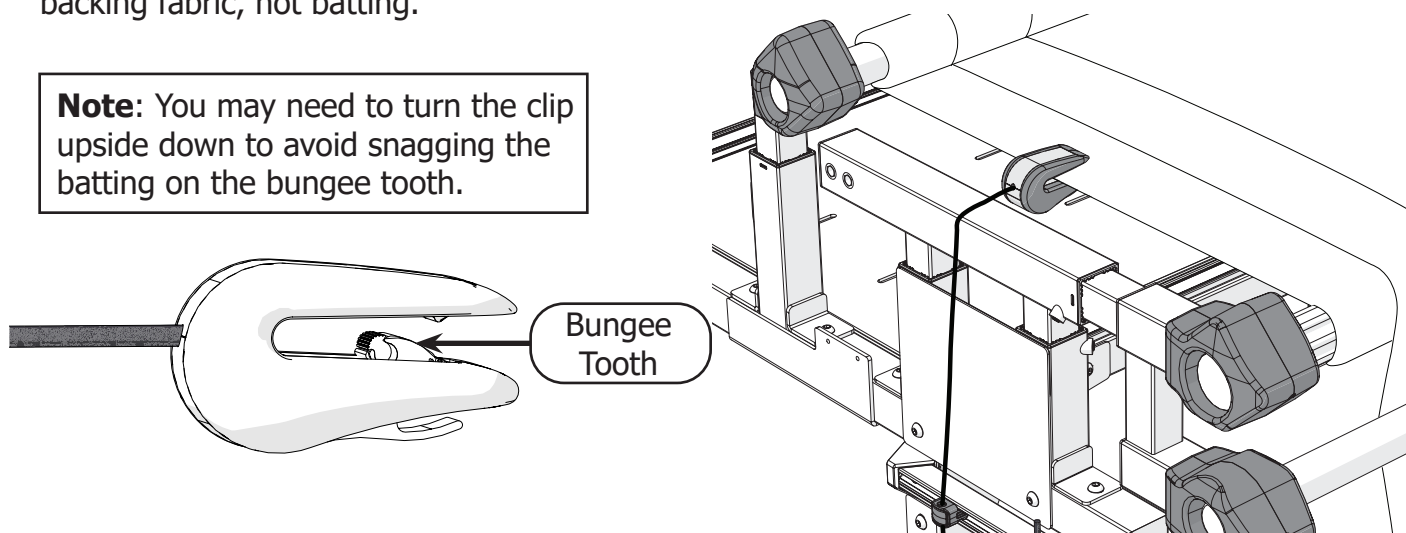
Take the following steps to use the bungees:

- 1 Pull the **bungee clamp** up and over the side rail.



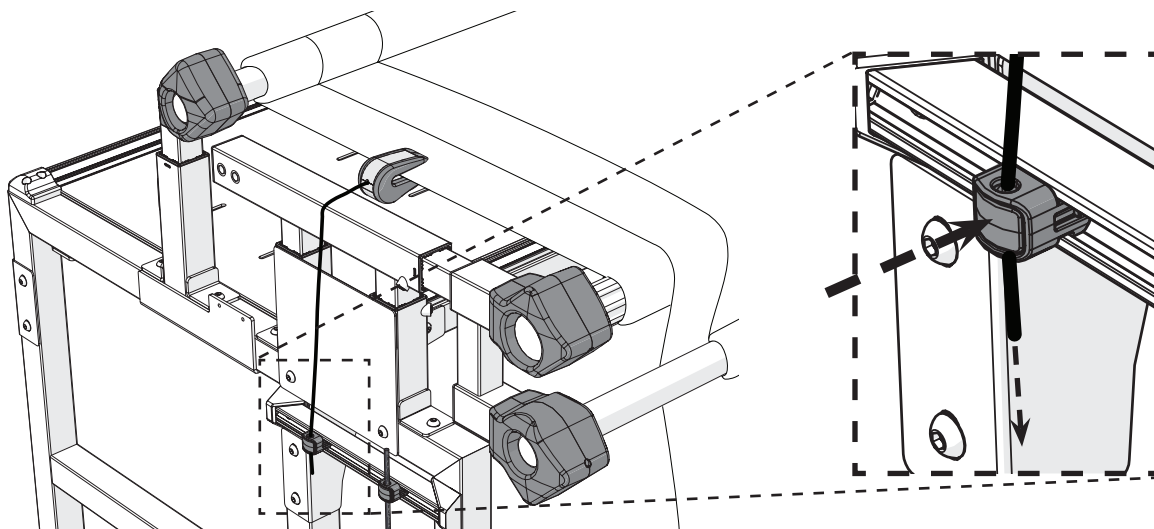
- 2 Slide the clip over the edge of the fabric. Make sure the **bungee tooth** is digging into your backing fabric, not batting.

Note: You may need to turn the clip upside down to avoid snagging the batting on the bungee tooth.

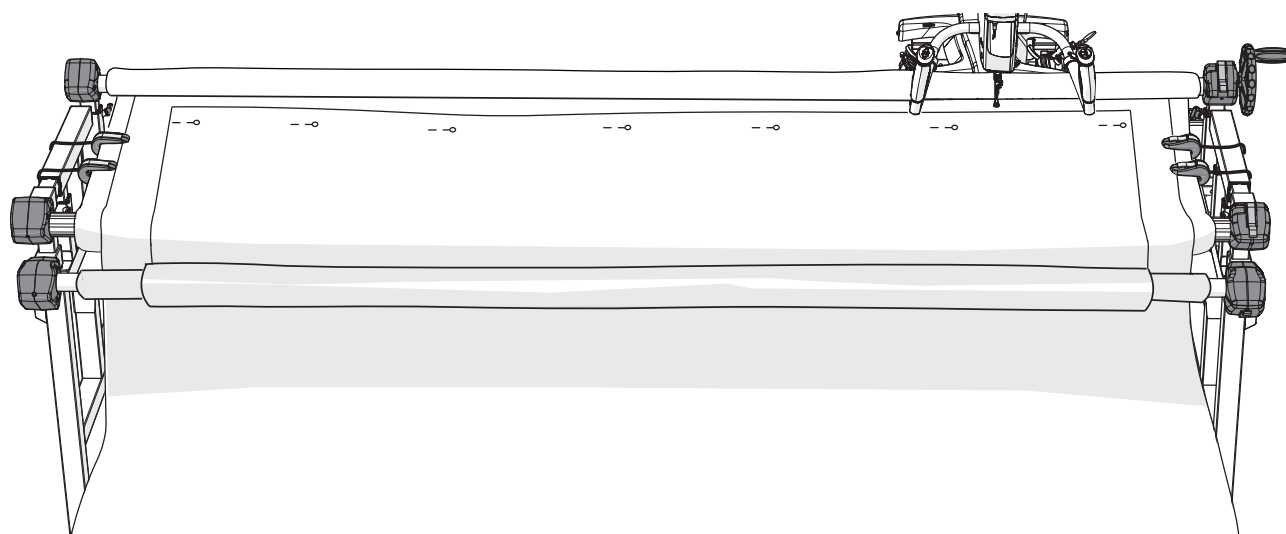


Using the Bungee Clamps (continued)

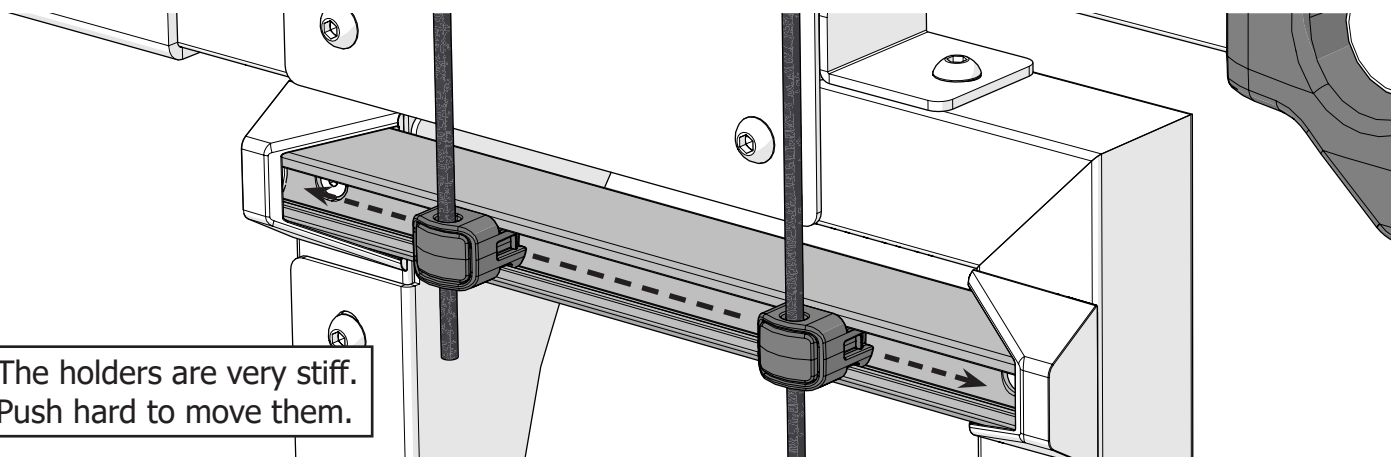
- 3 Press the button on the bungee bar and pull the cord tight so the fabric is straight and smooth.



- 4 Repeat steps 1-3 for the other three bungee clamps.



- 5 You can adjust the bungees' position by sliding the bungee cord holder along the bungee bar.

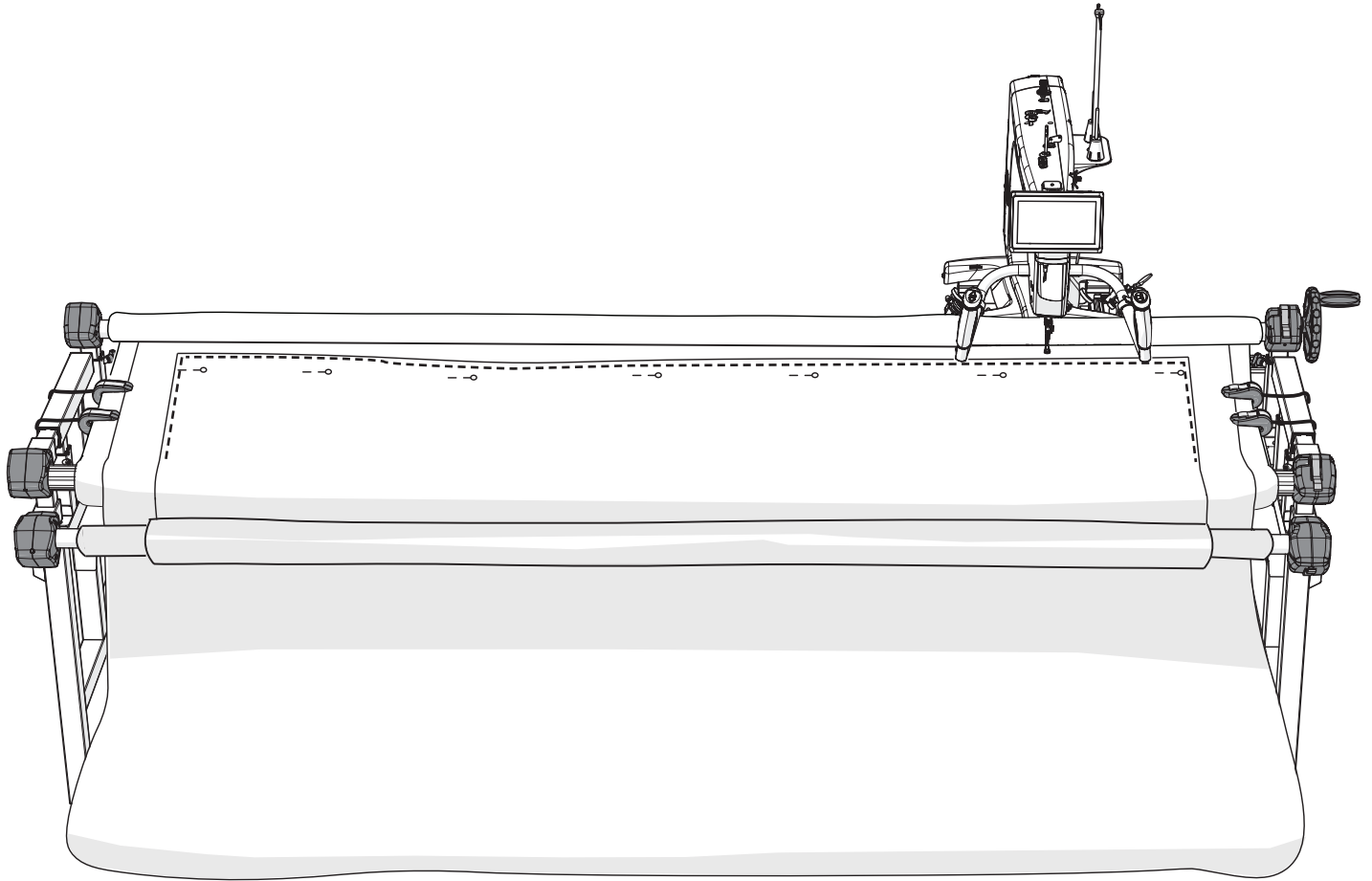


The holders are very stiff.
Push hard to move them.

- 6 **Result:** The fabric is held tight and smooth by the bungee clamps.

Tacking Down Your Quilt

Tacking down the edges of your quilt helps keep the layers together and also prevents the layers from bunching up unevenly around your stitches. A line of large stitching about a quarter of an inch from the edge of the quilt top will do. Watch out for pins!



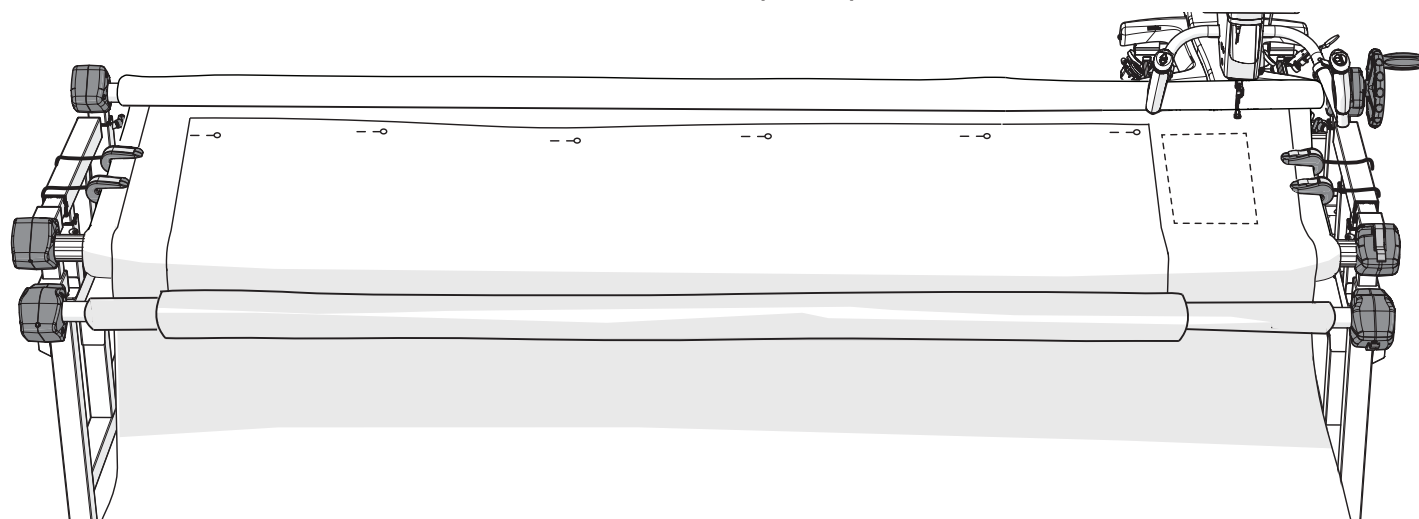
Using a Test Fabric Swatch

Ideally, you will test your machine's thread tension after every bobbin change, even when you're using the same thread. A test swatch on the side of your quilt is a convenient place to test tension between bobbin changes.

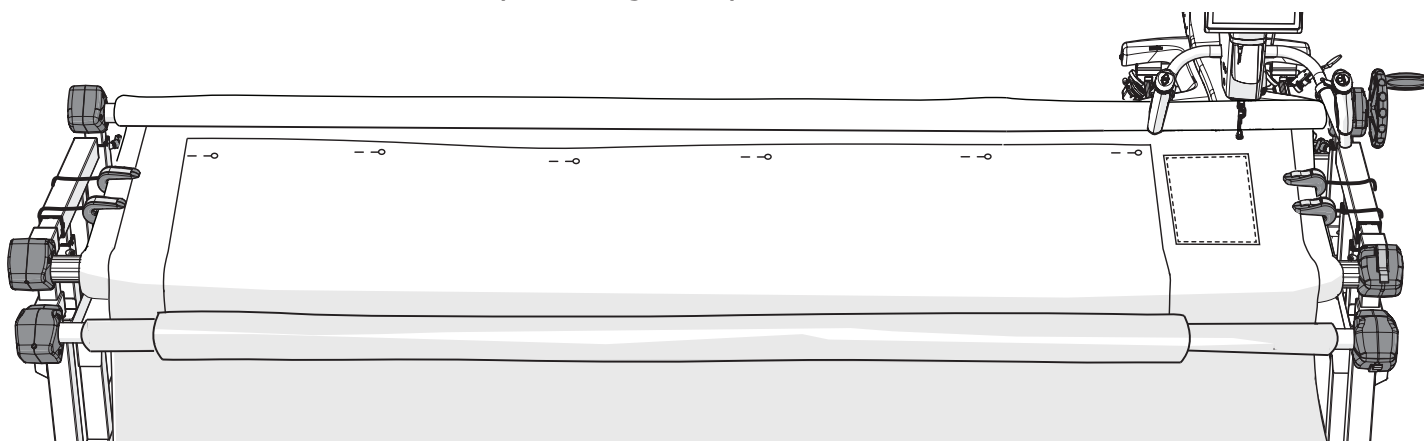
Instructions

Take the following steps to install the test swatch:

- 1 The test swatch can only be installed if there is exposed batting on the edge within the reach of the machine needle. This method works well for quilt tops under 10 feet in width.



- 2 Tack a square of scrap fabric leftover from your quilt top onto the exposed batting. Test your thread tension here whenever you change out your bobbin.

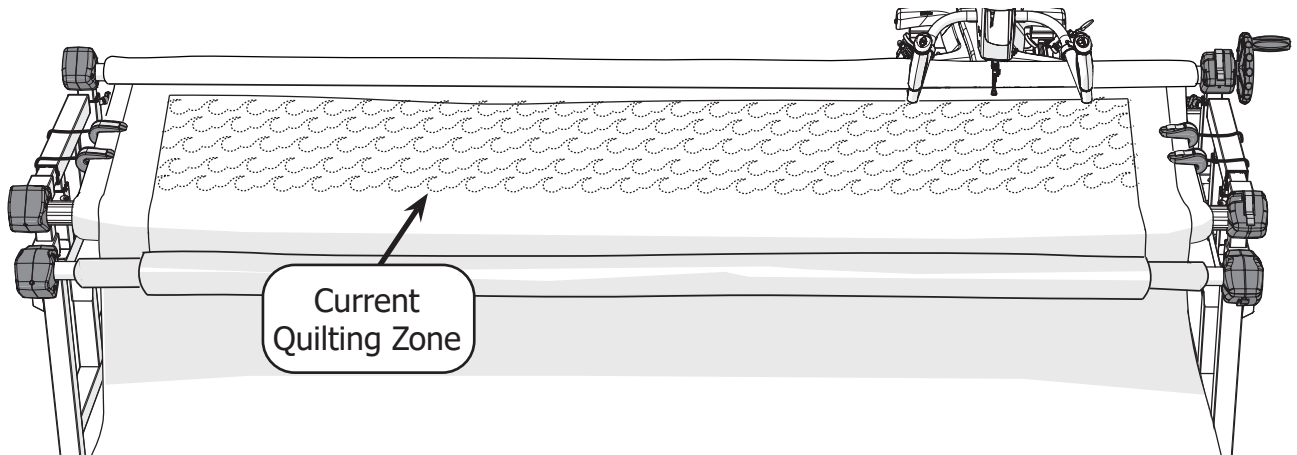


- 3 **Result:** Scrap quilting space is available for testing tension.

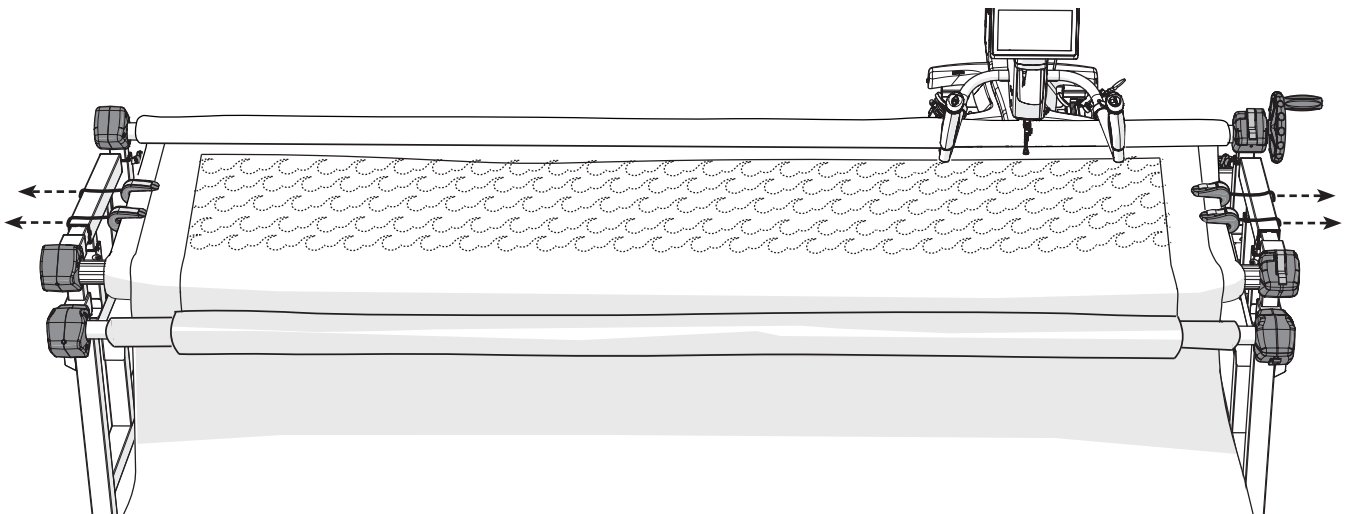
Rolling Your Fabric

Instructions

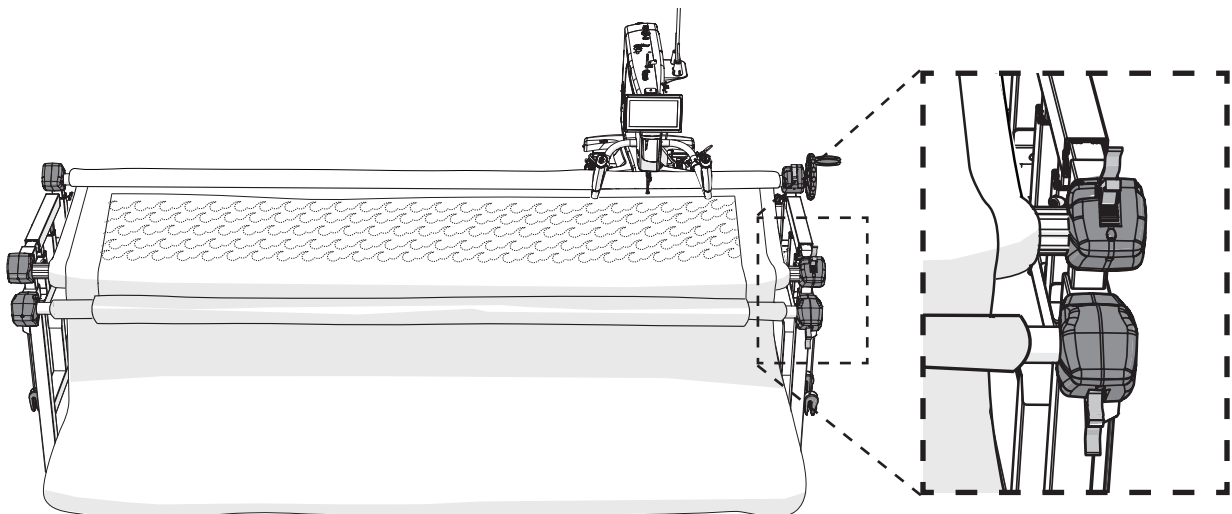
Once you've finished quilting the available space on your quilt, you will need to roll your quilt on the rails to the next zone.



- 1 Remove the bungee clamps (if they are being used).

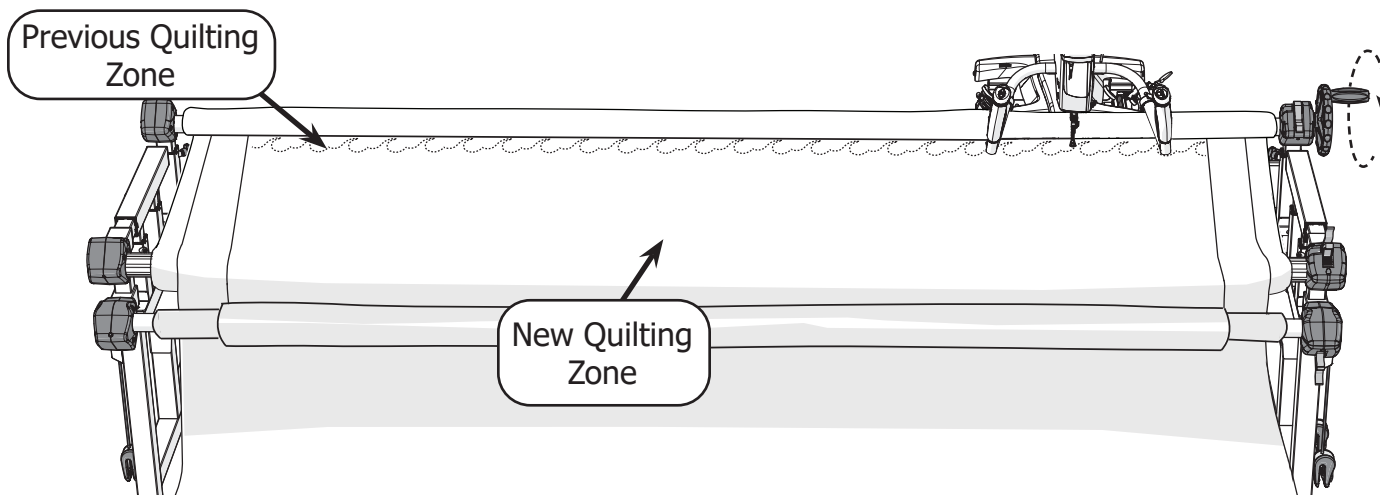


- 2 Release the ratchet levers on the front rails.

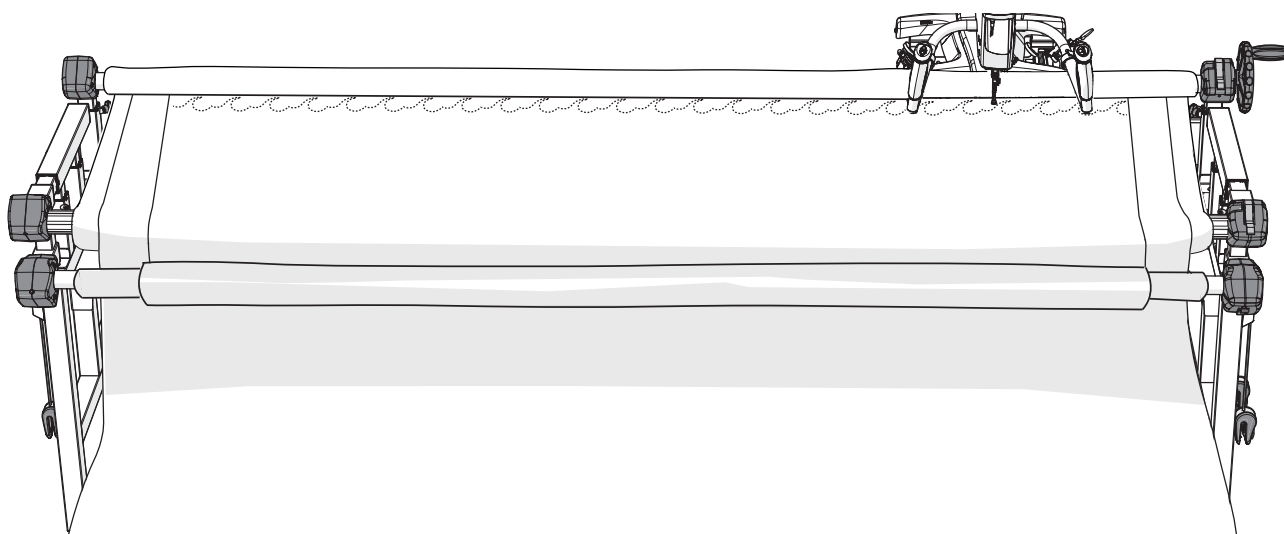


Rolling Your Fabric (continued)

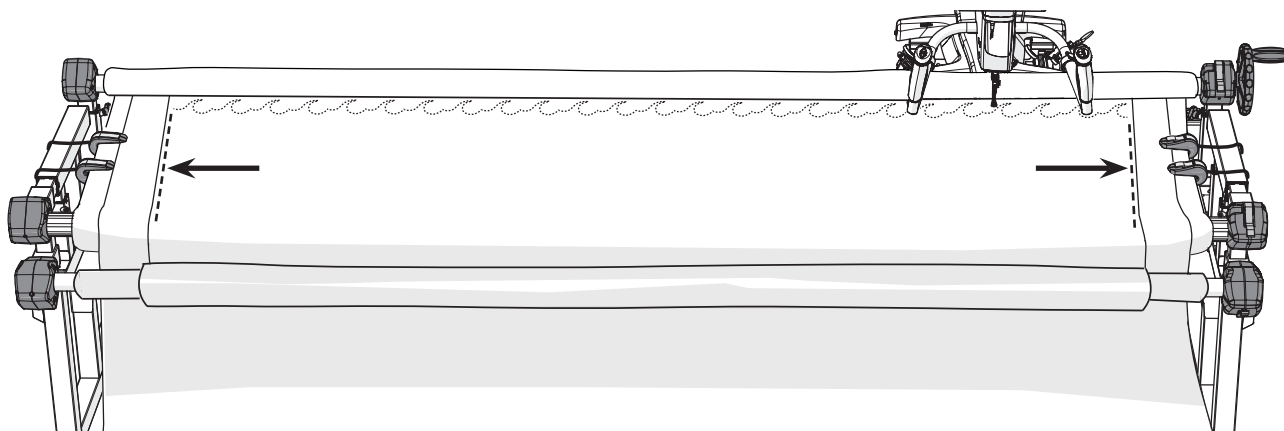
- 3 Rotate the **hand wheel** counter-clockwise to pull the fabric up onto the take-up rail until the bottom edge of your **previous quilting zone** is at the top of the new quilting zone.



- 4 Close the front rail ratchet levers.



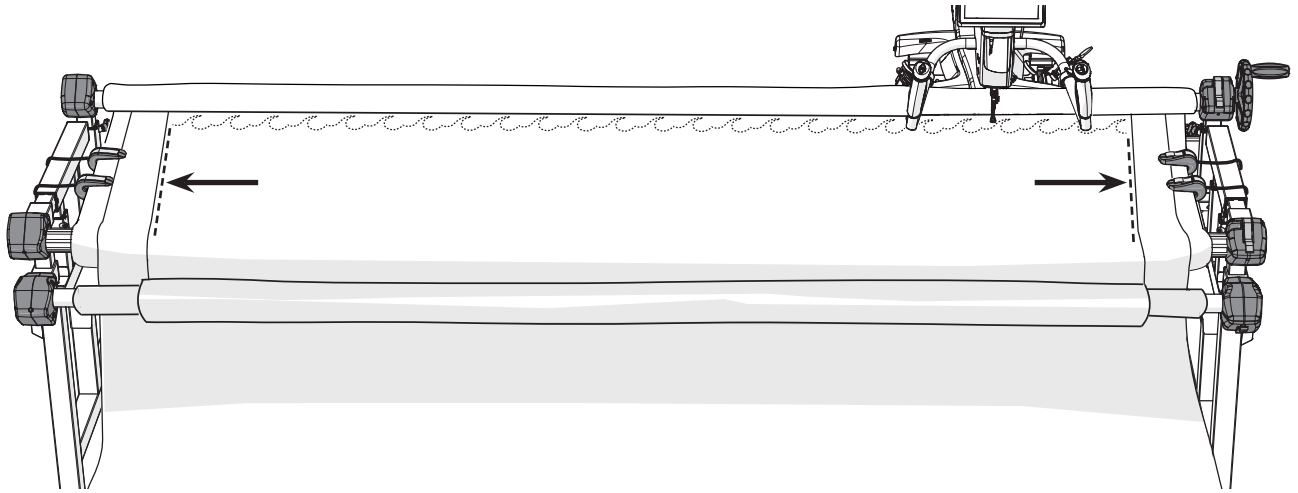
- 5 Reattach the bungee clamps, if needed. Don't forget to tack down the edges of the quilt. This reduces fabric shrinkage and bunching as you quilt.



- 6 **Result:** A fresh space is available for quilting.

Rolling Your Fabric (continued)

- 6 Don't forget to tack down the edges of the quilt. This reduces fabric shrinkage and bunching as you quilt.

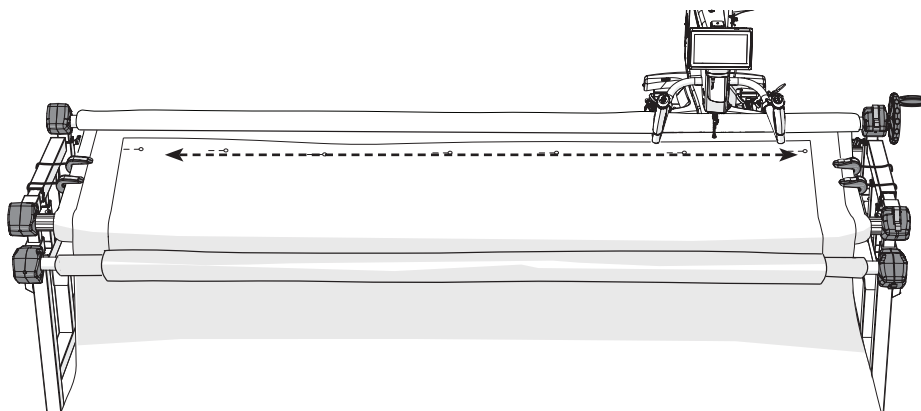
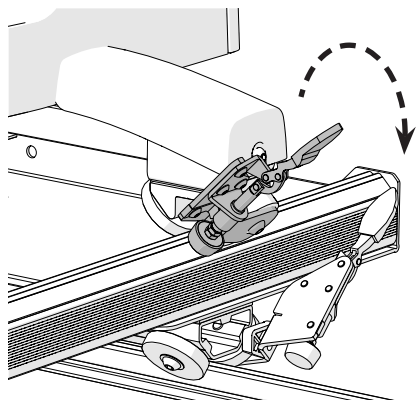


- 7 **Result:** A fresh space is available for quilting.

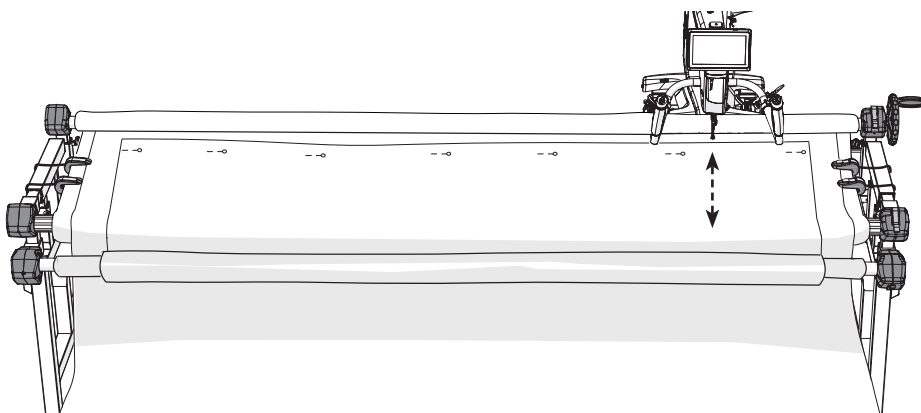
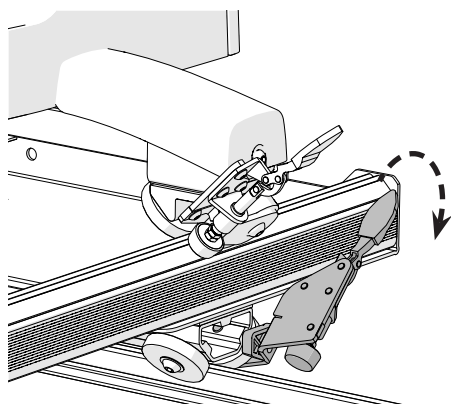
Using the Channel Locks

The channel locks restrict the movement of the bottom carriage and the sewing machine or top plate so that you can easily stitch a straight line.

- To quilt a straight line horizontally across the frame, close the channel lock on the machine.



- To quilt a straight line from the front to the back of your frame, close the channel lock on the bottom carriage.



Getting Started

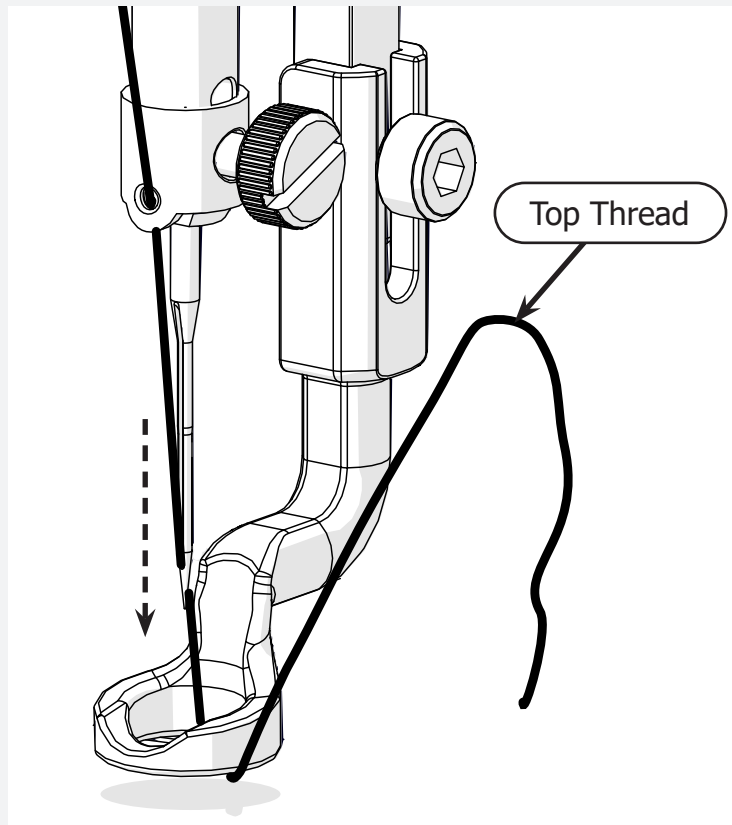
Instructions:

Once you've attached your quilt to your frame and basted down the quilt top edges for the first quilting zone, here are some helpful things to consider.

1. Over time your quilting frame may settle into a slope. If you find the machine drifts or pulls to the side, you may need to re-level the frame.
2. Keep a record of your quilt measurements. This will help when placing patterns later on.
3. Keep your quilting area clean, and wipe down your frame and carriage tracks as well as the machine and carriage wheels frequently.
4. Prepare a small test quilt that you can stitch on between bobbin changes to set your tension. This is also a great way to practice a pattern before stitching it into your quilt. The test quilt should be made of the same materials as your actual quilt, otherwise it will not work for setting tension.
5. Pull up the bobbin thread at the start of a new session of stitching, and also at the end. This will prevent the bottom thread tail from getting sewn down on the bottom of the quilt.

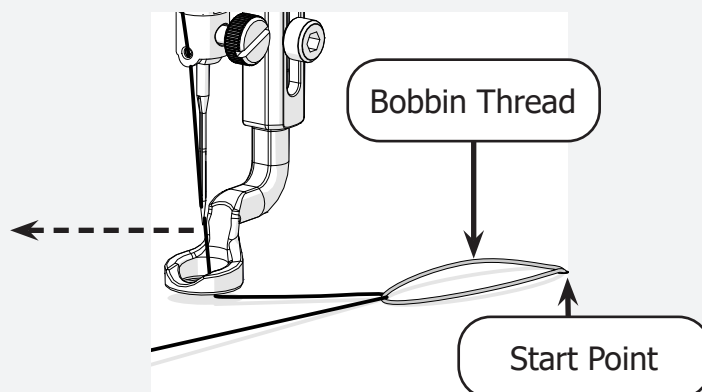
To pull up bobbin thread at the start of stitching:

- a First, position the needle directly above where you want to begin your pattern.
- b Pull on the **top thread** so that it is tight and jog the needle up and down to do a single stitch.

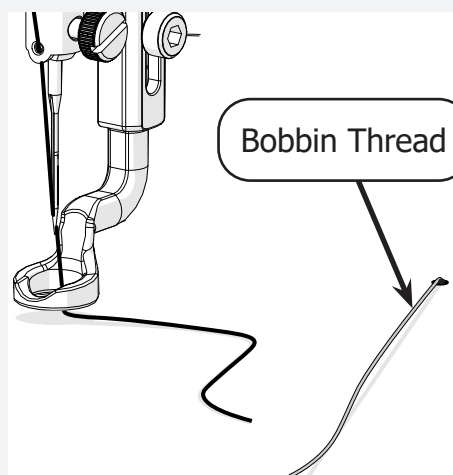


Getting Started (continued)

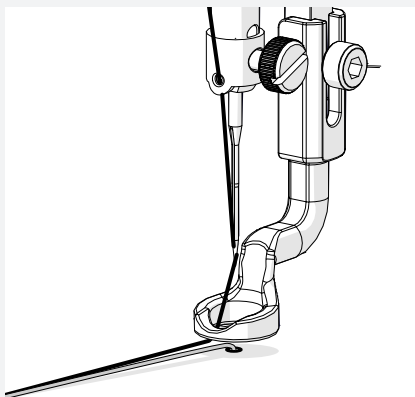
- c While still tightly holding the top thread, move the machine several inches to the side. Your top thread should pull a loop of **bobbin thread** through the **start point** to the top of the fabric.



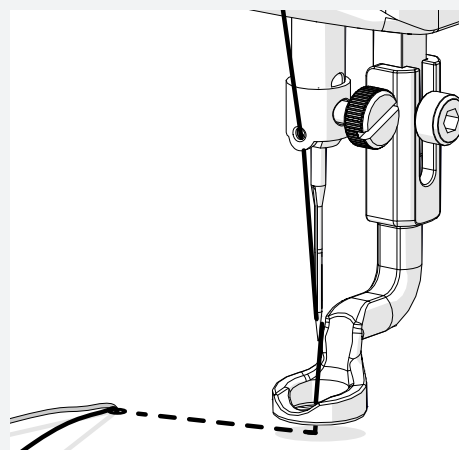
- d Pull on the loop of **bobbin thread** until the loose end of the thread comes up from underneath the fabric.



- e Pull on the bobbin thread while moving the machine back to the start point. This makes sure that there is no loose thread underneath the fabric.



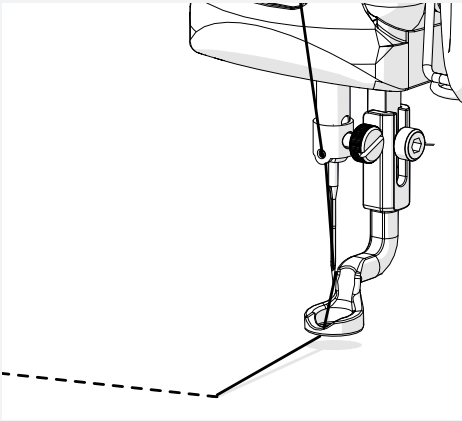
- f Make a securing stitch and begin stitching.



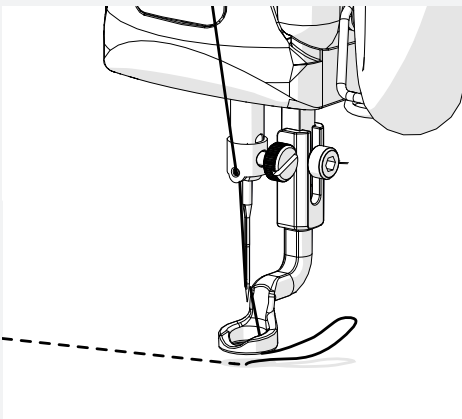
Getting Started (continued)

To pull up bobbin thread at the end of stitching:

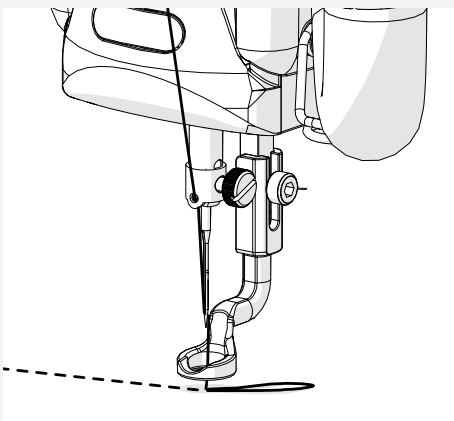
- a Move the machine away from the tie-off stitch.



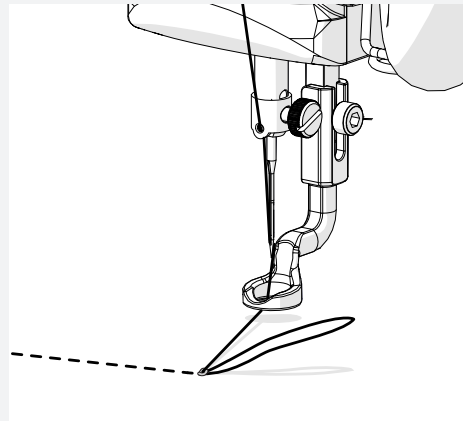
- b Hold the thread to make a loop and return the machine to the tie-off stitch.



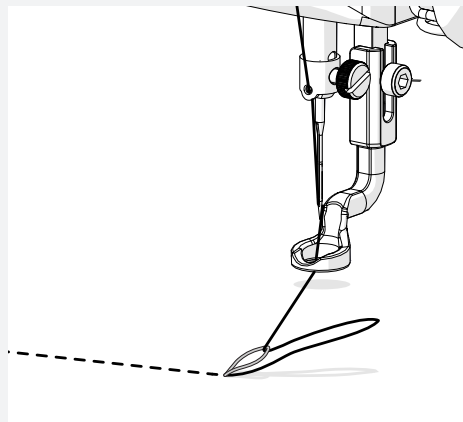
- c Make a single stitch over the tie-off.



- d Hold the loop and move the machine away from the tie-off again.



- e Keep moving away from the tie-off until a loop of bobbin thread is pulled up above the fabric. Cut all threads close to the tie-off.





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