Assembly Instructions

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Before you Begin:

Before you can put the Falcon together you need to purchase **6 pieces of 1-1/4” EMT conduit**, which will be used for holding the quilt fabric, as well as for the quilting frame table, and track.

You will need to purchase 6 lengths of conduit. Plan on spending around $15 per piece of conduit, or around $100 total.

You can make your quilting frame as long as you want, but 10 feet is an ideal size because a standard length of conduit is 10 feet long. Whatever length you decide to make your frame, please carefully measure each piece of conduit and make sure that no piece varies in length more than 1/16”. The included tables may be used with 60-1/2” long conduit, 80-1/8” long conduit, 98-1/8” long conduit, and 120” long conduit (Please be aware that tables will be snug when 120” conduit is used).

You can find the conduit that you need in just about any home improvement store. Again, you need to get 1-1/4” Steel conduit. Most likely you will find conduit that is specified as EMT. 1-1/4” EMT conduit is great for this project, but there are also other kinds of steel conduit that will work just as well. Just make sure that conduit caps that were supplied with your frame fit into the conduit.

When you are looking for conduit, find conduit that is as straight and smooth as possible, if table conduit pipes are rough they may be sanded smooth, but be aware that if the galvanizing is sanded off, the conduit may begin to rust.

The following accessories are included with the Falcon:

- Leader Cloth (instructions are on Page 21)
- Bungee Clamps (instructions are on Page 23)
- The Gracie Laser (instructions are included with the laser)
Wood Parts 1

A- Middle Leg (2)
B- "T" Bracket (2)
C- Middle Leg Brace (1)
D- Height Adjustable Leg (6)
E- Table Brace (5)
F- Conduit Brace (8)
G- Left Frame End (1)
H- Right Frame End (1)
I- Conduit Clamp (10)
J- Left Take-Up Rail Bracket (1)
K- Right Take-Up Rail Bracket (1)
L- Left Fabric Layers Rail Bracket (1)
M- Right Fabric Layers Rail Bracket (1)
N- Ratchet Adaptor (3)
O - 20" Table Section (2)
P - 40" Table Section (2)
Q - Frame end table brace (2)
R - 10" Table Section (2)
S - Table Splice (1)
T - Bungee Arm (2)
U - Laser Bracket (1)
Carriage Assembly (pre-assembled)
## Hardware

- **Carriage Bolt**
  - (12) M8 X 75
  - (8) M8 X 70
  - (8) M8 X 50
- **Connector Bolt**
  - (12) M6 X 60
  - (6) M6 X 45
  - (34) M6 X 30
- **Hex Bolt**
  - (3) Truss Bolt
  - (24) M3 X 12
  - (4) M8 X 30
- **Cap Nut**
  - (12) M6
  - (4) M8
  - (4) M8 Cap Nut
- **Knob**
  - (28) Knob
- **Washer M8**
  - (20) 9 x 32 x 2
  - (20) M8 Washer 8.5 x 20 x 1.5mm
- **Washer M8 Square Nut**
  - (20) M8 Hex Nut
  - (41) M6 Square Nut
- **Washer**
  - (40) M6 Square Nut
- **Wood Screw**
  - (20) M8 Washer 8.5 x 20 x 1.5mm
- **Ratchet Stop**
  - (3) Ratchet Stop
- **Ratchet Wheel**
  - (3) Ratchet Wheel
- **Conduit Bolt Cone**
  - (5) Conduit Rail Spacer
  - (14) Conduit Bolt Cone
- **Conduit Wedge**
  - (42) Conduit Wedge
- **Conduit**
  - (42) Conduit Wedge
- **Additional Hardware Pack**
  - (3) Ratchet Stop
  - (5) Conduit Rail Spacer
  - (14) Conduit Bolt Cone
  - (42) Conduit Wedge
  - (28) Knob
  - (6) Adjustable Foot
  - (6) Saddle Foot

⚠️ **Note:** Some required hardware will be located in box 1 of 2 in additional hardware box.
Step 1: Middle leg - Assembly

Parts needed:

4) M8 X 75 carriage bolt
2) M6 X 60 connector bolt
4) M8 washer 8.5X20X1.5mm
4) M8 Hex nut
2) M6 square nut
2) A- Middle leg
2) B- Middle leg “T” bracket
1) C- Middle leg brace

⚠️ **Note:** The middle legs are not used for the 60” frame size

![Fig. 1-1](image1.png)  
*Fig. 1-1*

![Fig. 1-2](image2.png)  
*Fig. 1-2*

**Step 1-1:** Assemble the middle legs as shown in Fig. 1-1. (Build 2)

⚠️ **Note:** The M6 X 60 connector bolt is not secured in place (in this step), but should be in place to assist in lining up the middle leg “T” bracket correctly.

🌟 **Step 1-2:** Line up the “T” bracket as squarely as possible. The connector bolts will be fastened in step 1-2.

🌟 **Step 1-3:** Insert a square nut into each of the “T” slots in the ends of the middle leg brace, as shown in Fig. 1-2.

🌟 **Step 1-4:** Secure both middle legs to the middle leg brace. Tighten the M6 X 60 connector bolts in the middle legs securely into the M6 square nuts.

⚠️ **Note:** Be sure that you have the notches in each end of the middle leg brace facing the same way as they are in the illustration. The notches allow the middle leg brace to clear the heads of the M8 X 75 carriage bolts that are located in the middle leg “T” bracket.
Step 2 - Height adjustable legs

Parts needed:

- 6) leveling foot
- 6) leveling foot saddle
- 24) M3 x 12mm wood screw
- 6) D- Height adjustable legs

⚠️ The leveling foot, and leveling foot saddle used in this step are in the Additional Hardware Box.

Step 2-1: Attach a leveling foot saddle to the end of each height adjustable leg using (4) four M3x12mm wood screws, as shown in Fig. 2-1.

🌟 Step 2-2: Screw a leveling foot into each leveling foot saddle.

⚠️ Note: Height adjustable legs are not required for assembly. The leveling feet may be attached directly to the middle legs and the frame ends.

Step 3 - Adjustable legs to middle section

Parts needed:

- 4) plastic knob
- 4) 9 x 32 x 2 Washer M8
- 1) Middle leg - Assembly
- 2) Height adjustable leg - Assembly

⚠️ All plastic knobs are in the Additional Hardware Box.

Note: place the notched side of the height adjustable leg against the middle leg assembly.

Step 3-1: Place a height adjustable leg assembly onto the exposed ends of the bolts on each side of the middle leg assembly, as shown in Fig. 3-2.

🌟 Step 3-2: Secure the height adjustable legs to the middle leg assembly by first placing a 9 x 32 x 2 Washer M8 onto the exposed end of each bolt, and then tightly fasten a plastic knob onto each bolt.

⚠️ Note: Attach both legs so that they are the same height.
**Step 4 - Middle legs - table brace**

Parts needed:

Hardware:

- 2) M6 X 60 connector bolt
- 2) M6 square nut
- 1) E- Table brace
- 2) I- Conduit clamp
- 1) Middle leg - Assembly

![Diagram of table brace](image)

**Step 4-1:** Insert a M6 square nut into the "T" slots in each end of the table brace.

**Step 4-2:** Place the table brace into the notches at the ends of each of the middle legs, as shown in Fig. 4-1.

**Step 4-3:** Now, insert a M6 X 60 connector bolt through the hole in each conduit clamp.

**Step 4-4:** Finally, insert one of the M6 X 60 connector bolts through each of the holes in the end of each middle leg, and finger tighten into the square nut.

**Step 5 - Middle legs - conduit braces**

Parts needed:

- 4) M6 X 30 connector bolt
- 4) M6 cap nut
- 4) F- Conduit brace
- 1) Middle leg - Assembly

![Diagram of conduit braces](image)

**Step 5-1:** Attach the conduit braces to the middle leg assembly by inserting a M6 X 30 connector bolt through one of the holes in either end of each conduit brace.

**Step 5-2:** Insert a M6 cap nut through each of the outer holes in the middle leg "T" bracket.

**Step 5-3:** Fasten the M6 X 30 bolt into the cap nut using the included 4mm allen wrenches.

**Note:** When placing the conduit brace onto the assembly make sure that the slots on each end of the brace, face toward the inside of the middle leg Assembly.
**Step 6 - Middle legs - conduit clamps**

Parts needed:

- 4) M6 X 60 connector bolt
- 4) M6 square nut
- 4) I- Conduit clamp
- 2) E- Table brace
- 1) Middle leg - Assembly

⚠️ **Note:** Make sure that the narrower ends of all of the table braces are towards the same end of the assembly when installed, as shown in Fig. 6-1.

**Step 6-1:** Insert a square nut into the “T” slots in each end of the table braces.

**Step 6-2:** Place a table brace into the notches at the ends of each of the conduit braces.

**Step 6-3:** Now, insert a M6 X 60 connector bolt through the hole in each conduit clamp.

**Step 6-4:** Finally, insert each M6 X 60 connector bolt through the hole in the end of each conduit brace, and finger tighten into the square nut.

**Step 7 - Frame ends - carriage bolts**

Parts needed:

- 8) M8 X 50 carriage bolt
- 8) M8 X 75 carriage bolt
- 16) M8 Hex nut
- 16) M8 washer 8.5 x 20 x 1.5mm
- 1) G- Left frame end
- 1) H- Right frame end

⚠️ **Note:** The head of the bolt should be on the side of the frame end that has notches cut in it. (See Fig. 10-1)

⚠️ **Note:** Build the left and right frame ends.

**Step 7-1:** Insert M8 X 50 carriage bolts and M8 X 75 carriage bolts through each location shown in Fig. 7-1.

**Step 7-2:** Fasten the carriage bolts to the frame ends using a M8 washer 8.5 x 20 x 1.5mm, and M8 Hex nut on each bolt.

⚠️ **Note:** Tighten the M8 Hex nuts completely, so that the head of each carriage bolt sits flat against the surface of the wood.
Step 8 - Frame end - height adjustable legs

Parts needed:

8) plastic knob
8) 9 x 32 x 2 Washer M8
2) Frame end - Left and right Assemblies
4) Height adjustable legs - Assembly

⚠️ All plastic knobs are in the Additional Hardware Box.

**Step 8-1:** Attach a height adjustable leg to each side of the frame ends as shown in Fig. 9-1. (Do this exactly the same way as you did in step 3.

Step 9 - Frame end - Rail brackets

Parts needed:

4) plastic knob
4) 9 x 32 x 2 Washer M8
1) J- Left take-up rail bracket
1) K- Right take-up rail bracket
1) L- Left fabric layers rail bracket
1) M- Right fabric layers rail bracket
2) Frame end - Assembly

⚠️ All plastic knobs are in the Additional Hardware Box.

**Step 9-1:** Attach the rail brackets to each of the frame ends as shown in Fig. 9-1.

⚠️ **Note:** When you place a rail bracket onto the frame end, make sure that the side of the brackets with the lines cut into it goes against the frame end. There is a left and right version of each rail bracket, and each bracket will only work in one location. (The left and right sided parts are noticeably different. See the parts list to positively identify each part)
**Step 10 - Frame end - Conduit braces**

Parts needed:

- 4) M6 X 45 connector bolt
- 4) M6 square nut
- 4) F- Conduit brace
- 2) Frame end - Assembly

**Step 10-1:** Insert a square nut into the “T” slot in one end of each of the conduit braces. Fig. 10-1.

**Step 10-2:** Attach the conduit braces to the frame ends by inserting a M6 X 45 connector bolt through the hole on the outer side of the frame ends for each conduit brace.

**Step 10-3:** Thread the connector bolts into the M6 square nuts located in the conduit braces, as shown in Fig. 10-2.

**Note:** The conduit braces go into the inner notches in the frame ends labeled “A”.

**Note:** Make sure that you attach the conduit braces with their notches facing toward the middle of the frame, as shown in Fig. 10-2.

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**Step 11 - Frame end - Conduit clamps**

Parts needed:

- 4) M6 X 60 connector bolt
- 4) M6 square nut
- 4) I- Conduit clamp
- 2) E- Table brace
- 2) Frame end - Assembly

**Step 11-1:** Insert a square nut into the “T” slots in each end of the table brace.

**Step 11-2:** Place a connector bolt through the hole in each conduit clamp, then through the hole in the end of one of the conduit braces.

**Step 11-3:** Place the table brace between the conduit braces.
**Step 11-4:** Hand tighten the connector bolts into each of the square nuts that have been inserted into the “T” slots in the table brace.

**Note:** The left frame end is shown in Fig. 11-1. The table brace, and conduit clamps are attached to the right frame end in exactly the same way as they are attached to the left.

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**Step 12 - Table track**

**Parts needed:**
- 4) 10.5 x 30 x 2 M8 washer
- 4) M8 X 30 hex bolt
- 4) M8 cap nuts
- 12) conduit wedge
- 4) conduit bolt cone
- 2) 1-1/4” X 10’ steel conduit (You provide)

**Build 2 table tracks.**

**Step 12-1:** Build the track conduit wedge by first inserting a M8 X 30 Hex bolt into the conduit bolt cone.

**Step 12-2:** Fit 3 conduit wedges together as shown in Fig. 12-1. (The conduit wedges may be held together with a small rubber band.)

**Step 12-3:** Insert the bolt and conduit bolt cone into the 3 conduit wedges, as shown in Fig. 12-2.

**Step 12-4:** Place a 10.5 x 30 x 2 M8 washer onto the end of the bolt and then thread a cap nut onto the exposed end of the bolt (1 or 2 turns, just enough to keep the cap nut on the bolt, without falling off).

**Note:** Repeat the previous steps to build 4 (total) track conduit wedges.

**Step 12-5:** To complete the track conduit assembly, insert a track conduit wedge into each end of 2 of the pieces of 1-1/4” conduit. **Do not tighten the cap nut yet.**

**Note:** If you used rubber bands, you can leave the rubber bands on the conduit wedge if you like.
**Step 12-6**: Place the end of each table/track conduit into a slot labeled “A” in the top edge of the frame ends (Inner Slots), as shown in Fig. 12-4.

⚠️ **Note**: Make sure that the 10.5 x 30 x 2 M8 washers are on the outer side of the frame ends.

**Step 12-7**: Rotate each of the conduit clamps up, so that they engage the conduit.

⚠️ **Note**: You may need to slightly loosen the bolts in the conduit clamps before the conduit clamp can be turned up.

**Step 12-8**: Tighten the bolts in the conduit clamps, so that the conduit is secured in place.

**Step 12-9**: Tighten the cap nuts on the frame ends completely using the provided 5mm allen wrench.

**Step 12-10**: Place the middle legs under the table/track conduit.

⚠️ **Note**: Make sure that the legs are located in the center of the frame. You can use the tables to find the center of the frame.

**Step 12-11**: Rotate each of the conduit clamps up so that they engage the conduit.

⚠️ **Note**: You may need to slightly loosen the bolts in the conduit caps before the conduit cap can be turned up.

**Step 12-12**: Tighten the bolts in the conduit clamps, so that the conduit is secured in place.

**Step 13 - Fabric rail**

**Parts needed:**

- 8) plastic knobs
- 5) conduit spacer
- 3) ratchet adaptors
- 3) ratchet wheels
- 4) 9 x 32 x 2 Washer M8
- 8) M8 Hex Nut
- 8) M8 X 70 hex bolt
- 12) conduit cap
- 8) conduit cone
- 4) 1-1/4” Steel conduit (You provide)
- 24) conduit wedge
**Note:** Build 4 (total) fabric rail assemblies. You will need 5 (total) fabric rail conduit wedges and 3 (total) ratchet adaptors. You will build three “L” assemblies and five “R” assemblies.

**Step 13-1 (fabric rail conduit cap):** Build the fabric rail conduit Wedge by first inserting a M8 X 70 Hex bolt into the conduit bolt Cone.

**Step 13-2:** Next, Fit 3 conduit Wedges together as shown in Fig. 13-1. (The conduit Wedges may be held together with a small rubber band.)

**Step 13-3:** Insert the bolt, and conduit bolt cone into the 3 conduit wedges, as shown in Fig. 13-2.

**Step 13-4 (for assembly L):** Place a Ratchet Adaptor onto the exposed end of the bolt, then thread a Hex nut onto the end of the bolt (thread the nut on about 1 inch).

**Step 13-4 (for assembly R):** Place a conduit rail spacer onto the exposed end of the bolt, and then thread a Hex nut onto the end of the bolt (thread the nut on about 1 inch).

**Step 13-5:** To complete the fabric rail conduit assembly, place a ratchet wheel over the ratchet adaptors and insert a fabric conduit wedges into each end of the remaining 4 pieces of 1-1/4” conduit as shown in Fig 13-3. Completely tighten the hex nut using the provided 8mm wrench.

**Note:** If you used rubber bands, you can leave the rubber bands on the caps if you like.
**Step 13-6:** Place the fabric rails onto your frame as shown in Fig. 13-4.

**Step 13-7:** Place a 9 x 32 x 2 washer M8 onto the exposed end of each bolt.

**Step 13-8:** Finally, securely fasten a plastic knob onto the exposed end of the bolts in each end of all of the fabric rails, as shown in Fig. 13-5.

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

⚠️ **Note:** The fourth rail has two "R" ends.

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**Step 14 - Ratchet Stops**

**Parts needed:**
- 3) ratchet stops
- 3) M6x40 truss bolt

**Step 14-1:** Insert a M6x40 truss bolt through each ratchet stop and screw them into the hole on the left take-up rail bracket and the left fabric layers bracket as shown in Fig 14-1.

⚠️ **Note:** M6x40 truss bolts should be finger tight only!
**Step 15 - Tables**

**Parts needed:**
- 2) 10" tables
- 2) 20" tables
- 2) 40" tables
- 2) Q - frame end table brace
- 26) M6 X 30 connector bolts
- 4) M6 cap nut
- 22) M6 square nuts

⚠️ **Note:** You will begin on either of the ends of your frame when assembling your tables.

**Step 15 - 1:** Attach a Frame end table brace to each frame end using the provided M6 X 30 connector bolts, and M6 cap nuts. (Use the holes labeled “A”)

**Step 15 - 2:** Place one end of the table onto the table braces and slide it back as far into the slot in the frame ends as possible. Make sure the holes in your table line up with the “T” slots.

**Step 15 - 3:** Place an M6 square nut into each slot. Then thread a 30 connector bolt through your table into the nuts as shown in Fig. 15-1. Tighten completely.

⚠️ **Note:** Tables sections should be placed in the order shown below.

Please refer to page 22 for additional steps required to assemble the 98-1/8” frame size.
Step 16 - Bungee Arms

![Parts needed:](image)

2) T - bungee arm
4) M6 X 30 connector bolts
4) M6 cap nut

⚠️ **Step 16-1**: Attach the bungee arm to the fabric rail bracket, as shown in Fig. 16-1, using the provided M6 x 30 connector bolts and M6 cap nuts.
STEP: 17 Placing sewing machine carriage onto frame

Parts Needed:
1- Frame (assembled)
1- Sewing Machine

⚠️ Note: Place the plastic mat on the top plate of your carriage before doing this step

🌟 Step 17-1: Remove the take up rail, if it is in place, and rest it on the table braces.

🌟 Step 17-2: Place your machine onto the carriage. It might be easier if your carriage is all the way to the front, so it does not slide away you.

⚠️ Note: Once you have your machine in place on the carriage, the next step is to put the take up rail into place.

🌟 Step 17-3: Slide the carriage all the way to the left side of the frame.

🌟 Step 17-4: Put the left end of the take up rail through the throat of the machine.

🌟 Step 17-5: Put the take up rail into the slots in the rail brackets.

🌟 Step 17-6: Plug the encoder cable into the sewing machine control box.

🌟 Step 17-7: Plug the Tin Lizzie 18’s power cord into the back of the sewing machine.

🌟 Step 17-8: Tie the Tin Lizzie 18’s power cord to the eye bolt located at the back of the bottom plate using an included zip tie.

⚠️ Note!: Slide the top plate completely forward and completely back before tying the cord to the eye bolt to make sure there is enough slack in the cord to allow complete movement of the carriage without tugging on the power cord.

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

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

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

NOTE: As you cut your fabric layers, we recommend making the quilt backing about 6-8” longer and 2-4” wider than your top. This will allow for a little give in the backing, especially if using thicker batting.
Fabric Installation:
Using leader cloths enable you to finish your quilt completely, to the end, without having to take your quilt off the rails.

Fabric installation overview

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

Leader Cloth installation instructions Preview.
(for more details see instructions on page 20.)

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

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

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

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

**STEP 1: Quilt top to 2nd rail**

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

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

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

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

**NOTE!** It is important that you roll the rail the proper direction so the fabric rolls onto the 2nd rail the right way (when fabric rolls off the rail toward the take-up rail, it should roll under and off the rail. See Fig. FI-5).

**STEP 2: Quilt backing to 3rd rail**

**Step 2-1:** To begin, determine which will be the front and back edges of your quilt **backing** (make sure the backing is not wider than your quilting frame). Note: If your backing is made up of more than one piece of fabric, cut your selvedges off and flatten them out to allow the backing the proper give it needs.

**Step 2-2:** Line up the center of your fabric layer with the center of the cloth leader on the 3rd rail. Pin the back edge of your backing to the leader cloth. This is to be done with the finished side of the fabric facing down. Note: Do not stretch or pull the fabric during this process, let it lay as naturally as possible.

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

**Note:** It is important that you roll the rail the proper direction so the fabric rolls over and onto the 3rd rail (Fig. FI-5).
STEP 3: Batting

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

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

STEP 4: Attaching your quilt layers to the take-up rail

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

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

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

Rolling your fabric

When you have completed your work area and are ready to move to the next, simply release the ratchet stops on the 2nd and 3rd rails, allowing the ratchets to roll freely. Lean the released ratchet stops against each other, so that they don’t interfere with the rails as they roll. (See Fig. RF-1). Then, roll the 1st rail forward, rolling the completed work area onto that rail.

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

Fig. FI-8

Fig. RF-1
Step 1: Cut Leaders to Length
Cut your cloth leaders to size, determined by the length of your quilting frame (length of rail minus 6”). Hem your cut edge.

Step 2: Determine which leaders install to each pole
The leader with the largest depth installs to the rail furthest away from your take-up rail; the next largest leader to the next closest rail. The most narrow leader installs to the take-up rail.

Step 3: Installing Leaders into your frame
Option 1: Velcro® Method
Attach the leaders to your rails by first laying down the sticky-backed Velcro® to each rail. Lay the Velcro® side of the leaders over the Velcro® on the rail. (See Below)

Option 2: Fabri-Fast™ Method
This method works on all GraceFrames™ with Fabri-Fast rails. First, locate the Fabri-Fast™ Guide Line on your printed leader cloth. Line up the guide line over the slot of your Fabri-Fast™ rail. (Other attachment methods include: Quilter’s Thumb Tacks, and Double Sided Tape.)

Step 4: Applying your fabric to the leaders
(There are two options for fabric attachment)
First, locate and mark the center of each of your quilt layers. You will attach each layer to each leader working from the center out. Line the edge of your fabric layer with the edge of your leader, as pictured. Note: Attach the quilt backing to the leader so the finished side of the fabric is face-down. Attach the quilt top with the finished side face-up.

Step 4 Option 1: Staple Method
Adjust the reference tool on the top of your stapler so that you staple ½” in from the fabric edges.

Step 4 Option 2: Pinning Method
Line the edge of your fabric layer with the edge of your leader, as pictured. Pin the edges together working from the center out.

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

**Gracie Laser:**
The laser may be attached through any of the available holes.

Bolt the laser to the laser bracket using the provided M6 x 40mm hex bolt, and the 3 wing knob,

**Stylus Adaptor:**
The Stylus adaptor allows you to mount the Pattern Perfect bracket to your top plate.
Bungee Clamps

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

To use your bungee clamps:

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

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

3) Now, pull the bungee cord up, and back towards the bungee clamp, forcing it into the slot in the bungee arm to secure it in place.
Tin Lizzie - Table Splice Attachment

Parts Required:
1) S- Table Splice
2) M6 X 45mm connector bolt
2) M6 Square Nut

You will need to use the table splice when setting up your Tin Lizzie quilting frame at 98”.

Step 1-1: Attach the table splice to the table brace using the two (2) 45mm connector bolts, and two (2) 6mm square nuts as shown. (Make sure that the pre-installed “T”-nuts face down when placing the table splice onto the frame.)

Step 1-2: Attach the 10”, as well as the 40” tables to the table splice using (2) M6 X 30mm Connector bolts. The bolt’s that go through the table splice will not need a square nut because they will thread into pre-installed “T”-nuts.

Step 1-3: Finalize the attachment of the tables by installing the missing M6 X 30mm bolts, and M6 square nuts.